Senegal

Demographic and Health Survey – Multiple Indicator Cluster Survey (EDS-MICS)

2010-2011

REPUBLIC OF SENEGAL

ANSD
Agence Nationale de
la Statistique et de la Démographie

Demographic and Health and Multiple Indicator Cluster Survey (EDS-MICS) 2010-2011

Agence Nationale de la Statistique et de la Démographie (ANSD)
Dakar, Senegal

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This report presents the findings of the fifth Senegal Demographic and Health and Multiple Indicator Cluster Survey (EDS-MICS), implemented from October 2010 through April 2011 by the Agence Nationale de la Statistique et de la Démographie (ANSD). The Senegal EDS-MICS 2010-2011 was funded by the government of Senegal, US Agency for International Development (USAID), PMI, United Nations Children's Fund (UNICEF), Global Fund to Fight AIDS, Tuberculosis and Malaria, Unit for the Campaign against Malnutrition (CLM), and United Nations Population Fund (UNFPA). ICF International provided technical assistance for the survey through the USAID-funded MEASURE DHS program, which is designed to assist developing countries in the collection of data on fertility, family planning, maternal and child health, nutrition, malaria, and HIV.

Other agencies, such as the Centre de Recherche pour le Développement Humain (CRDH), the Laboratoire de Bactériologie et de Virologie du CHU de Le Dantec, and the Laboratoire de Parasitologie also participated in the implementation of the survey.

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This report, the Senegal Demographic and Health and Multiple Indicator Cluster Survey (EDS-MICS) 2010-2011, has been translated into English from French. Several sections were not translated, including the Acknowledgments, Summary, MDG Table, Map of Senegal, References, and Appendix E: Questionnaires. Readers are referred to the original French document (Enquête Démographique et de Santé à Indicateurs Multiples au Sénégal [EDS-MICS] 2010-2011) for these sections, which are available at http://dhsprogram.com/publications/publication-FR258-DHS-Final-Reports.cfm.

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FOREWORD

L'Enquête Démographique et de Santé du Sénégal (EDS-MICS), fait suite aux EDS de 1986, 1992, 1997 et 2005. Comme les précédentes, l'EDS-MICS 2010-2011 avait pour objectif de produire les informations nécessaires à l'élaboration, au suivi et à l'évaluation des programmes en matière de développement économique et social en général, dans le domaine de la santé en particulier. Je me réjouis de la qualité de la collaboration avec le Ministère de l'Economie et des Finances qui a associé le Ministère de la Santé et de la Prévention Médicale dans cette importante rencontre.

L'EDS-MICS 2010-2011 a été réalisée par l'Agence Nationale de la Statistique et de la Démographie (ANSD) avec le concours technique d'ICF Macro International Inc. et du CRDH. Le Laboratoire de Bactériologie et de Virologie du CHU de l'Hôpital Aristide le Dantec de Dakar et le Laboratoire de Parasitémie de l'Université Cheikh Anta DIOP (UCAD) ont apportée leur appuie dans la mise en œuvre des volets Sérologie du VIH et de la parasitémie palustre. Je leurs adresse mes vifs remerciements.

L'EDS-MICS, tout en reprenant les thèmes développés dans les précédentes EDS, a été renforcé d'indicateurs de l'Enquête « Multiple Indicator Cluster Survey » ou Enquête par Grappe à Indicateurs Multiples (MICS), parmi lesquels la fécondité, la planification familiale, les soins pré et postnatals, les maladies des enfants, leur prévention et leur prise en charge, la mortalité au cours de l'enfance. Elle vient combler l'insuffisance des données sur d'autres questions majeures, à savoir les questions de genre, la malnutrition chez les enfants mais aussi chez les adultes hommes et les femmes à partir des mesures anthropométrique, le niveau d'hémoglobine dans le sang et la mesure de la prévalence du VIH dans la population adulte. Les questions sur la mortalité maternelle ont été rééditées et celles sur la prévention du paludisme et l'alimentation des enfants approfondies. En mutualisation différentes enquêtes, cette opération a permis de rationaliser les ressources publiques de plus en plus rares. Finalement, l'EDS-MICS a permis de disposer d'une grande variété de données actualisées ou tout simplement inédites nécessaires à une bonne planification économique et sociale.

Des efforts importants ont été faits pour faciliter l'accès aux données pour la communauté scientifique, et surtout pour le Gouvernement et ses partenaires au développement. A la suite du présent rapport, viendront quatorze (14) fascicules régionaux qui constitueront des références précieuses pour les planificateurs au niveau périphérique local. Des affiches et des dépliants portant sur les indicateurs de base seront également élaborés et vulgarisés. Enfin, toute la documentation sur l'enquête sera accessible en ligne ou directement auprès de l'ANSD, mais aussi du Centre de Recherche pour le Développement Humain (CRDH) et d'ICF Macro International. Je suis convaincu que tous les utilisateurs sauront tirer profit de cette mine d'informations qu'est l'EDS-MICS pour une meilleure planification de leurs activités.

La mise en œuvre de cette enquête a mobilisé des ressources financières importantes. L'Agence Américaine pour le Développement International (USAID), la Banque Mondiale, le Fonds des Nations Unies pour la Population (UNFPA) et le Fonds des Nations Unies pour l'Enfance (UNICEF), le Fonds Mondial, la Cellule de Lutte contre la Malnutrition (CLM) et l'ANSD en ont assuré le financement, à côté de l'Etat. Je leur adresse mes sincères remerciements. Mes remerciements vont également à tous les partenaires institutionnels et toutes les personnes qui ont contribué à la réussite de cette importante investigation. J'exprime toute ma gratitude à la population et aux services de l'Etat pour la disponibilité dont ils ont fait montrer pendant la collecte des données sur le terrain.

Le Ministre de la Santé, de l'Hygiène
Publique et de la Prévention

Le Ministre

Modou Diagne FADA

ACRONYMS AND ABBREVIATIONS

AIDS   Acquired Immunodeficiency Syndrome
ANC   Antenatal care
ANSD   Agence Nationale de la Statistique et de la Démographie [National Agency of Statistics and Demography]
ARI   Acute respiratory infection
ACT   Artemisinin-based combination therapy

BCG   Bacillus Calmette–Guérin
BMI   Body mass index

CAPI   Computer-assisted personal interviewing
CBR   Crude birth rate
CDC   Centers for Disease Control and Prevention
CLM   Cellule de Lutte contre la Malnutrition [Unit for the Campaign against Malnutrition]
CNERS   Comité National d'Éthique pour la Recherche en Santé [National Ethics Committee for Health Research]
CNLS   Conseil National de Lutte contre le Sida [National Council in the Campaign against AIDS]
CRDH   Centre de Recherche pour le Développement Humain [Center for Research in Human Development]
CRC   Convention on the Rights of the Child
CSPro   Census and Survey Processing System
DHS   Demographic and Health Survey
DS   District Sanitaire [Health district]
DSRP   Document de Stratégie de Réduction de la Pauvreté [Strategy Paper on the Reduction of Poverty]

EDS   Enquête Démographique et de Santé [Demographic and Health Survey]
EMUS   Enquête sur les Migrations et l'Urbanisation au Sénégal [Survey on Migration and Urbanization in Senegal]
ENTES   Enquête Nationale sur le Travail des Enfants [National Survey on Child Labor]
EPI   Expanded Program on Immunization
ESAM   Enquête Sénégalaise Auprès des Ménages [Senegalese Household Survey]
ESF   Enquête Sénégalaise sur la Fécondité [Senegalese Fertility Survey]
ESPS   Enquête de Suivi de la Pauvreté au Sénégal [Poverty Monitoring Survey in Senegal]

FGM   Female genital cutting
GDP   Gross domestic product
GFR   General fertility rate
GPI   Gender parity index

HIB   Haemophilus influenza B
HIV   Human immunodeficiency virus

IPT   Intermittent preventive therapy
IRS   Indoor residual spraying
ITN   Insecticide-treated mosquito net
IUD   Intrauterine device

LAM   Lactational amenorrhea method
LBV   Laboratoire de Bactériologie et de Virologie [Bacteriology Virology Laboratory]

LLIN	Long-lasting insecticidal net
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey
NAR	Net attendance ratio
NCHS	National Center for Health Statistics
NGO	Nongovernment organization
NEPAD	New Partnership for Africa's Development
NN	Neonatal mortality
OAM	Overall acute malnutrition
ORS	Oral rehydratation salts
ORT	Oral rehydration therapy
PENTA	The pentavalent vaccine actually contains five antigens against diphtheria, tetanus, pertussis, hepatitis B, and haemophilus influenza B
PMI	President's Malaria Initiative
PNLP	Programme National de Lutte contre le Paludisme [National Program Against Malaria]
PNN	Post-neonatal mortality
RDT	Rapid diagnostic test
RGPH	Recensement Général de la Population et de l'Habitat [General Census of the Population and Housing]
SNEIPS	Service National de l'Éducation et de l'Information Pour la Santé [National Department of Health Information]
SP	Sulfadoxine/pyrimethamine
SRP	Stratégie pour la réduction de la pauvreté [Strategy for Poverty Reduction]
STI	Sexually transmitted infection
TFR	Total fertility rate
TTI	Tetanus toxoid injection
UCAD	University of Cheikh Anta Diop
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNDP	United Nations Development Program
USAID	US Agency for International Development
VTC	Voluntary Testing Center
WHO	World Health Organization
WTFR	Wanted total fertility rate

OVERVIEW OF THE COUNTRY, OBJECTIVES AND METHODOLOGY OF THE SURVEY **1**

Papa Ibrahima Sylmang SENE

T his chapter presents an overview of Senegal as well as the context of the fifth Demographic and Health and the third Multiple Indicator Survey, the DHS-MICS 2010-11. Its objectives and methodology are also presented.

1.1 OVERVIEW OF THE COUNTRY

1.1.1 Geography

Senegal is a Sudano-Sahelian country situated in the far west of the African continent. It is bordered on the north by the Republic of Mauritania, on the east by Mali, on the south by Guinea and Guinea Bissau, and on the west by the Atlantic Ocean. The Gambia, an enclave of land between the regions of Kaolack and Ziguinchor, goes through Senegal along the lower section of the Gambia River.

Covering an area of 196,722 square kilometers, Senegal also benefits from 700 kilometers of coastline along the Atlantic Ocean. It is a flat country, with the altitude rarely exceeding 100 meters. The summit of Mount Assiriki, at 381 meters, located in southeastern Senegal, is the highest point in the country.

With regard to water resources, four rivers flow across the country from east to west: the Senegal, Gambia, Casamance, and Saloum, and their tributaries. This network is supplemented by some temporary seasonal streams, as well as a significant contribution from Guiers Lake in the north.

The new organization of local and area administrative divisions in Senegal was established with the decree of 10 September 2008. The land area was redrawn from 11 to 14 administrative regions with the most recent additions being Kaffrine, Kedougou, and Sedhiou, formed respectively from the former Kaolack, Tambacounda, and Kolda. The regions are further subdivided into 45 departments. There are 150 communes (assimilated into urban areas), 117 districts, and 353 rural communities.

1.1.2 Economy

Progress reports in the Strategy Paper on the Reduction of Poverty (DSRP1[1]) 2003 and 2004 show that significant progress has been made in the implementation of this strategy in priority sectors. The Government has achieved most of the measures accompanying the *wealth creation* goal and has catapulted the national economy into accelerated growth through sound macroeconomic policies and improvement in investment. *Investment in human capital* has been a general area of attention, with the allocation of 50 percent of the operating budget to social sectors (education, health). These investments in basic social services have improved social indicators closer to the Millennium Development Goals (MDGs).

The effects of the global financial crisis of 2008 to 2009 slowed this positive trend. Since 2010 Senegal's economy has begun to recover under the double impact of the global economic recovery and the

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[1] This document shows a Strategy for Poverty Reduction (SRP) based on three principal lines of priority: (i) wealth creation; (ii) capacity building and promotion of basic social services; (iii) improvement in living conditions of vulnerable groups. These lines of priority are centered on sustained economic growth in order to establish a real basis for harmonious development.

measures taken by the Government, which have been beneficial to national economic activity. Indeed, the growth rate of the gross domestic product (GDP) rose from 2.2 percent in 2009 to 4.2 percent in 2010.

1.1.3 Population

Senegal has a large store of economic and socio-demographic data resulting from numerous surveys conducted over the last 30 years. In addition to three censuses (RGP in 1976, RGPH in 1988, and RGPH in 2002), several national surveys have been conducted, including the Senegalese Survey on Fertility in 1978, the Survey on Migration and Urbanization in Senegal in 1993, the Senegalese Household Survey (1994/1995 and 2001/2002), four Demographic and Health Surveys (DHS) (1986, 1992/1993, 1997, and 2005), the National Survey on Child Labor in Senegal in 2005, and the Poverty Monitoring Survey in Senegal in 2006. These surveys have yielded basic demographic indicators at different times, contributing to the monitoring and evaluation of projects and development programs.

The population of Senegal nearly doubled between 1988 and 2010, from 6,896,000 to 12,526,488 inhabitants. The mean population density is 64 inhabitants per square kilometer. However, the population is unevenly distributed among the 14 administrative regions of the country. The smallest region, Dakar, occupies 0.3% of the nation's land area and is home to nearly 23 percent of the total population and 75 percent of the urban population. The largest geographic region, Tambacounda, has only about 6 percent of the population.

The population is growing rapidly; the high population growth rate (2.5 percent in the 2002 RGPH) is mainly due to continued high fertility, at a total fertility rate (TFR) of 5.3 in 2005, and a drop in infant mortality. This rapid growth results in an extremely young population—more than half of the population is under age 20.

The national illiteracy rate is 65 percent. By region, illiteracy is lowest in Dakar (35 percent) and Ziguinchor (43 percent). In other areas, except for St. Louis and Thies, illiteracy is over 75 percent.

Although Senegal has more than 20 ethnic groups, more than 90 percent of the population belongs to five dominant ethnic groups: Wolof (43 percent), Poular (24 percent), Sérer (15 percent), Diola (5 percent), and Mandingue (4 percent).

Senegal's population is predominantly Muslim (94 percent), with the remainder Christians (4 percent), as well as animists and others (2 percent).

1.1.4 Health policy and health situation

Policy in the health sector remains on track to achieve the objectives of the MDGs and the priority goals of the second National Health Development Plan (NHDP-II, 2009-2018), including reduction in maternal mortality and infant/child mortality, fertility control, and increased access to basic services for the poor.

The share of the state budget allocated to the health sector has increased steadily in recent years. The priority given to the health sector has resulted in a steady rise in the budget of the Ministry of Health, from 29 billion CFA in 2000 to 108.4 billion CFA in 2010[2]. This budget now represents 10.4 percent of the operating budget of the State.

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[2] According to the finance law of 2010.

In 2010[3] Senegal had 34 hospitals[4], 89 health centers, 20 of which are actually health posts serving as health centers, and 1,195 health posts, with 1,035 of them functioning, two psychiatric health centers[5] (which are not considered here as hospitals but as specialized health centers), 76 private Catholic clinics (DPCs), and 1,603 functional health huts. However, in terms of health infrastructure coverage, Senegal has not yet achieved the standards[6] recommended by the World Health Organization (WHO).

The last two decades have been marked by an improvement in health status as evidenced by the trend of most indicators monitored by health programs. Infant and child mortality rates, while still high, have declined significantly. Child mortality fell from 131 percent in 1992 to 121 percent in 2005, and infant mortality dropped from 68 percent in 1992 to 61 percent in 2005. Finally, maternal mortality declined from 510 maternal deaths per 100,000 live births in 1992 to 401 per 100,000 live births in 2005.

The NHDP-II attaches great importance to epidemiological surveillance, reproductive health, STIs/AIDS, and control of endemic diseases such as malaria. The latter endemic, one of the principal causes of death, is in retreat, particularly as a result of the proactive stance of the National Program against Malaria (NPAM/PNLP).

The relatively low level of HIV prevalence in the general population age 15-49 (0.7 percent in 2005) remains stable. However, the results of surveys with risk groups show much higher prevalence (5 to 25 percent).

For antenatal care, more than 9 of every 10 mothers (93 percent) were seen by trained medical personnel during pregnancy in 2005, and 40 percent of mothers benefited from the assistance of trained medical staff at delivery in the five years preceding the 2005 DHS. Immunization coverage among children under age 5 has also improved (59 percent in 2005).

1.2   INSTITUTIONAL FRAMEWORK, OBJECTIVES, AND METHODOLOGY OF THE SURVEY

1.2.1   Institutional framework

The 2010-2011 Demographic and Health and Multiple Indicator Survey in Senegal (EDS-MICS 2010-11) is the fifth of its kind for the DHS and the third in a series of MICS surveys in Senegal. The EDS-MICS 2010-11 was conducted by ANSD with technical assistance from ICF Macro, the US organization in charge of the international DHS program, and by the Center for Research in Human Development (Centre de Recherche pour le Développement Humain) (CRDH). The CHU Le Dantec bacteriology and virology laboratories in Dakar and the UCAD parasitology laboratory have supported the implementation of the testing component for HIV and malaria (staff training, sampling and analysis of blood samples, data analysis).

For implementation of the survey, a steering committee was established which included the Ministry of Health and development partners, in addition to the EDS-MICS technical team.

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[3] According to the 2011 edition of the annual report on health statistics from the National Department of Health Information.

[4] Of which two are not functional (Ziguinchor Hospital of Peace and the Fatick hospital) and the following hospitals: Saint Jean de Dieu of Thiès, Nénéfécha of Kédougou, and the Ouakam military hospital are also included in this list.

[5] Dalal Xel of Thiès and Dalal Xel of Fatick.

[6] WHO norms: One health post for 10,000 inhabitants; one health center for 50,000 inhabitants, and one hospital for 150,000 inhabitants.

The Government of Senegal has benefited from the financial support of USAID, UNICEF, the Global Fund, the Unit for the Campaign against Malnutrition (Cellule de Lutte contre la Malnutrition) (CLM), and UNFPA.

1.2.2 Objectives

The EDS-MICS2010-11 was carried out on a representative sample of women age 15-49 and men age 15-59, with the following main objectives:

- Calculate basic demographic indicators, particularly fertility, infant mortality, and child mortality rates, and analyze direct and indirect factors that determine the level and trend of fertility and infant/child mortality;

- Measure indicators of school attendance and completion in primary and secondary schools (Gross and Net Attendance Ratios in primary school, Completion Rates for the fifth year of primary school); assess level of illiteracy in the adult population;

- Measure levels of knowledge and contraceptive practice of women by method; evaluate reproductive health behavior of adolescents (contraception, sexuality, use of services);

- Assess the state of family health: vaccination, prevalence and treatment of diarrhea and other diseases in children under age 5, antenatal care, delivery assistance, and postnatal visits;

- Measure the frequency of fever, level of prevention and treatment of malaria, particularly the possession and use of mosquito nets, prevention of malaria in pregnant women, treatment of children with fever and/or convulsions;

- Evaluate the nutritional status of children and women, assess the feeding practices of children, including breastfeeding; measure the level of consumption of iodized salt by households;

- Assess the prevalence of anemia among children under age 5, women age 15-49, and men age 15-59;

- Evaluate the level of access to potable drinking water and access to adequate sanitation among the population;

- Assess the knowledge, attitudes, and practices of women and men with regard to sexually transmitted infections (STIs) and AIDS;

- Estimate HIV prevalence in the general adult population of reproductive age through blood samples for anonymous screening for HIV among women age 15-49 and men age 15-59;

- Estimate the prevalence of malaria parasitemia among children under age 5 through microscopic examination of thick blood smears;

- Assess the civil status registration of children, child labor;

- Measure the extent of female genital mutilation;

- Estimate, nationally, the level of adult mortality, particularly maternal mortality.

1.2.3 Methodology

Questionnaires

Questionnaires prepared by the DHS and MICS projects are the basic instruments for the DHS-MICS 2010-11. The base questionnaires were adapted as needed to accommodate socio-cultural, country-specific requirements and to meet the needs of users. In order to ensure comparability of results at the international level, these changes were as few as possible.

Three questionnaires were used in the DHS-MICS 2010-11: (1) a household questionnaire, (2) an individual questionnaire for women age 15-49, and (3) an individual questionnaire for men age 15-59. In addition to the usual sections of the MEASURE DHS program, the questionnaires also included the following modules:

- Preschool education;
- Childcare for children age 3-5
- Child labor for ages 5-17
- Female genital mutilation
- Chronic diseases
- HIV/AIDS in order to obtain the information needed to calculate the Monitoring and Evaluation indicators according to the recommendations of UNAIDS
- Maternal mortality
- Malaria

The specific content for these various questionnaires is described as follows.

The Household Questionnaire: The Household Questionnaire lists all the usual members and visitors in the selected households. The cover page contains information on identification of the household, on results of the interview used to calculate the coverage rates for the survey, and on field and office monitoring. This questionnaire collected information on the usual household members and visitors who spent the night preceding the interview. The information collected concerned gender, age, school age and pre-school education, survival of parents, reporting the civil status of children, care of young preschool age children, and child labor.

Other information was also collected concerning household characteristics (source of water, type of toilet, building material, availability of electricity, ownership of durable goods, etc.), possession, use and insecticide treatment of mosquito nets, as well as the use of iodized salt[7] in food preparation. Questions regarding access to land ownership and residential security were also asked. This information was collected to assess environmental and socioeconomic living conditions.

One of the key objectives of the household questionnaire was to identify women and men eligible for individual interviews and children eligible for anthropometry and testing for anemia and parasitemia.

In addition, within the sub-sample of households selected for the men's survey (8 of every 21), the Household Questionnaire collected malaria test results and anthropometric measurements for all children under age 5 in the households surveyed, in order to determine their nutritional status (wasting, underweight, and stunted growth for children, as well as Body Mass Index (BMI) for women).

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[7] In all households surveyed, salt used for cooking is tested to determine its iodine content. Results of the test indicate the proportion of women and children living in households using sufficiently iodized salt.

This questionnaire was also used, for those eligible, to record the results of anthropometric measurements (weight and height) and tests for HIV, hemoglobin (anemia), and parasitemia. Blood samples for HIV testing with voluntary informed consent were documented in other logs. In the sub-sample of households selected for the men's survey, anemia and HIV testing were given to women age 15-49 and men age 15-59, while anemia and parasitemia testing were performed on children age 6-59 months.

From a blood sample, a diagnosis of malaria was made (for a child), and the hemoglobin level was measured by a direct test for all women age 15-49, all men age 15-59, and all children age 6-59 months. This same sample was used for HIV/AIDS testing on all women age 15-49 and all men age 15-59. It is important to note that testing for HIV/AIDS and hemoglobin was administered to respondents who agreed to the tests voluntarily and after informed consent. For minors (under age 18), consent is required from parents or people in charge (legal representatives) of the minors.

The Woman's Questionnaire: This questionnaire is the central element of the EDS-MICS 2010-11. It includes a cover page similar to the household questionnaire on which is recorded information on the household's identification, results of the interview used to calculate the coverage rate for the survey, as well as field and office monitoring. In addition, this questionnaire is comprised of 10 sections, which collect information on the following topics:

- Socio-demographic characteristics: this section focuses on the place of residence, age and date of birth, schooling, literacy, nationality, religion, ethnicity, and media exposure

- Reproduction: this section collects information on the live births that the woman has had, as well as their children's survival status at the time of the survey, the woman's state of pregnancy at the time of the survey, and her knowledge of the fertile period in the menstrual cycle

- Knowledge and use of contraception: this section collects information on the woman's knowledge and past and current use of various contraceptive methods, as well as the source of supply. It also includes the place and date of female sterilization, as well as the reasons for non-use of a method

- Pregnancy and breastfeeding, immunization, and child health: this section focuses on births in the five years preceding the survey. It is composed of two parts. The first provides information on the period of pregnancy, antenatal care including tetanus toxoid injections, place of delivery, and qualifications of the person who assisted the woman, postnatal care, return of menstrual periods, and resumption of sexual intercourse after childbirth. The questions on breastfeeding concern frequency and duration, the type of feeding (breast or formula), as well as the use of various nutritional supplements. The second part focuses on vaccinations included in the Expanded Program on Immunization (EPI) and the health of children under age 5, particularly on the prevalence and treatment of fever, cough, and diarrhea

- Marriage and sexual activity: this section concerns the marital status of women, cohabitation with spouse, type of marriage (monogamy or polygamy), age at first marriage, and sexual activity and age at first intercourse

- Fertility preferences: this section collects information on the woman's desire for additional children, preferred interval between births, and opinion on family size.

- Other health problems.

- Characteristics of the spouse and women's work: questions have been asked to learn the occupational characteristics of the spouse of the married women and the economic activity of these women.

- STIs and AIDS: this section concerns the woman's knowledge and prevalence of STIs, modes of transmission, and how to prevent AIDS.

- Obstetric fistula.

- Female genital mutilation: this section asks about the practice of female genital mutilation among women interviewed and their daughters under age 10, as well as the women's attitudes concerning this practice.

- Maternal mortality: this section obtains information on the age and survival status of the siblings of the respondent. For sisters who died at age 12 or older, additional questions determine if the death was related to motherhood. The section also includes questions on the number of children of the sister (deceased or not) as well as their survival status.

The Individual Man's Questionnaire: The Man's Questionnaire, given to men age 15-59, is a shorter version of the Woman's Questionnaire. It includes a cover page similar to that on the women's questionnaire and seven sections used to collect information on the following topics:

- Socio-demographic characteristics;
- Fertility;
- Contraception;
- Marriage and sexual activity;
- Fertility preferences;
- Employment and gender roles;
- HIV/AIDS and other STIs;
- Other health problems.

The final questionnaires were translated into four main national languages (Wolof, Serer, Poular, and Mandinka).

Manuals and other technical documents

In addition to the questionnaires, other technical documents were developed by the technical team of the EDS-MICS2010-11. They include in particular:

- Interviewer's manual
- Team leader's manual
- Mapping and household listing manual
- Manual for tablet PC use (computer-assisted interview (CAPI))
- Anthropometric manual
- Malaria testing manual
- Anemia and HIV testing manual
- Other field and management forms

- Assignment sheets for interviewers/supervisors
- Forms for supervision and management of testing (anemia, HIV, and malaria)
- Reference sheets for testing (anemia and malaria)

ANSD has ensured reproduction of a sufficient number of these various documents.

Testing for hemoglobin, HIV, and malaria

In 8 of every 21 households women age 15-49, men age 15-59, and children under age 5 were eligible for anemia testing. In addition, women and men were eligible for HIV testing and children age 6-59 months were eligible for parasitemia testing. Protocols for anemia, HIV, and parasitemia tests were approved by the Ethics Committee (Internal Review Board) of ICF Macro in Calverton, Maryland, USA, and by the National Ethics Committee for Health Research (CNERS) of Senegal.

Hemoglobin test: The hemoglobin test is the primary method for diagnosing anemia; it is carried out using the HemoCue system. A free and informed consent was requested from the eligible person (capable adult) or a parent/adult responsible for the child or legal representative for a young person age 15-17. This consent is obtained from the eligible individual (or parent/guardian) from an informational sheet that explains the purpose of the test, the immediate delivery of results, and the conditions for support in case of need.

Before collecting blood, the finger was cleaned with an alcohol swab and dried in the air. Then the finger (or heel of children under age 1 and very thin) was pricked with a non-reusable, sterile retractable lancet. A drop of blood was collected in a microcuvette and then put into a HemoCue photometer, which indicated the hemoglobin level. These results were recorded in the Household Questionnaire and communicated to the person tested, or to the parent/responsible adult, explaining the significance of the results. If the person had severe anemia (hemoglobin level <7 g/dl), the interviewer provided a referral sheet for the person to seek care from a health service.

HIV testing: HIV testing was carried out in the sub-sample of households selected for the men's survey. Blood samples were drawn from all eligible men and all women from households that voluntarily agreed to take the test. The protocol for HIV screening is based on the linked, anonymous protocol developed by the DHS project and approved by the Ethics Committee (Internal Review Board) of ICF Macro. According to this protocol, no names or other individual or geographic characteristics identifying an individual can be linked to the blood sample. The National Ethics Committee for Health Research of Senegal approved the protocol after review and amendment. Because HIV testing is strictly anonymous, it is not possible to inform respondents about their test results.

To obtain blood samples from eligible people, each team included a field interviewer-technician specially assigned to blood sampling. In addition to interviewer training, this technician received special training on all aspects of the testing protocols for anemia and HIV. First, for each eligible person, the technician asked for informed consent after explaining the procedures for collection, confidentiality, and anonymity of the test. For women and men who consented to be tested, the technician, in compliance with all hygiene precautions and security recommendations, put drops of the blood drawn onto filter paper. In most cases the drops of blood for both tests were obtained from a single finger prick. A label with a barcode was attached to the filter paper containing the blood. A second label with the same barcode was attached to the household questionnaire on the line corresponding to the consent of the eligible person, and a third label, still with the same barcode, was attached to the transmission form. Blood spots on filter paper were dried for at least 24 hours in a drying box with desiccants to absorb moisture. The following day, each dried sample was placed in a small, hermetically sealed, waterproof plastic bag. The individual plastic bags were therefore kept

dry until their delivery to the central office of ANSD in Dakar. At ANSD they were immediately checked and kept cool before being registered and transferred to CHU Le Dantec Bacteriolgy Virology Laboratory (LBV).

Testing for anti-HIV antibodies and reporting of the results were carried out by the LBV in Dakar. LBV is the reference laboratory in Senegal and is regularly subjected to rigorous internal as well as external quality control. LBV participates in various quality control programs for HIV serology organized by WHO (serology performed on sera) and by the Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia, USA (serology performed on sera and dried blood spots). Regarding the procedures for laboratory analysis, a hole was punched through the dried blood spots on filter paper. The punch hole measured approximately 6 milliliters in diameter and was then immersed in 150 microliters of PBS solution for the elution of serum. LBV then treated the blood samples according to the following algorithm:

- All the samples are tested by an initial ELISA (Vironostika® HIV Uni-Form II plus O).

- The screened samples testing positive with the first ELISA 1, as well as 10 percent of the negatives, are then analyzed with a second ELISA (Enzignost® HIV Anti-HIV1/2 plus).

- All positive samples on both ELISA tests are registered as positive.

- All discrepant samples on both ELISAs (positive Vironostika and negative Enzygnost) are confirmed by Inno-Lia Blot.

A CSPro program (Census and Survey Processing System) developed by ICF Macro, designed specifically for the algorithm chosen, was provided to LBV for entering test results. As the entries were being made, the program proceeded to count automatically all the input (number of samples tested, number of positives and negatives depending on the various kits used).

Test for malaria parasitemia: Malaria parasitemia testing was carried out on a third of the sample on children age 6-59 months. Two tests for the diagnosis of malaria were carried out: the rapid diagnostic test (RDT) and examination of thick blood smears. Children testing positive on the RDT were referred by the laboratory technicians for the survey according to the protocol in effect.

In addition, after a blood sample was drawn, thick blood smears were put on a glass slide and analyzed in the laboratory of the Department of Parasitology, Faculty of Medicine, UCAD, Dakar.

Sampling

To achieve the objectives of this survey, a stratified national sample of 8,232 households was drawn, with the expectation that approximately 15,044 women age 15-49 and 4,429 men age 15-59 in these households would be interviewed. Blood samples were drawn from one-third of the total sample, 4,104 men and 5,326 women.

The sampling procedure used for the EDS-MICS 2010-11 is a two-stage stratified, randomly drawn sample. The primary sampling unit, also called a cluster, is the census district (CD) or a section of a CD when the district is very large. The urban and rural sections of each region each correspond to a sampling stratum. A total of 28 strata were created. The first-stage sample was drawn independently in each stratum while the second-stage sample was independently derived within each primary unit in the first stage. The sampling plan is detailed in Appendix A.

In the first sampling stage, 391 clusters (147 clusters in urban areas and 244 rural clusters) were selected by conducting a systematic sampling with probability proportional to size, with the size of the CD

being the number of households. An enumeration of households in each of these clusters yielded the list of households from which a sample of 21 households was drawn in the second stage through a systematic drawing with equal probability. All women age 15-49 ordinarily residing in or visiting the household the night before the survey were identified in these households, and were interviewed individually.

Within each cluster, among the 21 households selected for the women's survey, 8 households were selected for the men's survey. All men age 15-59 in these selected households were eligible for the men's survey.

In this sub-sample all women and men eligible for the individual survey were also eligible for HIV testing. In addition, in this sub-sample of households all women and all men eligible for the survey, as well as all children age 6-59 months, were asked to participate in the anemia test. Moreover, in this same sub-sample of households all men and the eligible women, as well as all children under age 5, were selected to be measured and weighed in order to determine their nutritional status. Finally, all children age 6-59 months in the sub-sample were eligible to undergo the screening test for malaria.

During the EDS-MICS 2010-11, 391 clusters selected in the sample were then surveyed. In all, 8,212 households were selected and 8,029 occupied households were identified at the time of the survey. Among these 8,029 households, 7,902 were successfully interviewed, for a response rate of over 98 percent (98.6 percent in rural areas and 98.0 percent in urban areas (Table 1.1).

Table 1.1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence, DHS-MICS, Senegal 2010-11

Result	Residence		Total
	Urban	Rural	
Household interviews			
Households selected	3,088	5,124	8,212
Households occupied	3,022	5,007	8,029
Households interviewed	2,963	4,939	7,902
Household response rate[1]	98.0	98.6	98.4
Interviews with women age 15-49			
Number of eligible women	6,743	10,188	16,931
Number of eligible women interviewed	6,192	9,496	15,688
Eligible women response rate[2]	91.8	93.2	92.7
Interviews with men age 15-59			
Number of eligible men	2,427	3,241	5,668
Number of eligible men interviewed	2,058	2,871	4,929
Eligible men response rate[2]	84.8	88.6	87.0

[1] Households interviewed/households occupied.
[2] Respondents interviewed/eligible respondents.

In the 7,902 households surveyed, 16,931 women age 15-49 were identified as eligible for the individual interview. The interview was conducted successfully with 15,688 of them, for a response rate of 92.7 percent. The men's survey was conducted in one in every three households. Among men eligible for the interview, 4,929 men age 15-59 out of a total of 5,668 were successfully interviewed, for a response rate of 87 percent). Response rates were substantially lower in men than in women, both in urban as well as in rural areas (Table 1.1).

Activities of the EDS-MICS

The DHS-MICS 2010-11 was conducted in four main stages: the preparatory phase, mapping and enumeration of households from clusters in the sample (in September 2010), the pilot survey (August 2010), and the main survey (15 October 2010 to 27 April 2011). For each of these last three steps, training was given to people recruited for field activities.

Preparatory phase: The preparatory phrase started in November 2009 with the development of the first project document and ended in June 2010, just before the training for the pilot survey. Project and advocacy documents and media support for the EDS-MICS 2010-11 data collection were developed during this phase. Organization and assembling of the budget was also completed. In addition, project and advocacy documents were presented to the Ministry of Health and to Financial and Technical Partners and validated by them.

A technical team assigned to manage the project, assisted by ICF MACRO/CRDH, was set up at ANSD. A medical coordinator and nutritionist were recruited and integrated into the technical team. Two laboratories assigned to the biological components (bacteriology-virology and parasitology) were also designated. They were responsible for the training and supervision of health technicians, laboratory analyses, and would later be involved in data analysis. The medical coordinator was responsible for coordinating the activities performed by health technicians and laboratories.

Pilot survey: For purposes of the pilot survey, 20 staff members (four technical health staff and 16 interviewers) were selected to take a training course of 25 days. It included three components: training on paper questionnaires (household, women's, and men's), biological and anthropometric testing, and tablet PCs.

Training on paper questionnaires lasted for three weeks and was provided by management staff from the EDS-MICS 2010-11 (ANSD and CRDH/MACRO). Training on biological and anthropometric testing (anemia, HIV, parasitemia, and anthropometry) was provided by personnel from the bacteriology, virology, and parasitology laboratories, and a nutritionist. The third part of training on tablet PCs (UMPC) was provided by experts from Macro (now ICF) and CRDH. All fieldworkers took the entire training course, except for the module on biological testing, which was reserved for the health technicians alone. At the end of training, staff members were given supplementary training on technical monitoring, organization, and logistics in the field, as well as contact with the authorities and the community.

The pilot study, which lasted for five days and covered about 40 households, was an opportunity to assess people's response to certain survey questions in order to take corrective measures as needed, including awareness, manipulating the UMPC, the CSPro entry program, and formulating questions. The field staff were divided into four teams. Each team had, in addition to interviewers, a team leader and a health technician. The teams were divided between rural and urban areas in the Dakar region; two teams in urban areas, (Guédiawaye) and the other two in rural (Department of Rufisque).

Mapping and enumeration: Training for cartographers was conducted in September 2010, and fieldwork took place from September to mid-October 2010. The training included theoretical presentations on the definition of basic concepts and procedures as well as field practice and ongoing assessments. Based on various assessments undertaken during training, 28 staff cartographers (divided into seven teams, each consisting of a team leader and three cartographers) were selected to implement the mapping and enumeration of households in the selected clusters.

Recruitment and training of field staff: In order to achieve data collection for the DHS-MICS 2010-11, 110 people were selected for the main survey training. It took place in four phases, just as in the pilot study training, and was provided by the same technical team. In this phase, 15 days were devoted to staff training on the use of UMPC tablets.

Data collection: After the training, 16 teams were formed for the fieldwork; each team was made up of three female members in charge of interviewing the women, a health technician to perform anthropometric measurements, as well as malaria, anemia, and HIV testing, and a male team leader for the men's interviews, who was responsible for the performance and management of his team of interviewers. He also served as an assistant to the health technician for taking anthropometric measurements.

In order to ensure support of the team leaders, coordination visits preceded the teams in the clusters, to inform the authorities and raise awareness of the survey among people in the community, so that they would welcome the teams and help them to carry out the data collection process successfully. Both the authorities and communities were made aware of the survey through letters and circulars to regional authorities and meetings with local officials. During mapping, this activity was part of the scope of work for the teams. Information and awareness sessions were organized before the start of data collection and continued throughout the fieldwork.

The media (community radio) were also involved in raising awareness. In this regard a press briefing was held in the ANSD offices, which was widely reported on national radio and television, private television stations, private radio stations, and in the written press.

Data collection in the field lasted six and a half months, (from 13 October 2010 to 28 April 2011) and entailed visits to 456 CDs (391 CDs for the EHS-MICS 2010-11 sample and 65 additional[8] CDs of the PMI).

To ensure proper supervision of the data collection work, frequent supervisory visits were organized by the technical managers. Meanwhile, a supervisory visit organized by the National Ethics Committee for Health Research (CNERS) helped ensure compliance with ethical regulations in the field.

Analyzing data quality tables: Throughout the data collection process, a means for controlling data quality was established through the monitoring of certain key indicators (coverage rate, age of respondents, ages at death of children, etc.). Errors detected during these checks were shared with the field teams during supervisory visits by the coordination team and by telephone contact in case of emergency.

Data processing: Data cleaning was done as soon as the files from the completed clusters were received. A team of computer scientists and demographers corrected the errors found. After merging the files, the final errors detected were processed with the support of a computer science expert from ICF Macro.

Laboratory analysis of blood samples: The analysis of blood samples (dried blood on filter paper) for HIV testing was performed by the bacteriology virology laboratory of Aristide Le Dantec Hospital. The test for malaria parasitemia was performed by the parasitology laboratory of Cheikh Anta Diop University (UCAD). Processing of the samples of thick blood drops was done during data collection in the field. Analysis of blood samples for HIV testing started at the end of data collection, for reasons of data confidentiality, even if the samples coming in from the field had already been regularly received by the bacteriology and virology laboratory.

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[8] The additional PMI sample covers six regions: Kaolack, Kaffrine, Kédougou, Kolda, Tambacounda, and Saint Louis.

HOUSEHOLD CHARACTERISTICS $\quad$ 2

Awa CISSOKO

The objective of this chapter is to assess environmental conditions in which women, men, and children targeted by the EDS-MICS 2010-11 live, as well as give a socioeconomic and demographic profile of the household population in the survey. The first part of this chapter presents of certain housing characteristics, such as the type of drinking water supply, type of toilet, flooring material, availability of electricity, and ownership of durable goods. The second part presents selected demographic characteristics of the household population, such as structure by age and sex, as well as certain socioeconomic characteristics, including residence and household composition, noting in particular the presence in the household of orphans or children living without their parents. The third part of the chapter presents data on the level of education of women and men in the household.

2.1 LIVING CONDITIONS

Data collected on housing characteristics are presented for households overall and for the total *de jure* population (usual residents) of households, by urban-rural residence.

Source of drinking water

Table 2.1 presents the distribution of households and population by source of drinking water, based on the EDS-MICS 2010-11. Most Senegalese households, regardless of residence, have an improved source (79 percent of households overall, 94 percent of urban households, and 65 percent of rural residents). Tap water is the most common source (69 percent overall, 88 percent urban, and 51 percent). Only 10 percent of all households (6 percent urban and 14 percent rural) use other improved sources (protected wells, bottled water, and rainwater).

Among households overall, use of improved sources of drinking water increased 13 percent over the five years before the current survey, up from 70 percent in the 2005 survey. Urban households showed an increase of 3 percent, up from 91 percent in 2005, while rural households showed a significant increase of 29 percent, up from 50 percent in 2005.

The distribution of the population by source of drinking water differs little from that of households.

Table 2.1 also shows that for nearly nine Senegalese households in every ten (89 percent), it takes less than 30 minutes to get drinking water. In rural areas this proportion is lower than in urban areas (82 percent and 97 percent, respectively).

Most of the time, water is not subject to any treatment before use for drinking, especially in urban areas (66 percent of all households, 74 percent urban, and 59 percent rural). Sometimes, households treat water with bleach or chlorine (between 16 percent and 17 percent) or filter it through a cloth (18 percent overall). This latter practice occurs mainly in rural areas (29 percent versus 8 percent in urban areas). Boiling, solar disinfection, and other filtering methods (ceramic, sand, and so forth) are virtually unknown among Senegalese households.

Table 2.1 Household drinking water

Percent distribution of households and *de jure* population by source of drinking water, time to obtain drinking water, and treatment of drinking water, according to residence, EDS-MICS, Senegal 2010-11

Characteristic	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Source of supply for drinking water						
Improved source	93.6	64.8	78.9	93.7	65.9	78.3
Piped water into dwelling/yard/plot	77.1	29.8	52.9	79.3	32.9	53.7
Public tap/standpipe	10.5	20.9	15.8	9.7	19.1	14.9
Tubewell/borehole	1.0	6.4	3.7	1.0	6.1	3.8
Protected dug well	2.7	7.0	4.9	2.6	7.2	5.1
Protected spring	0.1	0.2	0.2	0.1	0.2	0.1
Rainwater	0.0	0.3	0.1	0.0	0.3	0.2
Bottled water	2.3	0.2	1.2	1.0	0.1	0.5
Non-improved source	4.9	33.5	19.5	4.9	32.9	20.4
Unprotected dug well	4.3	30.4	17.7	4.5	30.2	18.7
Unprotected spring	0.0	1.0	0.5	0.0	0.8	0.4
Tanker truck/cart with drum	0.5	1.2	0.8	0.4	1.0	0.8
Surface water	0.0	0.9	0.5	0.0	0.9	0.5
Other source	1.5	1.7	1.6	1.4	1.2	1.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Time to obtain drinking water (round trip)						
Water on premises	83.3	40.5	61.4	85.2	43.9	62.4
Less than 30 minutes	13.3	41.3	27.6	11.3	38.2	26.1
30 minutes or longer	3.0	17.4	10.4	3.2	17.3	11.0
DK/Missing	0.4	0.8	0.6	0.3	0.6	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Water treatment prior to drinking[1]						
Boiled	0.4	0.2	0.3	0.2	0.3	0.3
Bleach/chlorine added	17.0	16.0	16.5	17.2	16.0	16.6
Strained through cloth	7.6	28.8	18.5	8.0	29.2	19.7
Ceramic, sand, or other filter	1.6	0.7	1.2	1.2	0.7	0.9
Solar disinfection	0.0	0.0	0.0	0.0	0.0	0.0
Other	3.4	2.3	2.8	3.5	2.0	2.7
No treatment	73.7	59.4	66.4	74.0	59.3	65.9
Percentage using an appropriate treatment method[2]	23.4	39.7	31.8	22.9	40.0	32.4
Number	3,864	4,038	7,902	33,003	40,641	73,645

[1] Respondents may report multiple treatment methods so the sum of treatments may exceed 100 percent.
[2] Appropriate water treatment methods include boiling, bleaching, straining, filtering, and solar disinfecting.

Type of toilet facilities

Access to adequate sanitation facilities and promotion of hygiene practices, which come with improvement of the water supply, are important objectives for achieving the Millennium Development Goals (MDGs). The results of the EDS-MICS, presented in Table 2.2, show that 41 percent of Senegalese households use improved toilets that are not shared. As expected, use of improved toilets is more common in urban than rural areas (57 percent compared with 26 percent). In addition, nearly two in every ten households (19 percent) have access to improved shared toilet facilities (30 percent urban and 9 percent rural). In addition, 40 percent of households do not have access to improved toilets (22 percent) or have no toilet at all (18 percent). In rural areas this proportion reaches 66 percent, with 33 percent having no toilet, compared with only 13 percent in urban areas, with 2 percent having no toilet.

In comparison, in 2005 the proportion of households with no toilets was 23 percent overall—40 percent in rural areas compared with 4 percent in urban areas.

Table 2.2 Household sanitation facilities

Percent distribution of households and *de jure* population by type of toilet/latrine facilities, according to residence, EDS-MICS, Senegal 2010-11

Type of toilet/latrine facility	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Improved, not shared facility						
Flush/pour flush to piped sewer system	16.2	0.6	8.2	15.0	0.9	7.2
Flush/pour flush to septic tank	16.4	6.7	11.4	20.6	8.2	13.8
Ventilated improved pit (VIP) latrine	3.9	3.7	3.8	5.2	4.2	4.6
Pit latrine with a slab	16.9	13.3	15.0	20.9	14.7	17.5
Flush latrines	3.5	1.6	2.6	4.4	2.0	3.1
Shared facility[1]						
Flush/pour flush to piped sewer system	6.9	0.2	3.5	4.1	0.1	1.9
Flush/pour flush to septic tank	8.4	1.8	5.0	5.6	1.8	3.5
Ventilated improved pit (VIP) latrine	1.5	1.2	1.3	1.2	1.1	1.2
Pit latrine with a slab	10.1	4.6	7.3	7.6	4.2	5.7
Flush latrines	3.4	0.7	2.0	2.2	0.8	1.4
Non-improved facility						
Traditional latrines	10.9	32.9	22.1	11.7	33.3	23.6
No facility/bush/field	2.0	32.8	17.7	1.4	28.7	16.5
Other	0.1	0.0	0.0	0.1	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	3,864	4,038	7,902	33,003	40,641	73,645

[1] Facilities that would be considered improved if they were not shared by two or more households.

Hand washing

Hand washing with soap, notably on certain critical occasions (after a stool, before preparing food or feeding children) is an important aspect of hygiene. The location where washing takes place is also important. Thus, during the survey, questions were asked about the availability of a specific place for hand washing and the availability of water, soap, or cleansing agents other than soap at this place. Overall, in more than half (55 percent) of the households surveyed a specific place to wash hands was not observed (Table 2.3). Urban areas have the highest percentage of households where a place to wash hands was observed (56 percent compared with 35 percent in rural areas). Among households in which a place for hand washing was observed, 45 percent have both soap and water (57 percent in urban areas compared with 26 percent in rural areas).

The percentage of households in which the place for hand washing was observed increases with the level of wealth of the household, from 29 percent of the poorest households to 74 percent of the richest. The same difference is observed for the availability of soap and water in the space provided for hand washing; the percentage rises from 18 percent for the poorest households to 68 percent for the richest. In many households, especially in rural areas and in the regions of Ziguinchor, Diourbel, Tambacounda, Louga, Fatick, and Sédhiou, the percentage with only water to wash hands is much higher than the percentage with both water and soap for this purpose. Finally, a significant percentage of households do not have water, soap, or other cleansing agents for washing hands.

Table 2.3 Hand washing

Percentage of households in which the place most often used for washing hands was observed, and among households in which the place for hand washing was observed, percent distribution by availability of water, soap, and other cleansing agents, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage of households where place for washing hands was observed	Number of households	Among households where place for hand washing was observed, percentage with:							Number of households with place for hand washing observed
			Soap and water[1]	Water and cleansing agent[2] other than soap only	Water only	Soap but no water[3]	Cleansing agent other than soap only[2]	No water, no soap, no other cleansing agent	Total	
Residence										
Urban	55.9	3,864	57.0	1.0	29.4	1.0	1.6	10.0	100.0	2,161
Rural	34.9	4,038	26.2	0.3	42.7	1.4	4.9	24.5	100.0	1,408
Region										
Dakar	68.4	2,112	62.5	1.6	24.6	1.0	2.0	8.3	100.0	1,445
Ziguinchor	16.2	343	34.4	0.0	47.1	2.3	0.0	16.2	100.0	56
Diourbel	54.6	810	17.0	0.0	44.5	2.2	0.3	36.0	100.0	442
Saint-Louis	35.2	558	37.6	0.0	21.3	3.2	0.0	37.9	100.0	196
Tambacounda	25.9	373	25.1	0.0	58.3	1.3	0.0	15.3	100.0	97
Kaolack	27.8	514	41.2	0.6	48.6	0.6	0.0	8.9	100.0	143
Thiès	38.0	1,017	38.4	0.0	39.2	0.7	1.2	20.5	100.0	387
Louga	39.4	496	29.4	0.0	55.6	0.7	0.0	14.3	100.0	195
Fatick	33.4	413	20.4	0.5	68.4	0.4	0.0	10.3	100.0	138
Kolda	21.9	333	33.3	0.0	29.2	2.0	0.0	35.5	100.0	73
Matam	37.4	286	59.9	0.0	30.9	0.0	0.0	9.2	100.0	107
Kaffrine	79.8	330	42.9	0.6	25.7	0.7	25.8	4.3	100.0	263
Kédougou	7.0	83	(51.9)	(0.0)	(37.9)	(0.0)	(0.0)	(10.3)	100.0	6
Sédhiou	9.3	235	35.1	0.0	52.7	0.0	0.0	12.2	100.0	22
Wealth quintile										
Lowest	28.7	1,600	18.4	0.6	47.3	0.6	7.7	25.3	100.0	460
Second	29.3	1,584	28.3	0.2	39.2	1.3	5.6	25.5	100.0	464
Middle	40.3	1,490	28.8	0.4	40.9	1.8	2.9	25.1	100.0	600
Fourth	51.7	1,574	46.6	2.1	32.8	1.0	2.9	14.6	100.0	813
Highest	74.5	1,653	67.6	0.3	26.3	1.2	0.0	4.6	100.0	1,232
Total	45.2	7,902	44.8	0.7	34.6	1.2	2.9	15.7	100.0	3,569

[1] Soap includes soap or detergent in bar, liquid, powder, or paste form. This column includes households with soap and water only as well as those that had soap and water and another cleansing agent.
[2] Cleansing agents other than soap include locally available materials such as ash, mud, or sand.
[3] Includes households with soap only as well as those with soap and another cleansing agent.
( ) Based on unweighted cases between 25 and 49.

Housing characteristics

Table 2.4 presents certain housing characteristics. Overall in the EDS-MICS 2010-11, 57 percent of surveyed households have electricity (compared with 47 percent in the 2005 survey). The results indicate significant disparities depending on residence. Rural areas are considerably less well off, with only 27 percent of households having electricity compared with 88 percent in urban areas (Figure 2.1). However, it should be noted that between 2005 and 2010-2011 household access to electricity in rural areas improved rapidly (from 16 percent to 27 percent). This result is consistent with acceleration in implementation of the village electrification policy over the past decade.

Certain types of flooring may facilitate the spread of germs that cause disease. For this reason, questions were asked about the type of material used for flooring in rooms used for residential housing. In Senegal 64 percent of households have housing in which the floor is cement, ceramic tile, or vinyl (compared with 64 percent in 2005), while 30 percent of households have flooring made of earth or sand (compared with 31 percent in 2005). Rural households more often have housing in which the floor is made of earth/sand (48 percent) and cement (36 percent). Among urban households, 45 percent have a floor made of cement, and 34 percent have a floor covered with ceramic tiles.

Table 2.4 also shows the distribution of households according to the number of rooms used for sleeping. In 67 percent of cases, households use three rooms or more for sleeping and in 19 percent, two rooms. In 69 percent of households, cooking is done inside the home, while in 17 percent the kitchen is in a separate building, and in 12 percent cooking is done outdoors. This proportion is lower in urban areas than in rural areas (10% and 13%, respectively).

To assess the level of pollution in the household, the survey asked about the type of fuel used for cooking. In all, a majority of households (66 percent) use solid fuels for cooking. More than half (53 percent) use wood or straw, a proportion that varies significantly between rural and urban areas, at 83 percent in rural households compared with 21 percent in urban households. Households in urban areas are much more likely to use gas for cooking (59 percent) compared with rural households (5 percent).

Table 2.4 Household characteristics

Percent distribution of households by housing characteristics, percentage using solid fuel for cooking, and percent distribution by frequency of smoking in the home, according to residence, EDS-MICS, Senegal 2010-11

Housing characteristic	Residence		Total
	Urban	Rural	
Electricity			
Yes	87.8	26.6	56.5
No	12.2	73.4	43.5
Total	100.0	100.0	100.0
Flooring material			
Earth/sand	11.6	47.6	30.0
Dung	0.2	7.4	3.9
Wood planks	0.0	0.1	0.0
Palm/bamboo	0.0	0.4	0.2
Parquet or polished wood	0.2	0.1	0.2
Vinyl or asphalt strips	6.6	2.0	4.2
Ceramic tiles	33.8	5.9	19.5
Cement	44.7	36.0	40.2
Carpet	2.7	0.6	1.6
Other	0.1	0.0	0.1
Total	100.0	100.0	100.0
Rooms used for sleeping			
One	21.2	8.0	14.4
Two	18.5	19.4	19.0
Three or more	60.3	72.6	66.6
Total	100.0	100.0	100.0
Place for cooking			
In the house	72.5	66.2	69.3
In a separate building	14.7	20.0	17.4
Outdoors	10.4	13.3	11.9
Other	2.4	0.5	1.5
Total	100.0	100.0	100.0
Fuel used for cooking			
Electricity	2.0	0.5	1.2
LPG/natural gas/biogas	59.3	5.1	31.6
Wood	15.5	8.2	11.8
Straw/shrubs/grass	20.8	82.8	52.5
Animal dung	0.1	2.7	1.4
Other	2.3	0.7	1.5
Total	100.0	100.0	100.0
Percentage using solid fuel for cooking[1]	36.4	93.7	65.7
Number	3,864	4,038	7,902

LPG = Liquefied petroleum gas
[1] Includes coal/lignite, charcoal, wood, straw/shrubs/grass, agricultural crops, and animal dung.

Figure 2.1
Housing characteristics according to residence

ELECTRICITY
Urban 27
Rural 88

FLOORING MATERIAL
Earth/sand — Urban 12, Rural 48
Dung — Urban 0.2, Rural 7
Vinyl or asphalt strips — Urban 7, Rural 2
Ceramic tiles — Urban 34, Rural 5.9
Cement — Urban 45, Rural 36
Carpet — Urban 3, Rural 1
Other — Urban 0.3, Rural 1

COOKING FUEL
Electricity — Urban 2, Rural 0.5
LPG/natural gas/biogas — Urban 59, Rural 5
Wood — Urban 16, Rural 8
Straw/shrubs/grass — Urban 21, Rural 83
Animal drug — Urban 0.1, Rural 3
Other — Urban 2, Rural 1

Percentage

■ Urban   ▨ Rural

EDS-MICS 2010-11

Household possessions

In order to assess the socioeconomic level of the household, the survey investigated household possession of certain goods considered to be indicators of socioeconomic status, including the level of access to both information and basic social services. Nearly nine households in ten (88 percent) own a mobile phone (Table 2.5). Cell phones are by far the most prevalent means of communication in Senegal, whether in urban areas, where 95 percent of households have one, or in rural areas (82 percent).

Besides the cell phone, the goods most commonly owned by Senegalese households are the radio (74 percent), television (52 percent), animal-drawn cart (25 percent), and refrigerator (22 percent). In urban areas, except for carts, the proportion of households owning each of these items is higher than in rural areas, For example, 79 percent of urban households have a television compared with 26 percent of rural households; 39 percent of urban households have a refrigerator compared with 6 percent of rural households.

Table 2.5 Household possessions

Percentage of households possessing various household effects, means of transportation, agricultural land, and livestock/farm animals by residence , EDS-MICS, Senegal 2010-11

	Residence		
Possession	Urban	Rural	Total
Household effects			
Radio	76.8	70.6	73.6
Television	79.4	25.5	51.8
Mobile telephone	95.4	81.7	88.4
Non-mobile telephone	20.9	4.3	12.4
Refrigerator	38.5	5.9	21.9
Means of transport			
Bicycle	13.4	19.6	16.6
Animal drawn cart	5.3	44.1	25.1
Motorcycle/scooter	10.3	6.0	8.1
Car/truck	3.2	2.3	2.7
Ownership of agricultural land	17.0	76.0	47.1
Ownership of farm animals[1]	33.6	81.5	58.1
Number	3,864	4,038	7,902

[1] Cattle, cows, bulls, horses, donkeys, goats, sheep, or chickens.

Quintiles of household wealth

Table 2.6 shows the distribution of the de jure population by wealth quintile, according to residence and region. The wealth index is constructed from data on ownership of household goods and by using principal component analysis. Information on household goods comes from the Household Questionnaire in the EDS-MICS 2010-11 on household ownership of certain consumer goods and on certain housing characteristics such as availabiliity of electricity, type of water supply, type of toilet, flooring material, number of people per room for sleeping, and type of cooking fuel. Each of these goods and characteristics is assigned a weight (score or coefficient) generated from a principal component analysis. The resulting scores of goods are standardized according to a standard normal distribution, with mean of 0 and standard deviation of 1 (Gwatkinet al., 2000). Then each household is assigned a score for each item and, summing all scores per household, individuals are ranked according to the total score of the household where they reside. The sample is then divided into population quintiles, with each quintile corresponding to a level ranging from 1 (the poorest) to 5 (the richest).

Table 2.6 shows that the level of wealth is lower in rural than in urban areas; in rural areas 5 percent of households are in the highest ("richest") wealth quintile, compared with 39 percent in urban areas. In rural areas 35 percent of households are in the lowest ("poorest") wealth quintile, compared with 2 percent in urban areas. Dakar is by far the region of the country having the highest percentage of households in the richest quintile (56 percent), followed by the regions of Diourbel (19 percent) and Thiès (15 percent). In contrast, the regions of Kédougou, Kolda, and Tambacounda have the highest percentages of households in the poorest quintile (respectively 61 percent, 54 percent, and 53 percent).

Table 2.6 Wealth quintiles

Percent distribution of the *de jure* population by wealth quintiles and the Gini Coefficient, according to residence and region. EDS-MICS, Senegal 2010-11

Region	Wealth quintile					Total	Number of persons	Gini Coefficient
	Lowest	Second	Middle	Fourth	Highest			
Residence								
Urban	1.9	5.9	19.6	33.9	38.8	100.0	33,003	14.0
Rural	34.7	31.5	20.4	8.7	4.8	100.0	40,641	25.3
Region								
Dakar	0.0	1.9	8.1	33.8	56.2	100.0	17,015	7.5
Ziguinchor	7.8	30.7	37.2	17.7	6.6	100.0	2,770	16.6
Diourbel	17.7	15.7	23.5	23.6	19.5	100.0	8,123	22.4
Saint-Louis	15.8	21.2	35.6	18.7	8.8	100.0	4,881	25.2
Tambacounda	52.9	24.8	15.4	5.1	1.8	100.0	3,756	31.6
Kaolack	23.8	36.8	17.6	12.5	9.2	100.0	5,638	30.3
Thiès	6.1	22.0	29.8	27.4	14.8	100.0	9,640	19.9
Louga	31.9	20.9	21.6	16.1	9.6	100.0	5,135	26.6
Fatick	31.5	35.5	20.8	8.2	4.0	100.0	4,061	27.9
Kolda	54.4	23.8	14.0	5.0	2.8	100.0	3,489	31.7
Matam	27.5	27.3	25.2	15.9	4.1	100.0	2,926	22.8
Kaffrine	46.2	29.7	15.4	7.0	1.7	100.0	3,021	25.7
Kédougou	61.3	19.0	13.8	4.6	1.3	100.0	648	24.9
Sédhiou	38.0	38.3	20.0	2.2	1.4	100.0	2,540	21.0
Total	20.0	20.0	20.0	20.0	20.0	100.0	73,645	29.9

2.2 CHARACTERISTICS OF HOUSEHOLD MEMBERS

Structure by age and sex of the population

In the 7,902 households surveyed, 73,365 de facto residents (having spent the night before the survey in the house) were counted. Table 2.7 shows that the sex ratio is unbalanced, at 89 males per 100 female residents, indicating an under-representation of men compared with women. This sex ratio is consistent with previous surveys: 91 men per 100 women in the 1992-1993 survey, 89 per 100 in the 1997 survey, and 90 per 100 in the 2005 survey. This under-representation of men is partly the result of migration, which affects men more.

The shortage of men is more pronounced in rural than urban areas (sex ratio of 87 males per 100 females in rural areas compared with 92 per 100 in urban areas). In the 2005 survey this sex ratio was 87 males per 100 females in rural areas and 93 per 100 in urban areas.

In addition, the population is young: 45 percent are under age 15 and only 5 percent are over age 65. These results are consistent with previous surveys. The population age pyramid (Figure 2.2) has a broad base that tapers quickly as it rises toward older age groups, illustrating the youthfulness of this population. This form of a pyramid is characteristic of populations with high fertility and high mortality. However, it should be noted that there is a growing increase in the age of the population, as the portion of people under age 15 has been diminishing in recent years: at 48 percent of the population in the 1997 survey compared with 45 percent in the 2005 and 2010-2011 surveys. The decrease in the proportion under age 15 during the period 1997-2005 is more pronounced in urban areas (17.4 percentage points) than in rural areas (0.9 of a percentage point). In addition, this proportion has remained unchanged from 2005 to 2010-2011, in both urban areas (38 percent) and rural areas (50 percent).

Table 2.7 Household population by age, sex, and residence

Percent distribution of the *de facto* household population by five-year age groups, according to sex and residence, EDS-MICS, Senegal 2010-11

Age	Urban			Rural			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	14.8	13.1	13.9	21.1	17.4	19.1	18.2	15.5	16.8
5-9	12.7	11.8	12.2	19.2	16.2	17.6	16.3	14.3	15.2
10-14	11.8	11.5	11.7	14.4	13.0	13.6	13.2	12.3	12.8
15-19	10.8	10.4	10.6	9.4	8.9	9.2	10.1	9.6	9.8
20-24	10.2	10.5	10.4	6.2	8.2	7.3	8.1	9.2	8.7
25-29	8.5	8.6	8.6	4.8	6.8	5.9	6.5	7.6	7.1
30-34	6.9	6.9	6.9	4.0	5.7	4.9	5.3	6.2	5.8
35-39	4.9	5.7	5.3	3.5	4.7	4.2	4.1	5.2	4.7
40-44	3.9	4.4	4.2	3.3	3.5	3.4	3.6	3.9	3.8
45-49	3.0	3.0	3.0	2.5	2.5	2.5	2.7	2.7	2.7
50-54	3.1	4.3	3.7	2.5	4.2	3.4	2.8	4.2	3.5
55-59	2.5	2.9	2.7	1.9	2.3	2.1	2.2	2.6	2.4
60-64	1.8	2.0	1.9	2.1	2.0	2.0	2.0	2.0	2.0
65-69	1.2	1.3	1.2	1.3	1.3	1.3	1.2	1.3	1.3
70-74	1.4	1.2	1.3	1.6	1.6	1.6	1.5	1.5	1.5
75-79	0.6	0.7	0.6	0.8	0.6	0.7	0.7	0.6	0.7
80 +	0.8	1.0	0.9	1.0	0.9	1.0	0.9	0.9	0.9
DK/Missing	1.1	0.5	0.8	0.2	0.1	0.1	0.6	0.3	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	15,774	17,127	32,901	18,806	21,658	40,464	34,580	38,785	73,365

Note: The total includes 280 individuals for whom sex was not stated.

In addition, the age structure has few irregularities in each sex apart from the deficit in men noted above. For the female population, there is an increase in numbers at age 50-54, accompanied by a corresponding loss in the age 45-49 group. This is likely due to a transfer in numbers from the age 45-49 group to the age 50-54 group.

Figure 2.2
Population Pyramid
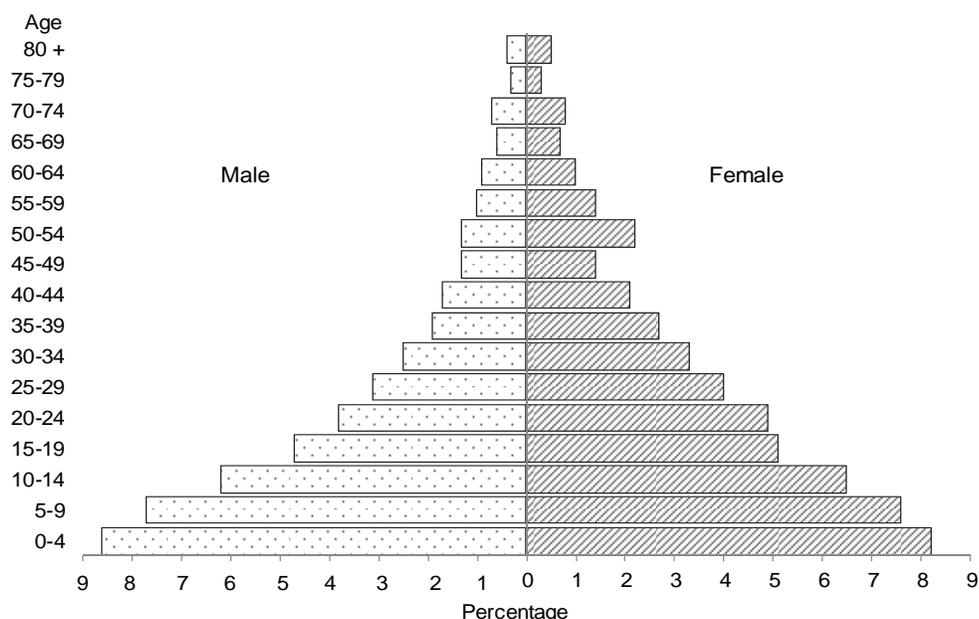
EDS-MICS 2010-11

Household size and composition

Table 2.8 shows that, overall, men head 75 percent of households in Senegal, and women head 25 percent. This proportion of female-headed households is higher in urban areas than in rural areas, at 32 percent compared with 18 percent. During the period 1992-2011 there was a gradual increase in the proportion of households headed by women, in both urban and rural areas. Overall between 1992-1993 and 1997, the level rose from 16 percent to 18 percent (an increase of 13 percent); between 1997 and 2005 it rose from 18 percent to 23 percent (an increase of 28 percent); and between 2005 and 2010-2011 it increased from 23 percent to 25 percent (an increase of 9 percent). In urban areas the proportion of households headed by women increased from 23 percent in 1992-1993 to 26 percent in 1997, and from 29 percent in 2005 to 32 percent in 2010-2011 (an increase of 39 percent between 1992-1993 and 2010-2011). In rural areas the increase was smaller, from 11 percent in 1992-93 to 13 percent in 1997, and from 17 percent in 2005 to 18 percent in 2010-2011. This significant increase in the proportion of households headed by women can be explained in large part by migration, which affects men more.

Table 2.8 also shows that Senegalese households are large, with a mean household size of 9.3 people. In 2005, this average size was 8.7 people. The dispersal around the mean is quite significant, since 43 percent of households have nine or more people. Rural households are larger than urban households (at an average of 10.1 and 8.5 persons, respectively). Household size of five persons or more is more common in rural than urban areas. Between 2005 and 2010-2011, there was an increase in the average size of households in both urban areas (from 7.8 to 8.5 persons) and rural areas (from 9.5 to 10.1 persons).

Table 2.8 Household composition

Percent distribution of households by sex of head of household and by household size, mean size of household, and percentage of households with orphans and foster children under age 18, according to residence, EDS-MICS, Senegal 2010-11

Characteristic	Residence		Total
	Urban	Rural	
Household headship			
Male	67.6	82.5	75.2
Female	32.4	17.5	24.8
Total	100.0	100.0	100.0
Number of usual members			
0	0.0	0.0	0.0
1	5.1	1.8	3.4
2	6.0	2.1	4.0
3	6.5	3.6	5.0
4	8.3	5.4	6.8
5	8.8	7.9	8.3
6	9.7	10.0	9.9
7	8.7	8.6	8.6
8	7.4	8.9	8.1
9+	39.5	51.7	45.8
Total	100.0	100.0	100.0
Mean size of household	8.5	10.1	9.3
Percentage of households with orphans and foster children under age 18			
Foster children[1]	33.4	42.5	38.1
Double orphans	1.6	1.7	1.6
Single orphans[2]	16.5	19.1	17.8
Foster and/or orphan children	37.9	48.0	43.1
Number of households	3,864	4,038	7,902

Note: Table is based on *de jure* household members, i.e., usual residents.
[1] Foster children are those under age 18 living in households with neither their mother nor their father present.
[2] Includes children with one dead parent and an unknown survival status of the other parent.

Table 2.8 also shows the proportion of households that include children under age 18 orphaned or living without their parents. Among households, 43 percent have children orphaned or living without their parents, and this proportion is higher in rural than in urban areas (48 percent compared with 38 percent). In 38 percent of cases, households include children living without their parents and, again, this proportion is higher in rural than in urban areas (43 percent versus 33 percent). Eighteen percent of households shelter single-parent orphans (one parent is deceased), a proportion that varies little according to residence. Finally, less than 2 percent of households have dual-parent orphans (both parents deceased), and this proportion is the same in both residential areas.

2.3 LEVEL OF EDUCATION AND SCHOOL ATTENDANCE

The survey collected information on the level of education and the last grade completed at this level for all persons age 6 and older in the household. The education of the population and especially women is an important element for improving the living conditions of households. Among other things, the level of education of household members affects reproductive behavior, the use of modern contraception, health behavior, hygiene habits, and nutrition.

Despite significant efforts by the government in education, the educational level of the population age 6 and older is still low, especially among women. In all, about half of men (48 percent) and nearly six of every

ten women (57 percent) have no education (Tables 2.9.1 and 2.9.2). Among both men and women, 3 percent have completed primary education, while 28 percent of men and 26 percent of women have some primary school. Only 1 percent of men and less than 1 percent of women reported having completed secondary education, while 15 percent of men and 11 percent of women have some secondary education.

Examination of the results by age shows a significant improvement in the level of schooling from the oldest to the most recent generations. The proportion of men with no education decreased from 81 percent among men age 65 and over, to 33 percent among boys age 10-14. For women, progress has been more rapid in recent years. The proportion with no education decreased from 94 percent among women age 65 and older to 41 percent among those age 15-19, and 31 percent among those age 10-14.

Table 2.9.1 Educational attainment of the female household population

Percent distribution of the *de facto* female household population age 6 and over by highest level of schooling attended or completed and median years completed, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number	Median years completed
Age										
6-9	46.8	52.7	0.0	0.3	0.0	0.0	0.2	100.0	4,443	0.0
10-14	30.7	53.3	4.9	10.5	0.0	0.0	0.5	100.0	4,785	2.3
15-19	40.9	19.3	3.8	35.0	0.1	0.1	0.6	100.0	3,726	3.4
20-24	52.9	19.7	2.7	19.4	1.5	2.9	0.9	100.0	3,570	0.0
25-29	59.8	20.7	4.2	8.8	1.6	3.7	1.2	100.0	2,957	0.0
30-34	62.6	19.1	4.4	9.3	0.7	3.1	0.9	100.0	2,422	0.0
35-39	67.7	16.4	4.5	7.8	0.8	1.8	1.0	100.0	2,004	0.0
40-44	73.6	10.0	4.1	8.1	0.9	2.8	0.5	100.0	1,519	0.0
45-49	74.5	10.2	3.6	9.3	0.8	1.4	0.2	100.0	1,052	0.0
50-54	81.1	7.9	1.9	6.2	0.9	1.0	1.0	100.0	1,643	0.0
55-59	78.8	7.2	3.0	8.7	0.7	0.9	0.7	100.0	997	0.0
60-64	84.5	4.9	2.9	5.2	0.8	1.0	0.7	100.0	766	0.0
65+	94.4	2.7	0.5	0.7	0.1	0.4	1.2	100.0	1,678	0.0
DK/missing	67.9	6.6	3.5	3.8	6.4	7.8	4.0	100.0	105	0.0
Residence										
Urban	38.7	32.0	4.8	19.3	1.3	2.9	1.0	100.0	14,430	1.9
Rural	71.6	21.2	1.8	4.8	0.1	0.1	0.5	100.0	17,238	0.0
Region										
Dakar	33.4	34.2	4.7	19.7	1.8	5.0	1.2	100.0	7,330	2.9
Ziguinchor	33.9	33.6	6.4	23.8	1.3	0.5	0.5	100.0	1,175	2.4
Diourbel	80.0	12.5	1.4	5.2	0.2	0.1	0.5	100.0	3,729	0.0
Saint-Louis	51.6	30.5	4.2	12.3	0.1	0.6	0.7	100.0	2,086	0.0
Tambacounda	68.0	24.7	2.1	4.9	0.0	0.1	0.1	100.0	1,503	0.0
Kaolack	61.1	26.2	2.5	9.4	0.2	0.2	0.4	100.0	2,469	0.0
Thiès	56.0	25.5	4.1	12.5	0.3	0.6	1.1	100.0	4,190	0.0
Louga	75.3	17.0	1.8	4.9	0.1	0.2	0.8	100.0	2,320	0.0
Fatick	54.6	30.8	1.5	12.1	0.3	0.2	0.6	100.0	1,672	0.0
Kolda	59.5	30.6	2.2	7.1	0.3	0.2	0.2	100.0	1,369	0.0
Matam	69.2	22.9	1.6	5.6	0.2	0.2	0.4	100.0	1,247	0.0
Kaffrine	78.6	15.4	1.7	3.6	0.4	0.0	0.3	100.0	1,277	0.0
Kédougou	54.6	35.5	1.6	7.2	0.0	0.0	1.0	100.0	263	0.0
Sédhiou	63.6	27.3	1.9	6.8	0.1	0.1	0.3	100.0	1,039	0.0
Wealth quintile										
Lowest	74.8	21.2	1.0	2.7	0.0	0.0	0.3	100.0	5,941	0.0
Second	69.1	22.9	1.7	5.6	0.0	0.0	0.5	100.0	6,202	0.0
Middle	58.8	26.5	3.4	10.2	0.2	0.1	0.6	100.0	6,281	0.0
Fourth	50.4	30.2	4.0	13.7	0.5	0.7	0.5	100.0	6,472	0.0
Highest	33.0	29.1	5.2	23.4	2.2	5.5	1.6	100.0	6,773	3.8
Total	56.6	26.1	3.1	11.4	0.6	1.4	0.7	100.0	31,668	0.0

[1] Completed 6 grades at the primary level.
[2] Completed 7 grades at the secondary level.

Table 2.9.2 Educational attainment of the male household population

Percent distribution of the de facto male household population age 6 and over by highest level of schooling attended or completed and median years completed, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Don't know/ missing	Total	Number	Median years completed
Age										
6-9	49.9	49.5	0.0	0.2	0.0	0.0	0.5	100.0	4,460	0.0
10-14	33.2	51.7	3.7	11.0	0.0	0.0	0.5	100.0	4,571	2.1
15-19	33.6	18.8	3.4	42.7	0.5	0.1	0.9	100.0	3,477	4.6
20-24	42.1	18.3	2.5	29.3	1.5	4.9	1.4	100.0	2,785	3.2
25-29	47.0	20.0	5.1	15.6	2.6	7.4	2.5	100.0	2,242	1.5
30-34	45.6	23.9	6.7	12.6	2.0	5.2	4.0	100.0	1,848	1.2
35-39	51.2	16.9	3.8	13.9	2.2	7.6	4.3	100.0	1,426	0.0
40-44	54.9	14.0	3.4	14.9	3.6	5.0	4.2	100.0	1,237	0.0
45-49	59.5	12.5	4.4	11.9	2.0	5.3	4.4	100.0	938	0.0
50-54	59.1	10.8	5.8	12.4	2.7	5.0	4.2	100.0	952	0.0
55-59	67.1	7.8	3.7	10.5	2.7	4.8	3.3	100.0	767	0.0
60-64	74.7	7.4	3.2	4.3	1.8	5.5	3.1	100.0	683	0.0
65+	80.5	5.0	2.5	4.5	1.1	3.1	3.3	100.0	1,520	0.0
DK/,missing	69.4	8.6	1.5	3.6	0.0	1.9	14.9	100.0	201	0.0
Residence										
Urban	29.1	31.7	5.0	23.2	2.2	5.6	3.2	100.0	13,008	3.6
Rural	64.6	23.7	1.6	8.3	0.3	0.4	1.1	100.0	14,099	0.0
Region										
Dakar	25.3	32.8	5.1	22.9	2.4	8.0	3.5	100.0	6,915	4.2
Ziguinchor	21.0	35.4	6.3	29.5	2.4	2.5	2.9	100.0	1,132	4.3
Diourbel	75.8	14.1	1.5	6.6	0.5	0.7	0.8	100.0	2,612	0.0
Saint-Louis	47.4	29.9	3.9	14.9	1.0	1.6	1.3	100.0	1,725	0.0
Tambacounda	62.9	25.8	1.8	8.3	0.4	0.5	0.3	100.0	1,419	0.0
Kaolack	53.7	26.2	2.2	14.5	0.2	1.3	1.9	100.0	1,901	0.0
Thiès	47.3	27.0	3.5	16.0	1.5	1.6	3.1	100.0	3,731	0.0
Louga	72.4	17.1	1.1	7.2	0.3	0.6	1.2	100.0	1,786	0.0
Fatick	43.2	35.7	2.0	15.0	0.4	1.7	2.0	100.0	1,465	0.2
Kolda	46.0	33.8	3.2	14.0	0.5	1.3	1.2	100.0	1,257	0.0
Matam	68.7	19.6	2.0	8.1	0.3	0.6	0.7	100.0	1,002	0.0
Kaffrine	76.0	15.5	1.5	6.0	0.4	0.4	0.3	100.0	1,045	0.0
Kédougou	32.3	49.6	1.6	13.9	0.6	0.6	1.3	100.0	229	1.1
Sédhiou	42.6	35.6	2.7	16.9	0.4	0.9	0.9	100.0	888	0.3
Wealth quintile										
Lowest	70.4	22.8	1.2	4.9	0.1	0.1	0.5	100.0	5,216	0.0
Second	60.8	26.4	1.7	9.4	0.2	0.3	1.2	100.0	5,137	0.0
Middle	48.8	29.1	3.2	15.7	0.6	0.9	1.7	100.0	5,518	0.0
Fourth	39.4	30.6	4.5	18.9	1.3	2.2	3.2	100.0	5,546	1.3
Highest	21.5	28.5	5.4	27.0	3.6	10.5	3.6	100.0	5,690	4.8
Total	47.6	27.5	3.2	15.4	1.2	2.9	2.1	100.0	27,106	0.0

[1] Completed 6 grades at the primary level.
[2] Completed 7 grades at the secondary level.

Similarly, in the younger generations the proportions of men and women who attended primary school are very much alike: at age 15-19, 23 percent of women and 22 percent of men reported having reached the primary level; at age 20-24 the corresponding figures for women and men are 22 percent and 21 percent. However, access to secondary education or more is still limited for women: at age 15-19, 35 percent of women compared with 43 percent of men had reached a secondary or higher level, and at age 20-24 these proportions are, respectively, 21 and 31 percent. The higher percentage of uneducated children at age 6-9 versus age 10-14 is explained by the fact that some children age 6-9 have not yet entered the school system.

In addition, for both women and men, the differences between the cities and countryside are vast. In urban areas 29 percent of men and 39 percent of women have no education, compared with, respectively, 65 percent and 72 percent in rural areas. Moreover, in urban areas the proportion of people who have reached a secondary or higher level of education is 31 percent for men and 24 percent for women, versus 9 percent for men and 5 percent for women in rural areas.

Disparities in education among the regions are also significant. The regions of Dakar and Ziguinchor are characterized by the lowest proportions of men and women without any education (at 25 percent of men and 33 percent of women for Dakar, and 21 percent of men and 34 percent of women for Ziguinchor). At the other extremen, in the region of Diourbel 76 percent of men and 80 percent of women have no education. It is followed by Kaffrine, where 76 percent of men and 79 percent of women have never been to school (Figure 2.3).

Figure 2.3
Proportion of women and men with no education
according to residence and region
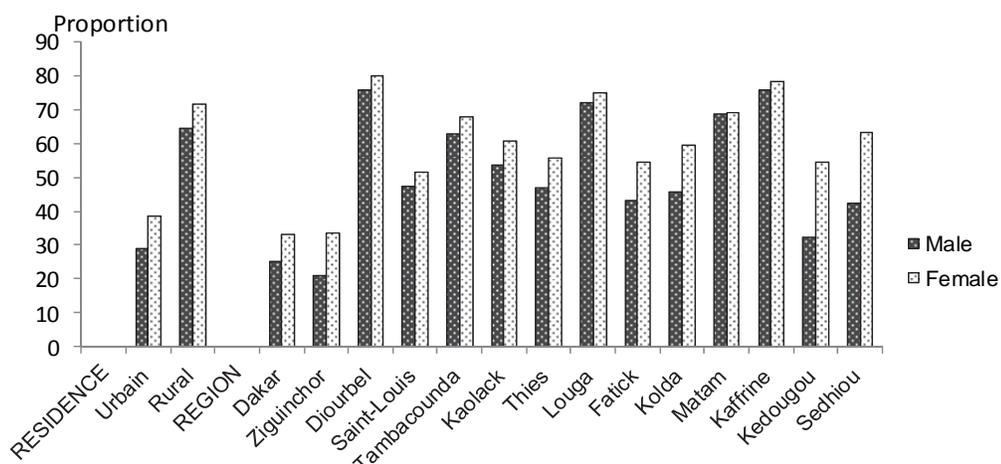
EDS-MICS 2010-11

Finally, education is positively correlated with the level of household wealth. The higher the level of wealth, the lower the proportion of people who have never been to school. For men, 70 percent in the poorest household wealth quintile have no education, compared with 22 percent in the richest; among women, these proportions are, respectively, 75 percent and 33 percent.

During the survey, questions regarding school attendance were also asked of all persons age 6-24. Table 2.10 shows the net and gross ratios of school attendance by level of education, sex, and selected background characteristics.

Table 2.10 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the *de facto* household population by sex and level of schooling; and the Gender Parity Index (GPI), according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Net attendance ratio[1]				Gross attendance ratio[2]			
	Male	Female	Total	Gender Parity Index[3]	Male	Female	Total	Gender Parity Index[3]
PRIMARY SCHOOL								
Residence								
Urban	71.2	73.3	72.2	1.03	96.9	100.1	98.5	1.03
Rural	41.3	45.9	43.6	1.11	60.9	66.5	63.7	1.09
Region								
Dakar	73.2	74.2	73.7	1.01	99.7	98.7	99.2	0.99
Ziguinchor	81.6	87.2	84.2	1.07	114.2	122.4	118.0	1.07
Diourbel	22.1	26.3	24.3	1.19	33.4	37.3	35.4	1.12
Saint-Louis	60.0	70.5	65.3	1.18	79.4	97.7	88.6	1.23
Tambacounda	43.4	51.5	47.2	1.19	59.0	70.5	64.4	1.19
Kaolack	47.7	56.1	52.1	1.17	71.9	81.5	76.9	1.13
Thiès	54.4	58.2	56.2	1.07	77.8	86.0	81.6	1.11
Louga	31.7	37.6	34.6	1.18	45.4	55.5	50.4	1.22
Fatick	61.1	64.1	62.5	1.05	88.4	96.2	92.1	1.09
Kolda	66.7	60.2	63.5	0.90	94.2	87.8	91.1	0.93
Matam	39.5	56.6	48.0	1.43	53.4	75.0	64.1	1.41
Kaffrine	27.3	33.9	30.8	1.24	42.5	44.5	43.6	1.05
Kédougou	80.6	80.0	80.3	0.99	111.0	107.4	109.3	0.97
Sédhiou	63.4	58.5	60.9	0.92	101.1	87.6	94.3	0.87
Wealth quintile								
Lowest	37.7	44.4	41.0	1.18	55.9	64.5	60.1	1.15
Second	47.7	52.0	49.8	1.09	69.2	74.7	71.9	1.08
Middle	54.6	57.7	56.1	1.06	79.4	83.7	81.5	1.05
Fourth	59.4	62.8	61.2	1.06	84.7	88.0	86.4	1.04
Highest	70.8	69.3	70.0	0.98	90.8	90.1	90.4	0.99
Total	52.3	56.1	54.2	1.07	74.2	79.0	76.5	1.06
MIDDLE SECONDARY SCHOOL								
Residence								
Urban	44.2	43.4	43.8	0.98	99.9	90.4	95.1	0.91
Rural	18.0	15.4	16.7	0.86	39.6	28.9	34.1	0.73
Region								
Dakar	42.7	42.2	42.5	0.99	95.9	84.7	90.3	0.88
Ziguinchor	51.6	46.6	49.2	0.90	150.8	143.3	147.2	0.95
Diourbel	13.8	13.8	13.8	1.00	29.9	30.8	30.4	1.03
Saint-Louis	35.1	36.7	35.9	1.05	60.7	61.4	61.0	1.01
Tambacounda	17.6	17.5	17.6	0.99	42.0	29.1	35.1	0.69
Kaolack	29.7	24.6	26.9	0.83	68.1	50.2	58.3	0.74
Thiès	32.4	31.6	32.0	0.98	65.1	63.5	64.4	0.98
Louga	16.2	18.0	17.2	1.11	35.0	28.6	31.3	0.82
Fatick	31.1	29.6	30.4	0.95	69.1	68.8	69.0	1.00
Kolda	29.8	18.0	23.6	0.60	70.4	35.9	52.2	0.51
Matam	15.4	21.0	18.1	1.37	29.8	30.9	30.3	1.04
Kaffrine	13.1	13.7	13.4	1.04	31.1	24.2	27.5	0.78
Kédougou	30.8	26.4	28.5	0.86	72.2	40.8	55.8	0.56
Sédhiou	21.9	16.7	19.4	0.76	70.4	34.5	52.9	0.49
Wealth quintile								
Lowest	12.9	9.5	11.1	0.74	26.6	17.4	21.8	0.65
Second	19.6	17.6	18.6	0.90	45.6	35.5	40.5	0.78
Middle	28.2	28.7	28.5	1.02	70.4	56.2	63.2	0.80
Fourth	36.3	34.2	35.2	0.94	75.1	65.9	70.3	0.88
Highest	54.3	51.6	52.9	0.95	119.3	112.1	115.6	0.94
Total	29.4	27.4	28.4	0.93	65.8	55.3	60.4	0.84

[1] The NAR for primary school is the percentage of the primary-school age population (age 6-11) that is attending primary school. The NAR for secondary school is the percentage of the secondary-school age population (are 12-16) that is attending secondary school. By definition the NAR cannot exceed 100 percent.

[2] The GAR for primary school is the total number of primary school students, expressed as a percentage of the official primary-school-age population. The GAR for secondary school is the total number of secondary school students, expressed as a percentage of the official secondary-school-age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100.0.

[3] The Gender Parity Index for primary school is the ratio of the primary school NAR (GAR) for females to the NAR (GAR) for males. The Gender Parity Index for secondary school is the ratio of the secondary school NAR (GAR) for females to the NAR (GAR) for males.

The net ratio of school attendance measures school attendance among children of official school age, 6-11 at the primary level and 12-16 at the middle secondary school level. The gross ratio of school attendance measures school attendance among young people of any age between 6 and 24. It is equivalent to the percentage of the population age 6-24 attending a given level in relation to the population of official school age for that level. For a given level of education, the gross ratio is almost always higher than the net *de facto* ratio of children older or younger than the normal age of this level and is included in the calculation. A net rate of 100 percent would signify that all children at the normal age for any given level of education are attending at this level; the gross ratio can exceed 100 percent if a significant number of either older or younger children compared with the normal age for school attendance at a given level are attending this level. The difference between these two ratios reflects school attendance by children too young or too old for a given school level.

Table 2.10 shows that, in all, more than half of children age 6-11 (54 percent) attended primary school. There is a slight difference in attendance between boys and girls (52 percent versus 56 percent). School attendance is much higher in urban areas (72 percent) than rural areas (44 percent). The regions of Ziguinchor (84 percent), Kédougou (80 percent) and Dakar (74 percent) are characterized by the highest net attendance ratios in primary school; ar the other extreme, Diourbel has the lowest level in the country, at 24 percent. In the region of Kolda the net ratio of school attendance is higher for boys than for girls (67 percent versus 60 percent), and also in Kédougou (81 percent versus 80 percent) and Sédhiou (63 percent versus 59 percent). In the other regions, however, the net ratio of attendance for girls is higher than for boys. The level of school attendance in primary school is positively correlated to the wealth level of the household: it rises from 41 percent for the poorest to 70 percent for the richest. The same trend can be observed among both boys and girls.

In all, about 77 of every 100 people at the official age for primary school attend this level. By gender, the gross female ratio (79 percent) is higher than that for boys (74 percent). In other words, there are more girls than boys that are too old compared with the official age who are attending primary school. By residence, the gross ratio of primary school attendance is higher in urban areas (99 percent) than rural areas (64 percent). The regions of Ziguinchor (118 percent), Kédougou (109 percent), and Dakar (99 percent) are characterized by the highest attendance ratios. With only 35 percent attendance, the region of Diourbel has the lowest ratio of primary school attendance. In Kédougou, Sédhiou, and Kolda, the gross ratio of school attendance is much higher for boys than for girls (111 percent versus 107 percent, 101 percent versus 88 percent, and 94 percent versus 88 percent, respectively).

Table 2.10 also shows that the level of middle secondary school attendance is low; only 28 percent of children age 12-16 are attending. This net ratio is much higher in urban areas than in rural areas (44 percent versus 17 percent). By region, it varies from 13 percent in Kaffrine to 49 percent in Ziguinchor. This net ratio is slightly higher for boys than for girls, regardless of the socioeconomic characteristics considered, except in Louga (18 percent for girls and 16 percent for boys), Matam (21 percent versus 15 percent), and Kaffrine (14 percent versus 13 percent), where the net ratio of school attendance is higher for girls than for boys. In Diourbel the same ratio is found for both girls and boys (14 percent).

The gross ratio of school attendance for the middle secondary school level is 60 percent, which means that of 100 people of official middle school age, only a little over half attend this secondary level. The higher value of the gross ratio compared to the net ratio indicates that a significant number of people who are not of secondary age nevertheless attend this level. The variation of this ratio according to residence is significant: 95 percent in urban areas compared with 34 percent in rural areas. Whatever the background characteristics considered, the gross ratio of secondary school attendance is higher for boys than for girls, except for Diourbel, Saint-Louis, and Matam, where the gross rate is slightly higher for girls than boys. The largest differences

between boys and girls are observed in the regions of Sédhiou (70 percent of boys versus 35 percent of girls), Kédougou (72 percent versus 41 percent) and Kolda (70 percent versus 36 percent).

Table 2.10 also shows the gender parity index, which is the ratio between the gross ratio of school attendance for women and men. The closer the parity index is to 1, the less the difference in school attendance between genders. An index of 1 indicates total equality. In Senegal the index is estimated at 1.06 for the primary level, showing that girls have an advantage academically. This advantage for girls at the primary level is maintained in all regions of the country except for Sédhiou (0.87), Kolda (0.93), Kédougou (0.99), and Dakar (0.99).

At the middle secondary school level, girls are at a disadvantage—the parity index is 0.82. The importance of this gender bias varies between rural and urban areas and among the regions. This index is lower in rural areas than in urban: 0.73 versus 0.91. It can be noted that this parity index is always lower than that for primary school; in the regions of Sédhiou, Kolda, and Kédougou, it is particularly low (0.49, 0.51, and 0.54, respectively). Finally, whatever the level, the index is always higher in the richest households than in the poorest ones. However, even in the wealthiest households, it is not equal to 1.

CHARACTERISTICS OF SURVEY RESPONDENTS   3

Abdou GUEYE and Dr. Moussa DIAKHATE

T his chapter focuses on the demographic characteristics of women age 15-49 and men age 15-59 interviewed in the EDS-MICS 2010-11. The survey made it possible to collect a variety of information about the respondents, such as age, place of residence, marital status, level of education, and literacy. Other information concerning access to the media, economic activity, medical coverage, chronic diseases, and tobacco consumption was also obtained.

3.1 BACKGROUND CHARACTERISTICS OF SURVEY RESPONDENTS

Age is a fundamental variable in demographic analysis and is one of the most difficult pieces of information to obtain accurately, when written records of events (including vital civil status events) are not yet rooted in the habits of some populations, as is the case in Senegal. Therefore, particular attention was given to estimates of age at the time of the survey. Table 3.1 shows that the distributions of women age 15-49 and men age 15-49 by five-year age groups have a fairly regular appearance, with the proportions of each age group decreasing steadily with increasing age. Women go from 22 percent of the sample at age 15-19 to 6 percent at age 45-49. For men, the proportions vary from 27 percent at age 15-19 to 6 percent at age 45-49.

Questions about marital status were asked of all women and all men eligible for the survey. As part of the EDS-MICS 2010-11, all women and men legally married as well as all those living in consensual union were considered to be in union. According to this definition, nearly three in every ten women (29 percent) are single (never-married), two-thirds (66 percent) are in union, and 5 percent are no longer in union (divorced, separated, or widowed). Among men, more than three in every five are single (62 percent), 36 percent are in union, and less than 2 percent are no longer in union.

Half of women (49 percent) and 56 percent of men interviewed reside in urban areas. More than one in every four (26 percent) and nearly one in three (31 percent) live in the Dakar region. Approximately 13 percent of men and an equal percentage of women in the sample were interviewed in the region of Thiès. Kédougou region has the lowest portion of the survey sample (less than 1 percent of the weighted sample for each sex).

Table 3.1 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	21.9	3,429	3,604	26.5	1,170	1,263
20-24	20.5	3,220	3,169	20.3	897	885
25-29	17.5	2,746	2,700	15.9	701	642
30-34	13.7	2,148	2,114	12.3	545	511
35-39	11.6	1,817	1,788	9.9	438	417
40-44	8.8	1,379	1,349	8.7	383	377
45-49	6.1	949	964	6.4	284	319
Religion						
Muslim	95.4	14,967	14,968	95.1	4,199	4,196
Christian	4.2	656	625	4.7	206	199
Animist	0.4	61	88	0.2	10	14
No religion	0.0	3	4	0.0	0	0
Other	0.0	1	3	0.1	3	5
Ethnic group						
Wolof	38.7	6,066	5,171	38.2	1,686	1,377
Poular	26.5	4,164	4,934	27.0	1,191	1,434
Serer	15.0	2,353	2,000	14.4	634	528
Mandingue	4.2	652	1,032	6.1	271	386
Diola	4.0	634	748	4.4	194	255
Soninke	2.3	362	364	2.3	102	84
Other/non-Senegalese	9.3	1,458	1,439	7.7	340	350
Marital status						
Never married	29.2	4,585	4,182	62.0	2,738	2,680
Married	65.3	10,237	10,705	36.0	1,589	1,663
Living together	0.7	110	99	0.4	19	8
Divorced/separated	3.8	589	525	1.4	64	55
Widowed	1.1	168	177	0.2	7	8
Residence						
Urban	49.3	7,738	6,192	55.8	2,467	1,885
Rural	50.7	7,950	9,496	44.2	1,951	2,529
Region						
Dakar	26.0	4,078	1,357	31.3	1,381	450
Ziguinchor	3.7	581	946	4.8	210	350
Diourbel	11.8	1,851	1,426	8.0	354	286
Saint-Louis	6.6	1,034	1,089	6.0	266	294
Tambacounda	4.6	725	1,134	4.8	214	327
Kaolack	7.5	1,172	1,400	7.2	317	389
Thies	12.9	2,030	1,316	12.8	565	366
Louga	7.2	1,130	1,267	5.9	262	291
Fatick	4.6	717	1,056	4.6	204	313
Kolda	4.1	640	1,085	4.5	198	342
Matam	3.8	595	1,034	3.4	152	247
Kaffrine	3.6	572	1,035	3.2	141	278
Kedougou	0.7	115	494	0.8	34	170
Sedhiou	2.9	448	1,049	2.7	120	311
Education						
No education	57.9	9,079	9,756	36.9	1,632	1,794
Primary	21.8	3,414	3,130	28.5	1,261	1,174
Secondary	18.3	2,871	2,658	30.9	1,363	1,333
More than secondary	2.1	323	144	3.7	162	113
Wealth quintile						
Lowest	16.5	2,585	3,723	15.1	665	1,017
Second	17.9	2,805	3,581	15.6	688	939
Middle	19.9	3,114	3,561	20.6	908	1,072
Fourth	22.3	3,494	2,724	23.1	1,019	789
Highest	23.5	3,689	2,099	25.7	1,137	597
Total 15-49	100.0	15,688	15,688	100.0	4,417	4,414
50-59	na	na	na	na	512	515
Number 15-59	na	na	na	na	4,929	4,929

Note: Education categories refer to the highest level of education attended, whether or not that level was completed.
na = Not applicable

Distribution by level of education shows that about six in every ten women (58 percent) and nearly four in ten men (37 percent) have no education; more than one in every five women (22 percent) and almost three men in ten (29 percent) have a primary level education. Only 20 percent of women have a secondary level or higher. Among men the proportion with secondary education or more is almost double that of women, at 35 percent.

Table 3.1 also shows the distribution of women and men by level of household wealth. Among women, 17 percent live in a household in the poorest wealth quintile, while the proportion is somewhat lower for men (15 percent). At the other extreme, about a quarter of women (24 percent) and a slightly higher proportion of men (26 percent) live in households in the richest wealth quintile.

Regarding religion, 95 percent of respondents are Muslim, while 4 percent are Christian.

As for the distribution of the population according to ethnicity, three groups emerge: the Wolof (39 percent of women and 38 percent of men); the Poular (27 percent of women and men); and the Serer (15 percent of women and 14 percent of men). Then there are the Mandingue (4 percent of women and 6 percent of men), Diola (4 percent of women and men), and Soninké (2 percent of women and men). Other ethnic groups and foreigners in Senegal are a total of 9 percent of women and 8 percent of men.

3.2　LEVEL OF EDUCATION BY BACKGROUND CHARACTERISTICS

Table 3.1 presents the level of education of all women and all men. Tables 3.2.1 and 3.2.2 show the distribution of respondents by level of education attained by women and men, for different socio-demographic characteristics of respondents. The proportion of women with no formal education (58 percent) is much higher than for men (39 percent). The proportion of men with primary school education (27 percent) is slightly higher than for women (22 percent). The proportion of men with secondary education or more (33 percent) is significantly higher than for women (20 percent).

Among both women and men, the level of education generally improves from the oldest generations to the most recent ones. The proportion of women without any education declines with age, from 77 percent among women age 45-49 to 40 percent among women age 15-19. Conversely, the proportion of women with secondary education rises from 9 percent at age 40 or more to 30 percent at age 15-24. The proportion of women having secondary education or more varies from 10 percent for those age 45-49 to 38 percent for those age 15-19. Among men, this same generational effect appears: the proportion without any education drops from 60 percent for those age 50-59 to 24 percent for those age 15-19. Concerning education at the secondary level or more, for men the proportions vary from 13 percent at age 45-49 to 49 percent at age 15-19.

Table 3.2.1 Educational attainment: women

Percent distribution of women age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristics	Highest level of schooling						Total	Median years completed	Number of women
	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary			
Age									
15-24	46.4	19.5	2.9	29.0	1.0	1.4	100.0	2.0	6,648
15-19	40.0	18.8	3.5	37.2	0.4	0.2	100.0	3.9	3,429
20-24	53.1	20.2	2.2	20.2	1.5	2.7	100.0	a	3,220
25-29	61.0	21.0	4.2	9.3	1.0	3.5	100.0	a	2,746
30-34	63.4	19.0	4.6	10.0	0.8	2.2	100.0	a	2,148
35-39	66.7	18.0	4.1	7.6	1.1	2.5	100.0	a	1,817
40-44	74.2	10.8	4.0	8.4	0.5	2.2	100.0	a	1,379
45-49	76.6	9.8	3.3	8.3	0.6	1.5	100.0	a	949
Residence									
Urban	37.5	24.8	4.9	27.1	1.6	4.1	100.0	4.2	7,738
Rural	77.7	11.7	2.4	8.0	0.2	0.1	100.0	a	7,950
Region									
Dakar	33.3	27.9	4.0	26.3	2.0	6.5	100.0	4.3	4,078
Ziguinchor	25.3	22.3	7.5	41.5	2.5	0.9	100.0	5.3	581
Diourbel	79.0	9.0	2.3	9.2	0.3	0.3	100.0	a	1,851
Saint-Louis	56.8	20.3	4.0	17.3	0.6	1.0	100.0	a	1,034
Tambacounda	77.3	12.6	2.0	7.9	0.2	0.1	100.0	a	725
Kaolack	65.7	15.3	3.7	14.6	0.5	0.3	100.0	a	1,172
Thiès	55.9	17.7	6.4	18.3	0.7	1.0	100.0	a	2,030
Louga	78.2	12.1	1.8	7.2	0.4	0.3	100.0	a	1,130
Fatick	59.3	16.5	2.2	21.2	0.3	0.5	100.0	a	717
Kolda	67.6	17.5	2.2	11.8	0.4	0.4	100.0	a	640
Matam	75.8	13.7	1.7	8.5	0.1	0.3	100.0	a	595
Kaffrine	83.4	7.2	2.2	6.3	0.7	0.2	100.0	a	572
Kédougou	64.6	22.0	0.8	12.7	0.0	0.0	100.0	a	115
Sédhiou	70.5	13.4	2.7	13.1	0.1	0.2	100.0	a	448
Wealth quintile									
Lowest	84.8	9.4	1.2	4.6	0.0	0.0	100.0	a	2,585
Second	76.5	11.8	2.0	9.6	0.1	0.0	100.0	a	2,805
Middle	61.2	17.9	4.1	16.2	0.4	0.2	100.0	a	3,114
Fourth	49.9	23.3	5.1	20.1	0.7	1.0	100.0	a	3,494
Highest	29.6	24.6	4.6	30.8	2.8	7.7	100.0	4.8	3,689
Total	57.9	18.2	3.6	17.4	0.9	2.1	100.0	a	15,688

[1] Completed 6 grade at the primary level.
[2] Completed 7 grade at the secondary level.
a = Omitted because less than 50 percent of women have no formal education.

Table 3.2.2 Educational attainment: men

Percent distribution of men age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristics	No education	Some primary	Completed primary[1]	Some secondary	Completed secondary[2]	More than secondary	Total	Median years completed	Number of women
Age									
15-24	27.1	25.6	1.5	41.8	1.4	2.6	100.0	4.7	2,067
15-19	23.8	25.5	1.6	48.4	0.4	0.3	100.0	5.1	1,170
20-24	31.4	25.7	1.3	33.2	2.7	5.7	100.0	4.4	897
25-29	42.0	31.7	2.9	17.1	2.0	4.2	100.0	2.7	701
30-34	37.8	32.3	4.8	18.5	2.3	4.4	100.0	4.1	545
35-39	44.4	25.0	3.1	18.5	2.1	6.9	100.0	2.3	438
40-44	50.6	16.9	1.2	23.8	3.9	3.6	100.0	-	383
45-49	64.4	18.6	4.3	8.1	1.0	3.6	100.0	-	284
Residence									
Urban	20.3	30.1	3.0	38.0	2.9	5.8	100.0	5.0	2,467
Rural	58.0	21.1	1.7	17.6	0.6	1.0	100.0	a	1,951
Region									
Dakar	18.3	32.1	2.7	36.4	2.8	7.6	100.0	5.0	1,381
Ziguinchor	13.8	19.9	4.5	52.2	6.1	3.4	100.0	7.5	210
Diourbel	66.4	16.0	2.0	12.6	1.5	1.4	100.0	a	354
Saint-Louis	39.9	27.3	5.0	23.3	2.4	2.2	100.0	2.8	266
Tambacounda	56.0	24.3	2.6	14.1	0.7	2.5	100.0	a	214
Kaolack	46.7	20.9	0.8	29.8	0.7	1.1	100.0	1.1	317
Thiès	34.1	30.1	1.6	31.6	0.9	1.7	100.0	3.9	565
Louga	60.3	20.7	1.5	15.5	0.4	1.6	100.0	a	262
Fatick	33.1	25.8	2.7	33.9	0.5	4.0	100.0	4.3	204
Kolda	43.3	22.5	1.7	28.5	1.6	2.3	100.0	2.6	198
Matam	60.6	19.0	0.6	17.5	1.1	1.1	100.0	a	152
Kaffrine	62.7	18.7	2.9	13.8	1.4	0.5	100.0	a	141
Kédougou	30.9	32.5	7.0	26.9	1.8	0.9	100.0	4.0	34
Sédhiou	38.3	27.7	1.8	30.7	0.8	0.7	100.0	4.0	120
Wealth quintile									
Lowest	67.2	19.5	1.6	11.2	0.2	0.3	100.0	a	665
Second	54.3	24.8	1.5	18.5	0.5	0.6	100.0	a	688
Middle	37.8	26.5	2.5	30.7	1.2	1.3	100.0	3.7	908
Fourth	29.5	30.5	3.3	32.0	1.9	2.8	100.0	4.4	1,019
Highest	14.8	26.6	2.6	41.7	4.1	10.2	100.0	6.9	1,137
Total 15-49	36.9	26.1	2.4	29.0	1.9	3.7	100.0	4.0	4,417
50-59	60.3	14.1	4.1	14.5	1.0	6.0	100.0	a	512
Total 15-59	39.4	24.9	2.6	27.5	1.8	3.9	100.0	3.6	4,929

[1] Completed 6 grade at the primary level.
[2] Completed 7 grade at the secondary level.
a = Omitted because less than 50 percent of women have no formal education.

In addition, the level of education of respondents varies according to place of residence. Among both women and men, the proportions of educated women and men are higher in urban than rural areas. Only 38 percent of women and 20 percent of men in urban areas have no education, compared with 78 percent of women and 58 percent of men in rural areas.

The results for educational attainment according to region of residence also show large disparities. The proportion of women with no education is particularly high in the regions of Kaffrine, Diourbel, Louga, Tambacounda, Matam, and Sédhiou, varying between 70 percent and 83 percent. Among men, the highest proportion of those who have not gone to school is found in Diourbel, Kaffrine, Matam, and Louga, varying from 60 percent to 66 percent. At the other extreme, Dakar and Ziguinchor are the two most educated regions. Only 14 percent of men and 25 percent of women in Ziguinchor, as well as 18 percent of men and 33 percent of women in Dakar, have no education.

This table also shows a positive relationship between the level of eduation and the level of household wealth: the proportions of men and women without education decrease from the poorest households to the wealthiest.

In the remainder of the report, the level of education will include three terms that are defined below:

- No level: those who have never been to school

- Primary level: the levels "primary incomplete" and "primary completed" will be grouped into a single category of those who attended primary school but did not enter the secondary level

- Secondary level or higher: those who have levels "secondary incomplete," "secondary completed," or higher

3.3 LITERACY

During the survey, apart from the questions on the last grade completed and the level of education attained, respondents who had no education and those who reported not having reached the primary level were asked to read a sentence in national languages. The sentence was prepared in advance of the interview and was held up by survey staff members. Three responses were possible: "can read the whole sentence," "can read a part of the sentence," or, "cannot read at all". The responses provide a measure of the level of literacy among respondents. Respondents who had an education at the secondary level or more were automatically considered literate and were not affected by this issue. Table 3.3.1, for women, and 3.3.2, for men, as well as Figure 3.1, present the results.

Nearly four women in every ten (38 percent) and nearly six men in every ten (59 percent) are considered literate. In other words, overall, the proportion of illiterate women in Senegal is almost one and a half times higher than the proportion of illiterate men (62 percent versus 41 percent).

Comparing Tables 3.2.1 and 3.3.1 shows that the proportion of women who cannot read at all is greater than the proportion who have never attended school (62 percent versus 58 percent). This difference indicates that some women who attended school did not learn enough to be able to read and write, or after leaving school became illiterate again, having forgotten what they had learned (functional illiteracy).

The proportion of literate women and men varies significantly by place of residence. In urban areas 56 percent of women and 73 percent of men are literate, compared with 21 percent of women and 43 percent of men in rural areas.

Examining the results by region highlights geographic disparities in literacy levels. As mentioned above concerning schooling, among both women and men, two regions have the highest proportions of literate adults—Dakar (60 percent of women and 75 percent of men) and Ziguinchor (64 percent of women and 82 percent of men). Apart from these two regions, the two regions with the highest proportions of literate adults are Thiès (40 percent of women and 64 percent of men) and Saint Louis (36 percent of women and 60 percent of men).

By household wealth quintiles, as expected, the proportions of women and men who are literate increase from the poorest households to the richest. For example, the percentage of literate women rises from 14 percent in the poorest quintile to 65 percent in the richest. For men, the corresponding percentages are 28 percent for the poorest quintile and 83 percent for the richest.

Table 3.3.1 Literacy: women

Percent distribution of women age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Secondary school or higher	No schooling or primary school					Total	Percentage literate[1]	Number of women
		Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/ visually impaired			
Age									
15-24	31.3	8.4	9.1	51.1	0.1	0.0	100.0	48.8	6,648
15-19	37.7	9.1	7.7	45.3	0.1	0.0	100.0	54.6	3,429
20-24	24.4	7.6	10.7	57.2	0.0	0.0	100.0	42.7	3,220
25-29	13.9	9.2	9.9	66.9	0.2	0.0	100.0	32.9	2,746
30-34	13.0	10.5	8.7	67.4	0.1	0.2	100.0	32.2	2,148
35-39	11.2	8.1	9.0	71.7	0.0	0.0	100.0	28.3	1,817
40-44	11.0	7.9	6.5	74.5	0.1	0.0	100.0	25.4	1,379
45-49	10.4	5.1	7.9	76.4	0.0	0.3	100.0	23.4	949
Residence									
Urban	32.8	11.4	11.3	44.4	0.1	0.1	100.0	55.5	7,738
Rural	8.3	5.8	6.6	79.3	0.1	0.0	100.0	20.6	7,950
Region									
Dakar	31.3	8.4	9.1	51.1	0.1	100	100.0	59.6	4,078
Ziguinchor	37.7	9.1	7.7	45.3	0.1	100	100.0	63.7	581
Diourbel	24.4	7.6	10.7	57.2	0	100	100.0	20.3	1,851
Saint-Louis	13.9	9.2	9.9	66.9	0.2	100	100.0	36.2	1,034
Tambacounda	13.0	10.5	8.7	67.4	0.1	100	100.0	16.9	725
Kaolack	11.2	8.1	9.0	71.7	0	100	100.0	31.8	1,172
Thiès	11.0	7.9	6.5	74.5	0.1	100	100.0	40.2	2,030
Louga	10.4	5.1	7.9	76.4	0	100	100.0	22.7	1,130
Fatick	31.3	8.4	9.1	51.1	0.1	100	100.0	39.0	717
Kolda	12.7	6.9	6.7	73.6	0.1	0.0	100.0	26.3	640
Matam	8.9	5.3	7.4	78.3	0.0	0.1	100.0	21.6	595
Kaffrine	7.2	2.5	6.8	83.4	0.1	0.0	100.0	16.5	572
Kédougou	12.7	4.3	5.8	77.3	0.0	0.0	100.0	22.7	115
Sédhiou	13.3	6.0	6.7	73.9	0.0	0.0	100.0	26.1	448
Wealth quintile									
Lowest	4.6	3.7	5.7	86.0	0.1	0.0	100.0	14.0	2,585
Second	9.6	5.3	6.1	78.9	0.0	0.1	100.0	21.0	2,805
Middle	16.9	8.1	8.0	66.9	0.2	0.1	100.0	32.9	3,114
Fourth	21.7	11.1	11.6	55.3	0.1	0.1	100.0	44.5	3,494
Highest	41.2	12.4	11.5	34.9	0.0	0.0	100.0	65.1	3,689
Total	20.4	8.6	8.9	62.1	0.1	0.1	100.0	37.8	15,688

[1] Refers to women who attended secondary school or higher and women who can read a whole sentence or part of a sentence.

Percent distribution of men age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Secondary school or higher	No schooling or primary school					Total	Percentage literate[1]	Number of men
		Can read a whole sentence	Can read part of a sentence	Cannot read at all	No card with required language	Blind/ visually impaired			
Age									
15-24	45.8	8.6	11.2	33.9	0.4	0.1	100.0	65.7	2,067
15-19	49.0	8.4	9.8	32.2	0.5	0.1	100.0	67.2	1,170
20-24	41.6	8.9	13.1	36.1	0.3	0.0	100.0	63.6	897
25-29	23.4	12.3	21.5	42.4	0.4	0.0	100.0	57.2	701
30-34	25.2	16.7	18.7	38.8	0.6	0.0	100.0	60.6	545
35-39	27.5	14.9	13.3	43.9	0.5	0.0	100.0	55.7	438
40-44	31.3	10.9	11.3	45.8	0.7	0.0	100.0	53.5	383
45-49	12.7	15.0	12.8	58.7	0.4	0.3	100.0	40.6	284
Residence									
Urban	46.6	13.9	12.9	26.5	0.1	0.0	100.0	73.4	2,467
Rural	19.2	8.3	15.6	55.9	0.9	0.1	100.0	43.1	1,951
Region									
Dakar	46.8	15.6	12.3	25.3	0.0	0.0	100.0	74.7	1,381
Ziguinchor	61.7	10.6	10.1	17.6	0.0	0.0	100.0	82.4	210
Diourbel	15.6	6.0	21.3	57.1	0.0	0.0	100.0	42.9	354
Saint-Louis	27.8	17.6	14.6	39.2	0.4	0.4	100.0	60.1	266
Tambacounda	17.2	8.5	11.9	62.3	0.0	0.0	100.0	37.7	214
Kaolack	31.6	6.7	16.7	44.8	0.3	0.0	100.0	54.9	317
Thiès	34.2	9.9	19.6	35.8	0.2	0.3	100.0	63.7	565
Louga	17.5	11.3	19.5	51.6	0.0	0.0	100.0	48.4	262
Fatick	38.5	11.6	4.3	44.9	0.8	0.0	100.0	54.4	204
Kolda	32.5	5.1	13.7	48.3	0.4	0.0	100.0	51.3	198
Matam	19.7	6.3	5.6	68.4	0.0	0.0	100.0	31.6	152
Kaffrine	15.7	14.4	6.6	52.4	10.8	0.0	100.0	36.8	141
Kédougou	29.6	10.7	12.9	46.8	0.0	0.0	100.0	53.2	34
Sédhiou	32.3	4.6	16.0	47.2	0.0	0.0	100.0	52.8	120
Wealth quintile									
Lowest	11.7	5.4	11.0	71.1	0.7	0.0	100.0	28.2	665
Second	19.5	7.9	17.7	54.3	0.6	0.0	100.0	45.1	688
Middle	33.2	10.4	15.5	40.1	0.8	0.0	100.0	59.1	908
Fourth	36.7	15.1	14.0	33.7	0.4	0.1	100.0	65.8	1,019
Highest	56.0	14.5	12.7	16.7	0.0	0.1	100.0	83.3	1,137
Total 15-49	34.5	11.4	14.1	39.5	0.5	0.1	100.0	60.0	4,417
50-59	21.5	9.7	16.3	51.2	0.2	1.2	100.0	47.4	512
Total 15-59	33.2	11.2	14.3	40.7	0.4	0.2	100.0	58.7	4,929

[1] Refers to men who attended secondary school or higher and women who can read a whole sentence or part of a sentence.

Figure 3.1
Percentage of women and men age 15–49 literate

	Men	Women
SENEGAL	60	38
RESIDENCE		
Urban	73	56
Rural	43	21
WEALTH QUINTILE		
Lowest	28	14
Second	45	21
Middle	59	33
Fourth	66	45
Highest	83	65

Percentage

☐ Men ■ Women
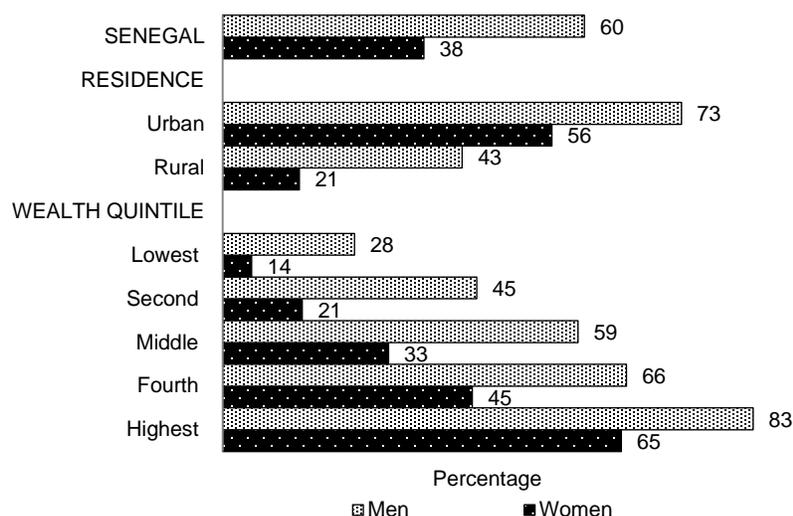
EDS-MICS 2010-11

3.4 EXPOSURE TO MEDIA

Data on the exposure of women and men to media are particularly important for the development of educational programs and dissemination of information in all fields, especially health and family planning. Tables 3.4.1 and 3.4.2 present data on exposure to media among women and men.

The proportion of women with no exposure to media is almost double that of men (20 percent versus 11 percent). Radio[1] and television[2] are the main media reaching the respondents. More than six in every ten women (63 percent for radio and 62 percent for television) reported listening to the radio and watching television at least once a week, as did more than seven in every ten men (73 percent for television and 75 percent for radio). Men were twice as likely as women to report reading newspapers regularly, however. Only 12 percent of women compared with 24 percent of men said that they read a newspaper at least once a week. Only 10 percent of women and 22 percent of men reported weekly exposure to all three media: radio, television, and newspapers. Among both women and men, levels of exposure to media differ little by age group.

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[1] 74 percent of households in Senegal own a radio (see Table 2.5).
[2] 52 percent own a television (see Table 2.5).

Table 3.4.1 Exposure to mass media: women

Percentage of women age 15-49 who are exposed to specific media on a weekly basis by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of women
Age						
15-19	15.5	66.0	61.7	11.0	18.9	3,429
20-24	14.5	65.2	64.9	11.3	17.7	3,220
25-29	11.8	62.4	64.7	10.4	19.7	2,746
30-34	10.7	62.0	62.9	8.8	21.3	2,148
35-39	10.4	57.9	62.7	8.6	21.8	1,817
40-44	9.6	56.1	59.7	7.9	24.4	1,379
45-49	7.9	56.2	60.7	7.3	24.2	949
Residence						
Urban	22.4	87.9	69.3	18.3	6.9	7,738
Rural	2.7	37.3	56.7	1.7	33.3	7,950
Region						
Dakar	31.6	91.7	69.1	25.4	4.2	4,078
Ziguinchor	5.8	64.9	60.9	4.7	21.2	581
Diourbel	3.8	60.7	58.4	3.3	24.6	1,851
Saint-Louis	9.1	57.6	50.0	6.6	28.5	1,034
Tambacounda	1.7	24.4	33.1	1.1	58.9	725
Kaolack	7.8	48.4	69.1	6.2	20.6	1,172
Thiès	8.3	75.2	78.0	7.0	7.2	2,030
Louga	4.6	49.5	65.3	3.3	22.9	1,130
Fatick	7.3	44.6	54.2	4.6	32.0	717
Kolda	3.7	29.1	58.0	2.6	34.4	640
Matam	2.5	44.3	53.1	1.8	33.4	595
Kaffrine	6.4	27.5	57.3	4.9	38.0	572
Kédougou	2.6	28.5	49.5	1.6	39.3	115
Sédhiou	2.3	32.3	60.1	1.7	33.2	448
Education						
No education	0.4	48.0	58.5	0.3	28.1	9,079
Primary	12.4	77.8	66.7	9.8	11.9	3,414
Secondary or more	46.7	86.2	71.4	37.2	7.0	3,195
Wealth quintile						
Lowest	1.2	6.0	41.8	0.1	55.9	2,585
Second	1.9	21.2	56.6	0.9	37.3	2,805
Middle	4.6	73.7	64.1	3.5	14.0	3,114
Fourth	13.1	91.5	69.0	10.6	4.8	3,494
Highest	34.2	95.6	75.7	28.4	2.2	3,689
Total	12.4	62.3	62.9	9.9	20.3	15,688

There are significant differences in exposure to media by place of residence. In rural areas the proportion of women with no exposure to any media (33 percent) far exceeds the proportion in urban areas (7 percent). Among men the gap is also wide, at 20 percent with no exposure to media in rural areas compared with 3 percent in urban areas.

Results by region also show disparities. The proportion of women who have no access to media is low in Dakar and Thiès (4 percent and 7 percent, respectively). In some regions, however, the proportion with no media exposure is high: 59 percent in Tambacounda, 39 percent in Kédougou, and 38 percent in Kaffrine. Among men, the proportion with no access to media varies from 3 percent in Dakar to 31 percent in Fatick.

In addition, the level of education seems to influence significantly the level of media exposure. Whether among women or men, those having secondary education or more are most likely to have weekly exposure to all three media: 37 percent of women and 47 percent of men, compared with 10 percent of women and 17 percent of men having only a primary education. In addition, 28 percent of women with no education are not exposed to any media, compared with 7 percent of women with a secondary or higher level. Similarly, 18 percent of men with no education have no exposure to media compared with 4 percent of men with secondary education or more.

Table 3.4.2 Exposure to mass media: men

Percentage of men age 15-49 who are exposed to specific media on a weekly basis by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Reads a newspaper at least once a week	Watches television at least once a week	Listens to radio at least once a week	Accesses all three media at least once a week	Accesses none of the three media at least once a week	Number of men
Age						
15-19	16.4	75.2	57.0	13.2	14.5	1,170
20-24	24.9	79.8	74.8	22.2	9.0	897
25-29	27.1	76.5	79.2	24.9	9.0	701
30-34	28.1	75.2	86.0	27.0	8.3	545
35-39	34.3	70.1	82.3	29.8	8.1	438
40-44	28.4	71.7	82.8	27.4	9.3	383
45-49	17.3	60.2	75.8	15.0	14.2	284
Residence						
Urban	38.3	92.8	77.1	34.4	3.3	2,467
Rural	6.3	51.5	69.3	5.4	19.9	1,951
Region						
Dakar	48.4	93.0	77.7	44.3	2.9	1,381
Ziguinchor	14.2	77.2	83.3	13.1	6.6	210
Diourbel	12.0	66.7	69.1	9.0	16.8	354
Saint-Louis	21.9	76.5	79.8	18.1	6.7	266
Tambacounda	7.3	56.8	63.2	7.0	19.4	214
Kaolack	9.5	62.7	86.0	8.8	8.1	317
Thiès	22.6	84.8	71.2	20.0	6.4	565
Louga	12.9	50.5	66.7	10.1	23.2	262
Fatick	8.4	56.6	47.0	7.3	30.7	204
Kolda	5.7	52.1	82.7	5.4	13.3	198
Matam	10.2	65.6	67.6	9.1	15.8	152
Kaffrine	4.2	44.3	49.1	2.7	31.1	141
Kédougou	16.8	59.4	89.7	14.3	5.8	34
Sédhiou	3.7	63.7	85.9	3.7	12.8	120
Education						
No education	2.2	55.9	69.6	2.0	18.2	1,632
Primary	18.2	79.6	73.6	16.6	8.7	1,261
Secondary or more	52.5	90.4	78.0	46.7	4.2	1,525
Wealth quintile						
Lowest	1.2	23.3	62.8	0.7	32.8	665
Second	4.2	49.0	68.7	3.1	19.8	688
Middle	12.1	84.8	73.0	10.8	6.4	908
Fourth	27.9	93.4	75.1	25.2	3.0	1,019
Highest	55.9	95.0	82.3	50.4	2.4	1,137
Total 15-49	24.1	74.6	73.7	21.6	10.6	4,417
Men 50-59	24.9	57.3	81.5	21.4	12.5	512
Total 15-59	24.2	72.8	74.5	21.6	10.8	4,929

There is also a positive relationship between the level of household wealth and media exposure. Men and women living in the richest households are most likely to have weekly exposure to all three media: 50 percent of men and 28 percent of women, compared with only 1 percent of men and 0 percent of women in the poorest households.

3.5 ECONOMIC ACTIVITY

At the time of the EDS-MICS 2010-11, questions with regard to employment were asked. Women and men were considered to have a job if they reported having paid or unpaid work, regardless of industry, during the 12 months preceding the survey. Table 3.5 presents the results.

Table 3.5 Employment status

Percent distribution of women and men age 15-49 by employment status, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Women					Men				
	Currently employed[1]	Not currently employed	Not employed in the 12 months preceding the survey	Total	Number	Currently employed[1]	Not currently employed	Not employed in the 12 months preceding the survey	Total	Number
Age										
15-19	20.0	5.3	74.6	100.0	3,429	52.6	14.8	32.6	100.0	1,170
20-24	32.3	6.8	60.9	100.0	3,220	69.8	10.2	19.9	100.0	897
25-29	40.4	8.1	51.4	100.0	2,746	91.6	3.3	5.1	100.0	701
30-34	47.5	8.4	44.1	100.0	2,148	92.9	4.2	2.9	100.0	545
35-39	51.3	7.4	41.3	100.0	1,817	96.7	2.8	0.5	100.0	438
40-44	58.8	7.4	33.8	100.0	1,379	95.3	3.2	1.5	100.0	383
45-49	63.4	5.2	31.4	100.0	949	94.9	3.5	1.6	100.0	284
Marital status										
Never married	31.4	6.3	62.3	100.0	4,585	67.2	10.8	22.1	100.0	2,738
Married or living together	41.8	7.2	51.0	100.0	10,347	95.8	3.0	1.2	100.0	1,609
Divorced/separated/ widowed	57.9	7.6	34.4	100.0	757	94.8	3.1	2.1	100.0	71
Number of living children										
0	30.8	6.3	62.8	100.0	5,595	69.2	10.4	20.4	100.0	2,915
1-2	38.6	6.5	54.9	100.0	4,187	94.6	3.1	2.3	100.0	672
3-4	45.0	7.5	47.6	100.0	2,937	95.3	2.4	2.3	100.0	421
5+	52.0	8.3	39.7	100.0	2,969	96.3	2.7	1.0	100.0	409
Residence										
Urban	44.7	6.3	49.0	100.0	7,738	74.5	6.5	19.0	100.0	2,467
Rural	34.5	7.6	57.9	100.0	7,950	82.6	9.5	7.9	100.0	1,951
Region										
Dakar	49.7	8.8	41.5	100.0	4,078	75.4	5.8	18.8	100.0	1,381
Ziguinchor	36.5	6.2	57.4	100.0	581	68.0	11.1	20.9	100.0	210
Diourbel	46.7	5.2	48.1	100.0	1,851	80.1	5.9	14.0	100.0	354
Saint-Louis	38.7	5.3	56.0	100.0	1,034	80.5	3.9	15.6	100.0	266
Tambacounda	28.9	5.4	65.8	100.0	725	80.1	2.8	17.1	100.0	214
Kaolack	30.5	8.4	61.2	100.0	1,172	86.0	8.7	5.2	100.0	317
Thiès	30.2	3.0	66.8	100.0	2,030	81.1	3.6	15.3	100.0	565
Louga	37.3	3.8	58.9	100.0	1,130	86.9	4.3	8.8	100.0	262
Fatick	31.5	13.9	54.5	100.0	717	65.5	26.0	8.4	100.0	204
Kolda	49.8	12.8	37.3	100.0	640	76.1	19.1	4.8	100.0	198
Matam	22.4	2.0	75.6	100.0	595	79.8	6.0	14.2	100.0	152
Kaffrine	22.0	6.8	71.2	100.0	572	82.5	14.3	3.2	100.0	141
Kedougou	38.1	15.5	46.4	100.0	115	83.8	7.9	8.3	100.0	34
Sedhiou	56.5	11.3	32.3	100.0	448	71.4	19.0	9.6	100.0	120
Education										
No education	41.4	6.9	51.8	100.0	9,079	92.5	3.9	3.6	100.0	1,632
Primary	44.9	7.9	47.2	100.0	3,414	88.8	4.0	7.2	100.0	1,261
Secondary or more	28.8	6.1	65.2	100.0	3,195	53.7	15.2	31.1	100.0	1,525
Wealth quintile										
Lowest	31.6	11.1	57.3	100.0	2,585	87.1	9.1	3.9	100.0	665
Second	33.3	8.0	58.7	100.0	2,805	83.2	11.8	5.0	100.0	688
Middle	40.7	4.3	55.0	100.0	3,114	78.2	7.3	14.5	100.0	908
Fourth	42.3	6.1	51.6	100.0	3,494	75.4	6.1	18.5	100.0	1,019
Highest	46.3	6.3	47.4	100.0	3,689	71.9	6.6	21.5	100.0	1,137
Total 15-49	39.6	6.9	53.5	100.0	15,688	78.0	7.8	14.1	100.0	4,417
Men 50-59	na	na	na	na	na	88.2	4.7	7.1	100.0	512
Total 15-59	na	na	na	na	na	79.1	7.5	13.4	100.0	4,929

na = Non aplicable

Overall, more than half of women (54 percent) were not working at the time of the survey, while 40 percent of women were employed; a small proportion (7 percent) were not working at the time of the survey but reported having had a job in the last 12 months (Table 3.5). The percentage of women employed at the time of the survey increases steadily with age, from 20 percent at age 15-19 to 63 percent at age 45-49. As for marital status, women no longer in union were most likely to be employed at the time of the survey (58 percent), followed by 42 percent of women in union and 31 percent of never-married women. The number of children also affects women's economic activity. As the number of children increases, the proportion of employed women also rises, from 31 percent among women who have no children to 52 percent with five or more children.

The proportion of women employed at the time of the survey is higher in urban areas (45 percent) than rural areas (35 percent). By region, the proportion of women with work varies from 22 percent in Kaffrine and Matam to 57 percent in Sédhiou and 50 percent in Dakar and Kolda. According to level of education, women with primary schooling are more likely to engage in economic activity (45 percent) compared with women with secondary education or higher (29 percent). Women in the richest households are more likely to be employed (46 percent) compared with women from the poorest households (32 percent).

The results show that 79 percent of men were employed in some work at the time of the survey. As with women, but in a more irregular way, the percentage of men who were working at the time of the survey increases steadily with age, from 53 percent at age 15-19 to 97 percent at age 35-39, and 95 percent at age 40-49. With regard to marital status, men in union and those no longer in union were most likely to be working at the time of the survey (respectively, 96 percent and 95 percent). Concerning place of residence, the proportion of men who were working at the time of the survey was higher in rural areas (83 percent) than in urban areas (75 percent). By level of education, men with no education were more likely to be employed (93 percent) compared with men with only primary schooling (89 percent) or with secondary education or more (54 percent). Finally, the proportion of men working drops slightly according to household wealth quintile, from 87 percent among men from the poorest households to 72 percent among men from the richest households.

Tables 3.6.1 and 3.6.2 present results by type of occupation for women and men. Among women who were employed at the time of the survey or who had been employed in the 12 months before the survey, 61 percent were working in the sales and service sector. In addition, 19 percent were working in the agricultural sector, 3 percent did non-agricultural manual labor (1.3 percent in skilled labor and 1.8 percent in unskilled labor), 11 percent were domestic servants, and 5 percent were employed in managerial and executive positions or technical, professional, or administrative jobs (0.5 percent in executive/managerial or technical work and 4.5 percent as office workers). As might be expected, the proportion of women who reported agricultural work is higher in rural areas (39 percent) than urban areas (2 percent). By region, this proportion is only 1 percent in Dakar, 3 percent in Thiès, and below 15 percent in Matam and Diourbel. In contrast, it is 46 percent in the region of Kédougou, and exceeds 70 percent in Kolda (71 percent) and Sédhiou (75 percent). With regard to the level of education, 27 percent of women working in agriculture have had no education, and 5 percent have attained a secondary education or higher.

More than one in every three men (35 percent) were working in non-agricultural manual labor at the time of the survey, while 29 percent worked in agriculture, 25 percent in the sales and service sector, and less than one in every ten (8 percent) as executives/managers or in professional, technical, or administrative jobs (0.5 percent in executive and technical positions and 4.5 percent as office workers). The proportion of men in skilled or unskilled manual labor tends to decline as age increases.

As is the case among women, the proportion of men in agriculture is highest in rural areas (51 percent) compared with 8 percent in urban areas. In urban areas the proportion of men engaged in skilled or unskilled manual labor is notably higher than in rural areas (50 percent versus 22 percent). Concerning educational level, 39 percent of men working in agriculture have no education, while 20 percent working as executives/managers or having a professional, technical, or administrative position have attained secondary education or more. The proportion of men who are managers or are employed in professional or administrative activities increases significantly with the level of household wealth, from less than 1 percent of men in the poorest households to 17 percent of men in the wealthiest households. The pattern is reversed for agricultural work: nearly two-thirds of men in the poorest households (65 percent) work in agriculture compared with only 3 percent of men in the richest households.

Tableau 3.6.1 Occupation: women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, EDS-MICS, Senegal 2010-11

Background Characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Domestic service	Agriculture	Missing	Total	Number of women
Age										
15-19	0.2	1.6	39.8	0.5	4.1	29.3	22.8	1.7	100.0	871
20-24	0.4	3.0	56.0	1.3	2.4	16.1	19.2	1.6	100.0	1,259
25-29	0.4	5.3	60.4	2.2	2.2	10.2	18.5	0.8	100.0	1,334
30-34	0.8	5.6	67.2	0.9	0.7	5.8	18.2	0.7	100.0	1,201
35-39	1.0	6.2	65.0	1.2	1.2	6.4	18.7	0.5	100.0	1,067
40-44	0.4	5.7	68.6	1.2	1.1	3.8	18.6	0.5	100.0	913
45-49	0.2	7.5	66.9	1.9	1.0	2.6	19.6	0.3	100.0	651
Marital Status										
Never married	0.9	7.3	49.1	0.7	3.6	27.2	9.3	1.8	100.0	1,730
Married/living together	0.4	4.2	63.9	1.5	1.1	4.5	23.9	0.7	100.0	5,068
Divorced/separeted/widowed	0.3	3.7	66.9	2.0	2.9	17.3	6.7	0.3	100.0	496
Number of living children										
0	0.8	7.3	51.9	0.8	3.5	22.2	11.8	1.7	100.0	2,079
1-2	0.4	6.0	61.9	1.9	2.1	9.8	17.2	0.6	100.0	1,887
3-4	0.6	3.7	64.1	1.4	0.6	5.5	23.3	0.9	100.0	1,539
5+	0.2	2.0	66.1	1.2	0.7	2.9	26.6	0.3	100.0	1,790
Residence										
Urban	0.6	7.8	69.4	1.1	2.0	15.4	2.3	1.3	100.0	3,947
Rural	0.4	1.5	50.1	1.5	1.6	5.2	39.2	0.4	100.0	3,348
Region										
Dakar	0.7	8.3	68.5	1.2	1.7	17.0	1.0	1.6	100.0	2,388
Ziguinchor	0.8	4.3	62.8	1.6	1.9	11.0	17.4	0.2	100.0	248
Diourbel	1.1	1.6	67.2	2.9	3.3	8.8	14.9	0.3	100.0	960
Saint-Louis	0.3	5.5	54.5	2.3	1.7	6.5	27.8	1.4	100.0	455
Tambacounda	0.0	3.6	66.2	0.0	3.5	10.6	16.0	0.1	100.0	248
Kaolack	0.0	3.5	63.5	0.1	1.4	6.9	24.3	0.2	100.0	455
Thiès	0.6	5.7	73.7	1.0	2.9	12.5	2.5	1.1	100.0	674
Louga	0.0	1.7	54.3	1.5	0.8	4.9	36.3	0.4	100.0	465
Fatick	0.3	3.5	50.0	0.4	0.8	12.0	32.7	0.3	100.0	326
Kolda	0.3	1.7	24.5	0.5	0.7	0.9	70.9	0.6	100.0	401
Matam	0.4	3.6	73.7	1.1	0.6	6.5	14.2	0.0	100.0	145
Kaffrine	0.0	3.5	46.9	0.9	0.2	6.0	38.9	3.5	100.0	165
Kedougou	0.0	4.5	36.7	2.3	2.7	6.5	46.5	0.8	100.0	62
Sedhiou	0.2	1.3	20.7	0.8	0.5	1.7	74.8	0.1	100.0	303
Education										
No education	0.2	0.6	59.3	1.6	1.3	9.4	27.1	0.5	100.0	4,380
Primary	0.2	2.4	69.8	0.8	2.7	14.8	8.9	0.5	100.0	1,802
Secondary or more	2.2	25.8	50.4	1.2	2.5	9.3	5.3	3.3	100.0	1,113
Wealth quintile										
Lowest	0.0	0.5	33.6	1.0	0.9	5.7	58.0	0.3	100.0	1,103
Second	0.1	0.8	49.1	1.0	1.2	8.4	38.7	0.8	100.0	1,159
Middle	0.3	2.5	64.9	0.9	1.7	11.6	17.4	0.7	100.0	1,400
Fourth	0.4	4.5	74.3	1.5	2.4	12.6	3.1	1.2	100.0	1,692
Highest	1.3	11.9	67.6	1.9	2.3	12.8	1.0	1.2	100.0	1,941
Total	0.5	4.9	60.6	1.3	1.8	10.7	19.2	0.9	100.0	7,295

Table 3.6.2 Occupation: men

Percent distribution of men age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, DHS-MICS, Senegal 2010-11

Background Characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Unskilled manual	Domestic service	Agriculture	Missing	Total	Number of men
Age										
15-19	0.0	0.7	9.9	17.5	18.3	0.3	41.6	11.7	100.0	788
20-24	0.7	1.2	21.2	27.1	17.0	0.1	28.8	3.9	100.0	718
25-29	2.0	5.1	27.6	35.3	9.0	0.0	20.4	0.6	100.0	665
30-34	2.8	5.5	30.9	33.7	6.4	0.2	20.0	0.6	100.0	530
35-39	2.5	11.3	36.1	21.2	6.5	0.1	21.7	0.6	100.0	436
40-44	3.9	11.4	32.7	20.9	4.0	0.4	26.2	0.4	100.0	377
45-49	3.2	6.4	29.8	18.4	6.8	0.3	34.6	0.4	100.0	279
Marital Status										
Never married	1.2	3.5	18.7	27.2	15.7	0.2	27.7	5.8	100.0	2,134
Married/living together	2.4	6.6	32.8	22.9	5.3	0.2	29.2	0.5	100.0	1,590
Divorced/separeted/widowed	4.6	11.3	29.8	33.7	4.3	0.0	16.3	0.0	100.0	69
Number of living children										
0	1.3	3.8	19.8	26.5	14.9	0.1	28.3	5.3	100.0	2,320
1-2	3.1	8.1	32.7	27.2	5.6	0.0	22.2	1.0	100.0	656
3-4	3.6	7.4	31.4	25.6	6.0	0.7	25.0	0.3	100.0	411
5+	0.7	3.7	34.3	17.2	3.8	0.2	39.9	0.2	100.0	405
Residence										
Urban	3.0	7.3	29.6	35.6	14.0	0.0	7.7	2.8	100.0	1,997
Rural	0.5	2.3	19.5	14.3	7.9	0.4	50.9	4.2	100.0	1,796
Region										
Dakar	4.2	8.6	29.1	39.9	14.3	0.0	3.2	0.7	100.0	1,122
Ziguinchor	1.5	7.2	23.1	19.5	3.9	0.4	28.7	15.7	100.0	166
Diourbel	0.3	4.4	24.7	31.8	12.6	0.0	18.4	7.8	100.0	305
Saint-Louis	1.1	5.2	18.9	15.5	7.7	0.4	49.0	2.2	100.0	224
Tambacounda	2.0	1.7	28.2	18.5	11.1	0.0	36.4	2.1	100.0	177
Kaolack	0.2	2.4	25.4	13.5	13.9	0.0	26.8	17.9	100.0	300
Thiès	0.8	2.9	28.1	31.1	11.5	0.0	24.5	1.0	100.0	478
Louga	0.0	2.6	21.6	16.9	9.5	0.2	48.2	1.0	100.0	239
Fatick	0.8	4.8	17.9	11.9	11.2	2.6	50.5	0.4	100.0	187
Kolda	1.1	2.9	11.6	9.5	4.5	0.0	69.9	0.5	100.0	188
Matam	1.0	2.1	21.9	14.3	6.3	0.0	52.0	2.4	100.0	131
Kaffrine	1.0	2.1	28.9	16.7	9.5	0.0	41.8	0.0	100.0	136
Kedougou	0.4	6.0	27.3	12.8	6.9	0.4	44.5	1.7	100.0	31
Sedhiou	0.6	1.8	13.6	8.2	6.6	0.0	69.3	0.0	100.0	108
Education										
No education	0.1	1.2	26.0	21.8	11.2	0.3	38.7	0.8	100.0	1,573
Primary	0.5	2.0	22.4	38.5	14.6	0.2	19.7	2.1	100.0	1,170
Secondary or more	5.8	13.9	25.8	16.7	7.1	0.1	21.6	9.1	100.0	1,051
Wealth quintile										
Lowest	0.1	0.4	18.6	7.4	5.0	0.3	65.2	3.1	100.0	639
Second	0.6	1.2	18.4	13.8	10.1	0.4	52.2	3.4	100.0	654
Middle	0.6	3.4	24.8	26.9	10.8	0.3	26.5	6.7	100.0	777
Fourth	1.4	5.7	26.2	40.6	14.7	0.1	9.4	2.0	100.0	831
Highest	5.2	11.6	32.7	32.0	13.2	0.0	2.7	2.6	100.0	893
Total 15-49	1.8	4.9	24.8	25.5	11.1	0.2	28.1	3.5	100.0	3,793
Men 50-59	5.0	8.9	31.4	14.1	2.9	0.3	35.5	1.9	100.0	475
Total 15-59	2.1	5.4	25.6	24.3	10.2	0.2	28.9	3.3	100.0	4,269

Table 3.7 presents the distribution of women who had a job during the 12 months preceding the survey by type of earnings, type of employer, and continuity of employment. Overall, the majority of women (79 percent) were paid in cash only, 5 percent in cash and in kind, 2 percent in kind only, and 14 percent were not paid (Figure 3.2). Women working or having worked in the non-agricultural sector were more often paid in cash (90 percent) than those who worked in the agricultural sector (37 percent).

In addition, in a majority of cases (76 percent) women were working for themselves, regardless of the type of job. In the agricultural sector women were slightly more likely to work for a family member than in the non-agricultural sector (29 percent versus 8 percent). Finally, in 57 percent of cases, women worked throughout the year, particularly women in the non-agricultural sector (67 percent). In the agricultural sector, a majority of women (80 percent) were seasonal workers.

Table 3.7 Type of employment: women

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by type of earnings, type of employer and continuity of employment, according to type of employment (agricultural or nonagricultural), EDS-MICS, Senegal 2010-11

Employment characteristic	Agricultural work	Non-agricultural work	Missing	Total
Type of earnings				
Cash only	36.9	89.9	27.5	79.1
Cash and in-kind	17.6	1.9	7.2	5.0
In-kind only	9.1	0.6	0.0	2.2
Not paid	36.4	7.6	65.3	13.7
Total	100.0	100.0	100.0	100.0
Type of employer				
Employed by family member	29.4	7.7	18.9	12.0
Employed by nonfamily member	5.9	13.6	16.2	12.1
Self-employed	64.7	78.7	64.9	75.9
Total	100.0	100.0	100.0	100.0
Continuity of employment				
All year	16.9	66.8	57.7	57.1
Seasonal	79.7	15.6	25.5	28.0
Occasional	3.4	17.6	16.7	14.8
Total	100.0	100.0	100.0	100.0
Number	1,404	5,824	67	7,295

Note: Total includes women with missing information on type of employment who are not shown separately

Figure 3.2
Percent distribution of women age 15-49 employed
in the 12 months preceding the survey by type of earnings

In-kind only
2%

Not paid
14%

Cash and in-kind
5%

Cash only
79%
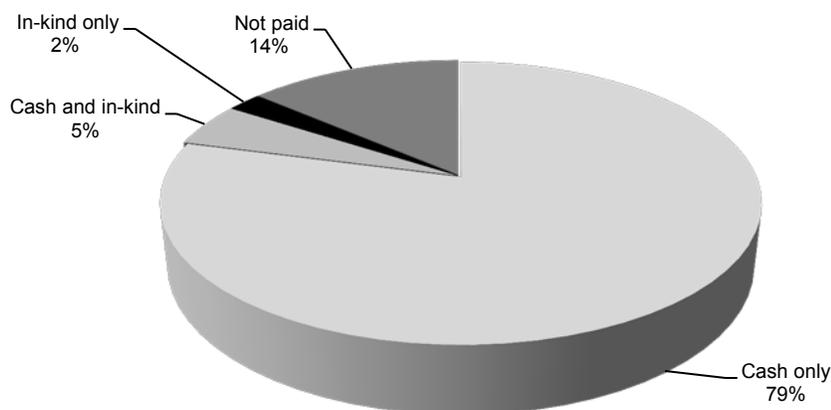
EDS-MICS 2010-11

3.6 MEDICAL COVERAGE

During the EDS-MICS 2010-11, a question about medical coverage was asked of women and men. The purpose of this question was to find out if the respondent had medical insurance that could cover health expenses when needed. Medical insurance can be mutual insurance or community insurance, social security, a budget item, a plan offered by the employer (whether for the respondent or for another member of the family), or even private commercial insurance. Tables 3.8.1 and 3.8.2 present data on medical coverage for women and men.

Table 3.8.1 Health insurance coverage: women

Percentage of women age 15-49 with specific types of health insurance coverage, according to background characteristics, EDS-MICS. Senegal 2010-11

Background characteristic	Social Security	Other employer-based insurance	Mutual health organization/ Community-based insurance	Privately-purchased commercial insurance	Other	None	Number
Age							
15-19	0.5	0.9	1.9	0.2	4.0	92.7	3,429
20-24	0.7	0.9	0.7	0.3	2.7	94.8	3,220
25-29	0.8	2.2	1.5	0.1	2.1	93.4	2,746
30-34	0.6	2.0	1.9	0.0	1.7	94.2	2,148
35-39	0.5	2.6	1.3	0.0	2.4	93.3	1,817
40-44	0.3	1.6	2.0	0.1	3.0	93.3	1,379
45-49	0.2	2.0	1.3	0.1	3.4	93.1	949
Residence							
Urban	1.0	2.9	2.3	0.2	4.9	89.0	7,738
Rural	0.1	0.3	0.6	0.1	0.7	98.1	7,950
Region							
Dakar	1.5	4.2	2.4	0.2	5.7	86.5	4,078
Ziguinchor	0.2	1.0	1.0	0.1	4.1	93.7	581
Diourbel	0.2	0.1	1.0	0.1	1.2	97.5	1,851
Saint-Louis	0.4	2.4	2.3	0.0	2.9	92.2	1,034
Tambacounda	0.2	0.9	0.6	0.6	0.9	97.1	725
Kaolack	0.4	0.5	1.8	0.2	2.5	94.6	1,172
Thiès	0.3	0.9	1.0	0.1	1.6	96.1	2,030
Louga	0.1	0.1	0.2	0.1	1.0	98.4	1,130
Fatick	0.4	0.3	2.7	0.2	3.1	93.3	717
Kolda	0.2	0.6	0.6	0.1	2.2	96.3	640
Matam	0.0	1.0	0.6	0.0	1.0	97.4	595
Kaffrine	0.3	0.1	1.3	0.0	0.2	98.1	572
Kedougou	0.1	0.7	1.5	0.0	0.9	97.1	115
Sedhiou	0.0	0.2	0.5	0.0	1.1	98.2	448
Education							
No education	0.1	0.5	0.6	0.0	0.3	98.5	9,079
Primary	0.4	2.8	1.4	0.1	2.6	92.8	3,414
Secondary or more	2.1	3.5	4.1	0.4	10.0	80.5	3,195
Wealth quintile							
Lowest	0.0	0.1	0.3	0.1	0.5	98.9	2,585
Second	0.1	0.2	0.6	0.0	0.8	98.3	2,805
Middle	0.2	0.6	1.1	0.2	2.0	95.9	3,114
Fourth	0.7	1.5	1.4	0.0	3.1	93.6	3,494
Highest	1.5	4.6	3.4	0.3	6.2	84.3	3,689
Total	0.6	1.6	1.5	0.1	2.8	93.6	15,688

Overall, the great majority of women and men interviewed have no medical coverage, at 94 percent of women and 92 percent of men. These proportions are very high regardless of the background characteristics of the respondents. Few women and men are covered by social security (less than 1 percent for both women and men) or by private commercial health insurance (0.1 percent for women and 0.5 percent for men). Only 2 percent of women and men are insured by their employer; 2 percent of women and 3 percent of men use mutual health and community health insurance. The survey results also show that 3 percent of women and

2 percent of men are supported in case of illness by another type of health insurance, such as budgetary allocation.

Table 3.8.2 Health insurance coverage: men

Percentage of men age 15-49 with specific types of health insurance coverage, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Social Security	Other employer-based insurance	Mutual health organization/ Community-based insurance	Privately-purchased commercial insurance	Other	None	Number
Age							
15-19	0.7	0.4	0.9	0.1	4.8	93.3	1,170
20-24	0.6	1.2	2.1	0.5	3.7	92.4	897
25-29	0.1	1.4	1.7	0.5	0.2	96.1	701
30-34	0.4	2.8	2.6	0.7	0.7	93.0	545
35-39	0.4	5.6	5.0	0.8	1.9	87.0	438
40-44	2.5	2.8	5.6	0.4	0.8	88.3	383
45-49	0.5	4.1	1.7	1.8	1.7	90.3	284
Residence							
Urban	1.0	3.3	3.2	0.8	3.1	89.2	2,467
Rural	0.2	0.4	1.3	0.2	1.7	96.3	1,951
Region							
Dakar	1.4	3.8	2.4	0.8	2.7	89.5	1,381
Ziguinchor	0.0	1.9	2.9	2.7	2.2	90.4	210
Diourbel	0.4	0.8	0.7	0.0	8.3	89.9	354
Saint-Louis	0.6	2.8	6.5	1.1	1.3	88.6	266
Tambacounda	0.3	0.2	1.0	0.0	0.0	98.4	214
Kaolack	0.5	0.3	1.4	0.3	4.7	92.8	317
Thiès	0.5	2.8	3.6	0.0	0.3	93.3	565
Louga	0.2	0.3	1.7	0.2	0.6	97.0	262
Fatick	0.0	0.0	2.3	0.6	0.0	97.0	204
Kolda	0.5	1.2	1.4	0.0	4.8	92.2	198
Matam	0.3	0.4	1.0	0.0	2.0	96.5	152
Kaffrine	0.2	0.0	1.0	0.0	1.4	97.9	141
Kedougou	0.4	1.2	2.3	0.4	0.5	95.3	34
Sedhiou	0.0	0.6	1.5	0.0	2.5	95.3	120
Education							
No education	0.0	1.0	0.4	0.0	0.1	98.4	1,632
Primary	0.1	2.2	1.2	0.4	0.7	95.5	1,261
Secondary or more	1.9	3.0	5.3	1.1	6.6	83.1	1,525
Wealth quintile							
Lowest	0.0	0.0	0.4	0.1	1.5	98.0	665
Second	0.1	0.4	0.9	0.1	2.1	96.4	688
Middle	0.4	1.2	2.2	0.2	2.2	94.1	908
Fourth	0.7	2.9	1.8	0.4	1.6	92.9	1,019
Highest	1.5	4.1	5.0	1.3	4.5	84.5	1,137
Total 15-49	0.7	2.0	2.3	0.5	2.5	92.3	4,417
Men 50-59	2.7	5.1	4.9	0.7	1.9	86.5	512
Total 15-59	0.9	2.3	2.6	0.5	2.4	91.7	4,929

Despite overall low levels of medical coverage, socioeconomic disparities remain among respondents. Women receiving medical coverage are more likely to live in urban areas (11 percent, versus 2 percent among rural women), to have attained secondary education or more (20 percent, versus 1 percent for women with no education), and to live in households in the richest wealth quintile (16 percent, versus 1 percent for women in the poorest wealth quintile). Results also vary across regions. The proportion of women without medical coverage is highest in Louga, Sédhiou, Kaffrine, Diourbel, Tambacounda, and Matam, at between 97 and 98 percent, and lowest in the regions of Dakar and Saint-Louis, at 86 percent in Dakar and 92 percent in Saint-Louis.

The results for men show patterns similar to those observed for women. Men in urban areas (11 percent) and men having secondary education or more (17 percent) are more often covered by health insurance than men in rural areas (4 percent) or men with no education (2 percent). At the regional level, the highest proportion of men without health insurance is observed in Tambacounda, Kaffrine, Fatick, Louga, and Matam, at between 97 and 98 percent. Men in the regions of Saint-Louis (89 percent) and Diourbel, Ziguinchor, and Dakar (90 percent) have more medical coverage compared with other regions.

Age is not a determining factor with regard to possession of medical coverage. The differences between various age groups in the percentage with no medical coverage are small, for both women and men.

3.7 USE OF TOBACCO

During the survey, questions on smoking were asked of both women and men. Tobacco use is harmful to health, and its use during pregnancy also poses a risk to the unborn child. Tables 3.9.1 and 3.9.2 show the survey results concerning tobacco use by women and men.

Most women age 15-49 were not using tobacco at the time of the survey. In fact, only four women out of a thousand smoke cigarettes or use tobacco in forms other than cigarettes (0.2 percent in both cases). Virtually no women smoke pipes. The proportion of women who do not use tobacco is very high regardless of their background characteristics. Indeed, whatever the demographic characteristic, the proportion of women not consuming tobacco is 99 to 100 percent.

Table 3.9.2 indicates that 82 percent of men age 15-59 were not using tobacco at the time of the survey. The percentage of men who smoke is twice that of those who use tobacco in forms other than cigarettes or pipes. Less than 1 percent of men smoke pipes. Tobacco use is low among adolescents. Only 5 percent of

Table 3.9.1 Use of tobacco: women

Percentage of women age 15-49 who smoke cigarettes or a pipe or use other tobacco products according to background characteristics and maternity status, EDS-MICS, Senegal 2010-11

Background characteristic	Cigarettes	Pipe	Other tobacco	Does not use tobacco	Number of women
Age					
15-19	0.2	0.0	0.0	99.8	3,429
20-24	0.1	0.0	0.1	99.8	3,220
25-29	0.2	0.0	0.3	99.5	2,746
30-34	0.2	0.0	0.3	99.5	2,148
35-39	0.3	0.0	0.3	99.4	1,817
40-44	0.0	0.1	0.3	99.6	1,379
45-49	0.1	0.3	0.9	98.7	949
Maternity status					
Pregnant	0.2	0.0	0.3	99.5	1,208
Breastfeeding (not pregnant)	0.0	0.0	0.4	99.6	4,081
Neither	0.2	0.0	0.2	99.6	10,400
Residence					
Urban	0.3	0.0	0.0	99.7	7,738
Rural	0.1	0.0	0.4	99.5	7,950
Region					
Dakar	0.4	0.0	0.0	99.6	4,078
Ziguinchor	0.2	0.0	0.0	99.8	581
Diourbel	0.0	0.0	0.1	99.9	1,851
Saint-Louis	0.1	0.2	0.0	99.7	1,034
Tambacounda	0.1	0.0	0.4	99.5	725
Kaolack	0.1	0.0	0.0	99.9	1,172
Thiès	0.1	0.0	0.1	99.9	2,030
Louga	0.3	0.0	0.2	99.6	1,130
Fatick	0.1	0.0	0.0	99.9	717
Kolda	0.1	0.2	3.8	95.9	640
Matam	0.0	0.0	0.0	100.0	595
Kaffrine	0.1	0.0	0.0	99.9	572
Kedougou	0.3	0.0	0.7	99.0	115
Sedhiou	0.1	0.1	0.6	99.2	448
Education					
No education	0.1	0.0	0.4	99.5	9,079
Primary	0.1	0.0	0.0	99.9	3,414
Secondary or more	0.4	0.0	0.0	99.6	3,195
Wealth quintile					
Lowest	0.1	0.1	1.0	98.8	2,585
Second	0.1	0.0	0.3	99.7	2,805
Middle	0.1	0.0	0.0	99.8	3,114
Fourth	0.3	0.0	0.0	99.7	3,494
Highest	0.2	0.0	0.0	99.8	3,689
Total	0.2	0.0	0.2	99.6	15,688

men age 15-19 and 13 percent of men age 20-24 use tobacco. Among other age groups, however, the proportion of male smokers varies between 23 percent and 33 percent. In addition, the results also show that men who use tobacco are more likely to be without education or to have only a primary education (20 percent), as well as men in the poorest households (26 percent for the lowest wealth quintile and 16 percent for the

second quintile). Among the regions, the highest proportions of male tobacco users are in Kolda (29 percent), Matam (27 percent), Sédhiou (25 percent), Kédougou (25 percent), and Ziguinchor (23 percent). At the opposite extreme, Diourbel (10 percent), Kaolack (13 percent), and Louga (14 percent) have the lowest proportions of male tobacco users. The use of tobacco other than cigarettes or pipes is high in the region of Louga (11 percent), followed by Kaffrine and Fatick (9 percent). Tobacco use does not differ significantly according to place of residence, whether urban or rural.

Table 3.9.2 Use of tobacco: men

Percentage of men age 15-49 who smoke cigarettes or a pipe or use other tobacco products and the percent distribution of cigarette smokers by number of cigarettes smoked in preceding 24 hours, according to background characteristics, EDS-MICS. Senegal 2010-11

Background characteristic	Uses tobacco					Number of cigarettes in the last 24 hours							Number of cigarette smokers
	Cigarettes	Pipe	Other tobacco	Does not use tobacco	Number	0	1-2	3-5	6-9	10+	Don't know/ missing	Total	
Age													
15-19	4.3	0.0	1.3	95.1	1,170	11.5	12.9	41.0	15.0	17.9	1.7	100.0	50
20-24	11.1	0.3	3.9	87.1	897	0.0	14.5	46.9	15.4	21.1	2.1	100.0	100
25-29	20.7	0.4	5.0	77.5	701	0.3	2.4	25.9	27.1	41.0	3.3	100.0	145
30-34	19.8	0.6	9.8	75.9	545	1.1	2.5	27.0	23.5	45.3	0.6	100.0	108
35-39	27.8	1.2	14.8	66.7	438	0.6	5.4	31.2	24.4	37.1	1.2	100.0	122
40-44	18.6	1.5	11.4	74.0	383	1.0	3.5	25.3	2.4	65.6	2.1	100.0	71
45-49	18.2	0.9	11.7	73.7	284	7.6	22.2	15.7	13.2	41.2	0.0	100.0	52
Residence													
Urban	16.7	0.1	5.6	81.8	2,467	2.2	5.3	28.5	21.1	41.2	1.7	100.0	411
Rural	12.1	1.0	7.3	82.9	1,951	1.5	11.1	34.4	16.6	34.6	1.8	100.0	237
Region													
Dakar	16.5	0.0	5.3	82.5	1,381	3.5	5.1	27.2	27.7	35.1	1.4	100.0	227
Ziguinchor	21.9	0.4	5.1	76.7	210	0.0	3.7	32.1	10.9	53.3	0.0	100.0	46
Diourbel	5.5	1.5	7.2	90.7	354	0.0	46.1	30.8	8.4	14.8	0.0	100.0	20
Saint-Louis	12.9	0.4	6.0	83.4	266	6.7	2.9	26.1	18.1	42.9	3.3	100.0	34
Tambacounda	17.9	0.0	5.2	78.8	214	0.0	4.1	37.9	13.1	44.9	0.0	100.0	38
Kaolack	10.6	0.2	4.1	87.3	317	2.3	6.9	38.1	19.0	31.3	2.3	100.0	34
Thiès	12.1	0.0	7.2	83.5	565	0.0	0.0	35.4	14.1	48.3	2.2	100.0	68
Louga	8.6	1.6	10.6	85.8	262	0.0	16.4	27.9	7.5	41.8	6.4	100.0	23
Fatick	9.7	0.4	9.0	84.5	204	0.0	9.0	40.1	18.5	32.4	0.0	100.0	20
Kolda	24.9	0.9	8.7	71.4	198	1.3	13.7	36.2	24.6	24.2	0.0	100.0	49
Matam	23.9	2.0	4.5	73.3	152	2.0	3.7	16.2	17.8	52.1	8.2	100.0	36
Kaffrine	10.7	3.0	9.1	79.2	141	2.6	13.0	33.5	13.6	37.3	0.0	100.0	15
Kedougou	24.6	0.0	0.7	75.1	34	0.0	16.4	25.2	15.3	39.5	3.5	100.0	8
Sedhiou	24.1	0.0	5.2	74.8	120	0.0	13.0	35.2	5.8	46.0	0.0	100.0	29
Education													
No education	14.0	1.3	8.1	80.4	1,632	3.0	10.2	32.2	20.5	33.1	1.0	100.0	229
Primary	17.5	0.1	6.5	80.3	1,261	2.7	6.1	35.2	17.0	34.9	4.0	100.0	221
Secondary or more	13.0	0.0	4.4	86.0	1,525	0.0	5.5	23.7	20.9	49.8	0.1	100.0	198
Wealth quintile													
Lowest	16.9	2.0	13.4	74.1	665	2.6	16.1	34.0	17.2	28.0	2.0	100.0	112
Second	13.0	0.8	4.9	83.5	688	0.8	5.3	35.8	16.9	38.9	2.2	100.0	90
Middle	13.7	0.3	4.8	84.4	908	0.0	6.1	35.0	12.0	46.2	0.7	100.0	124
Fourth	14.0	0.0	3.1	84.8	1,019	3.7	5.0	32.1	30.5	24.5	4.3	100.0	142
Highest	15.7	0.0	7.2	82.6	1,137	2.2	5.8	21.7	18.5	51.9	0.0	100.0	179
Total 15-49	14.7	0.5	6.3	82.3	4,417	2.0	7.4	30.6	19.4	38.8	1.8	100.0	648
Men 50-59	11.3	2.4	9.0	81.6	512	5.9	4.5	17.8	22.9	46.1	2.8	100.0	58
Total 15-59	14.3	0.7	6.6	82.3	4,929	2.3	7.1	29.6	19.7	39.4	1.8	100.0	706

Table 3.9.2 also presents results on the number of cigarettes smoked by men age 15-59 during the last 24 hours before the survey. Among men who smoke cigarettes, nearly four in every ten (39 percent) smoked more than ten cigarettes during the 24 hours before the survey. One in five (20 percent) smoked between six and nine cigarettes, three in ten (30 percent) smoked three to five cigarettes, and 9 percent smoked two cigarettes at the most. The number of cigarettes smoked during the last 24 hours varies according to men's background characteristics. The proportion smoking more than six cigarettes is higher among men age 25-59 (54 percent to 69 percent) than among men age 15-24 (33 percent for age 15-19 and 36 percent for 20-24). Notably, only 12 percent of men age 15-19, 8 percent of men age 45-49, and 6 percent of men age 50-59 did

not smoke cigarettes during the 24 hours before the survey. Men who consume more than 10 cigarettes per day are predominantly urban (62 percent), men with secondary education or higher (50 percent), and men living in the wealthiest households (52 percent). At the regional level the highest proportions of men who smoked more than 10 cigarettes during the past 24 hours are observed in Ziguinchor, Matam, Thiès, and Sédhiou, at between 46 and 53 percent. The lowest proportions are found in Diourbel (15 percent) and Kolda (24 percent).

3.8 CHRONIC DISEASE

The changing lifestyle in Senegal is increasingly marked by a sedentary population in both urban and rural areas and by a change in eating habits. On the health front, this change is reflected by the appearance and increase of chronic diseases. In addition, life expectancy had increased to 62 years by 2009, with a corresponding increase in the number of older people, who have a greater likelihood of developing chronic diseases related to old age. Thus at the request of health authorities, survey questions about chronic disease were asked of women age 15-49 and men age 15-59. The following questions were asked: i) Do you have any of the following diseases (diabetes, hypertension/heart disease, renal insufficiency, cancer, paralysis, asthma/chronic bronchitis); ii) Was a diagnosis of this (these) disease(s) made by a medical provider; iii) What type(s) of treatment have you used for this (these) disease(s)?

Overall, 19 percent of women and 9 percent of men (half the percentage among women) reported having some type of chronic disease (or diseases) at the time of the survey. The main diseases most often mentioned by respondents are hypertension, asthma or chronic bronchitis, heart disease, and paralysis.

Among women age 15-49 the incidence of chronic disease increases with age. The prevalence of chronic diseases in all categories increases from 10 percent at age 15-19 to 33 percent at age 45-49. Specific chronic diseases most often mentioned by respondents, as illustrated in Figure 3.3, are hypertension (11 percent), followed by chronic respiratory diseases including asthma and chronic bronchitis (3 percent), heart disease (0.8 percent), and diabetes (0.5 percent). The incidence of these specific diseases by age group follows the same general pattern, increasing with age. For example, the prevalence of hypertension increases from less than 3 percent of women at age 15-19 to 22 percent at age 45-49. However, the prevalence of asthma and chronic bronchitis appears to be lower at age 25-34 than at age 15-24 or 35-49.

Figure 3.3
Percentage of women age 15-49 with chronic diseases by type of disease

Percentage of patients	18.6
Diabetes	0.5
hypertension	10.5
Heart disease	0.8
Renal insufficiency	<0.01
Cancer	<0.01
Paralysis	0.4
Asthma/ Chronic bronchitis	3.4
Other	3.8

Percentage
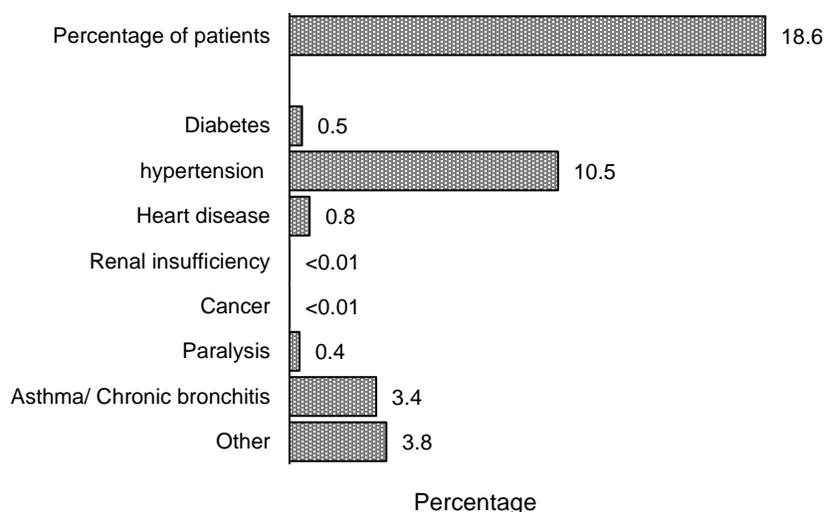
EDS-MICS 2010-11

Women living in urban areas more often report having chronic diseases than women in rural areas (23 percent versus 15 percent). More specifically, there is a difference between urban and rural areas in incidence of several chronic diseases—diabetes (0.7 percent in urban areas compared with 0.3 percent in rural areas); hypertension (12 percent urban versus 9 percent rural); asthma and chronic bronchitis (5 percent urban versus 2 percent rural), and heart disease (1 percent urban versus 0.5 percent rural).

By region, the highest proportions of women who reported having chronic diseases are in Dakar (26 percent), Saint Louis (20 percent), Louga (19 percent), and Diourbel (19 percent). In Kaffrine and Kédougou barely one woman in every ten has a chronic disease. The regions where women most frequently reported hypertension are Dakar and Louga (each 14 percent), and Saint-Louis, at 11 percent. The regions where hypertension was least cited are Sédhiou, Kaffrine, Kaolack, Tambacounda (each at 4 percent), and Kolda (5 percent). Asthma and chronic bronchitis are more common in the regions of Dakar (6 percent), Saint-Louis (5 percent), and Ziguinchor (4 percent) than in Kédougou (0.6 percent), Diourbel and Kaffrine (each at 1 percent), and Kaolack and Sédhiou (each at 2 percent). Diabetes is more often cited by women in the regions of Dakar (0.8 percent), Saint-Louis (0.8 percent), and Thiès (0.7 percent), while it is less often cited in Kaolack (0.1 percent), Kaffrine (0.1 percent), Kolda (0.2 percent), Kédougou (0.2 percent), and Sédhiou (0.2 percent).

Table 3.10.1 Chronic diseases: women

Percentage of women with chronic disease by type of disease according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage of patients	Type of disease[1]								Number of women
		Diabetes	Hypertension	Heart disease	Renal insufficiency	Cancer	Paralysis	Asthma/ Chronic bronchitis	Other	
Age										
15-19	9.5	0.0	2.5	0.6	0.0	0.0	0.3	3.8	2.4	3,429
20-24	15.1	0.0	7.7	0.7	0.1	0.0	0.2	3.8	3.3	3,220
25-29	17.4	0.2	9.5	0.7	0.0	0.0	0.3	2.9	4.0	2,746
30-34	20.8	0.3	13.1	1.4	0.0	0.0	0.3	2.4	4.2	2,148
35-39	25.4	1.4	16.1	0.5	0.0	0.0	0.4	3.4	4.6	1,817
40-44	30.1	1.5	19.4	1.0	0.0	0.1	0.6	3.3	6.4	1,379
45-49	32.6	2.0	21.7	1.4	0.0	0.0	0.9	3.8	4.8	949
Residence										
Urban	22.9	0.7	12.4	1.1	0.0	0.0	0.4	4.9	4.6	7,738
Rural	14.5	0.3	8.6	0.5	0.0	0.0	0.4	1.9	3.1	7,950
Region										
Dakar	25.9	0.8	13.6	1.5	0.0	0.0	0.3	5.7	5.6	4,078
Ziguinchor	13.4	0.3	6.7	0.6	0.0	0.0	0.1	3.7	2.4	581
Diourbel	19.2	0.3	11.0	0.4	0.0	0.0	0.6	1.2	6.0	1,851
Saint-Louis	20.3	0.8	11.2	1.1	0.3	0.0	0.4	4.9	3.0	1,034
Tambacounda	12.4	0.5	4.3	0.4	0.0	0.2	0.6	2.5	4.4	725
Kaolack	14.4	0.1	10.8	0.4	0.0	0.0	0.6	1.6	1.6	1,172
Thiès	18.0	0.7	10.9	0.4	0.0	0.0	0.3	2.7	3.2	2,030
Louga	19.3	0.4	13.6	0.3	0.0	0.1	0.5	2.7	2.2	1,130
Fatick	13.3	0.3	7.5	0.6	0.0	0.1	0.2	3.2	1.4	717
Kolda	11.8	0.2	5.4	0.6	0.0	0.0	0.1	3.0	2.8	640
Matam	18.3	0.4	10.6	1.1	0.2	0.0	0.2	3.0	3.7	595
Kaffrine	8.3	0.1	4.0	0.4	0.0	0.0	0.1	1.4	2.5	572
Kedougou	8.4	0.2	4.1	3.1	0.0	0.0	0.0	0.6	0.8	115
Sedhiou	10.3	0.2	3.7	0.7	0.1	0.0	0.4	2.3	2.9	448
Education										
No education	17.4	0.3	11.1	0.6	0.0	0.0	0.4	2.1	3.4	9,079
Primary	20.7	0.8	11.9	1.0	0.0	0.0	0.4	4.0	3.6	3,414
Secondary or more	20.0	0.7	7.1	1.3	0.0	0.0	0.1	6.4	5.3	3,195
Wealth quintile										
Lowest	12.6	0.2	6.9	0.6	0.0	0.1	0.3	1.7	3.0	2,585
Second	14.1	0.3	9.3	0.3	0.0	0.0	0.3	1.6	2.7	2,805
Middle	17.0	0.4	10.6	0.8	0.0	0.0	0.3	3.1	2.4	3,114
Fourth	23.0	0.5	13.3	0.8	0.1	0.0	0.4	4.2	4.9	3,494
Highest	23.6	1.0	11.0	1.4	0.0	0.0	0.4	5.4	5.6	3,689
Total	18.6	0.5	10.5	0.8	0.0	0.0	0.4	3.4	3.8	15,688

[1] Multiple response. All responses to different types of disease may be higher than the percentage of patients.

The proportion of women reporting chronic diseases increases slightly with the level of education. Among women with no education, 17 percent report having a chronic disease, compared with 21 percent for women with a primary education and 20 percent for women with secondary education or more. However, women with no education report having diabetes (0.3 percent) less often than women with primary school or secondary or more (0.7 percent). Women with no education (11 percent) and women with primary school (12 percent) more often have hypertension than women with education at the secondary level or more (7 percent).

The proportion of women with chronic diseases increases with the level of household wealth, from 13 percent among the poorest women to 23 percent among the richest women. The prevalence of specific chronic diseases follows the same pattern: for diabetes, 0.2 percent for the poorest women versus 11 percent for the wealthiest; for hypertension, 7 percent versus 11 percent; for heart disease, 0.6 percent versus 1.4 percent; and for asthma and chronic bronchitis, 2 percent versus 5 percent.

As is the case for women, for men the occurrence of chronic diseases increases consistently with age. The proportion of men with a chronic disease is around 7 percent at age 15-29; 10 percent at age 30-44; and 15 percent at age 45-49.

Figure 3.4 shows that men age 15-59 report chronic diseases including asthma and chronic bronchitis (4 percent), hypertension (2 percent), diabetes (0.5 percent), renal insufficiency (0.4 percent), paralysis (0.3 percent), heart disease (0.3 percent), and cancer (0.1 percent).

Figure 3.4
Percentage of men age 15-59 with chronic diseases by type of disease

Percentage of patients	10.4
Diabetes	0.6
Hypertension	2.1
Heart disease	0.3
Renal insufficiency	0.4
Cancer	0.1
Paralysis	0.3
Asthma/Chronic bronchitis	3.7
Other	3.3

Pecentage
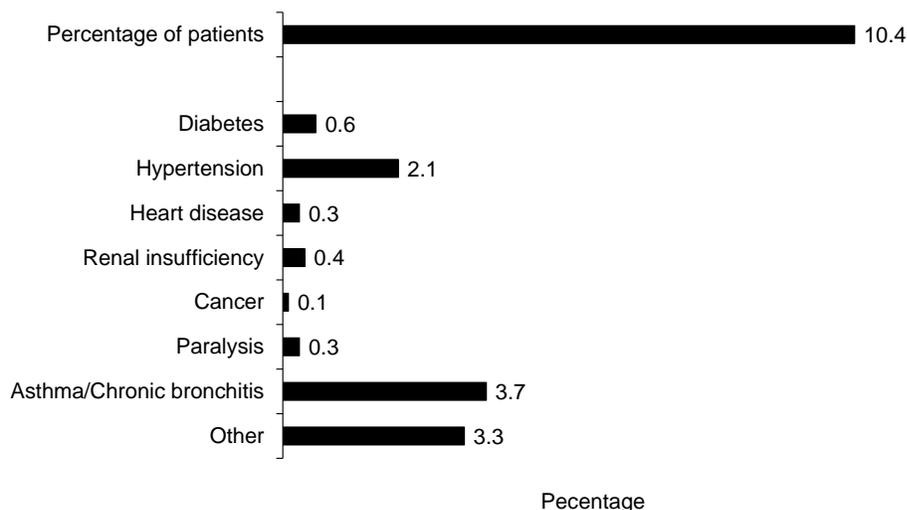
EDS-MICS 2010-11

Completely different prevalence levels are obtained if the analysis emphasizes older people (including men age 50-59 years). Indeed, in this case the diseases are in the following order: hypertension 8 percent, diabetes 4.2 percent, asthma and chronic bronchitis 4.2 percent, heart disease 0.8 percent, renal insufficiency 1.1 percent, cancer 0.7 percent, and paralysis 0.4 percent.

Even though the proportion of men age 15-59 reporting chronic illness is quite similar between urban and rural areas (9 percent and 8 percent, respectively), prevalence differs by urban-rural residence for diabetes and hypertension. Among men in urban areas diabetes is 0.2 percent and hypertension 1.8 percent, while in rural areas diabetes is 0.1 percent and hypertension 0.9 percent.

The regions with the greatest proportion of men age 15-49 presenting symptoms of chronic diseases are Saint-Louis (16 percent), Matam (12 percent), Tambacounda (10 percent), and Dakar (9 percent). Among regions, hypertension is most prevalent in Saint-Louis (3 percent), Dakar and Ziguinchor (2 percent each), while asthma and chronic bronchitis are more common in Matam (8 percent), Saint-Louis (7 percent) and Diourbel (6 percent).

With regard to reporting of diabetes, this disease is very rare among men age 15-49.

The percentage of men age 15-49 who have certain chronic diseases appears to be higher among men with secondary education or more (9.4 percent) than among men with no education (8.5 percent) or men with only primary schooling (8 percent). Finally, men age 15- 49 in either the richest and poorest household weath quintiles more often report having chronic diseases than men in the other three quintiles.

Table 3.10.2 Chronic diseases: men

Percentage of men with chronic disease by type of disease according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage of patients	Type of disease[1]								Number of men
		Diabetes	Hypertension	Heart disease	Renal insufficiency	Cancer	Paralysis	Asthma/ Chronic bronchitis	Other	
Age										
15-19	7.3	0.0	0.1	0.1	0.1	0.0	0.2	4.6	2.5	1,170
20-24	6.1	0.0	0.4	0.0	0.2	0.0	0.2	2.5	2.8	897
25-29	8.3	0.0	0.7	0.9	0.2	0.0	0.5	3.9	2.3	701
30-34	10.5	0.5	2.4	0.6	0.3	0.0	0.2	4.3	2.5	545
35-39	10.1	0.0	1.3	0.3	1.1	0.0	0.0	3.4	3.9	438
40-44	10.4	0.0	3.8	0.3	0.8	0.0	0.3	2.0	3.4	383
45-49	15.0	1.1	6.7	0.0	1.0	0.0	0.8	3.3	3.6	284
Residence										
Urban	8.9	0.2	1.8	0.2	0.2	0.0	0.0	4.0	2.8	2,467
Rural	8.3	0.1	0.9	0.4	0.6	0.0	0.6	3.1	2.8	1,951
Region										
Dakar	9.4	0.2	2.4	0.2	0.0	0.0	0.0	4.3	2.8	1,381
Ziguinchor	9.3	0.3	2.2	0.4	0.3	0.0	0.3	2.7	3.5	210
Diourbel	9.3	0.0	1.6	0.0	0.0	0.0	0.7	5.6	1.4	354
Saint-Louis	15.6	0.0	2.9	0.5	0.4	0.0	0.0	6.9	5.6	266
Tambacounda	10.4	0.0	1.8	1.3	0.6	0.0	0.5	3.7	2.4	214
Kaolack	6.3	0.3	1.0	0.0	1.7	0.0	0.0	1.6	1.7	317
Thiès	6.6	0.3	0.0	0.3	0.6	0.0	0.5	2.2	2.9	565
Louga	7.2	0.0	0.3	0.3	0.6	0.0	0.6	2.4	3.3	262
Fatick	5.6	0.0	0.0	0.4	0.2	0.0	0.7	1.6	2.6	204
Kolda	5.1	0.0	0.2	0.0	0.0	0.0	0.0	1.3	3.8	198
Matam	11.5	0.0	1.8	0.0	0.8	0.0	0.9	7.5	0.5	152
Kaffrine	6.6	0.0	0.0	0.4	0.8	0.0	0.7	3.2	1.4	141
Kedougou	4.3	0.0	0.6	1.1	0.8	0.0	0.8	0.5	0.6	34
Sedhiou	8.3	0.0	0.6	0.0	0.2	0.0	0.0	1.4	6.1	120
Education										
No education	8.5	0.1	1.3	0.4	0.5	0.0	0.5	3.1	2.9	1,632
Primary	8.0	0.0	1.6	0.4	0.4	0.0	0.1	3.2	2.2	1,261
Secondary or more	9.4	0.3	1.4	0.1	0.2	0.0	0.2	4.4	3.2	1,525
Wealth quintile										
Lowest	9.9	0.0	1.3	0.7	1.1	0.0	0.7	3.4	3.1	665
Second	7.7	0.0	0.2	0.1	0.5	0.0	0.4	2.7	3.7	688
Middle	7.8	0.2	1.3	0.3	0.2	0.0	0.4	2.9	2.6	908
Fourth	8.4	0.1	1.2	0.0	0.1	0.0	0.0	4.2	3.0	1,019
Highest	9.4	0.3	2.5	0.4	0.3	0.0	0.1	4.3	2.2	1,137
Total 15-49	8.7	0.1	1.4	0.3	0.4	0.0	0.3	3.6	2.8	4,417
50-59	25.1	4.2	7.8	0.8	1.1	0.7	0.4	4.2	7.6	512
Total 15-59	10.4	0.6	2.1	0.3	0.4	0.1	0.3	3.7	3.3	4,929

[1] Multiple response. All responses to different types of disease may be higher than the percentage of patients.

NUPTIALITY

Jean Pierre Diamane BAHOUM

This chapter presents levels, trends, and differentials in marriage. In the Senegalese context marriage is an important proximate determinant of fertility because of its major role in exposing women to the risks of pregnancy. Moreover, the sexual activity of women greatly influences their reproductive behavior.

4.1 MARITAL STATUS

In Senegal, where the population is 95 percent Muslim, marriage is the customary practice, and permanent celibacy is a rather marginal phenomenon. Marriage is the event that legalizes the beginning of exposure to the risk of pregnancy. In the EDS-MICS 2010-2011, the term union applies to all women and men who are married or who report cohabiting with a partner. This category includes, in addition to civil, religious, or traditional marriages, *de facto* unions. As will be seen below, this latter category is rather rare.

Table 4.1 shows the distribution of women and men according to their marital status at the time of the survey. Two-thirds of women age 15-49 (66 percent) and four men in every ten age 15-59 (42 percent) were in union at the time of the survey. In Senegal union is truly marriage—99 percent of women and 99 percent of men reported as being in union are actually married. At the time of the survey, only 0.7 percent of women and 0.4 percent of men were living together with a partner without being married (consensual union). Never-married singles make up 29 percent of women and 56 percent of men; less than 4 percent of women and less than 2 percent of men are divorced or separated. About one woman in a hundred (1 percent) and only 0.2 percent of men are widowed. The later timetable for marriage among men explains the higher percentage of men than women who are still single. The practice of polygamy explains in part the low proportion of divorced and widowed men.

Table 4.1 also shows that the proportion of single women decreases rapidly with age, from 75 percent at age 15-19 to 17 percent at age 25-29 and to 4 percent at age 35-44; after age 45, never-married status is rare (less than 3 percent). Conversely, the proportion of women who are married increases with age, from 24 percent at age 15-19 to 59 percent at age 20-24, and then peaks at 88 percent at age 35-39. As with women, the percentage of single men decreases rapidly with age, the opposite of the percentage of married men. Men marry later than women. At age 20-24, 95 percent of men are still single in contrast with 38 percent of women in this age group (Figure 4.1).

The Senegalese marital situation has evolved over the period between 2005 and 2010-11 surveys. The proportion of women in union dropped from 68 percent in 2005 to 66 percent in 2010-11. For men, the decline was even greater, from 50 percent to 42 percent. In comparison with 2005 data, the percentage of never-married singles has greatly increased, especially among men—from 47 percent to 56 percent (9 percentage points), and from 27 percent to 29 percent (2 percentage points) among women (Table 4.1).

Table 4.1 Current marital status

Percent distribution of women and men age 15-49 by current marital status, according to age, EDS-MICS, Senegal 2010-11

Age	Never married	Married	Living together	Divorced	Separated	Widowed	Total	Percentage of respondents currently in union	Number of respondents
					WOMEN				
15-19	74.8	23.8	0.5	0.7	0.3	0.0	100.0	24.3	3,429
20-24	37.8	59.0	1.0	1.6	0.3	0.2	100.0	60.0	3,220
25-29	16.7	76.9	0.6	4.2	0.9	0.7	100.0	77.5	2,746
30-34	8.9	83.9	1.0	4.6	0.7	0.9	100.0	84.9	2,148
35-39	3.8	88.1	0.7	4.8	0.7	1.8	100.0	88.8	1,817
40-44	4.0	85.9	0.5	5.5	0.9	3.2	100.0	86.4	1,379
45-49	3.0	86.4	0.5	5.3	0.2	4.7	100.0	86.9	949
Total 15-49	29.2	65.3	0.7	3.2	0.5	1.1	100.0	66.0	15,688
EDS-IV 2005	27.0	64.9	2.7	3.0	1.2	1.1	100.0	67.6	14,602
					MEN				
15-19	99.3	0.7	0.0	0.0	0.0	0.0	100.0	0.7	1,170
20-24	94.5	5.4	0.0	0.0	0.0	0.0	100.0	5.4	897
25-29	63.9	34.6	0.4	0.1	1.0	0.0	100.0	35.1	701
30-34	32.1	63.1	1.1	2.8	0.8	0.2	100.0	64.2	545
35-39	16.8	78.8	0.1	3.3	0.0	1.0	100.0	78.9	438
40-44	5.6	89.4	2.6	2.3	0.0	0.1	100.0	92.0	383
45-49	4.0	91.0	0.0	4.0	0.5	0.5	100.0	91.0	284
Total 15-49	62.0	36.0	0.4	1.1	0.3	0.2	100.0	36.4	4,417
Men 50-59	2.9	93.6	0.0	2.4	0.3	0.7	100.0	93.6	512
Total 15-59	55.9	42.0	0.4	1.3	0.3	0.2	100.0	42.4	4,929
EDS-IV 2005	46.8	43.9	5.7	0.7	2.7	0.2	100.0	49.6	3,761

Figure 4.1
Proportion of single women and men by age

Percentage
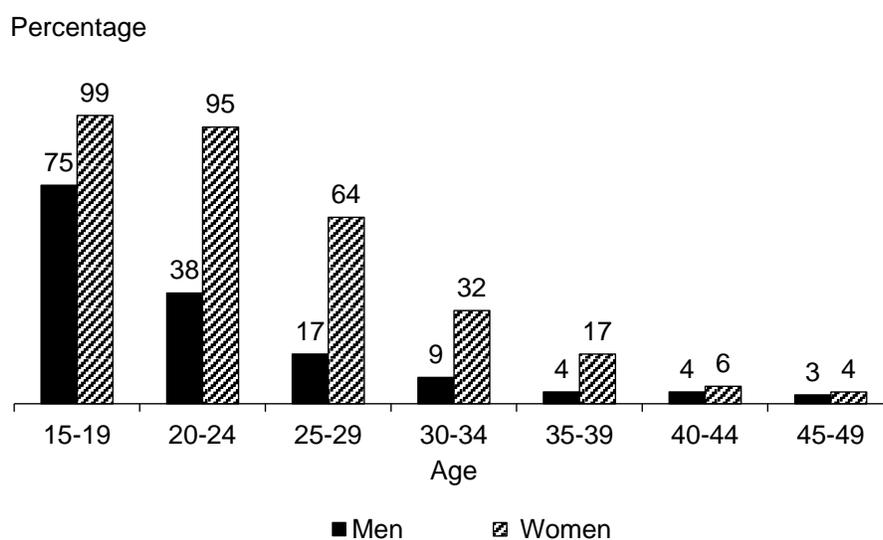
EDS-MICS 2010-11

4.2   POLYGAMY

The survey data distinguish women living in a monogamous union from those living in a polygamous union. Table 4.2 shows the distribution of married women by the number of co-wives and according to selected background characteristics. Despite the prevalence of monogamous unions (65 percent), polygamy is a fairly common practice that involves 35 percent of women in union. The most common form of polygamy is bigamy (75 percent of cases of polygamy). Just under 9 percent (8.6 percent) of women in union have two or more co-wives. The proportion of women in polygamous union increases steadily with age, from 20 percent at age 20-24 to 39 percent at age 30-34, and to 59 percent over age 40.

Table 4.2 Number of women's co-wives

Percent distribution of currently married women age 15-49 by number of co-wives, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Number of women's co-wives				Total	Number of women
	0	1	2+	Missing		
Age						
15-19	87.2	11.0	1.9	0.0	100.0	832
20-24	79.8	17.0	3.1	0.2	100.0	1,932
25-29	74.2	20.7	5.2	0.0	100.0	2,128
30-34	61.2	28.8	9.9	0.0	100.0	1,825
35-39	55.2	33.4	11.4	0.0	100.0	1,614
40-44	48.0	37.2	14.5	0.3	100.0	1,192
45-49	40.4	38.4	20.7	0.6	100.0	825
Residence						
Urban	72.1	21.3	6.3	0.2	100.0	4,256
Rural	60.5	29.1	10.3	0.1	100.0	6,091
Region						
Dakar	74.8	18.8	6.1	0.4	100.0	2,217
Ziguinchor	71.4	22.1	6.5	0.0	100.0	270
Diourbel	56.8	28.5	14.6	0.1	100.0	1,375
Saint-Louis	64.3	28.9	6.8	0.0	100.0	666
Tambacounda	60.7	28.1	11.2	0.0	100.0	577
Kaolack	57.4	31.0	11.6	0.1	100.0	815
Thiès	71.4	24.8	3.8	0.0	100.0	1,301
Louga	64.0	27.8	8.2	0.1	100.0	806
Fatick	72.2	20.0	7.8	0.0	100.0	485
Kolda	58.0	32.6	9.4	0.0	100.0	510
Matam	68.0	25.2	6.7	0.1	100.0	446
Kaffrine	55.6	29.9	14.5	0.1	100.0	449
Kédougou	51.7	38.1	10.1	0.0	100.0	97
Sédhiou	55.7	34.3	9.8	0.2	100.0	332
Education						
No education	60.3	29.3	10.3	0.1	100.0	7,326
Primary	76.6	18.9	4.4	0.0	100.0	2,049
Secondary or more	79.4	15.0	5.3	0.3	100.0	972
Wealth quintile						
Lowest	63.8	29.2	6.9	0.0	100.0	2,170
Second	62.8	27.8	9.3	0.1	100.0	2,079
Middle	63.0	28.3	8.6	0.1	100.0	1,976
Fourth	66.6	23.7	9.5	0.2	100.0	2,168
Highest	70.4	20.3	9.0	0.3	100.0	1,954
Total	65.3	25.9	8.6	0.1	100.0	10,347
EDS-IV 2005	60.2	28.3	11.2	0.3	100.0	9,866

The results also show significant differences in the frequency of the practice of polygamy according to certain socioeconomic characteristics. The proportion of women in polygamous union is higher in rural areas (39 percent) than in urban areas (28 percent). Similarly, the frequency of this practice is also highly variable from one region to another. Polygamy is practiced least in the Dakar region (25 percent) and in the regions of Fatick (28 percent), Thiès (29 percent), and Ziguinchor (29 percent). Conversely, it is more common in the regions of Kédougou (48 percent), Kaffrine (44 percent), Sédhiou (44 percent), Diourbel (43 percent), Kaolack (43 percent), and Kolda (42 percent) (Figure 4.2).

The proportion of marriages with at least three wives is highest (more than 15 percent) in the regions of Diourbel and Kaffrine. In addition, the proportion of married women with at least one co-wife decreases with the level of education, at 40 percent among women who have never attended school, 23 percent among women with a primary education, and 20 percent among women with secondary education or more. Finally, results according to the household wealth index show that polygamy is less common in wealthier quintiles (fourth and fifth quintiles).

Figure 4.2
Proportions of women in polygamous union
according to residence and region
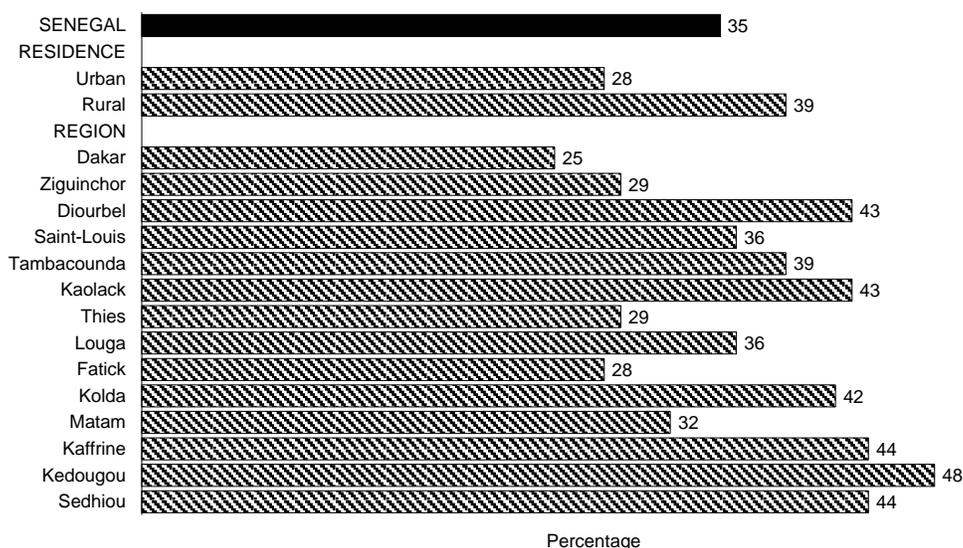
Percentage

EDS-MICS 2010-11

Regarding men (Table 4.3), the rate of polygamy, or ratio of men in polygamous union to the total of married men, is 17 percent. The rate is negligible before age 30 (less than 4 percent) but increases rapidly after that age, reaching 7 percent at age 30-34, 16 percent at age 40-44, and more than 20 percent after age 45. Results by area of residence show a clear difference between rural (18 percent polygamous) and urban areas (5 percent polygamous). Among men as among women, the regions of Dakar (3 percent), Saint-Louis (9 percent), and Thiès (10 percent) have the lowest percentages of men with at least two wives. Conversely, polygamy is most prevalent in the regions of Sédhiou (30 percent), Kaffrine, Kédougou, and Kaolack (22 percent each) (Figure 4.3). Again, the frequency of polygamy decreases with the level of education: 18 percent among men with no education, compared with 5 percent among men with primary school education, and less than 4 percent among men with secondary or more. Finally, the rate of polygamy decreases as the level of wealth increases, from 16 percent among the poorest households (lowest wealth quintile) to 4 percent among the wealthiest (highest wealth quintile).

In all, between 2005 and 2010-2011, regardless of the socio-demographic factor considered, the practice of polygamy has declined sharply in favor of monogamous unions, for both women and men.

Table 4.3 Number of men's wives

Percent distribution of currently married men age 15-49 by number of wives, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Number of wives		Total	Number of men
	1	2+		
Age				
15-19	100.0	0.0	100.0	9
20-24	96.7	3.3	100.0	49
25-29	97.9	2.1	100.0	246
30-34	93.4	6.6	100.0	350
35-39	91.0	9.0	100.0	345
40-44	83.7	16.3	100.0	352
45-49	72.5	27.5	100.0	258
Residence				
Urban	95.2	4.8	100.0	760
Rural	82.0	18.0	100.0	848
Region				
Dakar	96.8	3.2	100.0	445
Ziguinchor	88.3	11.7	100.0	52
Diourbel	81.2	18.8	100.0	126
Saint-Louis	91.2	8.8	100.0	96
Tambacounda	88.6	11.4	100.0	95
Kaolack	77.6	22.4	100.0	125
Thiès	90.2	9.8	100.0	194
Louga	88.8	11.2	100.0	118
Fatick	86.9	13.1	100.0	76
Kolda	83.6	16.4	100.0	93
Matam	85.1	14.9	100.0	65
Kaffrine	77.6	22.4	100.0	63
Kédougou	78.2	21.8	100.0	17
Sédhiou	69.9	30.1	100.0	44
Education				
No education	82.2	17.8	100.0	877
Primary	94.7	5.3	100.0	427
Secondary or more	96.3	3.7	100.0	304
Wealth quintile				
Lowest	83.7	16.3	100.0	361
Second	80.4	19.6	100.0	282
Middle	86.7	13.3	100.0	294
Fourth	93.0	7.0	100.0	332
Highest	96.3	3.7	100.0	339
Total 15-49	88.2	11.8	100.0	1,609
Men 50-59	64,6	35,4	100,0	479
Total 15-59	82,8	17,2	100,0	2,087
EDS-IV, 2005	80,0	20,0	100,0	1,866

Figure 4.3
Proportions of men in polygamous union
according to residence and region

SENEGAL	12
RESIDENCE	
Urban	5
Rural	18
REGION	
Dakar	3
Ziguinchor	12
Diourbel	19
Saint-Louis	9
Tambacounda	11
Kaolack	22
Thies	10
Louga	11
Fatick	13
Kolda	16
Matam	15
Kaffrine	22
Kedougou	22
Sedhiou	30

Percentage
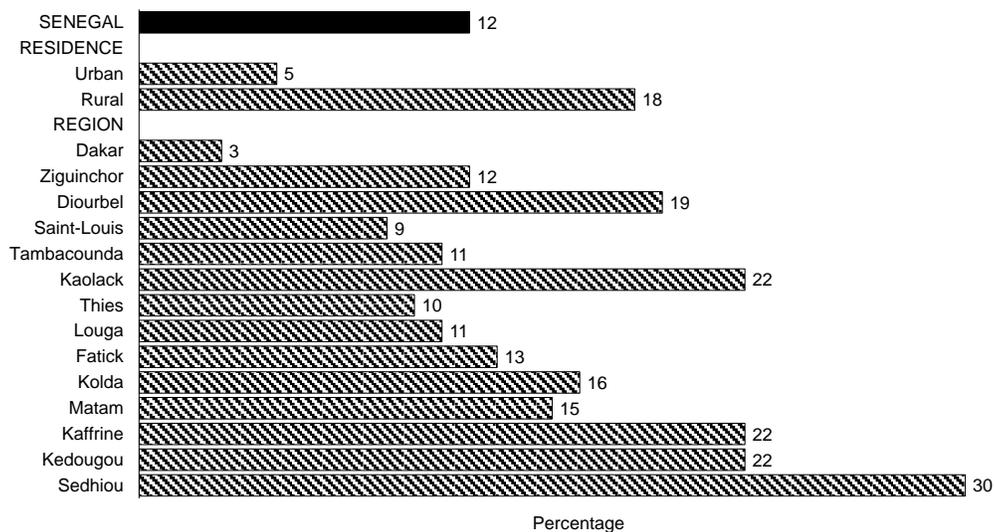
EDS-MICS 2010-11

4.3   AGE AT FIRST UNION

It is important to consider the timing of the first marriage because of the close relationship between age at first marriage and the beginning of reproductive life. Table 4.4 shows the proportions of women and men in union who were already in union at various exact ages, as well as the median age at first union according to current age.

In Senegal the age at first marriage for women is rather young. Among women age 25-49 at the time of the survey, 16 percent were already in union before reaching age 15, although according to the Family Code adopted in 1973 a woman cannot get married before age 16. Four in every ten women (40 percent) were already in union when they reached age 18, and nearly eight in every ten (78 percent) were in union before age 25 (Table 4.4). The median age of entry into first marriage for women age 25-49 is 19.3 years; it is 19.6 years among all women age 20-49. There has been an increase in the age at first union from the older age groups to the most recent. The median age at first union rises from 18.3 years among women in the 45-49 age group to 19.7 years among women age 35-39, and 20 years among women age 20-29. Similarly, the proportion of women who entered into first union before age 18 diminishes from the oldest age groups to the youngest, at 48 percent for women currently age 45-49 and 33 percent for women age 20-24.

Men enter into first union at a much later age than women. Until age 30, more than 50 percent of men are still single; the median age at first union is around 29 years for men age 30-39. Among men age 20-49, only 5 percent were in union before reaching age 20; among men age 25-49, 6 percent were married by age 20 and 12 percent were married by age 22. As among women, the percentage of men married before certain exact ages suggests a rising trend in the age at first marriage.

Between 2005 and 2010-11, the age at first union has risen significantly, from 18.5 years to 19.6 years among women age 20-49. Among men, the age at first union has increased from 28.1 to 29 years.

Table 4.4 Age at first marriage

Percentage of women and men age 15-49 who were first married by specific exact ages, and median age at first marriage, according to current age, EDS-MICS, Senegal 2010-11

Current age	Percentage first married by exact age:					Percentage never married	Number of respondents	Median age at first marriage
	15	18	20	22	25			
Women								
15-19	9.3	na	na	na	na	74.8	3,429	a
20-24	12.0	32.9	47.7	na	na	37.8	3,220	a
25-29	14.2	36.2	50.6	63.9	76.6	16.7	2,746	19.9
30-34	14.4	38.0	53.0	63.8	76.3	8.9	2,148	19.5
35-39	15.2	38.7	52.1	62.7	76.5	3.8	1,817	19.7
40-44	21.7	49.3	62.8	72.0	80.8	4.0	1,379	18.1
45-49	20.1	47.7	60.9	70.4	80.9	3.0	949	18.3
20-49	15.1	38.4	52.6	na	na	16.5	12,259	19.6
25-49	16.2	40.3	54.4	65.6	77.6	8.9	9,040	19.3
EDS-IV, 2005	13.5	45.5	61.0	71.4	79.7	13.1	11,046	18.5
Men								
15-19	0.0	na	na	na	na	99.3	1,170	a
20-24	0.0	1.0	2.4	na	na	94.5	897	a
25-29	1.4	2.6	5.8	9.8	23.0	63.9	701	a
30-34	0.9	1.7	4.0	9.5	22.7	32.1	545	28.9
35-39	1.4	3.6	8.3	15.2	26.4	16.8	438	29.5
40-44	0.5	1.7	4.5	12.0	22.3	5.6	383	a
45-49	0.4	2.8	8.2	13.5	26.4	4.0	284	29.0
20-49	0.7	2.0	4.9	na	na	48.6	3,248	a
25-49	1.0	2.4	5.9	11.5	23.9	31.0	2,350	a
20-59	0.8	2.1	5.2	na	na	42.3	3,759	a
25-59	1.1	2.5	6.0	11.4	24.5	26.0	2,862	a
EDS-IV, 2005	0.5	4.5	8.8	17.0	32.2	20.0	2,190	28.1

Note: The age at first marriage is defined as the age at which the respondent began living with her/his first spouse/partner.
na = Not applicable due to censoring
a = Omitted because less than 50 percent of the women or men began living with their spouse or partner for the first time before reaching the beginning of the age group.

Table 4.5 and Figure 4.4 show the median age at first union for women age 20-49 by select background characteristics. The place of residence greatly influences the timing of first marriage. Women in urban areas marry later than those in rural areas (21.5 years versus 17.7 years, among women age 25-49). Regional differences in age at first union are also important (Figure 4.4). Dakar (median age 22.4 years) and Ziguinchor (22.0 years) are at one extreme, while at the other extreme the regions with the youngest median ages at first union are Kédougou (16.4 years), Kolda (16.5 years), and Matam (16.7 years). Similarly, age at first marriage is highly correlated with level of education: the median age at first marriage among women with no education is 17.9 years compared with 21.5 years among women with education at the primary level. Finally, the median age at first union increases with the level of wealth, and is particularly high among women in the richest households, at 23.2 years compared with 16.5 years among women in the poorest households.

Table 4.5 Median age at first marriage by background characteristics

Median age at first marriage among women age 20-49 and age 25-49, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Women's age	
	20-49	25-49
Residence		
Urban	a	21.5
Rural	17.8	17.7
Region		
Dakar	a	22.4
Ziguinchor	a	22.0
Diourbel	18.3	18.3
Saint-Louis	19.6	19.1
Tambacounda	17.3	17.3
Kaolack	18.7	18.4
Thiès	a	20.9
Louga	18.4	18.3
Fatick	19.0	18.6
Kolda	16.5	16.5
Matam	16.9	16.7
Kaffrine	17.3	17.1
Kédougou	16.3	16.4
Sédhiou	17.8	17.5
Education		
No education	18.0	17.9
Primary	a	21.5
Secondary or more		
Wealth quintile		
Lowest	16.5	16.5
Second	17.9	17.7
Middle	19.4	19.1
Fourth	a	20.6
Highest	a	23.2
Total	19.6	19.3
EDS-IV, 2005	18.5	18.3

Note: The age at first marriage is defined as the age at which the respondent began living with his/her first spouse/partner.
a = Omitted because less than 50 percent of the respondents began living with their spouses/partners for the first time before reaching the beginning of the age group.

Figure 4.4
Median age at first marriage among women age 25-49

SENEGAL	19
RESIDENCE	
Urban	22
Rural	18
REGION	
Dakar	22
Ziguinchor	22
Diourbel	18
Saint-Louis	19
Tambacounda	17
Kaolack	18
Thies	21
Louga	18
Fatick	19
Kolda	17
Matam	17
Kaffrine	17
Kedougou	16
Sedhiou	18
EDUATION	
None	18
Primary	22
WEALTH QUINTILE	
Lowest	17
Second	18
Middle	19
Fourth	21
Highest	23

Percentage
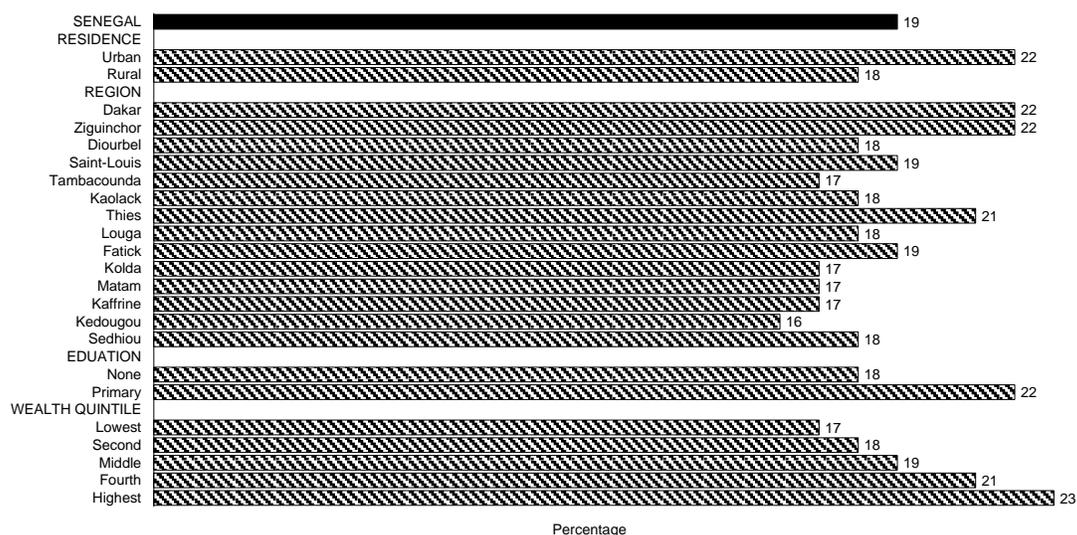
EDS-MICS 2010-11

4.4   AGE AT FIRST SEXUAL INTERCOURSE

As a determinant of fertility, age at first sexual intercourse is as important as age at first union, since sexual intercourse does not take place exclusively within the confines of the union. For this reason, respondents were asked about the age at which they had sex for the first time. Table 4.6 shows the proportions of women and men who had sexual intercourse before reaching certain exact ages, the percentages who have never had sexual intercourse, and the median age at first sexual intercourse, according to current age.

Among women age 20-49, 15 percent had sexual intercourse before age 15, and 56 percent before age 20. The median age at first sexual intercourse among women age 20-49 is estimated to be 19.0 years. This is almost the same age as the age of entry into first union (19.9 years). From the oldest age groups to the most recent, the median age at first intercourse has risen significantly, from 17.9 years among women age 45-49 to over 19 years among women age 20-29. Finally, 13 percent of women age 20-49 said they have never had sexual intercourse.

Table 4.6 Age at first sexual intercourse

Percentage of women and men age 15-49 who had first sexual intercourse by specific exact ages, percentage who never had sexual intercourse, and median age at first sexual intercourse, EDS-MICS, Senegal 2010-11

Current age	Percentage who had first sexual intercourse by exact age:					Percentage who never had sexual intercourse	Number	Median age at first sexual intercourse
	15	18	20	22	25			
WOMEN								
15-19	9.6	na	na	na	na	72.1	3,429	a
20-24	11.9	34.8	51.2	na	na	32.6	3,220	19.8
25-29	13.4	39.5	54.0	65.7	76.2	13.2	2,746	19.4
30-34	14.8	40.2	56.3	67.2	77.0	6.1	2,148	19.0
35-39	17.2	42.9	55.4	67.0	77.4	1.4	1,817	18.9
40-44	21.4	53.9	65.5	74.2	82.2	2.3	1,379	17.6
45-49	20.6	50.5	62.8	70.6	79.6	1.6	949	17.9
20-49	15.3	41.4	55.8	na	na	13.2	12,259	19.0
25-49	16.5	43.7	57.5	68.1	77.9	6.3	9,040	18.8
15-24	10.7	na	na	na	na	53.0	6,648	a
EDS-IV, 2005	13.4	44.1	59.1	68.2	74.7	12.3	11,046	18.7
MEN								
15-19	6.3	na	na	na	na	80.9	1,170	a
20-24	3.1	19.7	34.5	na	na	55.0	897	a
25-29	2.6	21.4	35.0	50.0	62.6	25.9	701	22.0
30-34	3.6	18.1	31.8	45.8	57.9	8.5	545	22.7
35-39	4.5	19.2	36.0	51.2	62.7	1.6	438	21.8
40-44	2.6	17.0	33.5	52.3	64.1	0.4	383	21.6
45-49	2.4	14.4	28.2	44.8	56.0	0.9	284	22.7
20-49	3.2	18.9	33.7	na	na	22.6	3,248	a
25-49	3.2	18.7	33.4	49.0	61.0	10.2	2,350	22.2
15-24	4.9	na	na	na	na	69.7	2,067	a
20-59	2.9	17.8	31.9	na	na	19.6	3,759	a
25-59	2.8	17.3	31.1	46.7	59.3	8.5	2,862	22.7
EDS-IV, 2005	5.4	25.4	40.5	55.6	69.1	6.0	2,190	20.9

na = Not applicable due to censoring
a = Omitted because less than 50 percent of the respondents had sexual intercourse for the first time before reaching the beginning of the age group.

Among men age 25-59, 17 percent already had first sexual intercourse by age 18, while 47 percent had first sexual intercourse by age 22, and 59 percent by age 25. The median age at first sexual intercourse for men, at 22.7 years, hardly varies from the oldest age groups to the youngest. Finally, men have their first sexual intercourse about seven years before their entry into first union.

Figure 4.5
Median age at first sexual intercourse among women
and men according to background characteristics

Age

■ Women 25-49   ■ Men 25-59

EDS-MICS 2010-11
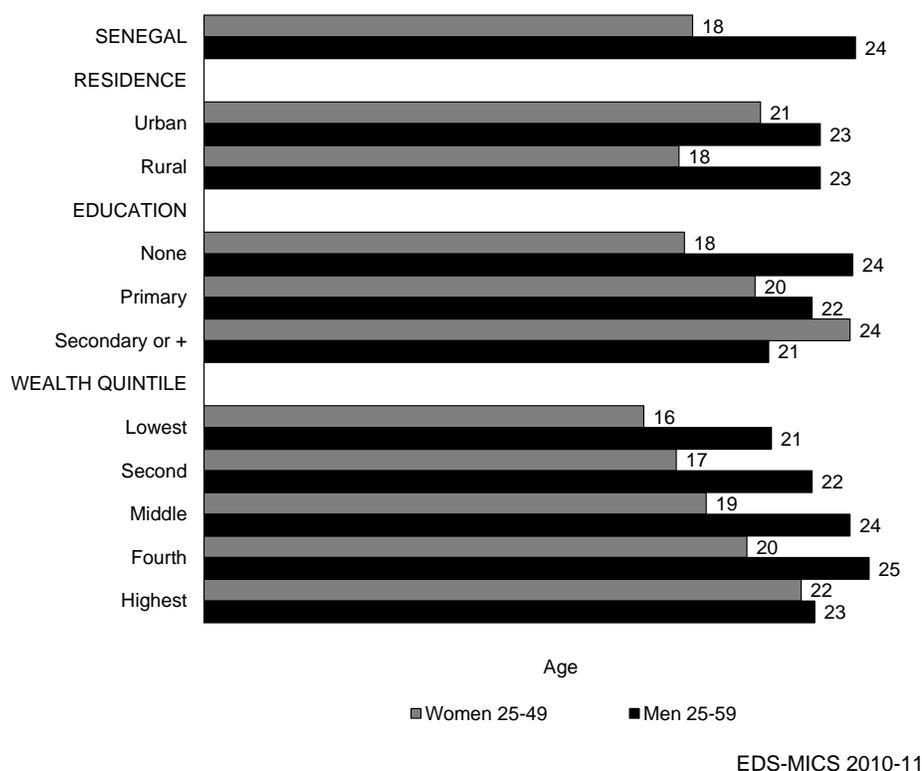
Between 2005 and 2010-11, the median age at first intercourse for women age 20-49 remained practically unchanged; at 18.7 years in 2005, it was 18.8 years in 2010-11. In contrast, for men age 25-59 median age at first sexual intercourse rose over this period, from 20.9 to 22.7 years.

These results mask significant differences by selected background characteristics, as shown in Table 4.7, which presents the median age at first intercourse for women and men. Urban women begin their sexual lives 3.5 years later than women in rural areas (20.5 years versus 17.5 years) (Figure 4.5). Women with a secondary level of education, or more, become sexually active six years later than those with no education (23.8 years versus 17.7 years). Similarly, women living in households in the wealthiest quintile (22.0 years) start their sexual lives much later than those in the poorest quintile (16.2 years), a six-year gap. Differences in entry into sexual life between regions are significant. The beginning of sexual life takes place latest in the regions of Dakar (20.8 years) and Thiès (20.4 years), while entry into sexual life is earliest in the regions of Kolda (16.0 years), Kédougou (16.4 years), Sédhiou (16.6 years), and Matam (16.7 years). Among men, the age at entry into sexual life varies little by socio-demographic factors. Regardless of the factor considered, the median is around 23 years.

Table 4.7 Median age at first sexual intercourse by background characteristics

Median age at first sexual intercourse among women age 20-49 and age 25-49, and median age at first sexual intercourse among men age 20-59 and 25-59, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Women's age		Men's age	
	20-49	25-49	20-59	25-59
Residence				
Urban	a	20.5	a	22.7
Rural	17.7	17.5	a	22.7
Region				
Dakar	a	20.8	**a**	22.7
Ziguinchor	18.5	18.3	19.6	19.7
Diourbel	18.4	18.3	a	a
Saint-Louis	19.3	18.7	a	a
Tambacounda	17.1	17.1	18.8	18.9
Kaolack	18.3	18.1	a	24.1
Thiès	a	20.4	a	24.6
Louga	18.3	18.2	a	23.8
Fatick	18.8	18.5	a	23.7
Kolda	16.1	16.0	19.9	20.4
Matam	17.1	16.7	a	21.9
Kaffrine	17.3	17.0	a	21.3
Kédougou	16.4	16.4	a	20.9
Sédhiou	16.6	16.6	19.6	20.0
Education				
No education	17.8	17.7	a	23.9
Primary	a	20.3	a	22.4
Secondary or more	a	23.8	a	20.8
Wealth quintile				
Lowest	16.3	16.2	a	20.9
Second	17.6	17.4	a	22.4
Middle	18.7	18.5	a	23.8
Fourth	a	20.0	a	24.5
Highest	a	22.0	a	22.5
Total	19.0	18.8	a	22.7
EDS-IV, 2005	18.7	18.4	a	20.9

a = Omitted because less than 50 percent of the respondents had sexual intercourse for the first time before reaching the beginning of the age group.

4.5 RECENT SEXUAL ACTIVITY

The frequency of sexual intercourse is also a factor in exposure to the risk of pregnancy, in particular when the prevalence of modern contraception is low, as in Senegal. Table 4.8 presents the survey results concerning sexual activity for women age 15-49. Overall, 43 percent of women were sexually active at the time of the survey, based on their reporting that they had sexual intercourse at least once in the four weeks preceding the survey. In 20 percent of cases women had their most recent sexual intercourse 1-11 months before the survey, and for 11 percent their last sexual intercourse was more than a year before the survey. However, 26 percent of women said they have never had sexual intercourse.

The proportion of sexually active women at the time of the survey increases with age, from 14 percent at age 15-19 (at which age 72 percent have never had sexual intercourse) to 37 percent at age 20-24, and 59 percent at age 40-44. With regard to marital status, the results show that sexual activity is very rare among single women (2 percent) and among women out of union (less than 4 percent). In contrast, more than six in every ten married women (64 percent) are sexually active; 25 percent had their most recent sexual intercourse in the past 1 to 11 months. In addition, the length of the union seems to influence recent sexual activity very slightly. Among women who have been in only one union, the proportion sexually active varies from 60 percent among those whose length of union is four years or less to 71 percent among those who have been in union for 20 to 24 years, and 70 percent among those in union for 25 years or more.

The proportion of sexually active women is higher in rural areas (49 percent) than in urban areas (37 percent). Women from the regions of Ziguinchor (32 percent), Dakar (37 percent), Kédougou (37 percent), Sédhiou (38 percent), and Kolda (39 percent) were less likely to report being sexually active than were women in the regions of Kaffrine (54 percent) and Tambacounda (51 percent). In addition, 52 percent of women with no education said they were sexually active, compared with 21 percent with a secondary education or more. Finally, the proportion of sexually active women decreases with the level of wealth.

Table 4.8 Recent sexual activity: Women

Percent distribution of women age 15-49 by timing of last sexual intercourse, according to background characteristics, EDS-MICS, Senegal 2010-11

| Background characteristic | Timing of last sexual intercourse: | | | | | Number of women |
	Within the past 4 weeks	Within 1 year[1]	One or more years	Missing	Total	
Age						
15-19	14.1	10.0	3.8	72.1	100.0	3,429
20-24	37.3	21.7	8.4	32.6	100.0	3,220
25-29	51.5	22.7	12.6	13.2	100.0	2,746
30-34	57.2	23.1	13.6	6.1	100.0	2,148
35-39	58.9	24.1	15.6	1.4	100.0	1,817
40-44	59.4	20.0	18.3	2.3	100.0	1,379
45-49	58.4	22.0	18.0	1.6	100.0	949
Marital status						
Never married	2.2	6.3	5.1	86.4	100.0	4,585
Married or living together	64.2	25.0	9.5	1.2	100.0	10,347
Divorced/separated/ widowed	3.8	26.9	69.4	0.0	100.0	757
Marital duration[2]						
0-4 years	59.8	29.3	5.9	5.0	100.0	2,442
5-9 years	64.6	25.6	9.7	0.1	100.0	2,008
10-14 years	65.6	24.5	9.9	0.0	100.0	1,642
15-19 years	68.7	22.3	8.9	0.0	100.0	1,091
20-24 years	70.6	21.1	8.3	0.0	100.0	877
25+ years	70.0	21.1	8.9	0.0	100.0	901
Married more than once	58.4	24.6	16.7	0.2	100.0	1 385
Residence						
Urban	37.1	16.8	12.4	33.7	100.0	7,738
Rural	49.1	22.4	9.8	18.6	100.0	7,950
Region						
Dakar	36.6	16.2	13.6	33.7	100.0	4,078
Ziguinchor	32.4	27.3	14.3	26.0	100.0	581
Diourbel	46.7	20.0	9.4	23.9	100.0	1,851
Saint-Louis	41.9	18.8	10.8	28.4	100.0	1,034
Tambacounda	51.0	24.3	11.2	13.6	100.0	725
Kaolack	47.2	22.2	5.8	24.8	100.0	1,172
Thiès	48.3	15.5	5.7	30.5	100.0	2,030
Louga	48.5	18.6	8.0	24.9	100.0	1,130
Fatick	45.0	22.6	7.9	24.5	100.0	717
Kolda	39.3	28.4	19.3	13.0	100.0	640
Matam	42.2	18.6	22.7	16.5	100.0	595
Kaffrine	53.7	21.9	6.5	17.9	100.0	572
Kédougou	37.4	25.9	23.5	13.1	100.0	115
Sédhiou	37.7	28.7	19.6	14.0	100.0	448
Education						
No education	52.2	22.1	12.0	13.8	100.0	9,079
Primary	39.9	20.6	10.9	28.6	100.0	3,414
Secondary or more	21.2	11.8	8.8	58.3	100.0	3,195
Wealth quintile						
Lowest	53.7	24.6	10.1	11.6	100.0	2,585
Second	48.3	23.0	9.9	18.8	100.0	2,805
Middle	42.2	20.2	9.7	27.9	100.0	3,114
Fourth	40.7	18.3	12.7	28.3	100.0	3,494
Highest	35.0	14.4	12.5	38.1	100.0	3,689
Total	43.2	19.6	11.1	26.1	100.0	15,688
EDS-IV, 2005	45.3	17.0	8.0	26.6	100.0	14,602

[1] Excludes women who had sexual intercourse within the past 4 weeks.
[2] Excludes women who are not currently married.

At the time of the survey, 37 percent of men age 15-59 said they were sexually active, and 34 percent of men said they have never had sexual intercourse (Table 4.9). For 18 percent of men, their most recent sexual intercourse took place between 1 and 11 months before the survey. The percentage of sexually active men increases with age. Also, the percentage is higher in rural areas (38 percent) than urban areas (28 percent). As was observed among women, the proportion of men who said they were sexually active decreases with their levels of education and wealth. Notable variations are also found according to region, from 26 percent in Dakar to 48 percent in Tambacounda.

Table 4.9 Recent sexual activity: Men

Percent distribution of men age 15-49 by timing of last sexual intercourse, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Timing of last sexual intercourse:				Never had sexual intercourse	Total	Number of women
	Within the past 4 weeks	Within 1 year[1]	One or more years	Missing			
Age							
15-19	2.8	8.5	7.8	0.0	80.9	100.0	1,170
20-24	11.1	20.3	13.6	0.0	55.0	100.0	897
25-29	33.5	22.9	17.3	0.5	25.9	100.0	701
30-34	53.1	24.4	12.8	1.2	8.5	100.0	545
35-39	64.8	21.2	11.7	0.7	1.6	100.0	438
40-44	70.9	22.1	6.6	0.0	0.4	100.0	383
45-49	73.1	17.2	8.5	0.3	0.9	100.0	284
Marital status							
Never married	7.4	15.8	15.4	0.3	61.1	100.0	2,738
Married or living together	75.0	21.0	3.6	0.0	0.4	100.0	1,609
Divorced/separated/widowed	14.4	42.9	36.9	5.8	0.0	100.0	71
Marital duration[2]							
0-4 years	67.2	29.3	2.2	0.0	1.3	100.0	399
5-9 years	70.5	25.1	4.4	0.0	0.0	100.0	334
10-14 years	86.0	11.5	2.5	0.0	0.0	100.0	188
15-19 years	74.0	24.3	1.7	0.0	0.0	100.0	114
20-24 years	80.4	14.5	5.1	0.0	0.0	100.0	42
25+ years	95.0	5.0	0.0	0.0	0.0	100.0	19
Married more than once	79.0	15.6	5.1	0.1	0.2	100.0	512
Residence							
Urban	27.8	19.2	14.6	0.5	37.9	100.0	2,467
Rural	37.6	16.8	7.4	0.0	38.2	100.0	1,951
Region							
Dakar	26.3	19.3	17.3	0.8	36.3	100.0	1,381
Ziguinchor	37.3	25.8	9.1	0.4	27.4	100.0	210
Diourbel	32.2	6.0	7.1	0.0	54.7	100.0	354
Saint-Louis	32.0	18.5	8.4	0.4	40.7	100.0	266
Tambacounda	48.4	21.3	5.4	0.0	25.0	100.0	214
Kaolack	30.8	20.0	2.5	0.0	46.7	100.0	317
Thiès	29.9	16.0	9.7	0.0	44.4	100.0	565
Louga	37.4	10.7	9.1	0.0	42.9	100.0	262
Fatick	35.7	14.2	13.3	0.0	36.8	100.0	204
Kolda	36.4	26.1	11.4	0.2	25.9	100.0	198
Matam	43.8	20.9	9.9	0.0	25.3	100.0	152
Kaffrine	34.4	20.0	11.5	0.0	34.1	100.0	141
Kédougou	35.9	28.9	11.7	0.0	23.6	100.0	34
Sédhiou	32.3	26.4	14.2	0.0	27.2	100.0	120
Education							
No education	43.3	18.0	7.4	0.3	31.0	100.0	1,632
Primary	32.2	17.0	13.8	0.3	36.7	100.0	1,261
Secondary or more	20.1	19.2	13.7	0.3	46.6	100.0	1,525
Wealth quintile							
Lowest	44.3	19.7	7.8	0.1	28.1	100.0	665
Second	35.6	17.4	7.9	0.0	39.1	100.0	688
Middle	30.4	19.3	10.9	0.0	39.3	100.0	908
Fourth	28.9	15.5	11.9	0.6	43.1	100.0	1,019
Highest	27.1	19.1	15.6	0.5	37.6	100.0	1,137
Total 15-49	32.1	18.1	11.4	0.3	38.0	100.0	4,417
Men 50-59	77.6	14.4	6.7	0.2	1.1	100.0	512
Total 15-59	36.8	17.7	10.9	0.3	34.2	100.0	4,929

[1] Excludes women who had sexual intercourse within the past 4 weeks.
[2] Excludes women who are not currently married.

FERTILITY

5

Ndèye Binta DIEME

As in previous demographic and health surveys, in the EDS-MICS 2010-11 information was collected on the birth history of women in order to estimate the levels of fertility, identify trends, and assess any differences between socioeconomic groups. To this end, all women age 15-49 from the selected households were asked about their total number of live births, children living with them and those living elsewhere, as well as those still alive and those who had died. Next, a complete history of all of the woman's births was obtained, from the oldest to the most recent, while recording fertility data for each birth on the type of birth (single or multiple), sex, date of birth, and current age of the child.

The data collected are used to estimate not only the level of fertility during the current period but also fertility trends over the 20 years preceding the survey. However, it is worth mentioning that certain limitations are inherent in retrospective surveys. These are:

- Under-registration of births, especially the omission of infants, children who do not live with their mothers, and children who die very young, a few hours or days after birth, which can lead to underestimation of fertility levels;

- Inaccuracy of statements about dates of birth and/or age, especially attraction to particular years of birth and age rounding, which could lead to under-estimates or over–estimates of fertility for certain age groups and/or certain periods of time;

- Selective survival bias, that is, the fact that women surveyed are survivors. Assuming that the fertility of women who died before the survey is different from that of survivors, fertility levels achieved would be slightly biased.

The information may also be affected by misclassification of birth dates of children born since 2005, transferred to previous years. These birth-year transfers, found in most DHS-type surveys, are sometimes made by interviewers to avoid asking questions about the health of children born since 2005 (sections 4 and 5 of the questionnaire). It was found that in the EDS-MICS 2010-11 some births were transferred[1] from 2005 to 2004. However, these transfers were not significant enough to affect current fertility levels significantly.

5.1 LEVEL OF FERTILITY AND DIFFERENTIAL FERTILITY

The level of fertility is measured by fertility rates according to age, and by the total fertility rate (TFR). Fertility rates by age are calculated by comparing the births of women in each age group to the number of women in the corresponding age group. The TFR, which is an indicator of fertility trends, is obtained from the cumulative fertility rates by age. It corresponds to the average number of children that would be born per woman at the end of her childbearing years if current fertility rates remained invariable. For current fertility, the fertility rates and TFR were calculated for the period of three years preceding the survey. This three-year

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[1] In Appendix C, Table C.4 provides the distribution of births by year of birth. The ratio of annual births—ratio of yearly births x to the half sum of births in the preceding and following years, or $NJ[(Nx-i+Nx+J/2)]$—takes into account any displacements of birth years. The ratio seems to indicate a lack of births in 2005 (ratio = 87 < 100) and an excess of births in 2004 (ratio = 114> 100).

reference period was chosen in order to provide indicators of the most recent fertility possible, while having enough cases to reduce the number of sampling errors.

Table 5.1 and Figure 5.1 show that the fertility rates by age follow a classic pattern generally observed in high-fertility countries: high early fertility (93 percent at age 15-19), which increases very rapidly to a peak at age 25-29 (241 percent), and thereafter decreases steadily to 13 percent at age 45-49. Overall, the fertility of Senegalese women is still high: on average, a woman gives birth to five children (TFR of 5.0) by the end of her reproductive life. The overall general fertility rate (GFR), that is, the average annual number of live births in the population of women of childbearing age, and the crude birth rate (CBR), which is the ratio between the number of live births and the average population of the year are estimated at, respectively, 168 percent and 37 percent[2].

This overall fertility level masks significant differences by area of residence. Fertility is much lower in urban than rural areas (an urban TFR of 3.9 compared with a rural TFR of 6.3)—that is, by the end of their reproductive lives, women in rural areas give birth to an average of two more children than women in urban areas. This urban-rural difference in fertility levels is observed at all ages, particularly among women under age 20. Of these, rural women are twice as fertile as urban women.

Table 5.1 Current fertility

Age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the three years preceding the survey, by residence, EDS-MICS, Senegal 2010-11

	Residence		
Age group	Urban	Rural	Total
15-19	60	125	93
20-24	147	256	201
25-29	203	277	241
30-34	186	251	219
35-39	127	185	156
40-44	57	88	73
45-49	3	24	13
TFR (15-49)	3.9	6.0	5.0
GFR	131	205	168
CBR	32.3	41.6	37.4

Notes: Age-specific fertility rates are per 1,000 women. Ra age group 45-49 may be slightly biased due to truncation. Ra for the period 1-36 months prior to interview.
TFR: Total fertility rate expressed per woman
GFR: General fertility rate expressed per 1,000 women age 1
CBR: Crude birth rate expressed per 1,000 population

Figure 5.1
Age-specific fertility rates according to residence
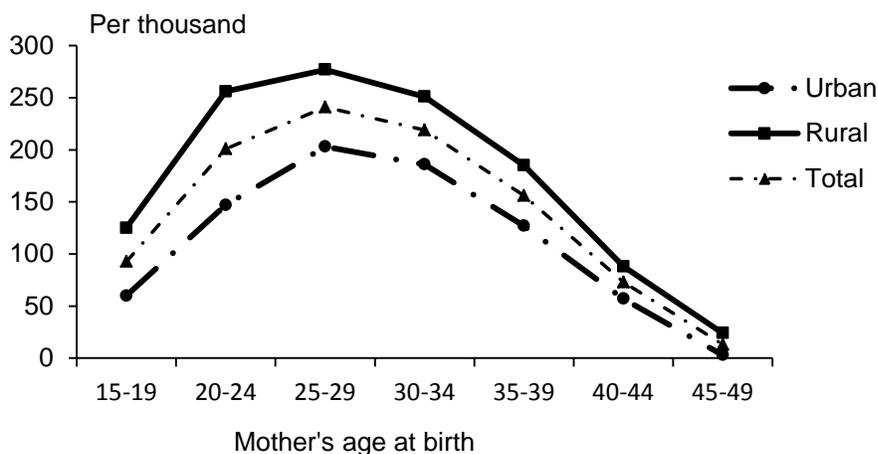
EDS-MICS 2010-11

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[2] The Crude Birth Rate (CBR) is the mean annual number of live births in the population of women of reproductive age.

The TFR also varies dramatically by region of residence. Four distinct regional groupings can be identified: Dakar has the lowest fertility (a TFR of 3.7 children per woman). Next are Ziguinchor, Thiès, and Louga (each with a TFR of 4.8). In the third group, Saint-Louis, Diourbel, and Matam, the TFR is around 5.5 children. The highest fertility levels are found in the regions of Kaolack and Kaffrine (formerly part of the region of Kaolack), Tambacounda and Kédougou (formerly within the region of Tambacounda), Sédhiou and Kolda (both included within the former region of Kolda), and Fatick, with a TFR of 6.0 or higher.

Table 5.2 also highlights the very powerful effect of women's education on fertility. Uneducated women average 1.3 children more than women with primary education (a TFR of 5.8 versus 4.5), and average twice as many as women with secondary education or more (a TFR of 2.9).

In addition, a strong negative correlation exists between fertility and the level of wealth, with fertility decreasing steadily as the level of wealth increases. Women in the richest wealth quintile have a fertility level half that of women in the poorest quintile (a TFR of 3.3 versus 7).

Differentials similar to those observed for the TFR are found with regard to the number of live births per woman, as well as the percentage of women pregnant at the time of the survey.

Table 5.2 also includes the average number of live births to women age 40-49, comparable to the final fertility number. Unlike the TFR (which measures the current fertility of women age 15-49), this index is the result of past fertility of women who have reached the end of their reproductive life. In a population where fertility remains constant, the total number of descendants tends to be close to the TFR. However, a TFR lower than the average number of children born per woman by the end of her reproductive life indicates a downward trend in fertility. In Senegal the difference between the TFR (5.0) and average number of children born to women age 40-49 (5.7)—a difference of 0.7

Table 5.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage of women age 15-49 currently pregnant, and mean number of children ever born to women age 40-49, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Total fertility rate	Percentage of women age 15-49 currently pregnant	Mean number of children ever born to women age 40-49
Residence			
Urban	3.9	5.9	4.8
Rural	6.0	9.4	6.6
Region			
Dakar	3.7	6.5	4.6
Ziguinchor	4.8	6.4	5.4
Diourbel	5.2	6.6	6.1
Saint-Louis	5.0	8.5	5.5
Tambacounda	6.0	11.7	6.2
Kaolack	6.0	8.7	6.9
Thiès	4.8	6.3	5.1
Louga	4.8	6.7	5.9
Fatick	6.3	8.9	6.7
Kolda	6.8	11.9	7.3
Matam	5.4	8.5	6.3
Kaffrine	6.5	9.8	7.0
Kédougou	6.1	11.1	6.7
Sédhiou	6.9	9.6	6.8
Education			
No education	5.8	9.1	6.3
Primary	4.5	7.7	4.6
Secondary or more	2.9	3.6	3.4
Wealth quintile			
Lowest	7.0	12.1	7.2
Second	6.2	8.9	6.7
Middle	5.0	7.0	5.9
Fourth	4.3	5.9	5.3
Highest	3.3	6.0	4.0
Total	5.0	7.7	5.7
EDS-IV, 2005	5.3	8.5	6.4
EDS-III, 1997	5.7	8.2	7.1

Note: Total fertility rates are for the period 1-36 months preceding the interview.

children—is significant enough to suggest a downward trend in fertility (Figure 5.2). The most important differences between these two indices are observed among urban women (0.9), among women with secondary education or more (0.5), among women with no education (0.5), and among women in the regions of Louga (1.1) and Dakar, Diourbel, Kaolack, and Matam (0.9). Thus it is among these women that the level of fertility would be most likely to decrease. However, it is clear that the region of Sédhiou does not follow the same trend. Indeed, the TFR is slightly higher than the fertility of women age 40-49, which could suggest that younger women have higher fertility than in the past.

Table 5.2 also shows the percentage of women who said they were pregnant at the time of the survey. It should be noted that this is not the exact number of women who are pregnant to the extent that the respondents who are in early pregnancy and do not know it do not report their status. At the national level, about 8 percent of women surveyed reported being pregnant. The proportions of pregnant women have the same variations as the TFR for selected background characteristics, with the exception of the level of wealth, where the proportion of pregnant women in the richest quintile is slightly higher than that for the fourth quintile.

5.2   TRENDS IN FERTILITY

Senegal has carried out five Demographic and Health Surveys over the last 25 years, with one of the main goals being to estimate of the level of fertility. Trends in fertility can be assessed from these five sources of data (Table 5.3.1 and Figure 5.2).

Comparaison of the results of the EDS-MICS with previous surveys reveals a steady downward trend in the levels of fertility as measured by the TFR. The TFR went from 6.4 children per woman in 1986 to 6.0 in 1992, 5.7 in 1997, 5.3 in 2005, and 5.0 in 2011. Fertility rates have followed the same downward trend for virtually all ages. In addition, the five curves of fertility rates have a similar look and follow the classic pattern for changes in fertility rates. Fertility is lowest at age 15-19 and increases significantly at age 20-29, before declining steadily to age 45-49.

Table 5.3.1 Trends in age-specific and total fertility rates

Age-specific and total fertility rates (TFR) for the three-year period preceding several surveys, EDS-MICS, Senegal 2010-11

Age	EDS 1986	EDS 1992	EDS 1997	EDS 2005	EDS-MICS 2010-11
15-19	154	127	103	101	93
20-24	270	250	219	212	201
25-29	271	266	240	250	241
30-34	261	244	245	228	219
35-39	196	185	186	169	156
40-44	89	99	99	74	73
45-49	36	34	41	22	13
TFR age 15-49	6.4	6.0	5.7	5.3	5.0

Note: Age-specific fertility rates are per 1,000 women.

Figure 5.2
Age-specific fertility rates according to five sources
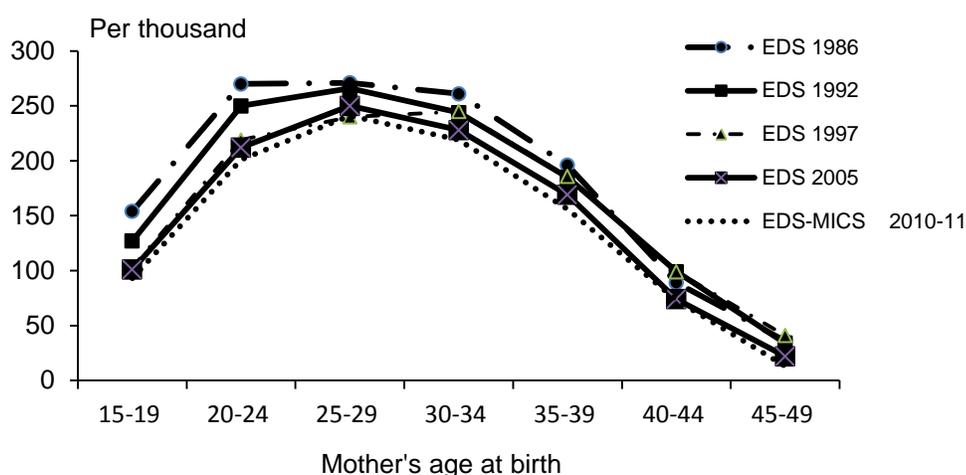
The data collected during the survey also allow past trends in fertility to be retraced based on the fertility rates of women's age groups, by five-year periods preceding the survey (Table 5.3.2 and Figure 5.3). In all age groups fertility rates have declined steadily from the oldest to the most recent periods, except for the period 10-14 years before the survey. This last period is quite remarkable because, whatever age group is considered, the fertility rates are generally higher. For example, for age 25-29 the fertility rate that was estimated to be 264 percent 15-19 years ago increased by about 3 percent relative to 10-14 years before the survey (273 percent), then fell about 9 percent in the 5-9 years before the survey (249 percent), reaching 239 percent over the past five years. These results confirm the downward trend in fertility in recent years.

Table 5.3.2 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of the birth, EDS-MICS, Senegal 2010-11

Mother's age at birth	Number of years preceding survey			
	0-4	5-9	10-14	15-19
15-19	96	105	113	110
20-24	204	223	225	225
25-29	239	249	273	264
30-34	216	233	248	[236]
35-39	154	178	[196]	-
40-44	78	[91]	-	-
45-49	[15]	-	-	-

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated. Rates exclude the month of interview.

Figure 5.3
Trends in age-specific fertility rates

EDS-MICS 2010-11
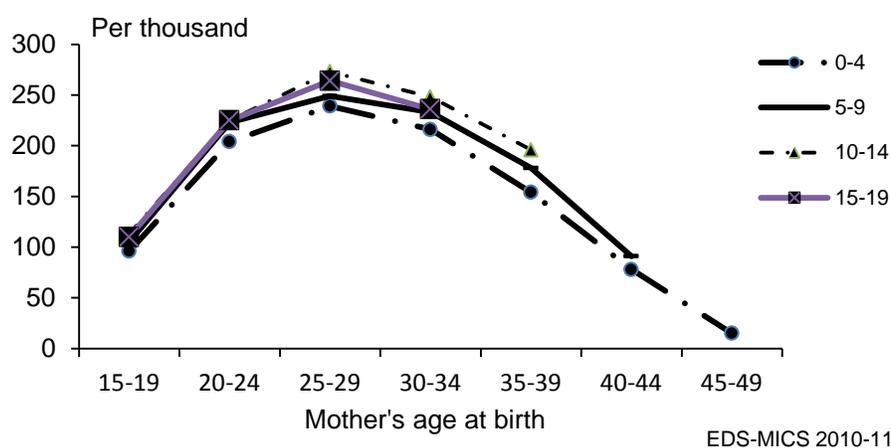
5.3 PARITY AND PRIMARY INFERTILITY

The survey data were used to calculate the distribution of women according to the total number of live births that women have had during their lifetime, as well as the average parities by age group. Table 5.4 presents parities for all women and for women currently in union.

At the time of the survey, 35 percent of all women and 11 percent of women in union said they have never had children born alive. More than 23 percent of all women and 34 percent of women in union have had between three and five children. More than 16 percent of all women and nearly 24 percent of women in union have had six children or more. The distribution of women by number of live births highlights a relatively early fertility: nearly 16 percent of women under age 20 have given birth to at least one child; the same holds true for 54 percent of women age 20-24. Six women in every ten age 25-29 (60 percent) have had at least two children. Finally, by age 45-49, at the end of reproductive life, 35 percent of all women and 38 percent of women in union have given birth to eight or more children.

Overall, a woman on average has 2.5 live births; among women currently in union, there is an average parity of 3.6 children. In general, the average parity increases steadily and rapidly with women's age. For example, for all women it rose from 0.2 children on average at age 15-19, to 1 child at 20-24, and 6.1 children at age 45-49.

The results for women currently in union show that at all ages parity is higher compared with parity for all women. This reflects the role of marriage in fertility. Starting at age 30-34, the age group in which the proportion of women who are not in union is already low, the difference in parity between women in union and all women is lower than at earlier ages. At the end of reproductive life (age 45-49), the parity of women in union (6.1 children) is hardly different than that of all women (6.4 children).

In general, relatively few women are voluntarily childless. Therefore, the zero parity of currently married women age 45-49, when the probability of having a first child becomes very low, allows an estimate of the level of primary sterility. Among women age 45-49, between 2.5 percent of women in union and 4.8 percent of all women have never had children and thus can be considered sterile. These percentages are consistent with data from the 2005 survey, where the percentages were 2.2 and 3 percent, respectively.

Finally, Table 5.4 gives the average number of children ever born. Overall, women currently have 2.2 children, and women in union, 3.2 children, or 88 percent of all children ever born. In other words, 12 percent of children ever born are deceased; this figure gives an initial idea of the level of mortality.

Table 5.4 Children ever born and living

Percent distribution of all women and currently married women age 15-49 by number of children ever born, mean number of children ever born, and mean number of living children, according to age group, EDS-MICS, Senegal 2010-11

| Age | Number of children ever born | | | | | | | | | | | Total | | Mean number of children ever born | Mean number of living children |
	0	1	2	3	4	5	6	7	8	9	10+	Total	Number of women		
						ALL WOMEN									
15-19	84.5	11.4	3.5	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	100.0	3,429	0.20	0.19
20-24	46.4	24.5	16.6	8.4	2.6	1.2	0.4	0.0	0.0	0.0	0.0	100.0	3,220	1.02	0.93
25-29	21.2	18.5	18.2	18.3	12.6	7.4	3.0	0.6	0.2	0.1	0.0	100.0	2,746	2.22	2.04
30-34	11.8	10.1	13.8	13.9	13.9	15.7	11.5	6.2	2.0	0.8	0.2	100.0	2,148	3.51	3.20
35-39	6.2	7.7	9.3	11.0	13.5	13.7	13.5	10.2	8.1	3.7	3.2	100.0	1,817	4.65	4.10
40-44	6.0	5.7	6.7	8.4	9.3	13.0	12.3	11.4	10.1	8.7	8.4	100.0	1,379	5.47	4.71
45-49	4.8	4.7	5.5	6.8	9.1	8.7	11.2	14.4	11.7	9.2	13.8	100.0	949	6.07	5.01
Total	34.8	13.8	11.2	9.4	7.6	6.9	5.5	4.0	2.8	1.9	2.0	100.0	15,688	2.51	2.22
					CURRENTLY MARRIED WOMEN										
15-19	45.2	38.7	13.6	1.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0	100.0	832	0.74	0.69
20-24	20.0	34.2	25.5	13.4	4.3	1.9	0.6	0.0	0.0	0.0	0.0	100.0	1,932	1.56	1.44
25-29	8.8	17.4	21.2	22.6	15.8	9.3	3.6	0.8	0.2	0.2	0.0	100.0	2,128	2.68	2.46
30-34	5.2	8.5	13.0	15.7	15.6	18.0	13.3	7.1	2.3	1.0	0.2	100.0	1,825	3.94	3.58
35-39	3.6	5.5	9.0	11.3	14.2	14.3	14.3	11.2	8.8	4.2	3.6	100.0	1,614	4.95	4.36
40-44	2.2	4.9	5.6	8.1	9.6	13.8	13.0	12.7	11.0	9.5	9.6	100.0	1,192	5.89	5.08
45-49	2.5	3.2	5.5	7.0	8.1	8.8	11.8	15.3	12.4	9.8	15.5	100.0	825	6.41	5.28
Total	11.1	16.3	15.0	13.3	10.8	10.0	7.9	5.9	4.1	2.7	2.9	100.0	10,347	3.56	3.15

5.4 BIRTH INTERVALS

The duration of the interval between the birth of a child and the previous birth has an influence on the health of the mother and child. It is also important in the analysis of fertility levels and differentials. It is recognized that short birth intervals (less than 24 months) are harmful to the health and nutritional status of chldren and increase the risk of death of the mother and child. Births that are too closely spaced undermine a woman's physiological capacity, exposing her to complications during and after pregnancy (miscarriage, eclampsia). Table 5.5 presents the distribution of births in the five years preceding the survey by the number of months since the precious birth, according to background characteristics.

Table 5.5 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, and median number of months since preceding birth, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Months since preceding birth							Number of non-first births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-59	60+	Total		
Age									
15-19	10.5	21.7	38.5	24.5	3.9	0.9	100.0	158	28.4
20-29	8.2	12.7	42.5	20.6	9.5	6.5	100.0	3,719	31.8
30-39	5.8	10.2	36.2	21.2	11.5	15.0	100.0	3,980	35.0
40-49	3.7	8.0	29.7	21.1	14.5	23.0	100.0	1,003	39.7
Sex of preceding birth									
Male	6.3	11.8	37.9	21.4	10.6	12.1	100.0	4,467	33.8
Female	7.1	10.7	38.4	20.6	11.1	12.1	100.0	4,392	33.9
Survival of preceding birth									
Living	5.6	10.8	39.0	21.4	11.1	12.2	100.0	8,162	34.2
Dead	19.0	16.8	28.6	16.3	8.5	10.9	100.0	698	28.0
Birth order									
2-3	7.6	11.8	36.6	20.5	10.2	13.3	100.0	3,858	33.8
4-6	5.9	10.4	40.1	20.6	11.5	11.5	100.0	3,546	33.9
7+	6.1	11.6	37.5	23.3	11.2	10.3	100.0	1,455	33.8
Residence									
Urban	6.2	10.5	35.0	20.2	11.2	17.0	100.0	3,155	35.3
Rural	7.0	11.7	39.9	21.4	10.7	9.4	100.0	5,704	33.0
Region									
Dakar	6.4	11.6	36.4	19.2	10.2	16.2	100.0	1,603	34.3
Ziguinchor	5.7	7.7	40.8	18.8	10.4	16.5	100.0	285	34.5
Diourbel	6.7	11.5	39.8	18.8	11.7	11.5	100.0	1,138	33.5
Saint-Louis	7.3	13.3	35.2	22.4	10.2	11.7	100.0	586	33.4
Tambacounda	7.2	12.6	37.1	24.0	10.3	8.8	100.0	506	33.5
Kaolack	4.5	13.0	43.0	21.4	9.8	8.2	100.0	805	33.0
Thiès	7.4	8.5	34.7	19.9	13.3	16.0	100.0	1,036	35.7
Louga	6.8	10.2	37.6	23.8	10.1	11.5	100.0	623	34.1
Fatick	8.1	9.8	43.5	20.7	11.0	7.0	100.0	534	31.9
Kolda	6.2	12.9	40.2	24.2	9.8	6.6	100.0	523	33.1
Matam	8.6	11.1	38.7	21.2	8.8	11.6	100.0	373	32.5
Kaffrine	7.6	11.4	35.3	21.3	11.5	12.9	100.0	417	34.3
Kédougou	6.1	7.9	34.9	27.3	14.4	9.5	100.0	91	36.3
Sédhiou	4.9	12.2	37.4	22.2	11.9	11.3	100.0	340	34.2
Education									
No education	6.6	11.3	38.9	21.3	11.0	10.8	100.0	6,646	33.6
Primary	7.2	11.6	36.2	19.8	11.1	14.1	100.0	1,662	34.1
Secondary or more	6.2	8.9	34.4	21.1	8.2	21.4	100.0	552	36.3
Wealth quintile									
Lowest	6.4	12.1	41.7	22.1	10.5	7.2	100.0	2,186	32.7
Second	6.3	11.4	39.8	22.6	10.5	9.4	100.0	2,044	33.3
Middle	7.7	10.6	37.0	20.5	11.1	13.1	100.0	1,727	34.0
Fourth	6.5	12.5	36.0	20.4	10.9	13.6	100.0	1,610	34.0
Highest	6.4	8.8	33.7	18.0	11.7	21.4	100.0	1,293	36.4
Total	6.7	11.2	38.2	21.0	10.9	12.1	100.0	8,859	33.8

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth.

Overall, the median birth interval is 34 months. The percentage of births occurring within 18 months after the previous birth is relatively low, at 7 percent, compared with 6.7 percent in the 2005 survey. Approximately 11 percent of children were born between 18 and 24 months after the mother's previous birth, for a total of 18 percent of births spaced less than 24 months after the previous birth (Table 5.6). However, a large proportion of births (38 percent) occur between 24 and 35 months after the previous birth, and 44 percent of children are born three years or more after their elder sibling. The median birth interval is close to three years (34 months), which means that half of all births take place nearly three years after the previous birth. This median interval has remained at the same level since the survey in 1997 at 33-34 months. The same is true for the proportion of births occurring within an interval of less than 24 months after the previous birth (18 percent).

Mothers' age affects the length of spacing between births. Birth intervals are shorter among younger women than among older women: from 28 months for women age 15-19 to 32 months among women age 20-29, 35 months among women age 30-39, and 40 months among women age 40-49. The percentage of births with an interval under 18 months is 11 percent for women age 20, and less than 6 percent among mothers over age 30.

The sex of a child does not appear to affect the spacing between that child and the following birth. However, births following deceased infants occur much more quickly than when the preceding child is still alive (a median interval of 28.0 months versus 34.2 months). Only 6 percent of births occur within 18 months after the birth of the last child if this child is still alive, while 19 percent of early deaths of children are followed by another birth within 18 months.

The median length of birth interval is two months longer in urban than rural areas (35.3 months compared with 33.0 months). There are sizeable differences among regions. The median birth interval varies from about 36 months in the regions of Kédougou and Thiès to 31.9 months in the Fatick region.

The results also show that the educational level of the mother has an influence on the duration of the birth interval: the median birth interval is about 34 months for births whose mothers have primary level or no education and is 36.3 months for births to mothers with secondary education or higher.

Finally, the results appear to show a positive association between the level of wealth and the length of the birth interval, which increases significantly with women's level of wealth, from a median of about 33 months in the two poorest groups to 36.4 months in the richest wealth quintile.

5.5 EXPOSURE TO THE RISK OF PREGNANCY

After the birth of a child, women are exposed to the risk of pregnancy depending, among other factors, on the return of ovulation and postpartum abstinence. The time between delivery and the return of ovulation, which is the period of postpartum amenorrhea, is estimated here by the length of the interval between the birth of a child and the return of menses. The length of this interval may be influenced by the intensity, frequency, and duration of breastfeeding. Consideration of these factors identifies women not likely to be at risk of pregnancy and thus provides an estimate of the duration of insusceptibility. A woman is considered not likely to be at risk of pregnancy when she has not resumed sexual intercourse since the last birth, or is in the period of postpartum amenorrhea, which means that the risks of getting pregnant are minimal if the woman resumes sexual intercourse without contraceptive protection. This period of insusceptibility is therefore defined as one in which a woman is practically not subject to the risk of pregnancy due to amenorrhea and/or postpartum abstinence.

The data in Table 5.6 refer to births in the last three years for which mothers are still postpartum amenorrheic or abstaining, and therefore not likely to be at risk of pregnancy (insusceptible). The distribution of births by the number of months since birth is similar to the series of survivors (Sx) in a mortality table. The table also shows the average and median duration of amenorrhea, abstinence, and insusceptibility. Overall, 35 percent of women who gave birth during the three years preceding the survey are still in postpartum amenorrhea. Seven in every ten women remain amenorrheic at 4-5 months, while nearly seven in ten (68 percent) are still amenorrheic at 8-9 months, and 30 percent at 16-17 months. Beyond 22 months, the proportion of women whose return to ovulation has not yet occurred is well below 15 percent. The median duration of postpartum amenorrhea is estimated to be 12.2 months and its mean value is 12.6 months. The duration, intensity, and frequency of exclusive breastfeeding that affect the return of ovulation partly explain these relatively long periods of time.

The practice of postpartum abstinence is common in Senegal. Two to three months after the birth of the latest child, more than half of women (56 percent, exactly the same as in 2005) have not yet resumed sexual intercourse; 8-9 months after birth, more than one woman in every five (21 percent) is still abstinent. The median duration of postpartum abstinence is 3.5 months (compared with 3.1 months in 2005) and its mean value is 7.8 months (compared with 7.4 months in 2005). Compared with previous surveys in 2005 and 1997, the EDS-MICS 2010-11 shows practically no change in the mean and median durations of postpartum abstinence (at 2.9 and 7.6 months, respectively).

For 42 percent of births in the last three years preceding the survey, mothers are postpartum insusceptible. This period of insusceptibility lasts 15 months, on average, and for 50 percent of births, mothers are not likely to get pregnant for 14 months.

Table 5.6 Postpartum amenorrhea, abstinence, and insusceptibility

Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrheic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, EDS-MICS, Senegal 2010-11

Months since birth	Percentage of births for which the mother is:			Number of births
	Amenorrheic	Abstaining	Insusceptible[1]	
< 2	90.6	93.9	98.2	328
2-3	82.2	56.0	86.6	486
4-5	69.7	34.5	74.9	409
6-7	68.3	27.4	75.3	309
8-9	59.3	21.1	66.6	383
10-11	59.9	17.0	66.5	421
12-13	51.7	18.4	57.7	452
14-15	36.1	18.8	48.7	467
16-17	29.7	13.8	38.3	371
18-19	19.1	15.9	31.5	333
20-21	19.6	17.3	31.6	281
22-23	15.4	11.8	24.2	364
24-25	5.0	6.5	9.4	415
26-27	2.8	6.8	8.8	431
28-29	1.4	4.9	6.0	326
30-31	2.4	4.2	6.4	299
32-33	0.7	4.6	5.1	309
34-35	2.4	4.1	6.1	500
Total	35.1	21.0	42.0	6,886
Median	12.2	3.5	14.2	na
Mean	12.6	7.8	15.1	na

Note: Estimates are based on status at the time of the survey.
na = Not applicable
[1] Includes births for which mothers are either still amenorrheic or still abstaining (or both) following birth.

Table 5.7 presents median durations of amenorrhea, postpartum abstinence, and insusceptibility by selected background characteristics of women. Unlike results observed in 2005, these different durations vary with the age of mothers: amenorrhea and insusceptibility are longer by at least three months among women age 30-49 compared with women age 15-29. The period of non-exposure to the risk of pregnancy is generally longer in rural areas than in urban areas. The level of education also affects the length of amenorrhea: from a median of 12.9 months among women with no education to 5.8 months among women with secondary education or higher.

Regarding the median duration of postpartum abstinence, the shortest lengths are in Diourbel (2.4 months), Kaolack (2.5 months), Louga (3.1 months), and Saint-Louis (3.5 months), while the longest is in Kolda (16.4 months). Concerning postpartum abstinence, there are two relatively homogeneous regional groupings: the regions of Kédougou, Kolda, and Sédhiou, with median durations of 15 to 16 months; and the other regions, which have significantly shorter median durations of under 6 months (while in Ziguinchor the median duration of postpartum abstinence is 8.8 months). The duration of postpartum insusceptibility shows a general downward trend as the level of wealth rises.

Table 5.7 Median duration of amenorrhea, postpartum abstinence, and postpartum insusceptibility

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Postpartum amenorrhea	Postpartum abstinence	Postpartum insusceptibility[1]
Age			
15-29	11.5	4.0	13.5
30-49	14.0	2.6	16.6
Residence			
Urban	9.0	3.0	12.9
Rural	13.5	3.8	15.1
Region			
Dakar	5.9	2.9	12.6
Ziguinchor	10.5	8.8	14.7
Diourbel	13.1	2.4	13.7
Saint-Louis	8.8	3.5	10.8
Tambacounda	12.4	5.6	13.1
Kaolack	12.5	2.5	14.9
Thiès	13.0	2.4	14.0
Louga	13.3	3.2	14.0
Fatick	13.9	3.1	14.5
Kolda	11.6	16.4	20.0
Matam	9.9	4.4	12.4
Kaffrine	14.6	3.2	15.6
Kédougou	12.1	14.7	17.5
Sédhiou	14.4	16.8	18.0
Education			
No education	12.9	3.4	14.6
Primary	6.2	3.5	13.3
Secondary or more	5.8	4.7	9.6
Wealth quintile			
Lowest	13.9	4.1	15.4
Second	14.1	3.7	15.9
Middle	11.7	4.3	14.0
Fourth	11.2	2.3	12.4
Highest	5.7	3.2	6.1
Total	12.2	3.5	14.2

Note: Medians are based on the status at the time of the survey (current status).
[1] Includes births for which mothers are either still amenorrheic or still abstaining (or both) following birth

5.6 MENOPAUSE

Table 5.8 presents results on the termination of exposure to the risk of pregnancy among women age 30-49. The exit from reproductive life is measured by the proportion of women in menopause, that is, the proportion of women currently in union who are neither pregnant nor in postpartum amenorrhea, and who have not had a menstrual period for at least six months before the survey, or who said they were in menopause. Results of the survey show that 9 percent of women age 30-49 were menopausal at the time of the survey. As expected, the proportion of women in menopause increases rapidly with age, from less than 1 percent at age 30-34 to 13 percent at age 42-43, and reaches 38 percent at age 48-49. Virtually the same levels were seen in 2005.

Table 5.8 Menopause

Percentage of women age 30-49 who are menopausal, by age, EDS-MICS, Senegal 2010-11

Age	Percentage menopausal[1]	Number of women
30-34	0.7	2,148
35-39	2.6	1,817
40-41	12.2	709
42-43	13.0	456
44-45	23.2	523
46-47	28.7	333
48-49	37.7	307
Total	8.6	6,294
EDS-IV, 2005	9.0	5,823

[1] Percentage of women who are not pregnant and not postpartum amenorrheic whose last menstrual period occurred six or more months preceding the survey.

5.7 AGE AT FIRST BIRTH

Table 5.9 shows the distribution of women by age at their first birth and median age at first birth, according to age at the time of the survey. The age at which women have their first birth is crucial for their future fertility, and may have a significant impact on their own health and the health of their children.

Table 5.9 Age at first birth

Percentage of women age 15-49 who gave birth by specific exact ages, percentage who have never given birth, and median age at first birth, according to current age, EDS-MICS, Senegal 2010-11

Current age	Percentage who gave birth by exact age					Percentage who have never given birth	Number of women	Median age at first birth
	15	18	20	22	25			
15-19	3.2	na	na	na	na	84.5	3,429	a
20-24	5.7	21.5	37.4	na	na	46.4	3,220	a
25-29	4.9	22.4	39.4	55.0	70.6	21.2	2,746	21.4
30-34	6.9	24.2	41.5	56.8	72.8	11.8	2,148	21.0
35-39	7.5	25.8	40.6	55.6	72.6	6.2	1,817	21.3
40-44	8.8	31.0	49.2	63.3	77.0	6.0	1,379	20.1
45-49	7.6	30.1	46.6	59.2	74.6	4.8	949	20.5
20-49	6.5	24.5	41.1	a	a	21.0	12,259	a
25-49	6.8	25.6	42.4	57.3	72.9	11.9	9,040	21.0

na = Not applicable due to censoring
a = Omitted because less than 50 percent of women had a birth before reaching the beginning of the age group

Overall, the median age at first birth is 21 years for women age 25-49; more than 50 percent of women age 20-49 had no live births before reaching age 20. The percentage of women who had their first live birth by age 15 or 18 shows a general upward trend with the current age of women. This result seems to reflect later and later entry into reproductive life. This trend, if it is real, is very slow; comparison with data from the 2005 survey goes in the same direction. The clearest pattern is observed between socioeconomic groups (Table 5.10): rural women with no education and women in the poorest households have much earlier fertility. The same is the case for the regions of Kolda, Kédougou, Tambacounda, Kaffrine, Sédhiou, and Matam.

5.8 TEENAGE FERTILITY

Children born to young mothers (under age 20) are generally at greater risk of dying than children born to mothers age 20 or older (see Chapter 8, Childhood Mortality). Similarly, pregnancy and early deliveries increase the risk of death among teenage mothers.

Teenagers, who are 22 percent of all women of childbearing age, contribute about 10 percent to the total fertility of women. Table 5.11 shows, for each age from 15 to 19, the proportion of adolescents who have had one or more children and the proportion pregnant for the first time. Considering that the sum of these two figures gives the proportion of adolescents who have begun their childbearing years, the results show that 19 percent of young women age 15-19 have already begun to have children: 16 percent have had at least one child, and 3 percent were pregnant for the first time. Among women age 17, 16 percent have started their reproductive life and, at age 19, the proportion is 32 percent.

Compared with the survey in 2005, the results of the EDS-MICS 2010-11 appear to show a relative stability in teenage fertility (Figure 5.4), which nevertheless showed a downward trend between 1997 and 2005.

Table 5.10 Median age at first birth

Median age at first birth among women age 20-49 and age 25-49, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Women age 20-49	Women age 25-49
Residence		
Urban	a	22.5
Rural	19.8	19.8
Region		
Dakar	a	23.1
Ziguinchor	a	20.8
Diourbel	a	20.6
Saint-Louis	a	21.2
Tambacounda	18.8	18.9
Kaolack	a	19.8
Thiès	a	22.0
Louga	a	20.4
Fatick	a	20.4
Kolda	18.5	18.7
Matam	19.9	20.2
Kaffrine	19.2	19.1
Kédougou	18.6	18.9
Sédhiou	19.6	19.6
Education		
No education	19.9	19.9
Primary	a	22.1
Wealth quintile		
Lowest	18.7	18.8
Second	19.6	19.4
Middle	a	20.6
Fourth	a	22.0
Highest	a	24.2
Total	a	21.0

a = Omitted because less than 50 percent of the women had a birth before reaching the beginning of the age group

Table 5.11 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage of women age 15-19 who		Percentage who have begun childbearin	Number of women
	Have had a live birth	Are pregnant with first child		
Age				
15	2,4	1,3	3,7	687
16	7,3	3,8	11,2	621
17	11,6	4,2	15,8	665
18	26,2	2,9	29,1	905
19	28,3	3,7	32,1	551
Residence				
Urban	10,5	1,5	12,0	1,683
Rural	20,4	4,7	25,0	1,746
Region				
Dakar	11,2	0,8	11,9	783
Ziguinchor	8,9	1,7	10,7	149
Diourbel	11,0	2,3	13,3	418
Saint-Louis	14,3	3,1	17,4	223
Tambacounda	30,9	8,7	39,5	186
Kaolack	15,5	4,6	20,2	268
Thiès	10,0	3,1	13,0	436
Louga	16,7	2,9	19,6	276
Fatick	15,3	1,8	17,0	157
Kolda	34,4	9,1	43,4	148
Matam	24,5	2,1	26,6	128
Kaffrine	23,2	6,0	29,2	129
Kédougou	31,1	6,1	37,2	24
Sédhiou	20,7	4,0	24,8	105
Education				
No education	25,6	5,5	31,1	1,371
Primary	17,6	2,9	20,5	764
Secondary or more	3,7	0,8	4,4	1,294
Wealth quintile				
Lowest	30,9	7,3	38,3	556
Second	20,2	4,8	24,9	618
Middle	11,2	2,5	13,7	766
Fourth	13,6	1,7	15,3	740
Highest	6,6	0,7	7,3	749
Total	15,5	3,1	18,7	3,429
EDS-V, 2005	15,3	3,6	18,9	3,556
EDS-III, 1997	18,2	4,1	22,3	1,937

Results by background characteristics show significant differences. Teenagers in rural areas (25 percent) have much earlier fertility than their urban counterparts (12 percent). At the regional level, two regions stand out for their high percentage of teenagers who have already begun childbearing: Kolda, as was also the case in 2005, (43 percent in 2010-11 and 38 percent in 2005) and Tambacounda, the neighboring region (40 percent in Tambacounda and 38 percent in Kédougou versus 36 percent). At the other extreme is Ziguinchor, with 11 percent, Dakar, 12 percent, and Thiès and Diourbel, 13 percent. Early fertility is particularly common among girls with no education (31 percent). Among girls with primary schooling, 21 percent have begun childbearing, compared with only 4 percent for those with secondary education or higher. Finally, women from the poorest households are far more exposed to the risks of pregnancy and early motherhood. In the poorest households 38 percent of women age 15-19 have begun motherhood, compared with 7 percent among women from the wealthiest households.

Figure 5.4
Percentage of women 15-19 who have begun childbearing
according to EDS 2005 and EDS-MICS 2010-11

Percentage

☒EDS 2005   ■EDS-MICS 2010-11

FERTILITY PREFERENCES

6
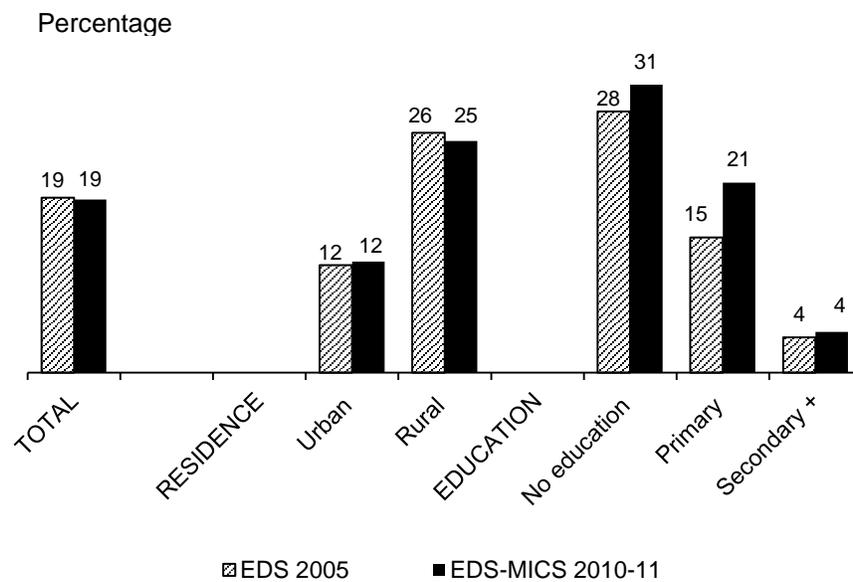
Atoumane FALL

T he Demographic and Health Surveys questions on fertility preferences assess the success of couples in controlling their fertility, and measure future needs for contraception to space or limit births. As part of the EDS-MICS 2010-11, issues were addressed relating to the desire of women to have more children or not in the future, to the waiting period before the next child, and to the total number of wanted children.

Data on attitudes and opinions about procreation have always been a subject of controversy. Some researchers believe that the answers to questions on fertility preferences reflect short-lived points of view. These are expressed without much conviction, or do not take into account the effect of social pressures and attitudes of other family members. These attitudes, particularly those of the husband, may have a great influence on reproductive decisions. In addition, these data are obtained from a sample of women of various ages and living in different times of their reproductive history. For women at the beginning of marriage, responses on fertility preferences are linked to medium and long-term objectives, whose stability and predictive value are uncertain. For women at the end of their reproductive life, the responses are inevitably influenced by their reproductive history.

Despite these difficulties, analysis of data on fertility preferences can aid in explaining some of the factors that affect women's reproductive behavior. This chapter examines the desire to have more children or not, the need for family planning, the ideal number of children, and views on fertility planning.

6.1 DESIRE FOR MORE CHILDREN

A woman's desire to have more children or not in the future is generally related to her age and number of children currently alive. Women age 15-49 currently in union and men age 15-59 currently in union were asked questions to obtain information on their attitudes about desire to space their next birth or not have more children. The results presented in Table 6.1 and Figure 6.1 show that more than one in every five women (22 percent) want no more children, while nearly three-quarters of women (74 percent) want more. The results also show that among women who said they wanted to have more children in the future, a substantial number (38 percent) would like to space their next birth by two years or more.

In all, therefore, 60 percent of women—those not wanting more children (22 percent) and those wanting to space their next birth by at least two years (38 percent)—can be considered potential candidates for family planning. These levels are similar to those in the previous surveys. In the 1992-93 survey 20 percent said they wanted to limit births and 39 percent wanted to space the next birth; in the 1997 survey, 23 percent wanted to limit births and 39 percent wanted to space the next birth; and in the 2005 survey, 21 percent wanted to limit births and 38 percent wanted to space the next birth.

Table 6.1 Fertility preferences by number of living children

Percent distribution of currently married women age 15-49 and currently married men age 15-59 by desire for children, according to number of living children, EDS-MICS, Senegal 2010-11

| Desire for children | Number of living children | | | | | | | Total 15-49 | Total 15-59 |
	0	1	2	3	4	5	6+		
	WOMEN[1]								
Have another soon[2]	80.2	39.0	31.1	26.0	22.6	18.7	8.4	30.0	na
Have another later[3]	8.0	49.8	52.8	50.5	44.2	33.0	16.8	37.9	na
Have another, undecided when	7.9	7.8	6.9	6.7	4.9	4.4	2.1	5.7	na
Undecided	0.6	0.4	1.4	1.8	2.4	4.9	3.3	2.0	na
Want no more	0.5	1.6	6.0	12.4	23.4	35.7	63.8	21.4	na
Sterilized[4]	0.0	0.0	0.1	0.1	0.1	0.1	1.0	0.2	na
Declared infecund	2.8	1.5	1.6	2.5	2.4	3.1	4.5	2.6	na
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	na
Number of women	1,006	1,775	1,783	1,518	1,312	1,082	1,870	10,347	na
	MEN[5]								
Have another soon[2]	71.7	31.7	27.2	23.2	14.0	18.1	28.5	30.0	30.0
Have another later[3]	12.0	58.3	57.0	62.8	59.8	47.6	52.4	51.9	44.3
Have another, undecided when	15.0	8.1	10.2	5.6	13.2	20.9	10.0	11.0	11.7
Undecided	0.3	1.3	2.7	2.3	5.1	4.3	2.8	2.6	3.2
Want no more	0.4	0.2	2.9	5.4	7.1	9.1	5.9	4.1	9.7
Sterilized[4]	0.2	0.2	0.0	0.0	0.0	0.0	0.3	0.1	0.3
Declared infecund	0.5	0.2	0.0	0.8	0.8	0.0	0.0	0.3	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	169	282	303	240	175	156	285	1,609	2,087

na = Not applicable
[1] The number of living children includes the current pregnancy.
[2] Wants next birth within 2 years.
[3] Wants to delay next birth for 2 or more years.
[4] Includes both female and male sterilization.
[5] The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

Figure 6.1
**Fertility preferences among currently married women according
to the number of living children**
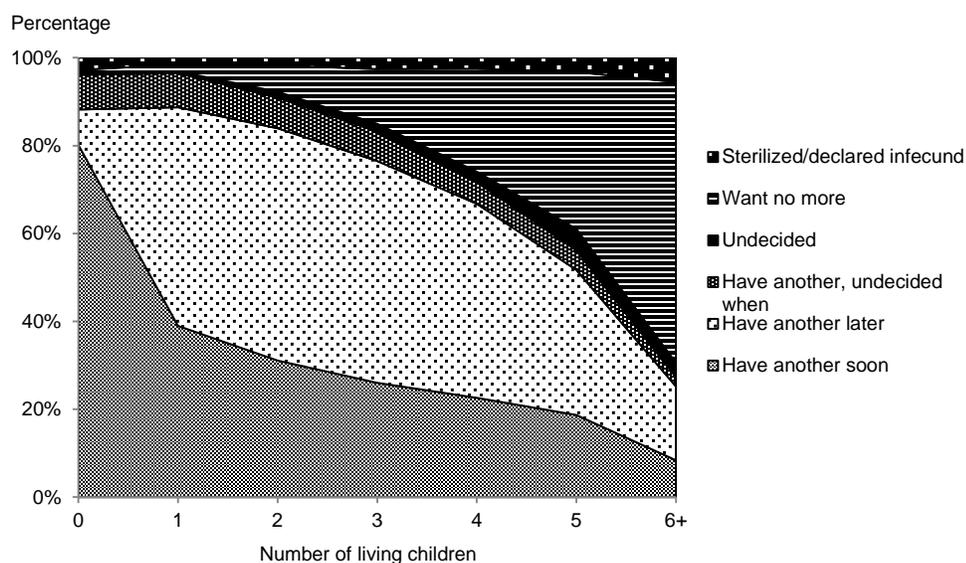
EDS-MICS 2010-11

As might be expected, the proportion of women who want no more children steadily increases with the number of living children, from less than 1 percent of women who have no children to 12 percent among women with three children, and to 64 percent among women with at least six children. In addition, almost all childless women (96 percent) said they want to have a child, and the vast majority (80 percent) would like to give birth soon (within two years). Among all currently married women, 74 percent want to have another child, whether soon, after two years, or undecided when. The percentage wanting another child is higher among women with no children or only one, at 96 percent and 97 percent, respectively. However, unlike women with only one child, among whom 72 percent would like to have another child soon, a majority of women who already have two children (53 percent) want to wait at least two years before the next birth.

Based on their survey responses, men appear to be more pronatalist than women. Among those in union, a higher percentage of men than of women want to have more children. In the EDS-MICS 2010-11 only 10 percent of men in union age 15-59 said they want no more children, while 86 percent want more, and 4 percent are undecided. As happens with women, among men, the proportion who want to have more children decreases with the number of live births, from 98 percent of men with one child, to 96 percent with three children, and 91 percent with six or more children. Among men in union age 15-59, the potential need for family planning may reach 54 percent (10 percent not wanting more children and 44 percent wanting to space the next birth by at least two years).

Table 6.2.1 Desire to limit childbearing: Women

Percentage of currently married women age 15-49 who want no more children, by number of living children, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	0.3	1.2	9.0	16.9	30.3	45.1	71.6	22.9
Rural	0.6	1.9	3.6	9.2	19.1	30.1	61.5	20.8
Region								
Dakar	0.0	1.2	10.1	20.7	34.1	44.6	76.0	23.5
Ziguinchor	0.0	3.4	8.9	10.7	13.7	32.1	66.4	22.3
Diourbel	0.0	1.7	3.1	6.6	25.1	36.6	62.8	18.0
Saint-Louis	0.0	2.4	7.3	23.4	24.0	31.0	60.6	24.6
Tambacounda	2.3	5.6	7.2	13.3	18.3	23.2	51.9	19.8
Kaolack	0.0	1.3	3.3	16.7	28.0	35.1	74.3	28.4
Thiès	1.4	0.0	4.2	6.5	25.0	48.7	69.5	22.7
Louga	0.0	3.3	7.2	12.8	22.2	30.1	60.9	19.9
Fatick	0.0	0.7	5.0	3.4	17.9	32.2	62.7	24.1
Kolda	2.2	0.8	3.0	5.9	17.7	30.8	64.9	20.1
Matam	1.5	0.0	3.8	10.4	11.0	14,.	47.1	14.1
Kaffrine	1.6	2.1	4.1	11.3	16.4	32.8	70.3	24.1
Kédougou	0.0	2.2	11.5	10.0	13.3	27.3	55.4	17.8
Sédhiou	0.0	0.0	1.8	3.8	7.8	15.6	38.9	11.1
Education								
No education	0.7	1.8	4.6	10.9	21.0	33.0	64.5	23.0
Primary	0.0	1.7	7.0	14.0	25.6	44.7	64.7	18.7
Secondary or more	0.4	0.5	12.9	23.2	46.9	45.9	75.5	17.9
Wealth quintile								
Lowest	0.8	2.3	4.4	10.2	20.0	27.1	61.4	23.0
Second	0.3	1.4	3.0	9.1	18.1	27.9	61.2	21.3
Middle	1.1	1.8	6.5	10.0	24.2	39.0	67.3	23.9
Fourth	0.3	0.9	6.7	12.6	25.5	46.6	69.0	20.9
Highest	0.0	1.5	8.9	19.7	31.4	42.0	71.9	19.0
Total	0.5	1.6	6.1	12.5	23.4	35.9	64.8	21.6

Note: Women who have been sterilized are considered to want no more children.
[1] The number of living children includes the current pregnancy.

Among men age 15-59 who want more children, a higher proportion than among women age 15-49 (44 percent versus 38 percent) want to space the next birth by at least two years. Table 6.2.1 and 6.2.2 present the proportions of both women and men in union who do not want to have more children, by selected background characteristics and number of living children.

Overall, as mentioned, 22 percent of women in union want no more children. A slightly higher proportion of women in urban areas want no more children (23 percent) compared with women in rural areas (21 percent). According to region, women in Kaolack most frequently said that they want to limit births (28 percent). In Saint-Louis the corresponding percentage is 25 percent, followed by the Dakar region, including the capital of the country (24 percent), and finally the new region of Kaffrine, with 24 percent. Women in the region of Sédhiou are least likely to want to limit births (11 percent). In addition, women in the highest (richest) household wealth quintile are less likely to express the desire to have more children, at 19 percent, than women in the lower wealth quintiles (Table 6.2.1).

The results also show that the percentage of women who want no more children increases steadily with the number of living children, in both urban and rural areas. In addition, education appears to influence the desire to have no more children, particularly among women who have four or more children. For example, among women who have three children, 21 percent with no education said they do not want to have any more children, compared with 26 percent among women with a primary education, and 46 percent with a secondary or higher education.

Table 6.2.2 Desire to limit childbearing: Men

Percentage of currently married men age 15-49 who want no more children, by number of living children, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Residence								
Urban	0.5	0.9	3.9	8.6	8.4	18.4	5.7	5.9
Rural	0.6	0.0	1.2	1.6	5.9	0.0	6.4	2.7
Region								
Dakar	0.0	0.0	4.3	12.1	9.5	25.9	2.2	7.6
Ziguinchor	13.4	10.6	5.2	12.1	8.2	7.2	14.4	10.1
Diourbel	0.0	0.0	4.0	0.0	0.0	0.0	0.0	0.8
Saint-Louis	0.0	0.0	11.6	0.0	7.9	9.3	8.4	5.9
Tambacounda	0.0	0.0	0.0	2.3	0.0	0.0	17.5	4.1
Kaolack	0.0	0.0	0.0	0.0	21.5	0.0	7.2	2.6
Thiès	0.0	0.0	0.0	0.0	0.0	0.0	7.3	1.8
Louga	0.0	0.0	0.0	0.0	0.0	0.0	3.1	0.9
Fatick	0.0	0.0	0.0	4.2	11.3	5.0	7.8	4.0
Kolda	0.0	0.0	0.0	7.7	0.0	0.0	8.5	3.3
Matam	6.8	0.0	0.0	0.0	6.4	5.5	0.0	2.4
Kaffrine	0.0	0.0	0.0	0.0	0.0	0.0	7.7	1.4
Kédougou	0.0	0.0	0.0	0.0	10.0	3.8	17.6	7.5
Education								
No education	0.7	0.5	0.3	4.5	7.0	1.0	4.6	2.8
Primary	0,0	0.8	2.6	0.0	0.8	13.8	11.2	3.4
Secondary or more	1.0	0.0	9.3	11.5	18.9	39.9	10.8	9.6
Wealth quintile								
Lowest	1.6	0.0	2.0	2.3	6.0	2.5	4.4	2.9
Second	0.0	0.0	0.0	0.0	1.0	1.0	8.4	2.5
Middle	1.0	2.4	0.7	0.0	5.9	0.4	6.8	2.3
Fourth	0.0	0.0	3.4	5.6	6.9	20.1	4.4	5.1
Highest	0.0	0.0	5.4	14.0	15.4	30.8	8.8	8.0
Total 15-49	0.6	0.4	2.9	5.4	7.1	9.1	6.3	4.2
50-59	27.4	15.1	4.3	43.1	32.4	27.5	30.8	29.5
Total 15-59	2.5	1.2	3.0	10.6	10.0	15.3	18.6	10.0

Note: Men who have been sterilized or who state in response to the question about desire for children that their wife has been sterilized are considered to want no more children.
[1] The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

Overall, as mentioned, 10 percent of men age 15-59 do not want any more children. As Table 6.2.2 shows, men in urban areas (6 percent) are twice as likely as men in rural areas (3 percent) to want no more children. According to region, men in Ziguinchor (10 percent) and Dakar (8 percent) most frequently said they want to limit births. In Sédhiou and Dakar, the corresponding figure is about 8 percent. In Kaffrine and Kédougou 2 percent and 1 percent, respectively, want no more children. Men in Fatick and Diourbel, each at less than 1 percent, are least likely to want more children. Finally, as is the case with women, the level of education and standard of living of the household appear to be positively correlated with the desire to have no more children.

6.2   IDEAL NUMBER OF CHILDREN

Women's reproductive behavior can be influenced by what they or their husbands consider to be the ideal number of children. In order to measure this ideal number, one of the following two questions was posed to women and men, depending on their status at the time of the survey:

- For women and men who have no children: "If you could choose exactly the number of children to have in your life, how many would you like to have?"

- For women and men who already have children: "If you could go back to a time when you did not have a child and had to choose exactly the number of children to have in your life, how many would you like to have?"

These questions appear simple but are particularly disconcerting for women and men who already have children because they are asked to state what their ideal family size would be, regardless of the number of children they currently have. It may be difficult for respondents to report an ideal number that is less than their current family size.

Table 6.3 presents the results based on responses to these questions. First, among both women and men, 20 percent were unable to provide a numerical answer but gave qualitative answers such as: "what God gives me", "I don't know", or "Any number". Second, the data show that Senegalese women hope to have large families—5.2 children on average per woman, among all women. Among women in union this number is slightly higher, at 5.5 children. These levels have changed little since the 2005 survey, where the average family size ideal was 5.4 children for all women and 5.7 for women in union. The distribution of women by ideal number of children shows that, overall, nearly three in every ten (29 percent) consider six or more children to be ideal. This proportion increases with the number of children currently living, from 21 percent among women with no children to 40 percent among those with four living children. Among men, the average ideal number of children is even higher than among women, at 7.3 for all men and 8.5 for men in union. These results confirm that Senegalese men and women have a preference for a large number of children.

In general, there is a positive correlation between current family size and the ideal number of children. Among all women the average ideal family size varies from 4.8 children for those who have no children to 6.1 children for those who have six children or more. Among women in union, it varies from 5.3 children for those who have no children to 6.1 for those who already have at least six. Among all men, average ideal family size goes from 6.8 children for those with one child to more than 11 children for those with six or more children. For men in union, the average ideal number of children goes from 8.1 for those with no children to 11.6 for those who have at least six children.

Table 6.3 Ideal number of children by number of living children

Percent distribution of women and men age 15-49 by ideal number of children and mean ideal number of children for all respondents and for currently married respondents, according to the number of living children, EDS-MICS, Senegal 2010-11

Ideal number of children	Number of living children							Total
	0	1	2	3	4	5	6+	
WOMEN[1]								
0	0.7	0.9	1.1	1.1	1.3	1.4	1.1	1.0
1	0.7	0.7	0.2	0.2	0.8	0.1	0.6	0.5
2	2.7	2.3	2.5	2.0	2.4	2.3	2.9	2.5
3	11.9	10.9	6.1	5.0	3.3	5.0	3.8	8.0
4	28.0	26.3	25.9	16.0	13.7	10.4	12.1	21.7
5	19.0	17.9	18.6	19.2	14.7	16.6	8.8	17.0
6+	21.4	24.0	28.3	34.0	39.9	37.0	40.2	29.1
Non-numeric response	15.7	17.1	17.3	22.4	24.0	27.3	30.5	20.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	5,317	2,284	2,003	1,623	1,369	1,146	1,946	15,688
Mean ideal number of children for women:[2]								
All women	4.8	4.9	5.1	5.5	5.8	5.8	6.1	5.2
Number of women	4,481	1,894	1,656	1,260	1,040	833	1,354	12,517
Currently married women	5.3	5.1	5.2	5.5	5.8	5.9	6.1	5.5
Number of currently married women	791	1,453	1,456	1,174	997	787	1,296	7,954
MEN[3]								
0	0.1	0.7	0.3	0.4	0.0	0.7	2.0	0.4
1	0.1	0.0	1.6	0.0	0.0	0.0	0.0	0.2
2	2.7	1.6	2.3	0.0	0.8	0.0	0.9	2.1
3	7.6	5.2	2.0	5.8	2.1	0.2	1.1	6.0
4	13.0	14.7	10.2	6.1	8.4	4.7	3.1	11.5
5	20.1	26.5	22.0	21.6	12.9	11.2	3.1	19.1
6+	39.1	33.4	40.2	49.1	49.5	48.6	53.2	41.0
Non-numeric response	17.2	17.9	21.5	17.0	26.2	34.6	36.7	19.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	2,867	359	315	256	178	157	286	4,417
Mean ideal number of children for men 15-49:[2]								
All men	6.8	6.5	8.1	7.2	8.5	9.7	11.6	7.3
Number of men	2,374	295	247	212	132	102	181	3,544
Currently married men	8.1	7.0	8.1	7.2	8.6	9.8	11.6	8.5
Number of currently married men	130	225	240	199	130	102	180	1,205
Mean ideal number of children for men 15-59[2]								
All men	6.8	6.4	7.9	7.0	8.2	8.9	11.6	7.4
Number of men	2,395	312	266	243	151	160	367	3,893
Currently married men	8.1	6.9	7.9	7.0	8.2	9.0	11.6	8.7
Number of currently married men	136	237	259	228	146	158	366	1,529

[1] The number of living children includes current pregnancy for women.
[2] Means are calculated excluding respondents who gave non-numeric responses.
[3] The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

Table 6.4 presents the average ideal number of children for all women by current age and according to select socio-demographic variables. The average ideal number of children is lower among younger women compared with older women. This number varies from an average of 5.0 children among women age 15-19 to 5.9 among women age 45-49. Therefore, one might expect that if the family size ideals expressed by younger age groups are achieved, fertility would tend to decline..

For all women age 15-49, the average ideal number of children shows fairly significant differences by background characteristics, including place of residence, region, level of education, and household wealth (Figure 6.2). The variations noted here are similar to those observed for current fertility levels (see Chapter 5). Urban women have a much lower ideal number of children than women in rural areas. The average difference between the two areas is 1.1 children. In addition, the average ideal number of children decreases as the level of education increases, from a median of 5.8 children for women with no education to 4.9 for those with a primary level, and to 4.4 for those with secondary education or higher. Thus, differences observed between urban and rural areas, on the one hand, and between women who have attended school and those with no education, on the other, give an indication of the social changes for which these factors of modernization are indicators.

Just as for education, improvement in the standard of living of the household is associated with a slight trend toward smaller ideal family size. The difference in the average ideal number of children is 1.6 children when comparing women in the wealthiest households with those in the poorest.

Table 6.4 Mean ideal number of children by background characteristics

Mean ideal number of children for all women age 15-49 by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Mean	Number of women[1]
Age group		
15-19	5.0	2,892
20-24	5.1	2,690
25-29	5.2	2,201
30-34	5.3	1,687
35-39	5.4	1,369
40-44	5.6	1,043
45-49	5.9	635
Residence		
Urban	4.7	6,513
Rural	5.8	6,005
Region		
Dakar	4.6	3,554
Ziguinchor	4.6	514
Diourbel	5.8	1,244
Saint-Louis	4.9	843
Tambacounda	6.1	490
Kaolack	5.6	1,072
Thiès	5.0	1,472
Louga	5.4	822
Fatick	5.6	582
Kolda	5.5	551
Matam	6.5	369
Kaffrine	6.1	541
Kédougou	5.5	73
Sédhiou	6.1	390
Education		
No education	5.8	6,700
Primary	4.9	2,873
Secondary or more	4.4	2,944
Wealth quintile		
Lowest	6.2	1,917
Second	5.7	2,229
Middle	5.3	2,441
Fourth	4.8	2,787
Highest	4.6	3,144
Total	5.2	12,517

[1] Number of women who gave a numeric response.

Figure 6.2
Mean ideal number of children by background characteristics

	Number of living children
SENEGAL	5.2
REGION	
Dakar	4.6
Ziguinchor	4.6
Diourbel	5.8
Saint-Louis	4.9
Tambacounda	6.1
Kaolack	5.6
Thies	5
Louga	5.4
Fatick	5.6
Kolda	5.5
Matam	6.5
Kaffrine	6.1
Kedougou	5.5
Sedhiou	6.1
EDUCATION	
No education	5.8
Primary	4.9
Secondary or more	4.4
WEALTH QUINTILE	
Lowest	6.2
Second	5.7
Middle	5.3
Fourth	4.6
Highest	4.8
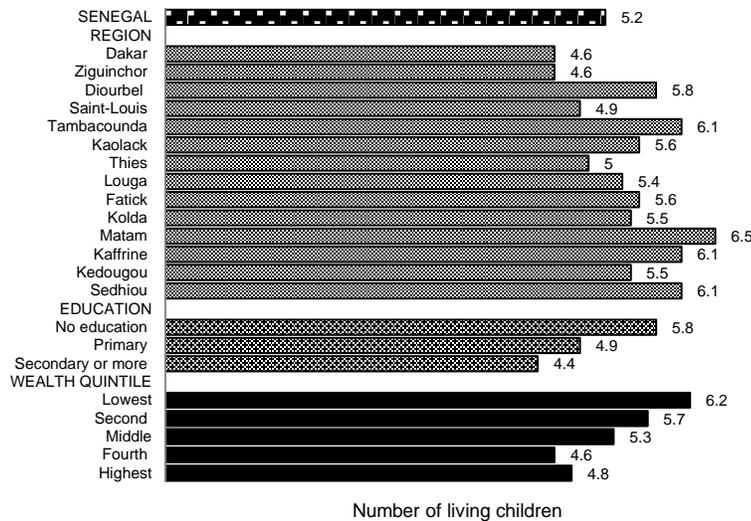
EDS-MICS 2010-11

Finally, there are significant regional variations in women's mean ideal number of children. Women in the regions of Kaffrine, Sédhiou, and Tambacounda (6.1 children for each region), and Matam (6.5 children) are most likely to express a large ideal family size. In contrast, women in Dakar, Ziguinchor, and Saint-Louis appear to consider fewer children as their ideal number (4.6 children).

6.3 FERTILITY PLANNING

Questions for each child born in the last five years and the current pregnancy (if any) were asked of women during the EDS-MICS 2010-11. These questions are designed to determine whether, at the time of pregnancy, the woman wanted to be pregnant at that time, or later, or whether the pregnancy was unwanted. The answers to these questions are used to measure the ability of couples to control their fertility.

Table 6.5 shows that almost all pregnancies (96 percent) over the past five years were desired. Most of these births (75 percent) came at the desired time, but in 20 percent of cases the women would have preferred them to occur later. Unwanted pregnancies account for 4 percent of all pregnancies. Compared with 2005, it appears that women have the same fertility planning behavior.

Moreover, these results also show that the proportion of unwanted pregnancies increases with birth order, from 1 percent for birth orders 1 and 2 to 8 percent for birth order 4 or more. According to the age of the mother, the best planned births are those of young mothers, since the proportion of unwanted children goes from 1 percent among mothers under age 20 to 31 percent among mothers age 40- 44, and 25 percent among mothers age 45-49.

Table 6.5 Fertility planning status

Percent distribution of births to women age 15-49 in the five years preceding the survey (including current pregnancies), by planning status of the birth, according to birth order and mother's age at birth, EDS-MICS, Senegal 2010-11

Birth order and mother's age at birth	Planning status of birth					
	Wanted then	Wanted later	Wanted no more	Missing	Total	Number of births
Birth order						
1	84.6	14.0	1.2	0.1	100.0	2,867
2	76.1	22.7	1.2	0.0	100.0	2,380
3	79.2	19.4	1.4	0.0	100.0	1,922
4+	69.2	23.0	7.8	0.0	100.0	5,518
Mother's age at birth						
<20	79.7	19.0	1.2	0.1	100.0	1,869
20-24	79.1	19.6	1.3	0.0	100.0	3,437
25-29	75.5	22.8	1.7	0.0	100.0	3,134
30-34	72.9	23.0	4.1	0.0	100.0	2,354
35-39	70.8	18.4	10.7	0.1	100.0	1,368
40-44	60.3	9.2	30.5	0.0	100.0	486
45-49	65.0	9.9	25.1	0.0	100.0	39
Total	75.5	20.4	4.1	0.0	100.0	12,687

Table 6.6 and Figure 6.3 show a comparison between the total wanted fertility rate (TWFR) and the current total fertility rate (TFR). Calculation of the TWFR is similar to that of the TFR presented in Chapter 5, but with births considered as unwanted removed from the numerator. Comparison of the TWFR with the TFR highlights the potential demographic impact of preventing unwanted births.

Theoretically, the TWFR would be a better indicator of desired fertility than answers to the question about the ideal number of children. This index is closer to reality because the responses of the women interviewed probably reflect the gender distribution of the children already born and considerations of child survival. Answers to the question on the total number of children wanted, in contrast, refer to children who are still alive and may suggest an ideal distribution of the two sexes.

If all unwanted births were avoided, the TFR for women in Senegal would be 3.2 children instead of 5.0. This suggests that more than 36 percent[1] of Senegalese couples are not yet able to plan the number of children desired. Compared with the survey in 2005, couples are succeeding less and less in planning the number of children desired: 15 percent versus 36 percent. With regard to differences by background characteristics, the TWFR varies in the same way as the TFR.

Table 6.6 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban	2.6	3.9
Rural	3.8	6.0
Region		
Dakar	2.4	3.7
Ziguinchor	3.2	4.8
Diourbel	2.8	5.2
Saint-Louis	3.1	5.0
Tambacounda	3.6	6.0
Kaolack	4.1	6.0
Thiès	2.9	4.8
Louga	3.0	4.8
Fatick	4.5	6.3
Kolda	4.7	6.8
Matam	2.8	5.4
Kaffrine	4.8	6.5
Kédougou	3.3	6.1
Sédhiou	4.9	6.9
Education		
No education	3.6	5.8
Primary	3.2	4.5
Secondary or more	2.2	2.9
Wealth quintile		
Lowest	4.3	7.0
Second	4.0	6.2
Middle	3.2	5.0
Fourth	2.6	4.3
Highest	2.4	3.3
Total	3.2	5.0

Note: Rates are calculated based on births to women age 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 5.2.

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[1] This percentage is obtained as follows: $1 - [3.2(TWFR)/5 (TFR)]$.

Figure 6.3
Total wanted fertility rate and total fertility rate
by background characteristics

SENEGAL 5.0 / 3.2

RESIDENCE
Urban 3.9 / 2.6
Rural 6.0 / 3.8

EDUCATION
No education 5.8 / 3.6
Primary 4.5 / 3.2
Secondary or more 2.9 / 2.2

WEALTH QUINTILE
Lowest 7.0 / 4.3
Second 6.2 / 4.0
Middle 5.0 / 3.2
Fourth 4.3 / 2.6
Highest 3.3 / 2.4

Number of children per woman

▨ Total fertlity rate   ■ Total wanted fertility rate

EDS-MICS 2010-11

FAMILY PLANNING
7
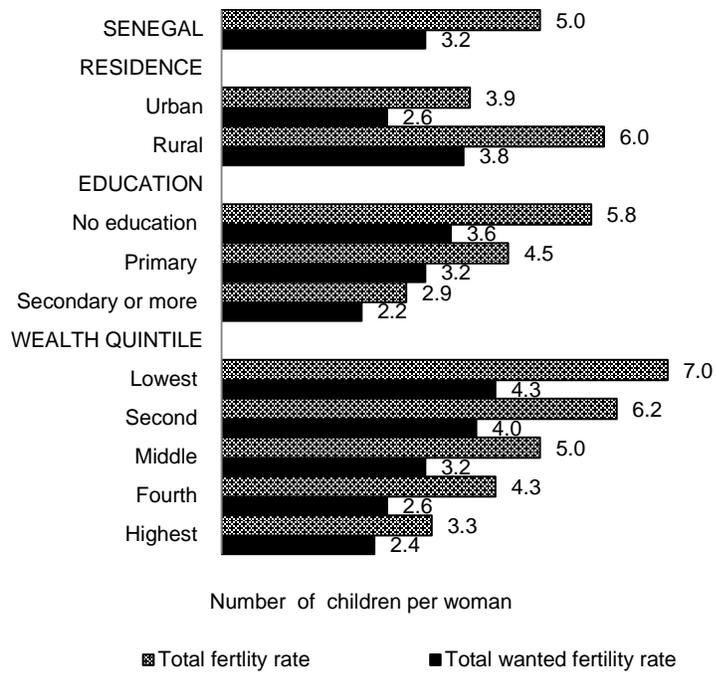
Cheikh Tidiane NDIAYE and Papa Mabèye DIOP

I n African countries, the high rate of population growth is a major constraint to development efforts. The persistent imbalance between rapid population growth and poor economic growth contributes to the deterioration of household living conditions. With fertility rates among the highest in the world, countries in sub-Saharan Africa, however, have very different situations. Through the collection of demographic data since the 1970s, knowledge of the evolution of fertility has improved significantly. In addition to the disparities between regions and countries, there are also differences in fertility between rural and urban areas, wth urban residence often associated with reduced fertility. But beyond this dichotomy, certain characteristics of the population are more important than others. One of the factors associated with the recent decline in fertility in countries that have carried out Demographic and Health Surveys (DHS) is contraceptive practice. In recent decades around the world, there has been a rapid and significant increase in the use of contraception.

Just as in previous surveys, the EDS-MICS 20-2011 collected information on knowledge of contraceptive methods, current levels of use, and recent trends in contraveptive use. This chapter discusses the following topics:

- Knowledge of contraception, including past and present use;
- Knowledge of the fertile period;
- Sources of supply for contraception;
- Future use of contraception;
- Sources of information on contraception;
- Opinions and attitudes about contraception.

7.1 KNOWLEDGE OF CONTRACEPTION

The collection of information relating to the knowledge of contraceptive methods was carried out in two stages. After informing respondents of the existence of methods or means that a couple can use to delay or avoid pregnancy, the interviewer asked if they had heard of each method, after naming and describing it.

The results presented in Table 7.1 show that almost all women (90 percent) know at least one method of contraception. Among women in union, the corresponding percentage is slightly higher (93 percent). The level of knowledge of modern methods (at 90 percent for all women and 93 percent for currently married women) is higher than that for traditional methods (at 52 percent for all women and 56 percent for currently married women).

On average, women in union know 6.2 contraceptive methods compared with 5.8 for all women. Unmarried sexually active women are the most informed: practically all of them know at least one modern method of contraceptive. The average number of methods known by women is higher than the number known by men. On average, men know 4.5 methods, and men in union know 5.7 methods.

The methods most well known by both women and men, whether in union or not, are condoms (77 percent for women and 92 percent for men), the pill (79 percent for women and 67 percent for men), and injectables (75 percent for women and 54 percent for men). In contrast, male sterilization is little known (about 10 percent). The level of knowledge about the male condom is particularly high among women and men who are not in union but are sexually active (respectively, 98 percent and 99 percent). Among traditional methods, the rthythm method is the best known (36 percent for all women and 66 percent for women not in union but sexually active). For men the corresponding figures are, respectively, 33 percent and 41 percent.

Table 7.1 Knowledge of contraceptive methods

Percentage of all respondents, currently married respondents, and sexually active unmarried respondents age 15-49 who have heard of any contraceptive method, by specific method, EDS-MICS, Senegal 2010-11

	Women			Men		
Method	All women	Currently married women	Sexually active unmarried women[1]	All men	Currently married men	Sexually active unmarried men1
Any method	**90.4**	**92.7**	**100.0**	**96.8**	**98.3**	**99.4**
Any modern method	90.1	92.5	100.0	92.8	96.1	99.4
Female sterilization	53.0	58.4	55.2	32.7	43.0	38.6
Male sterilization	9.9	9.8	13.7	8.9	10.9	11.2
Pill	78.9	83.4	90.7	66.6	81.8	78.5
IUD	44.9	50.5	46.5	20.8	29.7	27.6
Injectables	75.2	81.5	82.1	53.5	70.8	65.6
Implants	57.2	63.5	69.3	22.9	34.3	33.9
Male condom	77.1	77.4	97.7	91.6	94.3	98.9
Female condom	37.2	35.7	66.4	44.5	47.0	57.5
Lactational amenorrhea (LAM)	48.5	54.5	60.9	19.4	32.1	18.4
Emergency contraception	13.0	11.6	27.0	14.2	17.7	20.1
Any traditional method	51.7	56.0	75.4	48.4	61.9	53.6
Rhythm	35.9	36.2	66.4	33.3	46.1	40.6
Withdrawal	31.1	34.8	52.7	33.3	47.9	45.3
Folk method	15.7	19.1	16.4	13.1	18.5	5.0
Mean number of methods known by respondents 15-49	5.8	6.2	7.5	4.5	5.7	5.4
Number of respondents	15,688	10,347	138	4,417	1,609	213
Mean number of methods known by men 15-59	na	na	na	**4.7**	**5.7**	5.4
Number of women	na	na	na	4,929	2,087	216

na = Not applicable
[1] Had last sexual intercourse within 30 days preceding the survey.

Comparison of these results with those of the previous survey, conducted in 2005, shows no significant changes. The proportion of all women who know at least one contraceptive method went from 92 percent for any method and 91 percent for a modern method in 2005, to 90 percent in the current survey, regardless of the type of method. Among women in union for knowledge of at least one method, the proportion went from 94 percent in 2005 to 93 percent in the current survey.

With regard to traditional methods, there has been an improvement in knowledge; the proportion of women who reported knowledge of any of the traditional methods increased from 42 percent in 2005 to 52 percent in the current survey.

Table 7.2 shows the percentages of both women and men in union who know at least one method of any type or one modern method of contraception, according to select background characteristics. The results do not show significant differences; regardless of the characteristic in question, knowledge levels are high. However, it should be noted that the proportion of women with knowledge of at least one method is lower at age 15-19 compared with other age groups (84 percent for any method and 83 percent for modern methods

versus more than 91 percent at other ages). At the regional level, four regions are characterized by relatively low proportions of women who reported knowing a modern method: Tambacounda (76 percent), Kaffrine (83 percent), Matam (84 percent), and Louga (89 percent). In other regions the proportion varies between 90 and 98 percent. The proportion of women who know at least one method is highest in the region of Ziguinchor, at 98 percent. The regions of Louga (83 percent) and Diourbel (84 percent) have the lowest proportions of men in union who know at least one method. By comparison, in the regions of Ziguinchor, Thiès, Fatick, Kolda, and Sédhiou all men in union know at least one modern method of contraception.

Table 7.2 Knowledge of contraceptive methods by background characteristics

Percentage of currently married women and currently married men age 15-49 who have heard of at least one contraceptive method and who have heard of at least one modern method, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Women			Men		
	Heard of any method	Heard of any modern method[1]	Number of women	Heard of any method	Heard of any modern method[1]	Number of men
Age						
15-19	84.4	83.1	832	*	*	9
20-24	91.9	91.8	1,932	94.2	89.3	49
25-29	93.5	93.3	2,128	98.4	97.2	246
30-34	94.6	94.5	1,825	97.7	95.3	350
35-39	94.9	94.7	1,614	99.8	97.3	345
40-44	92.9	92.8	1,192	98.7	97.8	352
45-49	91.9	91.9	825	97.4	94.0	258
Residence						
Urban	96.4	96.3	4,256	98.7	98.7	760
Rural	90.1	89.8	6,091	97.9	93.9	848
Region						
Dakar	96.5	96.4	2,217	98.8	98.8	445
Ziguinchor	97.9	97.9	270	100.0	100.0	52
Diourbel	93.4	93.0	1,375	100.0	83.7	126
Saint-Louis	94.1	93.8	666	97.5	95.5	96
Tambacounda	76.1	75.7	577	97.2	97.2	95
Kaolack	96.2	95.8	815	98.5	98.5	125
Thies	94.9	94.9	1,301	100.0	100.0	194
Louga	89.1	88.6	806	92.3	82.8	118
Fatick	94.0	94.0	485	100.0	100.0	76
Kolda	95.2	94.8	510	100.0	100.0	93
Matam	84.3	84.0	446	91.6	90.1	65
Kaffrine	83.3	83.3	449	99.2	99.2	63
Kedougou	90.3	90.3	97	98.8	98.8	17
Sedhiou	96.2	96.2	332	100.0	100.0	44
Education						
No education	90.4	90.1	7,326	97.9	94.4	877
Primary	97.8	97.7	2,049	97.8	97.3	427
Secondary or more	99.2	99.2	972	100.0	99.6	304
Wealth quintile						
Lowest	84.8	84.3	2,170	97.2	92.8	361
Second	91.5	91.4	2,079	98.5	96.0	282
Middle	94.2	93.9	1,976	97.9	97.3	294
Fourth	94.7	94.5	2,168	97.9	96.1	332
Highest	98.9	98.9	1,954	100.0	98.7	339
Total 15-49	92.7	92.5	1,347	98.3	96.1	1,609
50-59	na	na	na	96.6	91.1	479
Total 15-59	na	na	na	97.9	95.0	2,087

na = Not applicable
[1] Female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, lactational amenorrhea method (LAM), emergency contraception, and other modern methods.
* Based on fewer than 25 unweighted cases.

7.2 CURRENT USE OF CONTRACEPTION

The level of contraceptive use is one of the indicators used to measure the success of family planning programs. The EDS-MICS 2010-11 measures current use—that is, the proportion of women using a contraceptive method at the time of the survey. Women who said they knew a method of contraception were asked if they were currently using one. Table 7.3 presents current contraceptive use, by women's age and method used.

Overall, about 10 percent of women currently use a contraceptive method—9 percent a modern method and 1 percent a traditional method. Women primarily use two methods: injectables (4 percent) and the pill (3 percent). All other methods affect less than 1 percent of respondents. Contraceptive prevalence increases by age, with the highest proportion of users of contraceptive methods at age 30-44.

Table 7.3 Current use of contraception by age

Percent distribution of all women, currently married women, and sexually active unmarried women age 15-49 by contraceptive method currently used, according to age, EDS-MICS, Senegal 2010-11

Age	Any method	Any modern method	Modern method							Any traditional method	Traditional method			Not currently	Total	Numer of women
			Female Sterilization	Pill	IUD	Injec-tables	Implants	Male condom	Other[2]		Rhythm	With-drawal	Other			
ALL WOMEN																
15-19	2.1	1.9	0.0	0.4	0.0	0.7	0.2	0.6	0.0	0.2	0.0	0.0	0.2	97.9	100.0	3,429
20-24	6.6	6.0	0.0	1.7	0.1	2.9	0.3	0.9	0.1	0.5	0.3	0.1	0.2	93.4	100.0	3,220
25-29	11.6	11.0	0.1	4.3	0.6	4.1	0.9	0.7	0.3	0.7	0.2	0.2	0.3	88.4	100.0	2,746
30-34	14.9	13.9	0.0	4.7	0.3	6.3	1.7	0.6	0.2	1.1	0.4	0.3	0.3	85.1	100.0	2,148
35-39	14.5	13.2	0.2	5.0	0.8	5.5	1.1	0.5	0.1	1.3	0.6	0.2	0.5	85.5	100.0	1,817
40-44	15.9	14.8	0.5	3.7	1.3	5.7	3.0	0.5	0.1	1.1	0.1	0.3	0.7	84.1	100.0	1,379
45-49	10.2	9.2	1.0	2.8	0.7	3.9	0.4	0.4	0.1	0.9	0.3	0.0	0.6	89.8	100.0	949
Total	9.6	8.9	0.2	2.9	0.4	3.7	0.9	0.6	0.1	0.7	0.2	0.1	0.3	90.4	100.0	15,688
CURRENTLY MARRIED WOMEN																
15-19	5.8	5.0	0.0	1.8	0.1	2.1	0.1	0.8	0.0	0.8	0.0	0.0	0.8	94.2	100.0	832
20-24	9.1	8.4	0.1	2.4	0.2	4.3	0.3	1.0	0.2	0.7	0.4	0.0	0.3	90.9	100.0	1,932
25-29	13.7	12.8	0.1	5.3	0.7	4.9	1.0	0.5	0.1	0.8	0.2	0.3	0.4	86.3	100.0	2,128
30-34	16.3	15.1	0.0	5.1	0.3	7.1	1.6	0.6	0.3	1.2	0.4	0.4	0.3	83.7	100.0	1,825
35-39	15.6	14.2	0.2	5.2	0.9	5.2	1.2	0.5	0.1	1.4	0.6	0.2	0.6	84.4	100.0	1,614
40-44	17.1	15.8	0.6	3.8	1.4	6.2	3.1	0.5	0.1	1.3	0.2	0.4	0.8	82.9	100.0	1,192
45-49	11.0	9.9	1.2	3.1	0.8	4.0	0.3	0.4	0.1	1.1	0.4	0.0	0.7	89.0	100.0	825
Total	13.1	12.1	0.2	4.1	0.6	5.2	1.1	0.6	0.2	1.0	0.3	0.2	0.5	86.9	100.0	10,347
SEXUALLY ACTIVE UNMARRIED WOMEN[1]																
Total	26.0	25.0	0.0	2.6	0.5	7.8	3.1	11.1	0.0	1.0	0.0	0.0	1.0	74.0	100.0	138

Note: If more than one method is used, only the most effective method is considered in this tabulation.
[1] Women who have had sexual intercourse within 30 days preceding the survey.
[2] Including the LAM method.

Among women in union, prevalence is slightly higher than among women in all marital situations counted together: 13 percent for any method and 12 percent for a modern method (Figure 7.1). With regard to unmarried sexually active women, the results indicate a prevalence of 26 percent for any method and 25 percent for a modern method. Women in this group almost exclusively use two methods: the condom (11 percent) and injectables (8 percent). Given the small number of these women, only the overall proportions are found in this table.

Figure 7.1
Current contraceptive use among women in union, by method

Method	Percentage
Any method	13
Any modern method	12
Injections	5
Pill	4
Implants	1
IUD	1
Male condom	1
Female sterilization	0
Any traditional method	1
Rhythm	0
Withdrawal	0

Percentage
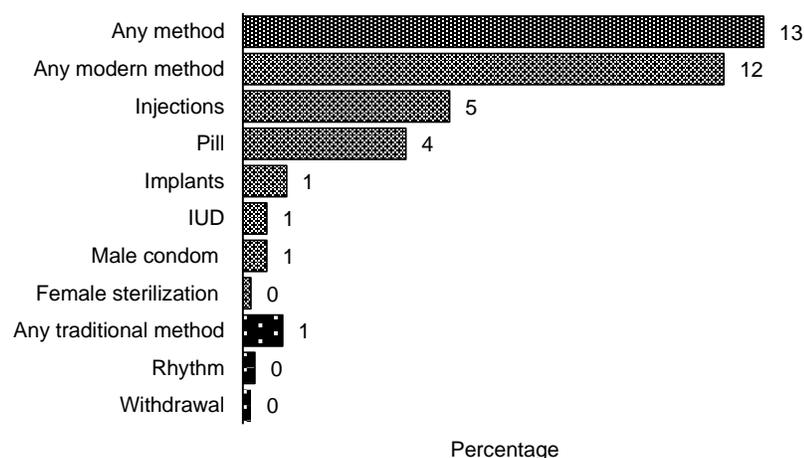
EDS-MICS 2010-11

In addition, the information collected allows the analysis of contraceptive prevalence by selected background characteristics of women in union (Table 7.4). Contraceptive prevalence for all methods is three times higher in urban areas (22 percent) than in rural areas (7 percent). In both urban and rural areas the modern methods most frequently used by women are injectables (8 percent in urban areas and 4 percent in rural areas), the pill (8 percent in urban areas and 2 percent in rural areas), and implants (2 percent in urban areas and less than 1 percent in rural areas). The main traditional method used, the rthythm method, primarily affects urban women (0.7 percent). However, overall, only 0.3 percent of women use this method for family planning. Regional differences are significant. Four regions are notable for their high prevalence of modern contraceptive use: Dakar (21 percent), Ziguinchor (17 percent), Thiès (16 percent), and Saint Louis (16 percent). In contrast, in the regions of Matam (3 percent), Tambacounda (4 percent), Kaffrine (5 percent), Diourbel (5 percent), Kédougou (6 percent), and Sédhiou (6 percent), modern contraceptive prevalence is low.

Contraceptive prevalence, whether modern or traditional, increases dramatically with the level of education. For modern methods, prevalence increases from 8 percent among women with no education to 21 percent among women with a primary education, and to 26 percent among women with secondary education or higher. In addition, it is notable that uneducated women use injectables (4 percent) more frequently than other methods, while among women with secondary level or higher education, 9 percent use the pill and 9 percent use injectables. The use of modern contraception also increases with the number of children, from 3 percent among women with no children to 16 percent among women with five or more children.

Table 7.4 Current use of contraception by background characteristics

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Any method	Any modern method	Modern method							Any trad-itional method	Traditional method			Not current-ly	Total	Numer of women
			Female steriliza tion	Pill	IUD	Injec-tables	Im-plants	Male condom	Other[1]		Rhythm	With-drawl	Other			
Number of living children																
0	3.4	2.9	0.0	0.8	0.0	0.2	0.1	1.7	0.0	0.6	0.5	0.0	0.0	96.6	100,0	1,253
1-2	12.5	11.6	0.0	4.7	0.5	4.6	0.7	0.8	0.3	0.9	0.3	0.2	0.4	87.5	100,0	3,489
3-4	14.6	13.3	0.1	4.3	0.7	6.3	1.5	0.3	0.2	1.3	0.3	0.4	0.5	85.4	100,0	2,776
5+	16.8	15.6	0.7	4.6	0.9	7.1	1.8	0.3	0.2	1.1	0.4	0.1	0.7	83.2	100,0	2,829
Residence																
Urban	22.0	20.2	0.2	7.5	1.3	7.7	1.8	1.3	0.2	1.8	0.7	0.5	0.6	78.0	100,0	4,256
Rural	7.0	6.5	0.2	1.7	0.1	3.5	0.6	0.2	0.2	0.5	0.1	0.0	0.4	93.0	100,0	6,091
Region																
Dakar	23.9	21.4	0.3	7.3	1.8	7.7	2.3	1.7	0.3	2.5	0.9	0.7	0.9	76.1	100,0	2,217
Ziguinchor	17.9	17.3	0.6	3.4	0.8	6.0	2.9	2.2	1.3	0.7	0.4	0.2	0.0	82.1	100,0	270
Diourbel	5.6	5.3	0.1	2.7	0.0	1.8	0.6	0.1	0.1	0.3	0.0	0.0	0.3	94.4	100,0	1,375
Saint-Louis	17.7	16.1	0.1	8.5	1.0	4.7	0.6	0.6	0.6	1.5	0.9	0.1	0.5	82.3	100,0	666
Tambacounda	4.3	4.2	0.0	0.8	0.0	3.3	0.0	0.1	0.0	0.1	0.0	0.0	0.1	95.7	100,0	577
Kaolack	11.7	10.9	0.1	2.8	0.5	5.1	1.9	0.3	0.2	0.8	0.1	0.1	0.6	88.3	100,0	815
Thies	16.7	16.3	0.5	5.6	0.5	8.5	1.0	0.2	0.0	0.4	0.4	0.0	0.0	83.3	100,0	1,301
Louga	7.8	7.4	0.0	2.6	0.3	3.9	0.2	0.2	0.2	0.4	0.1	0.2	0.1	92.2	100,0	806
Fatick	10.9	10.3	0.6	3.4	0.0	4.6	1.5	0.2	0.0	0.6	0.0	0.0	0.6	89.1	100,0	485
Kolda	12.0	10.5	0.3	1.5	0.0	7.5	0.2	1.0	0.1	1.5	0.1	0.2	1.2	88.0	100,0	510
Matam	3.2	3.2	0.0	1.6	0.0	1.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	96.8	100,0	446
Kaffrine	5.4	4.6	0.3	0.6	0.2	3.0	0.5	0.0	0.0	0.8	0.1	0.0	0.8	94.6	100,0	449
Kedougou	7.1	6.1	1.2	0.8	0.0	3.1	0.5	0.2	0.2	1.0	0.5	0.2	0.3	92.9	100,0	97
Sedhiou	7.4	6.4	0.2	0.3	0.0	3.1	1.5	0.9	0.4	1.0	0.2	0.0	0.8	92.6	100,0	332
Education																
No education	8.8	7.9	0.3	2.4	0.4	3.8	0.8	0.1	0.1	0.8	0.2	0.1	0.5	91.2	100,0	7,326
Primary	22.1	20.5	0.1	7.4	1.3	8.4	2.4	0.6	0.3	1.6	0.7	0.4	0.5	77.9	100,0	2,049
Secondary or more	27.0	25.6	0.3	9.4	0.8	8.8	1.1	4.8	0.3	1.4	0.6	0.5	0.3	73.0	100,0	972
Wealth quintile																
Lowest	4.8	4.4	0.3	0.6	0.0	2.7	0.6	0.1	0.1	0.4	0.0	0.0	0.3	95.2	100,0	2,170
Second	7.4	6.8	0.3	1.5	0.2	3.8	0.7	0.2	0.1	0.6	0.1	0.0	0.5	92.6	100,0	2,079
Middle	13.0	12.0	0.2	4.8	0.4	5.1	0.9	0.3	0.3	1.0	0.3	0.0	0.7	87.0	100,0	1,976
Fourth	16.9	15.2	0.1	5.1	0.9	7.1	1.2	0.6	0.2	1.6	0.8	0.1	0.8	83.1	100,0	2,168
Highest	24.5	22.9	0.3	9.0	1.5	7.5	2.3	1.9	0.2	1.6	0.5	1.0	0.1	75.5	100,0	1,954
Total	13.1	12.1	0.2	4.1	0.6	5.2	1.1	0.6	0.2	1.0	0.3	0.2	0.5	86.9	100,0	10,347

Note : If more than one method is used, only the most effective method is considered in this tabulation.
[1] Including the LAM method.

Trends

Comparison with the results from previous surveys shows that modern contraceptive prevalence among women in union is steadily increasing—from 5 percent in 1993 to 8 percent in 1997, 10 percent in 2005, and 12 percent in 2010-11 (Figure 7.2). This progress has been especially significant among rural women and women with no education. Indeed, modern contraceptive prevalence has improved considerably in rural areas, from 1 percent in 1993, to 4 percent in 1997, and then to 5 percent in 2005 and 7 percent in the current survey. In the region of Kaolack the level of modern contraceptive prevalence doubled from 5 percent in 2005 to 11 percent in the current survey. Depending on the level of education, the proportion of uneducated women who use a modern method doubled between 1993 and 1997, from 2 percent to 4 percent, and between 1997 and 2005 the proportion increased slightly, from 4 percent to 5 percent, before reaching 8 percent in the current survey. Between 2005 and 2010, a rising trend in the percentage of users of modern methods is observed in urban areas and among women with a primary education. However, this trend is not evident for women with secondary education or more, among whom modern contraceptive prevalence dropped from 30 percent in 2005 to 26 percent in the current survey.

Figure 7.2
Trends in modern contraceptive prevalence
among women in union, according to four sources

Percentage
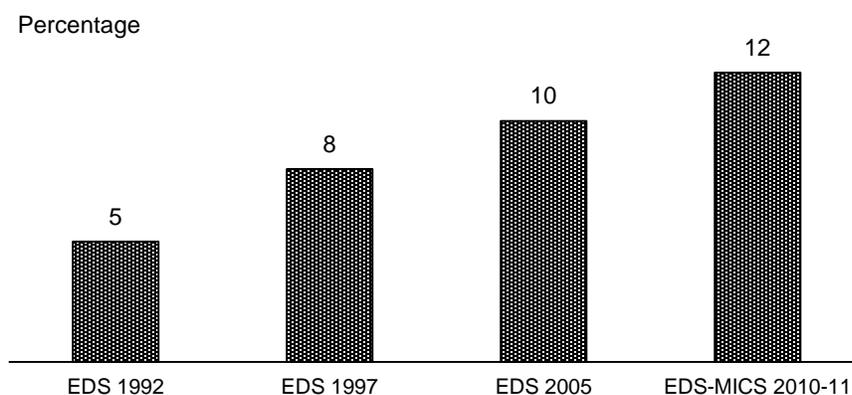
7.3   SOURCES OF SUPPLY OF CONTRACEPTION

To assess the role of the public and private health sectors in the distribution or sale of various modern methods of contraception, the survey asked contraceptive users to indicate where they obtained their current method (Table 7.5).

For modern methods of contraception, 85 percent of women go to the public health sector. About one woman in every ten (12 percent) goes to the private medical sector, and only 2 percent seek other sources. In the public sector, women mainly go to health posts to obtain their method (37 percent), which is slightly less than half of the client base in this sector. In addition, health centers are sources of supply, at 20 percent. In the private sector, pharmacies are by far the major suppliers (8 percent), while 2 percent of women obtain their method from private hospitals/clinics. For the most part, friends/relatives (2 percent) make up the non-medical sources.

About half of women who use contraceptives (52 percent) go to the private health sector to get male condoms, primarily in pharmacies (49 percent). The public sector, with less than 21 percent, plays only a minor role in the distribution of condoms. In contrast, the pill, implants, and injectables are mainly provided by the public sector, which 90 percent of users of these methods named as their most recent source.

Table 7.5 Source of modern contraceptive methods

Percent distribution of users of modern contraceptive methods age 15-49 by most recent source of the method, according to method, EDS-MICS, Senegal 2010-11

Source	Female sterilization	Pill	IUD	Injectables	Implants	Male condom	Total
Public sector	(88.3)	82.4	(91.0)	94.8	96.6	20.7	84.8
Government hospital	(53.7)	10.9	(31.6)	14.9	34.6	3.1	16.2
Government health center	(31.8)	19.3	(24.8)	21.6	25.8	1.2	20.0
Government health post	(0.0)	40.3	(30.6)	46.9	22.9	5.5	37.4
Government family planning center	(0.0)	7.6	(4.0)	9.0	12.6	3.7	8.1
Rural maternity clinic	(0.0)	0.5	(0.0)	0.7	0.4	0.0	0.5
Health huts	(2.8)	1.4	(0.0)	0.5	0.0	0.7	0.8
Community pharmacy	(0.0)	1.5	(0.0)	0.0	0.0	6.6	1.0
Other public	(0.0)	0.9	(0.0)	1.2	0.3	0.0	0.8
Private medical sector	(11.7)	16.5	(9.0)	4.0	1.1	51.9	11.8
Private clinic	(11.7)	1.5	(9.0)	1.9	0.0	3.0	2.2
Pharmacy	(0.0)	12.5	(0.0)	0.1	0.0	48.9	7.8
Private doctor	(0.0)	2.0	(0.0)	1.0	1.1	0.0	1.2
Religious dispensairy	(0.0)	0.2	(0.0)	0.9	0.0	0.0	0.5
Other private	(0.0)	0.3	(0.0)	0.2	0.0	0.0	0.2
Other sources	(0.0)	0.6	(0.0)	0.0	0.0	23.8	2.0
Shop	(0.0)	0.0	(0.0)	0.0	0.0	3.6	0.3
Friend/relative	(0.0)	0.6	(0.0)	0.0	0.0	20.2	1.7
Other	(0.0)	0.4	(0.0)	1.2	2.2	3.6	1.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	99.7
Number of women	24	457	66	578	141	102	1,372

Note : Total includes other modern methods but excludes lactational amenorrhea method (LAM).
( ) Based on 25-49 unweighted cases.

7.4   INFORMATION RELATED TO CONTRACEPTIVE METHODS

Family planning service providers at health facilities are expected to offer comprehensive services to their clientele by giving them the maximum amount of useful information, including the range of existing contraceptive methods and their limitations, side effects, and possible contraindications. The goal of this information is to help women make informed choices, while correcting and combatting prejudices with regard to methods of contraception. Table 7.6 presents the survey results on informed choice.

Overall, about three-quarters of women currently using conraception (76 percent) were informed that methods other than the ones they use exist. In 57 percent of cases, women were informed about side effects and other problems related to use of their methods, and 52 percent of women were informed about the measures to be taken in case of side effects related to their methods.

The proportion of women using the public sector who have been informed of the existence of other methods is higher than in the private sector (79 percent versus 54 percent). With regard to information on side effects and problems related to their methods, there are no significant differences between the two sectors. However, in the public sector women were more frequently informed of measures to be taken in case of side effects (53 percent, versus 41 percent in the private sector). In addition, women were more often informed in the public sector at government family planning centers and health centers. Moreover, in 76 percent of cases, women who went to health posts, which are the main providers of contraceptives, were informed about the existence of other methods, and more than half of women (54 percent) were informed of side effects and what to do in case of problems. The number of women sent to the private sector for information on contraceptive methods is too low and cannot be evaluated.

Table 7.6 Informed choice

Among current users of selected modern methods age 15-49 who started the last episode of use within the five years preceding the survey, the percentage who were informed about possible side effects or problems of that method, the percentage who were informed about what to do if they experienced side effects and the percentage who were informed about other methods they could use, by method and initial source, EDS-MICS, Senegal 2010-11

Method/source	Among women who started last episode of modern contraceptive method within five years preceding the survey			
	Percentage who were informed about side effects or problems of method used	Percentage who were informed about what to do if side effects experienced	Percentage who were informed by a health or family planning worker of other methods that could be used	Number of women
Method				
Female sterilization	*	*	*	20
Pill	51.2	45.5	70.2	415
IUD	(68.2)	(70.3)	(60.2)	52
Injectables	57.1	54.7	80.6	548
Implants	55.7	54.3	86.2	121
Initial source of method[1]				
Public sector	56.0	52.8	78.7	1,049
Government hospital	52.8	43.2	75.3	188
Government Health center	55.7	55.8	83.3	264
Government Health post	57.1	54.4	76.0	477
Government FP Centre	57.0	53.8	85.0	99
Rural maternity	*	*	*	8
Health huts	*	*	*	9
Community pharmacy	*	*	*	1
Other public	*	*	*	3
Medical private sector	54.1	40.9	54.2	82
Hospital/private clinic	*	*	*	24
Pharmacy	(47.9)	(26.2)	(21.2)	36
Private doctor	*	*	*	11
Religious dispensary	*	*	*	6
Other private	*	*	*	5
Other private sector	*	*	*	1
Friend/relative	*	*	*	1
Other	*	*	*	19
Total[2]	55.6	51.8	76.4	1,155

Note: Table includes users of only the methods listed individually.
[1] Source at start of current episode of use.
[2] Including four women for whom information is missing.
( ) Based on 25-49 unweighted cases.
* Based on less than 25 unweighted cases.

7.5 REASONS FOR DISCONTINUATION OF CONTRACEPTION

Women were asked the main reason for discontinuation of contraception during the last five years preceding the survey. Table 7.7 presents these results.

Side effects or health problems and the desire to become pregnant are the leading reasons for stopping a contraceptive method. For all contraceptive methods, 24 percent of women stopped a particular method because of side effects or health problems, and 23 percent stopped because they wanted to become pregnant. For all methods, 7 percent of women became pregnant while using contraception, and for the rhythm method, 23 percent, and for condom use, 13 percent.

Concerning specific methods, side effects or health problems are the main reasons given for discontinuation of hormonal methods, mentioned by 43 percent of women who used implants, 39 percent who had injections, and 23 percent who used the pill in the five years preceding the survey.

Table 7.7 Reasons for discontinuation

Percent distribution of discontinuations of contraceptive methods in the five years preceding the survey by main reason stated for discontinuation, according to specific method, EDS-MICS, Senegal 2010-11

Reason for discontinuation	Pill	Injection	Implants	Male condom	LAM	Rrhythm	With-drawal	Other	All methods[1]
Became pregnant while using	10.0	2.0	4.1	12.8	0.8	22.7	0.0	23.0	7.2
Wanted to become pregnant	24.2	23.5	13.7	34.6	0.0	38.4	35.5	27.8	22.7
Husband/partner disapproved	5.1	3.6	8.5	18.0	0.0	0.0	2.9	7.4	5.0
Wanted more effective method	5.2	3.6	1.6	13.4	6.0	2.4	38.3	4.3	5.5
Health concerns/side effects	23.0	39.4	43.1	0.0	1.5	1.1	7.1	9.5	24.0
Lack of access/too far	2.3	3.7	1.8	2.3	0.0	0.0	0.0	0.0	2.3
Costs too much	0.6	1.3	0.7	0.2	0.0	0.0	0.0	0.0	0.8
Inconvenient to use	3.5	2.7	3.9	6.8	0.7	0.8	6.1	8.3	3.5
Up to God/fatalistic	0.1	0.7	0.0	0.0	0.0	0.0	0.0	0.5	0.3
Divorced/separated	1.1	2.0	0.4	1.3	0.0	4.0	0.0	0.5	1.3
Other	23.1	15.6	22.1	9.9	91.0	30.7	7.4	15.8	25.9
Do not know	1.8	1.7	0.0	0.6	0.0	0.0	2.8	3.0	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of discontinuations	689	691	88	160	204	91	25	74	2,083

LAM = Lactational amenorrhea method
[1] Including 2 cases of condom use and 7 cases of foam/jelly use.

7.6 KNOWLEDGE OF THE FERTILE PERIOD

In order to know whether women have accurate knowledge of the fertile period, they were asked if they thought there was a period of time during the menstrual cycle when they were more likely to get pregnant and, if yes, at what point in the cycle this occurred. The results presented in Table 7.8 relate only to all women, since the proportion of women users of the rhythm method was too low (0.7 percent).

Given the many nuances that answers to this question can include, women were grouped into three broad categories:

- Those who have knowledge of the fertile period are women who reported "middle of the cycle";

Table 7.8 Knowledge of fertile period

Percent distribution of women age 15-49 by knowledge of the fertile period during the ovulatory cycle, EDS-MICS, Senegal 2010-11

Knowledge of fertile period	All women
Just before her menstrual period begins	3.4
During her menstrual period	1.6
Right after her menstrual period has ended	28.4
Halfway between two menstrual periods	20.8
Other	0.1
No specific time	22.3
Don't know	23.3
Total	100.0
Number of women	15,688

- Those with questionable knowledge of the fertile period are women who reported "just before the start of menstruation" or "just after the end of the menstrual period". These answers are too vague to be considered accurate, but according to a woman's idea of "just after the end" and "just before the start," they may correspond to the fertile period;

- Those who do not know the time of the fertile period are women who reported "during menstruation," "no specific time period," "do not know," or any other answer.

Overall, Table 7.8 indicates that almost half of all women have no idea of the existence of a particular period or can not correctly locate the fertile period during the menstrual cycle: 23 percent reported that they do not know at all and 22 percent said that such a period does not exist. Only the 21 percent of women who reported the middle of the cyle are considered to have a precise knowledge of the time when a woman is most likely to get pregnant during the menstural cycle.

7.7   NEED FOR FAMILY PLANNING

To assess the potential demand among women for family planning, women's survey responses were grouped into several categories. These include women with unmet need for family planning, women currently using contraception (met need), and the demand for family planning (satisfied and unsatisfied). Table 7.9.1 shows the distribution of women in union by their need for family planning. Table 7.9.2 refers to all women and women not in union. Each category is subdivided by type of need for contraception:

- Use for spacing: women who use any method of family planning and state that they want to have another child or who are undecided with regard to another birth

- Use for limiting: women who use family planning and state that they do not want any more children

Table 7.9.1 shows that 29 percent of women in union have unmet need for family planning. This proportion includes 22 percent of women with unmet need for spacing and 8 percent for limiting births. In addition, 13 percent of women in union currently use a contraceptive method, 9 percent for spacing and 4 percent for limiting births. Finally, the total demand for family planning services is estimated at 43 percent. In other words, contraceptive prevalence would increase from 13 percent to 43 percent if all need for family planning were met. However, the total demand for family planning is satisfied in only 28 percent of cases.

In Table 7.9.1 the total demand for family planning varies by age among women in union, from 37 percent for women age 15-19 to 48 percent for women age 30-34. This proportion is lowest (31 percent) among women age 45-49. The percentage of demand satisfied also increases with women's age. In addition, the results show that demand for family planning is higher in urban than rural areas (53 percent versus 36 percent); in urban areas 43 percent of the demand is met compared with only 20 percent in rural areas. The regions of Tambacounda (30 percent), Sédhiou (31 percent), Diourbel (34 percent), and Kaffrine (35 percent) report the lowest proportions of demand for family planning, while the highest proportions are found in Dakar, Saint-Louis, Ziguinchor, Kaolack, and Fatick. The proportion of satisfied demand is quite low in all regions, particularly in Matam (9 percent), Tambacounda (14 percent), Kaffrine (16 percent), and Diourbel (17 percent). In addition, the total demand for family planning increases with women's level of education and also with the level of wealth: the higher the level of education or level of wealth, the greater the demand for family planning (Table 7.9.1).

Furthermore, Table 7.9.2 shows that single, unmarried women have low demand for family planning (4.2 percent). However, the satisfaction rate remains high and the percentage of demand satisfied by modern methods is estimated at 62 percent.

Table 7.9.1 Need and demand for family planning among currently married women

Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, the total demand for family planning, and the percentage of the demand for contraception that is satisfied, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning			Percent-age of demand satisfied	Percent-age of demand satisfied for modern methods	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total			
Age												
15-19	30.8	0.3	31.1	5.5	0.3	5.8	36.3	0.6	36.9	15.9	13.5	832
20-24	29.2	0.5	29.6	8.8	0.3	9.1	38.2	0.8	39.0	24.0	21.6	1,932
25-29	28.5	2.7	31.2	12.5	1.2	13.7	41.3	3.9	45.3	31.1	28.4	2,128
30-34	25.4	5.4	30.7	13.2	3.1	16.3	38.9	8.5	47.5	35.2	31.8	1,825
35-39	17.8	13.1	30.9	8.5	7.1	15.6	26.3	20.2	46.6	33.7	30.4	1,614
40-44	5.3	21.7	27.1	2.8	14.2	17.1	8.2	36.0	44.2	38.8	35.7	1,192
45-49	2.3	18.1	20.4	0.7	10.3	11.0	3.0	28.4	31.3	34.9	31.5	825
Residence												
Urban	22.4	7.9	30.3	14.9	7.0	22.0	37.7	14.9	52.6	42.5	38.3	4,256
Rural	21.4	7.4	28.8	4.3	2.6	7.0	25.8	10.1	35.9	19.7	18.0	6,091
Region												
Dakar	23.3	8.3	31.6	16.3	7.7	23.9	40.0	16.0	56.1	43.6	38.2	2,217
Ziguinchor	20.4	8.2	28.6	11.8	6.1	17.9	32.4	14.3	46.7	38.7	37.0	270
Diourbel	21.2	7.0	28.2	4.0	1.6	5.6	25.2	8.6	33.8	16.6	15.7	1,375
Saint-Louis	21.3	8.3	29.6	12.0	5.7	17.7	34.0	14.2	48.2	38.6	33.5	666
Tambacounda	19.5	6.6	26.1	3.0	1.3	4.3	22.4	7.9	30.3	14.0	13.7	577
Kaolack	24.7	9.6	34.3	6.4	5.3	11.7	31.4	15.0	46.4	26.1	23.5	815
Thies	19.6	6.4	25.9	11.0	5.7	16.7	30.6	12.1	42.8	39.3	38.1	1,301
Louga	19.7	8.3	28.0	5.8	2.1	7.8	25.4	10.4	35.8	21.9	20.6	806
Fatick	25.4	9.0	34.3	6.2	4.7	10.9	31.5	13.7	45.2	24.1	22.8	485
Kolda	20.2	6.6	26.8	6.6	5.4	12.0	26.9	11.9	38.8	30.9	27.0	510
Matam	26.5	6.5	33.0	2.8	0.5	3.2	29.3	7.0	36.3	8.9	8.8	446
Kaffrine	20.7	8.4	29.1	3.2	2.2	5.4	24.2	10.5	34.7	16.2	13.1	449
Kedougou	24.6	7.5	32.1	4.5	2.5	7.1	29.3	10.0	39.3	18.4	15.4	97
Sedhiou	19.6	3.6	23.2	5.3	2.1	7.4	24.9	5.7	30.6	24.4	20.9	332
Education												
No education	21.0	8.1	29.1	5.3	3.5	8.8	26.4	11.7	38.1	23.6	20.9	7,326
Primary	25.6	5.9	31.4	15.2	6.9	22.1	41.0	12.8	53.8	41.5	38.2	2,049
Secondary or more	20.3	7.4	27.7	20.7	6.3	27.0	41.4	13.8	55.2	49.7	46.4	972
Wealth quintile												
Lowest	21.0	8.6	29.6	2.2	2.6	4.8	23.3	11.3	34.5	14.2	12.9	2,170
Second	22.7	6.9	29.6	4.6	2.8	7.4	27.6	9.6	37.2	20.4	18.2	2,079
Middle	23.3	8.3	31.5	8.2	4.8	13.0	31.7	13.2	44.9	29.7	26.7	1,976
Fourth	22.1	6.9	29.0	11.5	5.3	16.9	34.1	12.2	46.3	37.3	32.9	2,168
Highest	20.0	7.3	27.3	17.5	6.9	24.5	37.5	14.3	51.8	47.3	44.1	1,954
Total	21.8	7.6	29.4	8.7	4.4	13.1	30.7	12.1	42.8	31.2	28.3	10,347

[1] *Unmet need for spacing* includes pregnant women whose pregnancy was mistimed; amenorrheic women who are not using family planning and whose last birth was mistimed, or whose last birth was unwanted but now say they want more children; and fecund women who are neither pregnant nor amenorrheic, who are not using any method of family planning, and say they want to wait 2 or more years for their next birth. Also included in unmet need for spacing are fecund women who are not using any method of family planning and say they are unsure whether they want another child or who want another child but are unsure when to have the birth.
Unmet need for limiting refers to pregnant women whose pregnancy was unwanted; amenorrheic women who are not using family planning, whose last child was unwanted and who do not want any more children; and fecund women who are neither pregnant nor amenorrheic, who are not using any method of family planning, and who want no more children.
[2] *Using for spacing* is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another.
Using for limiting is defined as women who are using family planning and say they want no more children. Note that the specific methods used are not taken into account here.

Table 7.9.2 Need and demand for family planning for all women and for women who are not currently married

Percentage of all women and women not currently married age 15-49 with unmet need for family planning, percentage with met need for family planning, the total demand for family planning, and the percentage of the demand for contraception that is satisfied, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning			Percentage of demand satisfied	Percentage of demand satisfied for modern methods	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total			
						ALL WOMEN						
Age												
15-19	8.2	0.1	8.3	2.1	0.1	2.1	10.3	0.2	10.4	20.8	18.3	3,429
20-24	18.4	0.3	18.7	6.3	0.2	6.6	24.8	0.5	25.4	26.4	23.7	3,220
25-29	22.2	2.3	24.5	10.7	0.9	11.6	33.2	3.2	36.4	32.7	30.1	2,746
30-34	22.0	4.6	26.6	12.2	2.7	14.9	34.6	7.3	41.9	36.5	33.1	2,148
35-39	15.9	11.6	27.5	8.1	6.4	14.5	24.1	18.0	42.1	34.7	31.3	1,817
40-44	4.7	18.8	23.4	3.0	12.9	15.9	7.7	31.8	39.4	40.6	37.6	1,379
45-49	2.0	15.7	17.7	0.9	9.2	10.2	2.9	25.0	27.9	36.4	33.1	949
Residence												
Urban	12.9	4.4	17.2	9.5	4.0	13.5	22.6	8.4	31.0	44.3	40.1	7,738
Rural	16.8	5.7	22.5	3.7	2.1	5.8	20.5	7.8	28.3	20.7	19.0	7,950
Region												
Dakar	13.3	4.6	17.9	9.9	4.3	14.2	23.4	9.0	32.4	44.7	39.7	4,078
Ziguinchor	11.8	3.8	15.6	12.8	3.2	15.9	24.9	7.0	31.9	51.0	48.1	581
Diourbel	15.7	5.2	20.9	3.0	1.2	4.2	18.8	6.4	25.1	16.8	15.9	1,851
Saint-Louis	14.1	5.4	19.5	7.9	3.9	11.8	22.5	9.4	31.9	38.9	33.6	1,034
Tambacounda	16.0	5.3	21.3	3.2	1.0	4.3	19.2	6.3	25.6	16.7	16.4	725
Kaolack	17.5	6.7	24.2	4.8	3.7	8.5	22.5	10.4	33.0	26.5	23.7	1,172
Thies	12.8	4.1	16.9	7.3	3.7	11.0	20.2	7.8	28.0	39.4	38.2	2,030
Louga	14.0	5.9	20.0	4.3	1.5	5.7	18.3	7.4	25.7	22.3	21.1	1,130
Fatick	17.6	6.1	23.7	4.7	3.5	8.3	22.4	9.6	32.0	25.8	24.3	717
Kolda	16.7	5.2	21.9	6.5	4.6	11.1	23.2	9.8	33.0	33.5	29.2	640
Matam	20.0	4.9	24.8	2.2	0.5	2.7	22.2	5.3	27.5	9.8	9.6	595
Kaffrine	16.5	6.6	23.1	2.8	1.8	4.6	19.5	8.4	27.9	17.2	14.0	572
Kedougou	20.9	6.3	27.2	4.1	2.1	6.3	25.2	8.4	33.6	19.0	15.6	115
Sedhiou	15.4	2.7	18.1	5.9	1.7	7.6	21.4	4.4	25.8	29.7	25.3	448
Education												
No education	17.1	6.6	23.6	4.6	2.9	7.5	21.8	9.5	31.3	24.5	21.8	9,079
Primary	16.2	3.7	19.8	10.6	4.2	14.8	26.9	7.9	34.8	43.1	39.7	3,414
Secondary or more	7.0	2.3	9.3	7.9	2.0	9.9	15.0	4.3	19.4	51.9	48.2	3,195
Wealth quintile												
Lowest	18.0	7.2	25.3	2.3	2.2	4.5	20.4	9.5	29.8	15.3	14.0	2,585
Second	17.3	5.1	22.4	4.2	2.1	6.3	21.7	7.2	28.9	22.3	19.9	2,805
Middle	15.2	5.3	20.5	6.2	3.2	9.4	21.6	8.5	30.1	32.1	28.9	3,114
Fourth	14.4	4.3	18.7	7.9	3.4	11.4	22.6	7.7	30.3	38.4	34.0	3,494
Highest	10.8	4.0	14.8	10.3	3.8	14.1	21.2	7.8	29.0	48.8	45.6	3,689
Total	14.8	5.0	19.9	6.6	3.0	9.6	21.5	8.1	29.6	32.9	29.9	15,688

Table 7.9.2—Continued

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning			Percentage of demand satisfied	Percentage of demand satisfied for modern methods	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total			
WOMEN NOT IN UNION												
Age												
15-19	0.9	0.0	1.0	1.0	0.0	1.0	1.9	0.1	2.0	50.5	47.6	2,597
20-24	2.2	0.0	2.2	2.6	0.1	2.7	4.8	0.1	4.9	55.6	49.6	1,288
25-29	0.8	0.7	1.5	4.5	0.0	4.6	5.4	0.7	6.1	75.1	73.2	618
30-34	3.3	0.0	3.3	6.8	0.3	7.1	10.3	0.3	10.6	68.9	64.6	323
35-39	0.7	0.0	0.7	5.1	0.6	5.7	5.9	0.6	6.4	88.5	78.7	203
40-44	0.3	0.0	0.3	4.2	4.6	8.8	4.5	4.6	9.1	96.9	96.0	187
45-49	0.0	0.0	0.0	2.5	2.4	4.9	2.5	2.4	4.9	100.0	100.0	125
Residence												
Urban	1.2	0.1	1.3	2.8	0.3	3.1	4.1	0.4	4.5	70.3	66.0	3,483
Rural	1.5	0.0	1.5	1.7	0.3	1.9	3.2	0.3	3.5	56.0	52.5	1,858
Region												
Dakar	1.4	0.2	1.6	2.3	0.3	2.7	3.7	0.5	4.2	62.6	62.6	1,861
Ziguinchor	4.4	0.0	4.4	13.6	0.6	14.2	18.4	0.6	19.0	77.0	71.7	311
Diourbel	0.0	0.0	0.0	0.2	0.0	0.2	0.2	0.0	0.2	100.0	100.0	476
Saint-Louis	1.1	0.1	1.2	0.6	0.6	1.2	1.7	0.7	2.4	49.9	37.7	368
Tambacounda	2.3	0.3	2.6	4.3	0.0	4.3	6.7	0.3	6.9	62.0	62.0	148
Kaolack	1.1	0.0	1.1	1.1	0.0	1.1	2.2	0.0	2.2	49.1	37.3	357
Thies	0.9	0.0	0.9	0.7	0.0	0.7	1.6	0.0	1.6	43.8	43.8	729
Louga	0.0	0.0	0.0	0.5	0.0	0.5	0.5	0.0	0.5	100.0	100.0	323
Fatick	1.5	0.0	1.5	1.6	1.1	2.7	3.1	1.1	4.2	64.4	59.1	232
Kolda	2.9	0.0	2.9	6.0	1.4	7.4	8.9	1.4	10.3	71.6	62.5	130
Matam	0.3	0.0	0.3	0.5	0.5	1.0	0.9	0.5	1.3	76.4	76.4	149
Kaffrine	1.0	0.0	1.0	1.1	0.6	1.7	2.1	0.6	2.7	64.0	53.8	123
Kedougou	1.0	0.0	1.0	1.8	0.0	1.8	2.8	0.0	2.8	64.5	33.2	18
Sedhiou	3.7	0.0	3.7	7.8	0.4	8.2	11.4	0.4	11.9	69.2	58.1	117
Education												
No education	0.9	0.0	0.9	1.6	0.5	2.2	2.5	0.6	3.0	70.9	70.9	1,753
Primary	2.0	0.3	2.3	3.7	0.2	3.9	5.8	0.5	6.3	63.1	58.8	1,365
Secondary or more	1.2	0.0	1.3	2.3	0.2	2.4	3.5	0.2	3.7	66.2	59.9	2,223
Wealth quintile												
Lowest	2.6	0.0	2.6	2.8	0.0	2.8	5.3	0.0	5.3	52.1	52.1	416
Second	2.0	0.0	2.0	2.9	0.2	3.1	4.9	0.2	5.1	61.1	55.4	726
Middle	1.1	0.1	1.2	2.8	0.5	3.3	4.0	0.6	4.6	73.7	66.8	1,139
Fourth	1.7	0.0	1.7	2.0	0.3	2.3	3.7	0.3	4.0	57.7	55.5	1,326
Highest	0.6	0.2	0.8	2.2	0.3	2.5	2.8	0.5	3.3	75.7	72.1	1,735
Total	1.3	0.1	1.4	2.4	0.3	2.7	3.8	0.4	4.2	66.1	62.1	5,341

[1] *Unmet need for spacing* includes pregnant women whose pregnancy was mistimed; amenorrheic women who are not using family planning and whose last birth was mistimed, or whose last birth was unwanted but now say they want more children; and fecund women who are neither pregnant nor amenorrheic, who are not using any method of family planning, and say they want to wait 2 or more years for their next birth. Also included in unmet need for spacing are fecund women who are not using any method of family planning and say they are unsure whether they want another child or who want another child but are unsure when to have the birth.
Unmet need for limiting refers to pregnant women whose pregnancy was unwanted; amenorrheic women who are not using family planning, whose last child was unwanted and who do not want any more children; and fecund women who are neither pregnant nor amenorrheic, who are not using any method of family planning, and who want no more children.
[2] *Using for spacing* is defined as women who are using some method of family planning and say they want to have another child or are undecided whether to have another.
Using for limiting is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account here.

7.8   FUTURE USE OF CONTRACEPTION

Women who were not using contraception at the time of the survey were asked if they intended to use a method in the future. Table 7.10 shows the distribution of these women by intention to use a method in the future, by number of living children.

Table 7.10 Future use of contraception

Percent distribution of currently married women age 15-49 who are not using a contraceptive method by intention to use in the future, according to number of living children, EDS-MICS, Senegal 2010-11

Intention to use in the future	Number of living children[1]					Total
	0	1	2	3	4+	
Intends to use	17.4	26.6	30.5	28.8	28.6	27.4
Unsure	11.3	10.3	7.1	6.3	6.0	7.5
Does not intend to use	71.4	63.1	62.4	64.9	65.4	65.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	963	1,575	1,546	1,285	3,619	8,988

[1] Includes current pregnancy.

Among women not currently using a contraceptive method, more than one-quarter (27 percent) said they intended to use contraception in the future, while nearly two-thirds (65 percent) said they did not intend to do so, and 8 percent were undecided. Among women with no children, 17 percent intend to use a contraceptive method in the future, while among women with one child this proportion is 27 percent, and among women with three children, 29 percent.

7.9   SOURCES OF INFORMATION ON CONTRACEPTION

Access to information is important for promoting the use of contraceptive methods. Indeed, providing information about family planning is how people become aware of it and how the various contraceptive methods are popularized. To understand the level of access women and men have to information on family planning and the channels through which they are informed, the survey asked respondents if they had heard any messages about family planning on the radio or television, or had seen or read a message in newspapers and magazines during the month preceding the survey.

According to Table 7.11, nearly two-thirds of women (60 percent) and half of men (49 percent) said they had not heard any message about family planning in the month before the survey, either on the radio or television, or seen or read a message in newspapers and magazines. Among women, 31 percent had seen a message on television, and 30 percent had heard one on the radio. The proportion of women informed by newspapers or magazines is rather low (5 percent); this is partly due to the low level of literacy. The proportion of women who heard a message on the radio increases with age, from 21 percent at age 15-19 to 34 percent at age 30-44. This proportion is also higher in urban than rural areas (36 percent versus 23 percent).

Women in the regions of Dakar (41 percent), Ziguinchor (36 percent), Thiès (33 percent), Sédhiou (32 percent), and Kaffrine (31 percent) are more likely to have received family planning messages on the radio compared with women in other regions, at below 30 percent in Kédougou (20 percent) and Fatick (13 percent). The percentage of women who heard messages about family planning on the radio increases with the level of education, from 25 percent for women with no education to 33 percent for women with primary education, and 40 percent for women with secondary or higher education.

Television is mainly found in the cities; thus, it has served as a channel for family planning information more among women in urban areas (48 percent) than in rural areas (15 percent), and primarily in the most urbanized regions: Dakar (58 percent), Ziguinchor (33 percent), Thiès (32 percent), and Saint-Louis (30 percent). Just as for radio, the percentage of women informed about family planning by television increases with the level of education, from 20 percent for women with no education to 51 percent for women with a secondary level or higher. Information from newspapers and magazines is received almost exclusively in urban areas (9 percent among urban women versus 1 percent in rural areas), the region of Dakar (13 percent versus less than 5 percent elsewhere) and among educated women, especially those with at least secondary level or more (20 percent).

Table 7.11 Exposure to family planning messages

Percentage of women and men age 15-49 who heard or saw a family planning message on radio, on television, or in a newspaper or magazine in the past few months, according to background characteristics, EDS-MICS, Senegal 2010-11

	Women					Men				
Background characteristic	Radio	Tele-vision	News-paper/ magazine	None of these three media sources	Number of women	Radio	Tele-vision	News-paper/ magazine	None of these three media sources	Number of men
Age										
15-19	21.1	23.5	4.1	68.8	3,429	21,8	27,6	4,0	66,0	1,170
20-24	30.4	31.9	4.9	59.9	3,220	36,0	34,0	5,6	54,9	897
25-29	32.1	34.2	5.6	56.6	2,746	43,6	46,6	8,1	43,8	701
30-34	34.1	33.8	5.2	56.8	2,148	51,9	48,8	10,8	40,0	545
35-39	32.9	32.9	5.1	57.1	1,817	61,7	54,7	13,7	30,3	438
40-44	33.3	31.9	6.1	58.0	1,379	61,5	49,7	11,6	32,8	383
45-49	31.3	31.2	4.5	58.1	949	53,7	45,0	13,2	41,2	284
Residence										
Urban	36.5	47.6	9.0	47.2	7,738	46,3	50,5	11,7	40,8	2,467
Rural	23.2	14.5	1.1	72.9	7,950	35,0	27,3	3,3	59,4	1,951
Region										
Dakar	40.6	57.5	12.7	38.5	4,078	47,9	50,0	12,3	41,1	1,381
Ziguinchor	36.4	33.4	4.5	54.1	581	48,6	43,1	15,1	44,5	210
Diourbel	22.6	23.9	1.6	69.8	1,851	36,2	28,8	5,2	59,1	354
Saint-Louis	27.9	30.3	5.2	59.5	1,034	37,2	40,8	7,4	50,8	266
Tambacounda	23.6	15.4	1.4	73.8	725	19,7	10,7	0,0	74,7	214
Kaolack	22.2	12.9	1.4	73.4	1,172	30,7	33,3	2,4	61,1	317
Thies	32.7	31.7	3.0	60.5	2,030	45,7	54,5	10,0	35,6	565
Louga	23.5	19.4	0.8	71.1	1,130	39,4	28,4	4,4	55,6	262
Fatick	13.0	13.0	1.9	80.5	717	28,7	29,6	5,0	64,0	204
Kolda	28.5	14.2	1.8	67.8	640	58,1	41,0	4,3	34,5	198
Matam	20.2	14.7	2.3	75.9	595	23,6	20,2	5,0	69,3	152
Kaffrine	30.8	13.1	1.7	67.5	572	20,0	13,8	1,1	76,8	141
Kedougou	20.0	10.1	1.1	76.6	115	38,7	22,4	10,2	56,4	34
Sedhiou	32.0	12.0	1.5	65.3	448	68,8	64,7	6,0	22,6	120
Education										
No education	25.0	19.9	0.2	69.2	9,079	35,5	28,1	1,4	58,3	1,632
Primary	32.8	40.5	3.6	53.7	3,414	41,3	41,3	3,6	49,9	1,261
Secondary or more	40.2	51.4	20.1	41.7	3,195	47,7	52,4	18,7	38,3	1,525
Wealth quintile										
Lowest	15.5	3.3	0.4	83.6	2,585	31,7	13,5	0,6	66,1	665
Second	25.7	8.5	0.7	72.3	2,805	34,8	28,5	2,6	58,1	688
Middle	27.7	28.8	2.7	63.3	3,114	39,3	42,8	6,8	49,1	908
Fourth	32.8	43.8	4.0	52.3	3,494	44,5	46,4	8,7	46,3	1,019
Highest	41.8	56.5	14.3	39.5	3,689	49,6	55,5	16,0	35,8	1,137
Total 15-49	29.8	30.8	5.0	60.2	15,688	41,3	40,3	8,0	49,0	4,417
50-59	na	na	na	na	na	56,2	42,2	12,9	38,5	512
Total 15-59	na	na	na	na	na	42,9	40,5	8,5	47,9	4,929

na = Not applicable

Exposure to media messages on family planning, regardless of the source of dissemination, increases with the level of household wealth: for radio, the proportion increases from 16 percent of women in the poorest wealth quintile to 42 percent in the richest; for television, from 3 percent in the poorest to 57 percent in the richest; and for newpapers, from less than 1 percent in the poorest to 14 percent in the wealthiest. Among women in poor households, radio is the chief source of family planning messages; then, starting with the middle wealth quintile, television becomes the dominant medium for receiving family planning information. Whatever the level of wealth of the household, newspapers are the source of information used least, while exposure to this media source greatly increases with household wealth.

Results for men show the same socio-demographic differences as for women.

Table 7.12 shows the results regarding the contact between nonusers of contraception and family planning providers. In 89 percent of cases, women not using contraception said they had not discussed family planning during the 12 months preceding the survey either with a health worker or at a health facility. Compared with other age groups, the youngest women (age 15-19) and the oldest women (age 45-49) have had the least contact with family planning providers. With regard to region of residence, women from Matam (96 percent), Diourbel (95 percent), and Tambacounda (94 percent) have the highest proportions of respondents who have not discussed contraception with a family planning provider. Among regions, this proportion is lowest in Sédhiou, at 77 percent.

In all, half of women not using contraception (51 percent) have visited a health facility, but in a majority of cases (44 percent), the women did not discuss family planning. There are differences by women's age and region of residence. Among women age 15-19, visits to health facilities are infrequent (31 percent) and discussion of family planning is rare (2 percent). Women age 25-39 are more likely to visit health facilities, and also are most likely to discuss family planning during their visits (11 percent for women age 25-29, 10 percent, age 30-34, and 12 percent, 35-39). Beyond age 40, there is a decrease in the proportions of women both visiting health facilities and discussing family planning with a health provider. With regard to region of residence, three more or less homogeneous groups can be seen. In the first group are Kaolack and Dakar, where, respectively, 69 percent and 58 percent of nonusers have visited a health facility and discussed family planning. At the other extreme are four regions (Thiès, Kaffrine, Fatick, and Kolda), with between 36 percent and 45 percent of women; and an intermediate group of regions, where about half of women not using contraception have visited a health facility and discussed family planning.

Overall, relatively few women who are not contraceptive users (6 percent) have been visited by a fieldworker and discussed family planning. Women age 15-19 (2 percent) and women age 45-49 (4 percent) have the lowest proportions. By region, in Sédhiou and to a lesser extent Fatick and Kolda, the proportions are higher than in other regions (at, respectively 18 percent, 11 percent, and 10 percent). At the other extreme, nonusers in the regions of Matam, Diourbel (each 2 percent), Tambacounda (3 percent), Saint Louis (4 percent), and Dakar (5 percent) are least likely to have had a visit from a fieldworker and discussed family planning.

Table 7.12 Contact of nonusers with family planning providers

Among women age 15-49 who are not using contraception, the percentage who during the past 12 months were visited by a fieldworker who discussed family planning, the percentage who visited a health facility and discussed family planning, the percentage who visited a health facility but did not discuss family planning, and the percentage who did not discuss family planning either with a fieldworker or at a health facility, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage of women who were visited by fieldworker who discussed family planning	Percentage of women who visited a health facility in the past 12 months and who:		Percentage of women who did not discuss family planning either with a fieldworker or at a health facility	Number of women
		Discussed family planning	Did not discuss family planning		
Age					
15-19	2.0	1.6	29.7	96.6	3,355
20-24	5.1	6.5	47.8	89.8	3,009
25-29	7.9	10.8	51.2	84.1	2,427
30-34	7.2	10.2	49.1	85.2	1,828
35-39	8.1	12.1	49.0	82.5	1,554
40-44	8.3	7.8	43.8	86.7	1,159
45-49	4.3	4.7	40.9	91.9	853
Residence					
Urban	5.1	8.2	43.5	88.5	6,694
Rural	6.2	6.3	43.8	89.3	7,490
Region					
Dakar	4.6	9.2	49.0	88.1	3,498
Ziguinchor	7.4	10.2	41.0	85.4	489
Diourbel	2.0	4.0	47.1	94.9	1,773
Saint-Louis	3.8	5.9	40.5	92.3	912
Tambacounda	3.4	4.3	45.0	93.6	694
Kaolack	7.2	9.4	59.5	84.8	1,073
Thies	6.1	7.4	29.0	87.8	1,807
Louga	5.9	6.3	43.4	89.6	1,065
Fatick	10.8	7.7	37.1	84.2	657
Kolda	10.2	9.6	35.3	82.9	569
Matam	2.1	2.8	44.4	95.8	579
Kaffrine	7.4	3.5	39.8	90.4	546
Kedougou	7.2	4.0	49.6	90.7	108
Sedhiou	17.6	10.9	40.0	77.0	414
Education					
No education	5.8	7.2	45.0	88.7	8,398
Primary	5.9	8.5	45.2	87.5	2,908
Secondary or more	5.0	5.7	38.1	90.9	2,878
Wealth quintile					
Lowest	5.6	5.2	41.5	90.6	2,469
Second	7.2	8.0	44.3	86.9	2,629
Middle	6.3	7.2	41.6	88.7	2,821
Fourth	4.8	7.4	45.1	89.1	3,098
Highest	4.7	7.7	45.2	89.2	3,168
Total	5.7	7.2	43.7	88.9	14,184

INFANT AND CHILD MORTALITY

8

Mamadou Matar GUEYE and Cheikh Tidiane NDIAYE

I t is now established that the levels, trends, and characteristics of child mortality depend not only on health, environmental, socioeconomic, and cultural conditions, regardless of the population or geographic region concerned, but also depend on the individual characteristics of mothers. In this chapter the status of child mortality will be assessed with reference to (1) urban-rural residence, administrative region, and household wealth statusand (2) mother's level of education, mother's age at the child's birth, and other maternal characteristics related to women's reproductive behavior (interval between births). Some characteristics of the child—gender, birth order, and weight at birth—will also be analyzed and compared with the child's risks of dying.

8.1 METHODOLOGY AND DATA QUALITY

Mortality indicators presented in this chapter are estimated from the birth history in the Women's Questionnaires. In addition to the list of all births that a woman has had, the survey collected for each birth information such as gender, age, survival status, and age at death for deceased children. Because of its importance in measuring infant and child mortality, the age at death was collected to the exact day for deaths under 1 month, in months for deaths between 1 month and 23 months, and in years for deaths occurring at age 2 or older.

The indicators discussed in this chapter are defined as follows:

The ratio of perinatal mortality (PN): the sum of stillbirths and infant deaths occurring in the first six days, reported for pregnancies of seven months or more;

The ratio of neonatal mortality (NN): the probability of dying before age 1 month;

The ratio of post-neonatal mortality (PNN): the probability of dying between the first month and the twelfth exact month;

The ratio of infant mortality ($_1q_0$): the probability of dying between birth and the first birthday;

The ratio of child mortality ($_4q_1$): the probability of dying between the first and the fifth birthday;

The ratio of infant and child mortality ($_5q_0$): the probability of dying between birth and the fifth birthday.

In terms of methodology, the estimate of childhood mortality has some limitations. These limitations as well as certain risks in recording errors inherent in the method can, to a certain extent, affect the quality of data collected.

8.1.1 Limitations of Methodology

One of the weaknesses of the methodology used in the survey is limiting data collection only to women age 15-49 who were living at the time of the interview, and thus excluding information on the survival status of children whose mothers died before the survey. The estimated overall level of mortality may be biased, (1) if the number of motherless children is relatively large, and (2) if the mortality of these orphans is significantly different from that of children whose mothers were interviewed in the survey. This bias will be equivalent to the number of mothers age 15-49 who died before the survey, but who otherwise would have been counted in the survey population. Limiting the collection of information only to women living at the time of the survey can lead to non-representativeness in certain parts of the reference period. This is the case when no information on births to women age 40-49 is available for the period 10-14 years before the survey. It should be noted that 10 years before the survey women age 15-49 in the current survey were less than 40 years old, while those who were 40-49 at that time were no longer eligible for the current survey. Therefore, if a significant proportion of births from that earlier time period were to women age 40-49, and the risk of death for these children was very different from that of births to younger women, it could constitute a bias in estimation of mortality relative to the period of observation.

Overall, the effect of such phenomena is not a serious bias, since the percentage of maternal orphans is relatively low, and women age 40 and over who are reaching the end of their reproductive life contribute little to overall fertility.

8.1.2 Risks of Recording Errors

The validity of data on child mortality can be affected by:

- The under-reporting of events that may result from systematic omissions of births and/or deaths leads to an underestimation of mortality. Birth omissions generally occur when the child died very young, that is, a few hours/days after birth. In such cases, the farther the reference period is from the date of the survey, the greater the risks of omission and the more the underestimation of mortality levels is significant. Assessment of under-registration of deaths of very young children is made from the proportion of children who died between 0 and 6 days compared with deaths during the first month. This proportion should increase with a decrease in the mortality of children, since the level of mortality drops rapidly between birth and the following days. According to this technique, a proportion less than 60 percent would indicate a significant under-registration of early deaths. Application of this technique to the Senegal EDS-MICS 2010-11 does not show significant under-registration of early deaths in the five years preceding the survey.

- Transfer of birth dates of children from one time period to another can cause underestimation of mortality for that time period and addition to the adjacent periods. Thus, miscalculation of deaths in the interval 0-4 years before the survey results in an underestimation of mortality for this period and an overestimation in the preceding interval, 5-9 years before the survey. Such transfers do not appear to significantly affect the quality of the data observed.

- Lack of precision in reporting age at death, such as the affinity of certain ages at death, can lead to an underestimation of infant mortality and overestimation of child mortality, through the transfer of a portion of deaths of children under age 1 to the deaths of older children. In order to minimize this type of error, the age at death was recorded in days, months, and years, depending on whether the death occurred in the 29 days following birth, between 1 and 23 months, or more than 23 months, respectively. If the observed data show an affinity for an age at death of "12 months," the effect on levels of infant and child mortality is negligible.

Despite the problems inherent in the methodology based on birth history, no adjustment of data on trends in childhood mortality is required. Indeed, the work of Sullivan et al. (1990) showed that errors and inaccuracies inherent in this method have only a slight effect on the measurement of recent events.

8.2 LEVELS AND TRENDS

Table 8.1 presents various mortality quotients for the 15 years preceding the survey. The levels are calculated in five-year periods of 0-4 years, 5-9 years, and 10-14 years before the survey, from 1997 to 2011.

Table 8.1 Early childhood mortality rates

Neonatal, post-neonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey, EDS-MICS 2010-11

Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality (1q0)	Child mortality (4q1)	Under-5 mortality (5q0)
0-4	29	18	47	26	72
5-9	36	24	60	48	105
10-14	41	27	68	70	132

[1] Computed as the difference between the infant and neonatal mortality rates

In the period 2007-2011, 0-4 years before the survey, 47 out of 1,000 live births died before reaching their first birthday with 29 percent between 0 and 1 exact month, and 18 percent between 1 and 12 exact months. Among children over one year old, 26 percent did not did not reach their fifth birthday. During this same period, the overall risk of dying between birth and five years is estimated at 72 percent, less than one child in every ten.

A review of the evolution of childhood mortality over the last 15 years shows that, regardless of the type of mortality, the level fell significantly during this period. Thus, from 68 percent during the period 10-14 years before the survey, the infant mortality rate fell to 47 percent in the period 0-4 years (last five years), an overall drop of 31 percent. However, this decline was not uniform throughout the period: it was twice as fast between 2005 and 2009 (22 percent) as between 2001 and 2005 (12 percent). The reduction of child mortality during the latter period was greater, from 70 percent to 26 percent, a drop of 63 percent and a level 2.7 times lower in 2009 than in 2001. Similarly to infant mortality, the decline in the last period was greater (46 percent between 2005 and 2009 versus 31 percent between 2001 and 2005).

With regard to infant and child mortality, the decline followed the same trends, at intermediate levels: the overall rate dropped from 132 percent to 72 percent, a decline of 45 percent, with a more significant decrease in the recent time period (31 percent between 2005 and 2009, compared with 20 percent between 2001 and 2005).

It should be noted that child mortality has recorded the greatest decrease of all types of mortality. Concerning the components of infant mortality, post-neonatal mortality declined the most (25 percent versus 19 percent for neonatal mortality between 2005 and 2009).

Figures 8.1 and 8.2 show the trends in infant and child mortality according to the 2005 survey and the EDS-MICS 2010-2011.

Figure 8.1
Infant mortality trends according to EDS-IV 2005 and EDS-MICS 2010-11
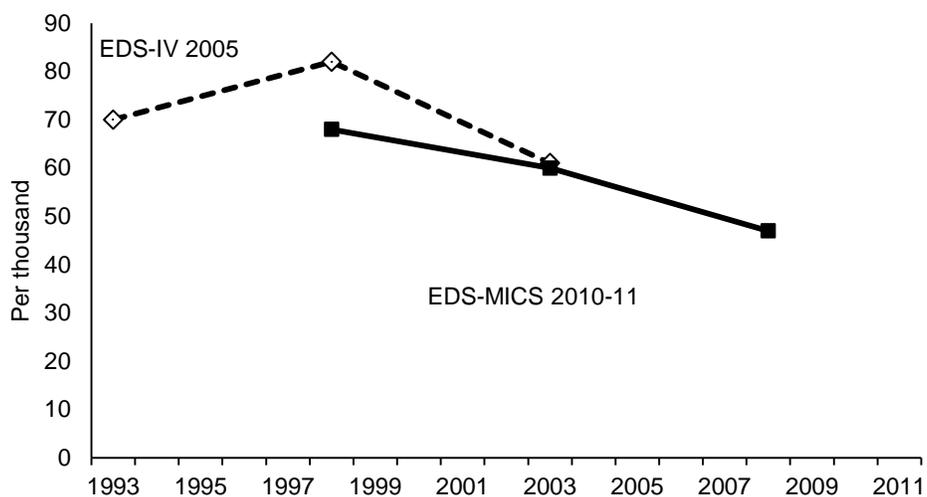
Figure 8.2
Child mortality trends according to EDS-IV 2005 and EDS-MICS 2010-11
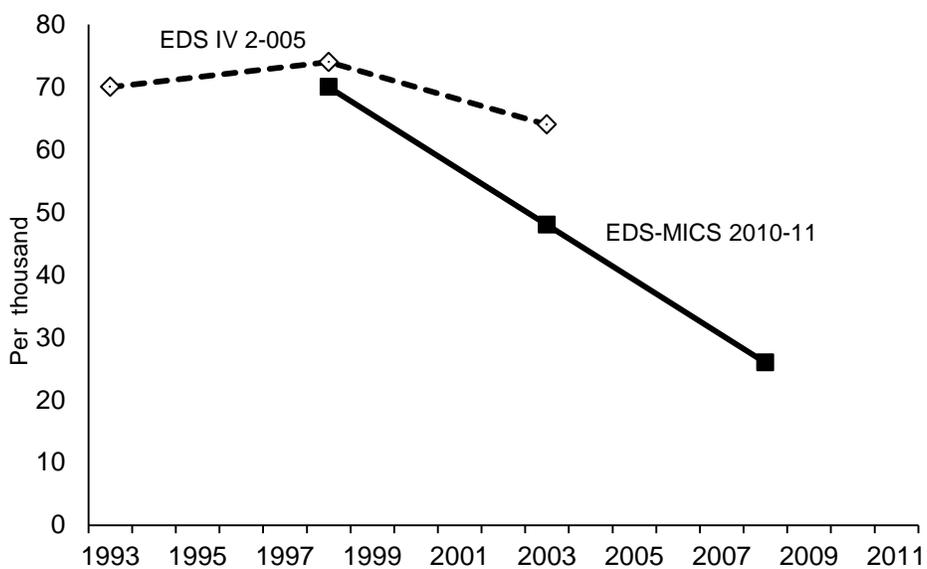
8.3 DIFFERENTIAL MORTALITY

Table 8.2 shows early childhood mortality rates in the 10-year period preceding the survey by select socioeconomic characteristics of the mother—in particular, place of residence (urban-rural), administrative region of the country, level of education, and level of household wealth. The effect of women's status on the management of the health of the child is also discussed in this section.

Table 8.2 Early childhood mortality rates by socioeconomic characteristics

Neonatal, post-neonatal, infant, child, and under-5 mortality rates for the 10-year period preceding the survey, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
Residence					
Urban	28	16	44	19	62
Rural	35	24	59	46	102
Region					
Dakar	26	17	43	17	59
Ziguinchor	27	26	53	21	73
Diourbel	43	25	68	38	104
Saint-Louis	39	20	59	34	91
Tambacounda	29	19	49	54	100
Kaolack	36	20	56	44	98
Thies	22	14	36	18	53
Louga	40	17	57	24	80
Fatick	26	21	47	43	88
Kolda	38	31	69	82	145
Matam	39	24	63	28	89
Kaffrine	30	14	43	52	93
Kedougou	30	38	68	92	154
Sedhiou	38	34	72	76	142
Education					
No education	33	23	56	44	97
Primary	34	14	48	16	63
Secondary or more	23	9	31	5	36
Wealth quintile					
Lowest	40	25	65	58	119
Second	34	19	53	44	94
Middle	26	25	51	32	81
Fourth	29	21	49	21	69
Highest	31	10	41	14	54

[1] Computed as the difference between the infant and neonatal mortality rates

Childhood mortality varies greatly according to place of residence. Thus, regardless of the type of mortality considered, the rate is much higher in rural areas than in urban areas. Among other things, these differences may be related to differences in the management of pregnancy, especially prenatal care and delivery conditions that are more favorable in urban areas, but also in the nutritional and health status of mothers. These differences primarliy affect mortality in early childhood, particularly neonatal and post-neonatal mortality.

The disadvantage for children whose mothers live in rural areas results in a neonatal mortality 1.25 times higher than in urban areas, with a rate that goes from 28 percent in urban areas to 35 percent in rural areas, and a post-neonatal mortality rate that is 1.5 times higher in rural areas than in urban areas (24 percent versus 16 percent).

The infant mortality rate varies from 59 percent in rural areas to 44 percent in urban areas, a difference of 25 percent. Beyond age 1, this difference not only persists but also widens further, with a level of child mortality nearly 2.5 times higher in rural areas than in urban areas (46 percent versus 19 percent). This means that among 1,000 children surviving until their first birthday, 46 in rural areas die before their fifth birthday, compared with only 19 in urban areas. The pattern is the same for infant and child mortality, but is 65 percent higher in rural areas than in urban areas (102 percent versus 62 percent).

The level of childhood mortality varies significantly from one administrative region to another. The neonatal mortality rate varies from 22 percent in Thiès to 43 percent in Diourbel. The regions of Dakar, Fatick, and Ziguinchor also have relatively low neonatal mortality rates (26-27 percent). Louga, Saint Louis, Matam, Kolda, and Sédhiou are among the regions where neonatal mortality is highest (between 38 and 40 percent).

For post-neonatal mortality, the pattern is almost the same as for neonatal mortality, but with lower levels, except for the region of Kédougou, where the rate is higher (38 percent for post-neotnatal mortality versus 30 percent for neonatal mortality). It should be noted that the regions with the highest neonatal mortality ratios, such as Diourbel, Louga, and Matam, do not have the highest post-neonatal mortality ratios.

Infant mortality varies greatly among regions, from 36 percent in Thiès to 72 percent in Sédhiou. In the regions of Thiès (36 percent), Dakar (43 percent) and Kaffrine (43 percent) infant mortality is closest to the national average (47 percent). The regions of Kolda, Kédougou, and Diourbel have particularly high infant mortality rates compared with the national average.

For child mortality, the regional differences are more significant, ranging from 92 percent in the region of Kédougou to 17 percent and 18 percent, respectively, in the regions of Dakar and Thiès. Other regions, including Kolda and Sédhiou, also have very high rates (respectively, 82 percent and 76 percent). Lower child mortality rates are found in the regions of Ziguinchor (21 percent), Louga (24 percent), and Matam (28 percent).

If infant and child mortality rates reflect the general level of childhood mortality, all things considered, the southern regions of the country are most affected: the rates vary from 154 percent in the region of Kédougou to 145 percent in Kolda, 142 percent in Sédhiou, and 100 percent in Tambacounda. The regions of Diourbel and Kaolack also register relatively high mortality rates (104 percent and 98 percent, respectively). The western regions, notably, Thiès and Dakar, have the lowest overall rates of infant and child mortality (respectively, 53 percent and 59 percent), except for child mortality, where the region of Thiès is on a par with Dakar.

Whatever the type of mortality considered, the data show a strong association between the mortality level and mother's level of education. Mortality rates drop dramaticallly as the mother's level of education rises.

Children whose mothers have a primary education have almost the same level of neonatal mortality as the children of mothers with no education. With regard to neonatal mortality, especially post-neonatal mortality, children whose mothers have a secondary level of education or more have a much greater advantage than children whose mothers have no education, at 23 percent mortality versus 33 percent, or nearly one and a half times higher for children whose mothers have no education. The difference is significant for post-neonatal mortality (respectively, 9 percent and 23 percent, a rate six times higher for children of uneducated mothers).

In the 10 years before the survey, the infant mortality rate was 31 percent among children whose mothers have a secondary education or higher, and 56 percent among children whose mothers have no education. Among children whose mothers have primary education, the infant mortality rate was 48 percent, which is 17 percent less than for children with uneducated mothers.

Child mortality rates are lower than infant mortality rates, but with greater disparities by education. Child mortality varies from 44 percent among children whose mothers have no education to 5 percent among children whose mothers have secondary education or higher, nearly nine times less. Children whose mothers have primary education have a child mortality rate of 16 percent, nearly three times less than for children whose mothers have no education.

In terms of infant and child mortality, the rate among children whose mothers have no education is 1.5 times higher than among children whose mothers have primary schooling (97 percent versus 63 percent), and 2.7 times higher than among children whose mothers have secondary education or higher (97 percent versus 36 percent). The mother's level of education also has a significant influence on levels of post-neonatal and child mortality.

The survey results do not confirm a clear effect of the standard of living on neonatal and post-neonatal mortality. For example, against all expectations, children in the richest households have a neonatal mortality ratio slightly higher than for children in households in the third and fourth wealth quintiles (respectively 31 percent, 26 percent, and 29 percent). The same observation applies to post-neonatal mortality, even if the mortality ratio of children in the wealthiest households is at least twice as low as for other children. The ratio of post-neonatal mortality in the second wealth quintile (19 percent) is lower than in the third and fourth quintiles (respectively, 25 percent and 21 percent).

However, the survey results show that the level of household wealth significantly affects other categories of mortality, notably infant mortality, child mortality, and infant and child mortality. The rate drops continuously from the poorest quintile to the richest. Thus, children in the poorest households run a higher risk of dying than children in the wealthiest households. According to the results, the rate is considerably higher among.the poorest households than the richest households regardless of the mortality category: 1.6 times for infant mortality, (65 percent versus 41 percent), more than four times for child mortality, and more than twice for infant and child mortality.

Other demographic characteristics of the mother and child, such as the child's gender, birth order, birth interval between the child and the preceding birth, child's weight at birth, as well as the age of the mother at the child's birth, are presumed to have an influence on the childhood mortality level. Table 8.3 shows the mortality rates for the five-year period preceding the survey according to these characteristics.

The fact that in most populations boys have a slightly higher risk of mortality than girls suggests that there is some relationship between the sex of the child and the level of mortality. However, the survey results do not show an effect in any one direction at all. Only the ratios for neonatal, infant, and infant and child mortality favor female children. The neonatal ratio for boys is 1.7 times higher than for girls (40 percent versus 24 percent) and the ratio of infant mortality 1.3 times higher (60 percent versus 46 percent), while that for child mortality is 10 percent higher (91 percent versus 83 percent). The data show a slight difference in the child mortality ratio in favor of boys (33 percent versus 39 percent), while the ratios for post-neonatal mortality do not show any significant difference (19 percent versus 22 percent).

Certain characteristics and conditions are conducive to improved survival, while others have detrimental effects on a newborn's risk of dying. The literature is replete with studies establishing a strong correlation between childhood mortality and early or late pregnancies. For all mortality categories, except for neonatal mortality, the children of very young mothers (under age 20) run the greatest risk of dying: 66 percent, 40 percent, and 103 percent, respectively, for infant, child, and infant and child mortality; the corresponding rates for children born to women age 20-24 are 47 percent, 34 percent, and 80 percent. However, whatever the type of mortality under consideration, the survey data do not show a continuous drop in mortality as the age of the mother increases, even if, overall, the lowest rates are observed for children of mothers age 20-29 for infant, child, and infant and child mortality (47 percent, 34 percent, and 80 percent, respectively), compared with children whose mothers are age 30-39 (55 percent, 37 percent, and 90 percent, respectively). However, except for neonatal mortality, which shows a slightly higher rate, and post-neonatal mortality, children of mothers age 40-49 have mortality rates similar to those of children of mothers age 20-29, or children of mothers age 30-39. Overall, children of mothers age 20-29 have lower risks of dying, while children of younger mothers (under age 20) have the highest mortality rates.

Table 8.3 Early childhood mortality rates by demographic characteristics

Neonatal, post-neonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by demographic characteristics, EDS-MICS, Senegal 2010-11

Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
Child's sex					
Male	40	19	60	33	91
Female	24	22	46	39	83
Mother's age at birth					
<20	39	27	66	40	103
20-29	27	20	47	34	80
30-39	37	18	55	37	90
40-49	41	15	55	34	88
Birth order					
1	38	21	59	28	86
2-3	26	19	44	33	76
4-6	32	20	53	40	91
7+	41	25	66	51	113
Previous birth interval[2]					
<2 years	54	29	84	55	134
2 years	24	22	46	39	83
3 years	23	13	36	30	65
4+ years	22	12	35	24	58
Birth size[3]					
Small/very small	37	21	58	na	na
Average or larger	21	14	35	na	na
DK/Missing	292	12	303	na	na

na = Not applicable.
[1] Computed as the difference between the infant and neonatal mortality rates.
[2] Excludes first-order births.
[3] Rates for the five-year period before the survey.

Table 8.3 shows that births of orders 2-3 have a lower risk of dying than the first born (order 1) and birth order 4 or more, except for child mortality in birth order 1. Regardless of the type of childhood mortality, however, birth orders 7 and higher have a greater risk of dying than all children in birth orders 1 to 6. The disadvantage for first-born children and those in birth orders 7 and more can be explained by the fact that the birth is often associated with an early or late pregnancy. For example, the risk of dying between the first and fifth birthday increases from 33 percent for children in birth order 2-3 to 40 percent and 51 percent, respectively, for children in birth orders 4-6 and birth order 7 or more. In addition, the risk of dying between birth and the fifth birthday rises from 76 percent for children in birth orders 2-3 to 91 percent and 113 percent, respectively, for children in birth orders 4-6 and birth order 7 or more, while it is 86 percent for birth order 1.

To summarize, all other things being equal, a child born in birth order 7 or more has 1.5 times more risk of dying before the fifth birthday than a child born in birth orders 2-3, while a first-born child runs a 20 percent higher risk of dying before the fifth birthday than a child born in birth orders 2-3.

It is believed that closely spaced births (less than two years apart), usually occurring in early pregnancies, and births spaced very far apart from a previous birth, often after a late pregnancy, have greater risks of dying before their fifth birthday than births following an interval of 2-4 years. In fact, the survey results show that the risk of dying before the fifth birthday decreases with the preceding interval, regardless of the type of mortality considered. Thus, chidren whose interval with the previous birth is less than two years are at higher risk of dying than those whose interval is equal to or greater than two years. In particular, compared with children whose previous interval is greater than or equal to two years, children whose interval is less than two years, excluding birth order 1, run a 2.4 times greater risk of dying, regardless of the type of childhood mortality being considered.

Childhood mortality risks also vary by the infant's weight at birth. Newborns with low birth weight (less than 2,500 grams) have a higher neonatal mortality rate than those with a weight of 2,500 grams or more. The survey did not collect information on children's weight at birth. However, each mother was asked for her own perception of whether her child was small, very small, average, large, or very large at birth, compared with the average size found in her community. Given that after the first birthday, the effect of birth weight does not significantly affect the child's survival, only neonatal, post-neonatal, and infant mortality were observed.

Table 8.3 shows that, regardless of the category of mortality, small children at birth have a higher level of mortality than children of average or large size. Compared with children of average or large size at birth, small children have 1.8 times the risk of dying before the age of one exact month, 1.5 times the risk of dying between the first month and the twelfth exact month, and 1.7 times the risk of dying between birth and the first birthday. The ratios are estimated as 37 percent versus 21 percent for the ratio of neonatal mortality, 21 percent versus 14 percent for the ratio of post-neonatal mortality, and 58 percent versus 35 percent for the infant mortality ratio.

Therefore, the disparities observed concerning the risk of dying before age 5 emphasize the strong negative influence of certain fertility behaviors such as early birth, high birth order, and short birth intervals.

8.4   PERINATAL MORTALITY

Perinatal mortality, a combination of stillbirth and neonatal mortality, is an indicator of the quality of care during pregnancy and childbirth. In the survey, stillbirth is defined as pregnancies of seven exact months or more that did not result in a live birth. The calculation of the perinatal mortality rate is the sum of stillbirths and infant deaths occurring in the first six days, reported for pregnancies of seven months or more. To obtain this information, the women interviewed were asked to report their pregnancies that did not result in a live birth and, for each occurrence in the five past years, to indicate the length of the pregnancy, that is, the number of months until it was interrupted.

Table 8.4 presents data on perinatal mortality for the five years preceding the survey. They are analyzed by select background characteristics, including age of the mother at the birth of the child, interval since the previous pregnancy, area of residence (urban-rural), region, level of education, and level of household wealth.

Overall, the perinatal mortality rate is estimated at 38 percent. This rate was 45 percent in the 2005 survey, for a drop of nearly 20 percent during the period. This average hides significant differences according to background characteristics.

Thus, by age of the mother, the risk of perinatal mortality is higher when the mother is under age 20 at the child's birth (42 percent), or age 30-39 (42 percent), but especially age 40-49 (51 percent). The risk is lower when the mother is age 20-29 (33 percent).

Perinatal mortality rates are also affected by the interval since the previous pregnancy. Although the trend is not clear and linear, the data suggest that the risk of perinatal mortality decreases with the length of the interval since the last pregnancy. The risk of perinatal mortality connected to the first pregnancy by an interval of under 15 months, or by an interval between 15 and 26 months, is higher (between 42 and 58 percent) than with intervals of 27- to 38 months, and 39 months or more (less than 35 percent). The weighted averages for the two groups

Table 8.4 Perinatal mortality

Number of stillbirths and early neonatal deaths, and the perinatal mortality rate for the five-year period preceding the survey, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Number of stillbirths[1]	Number of early neonatal deaths[2]	Perinatal mortality rate[3]	Number of pregnancies of 7+ months duration
Mother's age at birth				
<20	31	43	42	1,748
20-29	91	109	33	6,042
30-39	62	82	42	3,391
40-49	8	15	51	465
Previous pregnancy interval in months[4]				
First pregnancy	43	64	43	2,500
<15	12	25	58	627
15-26	42	64	42	2,533
27-38	40	50	30	3,021
39+	55	47	34	2,965
Residence				
Urban	66	88	35	4,450
Rural	127	162	40	7,194
Region				
Dakar	31	43	33	2,303
Ziguinchor	5	10	38	371
Diourbel	30	39	48	1,439
Saint-Louis	12	18	39	761
Tambacounda	9	11	31	643
Kaolack	26	23	48	1,023
Thies	16	23	28	1,389
Louga	18	23	50	816
Fatick	9	12	32	662
Kolda	9	15	35	662
Matam	10	12	43	503
Kaffrine	6	11	33	536
Kedougou	3	2	49	111
Sedhiou	7	10	39	425
Education				
No education	143	187	40	8,305
Primary	39	46	36	2,381
Secondary or more	10	17	28	959
Wealth quintile				
Lowest	54	65	44	2,699
Second	48	58	41	2,571
Middle	32	48	35	2,250
Fourth	40	50	40	2,264
Highest	18	29	26	1,862
Total	192	250	38	11,645

[1] Stillbirths are fetal deaths in pregnancies lasting seven or more months.
[2] Early neonatal deaths are deaths at age 0-6 days among live-born children.
[3] The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration, expressed per 1,000.
[4] Categories correspond to birth intervals of <24 months, 24-35 months, 36-47 months, and 48+ months.

are estimated to be 52 percent and 32 percent, respectively. This means that the risk of perinatal mortality is 1.6 times higher when the interval since the previous pregnancy is less than 27 months.

However, the risk of perinatal mortality connected to the first pregnancy is lower than the risk associated with an interval of less than 15 months. This would seem to disprove the hypothesis that the risk connected to the first pregnancy ought to be higher, all things being equal, because of the physiological immaturity of the mother and her lack of maternal experience.

The results show a difference in perinatal mortality by place of residence (40 percent in rural areas versus 35 percent in urban areas). This slight difference could be explained by several factors, such as pregnancies that are earlier and closer together in rural areas, but also the less favorable conditions of care for pregnant women in rural areas.

At the regional level, differences in the level of risk of perinatal mortality are significant. The lowest rates are observed in the region of Thiès (28 percent) and to a lesser extent in Tambacounda (31 percent), Fatick (32 percent), Kaffrine (33 percent), and Dakar (33 percent). The regions at higher risk of perinatal mortality are Louga (50 percent), Kédougou (49 percent), Diourbel (48 percent), and Kaolack (48 percent). Although the regions of Kaolack and Kaffrine are close together and geographically similar, the rates observed there are quite different (respectively, 48 percent and 33 percent). The same applies to the regions of Tambacounda and Kédougou (respectively, 49 percent and 31 percent). In contrast, the levels of risk are the same for the regions of Diourbel and Louga and are consistent with their geographical proximity.

The educational level of the mother appears to have a substantial influence on the level of risk of perinatal mortality, as the survey data show that perinatal mortality drops from 40 percent among women with no education to 36 percent for women with primary school education, and to 28 percent for women with a secondary level or higher level of education.

The mother's standard of living does not seem to be directly related to the level of risk of perinatal mortality, although the difference in rates between the richest wealth quintile and the poorest quintile is high (44 percent versus 26 percent).

8.5   HIGH-RISK GROUPS

It is important to pay particular attention to certain categories of births with particularly high levels of risk. To determine the targets, births in the past five years were divided into four categories of risk, as defined below:

- **Inevitable risk categories:** birth order 1 for women age 18-34;

- **Special high-risk categories:** births to mothers in a single high-risk category: early childbearing age (under age 18) or late (35 or older), short birth interval (less than 24 months), and high birth order (greater than 3);

- **Categories with several high-risk factors:** births corresponding to a combination of risk categories according to the age of the mother at the child's birth, birth interval, and birth order of the child.

- **Births not matching any of the predefined high-risk categories.**

Table 8.5 shows that a quarter of births in the five years before the survey do not match any of the predefined high-risk categories. The category of births with unavoidable risks (children of birth order 1 and mothers under age 18 or over 35) account for 17 percent, the category with a single high-risk accounts for 39 percent, and the multiple high-risk category accounts for 19 percent. To measure the additional risk of death associated with certain reproductive behaviors of mothers, births not belonging to any high-risk category are taken as the reference for calculating the ratio of calculated risk. This risk ratio is defined as the ratio of the proportion of children who die in each high-risk category to the proportion of children who died in the no-risk category.

Birth order 1, regarded as inevitable, even when it does not occur at an age that is too early or too late, includes some degree of risk. In fact, first-borns run a risk of death 14 percent higher than for children in the reference category (births not in any of the specified risk categories).

Specific high-risk categories include births to mothers in a single high-risk category (early or late childbearing age, short birth interval, and high birth order) that run an overall risk 13 percent higher than for children in the reference category. However, this general average hides important differences within the group. Children whose mothers are over age 34 run the highest additional risks (81 percent), followed by chldren born after an interval under 24 months (53 percent), and children whose mothers are under age 18 (25 percent). Children of birth order slightly under 3 run slightly less risk than children in the reference category (4 percent).

Children in the categories with several high-risk factors (births corresponding to a combination of the following risk categories— mother's age at the child's birth, birth interval, and birth order) run the highest additional risk (61 percent).

However, among the births to mothers over age 34 who had birth intervals less than 24 months, the situation is more favorable than among births where the risk ratio is zero[1]. Births to mothers over age 34 with a birth order above 3 add 27 percent of additional risk of mortality. This additional risk is very high compared with the average, but it is lower than the risk of other categories: between 108 percent of additional risk for births with an interval under 24 months and a birth order above 3, and 122 percent for births with age over 34, a birth interval below 24 months, and a birth order higher than 3.

Finally, in a category with inevitable high risk, the additional risk of dying reaches a relatively high level, at nearly 30 percent more than the reference group.

The survey results have shown a link between high-risk reproductive behavior and child mortality. Indeed, the additional risks compared with children in the reference group are high, especially for certain very vulnerable groups. The main factors involved are early and late pregnancies, short birth intervals, and high birth orders.

Table 8.5 High-risk fertility behavior

Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, EDS-MICS, Senegal 2010-11

Risk category	Births in the 5 years preceding the survey		Percentage of currently married women[1]
	Percentage of births	Risk ratio	
Not in any high-risk category	24.9	1.00	16.3[a]
Unavoidable risk category			
First-order births between ages 18 and 34	17.0	1.14	8.7
Single high-risk category			
Mother's age <18	6.3	1.25	1.5
Mother's age >34	1.8	1.81	5.3
Birth interval <24 months	5.9	1.53	10.1
Birth order >3	25.0	0.96	14.0
Subtotal	39.0	1.13	30.8
Multiple high-risk category			
Age <18 and birth interval <24 months[2]	0.7	2.20	0.4
Age >34 and birth interval <24 months	0.1	0.00	0.3
Age >34 and birth order >3	11.2	1.27	26.7
Age >34 and birth interval <24 months and birth order >3	1.5	2.22	4.9
Birth interval <24 months and birth order >3	5.7	2.08	11.9
Subtotal	19.1	1.61	44.1
In any avoidable high-risk category	58.1	1.29	74.9
Total	100.0	na	100.0
Number of births/women	11,503	na	10,347

Note: Risk ratio is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births not in any high-risk category.
na = Not applicable
[1] Women are assigned to risk categories according to the status they would have at the birth of a child if they were to conceive at the time of the survey: current age less than 17 years and 3 months or older than 34 years and 2 months, latest birth less than 15 months ago, or latest birth being of order 3 or higher.
[2] Includes the category age <18 and birth order >3.
[a] Includes sterilized women.

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[1] The number of births is very small in this category (no more than 11 cases).

MATERNAL HEALTH

9

Fatou Bintou Niang CAMARA

T he EDS-MICS 2010-11 collected detailed information on maternal health. This information concerns women's access to health care and providers, frequency of visits and types of services during antenatal and postnatal care, and conditions of delivery. The results presented in this chapter identify the most significant problems with regard to management of pregnancy and childbirth. They thus constitute important tools for assessment and planning of health policies and programs.

9.1 ANTENATAL CARE, DELIVERY, AND POSTNATAL VISITS

9.1.1 Antenatal Care

Medical surveillance of pregnancy has a significant influence on the health of women and children. Antenatal care can detect complications that may endanger the life of the mother and child. At least four antenatal visits are recommended to ensure proper monitoring of the pregnancy. Antenatal clinics provide an opportunity to immunize the mother against tetanus and provide her with advice, and if necessary, nutritional supplements if there are signs of malnutrition.

The data in Table 9.1 show the distribution of women age 15-49 who had a live birth in the five years preceding the survey, by type of medical personnel consulted during pregnancy and selected background characteristics of the woean. During the survey, all categories of persons consulted by the mother during pregnancy were recorded. When several people had been consulted by the woman, only the most qualified person was taken into account in Table 9. Among the last live births occurring during the past five years, more than nine of ten births (93 percent) had antenatal consultations with health professionals (doctors, midwives, and nurses). These consultations were mainly with midwives (for 70 percent of the women), followed by nurses (18 percent), and in a few cases, by doctors (5 percent). However, just over 2 percent of mothers had antenatal consultations with traditional birth attendants.

Differences by age of the woman and birth order are of little significance. The proportion of births to mothers who received antenatal care from trained personnel varies by women's level of education, from 91 percent for women with no education to 98 percent for women with primary education or higher (Figure 9.1). The percentage of women who consulted a doctor increases with the level of education: less than 4 percent of women who never attended school, 7 percent for women with primary education, and 17 percent for women with secondary education or higher. Conversely, the percentage of women who consulted a nurse decreases sharply as the level of education increases. Similarly, children in urban areas were relatively more likely to have mothers who received antenatal care during their pregnancies (99 percent versus 90 percent). Consultations with a doctor are rare, especially in rural areas (less than 3 percent compared with 10 percent in urban areas); while visits with a nurse are more common in rural areas (28 percent versus 4 percent in urban areas). From a regional perspective, regions where women consulted a health provider less frequently during their pregnancies include Tambacounda (79 percent), Matam and Kédougou (83 percent), and Kaffrine (84 percent). In contrast, in the regions of Dakar and Thiès, (respectively, 99 percent and 99 percent) women went to antenatal consultations with health professionals more often. Finally, the proportion of births whose mothers had at least one antenatal visit steadily increases with the household's level of wealth, from 82 percent among women in the poorest households to 95 percent in the middle wealth quintile, and almost 100 percent in the

richest households. In the richest quintile, 15 percent of women have consulted a doctor, while in the other quintiles, this proportion is less than 6 percent.

Table 9.1 Antenatal care

Percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent birth and the percentage receiving antenatal care from a skilled provider for the most recent birth, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Antenatal care provider							Percentage receiving antenatal care from a skilled provider[1]	Number of women
	Doctor	Midwife	Nurse	Traditional birth attendant	Other	Missing	Total		
Mother's age at birth									
<20	3.4	65.7	23.6	2.7	0.1	4.6	100.0	92.6	1,067
20-34	5.2	71.0	17.7	2.2	0.2	3.7	100.0	93.9	5,280
35-49	8.1	67.6	16.1	3.0	0.2	5.0	100.0	91.8	1,331
Birth order									
1	8.2	71.6	16.2	2.0	0.1	1.9	100.0	96.0	1,700
2-3	5.4	72.8	16.1	1.9	0.1	3.7	100.0	94.3	2,549
4-5	4.6	68.2	20.1	2.6	0.2	4.3	100.0	92.8	1,720
6+	3.6	64.7	21.5	3.5	0.2	6.5	100.0	89.8	1,710
Residence									
Urban	9.6	84.8	4.2	0.4	0.1	1.0	100.0	98.5	3,171
Rural	2.5	59.1	28.1	3.8	0.2	6.3	100.0	89.7	4,508
Region									
Dakar	12.5	85.2	1.5	0.3	0.0	0.4	100.0	99.3	1,663
Ziguinchor	2.4	73.7	19.0	3.2	1.1	0.6	100.0	95.1	250
Diourbel	2.4	76.7	14.2	2.3	0.1	4.2	100.0	93.3	905
Saint-Louis	7.5	62.6	22.2	1.5	0.7	5.5	100.0	92.4	495
Tambacounda	1.4	45.4	32.2	8.8	0.0	12.2	100.0	79.0	418
Kaolack	3.7	55.8	35.5	2.6	0.2	2.2	100.0	95.0	625
Thies	5.0	91.1	2.8	0.4	0.0	0.7	100.0	98.9	958
Louga	4.4	65.5	24.1	0.8	0.0	5.2	100.0	94.0	525
Fatick	4.6	74.4	15.6	2.5	0.0	2.9	100.0	94.6	397
Kolda	0.7	51.4	35.9	3.2	0.0	8.8	100.0	88.0	427
Matam	3.7	52.3	27.0	4.4	0.3	12.2	100.0	83.0	322
Kaffrine	2.0	43.0	38.6	7.1	0.0	9.3	100.0	83.5	342
Kedougou	5.2	37.1	40.7	5.6	1.0	10.5	100.0	82.9	73
Sedhiou	0.1	47.6	41.3	6.6	0.0	4.4	100.0	89.0	279
Education									
No education	3.5	66.2	21.7	2.9	0.2	5.5	100.0	91.4	5,277
Primary	6.5	79.1	11.9	1.7	0.1	0.8	100.0	97.5	1,647
Secondary	17.0	74.0	7.1	0.7	0.1	1.1	100.0	98.1	754
Wealth quintile									
Lowest	1.9	42.7	37.8	6.2	0.3	11.1	100.0	82.4	1,672
Second	3.0	60.0	29.9	2.6	0.1	4.3	100.0	92.9	1,600
Middle	3.1	80.2	12.2	1.8	0.1	2.7	100.0	95.4	1,491
Fourth	5.7	87.9	4.7	0.8	0.2	0.8	100.0	98.3	1,548
Highest	14.9	82.2	2.4	0.1	0.0	0.4	100.0	99.5	1,368
Total	5.4	69.7	18.2	2.4	0.1	4.1	100.0	93.3	7,678

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation.
[1] Skilled provider includes doctor, nurse, midwife, and auxiliary nurse/midwife.

In addition, few women age 15-49 consulted traditional birth attendants (TBAs) during pregnancy for the most recent birth (2.4 percent overall). The highest proportions are found among women age 35-49 (3 percent), multiparas (4 percent), women in rural areas (4 percent), and women in the regions of Tambacounda (9 percent), Kaffrine (7 percent), Sédhiou (7 percent), and Kédougou (6 percent). There are also relatively more women who consulted TBAs among women with no education (3 percent) and women in the poorest households (6 percent).

Figure 9.1

Figure 9.1
Antenatal care from a skilled provider according to women's background characteristics

Percentage
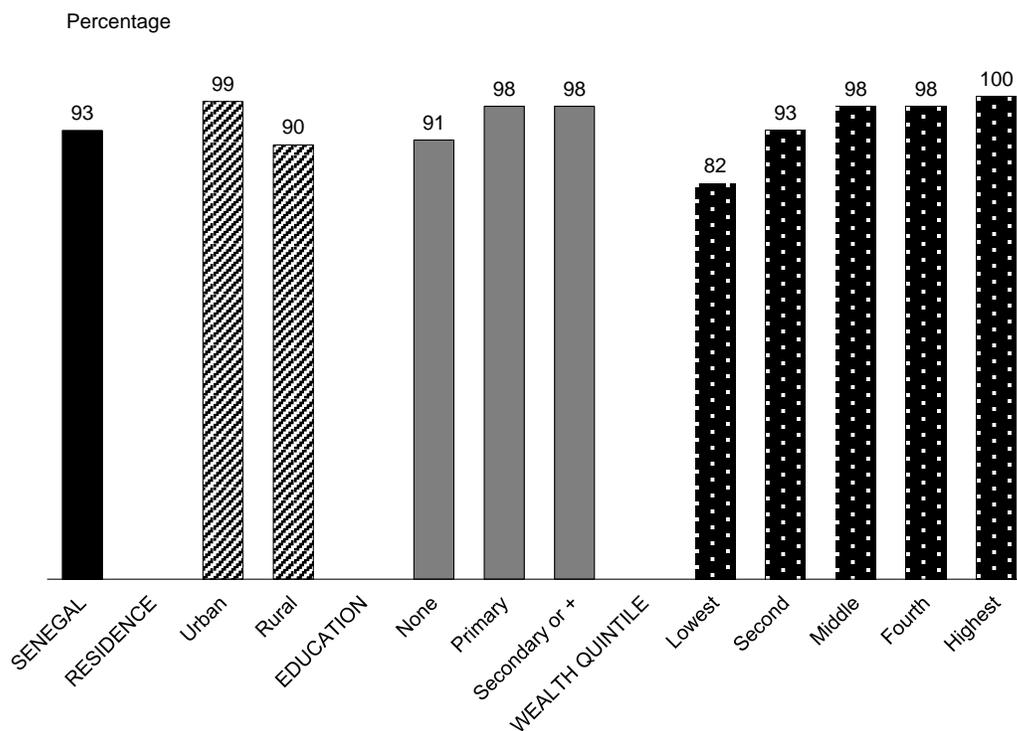
EDS-MICS 2010-11

Compared with previous surveys (Figure 9.2), the proportion of women who received antenatal care from a health provider has increased, from 74 percent in 1993, to 82 percent in 1997, to 87 percent in 2005, and to 93 percent in 2010-11.

Figure 9.2
Antenatal care, assistance during delivery, and place of delivery according to four sources

■ EDS-II 1993   ▨ EDS-III 1997   ■ EDS-IV 2005   ▱ EDS-MICS 2010-11
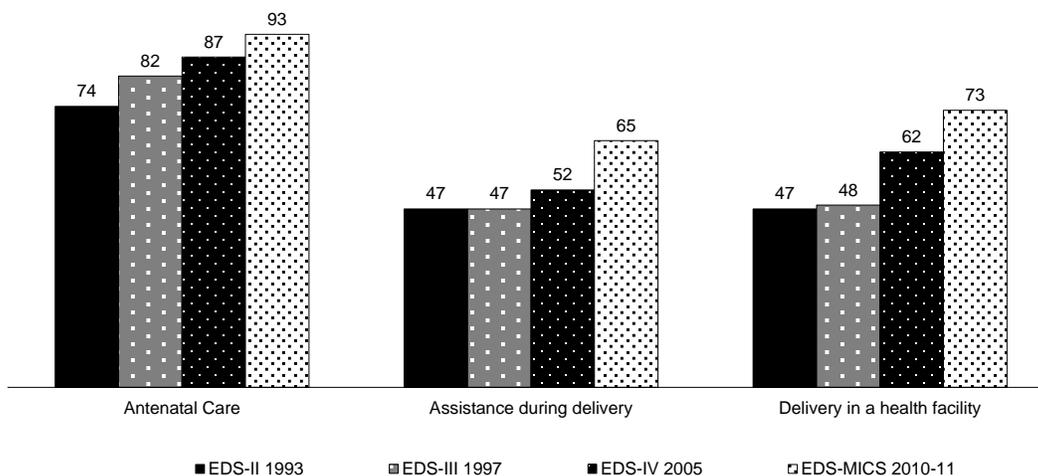
Effective antenatal care must be received at an early stage of pregnancy, and in particular, must continue with some regularity until delivery. The World Health Oganization (WHO) recommends at least four antenatal visits at regular intervals throughout pregnancy.

Table 9.2 presents data on the number of antenatal visits by pregnant women and the stage of pregnancy at the first visit. Overall, for half of births (50 percent), mothers made the four recommended visits or more. For nearly 40 percent of births, they made only two or three antenatal visits, and in 4 percent of cases, they made only one visit. Approximately 4 percent of mothers made no antenatal visits at all. The proportion of women who completed the recommended four antenatal visits is significantly higher in urban than rural areas (62 percent versus 42 percent).

With regard to the stage of pregnancy when the first visit took place, in six out of every ten cases (61 percent), the first visit took place within four months of the pregnancy (Figure 9.3). Even in rural areas, more than half of women (52 percent) made their first antenatal visit before four months. However, in nearly a quarter of cases (24 percent), the first antenatal visit took place at 4-5 months of pregnancy. Half of the pregnant women made a first visit at 3.6 months, regardless of the place of residence. However, women in rural areas began their antenatal care a little later than women in urban areas, at a median 3.3 months versus 3.8 months.

Table 9.2 Number of antenatal care visits and timing of first visit

Percent distribution of women age 15-49 who had a live birth in the five years preceding the survey by number of antenatal care (ANC) visits for the most recent live birth, and by the timing of the first visit, and among women with ANC, median months pregnant at first visit, according to residence, EDS-MICS, Senegal 2010-11

Number and timing of ANC visits	Residence		Total
	Urban	Rural	
Number of ANC visits			
None	1.0	6.3	4.1
1	2.2	5.2	4.0
2-3	31.3	45.5	39.7
4+	62.1	41.5	50.0
Don't know/missing	3.4	1.5	2.3
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit			
No antenatal care	1.0	6.3	4.1
<4	72.7	52.2	60.7
4-5	18.0	28.1	23.9
6-7	4.9	9.7	7.7
8+	2.3	1.7	1.9
Don't know/missing	1.2	2.0	1.7
Total	100.0	100.0	100.0
Number of women	3,171	4,508	7,678
Median months pregnant at first visit (for those with ANC)	3.3	3.8	3.6
Number of women with ANC	3,140	4,226	7,366

Figure 9.3
Timing of first antenatal care visit by residence

Percentage
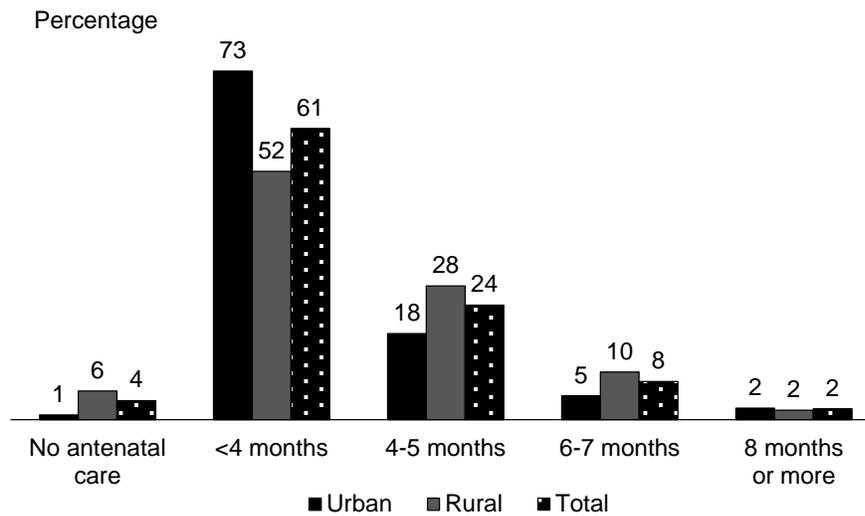
EDS-MICS 2010-11

Types of antenatal care

The effectiveness of antenatal care also depends on the type of tests performed during the consultation, and on the advice provided to women. For this reason, at the time of the EDS-MICS women were asked if they had been informed during their antenatal visits about the telltale signs of pregnancy complications and if they had undergone certain medical tests (checking blood pressure, urine and blood samples). In addition, the survey investigated whether they had received iron supplements and if they had been protected against intestinal parasites. Table 9.3 presents these results. According to their responses, women were generally poorly informed during antenatal visits about the signs of pregnancy complications. In fact, less than half of women (45 percent) received this information. Even in the most advantaged categories (urban educated women in the richest quintile), nearly half of women received no information about the signs of pregnancy complications. In contrast, in almost all cases, their blood pressure was checked (97 percent). Urine tests were much less frequently performed (85 percent), while, a blood sample was taken for 76 percent of women. This latter proportion is lower in rural than urban areas (69 percent versus 86 percent), and lower in the regions of Matam (60 percent), Kédougou (61 percent), Kolda (62 percent), and Tambacounda (63 percent) than in other regions.

In addition, during these antenatal visits more than nine of every ten women received iron supplements (94 percent), and a quarter of women received medication against intestinal parasites (25 percent). Women in rural areas, those with no education, and those from the regions of Matam, Kolda, Kédougou, and Kaffrine have benefited less than others with regard to nutritional supplements and preventive treatment against intestinal worms (Thiès).

Table 9.3 Components of antenatal care

Among women age 15-49 with a live birth in the five years preceding the survey, the percentage who took iron tablets or syrup and drugs for intestinal parasites during the pregnancy of the most recent birth, and among women receiving antenatal care (ANC) for their most recent live birth in the five years preceding the survey, the percentage receiving specific antenatal services, according to background characteristics, EDS-MICS, Senegal 2010-11

| Background characteristic | Among women with a live birth in the past five years, the percentage who during the pregnancy for their last birth | | | Among women who received antenatal care for their most recent birth in the past five years, the percentage with the selected services: | | | | Number of women with ANC for their most recent birth |
	Took iron tablets or syrup	Took intestinal parasite drugs	Number of women with a live birth in the past five years	Informed of signs of pregnancy compli-cations	Blood pressure measured	Urine sample taken	Blood sample taken	
Mother's age at birth								
<20	91.6	21.2	1,067	40.9	96.6	81.6	73.9	1,018
20-34	94.2	26.0	5,280	45.3	97.4	85.1	76.7	5,083
35-49	92.7	23.7	1,331	48.5	97.7	86.2	75.3	1,265
Birth order								
1	95.5	25.7	1,700	47.0	97.7	85.8	83.2	1,667
2-3	94.3	25.5	2,549	43.2	97.8	86.6	78.3	2,455
4-5	93.1	25.4	1,720	45.3	97.0	84.5	73.9	1,645
6+	91.2	23.0	1,710	46.7	96.6	81.4	67.5	1,599
Residence								
Urban	96.6	26.8	3,171	47.7	98.9	92.3	85.9	3,140
Rural	91.5	23.7	4,508	43.4	96.2	79.3	68.8	4,226
Region								
Dakar	97.0	30.3	1,663	48.2	99.4	94.6	87.4	1,656
Ziguinchor	97.2	33.5	250	53.9	99.5	94.3	93.4	248
Diourbel	94.5	22.4	905	49.6	97.0	79.1	67.8	867
Saint-Louis	91.3	26.2	495	32.9	99.1	74.1	75.0	467
Tambacounda	86.1	41.8	418	21.7	91.6	66.8	63.4	367
Kaolack	96.6	26.5	625	49.2	99.6	89.7	66.4	612
Thies	97.0	18.3	958	50.1	97.6	94.4	89.2	951
Louga	93.3	23.6	525	40.3	95.6	88.2	71.9	498
Fatick	94.4	25.3	397	39.3	96.7	81.9	68.9	385
Kolda	85.2	22.8	427	46.6	92.6	68.4	61.7	389
Matam	84.8	14.4	322	38.1	95.0	78.8	60.3	283
Kaffrine	89.8	9.8	342	50.0	96.0	82.8	78.9	310
Kedougou	87.7	19.7	73	40.1	97.3	62.2	61.2	65
Sedhiou	92.5	23.2	279	51.6	98.2	69.1	67.4	266
Education								
No education	91.9	23.7	5,277	42.8	96.6	81.9	72.1	4,985
Primary	97.1	28.3	1,647	49.5	98.6	89.7	82.1	1,635
Secondary or more	97.5	26.8	754	52.5	99.6	93.4	89.3	746
Wealth quintile								
Lowest	86.0	21.3	1,672	39.7	94.3	68.1	59.1	1,487
Second	93.6	23.6	1,600	43.9	96.6	81.8	71.4	1,530
Middle	94.8	23.8	1,491	44.2	97.6	89.3	76.6	1,451
Fourth	97.1	26.2	1,548	47.2	98.9	92.0	84.9	1,535
Highest	97.6	30.7	1,368	51.7	99.5	93.6	89.4	1,362
Total	93.6	25.0	7,678	45.3	97.4	84.8	76.1	7,366

Tetanus vaccination

Neonatal tetanus is one of the most serious diseases to which a newborn may be exposed. To cope with this disease, the administration of at least two doses of tetanus toxoid vaccine to pregnant women is recommended. The data in Table 9.4 show that 57 percent of women received at least two injections of tetanus toxoid during the pregnancy for the most recent live birth in the five years preceding the survey. It is important to note that the information presented here has taken into account the woman's vaccination history. Thus, 69 percent of women who received the vaccine before pregnancy in the past 10 years also remain immunized, and their children are protected against neonatal tetanus.

Table 9.4 Tetanus toxoid injections

Among mothers age 15-49 with a live birth in the five years preceding the survey, the percentage receiving two or more tetanus toxoid injections (TTI) during the pregnancy for the last live birth and the percentage whose last live birth was protected against neonatal tetanus, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage receiving two or more injections during last pregnancy	Percentage whose last live birth was protected against neonatal tetanus[1]	Number of mothers
Mother's age at birth			
<20	58.8	65,8	1,067
20-34	57.3	69,3	5,280
35-49	56.5	68,0	1,331
Birth order			
1	64.4	70.6	1,700
2-3	57.4	70.0	2,549
4-5	54.1	67.0	1,720
6+	53.6	66.0	1,710
Residence			
Urban	61.3	70.4	3,171
Rural	54.6	67.3	4,508
Region			
Dakar	60.5	67.3	1,663
Ziguinchor	57.9	78.8	250
Diourbel	46.6	68.6	905
Saint-Louis	52.2	66.0	495
Tambacounda	41.2	53.5	418
Kaolack	64.6	83.0	625
Thies	68.3	75.1	958
Louga	57.0	62.2	525
Fatick	45.8	54.0	397
Kolda	55.4	66.6	427
Matam	49.8	64.1	322
Kaffrine	65.9	70.1	342
Kedougou	50.2	65.5	73
Sedhiou	73.4	79.4	279
Education			
No education	56.0	67.3	5,277
Primary	58.8	69.9	1,647
Secondary or more	63.7	74.9	754
Wealth quintile			
Lowest	49.0	59.8	1,672
Second	61.1	72.7	1,600
Middle	56.9	71.0	1,491
Fourth	57.2	67.1	1,548
Highest	63.9	73.5	1,368
Total	57.4	68.6	7,678

[1] Includes mothers with two injections during the pregnancy of her last birth, or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within 5 years of the last birth), or four or more injections (the last within 10 years of the last live birth), or five or more injections at any time prior to the last birth.

Receipt of tetanus toxoid injections during pregnancy varies little by the age of the mother: 59 percent of women under age 20 and 57 percent of women at age 20-34 and age 35-49. In contrast, women are more likely to receive tetanus toxoid injections for first births than subsequent births, from 64 percent for first births to 54 percent among women with six or more children. With regard to place of residence, for births that occur in urban areas women are more likely to receive tetanus toxoid injections compared with women in rural areas (61 percent versus 55 percent). It should be noted that immunization during pregnancy varies little with the region and level of education. At most, in the regions of Diourbel (47 percent), Fatick (46 percent), and Tambacounda (41 percent) the proportions are somewhat lower than elsewhere. Moreover, the frequency of vaccinations during pregnancy increases with the wealth index of the household, from 49 percent for women in the poorest households to 64 percent in the richest households.

Compared with the results of the 2005 survey, immunization coverage against neonatal tetanus (two or more injections) dropped (66 percent in 2005 compared with 57 percent in 2010-11).

9.1.2 Delivery

Place of delivery

Among births in the five years preceding the survey, nearly three in every ten (27 percent) occurred at home, 69 percent in a public health facility, and 4 percent in a private facility (Table 9.5). There was a slight improvement in attendance at health facilities between 2005 and 2010 (respectively, 69 percent and 73 percent).

Examination of the data by background characteristics of the mother does not show a clear trend according to the mother's age. On the contrary, birth order seems to play a significant role in the choice of delivery location. In 85 percent of cases, first-order births took place in a health facility and almost exclusively in the public sector, compared with 74 percent for birth order 2-3, and 62 percent for birth order 6 or higher. An increase was also noted in the percentage of births delivered in a health facility along with the number of antenatal visits: only 15 percent of those who had no antenatal visits delivered in a health facility, while this proportion increased to more than 67 percent among women who had made at least one antenatal visit. Similarly, differences are observed by place and region of residence. Delivery in health facilities is more prevalent among urban women (93 percent compared with 60 percent among rural women) and those in the regions of Dakar (96 percent), Ziguinchor (90 percent), and Thiès (89 percent). In addition, the highest proportion of women who gave birth in private facilities (11 percent) is found in the Dakar region. This can be explained by a concentration of these facilities in this region. In contrast, women in the regions of Kédougou, Kolda, Sédhiou, Tambacounda, and Kaffrine most often deliver at home, with less than 50 percent giving birth in health facilities.

Similarly, the level of education and the level of wealth of women seem to have a positive influence on the choice of a place of delivery (Figure 9.4). Thus, the higher the level of education the higher the proportion of women who gave birth in health facilities, from 66 percent for women with no education to 94 percent for those with secondary education or higher. The same trend is oberved by wealth quintile: only 40 percent of women in the poorest households gave birth in health facilities compared with 98 percent in the richest households. In the latter category, almost all women chose health facilities as their place of delivery, including 14 percent in the private sector.

Overall, 27 percent of women gave birth at home. Home births are mainly found among rural women (39 percent), women with no education (33 percent), multiparas (38 percent), and those from the regions of Kédougou (68 percent), Kolda (57 percent), Tambacounda (53 percent), Sédhiou (52 percent), and women in the poorest households (60 percent).

Compared with the results of previous surveys, there is an increase in the proportion of women whose deliveries took place in a health facility, from 47 percent in 1993 to 49 percent in 1997, to 62 percent in 2005, and finally to 73 percent in the current survey (Figure 9.2). Correspondingly, a very significant decrease was noted in the proportion of women who gave birth at home (53 percent in 1993 versus 51 percent in 1997, 37 percent in 2005, and 27 percent in 2010-2011).

Table 9.5 Place of delivery

Percent distribution of live births in the five years preceding the survey by place of delivery and percentage delivered in a health facility, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Health facility		Home	Other	Total		Number of births
	Public sector	Private sector					
Mother's age at birth							
<20	69,1	2.8	27.7	0,3	100,0	71,9	1,728
20-34	68,6	4.4	26.6	0,4	100,0	73,0	8,081
35-49	68,5	4.6	26.4	0,4	100,0	73,1	1,670
Birth order							
1	79.6	5.5	14.7	0.2	100.0	85.2	2,611
2-3	69.1	5.2	25.4	0.3	100.0	74.4	3,875
4-5	64.7	3.4	31.3	0.6	100.0	68.1	2,661
6+	59.9	1.8	37.6	0.7	100.0	61.8	2,332
Antenatal care visits[1]							
None	13.9	1.0	84.4	0.7	100.0	14.9	313
1-3	64.3	2.7	32.4	0.5	100.0	67.0	3,350
4+	79.9	6.0	13.8	0.3	100.0	85.9	3,841
DK/missing	77.2	9.7	12.8	0.3	100.0	86.9	175
Residence							
Urban	84.6	8.5	6.8	0.1	100.0	93.1	4,399
Rural	58.7	1.5	39.2	0.6	100.0	60.2	7,080
Region							
Dakar	85.7	10.5	3.8	0.0	100.0	96.2	2,280
Ziguinchor	87.1	3.0	9.3	0.6	100.0	90.2	367
Diourbel	71.5	6.3	21.8	0.4	100.0	77.7	1,417
Saint-Louis	70.0	1.4	28.3	0.2	100.0	71.4	750
Tambacounda	44.6	0.6	53.0	1.8	100.0	45.1	634
Kaolack	60.1	5.7	33.8	0.5	100.0	65.7	997
Thies	86.6	2.3	11.0	0.1	100.0	88.9	1,376
Louga	69.1	1.8	28.6	0.5	100.0	70.9	799
Fatick	64.2	1.2	34.0	0.6	100.0	65.4	654
Kolda	41.8	0.7	56.6	0.8	100.0	42.6	653
Matam	52.9	1.3	45.6	0.3	100.0	54.1	493
Kaffrine	48.7	0.5	50.6	0.2	100.0	49.2	532
Kedougou	30.6	1.8	67.6	0.0	100.0	32.4	108
Sedhiou	46.5	0.5	52.3	0.7	100.0	47.0	418
Education							
No education	63.5	2.8	33.1	0.5	100.0	66.4	8,187
Primary	82.2	4.6	13.0	0.2	100.0	86.8	2,343
Secondary or more	79.3	14.8	5.8	0.1	100.0	94.0	949
Wealth quintile							
Lowest	39.2	0.5	59.5	0.8	100.0	39.8	2,649
Second	62.4	1.0	36.1	0.5	100.0	63.4	2,523
Middle	80.4	2.3	16.9	0.4	100.0	82.7	2,223
Fourth	86.5	5.7	7.8	0.0	100.0	92.2	2,234
Highest	83.5	14.3	2.0	0.2	100.0	97.8	1,851
Total	68.6	4.2	26.8	0.4	100.0	72.8	11,479

[1] Includes only the most recent birth in the five years preceding the survey.

Figure 9.4
Delivery in a health facility according to background characteristics

Percentage
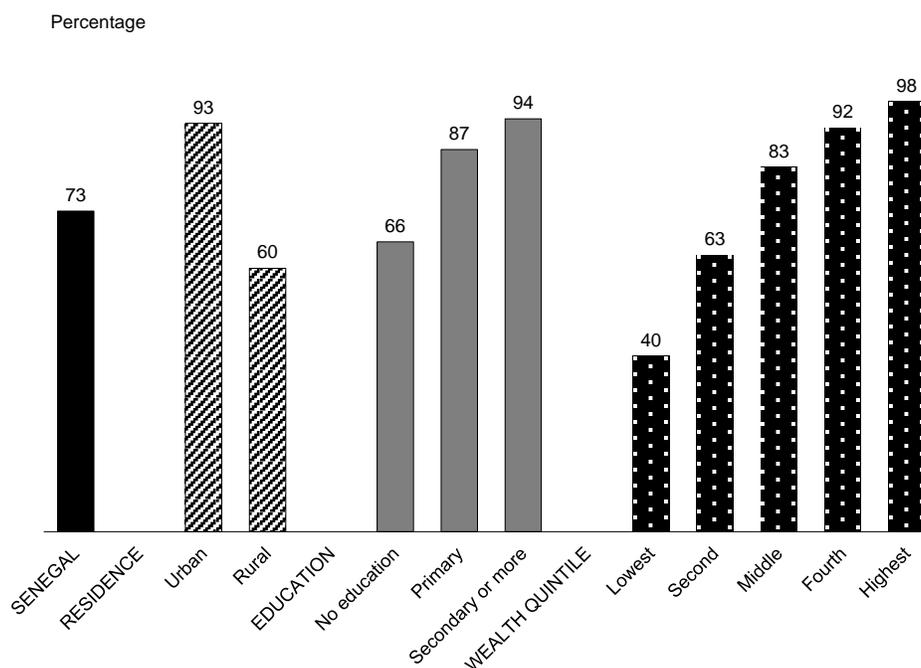
EDS-MICS 2010-11

Assistance at delivery

Good care at delivery, a key element in the campaign against maternal morbidity and mortality depends on the qualifications of health personnel. Table 9.6 shows that more than six of ten every births (65 percent) took place with the assistance of skilled health personnel, mostly nurses and midwives (60 percent). In addition, 72 percent of births in health facilities were assisted by midwives. Moreover, 30 percent of deliveries took place without the assistance of skilled health personnel, with only the help of relatives and friends (22 percent), or without any assistance (5 percent). Traditional birth attendants were present in 8 percent of cases.

The percentage of births assisted by a health professional varies according to birth order, from 78 percent among first births, to 67 percent for pauciparas (2-3 children), and 53 percent for large numbered multiparas. As might be expected, 88 percent of births in health facilities are assisted by a doctor, midwife, or nurse or health assistant, compared with 5 percent of births that took place in a location other than a health facility.

In addition, Table 9.6 highlights the disparities between urban and rural residence and shows regional differences. In urban areas, nine of every ten births are assisted by a health professional compared with half of births (49 percent) in rural areas. In general, the southern regions have the least advantages, with the exception of Ziguinchor, where less than a quarter of births are not assisted by a health professional. In these regions most deliveries are assisted by relatives or others.

In at least four of every five cases, births to mothers who are educated or live in wealthy households are assisted by health professionals.

Between the last two surveys, the proportion of deliveries rose significantly, from 52 percent to 65 percent. At this rate of growth, the percentage of births assisted at the national level would, according to the Document on Social and Economic Policy (DPES), be equal to or exceed 90 percent by 2015, and would be in accordance with the Millennium Development Goals related to improving maternal health.

Type of delivery

In the strategy for safe motherhood, Caesarean section is a recommended means to reduce maternal and perinatal mortality. It is a mode of delivery used by the obstetrician whenever vaginal delivery is deemed a fetal and/or maternal risk, in order to reduce that risk. Thus, mothers were asked, for all live births in the last five years, if delivery was by Caesarian section or vaginally.

Table 9.6 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, percentage of births assisted by a skilled provider, and the percentage delivered by Caesarian section, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Person providing assistance during delivery:								Percentage delivered by a skilled provider[1]	Percentage delivered by C-section	Number of births
	Doctor	Midwife	Nurse/ ICP	Traditional birth attendant	Relative/ Other	No one	DK/ Missing	Total			
Mother's age at birth											
<20	3.0	51.9	9.7	18.6	13.3	3.5	0.0	100.0	64.6	5.8	1,728
20-34	4.5	54.7	6.1	19.7	10.0	5.0	0.0	100.0	65.2	5.7	8,081
35-49	7.8	51.2	6.0	19.2	8.1	7.7	0.0	100.0	65.0	6.9	1,670
Birth order											
1	7.2	63.4	7.3	13.9	6.6	1.5	0.0	100.0	78.0	10.1	2,611
2-3	4.6	56.1	6.1	19.8	9.6	3.8	0.1	100.0	66.8	5.4	3,875
4-5	4.0	50.0	6.4	19.8	13.1	6.6	0.0	100.0	60.5	4.2	2,661
6+	3.1	43.2	6.9	24.8	12.0	10.1	0.0	100.0	53.2	3.8	2,332
Place of delivery											
Health facility	6.5	72.2	8.9	12.2	0.2	0.1	0.0	100.0	87.5	8.1	8,360
Elsewhere	0.1	4.3	0.6	39.1	37.1	18.7	0.1	100.0	5.0	0.0	3,120
Residence											
Urban	9.4	77.8	3.5	6.0	2.0	1.2	0.0	100.0	90.7	10.9	4,399
Rural	1.8	38.8	8.6	27.9	15.3	7.7	0.0	100.0	49.2	2.7	7,080
Region											
Dakar	13.6	79.7	1.7	3.0	1.1	0.9	0.0	100.0	95.0	15.5	2,280
Ziguinchor	3.4	52.8	11.1	29.5	2.0	1.3	0.0	100.0	67.3	4.8	367
Diourbel	2.2	59.4	6.9	15.6	9.9	5.9	0.1	100.0	68.5	3.0	1,417
Saint-Louis	4.4	52.9	11.4	17.4	8.7	5.2	0.0	100.0	68.8	5.2	750
Tambacounda	1.5	24.7	6.1	19.9	31.7	16.0	0.0	100.0	32.4	1.7	634
Kaolack	3.0	34.0	12.2	45.3	3.7	1.7	0.0	100.0	49.3	1.6	997
Thies	3.0	81.0	1.4	9.7	3.1	1.9	0.0	100.0	85.3	7.1	1,376
Louga	3.5	53.6	6.1	21.0	9.6	6.1	0.0	100.0	63.3	3.3	799
Fatick	1.9	45.8	5.2	25.9	13.1	8.1	0.0	100.0	52.9	2.1	654
Kolda	1.5	21.5	10.2	29.5	25.2	12.0	0.0	100.0	33.3	2.3	653
Matam	2.1	38.6	5.1	17.5	27.3	9.4	0.0	100.0	45.8	2.9	493
Kaffrine	0.7	24.3	19.0	36.5	12.1	7.4	0.0	100.0	44.0	1.7	532
Kedougou	4.7	15.7	5.0	21.0	34.2	19.4	0.0	100.0	25.4	3.6	108
Sedhiou	1.9	24.5	8.5	39.4	21.4	4.3	0.0	100.0	34.9	3.0	418
Education											
No education	2.8	48.7	6.7	22.6	12.5	6.6	0.0	100.0	58.2	4.0	8,187
Primary	7.1	66.2	6.8	12.6	5.5	1.9	0.0	100.0	80.0	8.7	2,343
Secondary or more	15.9	66.7	5.1	9.4	1.8	1.0	0.0	100.0	87.8	14.6	949
Wealth quintile											
Lowest	1.4	19.8	8.5	30.4	25.9	14.0	0.0	100.0	29.7	1.8	2,649
Second	1.7	39.3	10.1	31.4	11.7	5.8	0.0	100.0	51.1	2.1	2,523
Middle	3.3	64.5	6.9	17.8	5.1	2.4	0.0	100.0	74.7	5.1	2,223
Fourth	4.8	78.9	4.4	8.4	2.5	0.9	0.0	100.0	88.2	7.7	2,234
Highest	15.5	78.7	1.4	3.1	1.0	0.3	0.1	100.0	95.5	15.5	1,851
Total	4.8	53.7	6.6	19.5	10.2	5.2	0.0	100.0	65.1	5.9	11,479

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation.
[1] Skilled provider includes doctor, nurse, midwife, and auxiliary nurse/midwife.
[2] Includes only the most recent birth in the five years preceding the survey.

A Caesarean section was performed in 6 percent of births (Table 9.6). The frequency of this operation varies little with age and is more common in primiparas (10 percent). Gravido-puerperality among teenagers and primiparas is often fraught with complications. This gravido-puerperality is linked to abnormalities in the pelvis related to marriage and early motherhood. Precautions such as regular, quality antenatal care and good management of pregnancy and childbirth are undertaken to minimize this risk.

Caesarian sections are practiced in a medical/surgical environment. They are performed exclusively in health facilities (8 percent), and are rather rare among women in rural areas (3 percent), in the least urbanized regions, and among uneducated women most often in rural areas. This type of operation is only feasible in adequately equipped health facilities with qualified personnel and is not within the reach of the most disadvantaged sectors of the population (less than 2 percent compared with 16 percent in the wealthier classes) and who are also often far away from these services (less than 2 percent in the regions of Tambacounda, Kaolack, and Kaffrine, compared with 16 percent in Dakar and 7 percent in Thiès). It should be noted that the frequency of Caesarean section among the most educated (15 percent) could also be linked to delayed childbearing, which exposes them to obstetrical complications such as stillbirth and a blocked delivery (dystocia) requiring surgical intervention.

9.1.3 Postnatal Checkups

Postnatal checkups for mothers

Table 9.7 presents the distribution of women who had a live birth in the two years preceding the survey, depending on the time when the first postnatal care was carried out after delivery of the most recent birth, by selected background characteristics and according to whether the mother had received postnatal care or not. Overall, nearly seven of every ten women (68 percent) received postnatal checkups within two consecutive days of delivery. This proportion hides disparities by background characteristics of the woman and according to place of delivery. The proportion varies from 65 percent for women under age 20 to 70 percent for women age 35-49. In addition, , the proportion of women who had received postnatal checkups within two days of delivery declines from 75 percent among primiparas to 62 percent for large numbered multiparas. Eight in every ten women who delivered in a health facility were given a postnatal checkup within two consecutive days following delivery, and 50 percent in less than four hours. Overall, among women who gave birth during the two years preceding the survey, a quarter (25 percent) had received no postnatal care within 41 consecutive days from delivery, and 75 percent had received at least one checkup. Most of these women (68 percent) went for a consultation within two days following delivery, 2 percent in 3-6 days after delivery, and in 4 percent of cases the women waited between 7 and 41 days to go to a postnatal checkup.

The proportion of women who did not receive postnatal care within 41 days after delivery decreases noticeably with age, from 27 percent at under age 20 to 24 percent at age 20 and older. This proportion varies by birth order, from 18 percent for primiparas to 31 percent for women with six children or more. In addition, differences are observed according to place of residence and region: these proportions are higher in rural areas (32 percent) than in urban areas (14 percent), and in the regions of Kolda (54 percent), Kédougou (43 percent), and Kaffrine (42 percent). Similarly, the level of education of the mother influences the frequency of postnatal care, since three of every ten mothers with no education did not get a postnatal checkup after their deilivery, compared with 16 percent for women with primary education and 17 percent for the most educated. In addition, the percentage of women who had received a postnatal checkup within two consecutive days of childbirth increases with the level of wealth: 44 percent in the poorest households (lowest quintile), 67 percent in the second quintile, and 83 percent in the wealthiest (highest) quintile. Correspondingly, women who received no postnatal checkup are relatively more numerous in the two poorest quintiles.

Table 9.7 Timing of first postnatal checkup for the mother

Among women age 15-49 giving birth in the two years preceding the survey, the percent distribution of the mother's first postnatal checkup for the last live birth by time after delivery, and the percentage of women with a live birth in the two years preceding the survey who received a postnatal checkup in the first two days after giving birth, according to background characteristics, EDS-MICS, Senegal 2010-11

| Background characteristic | Time after delivery of mother's first postnatal checkup | | | | | | No postnatal checkup [1] | Total | Percentage of women with a postnatal checkup in the first two days after birth | Number of women |
	Less than 4 hours	4-23 hours	1-2 days	3-6 days	7-41 days	Don't know/ missing				
Mother's age at birth										
<20	48.3	8.5	8.6	2.2	4.3	1.1	27.1	100.0	65.4	650
20-34	49.2	12.0	6.8	1.7	4.3	1.6	24.4	100.0	68.0	3,197
35-49	51.9	11.9	6.6	0.4	3.3	1.8	24.2	100.0	70.3	662
Birth order										
1	53.6	13.2	8.4	1.6	2.8	2.1	18.4	100.0	75.2	1,009
2-3	49.2	11.4	6.8	1.6	4.6	1.5	24.9	100.0	67.5	1,554
4-5	52.0	9.8	5.4	1.5	4.9	1.5	24.9	100.0	67.2	1,009
6+	42.7	11.4	7.8	1.5	4.1	1.2	31.3	100.0	61.9	938
Place of delivery										
Health facility	61.3	12.8	6.7	1.2	2.6	2.0	13.5	100.0	80.8	3,291
Elsewhere	17.5	7.9	8.1	2.6	8.5	0.4	55.1	100.0	33.4	1,217
Residence										
Urban	58.6	13.3	8.6	1.1	2.6	2.2	13.5	100.0	80.5	1,695
Rural	43.9	10.4	6.1	1.8	5.1	1.2	31.5	100.0	60.4	2,814
Region										
Dakar	58.1	14.0	9.6	0.5	2.8	2.6	12.5	100.0	81.7	825
Ziguinchor	59.0	10.5	7.5	2.5	1.8	1.6	17.1	100.0	77.1	149
Diourbel	51.3	16.6	3.9	2.1	2.9	2.0	21.1	100.0	71.9	563
Saint-Louis	44.2	11.5	7.7	1.7	3.1	2.5	29.3	100.0	63.4	291
Tambacounda	35.9	9.2	4.6	4.6	9.2	0.6	36.0	100.0	49.7	246
Kaolack	41.7	14.9	6.5	1.3	4.5	0.9	30.2	100.0	63.1	412
Thies	75.0	8.1	6.3	0.8	1.2	1.2	7.4	100.0	89.4	577
Louga	54.9	6.6	5.7	1.1	4.1	1.4	26.2	100.0	67.2	311
Fatick	43.2	13.1	12.4	2.5	4.0	1.3	23.5	100.0	68.7	266
Kolda	18.8	9.8	5.3	2.3	8.2	1.5	54.0	100.0	34.0	248
Matam	31.1	10.8	9.2	0.2	7.4	1.8	39.6	100.0	51.0	186
Kaffrine	45.3	2.1	1.2	0.3	8.6	0.3	42.2	100.0	48.6	221
Kedougou	23.8	9.4	5.7	3.9	12.9	1.7	42.6	100.0	38.9	43
Sedhiou	30.4	11.3	13.3	3.4	3.3	0.0	38.2	100.0	55.0	172
Education										
No education	46.8	10.5	7.1	1.6	4.5	1.2	28.3	100.0	64.3	3,159
Primary	57.4	13.4	6.3	1.4	3.2	2.2	16.1	100.0	77.0	981
Secondary or more	51.6	14.5	9.2	1.3	3.8	2.6	17.0	100.0	75.3	369
Wealth quintile										
Lowest	29.4	8.9	5.8	1.6	6.2	1.2	46.8	100.0	44.2	1,061
Second	49.1	10.0	7.4	2.4	4.7	1.2	25.2	100.0	66.5	1,020
Middle	56.9	12.2	7.2	1.7	3.1	1.3	17.5	100.0	76.3	865
Fourth	58.5	12.1	7.9	1.2	2.8	1.5	16.0	100.0	78.5	878
Highest	60.1	15.8	7.2	0.3	3.1	3.1	10.4	100.0	83.1	685
Total	49.5	11.5	7.1	1.5	4.2	1.6	24.8	100.0	68.0	4,509

[1] Includes women who received a checkup after 41 days

Finally, 31 percent of women did not have postnatal care within two consecutive days after delivery (Table 9.8). The women who had a postnatal checkup within two days after childbirth are generally under age 20 (34 percent), are large numbered multiparas (37 percent), gave birth somewhere else than in health facilities (67 percent), live in rural areas (39 percent), and live in the regions of the south (Tambacounda, Kolda, and Kédougou). Most have no education (35 percent), and more than half are in the poorest households (55 percent) (Figure 9.5).

Figure 9.5
Postnatal checkup in the first two days after
giving birth according to background characteristics

Percentage
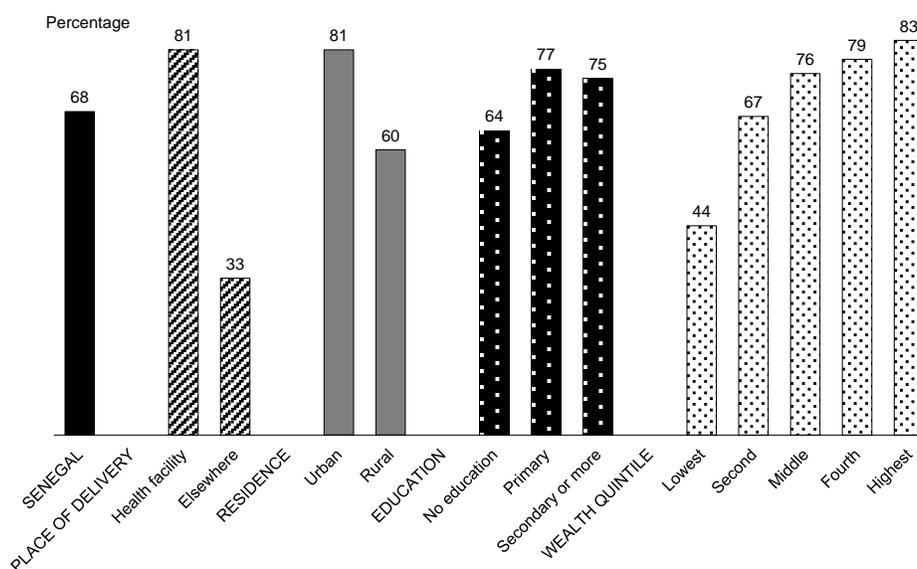
EDS-MICS 2010-11

Type of health care provider who provided the first postnatal checkup to mothers

Table 9.8 presents the distribution of women who had births in the two years preceding the survey, by the type of personnel who provided the first postnatal checkup for their last birth, according to selected background characteristics of women. Overall, 64 percent of women who had a live birth in the last two years received postnatal care from health professionals (doctors, midwives, and community health care workers). These postnatal checkups were mainly given by doctors, midwives, or nurses (53 percent) and, to a lesser extent by nursing and midwifery assistants (10 percent). Women who received postnatal care from community health workers represent less than 1 percent. Another 6 percent of mothers received postnatal care from traditional birth attendants.

Differences by age of the woman are of little importance. However, according to other background characteristics the differences are quite significant. The proportion of births to mothers who received postnatal checkups from trained personnel varies from 71 percent for primiparas to 56 percent for women with six children or more. Depending on the level of education, the proportion is 59 percent for women with no education, 72 percent for those with primary education, and 74 percent for those with secondary education or higher (Figure 9.5). In addition, disparities were observed according to place of delivery: 77 percent who gave birth in a health facility had postnatal checkups compared with 26 percent who gave birth elsewhere. Similarly, women in urban areas received more postnatal care than women in rural areas (79 percent versus 53 percent). At the regional level, differences are significant: women who had the least first postnatal checkups from a health professional are from the regions of Kolda (29 percent), Kédougou (32 percent), Tambacounda (41 percent), Matam (45 percent), and Sédhiou (43 percent). In contrast, in the regions of Dakar and Thiès, respectively, 80 percent and 87 percent of women received postnatal checkups from health professionals. Finally, the proportion of women who had at least one postnatal checkup increases steadily with the index of household wealth: from 36 percent of women in the poorest quintile to 81 percent in the richest.

Table 9.8 Type of provider of first postnatal checkup for the mother

Among women age 15-49 giving birth in the two years preceding the survey, the percent distribution by type of provider of the mother's first postnatal health checkup in the two days after the last live birth, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Type of health provider of mother's first postnatal checkup:			No postnatal checkup in the first two days after the birth	Total	Number of women
	Doctor/ midwife	Nurse	Traditional birth attendant			
Mother's age at birth						
<20	50.5	11.3	4.7	33.5	100.0	650
20-34	52.1	10.3	6.5	31.1	100.0	3,197
35-49	56.0	9.8	5.4	28.8	100.0	662
Birth order						
1	60.9	9.7	5.8	23.6	100.0	1,009
2-3	53.7	9.0	5.7	31.6	100.0	1,554
4-5	49.4	11.8	6.6	32.2	100.0	1,009
6+	44.4	11.9	6.4	37.3	100.0	938
Place of delivery						
Health facility	65.3	11.2	5.5	18.0	100.0	3,291
Elsewhere	17.6	8.1	7.7	66.5	100.0	1,217
Residence						
Urban	73.8	5.4	2.3	18.5	100.0	1,695
Rural	39.5	13.4	8.3	38.7	100.0	2,814
Region						
Dakar	74.2	5.7	2.2	17.8	100.0	825
Ziguinchor	53.1	13.2	11.6	22.1	100.0	149
Diourbel	57.5	8.7	7.0	26.8	100.0	563
Saint-Louis	47.2	15.8	2.0	35.0	100.0	291
Tambacounda	25.0	15.7	8.9	50.3	100.0	246
Kaolack	35.6	21.3	8.5	34.6	100.0	412
Thies	85.3	2.0	3.5	9.2	100.0	577
Louga	50.1	13.4	4.0	32.4	100.0	311
Fatick	51.3	7.8	10.2	30.7	100.0	266
Kolda	21.4	7.9	4.9	65.7	100.0	248
Matam	33.8	10.9	7.0	48.4	100.0	186
Kaffrine	22.4	15.6	10.9	51.2	100.0	221
Kedougou	19.2	12.8	7.2	60.8	100.0	43
Sedhiou	26.6	15.9	13.7	43.9	100.0	172
Education						
No education	47.4	11.4	6.4	34.8	100.0	3,159
Primary	63.3	8.4	6.0	22.3	100.0	981
Secondary or more	66.5	7.0	3.6	22.9	100.0	369
Wealth quintile						
Lowest	22.1	13.9	8.8	55.1	100.0	1,061
Second	42.9	15.7	8.8	32.6	100.0	1,020
Middle	63.2	9.6	4.3	23.0	100.0	865
Fourth	69.8	6.3	3.8	20.1	100.0	878
Highest	77.9	3.2	2.9	16.0	100.0	685
Total	52.4	10.4	6.1	31.1	100.0	4,509

[1] Includes women who received a checkup after 41 days.

Postnatal checkups for newborns

Table 9.9 shows the distribution (in percent) of births in the two years preceding the survey, according to when the first postnatal care of the infant was given, for the most recent birth by selected background characteristics of the mother. In all, 41 percent of births received postnatal care within two consecutive days after delivery. The proportion of women whose newborns received postnatal checkups in the two consecutive days following delivery increases with the mother's age, from 39 percent for those under age 20 to 45 percent at age 35-49. Also, this proportion is higher in primiparas (45 percent) and higher number multiparas (42 percent). By place of delivery, 47 percent of births that took place in a health facility received postnatal checkups in the two consecutive days after delivery compared with 26 percent for births whose delivery took place elsewhere. In addition, differences were noted according to place and region of residence: these

proportions are higher in urban areas (46 percent) than in rural areas (38 percent), and higher in the regions of Thiès (57 percent), Kaolack (53 percent), and Ziguinchor (50 percent) than in the other regions. Moreover, the educational level of the mother influences the frequency of postnatal checkups for newborns, as 39 percent of mothers with no education went for a consultation after their delivery, compared with 47 percent of mothers with primary schooling and 49 percent of the most educated. Results according to level of wealth show a more frequent postnatal monitoring in the richest households (54 percent) than in the other quintiles. In the poorest households the proportion is only 29 percent.

Table 9.9 Timing of first postnatal checkup for the newborn

Percent distribution of last births in the two years preceding the survey by time after birth of first postnatal checkup, and the percentage of births with a postnatal checkup in the first two days after birth, according to background characteristics, EDS-MICS, Senegal 2010-11

| Background characteristic | Time between birth and first postnatal checkup | | | | | | No post-natal checkup[1] | Total | Percent of births receivng postnatal checkuup in the first two days after birth | Number of births |
	Less than 1 hour	1-3 hours	4-23 hours	1-2 days	3-6 days	DK/ missing				
Mother's age at birth										
<20	13.0	14.7	4.4	6.5	4.4	0.7	56.3	100.0	38.6	650
20-34	15.5	14.3	5.4	5.7	3.9	1.2	54.0	100.0	41.0	3,197
35-49	16.0	14.8	6.3	7.6	3.9	1.3	50.1	100.0	44.7	662
Birth order										
1	19.6	14.0	5.3	5.9	4.2	1.4	49.7	100.0	44.7	1,009
2-3	13.3	15.5	4.7	5.6	3.9	1.3	55.7	100.0	39.1	1,554
4-5	15.8	14.5	5.2	5.0	4.3	1.0	54.2	100.0	40.4	1,009
6+	13.2	13.2	6.7	8.6	3.2	0.8	54.3	100.0	41.7	938
Place of delivery										
Health facility	19.6	16.9	5.1	5.3	3.8	1.4	47.9	100.0	47.0	3,291
Elsewhere	3.4	7.7	6.0	8.4	4.5	0.4	69.6	100.0	25.5	1,217
Residence										
Urban	19.9	15.8	4.3	5.9	3.0	1.6	49.4	100.0	45.9	1,695
Rural	12.5	13.6	6.0	6.3	4.5	0.8	56.3	100.0	38.3	2,814
Region										
Dakar	19.3	16.5	2.0	6.0	1.4	1.4	53.4	100.0	43.8	825
Ziguinchor	16.8	17.2	5.4	10.2	2.8	1.7	46.0	100.0	49.5	149
Diourbel	15.3	22.9	5.9	4.3	7.7	0.7	43.2	100.0	48.4	563
Saint-Louis	7.9	7.4	5.2	7.3	3.9	1.9	66.4	100.0	27.8	291
Tambacounda	4.6	10.2	5.1	5.7	6.2	0.4	67.8	100.0	25.6	246
Kaolack	9.0	23.6	10.9	9.3	3.5	1.9	41.7	100.0	52.8	412
Thies	37.9	10.3	5.7	3.1	5.4	1.6	35.9	100.0	57.1	577
Louga	16.3	18.5	5.4	3.9	1.9	1.0	53.1	100.0	44.0	311
Fatick	12.7	12.9	10.0	12.1	4.4	1.4	46.5	100.0	47.7	266
Kolda	8.3	4.8	4.2	4.6	3.2	0.4	74.5	100.0	21.9	248
Matam	5.2	8.3	3.1	3.6	2.2	0.0	77.6	100.0	20.2	186
Kaffrine	2.4	7.7	3.0	3.9	2.7	0.3	79.9	100.0	17.0	221
Kedougou	3.2	6.5	4.6	3.2	5.3	2.4	74.7	100.0	17.6	43
Sedhiou	3.6	10.6	6.0	13.2	5.4	0.0	61.2	100.0	33.5	172
Education										
No education	12.7	14.1	5.3	6.3	4.2	1.1	56.2	100.0	38.5	3,159
Primary	20.9	15.9	5.1	5.1	3.5	0.9	48.5	100.0	47.1	981
Secondary or more	21.8	13.8	6.1	6.9	2.8	2.1	46.4	100.0	48.7	369
Wealth quintile										
Lowest	6.9	10.4	6.2	5.6	3.1	0.9	66.8	100.0	29.2	1,061
Second	13.8	14.6	7.3	8.1	5.0	0.7	50.6	100.0	43.7	1,020
Middle	17.0	14.2	5.4	5.6	5.0	0.9	51.9	100.0	42.1	865
Fourth	18.7	14.6	2.6	6.1	2.9	1.9	53.3	100.0	42.0	878
Highest	23.7	20.6	4.7	4.7	3.7	1.6	41.0	100.0	53.7	685
Total	15,2	14,4	5,4	6,1	4,0	1,1	53,7	100,0	41,2	4,509

[1] Includes newborns who received a checkup after the first week

Furthermore, 54 percent of births received no postnatal checkup or the checkup was not made within 7 days after birth. The proportion of births that received no postnatal care (including those who received postnatal care after the first week), decreases significantly with the mother's age, from 56 percent at under age 20 to 54 percent at age 20-34 and to 50 percent at age 35-49. This proportion varies by birth order, from 50

percent for primiparas to 54 percent for women who have six children or more. In addition, these proportions are higher in rural areas (56 percent) than in urban areas (49 percent), as well as in the regions of Kaffrine (80 percent), Matam (78 percent), and Kolda and Kédougou (75 percent) than in other regions. Similarly, the educational level of the mother affects the frequency of postnatal checkups for children, where 56 percent of mothers with no education did not have a postnatal checkup for their child in the seven consecutive days after delivery compared with more than 46 percent among the most educated. According to the level of wealth, the proportion is 67 percent for the poorest quintile versus 41 percent for the richest.

The data in Table 9.10 highlight the distribution of last births occurring in the two years preceding the survey, by type of provider who gave the first postnatal checkup and according to selected background characteristics of the women interviewed. The results show that 38 percent of births in the last two years received postnatal checkups from health professionals (doctors, midwives, nurses and community health workers). These postnatal checkups were primarily carried out by doctors and midwives (29 percent) followed by nurses and head nurses (ICP) (8 percent). However, 4 percent of births were given postnatal care by midwifery assistants and traditional birth attendants.

Table 9.10 Type of provider of first postnatal checkup for the newborn

Percent distribution of last births in the two years preceding the survey by type of provider of the newborn's first postnatal health check during the two days after the last live birth, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Type of health provider of newborn's first postnatal checkup			No postnatal checkup during the first two days after the birth	Total	Number of births
	Doctor/ midwife	Nurse	Traditional birth attendant			
Mother's age at birth						
<20	26.9	7.9	3.9	61.4	100,0	650
20-34	29.4	7.5	4.1	59.0	100,0	3,197
35-49	32.0	8.1	4.6	55.3	100,0	662
Birth order						
1	34.2	6.7	3.8	55.3	100,0	1,009
2-3	29.2	6.2	3.7	60.9	100,0	1,554
4-5	26.4	9.5	4.6	59.6	100,0	1,009
6+	28.0	9.0	4.6	58.3	100,0	938
Place of delivery						
Health facility	35.6	7.5	3.9	53.0	100,0	3,291
Elsewhere	12.9	8.0	4.7	74.5	100,0	1,217
Residence						
Urban	39.2	5.0	1.7	54.1	100,0	1,695
Rural	23.6	9.2	5.6	61.7	100,0	2814
Region						
Dakar	37.5	5.9	0.5	56.2	100,0	825
Ziguinchor	30.6	11.0	7.9	50.5	100,0	149
Diourbel	33.7	6.0	8.7	51.6	100,0	563
Saint-Louis	17.6	8.7	1.5	72.2	100,0	291
Tambacounda	14.3	8.4	2.9	74.4	100,0	246
Kaolack	25.7	22.2	4.9	47.2	100,0	412
Thies	53.3	1.0	2.7	42.9	100,0	577
Louga	28.5	12.4	3.1	56.0	100,0	311
Fatick	34.2	5.8	7.6	52.3	100,0	266
Kolda	13.1	4.3	4.5	78.1	100,0	248
Matam	13.3	4.1	2.7	79.8	100,0	186
Kaffrine	7.8	6.8	2.5	83.0	100,0	221
Kedougou	7.5	7.5	2.6	82.4	100,0	43
Sedhiou	15.2	6.7	11.5	66.5	100,0	172
Education						
No education	25.9	8.2	4.5	61.5	100,0	3,159
Primary	37.4	6.4	3.3	52.9	100,0	981
Secondary or more	39.0	6.3	3.4	51.3	100,0	369
Wealth quintile						
Lowest	13.3	9.4	6.5	70.8	100,0	1,061
Second	26.4	12.0	5.4	56.3	100,0	1,020
Middle	32.8	6.7	2.6	57.9	100,0	865
Fourth	35.0	4.1	2.8	58.0	100,0	878
Highest	47.6	4.1	2.1	46.3	100,0	685
Total	29.4	7.6	4.1	58.8	100,0	4,509

The percentage of births in the last two years that received postnatal checkups from health professionals barely increases with age, from 35 percent for women under age 20, to 37 percent at age 20-34, and to 40 percent at age 35-49. However, with regard to other background characteristics, the differences are significant. According to birth order, the proportions are larger among primiparas, at 41 percent. In addition, as expected, the place of birth of the child indicates that when childbirth takes place in a health facility, postnatal monitoring of the child by a health professional is more frequent (43 percent versus 21 percent when the delivery takes place elsewhere).

Results by area of residence show that the proportion of live births during the past two years that received postnatal checkups from a health professional is higher in urban areas (44 percent) than in rural areas (33 percent). From a regional perspective, there are also significant differences: women were least likely to consult a health professional for postnatal follow-up of their infant in the regions of Kédougou and Kaffrine (15 percent each), Kolda (17 percent), and Matam (17 percent). In contrast, in the regions of Thiès, Kaolack, and Dakar, 54 percent, 49 percent and 44 percent of births, respectively, received postnatal care from health professionals. Finally, this proportion increases with the educational level of the mother, from 34 percent of mothers with no education to 44 percent of mothers with a primary or higher level. According to wealth quintile, the disparity is large between the two extreme quintiles, at 23 percent among women in the poorest quintile and 52 percent among those in the richest quintile.

9.2 PERCEIVED PROBLEMS FOR WOMEN'S ACCESS TO HEALTH CARE

Access to health care is one of the priorities for health officials. Thus, during the survey, knowledge of the types of problems that were faced by women when they needed health care was obtained.

Table 9.11 shows that the first problem cited by women as a barrier to access to health care for women is the lack of money (51 percent). The importance of this problem increases with age and parity. In addition, married women (53 percent) or those out of union (60 percent) more often reported that they have faced this problem compared with never-married singles (45 percent). This constraint also concerns rural women (56 percent) more than it concerns urban women (46 percent). Similarly, women with no education (57 percent) have faced this problem more often than women with primary education (47 percent) or women with secondary education or more (38 percent). Women in the regions of Tambacounda (68 percent), Kaffrine (66 percent), Sédhiou (62 percent), Kaolack (60 percent), Fatick (59 percent), and Ziguinchor (58 percent) were most likely to mention lack of money as a barrier to their access to health care. However, in the regions of Diourbel and Dakar these proportions are smaller (respectively, 38 percent and 44 percent).

Lack of money is not the only obstacle that women have to overcome to access health services. Nearly a third (32 percent) mentioned the distance to reach the health service. This barrier is much more common in rural areas (45 percent) and in the regions of Sédhiou (62 percent), Kolda (59 percent), and Tambacounda (53 percent). Moreover, the poorest women (63 percent) have greater difficulty accessing health services in case of illness. Finally, getting permission to go to a consultation and not wanting to go alone also pose problems for women, difficulties cited by, respectively, 17 percent and 16 percent. Overall, 60 percent of women mentioned at least one specific barrier to accessing health care.

Table 9.11 Problems in accessing health care

Percentage of women age 15-49 who reported that they have serious problems in accessing health care for themselves when they are sick, by type of problem, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Getting permission to go for treatment	Getting money for treatment	Distance to health facility	Not wanting to go alone	At least one problem accessing health care	Number of women
Age						
15-19	17.2	45.6	30.9	21.3	58.1	3,429
20-34	16.2	48.5	29.7	14.6	57.5	8,114
35-49	18.7	60.0	35.6	13.8	67.7	4,145
Number of living children						
0	16.3	42.8	25.8	17.2	53.5	5,595
1-2	15.6	46.6	29.1	13.6	55.9	4,187
3-4	18.2	56.1	36.3	15.6	65.0	2,937
5+	19.4	67.0	40.9	16.9	74.9	2,969
Marital status						
Never married	16.6	44.5	24.0	17.3	54.4	4,585
Married or living together	17.2	53.1	35.1	15.4	62.5	10,347
Divorced/separated/widowed	18.3	59.6	28.2	13.1	66.1	757
Employed past 12 months						
Not employed	18.7	50.7	33.1	16.2	60.0	8,393
Employed for cash	14.6	51.0	26.7	13.4	59.6	6,135
Employed not for cash	18.2	51.4	45.0	26.6	67.2	1,160
Residence						
Urban	15.1	45.5	17.8	11.5	52.9	7,738
Rural	18.9	56.1	44.9	20.0	67.6	7,950
Region						
Dakar	17.4	44.0	15.4	11.2	51.7	4,078
Ziguinchor	18.3	58.3	30.2	15.0	69.1	581
Diourbel	9.1	37.5	15.1	6.9	42.5	1,851
Saint-Louis	27.0	54.5	42.3	25.6	66.8	1,034
Tambacounda	15.8	67.9	53.0	22.1	77.3	725
Kaolack	20.9	59.9	45.6	23.4	68.8	1,172
Thies	21.1	51.9	29.8	9.5	58.0	2,030
Louga	11.8	49.4	40.9	13.8	62.4	1,130
Fatick	9.9	58.9	39.3	16.5	67.4	717
Kolda	16.7	52.2	58.9	38.2	76.4	640
Matam	13.8	53.2	39.0	21.1	68.2	595
Kaffrine	27.9	66.2	38.1	16.7	71.3	572
Kedougou	8.6	50.7	42.4	29.1	71.7	115
Sedhiou	14.0	61.9	61.6	33.5	81.1	448
Education						
No education	19.2	57.1	39.1	17.5	67.1	9,079
Primary	15.9	46.6	22.6	14.5	55.5	3,414
Secondary or more	12.1	37.7	19.5	12.4	46.3	3,195
Wealth quintile						
Lowest	20.4	68.2	63.4	28.1	82.6	2,585
Second	23.0	65.1	49.8	22.9	76.9	2,805
Middle	17.4	54.1	27.5	13.8	61.7	3,114
Fourth	16.5	46.3	17.6	10.5	55.1	3,494
Highest	10.4	29.6	11.7	8.6	35.9	3,689
Total	17.1	50.9	31.5	15.8	60.3	15,688

9.3 OBSTETRIC FISTULAS

Women can sometimes permanently, day and night, have a problem with loss of urine or feces through the vagina. This problem usually occurs after a difficult delivery, but it can also occur after a sexual assault or after surgery of the pelvis. This is the definition of obstetric fistula in the DHS.

Table 9.12 shows the proportion of women who have heard of an obstetrric fistula and the proportion of women who reported having (or had) a fistula, according to selected background characteristics. In all, 22 percent of women interviewed said they had heard of obstetric fistula. The proportion is 24 percent among women who have had a live birth compared with 19 percent among those who have not. This proportion increases with age for women up to age 44, from 11 percent for those age 15-19 to about 30 percent over age 40. In addition, there are differences according to area of residence and region: the proportion of women who have heard of obstetric fistula is higher in urban areas (27 percent) than in rural areas (18 percent) and in the regions of Kolda (31 percent), Sédhiou (30 percent), Dakar (28 percent), and Kédougou (26 percent). In addition, the proportion of women who reported having heard of obstetric fistula increases with the level of education: 19 percent of women with no education have heard of it versus 25 percent of those with a primary level, and 28 percent of those with secondary education or higher. Results depending on the level of wealth show a split between households in the two poorest

Table 9.12 Knowledge and prevalence of obstetric fistula

Proportion of women who have heard of obstetric fistula and proportion of women who reported having or having had an obstetric fistula, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage of women		Number of women
	Having heard of obstetric fistula	Having or having had an obstetric fistula	
Maternity			
Had a live bith	24.2	0.2	10,223
Never had a live birth	18.6	0.0	5,465
Age			
15-19	11.2	0.0	3,429
20-24	21.7	0.1	3,220
25-29	22.9	0.2	2,746
30-34	27.0	0.1	2,148
35-39	27.6	0.4	1,817
40-44	30.9	0.0	1,379
45-49	28.6	0.1	949
Residence			
Urban	26.8	0.1	7,738
Rural	17.8	0.1	7,950
Region			
Dakar	28.3	0.2	4,078
Ziguinchor	18.2	0.5	581
Diourbel	18.5	0.0	1,851
Saint-Louis	21.6	0.3	1,034
Tambacounda	20.0	0.0	725
Kaolack	12.8	0.0	1,172
Thies	23.2	0.0	2,030
Louga	20.8	0.2	1,130
Fatick	19.3	0.0	717
Kolda	31.4	0.4	640
Matam	20.5	0.1	595
Kaffrine	6.3	0.0	572
Kedougou	26.2	0.0	115
Sedhiou	29.5	0.0	448
Education			
No education	19.2	0.2	9,079
Primary	24.6	0.1	3,414
Secondary or more	28.2	0.0	3,195
Wealth quintile			
Lowest	16.2	0.2	2,585
Second	17.7	0.1	2,805
Middle	19.3	0.0	3,114
Fourth	24.1	0.2	3,494
Highest	30.6	0.1	3,689
Total	22.2	0.1	15,688

quintiles and the others: among the two poorest, 16 percent to 18 percent of women have heard of fistula and among the two richest these proportions are 24 percent for the fourth quintile and 31 percent for the richest.

Also, women were asked if they have ever had, permanently during the day and night, urinary or fecal losses through the vagina. Of the 15,688 women interviewed, only 0.1 percent (17 women, all of whom already had a live birth) responded in the affirmative.

CHILD HEALTH

<div style="text-align:right">**10**</div>

Mahmouth DIOUF

The EDS-MICS 2010-11 collected detailed information on the health of children born in the five years before the survey. This information concerns the characteristics of infants, vaccination coverage, and prevalence and treatment of major childhood diseases, particularly respiratory infections, fever, and diarrhea. The results presented in this chapter identify the most important issues in child health. They thus constitute important tools for asssessment, policy planning, and health programs.

10.1 CHARACTERISTICS OF NEWBORNS

Table 10.1 presents the results for the weight and height of children. It should first be noted that birth weight has only been established for 61 percent of children. In fact, nearly four in every ten newborns (39 percent) were not weighed at birth. Weighing children at birth is a general practice in the regions of Dakar (87 percent) and Ziguinchor (80 percent), in urban areas (81 percent), and among women from the richest households (86 percent).

Overall, more than eight in every ten infants (84 percent) had a weight above or equal to 2,500 grams, while 16 percent had a weight lower than 2,500 grams and were therefore of low birth weight. Regardless of the demographic variable, the proportion of infants weighing 2,500 grams or more is 80 percent or higher.

Table 10.1 also shows results regarding the estimated size of the infant and the mother's interpretation of the question: "When your child was born, was s/he very large, larger than average, average, smaller than average, or very small?" This assessment is somewhat subjective in that the concepts of "small," "medium," and "large" may depend on various socio-cultural factors. For all births in the past five years, approximately 71 percent were considered to be of average size or larger, 19 percent were considered as smaller than average, and 10 percent were considered as very small. The mother's perception of the size of the newborn varies little (between 9 and 11 percent) according to background characteristics: age of the mother at childbirth, birth order, place of residence, mother's level of education, and wealth quintile.

However, regional differences are significant. Small infants were more often mentioned in the regions of Saint-Louis (15 percent) and Kaolack (14 percent); In contrast, in the regions of Sédhiou (4 percent), Kolda (4 percent), Tambacounda (5 percent), Kaffrine (7 percent), and Thiès (7 percent), these percentages are much lower.

Table 10.1 Child's size and weight at birth

Percent distribution of live births in the five years preceding the survey by mother's estimate of baby's size at birth, percentage of live births in the five years preceding the survey that have a reported birth weight, and among live births in the five years preceding the survey with a reported birth weight, percentage less than 2.5 kg, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage of all births that have a reported birth weight[1]	Births with a reported birth weight[1]				Percent distribution of all live births by size of child at birth					
		Less than 2.5 kg	2.5 kg or more	Total	Number of births	Very small	Smaller than average	Average or larger	Don't know/ missing	Total	Number of births
Mother's age at birth											
<20	54.8	18.8	81.2	100.0	946	10.7	21.0	67.8	0.5	100.0	1,728
20-34	62.0	15.3	84.7	100.0	5,008	9.2	18.5	71.3	0.9	100.0	8,081
35-49	60.5	15.9	84.1	100.0	1,010	10.6	19.0	69.5	0.9	100.0	1,670
Birth order											
1	68.5	18.8	81.2	100.0	1,789	10.9	21.7	66.7	0.7	100.0	2,611
2-3	63.7	14.8	85.2	100.0	2,470	9.0	18.4	71.8	0.8	100.0	3,875
4-5	58.0	12.7	87.3	100.0	1,542	8.9	18.1	72.0	0.9	100.0	2,661
6+	49.9	17.7	82.3	100.0	1,163	10.1	17.9	71.1	1.0	100.0	2,332
Tobacco use by the mother											
Smokes cigarettes/ tobacco	*	*	*	*	2	*	*	*	*	*	10
Doesn't smoke	60.7	15.8	84.2	100.0	6,961	9.7	19.0	70.5	0.8	100.0	11,469
Residence											
Urban	81.0	17.4	82.6	100.0	3,561	10.3	20.1	68.7	0.9	100.0	4,399
Rural	48.1	14.3	85.7	100.0	3,403	9.3	18.3	71.7	0.7	100.0	7,080
Region											
Dakar	87.6	19.7	80.3	100.0	1,997	11.3	16.7	71.5	0.5	100.0	2,280
Ziguinchor	79.8	13.6	86.4	100.0	293	11.1	13.8	74.8	0.3	100.0	367
Diourbel	61.8	13.4	86.6	100.0	875	7.7	17.8	74.0	0.5	100.0	1,417
Saint-Louis	51.4	20.2	79.8	100.0	385	14.6	15.8	66.6	3.0	100.0	750
Tambacounda	31.5	12.3	87.7	100.0	200	8.7	16.1	74.8	0.4	100.0	634
Kaolack	51.2	15.4	84.6	100.0	510	14.4	18.7	66.2	0.8	100.0	997
Thies	77.3	12.4	87.6	100.0	1,064	7.0	34.1	57.6	1.3	100.0	1,376
Louga	54.6	18.0	82.0	100.0	437	9.6	24.9	64.9	0.6	100.0	799
Fatick	63.4	12.7	87.3	100.0	415	9.2	19.7	70.8	0.2	100.0	654
Kolda	36.9	13.5	86.5	100.0	241	4.3	11.2	83.7	0.7	100.0	653
Matam	37.3	15.2	84.8	100.0	184	13.3	17.4	68.5	0.8	100.0	493
Kaffrine	30.9	14.2	85.8	100.0	164	6.8	12.9	79.2	1.1	100.0	532
Kedougou	22.2	15.7	84.3	100.0	24	10.7	12.9	76.1	0.4	100.0	108
Sedhiou	41.7	13.1	86.9	100.0	174	4.3	11.8	83.3	0.7	100.0	418
Education											
No education	53.0	15.5	84.5	100.0	4,343	9.1	19.1	70.9	0.9	100.0	8,187
Primary	76.1	15.9	84.1	100.0	1,784	11.3	18.3	70.0	0.5	100.0	2,343
Secondary	88.2	17.6	82.4	100.0	837	10.8	19.8	68.7	0.7	100.0	949
Wealth quintile											
Lowest	32.0	16.1	83.9	100.0	847	9.6	17.3	72.4	0.7	100.0	2,649
Second	51.6	14.8	85.2	100.0	1,301	9.8	17.8	71.5	0.9	100.0	2,523
Middle	65.2	15.1	84.9	100.0	1,449	10.1	19.6	69.3	1.0	100.0	2,223
Fourth	79.1	15.2	84.8	100.0	1,767	8.9	21.6	68.4	1.1	100.0	2,234
Highest	86.4	17.9	82.1	100.0	1,599	10.0	19.1	70.6	0.4	100.0	1,851
Total	60.7	15.9	84.1	100.0	6,964	9.7	19.0	70.5	0.8	100.0	11,479

[1] Based on either a written record or the mother's recall.
* Based on less than 25 unweighted cases.

10.2 VACCINATION OF CHILDREN

During the survey, information was recorded for all children born in the last five years, which can be used to evaluate vaccination coverage in the Expanded Program on Immunization (EPI) in Senegal. A child is considered fully vaccinated when she or he has received the BCG (protection against tuberculosis), the vaccine against measles, and three doses of polio vaccine. Recently, a new combination, the "pentavalent," has been used instead of the DPT vaccine (diphtheria, pertussis, tetanus). The pentavalent actuallly contains five antigens against diphtheria, tetanus, pertussis, hepatitis B, and haemophilus influenza B (HIB). In addition, an initial dose of vaccine against poliomyelitis (polio 0) is given at birth. Acccording to the immunization

schedule, these vaccines should be administered to the child before age 1. Data were also collected on yellow fever.

Immunization data were collected from two sources: the child's vaccination card, and statements from the mother when the child's card was not available or did not exist. Table 10.2 and Figure 10.1 show the results of vaccination coverage according to various sources of information for children age 12-23 months, those who, according to WHO recommendations, have reached the age when they should have been fully vaccinated.

Figure 10.1
Vaccination coverage among children age 12-23 months
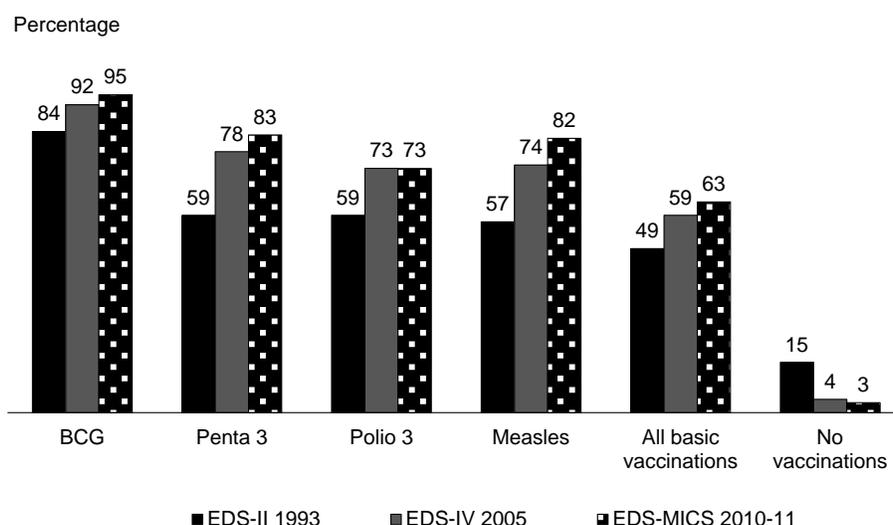
Percentage

The results in Table 10.2 show that about half of children (54 percent) age 12-23 months were fully vaccinated according to the information from the vaccination card, and another 9 percent as reported by their mothers. According to both sources of information combined, nearly two-thirds of children (63 percent) age 12-23 months received all vaccines, while over half (54 percent) received all vaccines before age 12 months.

Table 10.2 Vaccinations by source of information

Percentage of children age 12-23 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated by 12 months of age, EDS-MICS 2010-11, Senegal 2010-11]

Source of information	BCG	Penta 1	Penta 2	Penta 3	Polio 0	Polio 1	Polio 2	Polio 3	Measles	All basic vaccina-tions[2]	No vaccina-tions	Number of children
Vaccinated at any time before survey												
Vaccination card	64.4	64.5	63.0	60.1	60.0	64.7	63.3	60.4	56.1	53.8	0.5	1,460
Mother's report	30.3	29.4	27.8	22.5	19.2	29.9	27.4	12.3	26.0	9.1	2.6	738
Either source	94.7	93.9	90.9	82.6	79.2	94.6	90.7	72.7	82.1	62.8	3.1	2,199
Vaccinated by 12 months of age[3]	**93.3**	**93.0**	**89.4**	**80.3**	**77.7**	**93.7**	**89.2**	**70.4**	**71.1**	**54.5**	**4.5**	**2,199**

[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth).
[3] For children whose information is based on the mother's report, the proportion of vaccinations given during the first year of life is assumed to be the same as for children with a written record of vaccination.

Approximately 64 percent of children age 12-23 months received the BCG according to the vaccination card, and 30 percent as reported by their mothers. In total, 95 percent of children had received the BCG (given in principle at birth) at the time of the survey, and almost all (93 percent) before age 12 months. The proportion of children who received the first dose of pentavalent vaccine is also very significant (94 percent), but coverage decreases with the number of doses, from 91 percent for the second dose to 83 percent for the third dose. The attrition rate[1] for this vaccine, relatively low between the first and second doses (3 percent), increases between the second and third doses (8 percent); the overall attrition rate between the first and third doses is 11 percent. It is notable that the dropout rate is higher between Penta 2 and Penta 3 (8 percent) than between Penta 1 and Penta 2 (4 percent).

Because the vaccine against polio is administered at the same time as the Penta vaccine, the coverage levels are expected to be very close. Immunization coverage against poliomyelitis, however, is slightly lower (polio 0, 79 percent; polio 1, 95 percent; polio 2, 91 percent; and polio 3, 73 percent) and shows greater attrition between the first and third doses. Coverage against measles is the lowest of all (82 percent regardless of the age of the child, and 71 percent for those vaccinated before 12 months).

Among children who were fully immunized, 55 percent were vaccinated according to the recommended schedule, that is, before age 12 months, according to both sources of information. Less than 5 percent of children age 12-23 months did not receive any EPI vaccines before age 12 months.

Table 10.3 and Figure 10.2 show the immunization coverage of children age 12-23 months by selected background characteristics of the mother and child. With regard to the sex of the child, no difference is observed (63 percent for male children and 63 percent for female children). Coverage decreases with birth order, at 67 percent for birth order 1, 62 percent for birth order 5, and 59 percent for birth order 6 or more.

The percentage of children age 12-23 months who received all vaccinations is identical in both urban and rural areas (63 percent). However, regional variations are marked. Two regions are particularly disadvantaged: Kédougou (40 percent) and Tambacounda (47 percent). In contrast, the highest proportions are observed in the regions of Ziguinchor (75 percent) and Fatick (70 percent). The level of education of mothers is a discriminating variable for the vaccination of children: immunization coverage of children whose mothers have any education is considerably better (64 percent for primary and 76 percent for secondary or more) compared with children whose mothers have no education (61 percent).

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[1] The attrition rate for the Penta, for example, is the proportion of children who, having received the first dose of the vaccine, do not receive the third.

Table 10.3 Vaccinations by background characteristics

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card, by background characteristics, EDS-MICS, Senegal 2010-11

| Background characteristic | BCG | Penta | | | Polio | | | | Measles | All basic vaccina-tions[2] | No vaccina-tions | No vaccina-tions | Number of children |
		1	2	3	0[1]	1	2	3					
Sex													
Male	93.9	94.6	91.6	84.3	80.0	94.6	90.2	73.1	82.1	62.9	2.7	67.1	1,127
Female	95.5	93.2	90.1	80.7	78.3	94.6	91.2	72.3	82.1	62.8	3.4	65.7	1,072
Birth order													
1	96.9	96.5	93.6	87.3	85.3	97.0	92.5	75.3	86.9	67.3	1.2	69.4	483
2-3	94.0	93.6	90.5	81.8	77.0	94.7	91.4	73.0	82.1	62.9	4.0	65.8	742
4-5	93.5	92.5	89.6	82.3	79.4	92.9	88.9	71.6	81.9	62.0	3.5	65.3	495
6+	94.8	93.3	89.9	79.2	76.0	93.9	89.7	70.5	77.5	59.1	3.1	65.5	479
Residence													
Urban	96.6	94.6	92.8	83.6	83.8	95.7	93.1	72.6	84.8	63.1	2.2	65.1	849
Rural	93.5	93.5	89.6	81.9	76.2	94.0	89.2	72.7	80.4	62.7	3.6	67.3	1,350
Region													
Dakar	95.0	92.5	91.1	79.4	84.5	94.4	92.2	72.5	83.8	64.3	2.8	66.7	416
Ziguinchor	100.0	98.4	98.4	95.1	77.2	99.1	99.1	82.5	93.7	75.5	0.0	67.6	77
Diourbel	92.3	91.3	86.3	83.0	82.7	91.4	86.6	71.5	80.5	63.7	5.2	68.7	272
Saint-Louis	96.5	94.0	90.9	77.1	77.1	94.6	89.2	72.5	80.0	55.6	2.3	64.2	149
Tambacounda	87.9	92.8	85.4	71.3	56.3	92.2	86.0	61.8	74.9	47.1	4.2	55.3	113
Kaolack	98.4	96.8	93.5	83.4	74.3	97.2	92.4	81.5	79.4	65.7	1.0	66.8	184
Thies	98.8	98.5	97.3	91.0	93.5	99.1	96.2	71.2	90.8	66.9	0.0	70.8	273
Louga	92.6	93.0	90.6	84.2	80.9	91.8	88.9	71.6	82.5	63.4	5.8	61.0	153
Fatick	96.3	96.0	94.4	88.1	85.9	96.6	94.5	79.9	82.4	70.2	2.8	78.8	132
Kolda	88.1	92.3	83.9	75.1	58.2	92.7	83.6	70.2	76.6	60.1	4.3	60.7	118
Matam	87.8	83.8	80.9	73.1	67.9	86.9	81.7	62.7	69.6	52.8	10.1	60.6	96
Kaffrine	96.9	96.9	94.3	91.6	81.7	97.5	93.8	70.8	81.8	59.3	2.0	66.2	104
Kedougou	91.0	80.0	77.4	58.8	63.0	87.0	83.1	56.0	76.5	40.4	3.7	57.4	22
Sedhiou	96.9	97.2	92.9	85.6	71.8	97.7	91.8	80.4	82.4	68.3	1.5	68.3	89
Education													
No education	93.5	92.5	89.0	80.4	76.6	93.1	88.8	71.3	79.2	60.8	4.3	64.7	1,510
Primary	96.5	96.2	93.4	84.5	83.7	97.3	94.0	74.1	85.9	64.4	0.5	68.4	515
Secondary	100.0	99.7	99.0	95.3	87.8	99.5	97.5	80.7	96.1	76.1	0.0	75.4	174
Wealth quintile													
Lowest	90.0	90.5	85.4	74.2	66.1	91.2	85.9	67.6	74.4	56.4	6.1	61.6	493
Second	96.1	94.6	91.8	84.9	78.4	95.5	90.8	73.9	82.0	62.6	1.7	65.6	470
Middle	95.0	95.0	91.1	85.1	82.7	94.9	91.8	72.6	83.4	63.9	3.1	68.6	452
Fourth	95.3	94.2	92.0	82.6	83.8	95.3	93.1	72.7	84.5	64.1	2.6	65.9	472
Highest	98.7	96.2	95.8	88.3	88.8	97.2	93.0	78.8	88.9	70.0	0.9	72.8	312
Total	94.7	93.9	90.9	82.6	79.2	94.6	90.7	72.7	82.1	62.8	3.1	66.4	2,199

[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles, and three doses each of Penta and polio vaccine (excluding polio vaccine given at birth).

Figure 10.2
**Percentage of children age 12-23 months who received
specific vaccines according to background characteristics**
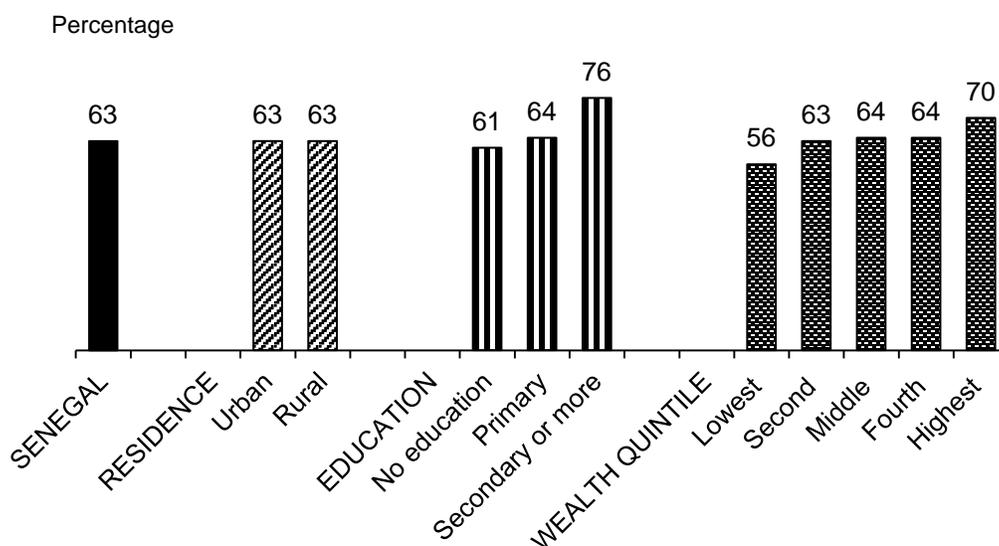
Percentage

EDS-MICS 2010-11

Moreover, the economic stiuation of the household reveals significant differences, particularly between children in the poorest households and those in the richest. The percentage of children who are fully immunized is 56 percent for children in the poorest households compared with 70 percent for children in the richest households, or a difference of 14 percentage points.

During the survey, immunization data were collected for children under age 5. It was possible to retrospectively assess trends in coverage before age 12 months for the four years preceding the survey from data on children age 12-23, 24-35, 36-47, and 48-59 months. Table 10.4 presents vaccination coverage according to the vaccination card or statements of the mother for children in the various age groups. The proportion of children in each age group whose vaccination cards were shown to the interviewer is also indicated.

For all children age 12-59 months, 92 percent received the BCG vaccine before age 12 months, 77 percent the third dose of Penta, and 61 percent the third dose of polio. In addition, 71 percent were vaccinated against measles, and 47 percent were vaccinated against all EPI diseases before age 12 months. In contrast, 6 percent of children age 1-4 years did not receive any of these vaccines.

By looking at the table, an improvement in immunization coverage of children over time can be identified. The proportion of children who are fully immunized increases from 42 percent among children age 48-59 months at the time of the survey to 55 percent among children age 12-23 months. The same trend is observed regardless of the antigen in question.

For all children age 12-59 months, however, a vaccination card was shown to the interviewer in only 51 percent of cases. Analysis by age group suggests a lesser emphasis on keeping the vaccination card as the child grows older. The proportion of children for whom a vaccination card was shown decreases rapidly as the child's age increases, from 66 percent for children age 12-23 months at the time of the survey to 53 percent for children age 24-35 months, 44 percent at 36-47 months, and 38 percent at 48-59 months.

Table 10.4 Vaccinations in the first year of life

Percentage of children age 12-59 months at the time of the survey who received specific vaccines by 12 [18] months of age, and percentage with a vaccination card, by current age of child, EDS-MICS, Senegal 2010-11

Age in months	BCG	Penta 1	Penta 2	Penta 3	Polio 0[1]	Polio 1	Polio 2	Polio 3	Measles	All basic vaccina-tions[2]	No vaccina-tions	Percentage with a vaccination card seen	Number of children
12-23	93.3	93.0	89.4	80.3	77.7	93.7	89.2	70.4	71.1	54.5	4.5	66.4	2,199
24-35	93.0	90.8	86.7	76.4	75.2	92.0	86.4	62.0	71.7	47.9	4.8	53.0	2,195
36-47	90.8	89.0	84.4	73.4	70.3	89.2	82.8	52.3	67.5	40.5	8.0	43.7	2,234
48-59	91.5	90.8	85.9	76.9	69.3	91.5	85.8	56.2	70.0	42.0	5.4	38.4	1,963
Total	92.4	91.1	86.9	77.3	73.3	91.8	86.4	60.6	70.9	46.8	5.5	50.7	8,590

Note: Information was obtained from the vaccination card or, if there was no written record, from the mother. For children whose information is based on the mother's report, the proportion of vaccinations given during the first year of life is assumed to be the same as for children with a written record of vaccinations.
[1] Polio 0 is the polio vaccination given at birth.
[2] BCG, measles, and three doses each of DPT and polio vaccine (excluding polio vaccine given at birth).

10.3 CHILDHOOD DISEASES

10.3.1 Prevalence and Treatment of Acute Respiratory Infections

Acute respiratory infections (ARIs), especially pneumonia, are among the leading causes of child mortality in developing countries. To assess the prevalence of these infections among children, mothers were asked whether their children had a cough during the two weeks preceding the survey, and if so, they were asked if the cough was accompanied by short and rapid breathing, symptoms of acute respiratory infection (ARI).

In addition, mothers of children who had these symptoms of ARI were asked if they had taken the children for a consultation, where the consultation took place, and what treatment had been given.

Among childen under age 5, 5 percent had a cough accompanied by short and rapid breathing in the two weeks preceding the survey (Table 10.5). These respiratory infections were most common among children under age 12 months (7 percent) (Figure 10.3). Only a slight difference was noted between the percentages of boys and girls who had had a cough (respectively, 6 percent and 5 percent). In addition, the prevalence of ARI was more common in urban than in rural areas (respectively, 7 percent and 4 percent). Regional differences are particularly significant; Dakar (10 percent), Kédougou (8 percent), Saint-Louis (6 percent), and Matam (6 percent) are the regions with the highest prevalence of ARI. In contrast, the regions of Sédhiou (3 percent), Tambacounda (3 percent), and Ziguinchor (3 percent), have the lowest proportions of children who had ARI in the two weeks preceding the survey. This high prevalence of fever in urban areas and in the Dakar region is found among the richest households (8 percent versus 5 percent for the poorest); wealthier households are most likely to be found in urban areas such as Dakar.

Finally, Table 10.5 shows that among children who had symptoms of acute respiratory infections, half (50 percent) were taken to a health facility or to a medical provider for treatment or advice. It was found that mothers are relatively quicker to seek treatment for children age 36 to 47 months (63 percent were given treatment) than for others. Children in urban areas, those living in the region of Dakar, those whose mothers are educated, and those in the richest households received appropriate care more often than others.

Table 10.5 Prevalence and treatment of symptoms of ARI

Among children under age 5, the percentage who had symptoms of acute respiratory infection (ARI) in the two weeks preceding the survey and among children with symptoms of ARI, the percentage for whom advice or treatment was sought from a health facility or provider and the percentage who received antibiotics as treatment, according to background characteristics, EDS-MICS, Senegal 2010-11

| | Among children under age 5: | | Among children under age 5 with symptoms of ARI: | |
Background characteristic	Percentage with symptoms of ARI[1]	Number of children	Percentage for whom advice or treatment was sought from a health facility or provider[2]	Number of children
Age in months				
<6	5.6	1,204	32.6	67
6-11	7.1	1,098	54.4	78
12-23	5.6	2,199	45.0	122
24-35	5.8	2,195	49.5	128
36-47	5.4	2,234	63.0	121
48-59	3.7	1,963	48.3	72
Sex				
Male	6.0	5,573	51.5	332
Female	4.8	5,321	47.8	256
Cooking fuel				
Electricity or gas	8.3	2,708	64.7	226
Charcoal	5.6	1,180	35.8	66
Wood/straw[3]	4.1	6,760	42.3	280
Animal dung	6.5	231	*	15
Other fuel	*	14	*	2
Residence				
Urban	7.3	4,239	60.5	310
Rural	4.2	6,654	38.1	278
Region				
Dakar	10.2	2,204	64.1	225
Ziguinchor	3.3	349	*	12
Diourbel	4.9	1,329	(40.7)	65
Saint-Louis	6.0	716	(44.6)	43
Tambacounda	3.0	596	(53.3)	18
Kaolack	3.7	948	(26.7)	35
Thies	3.5	1,324	(33.9)	47
Louga	4.0	752	(51.7)	30
Fatick	4.8	623	(52.6)	30
Kolda	3.5	596	(42.9)	21
Matam	6.0	466	(25.4)	28
Kaffrine	3.5	500	(39.9)	18
Kedougou	7.5	100	(42.4)	7
Sedhiou	2.7	390	(47.6)	11
Education				
No education	4.7	7,705	43.1	360
Primary	7.5	2,262	56.5	170
Secondary	6.4	927	(72.4)	59
Wealth quintile				
Lowest	4.7	2,468	32.1	115
Second	3.1	2,393	38.4	74
Middle	4.9	2,114	55.9	105
Fourth	7.3	2,126	47.5	156
Highest	7.8	1,793	69.0	140
Total	5.4	10,893	49.9	589

[1] Symptoms of ARI (cough accompanied by short, rapid breathing which was chest-related and/or by difficult breathing which was chest-related) is considered a proxy for pneumonia
[2] Excludes pharmacy, shop, and traditional practitioner
[3] Includes grass, shrubs, crop residues
( ) Based on 25-49 unweighted cases ; * Based on less than 25 unweighted cases..

Figure 10.3
Prevalence of ARI, fever, and diarrhea by age

Percentage

⊞ ARI   ■ Fever   ⊘ Diarrhea
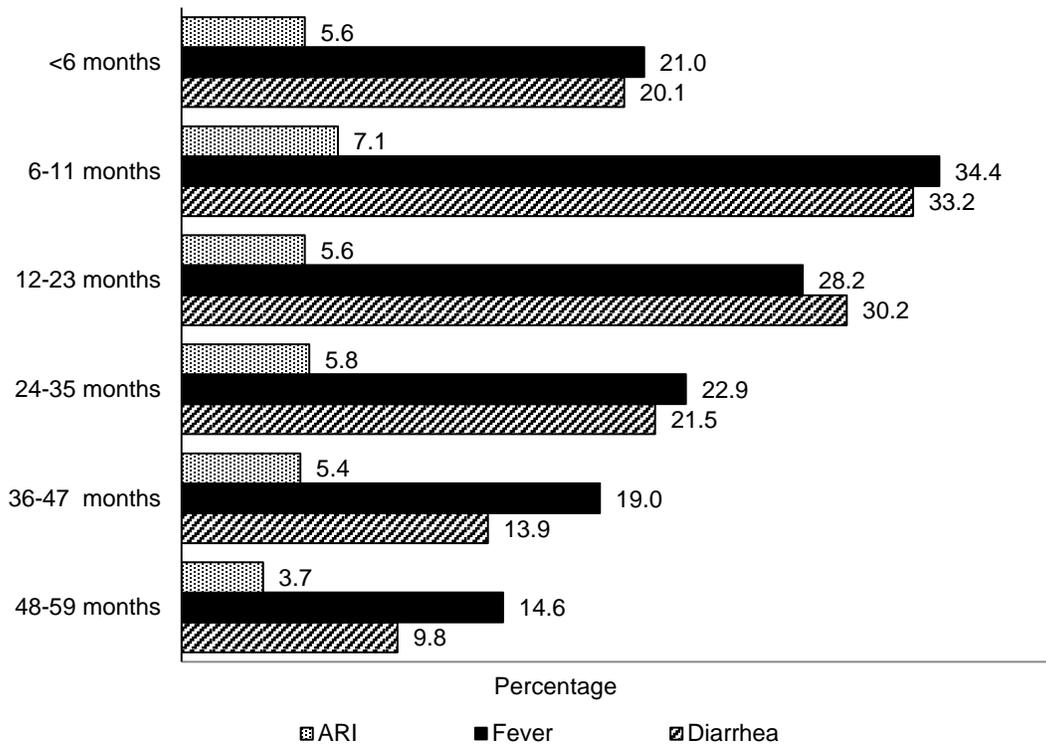
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10.3.2 Prevalence and treatment of fever

Table 10.6 shows that 23 percent of children under age 5 had a fever in the two weeks preceding the survey. Children age 6-11 months were the most likely to have a fever (34 percent compared with 15 percent of children age 48-59 months) (Figure 10.3). Boys are slightly more affected than girls (24 percent versus 21 percent). There is a significant disparity in the prevalence of fever by place of residence: 29 percent in urban areas compared with 19 percent in rural areas. Cases of fever are more common in the region of Dakar (36 percent) and in the northern regions (Saint-Louis and Louga), with proportions of more than 20 percent, in contrast to the regions of Kaffrine and Ziguinchor, with less than 15 percent.

Overall among children with fever, in 43 percent of cases treatment was sought at a health facility or from a health provider. Among these cases, only 8 percent took antimalarial drugs and 26 percent took antibiotics.

Table 10.6 Prevalence and treatment of fever

Among children under age 5, the percentage who had a fever in the two weeks preceding the survey and among children with fever, the percentage for whom advice or treatment was sought from a health facility or provider, the percentage who took antimalarial drugs, and the percentage who received antibiotics as treatment, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Among children under age 5:		Among children under age 5 with fever			
	Percentage with fever	Number of children	Percentage for whom advice or treatment was sought from a health facility or provider[1]	Percentage who took antimalarial drugs	Percentage who took antibiotic drugs	Number of children
Age in months						
<6	21.0	1,204	39.6	5.7	25.5	252
6-11	34.4	1,098	39.5	5.9	22.4	378
12-23	28.2	2,199	40.5	6.8	26.2	620
24-35	22.9	2,195	46.9	10.6	29.5	502
36-47	19.0	2,234	49.0	11.6	25.6	424
48-59	14.6	1,963	42.1	7.4	26.8	287
Sex						
Male	23.9	5,573	43.8	9.3	26.1	1,332
Female	21.3	5,321	42.5	7.0	26.3	1,131
Residence						
Urban	28.6	4,239	49.6	10.2	31.2	1,211
Rural	18.8	6,654	37.0	6.3	21.3	1,252
Region						
Dakar	36.3	2,204	52.1	11.9	32.0	800
Ziguinchor	12.6	349	60.9	11.1	40.6	44
Diourbel	22.3	1,329	34.6	5.1	16.1	297
Saint-Louis	26.0	716	46.5	7.9	24.6	187
Tambacounda	14.3	596	46.7	19.9	19.2	85
Kaolack	17.9	948	35.6	1.8	11.5	170
Thies	15.1	1,324	42.0	4.9	29.1	200
Louga	24.9	752	40.5	5.7	28.3	187
Fatick	20.2	623	37.1	5.1	32.0	126
Kolda	20.3	596	34.2	7.9	30.7	121
Matam	20.2	466	30.9	6.4	17.8	94
Kaffrine	11.4	500	31.9	6.1	27.2	57
Kedougou	21.5	100	52.4	2.4	8.2	21
Sedhiou	18.6	390	33.3	8.1	24.9	73
Education						
No education	21.1	7,705	39.6	7.2	23.4	1,628
Primary	26.1	2,262	48.0	10.2	31.9	590
Secondary	26.5	927	55.5	10.2	30.8	245
Wealth quintile						
Lowest	19.9	2,468	30.0	5.5	16.8	490
Second	16.3	2,393	39.5	7.3	24.1	390
Middle	20.3	2,114	47.1	8.5	27.8	430
Fourth	29.4	2,126	42.9	7.6	28.2	626
Highest	29.4	1,793	55.4	11.9	32.7	528
Total	22.6	10,893	43.2	8.2	26.2	2,463

[1] Excludes pharmacy, shop, and traditional practitioner.

10.3.3 Prevalence and Treatment of Diarrhea

Prevalence of diarrhea

Because of their consequences, especially dehydration and malnutrition, diarrheal diseases, directly or indirectly, are among the leading causes of death among young children in developing countries. To combat the effects of dehydration, WHO recommends widespread treatment with oral rehydration therapy (ORT), by advising the use of either a prepared solution from the contents of packets of oral rehydration salts (ORS) or a solution prepared at home with water, sugar, and salt.

During the survey, mothers were asked if their children had had diarrhea during the two weeks preceding the survey, in order to measure the prevalence of diarrheal diseases among children under age 5. With regard to treatment for diarrhea, mothers were asked if they knew about ORS and if they had used ORT during episodes of diarrhea.

Table 10.7 shows that about one child in every five under age 5 (21 percent) had diarrhea during the two weeks preceding the survey. The prevalence of diarrhea is particularly high among young children age 6-23 months (at between 30 and 33 percent). These ages of high prevalence are also the ages when children begin to receive food other than breastmilk and start to be weaned. They also correspond to the ages when children begin to explore their surroundings, exposing them to further contamination from pathogens (Figure 10.3).

There are significant variations by selected background characteristics. Place of residence shows a slight difference in the prevalence of diarrhea, varying from 23 percent in urban areas to 19 percent in rural areas. In contrast, disparities among the regions are more pronounced: the regions of Kédougou and Ziguinchor, with a prevalence of about 12 percent, and the regions of Dakar and Kolda with a prevalence of 27 percent are at the two extremes (Figure 10.4).

Table 10.7 Prevalence of diarrhea

Percentage of children under age 5 who had diarrhea in the two weeks preceding the survey, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Diarrhea in the two weeks preceding the survey :		Number of children
	All diarrhea	Diarrhea with blood	
Age in months			
<6	20.1	1.1	1,204
6-11	33.2	2.4	1,098
12-23	30.2	2.7	2,199
24-35	21.5	2.8	2,195
36-47	13.9	1.5	2,234
48-59	9.8	1.3	1,963
Sex			
Male	21.2	2.1	5,573
Female	20.0	2.0	5,321
Source of drinking water[1]			
Improved	21.1	1.9	8,274
Not improved	19.3	2.5	2,539
Other/missing	14.9	0.6	80
Toilet facility[2]			
Improved, not shared	21.6	1.9	4,581
Non-improved	19.9	2.1	6,312
Residence			
Urban	23.1	2.0	4,239
Rural	19.1	2.0	6,654
Region			
Dakar	27.0	2.7	2,204
Ziguinchor	11.1	1.2	349
Diourbel	21.3	0.6	1,329
Saint-Louis	21.3	1.5	716
Tambacounda	19.1	2.1	596
Kaolack	18.5	1.4	948
Thies	17.7	1.8	1,324
Louga	14.4	1.4	752
Fatick	21.5	2.2	623
Kolda	26.2	4.9	596
Matam	17.6	1.8	466
Kaffrine	15.4	1.8	500
Kedougou	12.1	2.0	100
Sedhiou	21.0	3.5	390
Education			
No education	20.3	2.2	7,705
Primary	22.6	1.8	2,262
Secondary	18.1	0.7	927
Wealth quintile			
Lowest	20.3	2.7	2,468
Second	18.3	1.6	2,393
Middle	19.4	1.8	2,114
Fourth	25.8	2.3	2,126
Highest	19.5	1.6	1,793
Total	20.6	2.0	10,893

[1] See Table 2.1 for definition of categories.
[2] See Table 2.2 for definition of categories.

Regarding the level of education of women, children whose mothers have a secondary level or higher have a lower prevalence of diarrhea than others (18 percent versus 20 percent for those whose mothers have no education and 23 percent for those whose mothers have a primary level). There is no evidence of significant differences in prevalence based on the household wealth index.

Figure 10.4
Prevalence of diarrhea by region

Percentage
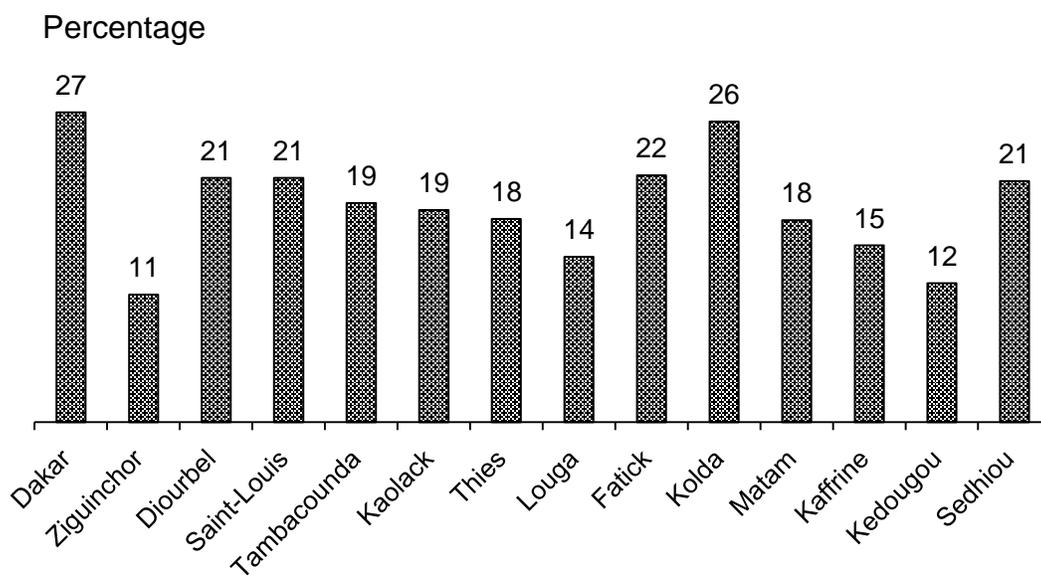
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Knowledge about ORS

Among women with a live birth in the five years preceding the survey, 59 percent said they knew about oral rehydration salts or ORS (Table 10.8). The level of knowledge of ORS is quite variable depending on the background characteristics of the mothers. It is the same in rural and urban areas (59 percent). The level of knowledge of ORS is highest in the regions of Sédhiou (79 percent), Thiès (76 percent), Kaolack (75 percent), and Ziguinchor (73 percent). In addition, educated women have a higher level of knowledge of ORS, especially as the level of education rises: 67 percent for women with a secondary level and more compared with 58 percent for women with no education. According to the household wealth index, women's knowledge about ORS rises from 51 percent in the poorest households to 59 percent in the richest.

Treatment of diarrhea

During the survey, mothers whose children had diarrhea during the two weeks preceding the survey were asked what treatments they used during episodes of diarrhea.

Table 10.9 shows that among children with diarrhea in the two weeks preceding the survey, only 35 percent were taken to a health facility during their illness. Children age 36-47 months were more likely to receive care in a health facility (40 percent), while children under age 6 months were the least likely (24 percent). By contrast, children in urban areas were given the same frequency of treatment as children in rural areas, at 35 percent. By region, in Ziguinchor, Sédhiou, Fatick, Saint-Louis, and Kédougou, about 41 percent of sick children received care; in contrast, in Diourbel, Kolda, and Matam the proportions do not exceed 28 percent. The results according to the level of education of the mother reveal differences: the proportion of children who received care during their episode of diarrhea ranges from 32 percent for those whose mothers are not educated to 54 percent for those whose mothers have at least a secondary level of education.

Table 10.8 Knowledge of ORS packets or pre-packaged liquids

Percentage of women age 15-49 with a live birth in the five years preceding the survey who know about ORS packets or ORS pre-packaged liquids for treatment of diarrhea by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage of women who know about ORS packets or ORS pre-packaged liquids	Number of women
Age group		
15-19	38.5	529
20-24	51.2	1,659
25-34	60.6	3,531
35-49	69.7	1,971
Residence		
Urban	59.4	3,182
Rural	59.4	4,508
Region		
Dakar	52.7	1,674
Ziguinchor	72.6	250
Diourbel	45.4	905
Saint-Louis	52.8	495
Tambacounda	52.7	418
Kaolack	74.6	625
Thies	76.1	958
Louga	55.9	525
Fatick	61.4	397
Kolda	62.8	427
Matam	51.4	322
Kaffrine	54.5	342
Kedougou	53.5	73
Sedhiou	78.6	279
Education		
No education	57.9	5,289
Primary	60.9	1,647
Secondary	66.7	754
Wealth quintile		
Lowest	51.3	1,672
Second	65.1	1,600
Middle	63.5	1,492
Fourth	59.1	1,552
Highest	58.5	1,375
Total	59.4	7,690

ORS = Oral Rehydratation Salts

Table 10.9 Diarrhea treatment

Among children under age 5 who had diarrhea in the two weeks preceding the survey, the percentage for whom advice or treatment was sought from a health facility or provider, the percentage given oral rehydration therapy (ORT), the percentage given increased fluids, the percentage given ORT or increased fluids, and the percentage given other treatments, by background characteristics, EDS-MICS, Senegal 2010-11]

Background characteristic	Percentage of children with diarrhea for whom advice or treatment was sought from a health facility or provider[1]	Oral rehydration therapy (ORT			Increased fluids	ORT or increased fluids	Other treatments					Missing	No treatment	Number of children with diarrhea
		Fluid from ORS packet or pre-packaged ORS fluid	Recom-mended home fluids (RHF)	Either ORS or RHF			Anti-biotic drugs	Anti-motility drugs	Zinc supple-ments	Intra-venous solution	Home remedy/ other			
Age in months														
<6	24.2	10.0	5.5	12.8	21.0	31.3	16.8	0.4	0.3	0.0	20.8	0.0	48.4	
6-11	32.4	20.9	7.4	24.5	31.1	46.8	19.9	0.2	0.4	0.0	28.3	0.0	28.7	
12-23	38.1	25.0	6.2	27.8	44.4	59.2	23.7	1.2	0.3	0.2	29.0	0.0	21.5	664
24-35	36.5	23.8	10.4	29.4	45.9	59.5	23.0	0.7	0.0	0.4	35.0	0.0	20.0	471
36-47	40.3	26.7	10.5	33.1	42.0	57.7	22.5	2.6	0.4	0.0	27.3	0.2	21.7	311
48-59	26.7	21.4	6.1	24.9	37.3	55.0	8.9	2.8	0.0	0.0	25.0	0.0	30.0	192
Sex														
Male	35.6	22.8	8.4	27.1	38.5	52.5	23.2	0.8	0.3	0.1	28.6	0.1	26.9	1,180
Female	33.7	22.0	7.1	25.9	39.7	55.0	18.0	1.5	0.2	0.2	28.8	0.0	25.0	1,066
Type of diarrhea[2]														
Non-bloody	33.5	21.7	7.2	25.5	38.8	52.8	20.9	1.3	0.3	0.1	27.9	0.0	27.0	2,019
Bloody	44.8	29.1	12.8	35.7	42.5	62.4	20.0	0.3	0.0	0.2	35.5	0.0	17.0	219
Residence														
Urban	34.8	24.4	9.3	28.8	44.0	58.0	22.9	1.6	0.1	0.0	26.3	0.0	23.4	978
Rural	34.6	20.9	6.6	24.7	35.3	50.3	19.1	0.8	0.4	0.2	30.5	0.1	28.0	1,268
Region														
Dakar	32.3	26.6	10.0	30.9	46.9	61.3	21.5	1.6	0.0	0.0	24.9	0.0	21.3	596
Ziguinchor	45.1	35.5	8.9	38.3	31.4	57.7	20.7	4.8	0.0	0.0	33.4	0.0	24.6	39
Diourbel	27.1	10.3	7.0	17.0	35.3	45.4	13.9	2.9	0.6	0.6	23.7	0.0	36.9	284
Saint-Louis	40.8	24.3	11.8	31.7	41.0	56.4	28.2	0.6	0.0	0.6	27.0	0.0	24.1	152
Tambacounda	41.2	26.4	8.0	30.5	38.1	57.6	37.0	1.7	1.1	0.0	25.1	0.6	23.5	114
Kaolack	37.1	19.2	6.6	21.4	53.4	64.6	28.6	0.0	0.0	0.0	39.1	0.0	14.2	175
Thies	38.8	25.5	5.2	27.9	21.2	42.3	14.4	0.0	0.0	0.0	25.9	0.0	33.9	235
Louga	37.0	22.8	7.0	26.3	40.4	56.7	15.8	0.6	0.7	0.0	22.6	0.0	27.5	108
Fatick	40.5	25.2	5.3	28.8	47.5	60.8	18.5	0.5	0.5	0.0	37.1	0.0	16.6	134
Kolda	28.4	20.1	6.9	22.9	31.6	44.1	19.9	0.0	0.0	0.0	38.3	0.0	27.0	156
Matam	26.5	20.1	5.0	20.6	27.0	42.2	13.3	0.0	0.1	0.0	25.6	0.0	43.8	82
Kaffrine	35.3	17.2	9.7	23.1	31.1	45.9	16.8	0.0	0.0	0.7	29.1	0.0	32.5	77
Kedougou	(40.4)	(21.0)	(9.8)	(29.3)	(32.5)	(46.5)	(9.2)	(1.5)	(0.0)	(0.0)	(39.7)	(0.0)	(27.7)	12
Sedhiou	41.8	23.5	3.8	24.9	36.8	45.9	28.8	2.2	1.1	0.0	41.8	0.0	19.9	82
Education														
No education	31.7	19.5	7.4	23.8	35.4	49.8	18.2	0.7	0.2	0.2	29.2	0.0	28.6	1,567
Primary	37.4	26.8	7.7	29.8	50.5	62.4	26.1	1.8	0.4	0.0	25.8	0.0	21.1	511
Secondary	54.0	35.9	12.3	41.6	39.0	63.0	28.7	3.1	0.0	0.0	33.1	0.0	16.6	168
Wealth quintile														
Lowest	30.7	20.5	7.0	24.7	36.3	52.1	19.9	0.4	0.3	0.3	32.1	0.0	26.5	501
Second	35.4	19.4	6.1	22.2	32.3	45.4	20.3	0.9	0.5	0.0	32.3	0.2	28.0	437
Middle	37.0	21.4	9.3	26.9	42.1	54.3	23.0	0.5	0.2	0.4	29.3	0.0	25.7	411
Fourth	31.3	21.9	6.6	25.1	44.7	56.6	22.0	1.1	0.0	0.0	20.3	0.0	29.0	548
Highest	42.2	30.7	11.3	36.2	39.2	60.9	18.0	3.5	0.2	0.0	31.7	0.0	18.3	349
Total	34.7	22.4	7.8	26.5	39.1	53.7	20.8	1.2	0.2	0.1	28.7	0.0	26.0	2,246

Note: ORT includes fluid prepared from oral rehydration salt (ORS) packets, pre-packaged ORS fluid, and recommended home fluids (RHF).
[1] Excludes pharmacy, shop, and traditional practitioner .
[2] Eight cases are missing for this category.
( ) Based on 25-49 unweighted cases.

Only 22 percent of children who had diarrhea received treatment with oral rehydration salts (ORS packet or liquids); in 8 percent of cases, recommended home fluids (RHF), a salt and sugar solution prepared at home, was used; overall, 27 percent of children who had diarrhea received oral rehydration therapy (ORT)— either ORS, RHF, or both. For nearly four in every ten children (39 percent), their amount of liquids was increased. Overall, in more than half of cases (54 percent), sick children were treated with either ORS or a homemade solution, or they were given additional quantities of liquid. For some children who had an episode of diarrhea in the past two weeks, parents used other remedies. Of these, capsules or syrups (21 percent) and various remedies administered at home (29 percent) were most used. Infusions and injections were used rarely (less than 1 percent). Finally, despite the risks than can cause diarrhea, it should be noted that a large number of children did not receive any treatment during their illness (26 percent).

Socioeconomic differences in the management of diarrhea are sometimes important. Children in urban areas are more likely to be taken to a health facility and receive ORT. However, the percentage of children who were treated with an ORS solution, a homemade solution, or who were given more liquids than usual is hardly different in cities compared with the countryside (respectively, 58 percent and 50 percent). The use of capsules and syrups is more common in urban areas (23 percent) than in rural areas (19 percent).

By level of education, the results show that the gap between educated women and uneducated women is small with regard to the use of a solution of sugar and salt water, an ORT in general, and an increase in the intake of various liquids.

Finally, the well-off (fourth and fifth wealth quintiles) are relatively more likely to take their children to a health facility or to use ORS. However, the practices of increasing children's intake of liquids (including ORT) or using capsules or syrups to treat diarrhea vary little with the level of household wealth.

Feeding during diarrhea

During episodes of diarrhea, it is recommended that more fluids and food be given to the child. Table 10.10 shows that 39 percent of children with diarrhea received more fluids than usual, 38 percent received the same amount, while 16 percent were given a little less, and 5 percent much less. With regard to food, in only 8 percent of cases was the amount of food increased, in 40 percent of cases it was not changed, and in 33 percent of cases the amount given was slightly less. Also, in 8 percent of cases food was greatly reduced, and even stopped in about 4 percent of cases. These results show that a majority of women do not follow the basic principles of nutrition for children during episodes of diarrhea.

Table 10.10 also shows that only 30 percent of children with diarrhea received increased fluids and continued to be fed, as recommended. In the regions of Thiès, Matam, and Kédougou, the proportions are less than 20 percent.

In addition, 42 percent of children continued to be fed, were treated with ORT, and/or were given extra fluids. Proportions are higher than 50 percent among children age 24-47 months, children from the region of Tambacounda, children whose mothers have a secondary level of education or more, and children in households in the richest quintile.

Table 10.10 Feeding practices during diarrhea

Percent distribution of children under age 5 who had diarrhea in the two weeks preceding the survey by amount of liquids and food offered compared with normal practice, the percentage of children given increased fluids and continued feeding during the diarrhea episode, and the percentage of children who continued feeding and were given ORT and/or increased fluids during the episode of diarrhea, by background characteristics EDS-MICS, Senegal 2010-11

Background characteristic	Amount of liquids given							Amount of food given								Percentage given increased fluids and continued feeding[1]	Percentage who continued feeding and were given ORT and/or increased fluids1	Number of children with diarrhea
	More	Same as usual	Some-what less	Much less	None	Don't know	Total	More	Same as usual	Some-what less	Much less	None	Don't know	More	Total			
Age in months																		
<6	21.0	53.4	11.5	3.8	10.2	0.0	100.0	5.8	28.8	12.5	1.5	0.5	50.8	0.0	100.0	9.4	13.1	242
6-11	31.1	46.2	18.1	4.0	0.5	0.2	100.0	6.0	38.6	30.2	7.6	6.1	11.5	0.0	100.0	21.2	32.2	365
12-23	44.4	33.9	16.1	5.3	0.4	0.0	100.0	6.8	39.9	36.3	9.8	7.0	0.3	0.0	100.0	32.9	45.8	664
24-35	45.9	33.1	14.6	5.5	1.0	0.0	100.0	12.7	43.2	33.9	7.7	2.4	0.2	0.0	100.0	40.2	51.5	471
36-47	42.0	30.4	19.3	5.5	0.0	2.7	100.0	9.9	39.6	37.9	7.2	3.7	0.0	1.6	100.0	35.7	50.4	311
48-59	37.3	38.3	16.5	5.9	0.0	2.1	100.0	4.7	43.6	40.1	7.6	2.9	0.0	1.1	100.0	32.6	48.4	192
Sex																		
Male	38.5	38.5	16.5	4.9	1.1	0.5	100.0	8.4	41.3	30.1	7.4	4.7	8.0	0.1	100.0	29.8	41.1	1,180
Female	39.7	36.9	15.6	5.2	1.9	0.7	100.0	7.6	37.4	35.7	7.8	4.0	6.9	0.5	100.0	30.9	43.3	1,066
Type of diarrhea[2]																		
Non-bloody	38.8	39.8	15.1	4.4	1.5	0.4	100.0	8.2	40.9	31.7	7.3	4.2	7.4	0.2	100.0	30.0	41.9	2,019
Bloody	42.5	19.7	25.8	10.3	1.2	0.5	100.0	6.8	27.3	43.1	9.4	5.3	8.2	0.0	100.0	33.8	45.4	219
Residence																		
Urban	44.0	34.3	13.4	6.3	1.2	0.9	100.0	8.6	35.0	33.4	10.7	4.6	7.1	0.6	100.0	33.5	44.0	978
Rural	35.3	40.4	18.1	4.1	1.7	0.4	100.0	7.6	42.9	32.3	5.1	4.2	7.7	0.1	100.0	27.9	40.7	1,268
Region																		
Dakar	46.9	34.8	9.2	7.5	0.6	1.0	100.0	9.3	34.3	32.1	13.8	3.3	6.3	0.8	100.0	35.7	45.7	596
Ziguinchor	31.4	40.9	15.7	3.6	6.7	1.7	100.0	7.2	35.8	34.3	3.6	9.5	9.6	0.0	100.0	25.9	42.3	39
Diourbel	35.3	45.8	15.8	1.2	1.4	0.5	100.0	5.0	47.1	36.9	1.7	2.0	7.3	0.0	100.0	31.0	41.1	284
Saint-Louis	41.0	26.8	21.9	6.5	3.4	0.4	100.0	12.7	25.5	35.1	8.0	10.7	7.7	0.3	100.0	29.3	40.2	152
Tambacounda	38.1	29.2	21.5	9.3	1.9	0.0	100.0	11.8	46.6	31.8	3.3	0.6	5.8	0.0	100.0	36.2	52.5	114
Kaolack	53.4	32.8	10.1	1.4	0.9	1.5	100.0	5.3	42.8	23.0	6.5	6.2	15.8	0.5	100.0	36.8	45.3	175
Thies	21.2	38.0	30.9	8.6	1.3	0.0	100.0	3.2	41.9	41.7	6.8	2.4	4.0	0.0	100.0	18.7	38.0	235
Louga	40.4	38.8	13.5	4.9	1.5	0.9	100.0	7.3	45.2	34.1	5.7	2.4	5.2	0.0	100.0	33.5	49.9	108
Fatick	47.5	31.2	18.5	2.0	0.8	0.0	100.0	13.1	32.7	27.0	5.4	12.4	9.4	0.0	100.0	30.8	41.4	134
Kolda	31.6	45.3	15.7	5.4	2.1	0.0	100.0	11.5	42.6	30.6	7.0	3.9	4.5	0.0	100.0	24.6	35.6	156
Matam	27.0	50.4	16.9	1.9	2.9	1.0	100.0	5.4	48.8	25.0	7.5	4.0	8.3	1.0	100.0	19.7	30.8	82
Kaffrine	31.1	48.9	17.9	2.0	0.0	0.0	100.0	4.1	36.1	36.4	4.5	2.1	16.7	0.0	100.0	22.9	35.0	77
Kedougou	(32.5)	(32.0)	(34.6)	(1.0)	(0.0)	(0.0)	100.0	(7.8)	(24.3)	(38.6)	(6.8)	16.4)	(6.2)	(0.0)	100.0	(19.3)	(27.1)	12
Sedhiou	36.8	44.3	14.3	1.0	3.5	0.0	100.0	8.2	48.0	30.2	4.1	4.0	5.4	0.0	100.0	30.4	38.3	82
Education																		
No education	35.4	40.1	17.4	5.1	1.4	0.6	100.0	6.3	41.1	32.6	7.0	4.3	8.5	0.2	100.0	27.1	38.8	1,567
Primary	50.5	30.3	11.5	6.0	1.0	0.7	100.0	12.1	34.1	34.3	9.1	4.6	5.0	0.7	100.0	39.9	49.9	511
Secondary	39.0	38.0	18.1	1.5	3.4	0.0	100.0	11.6	40.9	29.3	8.5	4.4	5.2	0.0	100.0	31.5	50.0	168
Wealth quintile																		
Lowest	36.3	39.7	17.7	4.1	1.9	0.3	100.0	8.3	42.4	29.8	6.9	5.4	7.2	0.2	100.0	27.8	40.9	501
Second	32.3	42.3	17.8	5.0	2.2	0.4	100.0	6.9	42.4	31.2	4.4	3.2	11.9	0.0	100.0	25.0	35.8	437
Middle	42.1	33.5	18.2	4.7	0.9	0.5	100.0	5.7	44.5	32.4	6.1	5.7	5.5	0.1	100.0	33.6	44.0	411
Fourth	44.7	34.5	13.2	6.3	0.5	0.9	100.0	8.3	33.3	33.1	11.0	5.4	7.9	1.0	100.0	31.8	39.5	548
Highest	39.2	39.3	13.6	4.9	2.1	0.8	100.0	11.5	35.5	38.9	8.9	1.2	4.0	0.0	100.0	34.6	53.9	349
Total	39.1	37.7	16.1	5.0	1.5	0.6	100.0	8.0	39.5	32.8	7.6	4.4	7.5	0.3	100.0	30.4	42.1	2,246

Note: It is recommended that children should be given more liquids to drink during diarrhea and food should not be reduced.
[1] Continued feeding includes children who were given more, same as usual, or somewhat less food during the diarrhea episode.
[2] Seven unweighted cases are missing for this category.
( ) Based on 25-49 unweighted cases.

10.4 DISPOSAL OF CHILDREN'S STOOLS

Table 10.11 shows the distribution of the youngest children under age 5 living with their mother, by the manner of disposing of the children's most recent feces, and the percentages of children whose stools were disposed of hygienically, according to selected background characteristics. First, in 62 percent of cases, the mothers said that they put the feces into toilets or latrines. This proportion is higher in urban than in rural areas (78 percent versus 51 percent). Educated women are more likely to dispose of children's feces in toilets or latrines than those with no education (58 percent versus 71 percent). Similarly, results show that in the poorest households use of toilets and latrines is least common (30 percent versus 76 percent in rich households). In addition, in 20 percent of cases, the mothers reported that they disposed of children's stools by throwing them into the trash, while 5 percent put them into a ditch or drain, 4 percent left them in the open, and 2 percent buried them. Overall, results of the table show that 69 percent of women declared that children's stools were disposed of safely.

Table 10.11 Disposal of children's stools

Percent distribution of youngest children under age 5 living with the mother by the manner of disposal of the child's last fecal matter, and percentage of children whose stools are disposed of safely, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Manner of disposal of children's stools								Percentage of children whose stools are disposed of safely[1]	Number of children
	Child used toilet or latrine	Put/rinsed into toilet or latrine	Buried	Put/rinsed into drain or ditch	Thrown into garbage	Left in the open	Other	Total		
Age in months										
<6	1.1	54.1	2.8	5.9	29.7	4.8	1.7	100.0	57.9	1,181
6-11	0.9	61.5	2.5	4.4	25.2	3.8	1.7	100.0	64.9	1,069
12-23	2.0	64.8	2.6	5.0	20.7	3.6	1.4	100.0	69.4	2,086
24-35	2.8	67.5	2.3	3.8	17.2	4.6	1.8	100.0	72.6	1,525
36-47	12.9	60.0	2.2	5.5	11.8	5.4	2.2	100.0	75.0	900
48-59	19.2	59.2	1.7	4.8	7.8	4.0	3.3	100.0	80.2	576
Toilet facility[2]										
Improved, not shared	5.7	77.8	0.3	6.8	8.3	0.9	0.3	100.0	83.8	3,166
Non-improved	3.7	50.2	4.1	3.4	28.8	6.8	3.0	100.0	58.0	4,172
Residence										
Urban	6.4	78.3	0.2	5.3	9.0	0.5	0.3	100.0	84.9	3,006
Rural	3.3	50.9	4.0	4.5	27.6	6.9	2.8	100.0	58.2	4,332
Region										
Dakar	8.6	79.2	0.3	3.4	8.5	0.1	0.0	100.0	88.1	1,572
Ziguinchor	3.5	75.7	2.4	7.3	9.8	1.3	0.0	100.0	81.5	232
Diourbel	2.9	76.4	1.2	0.5	16.1	2.2	0.7	100.0	80.5	871
Saint-Louis	3.0	59.2	4.1	4.0	18.1	7.1	4.4	100.0	66.4	472
Tambacounda	5.4	59.2	9.4	6.7	13.3	4.1	1.9	100.0	74.1	401
Kaolack	2.2	36.7	0.3	0.9	33.2	20.4	6.3	100.0	39.1	612
Thies	2.6	64.5	0.6	17.9	12.9	0.3	1.3	100.0	67.7	919
Louga	2.4	51.3	4.9	5.2	29.2	5.7	1.3	100.0	58.6	496
Fatick	2.0	42.7	6.2	0.4	42.0	3.3	3.4	100.0	50.9	385
Kolda	6.3	58.1	1.7	1.4	30.1	2.2	0.1	100.0	66.2	407
Matam	5.0	48.2	6.4	2.2	24.3	7.6	6.2	100.0	59.6	310
Kaffrine	4.2	45.2	3.6	4.8	31.7	9.5	1.2	100.0	52.9	328
Kédougou	2.0	46.6	2.1	2.8	32.6	7.2	6.9	100.0	50.6	68
Sédhiou	6.0	58.0	2.3	3.8	29.4	0.3	0.2	100.0	66.3	264
Education										
No education	3.8	58.0	3.1	4.8	22.6	5.5	2.3	100.0	64.9	5,045
Primary	4.8	71.0	1.2	5.4	14.6	2.1	1.0	100.0	76.9	1,570
Secondary	9.5	71.3	0.5	4.0	13.6	0.6	0.4	100.0	81.3	723
Wealth quintile										
Lowest	2.8	30.1	7.4	3.8	40.7	10.4	4.7	100.0	40.4	1,603
Second	3.5	49.3	3.2	4.4	29.5	7.1	2.9	100.0	56.0	1,538
Middle	3.1	75.2	0.6	7.1	11.2	2.2	0.6	100.0	78.9	1,428
Fourth	4.2	85.1	0.0	4.8	5.2	0.3	0.3	100.0	89.4	1,478
Highest	10.0	76.3	0.1	4.3	9.4	0.0	0.0	100.0	86.3	1,291
Total	4.6	62.1	2.4	4.9	20.0	4.3	1.8	100.0	69.1	7,338

[1] Children's stools are considered to be disposed of safely if the child used a toilet or latrine, if the fecal matter was put/rinsed into a toilet or latrine or if it was buried.
[2] See Table 2.2 for definition of categories.

BREASTFEEDING AND NUTRITIONAL STATUS **11**

Babou DIAHAM and Abdou GUEYE

Malnutrition is one of the major health problems affecting children in developing countries in general, and Senegal in particular. According to the WHO definition, malnutrition is characterized by a "pathological condition resulting from deficiency or excess, relative or absolute, of one or more essential nutrients; this condition is clinically manifest or detectable by biochemical, anthropometric or physiological analyses" (WHO, 1982). It results as much from an inadequate diet as from a deficient health environment, or both at the same time. Inadequate feeding practices refer not only to the quality and quantity of food given to children, but also the stages of its introduction.

Malnutrition includes both undernutrition and overnutrition. Malnutrition is caused by a continuously inadequate diet as it relates to nutritional needs, malabsorption, and/or insufficient biological use of nutrients consumed. It is generally characterized by a loss of body weight.

Overnutrition is a chronic state of food intake in excess of nutritional needs and generates overweight and/or obesity.

Nutritional status is measured by anthropometry using the new WHO standards that have replaced the NCHS standards (WHO, 2006).

This chapter focuses on the results of the EDS-MICS 2010-11 with regard to the feeding of children born in the five years preceding the survey, and on the nutritional status of children and adults. Breastfeeding practices and complementary foods make up the first part of this chapter. The second part, devoted to micronutrient deficiencies, focuses in particular on the prevalence of anemia among children and women; it also focuses on the consumption of foods rich in Vitamin A, iodized salt, supplementary iron, and Vitamin A supplements. The last section discusses results from anthropometric measurements (weight and height) of children and adults, which are used to assess their nutritional status.

11.1 BREASTFEEDING AND COMPLEMENTARY FEEDING

Feeding practices are the determinants of children's nutritional status, which in turn affects their morbidity and mortality. These practices include those of particular importance concerning breastfeeding. Breast milk is sterile and allows the transfer of passive immunity from the mother (a type of naturally acquired immunity transferred from mother to fetus through the placenta or from mother to child through colostrum) bringing in substances and cells, which through their direct and indirect actions contribute effectively to the prevention of infections (Bocquet et al., 2005). Breast milk contains all the nutrients needed by children in the first months of life and helps prevent nutritional deficiencies. In addition, the intensity and frequency of breastfeeding prolong postpartum infertility and consequently affect the birth interval, which in turn influences the level of fertility and, therefore, the health status of children and mothers.

Breastfeeding also has a positive effect on the health of the mother. It reduces the risk of postpartum infections, promotes weight loss during the first six months postpartum, and reduces the incidence of breast and ovarian cancer before menopause (Bocquet et al., 2005).

Given the importance of breastfeeding practices, the conclusions contained in the WHO report (2007) were used to study the indicators for evaluation of these practices. In order to do this, women were asked if they had breastfed their children born in the two years preceding the survey and, more specifically, how old the children were when they began breastfeeding them, how long they breastfed them, the frequency of breastfeeding, at what age complementary foods were introduced, what type of food was given, and finally, the frequency of feeding the children with the various types of food. Mothers were also asked if they used a bottle for feeding.

11.1.1 Breastfeeding

Initial breastfeeding

As recommended by UNICEF and WHO, all children should be initiated early to breastfeeding in the first hour after birth, then be exclusively breastfed until age 6 months, and finally, continue to receive breast milk until age 24 months and beyond.

Table 11.1 shows, on the one hand, the percentage of children born in the last 24 months who were breastfed and, on the other hand, among breastfed children, the percentage who were breastfed within one hour or within the day after birth, according to selected background characteristics.

Almost all children (97 percent) were breastfed. Breastfeeding is common regardless of the mother's characteristics but is somewhat more common among urban women, educated women, wealthier women, and women who gave birth in a health center or with the assistance of a health professional. The proportion of children who were breastfed has increased slightly since the DHS survey in 2005 (96 percent).

Among breastfed infants, 48 percent were breastfed within the first hour after birth, while 89 percent were breastfed the day after their birth. Although these proportions show a significant increase compared with 2005 (respectively, 23 percent and 80 percent), still more than half of children (52 percent) are not breastfed within one hour of birth, and more than one in ten (11 percent) do not receive breast milk in the first day after birth. In addition, more than half (53 percent) received something other than breast milk during the first three days of life. This behavior can be harmful and endanger the child's survival. It is during the first feedings in the initial 24 hours after birth that the child receives the colostrum that contains antibodies from the mother (passive immunity), which are essential for the child to resist many diseases.

Although breastfeeding is widely practiced by all categories of women, the time when breastfeeding starts varies somewhat depending on their background characteristics. The percentage of children breastfed within one hour after birth varies significantly by region: in the Kaolack region 18 percent of children received breast milk within the hour after birth; by contrast, in the regions of Sédhiou and Thiès these proportions are 63 percent and 75 percent, respectively. Regarding the percentage of children breastfed within 24 hours after birth, the table does not show significant differences; it can be noted that the lowest proportion is observed among children whose mothers were not assisted during delivery (86 percent), while the highest proportion is observed in the Thiès region (94 percent).

Table 11.1 Initial breastfeeding

Among last-born children who were born in the two years preceding the survey, the percentage who were ever breastfed and the percentages who started breastfeeding within one hour and within one day of birth; and among last-born children born in the two years preceding the survey who were ever breastfed, the percentage who received a prelacteal feed, by background characteristics, EDS-MICS, Senegal 2010-11

| | Among last-born children born in the past two years: | | | | Among last-born children born in the past two years who were ever breastfed | |
Background characteristic	Percentage ever breastfed	Percentage who started breastfeeding within one hour of birth	Percentage who started breastfeeding within one day of birth[1]	Number of last-born children	Percentage who received a prelacteal feed[2]	Number of last-born children ever breastfed
Sex						
Male	97.4	46.2	87.8	2,346	55.2	2,285
Female	97.7	49.8	89.9	2,163	51.8	2,113
Assistance at delivery						
Health personnel[3]	97.4	51.8	88.8	2,913	52.0	2,836
Traditional birth attendant	98.6	41.7	88.6	370	62.6	364
Other	98.0	39.3	89.6	1,006	55.2	986
No one	96.9	47.4	86.1	218	50.3	212
Don't know	*	*	*	2	*	0
Place of delivery						
Health facility	97.4	50.3	89.3	3,291	52.7	3,205
At home	98.3	42.2	87.8	1,198	55.5	1,177
Other	*	*	*	20	*	17
Residence						
Urban	98.0	50.5	87.6	1,695	51.8	1,662
Rural	97.3	46.5	89.6	2,814	54.6	2,737
Region						
Dakar	98.2	46.6	83.7	825	47.8	810
Ziguinchor	98.2	54.4	92.0	149	21.4	146
Diourbel	96.1	36.0	87.8	563	71.5	541
Saint-Louis	97.1	35.9	89.8	291	46.9	282
Tambacounda	98.2	50.9	85.8	246	44.0	241
Kaolack	98.0	18.3	88.3	412	78.0	404
Thies	97.2	75.0	94.1	577	56.8	560
Louga	97.7	57.8	90.8	311	61.9	304
Fatick	99.2	35.6	88.0	266	57.7	264
Kolda	96.0	53.6	89.2	248	35.0	238
Matam	96.6	55.8	88.8	186	48.1	179
Kaffrine	98.4	52.8	93.7	221	43.1	218
Keougou	98.1	50.7	81.6	43	41.1	42
Sedhiou	97.7	62.9	92.7	172	33.6	168
Education						
No education	97.5	48.3	89.3	3,159	55.7	3,080
Primary	98.0	48.0	88.6	981	50.1	961
Secondary or more	96.8	45.5	85.1	369	43.7	357
Wealth quintile						
Lowest	97.5	42.4	87.5	1,061	50.3	1,034
Second	97.7	48.0	90.2	1,020	53.8	997
Middle	97.1	49.6	90.1	865	55.3	840
Fourth	98.2	52.0	90.4	878	58.2	862
Highest	97.2	49.3	84.9	685	50.0	666
Total	97.5	48.0	88.8	4,509	53.5	4,398

Note: Table is based on last-born children born in the two years preceding the survey regardless of whether the children are living or dead at the time of interview.
[1] Includes children who started breastfeeding within one hour of birth.
[2] Children given something other than breast milk during the first three days of life.
[3] Doctor, nurse/midwife, or auxiliary nurse/midwife.
* Based on fewer than 25 unweighted cases.

Compared with the survey in 2005, the practice of breastfeeding has increased in Dakar (from 93 percent to 98 percent), Ziguinchor (from 96 percent to 98 percent), Kaolack (from 95 percent to 98 percent), and Fatick (from 97 percent to 99 percent); it is unchanged in Saint-Louis (97 percent), Tambacounda (98 percent), and Matam (97 percent); and finally, it has dropped in Diourbel (from 98 percent to 96 percent), Thiès (from 98 percent to 97 percent), and Kolda (from 97 percent to 96 percent). Elsewhere in Africa, compared with Senegal, breastfeeding is more common in Burkina Faso (98 percent, DHS 2003) and in Niger (98 percent, DHSN 2006); however, it is practiced less in Sierra Leone (95 percent, DHS 2008) and in Liberia (95 percent, DHS 2007). In addition, the proportion of infants breastfed within one hour of birth (48 percent in Senegal) is higher in other countries: Liberia (67 percent, DHS 2007), Egypt (56 percent, DHS 2008), and Sierra Leone (51 percent, DHS 2008).

The educational level of the mother does not seem to have a significant connection with the practice of breastfeeding in the first few hours after birth. However, children whose mothers have a primary education or less are slighty more likely to start breastfeeding within the first hour after birth compared with children whose mothers have secondary or higher education.

Assistance at delivery and the place of delivery are related to the initiation of breastfeeding. When mothers gave birth with the assistance of a health provider, half of children (52 percent) started breastfeeding within one hour following birth, compared with 42 percent of children whose mothers gave birth with assistance from a TBA, and 39 percent with assistance of another person. Similarly, 50 percent of women who delivered in a health facility nursed their child within one hour after birth; when mothers gave birth at home, this proportion is 42 percent. The mother's level of wealth is related to the frequency of early breastfeeding. Thus, among mothers in the poorest quintile, 42 percent of children were breastfed within one hour after birth, compared with 51 percent among mothers in the two highest wealth quintiles.

If the frequency of breastfeeding has always been high (above 96 percent), early initiation of breastfeeding has shown a considerable increase. In 1992, only 12 percent of infants started breastfeeding in the first hour following birth, rising to 16 percent in 1997, 23 percent in 2005, and then to 48 percent in 2010-11. The frequency of breastfeeding in the day following birth has shown a similar increase, from 46 percent in 1992 to 56 percent in 1997, 80 percent in 2005, and 89 percent in 2010-11.

Exclusive breastfeeding

The results in Table 11.2 show that almost all children (99 percent) are breastfed from birth, and this practice continues long after birth—at 12-17 months 95 percent of children are breastfed, and at 18-23 months three out of five children still are breastfed. In Senegal, exclusive breastfeeding is not the common practice (Figure 11.1). At less than two months after birth, only 62 percent of children are receiving only breastmilk, and at age 4-5 months this proportion is just 19 percent. Overall, the proportion of children under age 6 months who are in exclusive breastfeeding is 39 percent, while two-fifths of children are receiving other liquids or solids in addition to breast milk. By comparison, at age 6-8 months, when all children should be receiving complementary foods in addition to breast milk, only two-thirds of children are fed in this way (67 percent); at age 9-11 months this proportion is 82 percent.

Exclusive breastfeeding of infants under age 6 months, although still low, has shown a rising trend since the early 1990s, from 5 percent in 1992 to 11 percent in 1997 and 34 percent in 2005.

The proportion of infants under age 6 months who are in exclusive breastfeeding is higher in Senegal than in most African countries but is lower than in Tanzania (50 percent, 2010) and Egypt (53 percent, DHS 2008).

Table 11.2 shows that only 5 percent of Senegalese children under age 2 months and 6 percent under age 6 months were bottle fed during the 24 hours preceding the survey. This level reflects a decrease from 2005, when 8 percent of children under age 6 months took food from a bottle during the 24 hours preceding the survey.

Bottle feeding for infants under age 6 months is three times more common in countries such as Nigeria (16 percent), Egypt (16 percent, 2008), and Sierra Leone (16 percent, DHS 2008). The frequency in Senegal is comparable to that observed in Niger (5 percent, DHS 2006) and in Tanzania (5 percent, 2010), but well above the levels observed in Burkina Faso (1 percent, DHS 2003).

However, bottle feeding is not recommended for young children because it is frequently associated with an increased risk of diseases, especially diarrhea. Poorly cleaned bottles and nipples that are inadequately sterilized cause stomach upset, diarrhea, and vomiting in infants (WHO, 2007).

Table 11.2 Breastfeeding status by age

Percent distribution of youngest children under two years who are living with their mother by breastfeeding status and the percentage currently breastfeeding; and the percentage of all children under two years using a bottle with a nipple, according to age in months, EDS-MICS, Senegal 2010-11

Age in months	Breastfeeding status							Percentage currently breast-feeding	Number of youngest children under two years living with the mother	Percentage using a bottle with a nipple	Number of all children under two years
	Not breast-feeding	Exclusively breastfed	Breast-feeding and consuming plain water only	Breast-feeding and consuming non-milk liquids[1]	Breast-feeding and consuming other milk	Breast-feeding and consuming comple-mentary foods	Total				
0-1	3.2	62.2	21.7	3.2	4.6	5.1	100.0	96.8	319	5.0	328
2-3	1.3	39.8	42.3	0.9	6.7	9.1	100.0	98.7	473	7.8	477
4-5	0.6	19.0	49.8	0.9	4.3	25.3	100.0	99.4	389	5.1	400
6-8	1.0	2.5	25.1	1.7	3.2	66.6	100.0	99.0	478	5.3	491
9-11	1.2	3.5	10.4	1.5	1.8	81.6	100.0	98.8	591	10.6	607
12-17	4.8	0.9	4.8	0.4	0.8	88.3	100.0	95.2	1,214	3.4	1,259
18-23	39.7	0.5	2.6	0.0	0.7	56.5	100.0	60.3	872	3.9	940
0-3	2.1	48.8	34.0	1.8	5.8	7.5	100.0	97.9	792	6.6	805
0-5	1.6	39.0	39.2	1.5	5.3	13.4	100.0	98.4	1,181	6.1	1,204
6-9	1.2	3.7	20.7	1.2	2.7	70.5	100.0	98.8	673	6.7	690
12-15	2.9	0.9	5.1	0.6	0.8	89.7	100.0	97.1	872	3.6	901
12-23	19.4	0.7	3.9	0.2	0.8	75.0	100.0	80.6	2,086	3.6	2,199
20-23	49.2	0.3	3.1	0.0	0.5	46.8	100.0	50.8	567	3.7	621

Note: Breastfeeding status refers to a "24-hour" period (yesterday and last night). Children who are classified as breastfeeding and consuming plain water only consumed no liquid or solid supplements. The categories of not breastfeeding, exclusively breastfed, breastfeeding and consuming plain water, non-milk liquids, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus children who receive breast milk and non-milk liquids and who do not receive other milk and who do not receive complementary foods are classified in the non-milk liquid category even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well.
[1] Non-milk liquids include juice, juice drinks, clear broth, or other liquids.

Figure 11.1
Infant feeding practices by age

Legend:
- Breastfeeding and complementary foods
- Breastfeeding and other milk
- Breastfeeding and non-milk liquids
- Breastfeeding and plain water only
- Exclusively breastfed
- Not breastfeeding
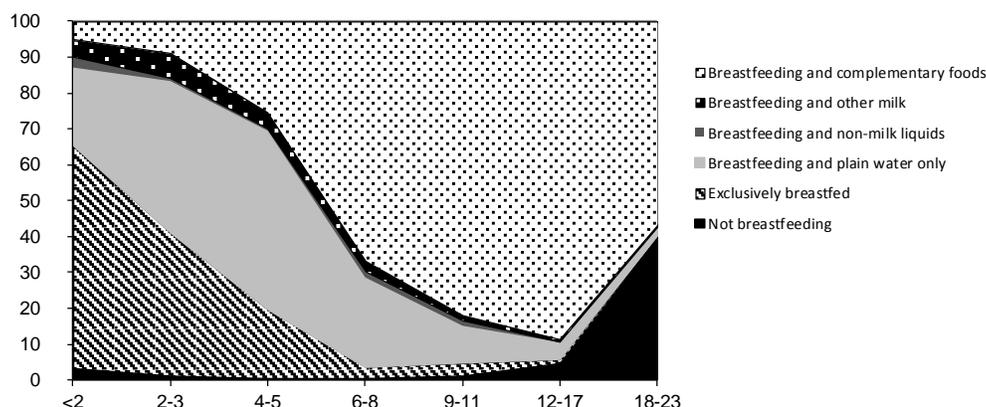
EDS-MICS 2010-11

Prolonged breastfeeding

Continued breastfeeding at the age of one year, which corresponds to the proportion of children age 12-15 months who are fed breast milk, is high (97 percent).

The median duration of breastfeeding is calculated for the youngest children under age 3. Table 11.3 indicates that in Senegal half of children are breastfed for a period of less than two years (20.9 months). There is no evidence of differences in the duration of breastfeeding by background characteristics. However, from a regional perspective, the median duration of breastfeeding ranges from 18.6 months in Ziguinchor to 22.5 months in Kédougou. According to household wealth quintile, there is a tendency toward lower duration of breastfeeding with increased levels of household wealth, from 22.0 months in the poorest households to 20 months in the richest. Compared with the 2005 survey, the median duration of breastfeeding has hardly increased, from 20.1 to 20.9 months.

Compared with countries in West Africa where the median duration

Table 11.3 Median duration of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Median duration (months) of breastfeeding among children born in the past three years[1]		
	Any breast-feeding	Exclusive breast-feeding	Predominant breast-feeding[2]
Sex			
Male	20.7	1.5	5.3
Female	21.0	1.5	6.1
Residence			
Urban	20.4	0.7	5.0
Rural	21.2	1.8	5.9
Region			
Dakar	20.7	0.6	4.8
Ziguinchor	18.6	2.0	4.4
Diourbel	19.8	1.5	5.9
Saint-Louis	19.7	0.9	5.8
Tambacounda	21.9	0.6	5.9
Kaolack	20.5	0.7	6.6
Thies	21.4	2.4	5.3
Louga	21.0	2.1	5.6
Fatick	21.7	0.7	5.6
Kolda	22.2	1.1	4.7
Matam	21.6	1.4	6.5
Kaffrine	21.6	2.4	7.8
Keougou	22.5	0.7	5.9
Sedhiou	21.7	2.3	4.7
Education			
No education	21.1	1.6	5.8
Primary	20.7	1.3	5.0
Secondary or more	18.3	0.7	5.2
Wealth quintile			
Lowest	22.0	1.4	5.8
Second	21.3	1.7	6.0
Middle	20.4	1.8	5.3
Fourth	19.9	1.1	5.6
Highest	20.5	0.8	5.1
Total	20.9	1.5	5.6
Mean	21.2	3.2	6.7

Note: Median and mean durations are based on the distributions at the time of the survey of the proportion of births by months since birth. Includes children living and deceased at the time of the survey.
[1] It is assumed that non-last-born children and last-born children not currently living with the mother are not currently breastfeeding
[2] Either exclusively breastfed or received breast milk and plain water, and/or non-milk liquids only.

of breastfeeding was calculated using the same method, the median duration of breastfeeding in Senegal is not appreciably different (Figure 11.2).

Figure 11.2
Median duration of breastfeeding in some countries in West Africa

Country	Duration (months)
Guinea (2005)	22.4
Benin (2006)	21.9
Niger (2006)	21.7
Mali (2006)	21.4
Senegal (2011)	20.9
Ghana (2008)	20.7
Mauritania (2001	20.6
Sierra Leone	20.5
Cote d'Ivoire (1999)	20.5
Liberia (2007)	20.2
Nigeria (2008)	18.7

Duration in months
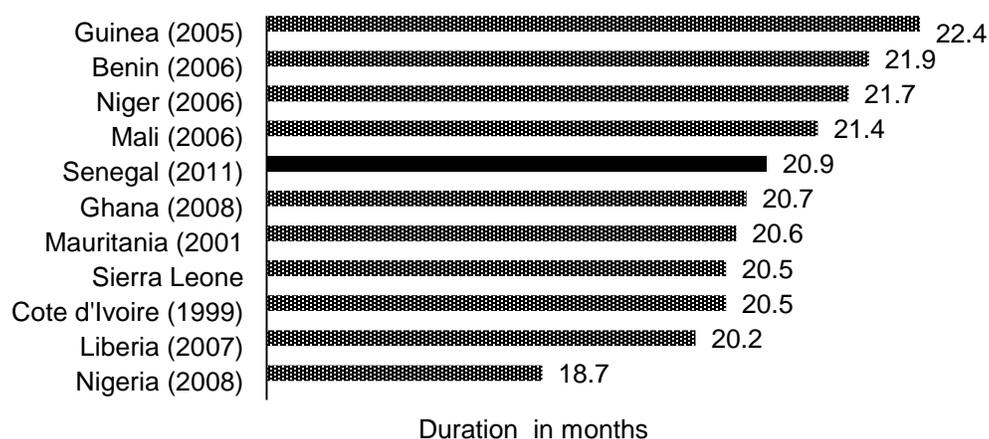
Source: StataCompiler except for Senegal

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11.1.2 Complementary Foods

From six months on, breastfeeding should be complemented by the introduction of other appropriate foods to meet the child's nutritional needs and allow for the best possible growth.

Information on complementary feeding was obtained by asking the mother if the child was breastfed and what type of food (solid or liquid) the child received over the past 24 hours. Questions about breastfeeding and nutritional supplements were asked for all children born in the last two years preceding the survey and living with their mothers.

The introduction of complementary foods starts very early; 5 percent of infants under age 2 months have already been given a food supplement (Table 11.2). The proportion is 13 percent for all children under age 6 months.

The proportion of children under age 6 months who were given complementary food was 30 percent in 1992, 32 percent in 1997, and 14 percent in 2005.

11.1.3 Types of Complementary Food

Table 11.4 presents information on the types of food given to children under age 2 depending on whether the child is being breastfed or not. The table shows that the introduction of liquids other than breast milk and solid or semi-solid foods occurs very early (before age 6 months). For children under age 2 months, 5 percent are given solid or semi-solid food, and at age 4-5 months 26 percent receive solid or semi-solid foods, especially cereals. Fish, poultry, meat, and eggs are also introduced quite early (2 percent beginning at age 4 months, and 16 percent or more starting at age 6-8 months). At age 6-8 months, 28 percent receive foods rich in Vitamin A, and at age 12-17 months 50 percent of children are given this type of food. WHO recommends the introduction of solid foods into the diet of children at age 6 months, because from this age on, breast milk alone is no longer sufficient to ensure optimal child growth.

In Senegal 67 percent of children age 6-8 months receive solid, semi-solid, or soft foods. Seventy-four percent of children age 6-23 months consume foods containing cereals or tubers. However, by 6-8 months a rather sizeable proportion of children consume, in addition to breast milk, solid or semi-solid foods that are varied and rich in protein and minerals: 10 percent eat fortified baby food, 42 percent cereals, 28 percent fruits and/or vegetables, 19 percent tubers or roots. Only 16 percent eat meat, poultry, fish, and/or eggs.

The number of non-breastfed children under age 18 months is too low to allow for a comparison of the consumption of foods other than breast milk.

Table 11.4 Foods and liquids consumed by children in the day or night preceding the interview

Percentage of youngest children under age 2 who are living with the mother by type of foods consumed in the day or night preceding the interview, according to breastfeeding status and age in months, EDS-MICS, Senegal 2010-11

	Liquids			Solid or semi-solid foods										
Age in months	Infant formula	Other milk[1]	Other liquids[2]	Fortified baby foods	Foods made from grains[3]	Fruits and vege-tables rich in vitamin A[4]	Other fruits and vege-tables	Food made from roots and tubers	Food made from legumes and nuts	Meat, fish, poultry	Eggs	Cheese, yogurt, other milk product	Any solid or semi-solid food	Number of children
						BREASTFEEDING CHILDREN								
0-1	2.6	4.8	6.7	0.5	2.8	3.0	1.1	3.0	1.1	1.5	0.0	1.8	5.3	309
2-3	4.8	6.1	3.0	0.9	4.0	1.1	0.3	2.2	0.1	1.1	1.6	1.6	9.2	467
4-5	3.3	8.6	7.0	4.3	11.4	4.2	0.5	4.6	0.3	1.7	0.2	2.4	25.5	387
6-8	3.4	16.2	16.0	9.5	42.2	27.9	4.4	19.1	3.7	16.4	4.7	9.5	67.2	473
9-11	5.9	27.4	26.2	15.0	65.1	42.5	11.7	28.3	9.0	37.0	6.5	15.2	82.7	584
12-17	2.8	31.3	30.3	10.0	85.7	49.9	15.2	28.0	9.7	50.2	10.9	15.7	92.7	1,156
18-23	2.6	37.7	31.4	7.5	87.5	46.8	14.3	31.7	7.0	53.0	10.1	17.3	93.7	525
6-23	3.5	29.1	27.2	10.5	74.1	43.9	12.4	27.3	8.0	42.1	8.7	14.8	86.4	2,738
Total	3.6	22.4	20.7	7.9	53.9	31.6	8.9	20.1	5.7	*	*	11.0	64.7	3,901
						NONBREASTFEEDING CHILDREN								
0-1	*	*	*	*	*	*	*	*	*	*	*	*	*	10
2-3	*	*	*	*	*	*	*	*	*	*	*	*	*	6
4-5	*	*	*	*	*	*	*	*	*	*	*	*	*	2
6-8	*	*	*	*	*	*	*	*	*	*	*	*	*	5
9-11	*	*	*	*	*	*	*	*	*	*	*	*	*	7
12-17	7.3	43.9	38.8	6.2	89.4	60.4	18.8	29.7	12.2	65.1	13.6	30.3	100.0	58
18-23	5.2	49.4	36.9	11.5	95.4	59.8	24.9	32.0	12.0	64.7	11.0	20.7	98.5	346
6-23	7.1	48.7	37.4	11.2	93.5	59.9	24.1	31.8	11.9	64.4	11.1	23.0	98.3	417
Total	7.4	48.2	35.8	10.7	90.8	58.7	23.0	31.4	11.4	62.9	10.6	22.0	95.5	436

Note: Breastfeeding status and food consumed refer to a "24-hour" period (yesterday and last night).
[1] Other milk includes fresh, tinned and powdered animal milk.
[2] Does not include plain water. Includes juice, juice drinks, clear broth, or other non-milk liquids.
[3] Includes fortified baby food.
[4] Includes [list fruits and vegetables included in the questionnaire such as pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, dark green leafy vegetables, mangoes, papayas, and other locally grown fruits and vegetables that are rich in vitamin A].
* Based on less than 25 unweighted cases.

Table 11.5 presents the feeding practices of infants and young children age 6-23 months. Minimum dietary diversity is assessed by the proportion of children age 6-23 months who consumed foods from at least four distinct groups among the seven defined food groups: cereals, roots, and tubers; legumes and nuts; dairy products (milk, yogurt, cheese); meat products (meat, poultry, fish, organ meats); eggs; fruits and vegetables rich in Vitamin A; and other fruits and vegetables. This diversification is very low among children age 6-23 months, whether breastfed or not.

Table 11.5 Infant and young child feeding (IYCF) practices

Percentage of youngest children age 6-23 months living with their mother who are fed according to three IYCF practices based on breastfeeding status, number of food groups, and times they are fed during the day or night preceding the survey, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Among breastfed children 6-23 months, percentage fed:				Among non-breastfed children 6-23 months, percentage fed :					Among all children 6-23 months, percentage fed :				
	4+ food groups[1]	Minimum meal frequency[2]	Both 4+ food groups and minimum meal frequency	Number of breastfed children 6-23 months	Milk or milk products[3]	4+ food groups1	Minimum meal frequency[4]	With 3 IYCF practices[5]	Number of non-breastfed children 6-23 months	Breast milk, milk, or milk products[6]	4+ food groups1	Minimum meal frequency[7]	With 3 IYCF practices	Number of all children 6-23 months
Age in months														
6-8	9.6	39.2	6.2	473	21.1	0.0	21.1	0.0	5	99.2	9.5	39.0	6.1	478
9-11	21.5	22.1	8.3	584	84.1	84.1	41.4	0.0	7	99.8	22.3	22.3	8.2	591
12-17	29.9	32.6	12.2	1156	36.2	45.9	19.4	2.2	58	96.9	30.6	32.0	11.7	1,214
18-23	29.3	33.5	12.3	525	32.0	46.4	21.7	2.0	346	73.0	36.1	28.8	8.2	872
Sex														
Male	24.8	31.8	10.5	1 426	31.6	47.9	20.4	2.3	225	90.7	27.9	30.3	9.3	1,651
Female	24.2	31.5	10.2	1 312	35.4	44.8	23.3	1.5	192	91.8	26.8	30.4	9.1	1 504
Residence														
Urban	33.8	30.3	13.1	1 041	49.3	63.7	20.7	2.9	189	92.2	38.4	28.8	11.5	1,230
Rural	18.7	32.5	8.6	1 698	20.1	32.2	22.7	1.2	228	90.5	20.3	31.3	7.8	1,926
Region														
Dakar	34.7	18.1	8.3	539	50.1	64.6	11.8	0.0	100	92.2	39.4	17.1	7.0	639
Ziguinchor	24.8	51.9	17.1	77	21.2	52.3	45.1	8.7	23	82.2	31.0	50.4	15.2	100
Diourbel	21.3	33.1	6.1	321	14.7	39.5	40.8	1.2	59	86.7	24.1	34.3	5.3	381
Saint-Louis	28.3	25.9	11.6	160	33.9	47.3	14.8	5.3	37	87.6	31.8	23.8	10.4	197
Tambacounda	12.2	19.8	3.0	144	55.1	32.2	2.2	0.0	23	93.9	14.9	17.4	2.6	167
Kaolack	12.3	29.7	4.6	237	25.1	29.6	12.1	0.0	38	89.6	14.7	27.2	4.0	276
Thies	31.6	40.1	20.1	367	37.9	42.6	18.1	5.2	30	95.3	32.4	38.4	18.9	398
Louga	34.9	47.6	22.1	201	35.1	59.4	42.1	4.6	19	94.5	37.0	47.1	20.6	220
Fatick	14.5	28.7	6.5	157	23.5	42.9	19.1	0.0	21	91.0	17.9	27.6	5.7	178
Kolda	14.2	42.2	9.8	153	29.5	26.7	27.3	3.0	21	91.6	15.7	40.4	8.9	174
Matam	30.6	18.8	8.7	107	42.5	51.5	8.6	0.0	14	93.5	32.9	17.6	7.7	121
Kaffrine	17.5	12.9	3.1	136	24.4	40.5	6.2	2.4	15	92.3	19.8	12.2	3.0	152
Keougou	2.0	36.9	1.0	28	37.9	7.4	30.4	0.0	2	95.0	2.4	36.3	0.9	30
Sedhiou	14.6	75.3	13.5	109	6.4	38.3	56.2	0.0	14	89.4	17.3	73.1	12.0	122
Education														
No education	20.9	33.0	9.3	1 948	25.8	33.4	19.9	1.7	244	91.8	22.3	31.5	8.5	2,191
Primary	30.2	27.2	12.2	587	39.5	65.4	19.0	2.7	123	89.5	36.3	25.8	10.5	710
Secondary or more	42.4	31.8	14.8	204	55.0	63.9	37.5	1.3	50	91.2	46.6	33.0	12.2	254
Wealth quintile														
Lowest	13.2	34.1	6.5	643	24.7	21.8	19.0	0.0	82	91.5	14.2	32.4	5.8	725
Second	16.8	34.2	8.6	605	22.9	32.9	17.7	2.3	72	91.8	18.5	32.5	7.9	676
Middle	28.5	31.4	11.8	532	25.0	43.1	28.1	3.2	89	89.2	30.6	30.9	10.6	622
Fourth	24.0	26.7	10.0	537	36.1	63.4	21.7	2.6	104	89.6	30.4	25.9	8.8	642
Highest	48.3	30.9	17.3	421	61.0	68.3	21.1	1.2	70	94.5	51.1	29.5	15.0	490
Total	24.5	31.7	10.3	2738	33.4	46.5	21.8	1.9	417	91.2	27.4	30.4	9.2	3,155

[1] Food groups: a. infant formula, milk other than breast milk, cheese or yogurt, or other milk products; b. foods made from grains, roots, and tubers, including porridge and fortified baby food from grains; c. vitamin A-rich fruits and vegetables (and red palm oil); d. other fruits and vegetables; e. eggs; f. meat, poultry, fish, and shellfish (and organ meats); g. legumes and nuts.
[2] For breastfed children, minimum meal frequency is receiving solid or semi-solid food at least twice a day for infants 6-8 months and at least three times a day for children 9-23 months.
[3] Includes two or more feedings of commercial infant formula, fresh, tinned and powdered animal milk, and yogurt.
[4] For non-breastfed children age 6-23 months, minimum meal frequency is receiving solid or semi-solid food or milk feeds at least four times a day.
[5] Non-breastfed children age 6-23 months are considered to be fed with a minimum standard of three Infant and Young Child Feeding Practices if they receive other milk or milk products at least twice a day, receive the minimum meal frequency, and receive solid or semi-solid foods from at least four food groups not including the milk or milk products food group.
[6] Breastfeeding, or not breastfeeding and receiving two or more feedings of commercial infant formula, fresh, tinned, and powdered animal milk, and yogurt.
[7] Children are fed the minimum recommended number of times per day according to their age and breastfeeding status as described in footnotes 2 and 4.

Among breastfed children, only 25 percent receive the minimum diversification. The proportion is 10 percent in infants age 6-8 months, 22 percent at age 9-11 months, and only 29 percent at age 18-23 months. This proportion is higher in urban areas (34 percent), among children whose mothers are educated (42 percent for secondary level or higher), or in the highest wealth quintile (48 percent). It is also higher in the regions of Louga (35 percent), Dakar (35 percent), and Matam (31 percent), and lower in the regions of Kédougou (2 percent), Tambacounda (12 percent), Kaolack (12 percent), Kolda (14 percent), Fatick (15 percent), and Sédhiou (15 percent).

The minimum number of meals for breastfed children is two at age 6-8 months and three at age 9-23 months. About one-third of children (32 percent) age 6-23 months who are breastfed and who are given solid, semi-solid, or soft foods at least the minimum number of times. The proportion is 39 percent among children age 6-8 months compared with 22 percent among those age 9-11 months. It is slightly higher in rural areas (33 percent) than urban areas (30 percent). At the regional level, it is higher in Ziguinchor (52 percent), Kolda (42 percent), and Thiès (40 percent), and lower in Kaffrine (13 percent), Matam (19 percent), and Tambacounda (20 percent).

Combining the two criteria (minimum diversification and minimum number of meals that define the minimum food intake), the results show that WHO recommendations on feeding practices of breastfed children are not being met. Only 10 percent of children age 6-23 months receive the minimum food intake. The proportion of breastfed children who are adequately fed increases with age (6 percent for children age 6-8 months and 12 percent for children age 12 months and older). It is higher in urban areas (13 percent) than rural areas (9 percent). Even in regions where the situation is more favorable (Thiès and Louga), only one in five children receives adequate nutrition. Non-breastfed children are considered properly fed if they receive dairy products and are supplied with the minimum number of meals with the minimum number of good food groups. The minimum number of meals for children who are not breastfed is four. On this basis, only 2 percent of non-breastfed children in Senegal are adequately fed.

11.2 CONSUMPTION OF MICRONUTRIENTS

Deficiencies in vitamins and minerals can cause certain diseases. For example, Vitamin A deficiency can cause night blindness; lack of iodine causes goiter and cretinism; and an inadequate intake of iron is the cause of anemia. These deficiencies also have less visible consequences, such as a weakened immune system.

11.2.1 Consumption of Iodized Salt by Households

It is recognized that low iodine intake can result in delayed mental development of the child (cretinism) and promote the development of goiter in adults. It can also increase the risk of miscarriage, infertility, stillbirth, and infant mortality. Until recently, locally produced salt was not iodized and consumption of iodized salt was not widespread.

At the time of the EDS-MICS 2010-11, the interviewers asked for a little salt used for cooking in each household. This salt was tested with a kit provided by UNICEF to determine the iodine content. This test shows whether the salt is not iodized at all or if it is iodized at more or less than 15 parts per million (ppm). Salt that contains at least 15 ppm of iodine is considered to be adequately iodized. Salt was tested in 91 percent of households, and 9 percent of households did not have any salt at the time the survey team was interviewing them.

Table 11.6 shows that, overall, 63 percent of households have iodized salt: for 47 percent of households, the salt is adequately iodized, and for 16 percent, the salt has a low iodine content (less than 15 ppm). In contrast, 37 percent of households have only non-iodized salt. The percentage of households with

an appropriate iodine content in salt is higher in urban areas (67 percent) than in rural areas (29 percent). There are wide variations by region in the proportion of households with adequately iodized salt, from 2 percent in the region of Sédhiou to 79 percent in the region of Dakar. The availability of adequately iodized salt in households increases with their level of wealth; in the richest quintile 74 percent have adequately iodized salt compared with 25 percent in the poorest quintile.

Table 11.6 Presence of iodized salt in household

Among all households, the percentage with salt tested for iodine content and the percentage with no salt in the household; and among households with salt tested, the percentage with iodized salt, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Among all households, the percentage :			Among households with tested salt :		
	With salt tested	With no salt in the household	Number of households	Inadequate iodine content (<15 ppm)	Adequate iodine content (≥15 ppm)	Number of households
Residence						
Urban	88,4	11,6	3,864	14,3	67	3,416
Rural	94,3	5,7	4,038	17,3	29	3,809
Region						
Dakar	87,7	12,3	2,112	12,7	79	1,851
Ziguinchor	91,0	9,0	343	7,0	29	312
Diourbel	93,3	6,7	810	14,8	16	756
Saint-Louis	92,8	7,2	558	8,5	62	518
Tambacounda	91,9	8,1	373	24,6	51	343
Kaolack	93,1	6,9	514	20,2	35	478
Thies	92,0	8,0	1,017	12,1	60	936
Louga	95,5	4,5	496	34,0	25	473
Fatick	93,1	6,9	413	11,8	14	385
Kolda	90,0	10,0	333	18,7	20	299
Matam	92,6	7,4	286	22,5	38	265
Kaffrine	91,3	8,7	330	25,2	39	301
Kedougou	91,3	8,7	83	40,7	33	76
Sedhiou	98,4	1,6	235	5,7	2	231
Wealth quintile						
Lowest	94,3	5,7	1,600	20,6	25	1,509
Second	92,5	7,5	1,584	15,8	34	1,465
Middle	89,7	10,3	1,490	15,2	43	1,337
Fourth	86,7	13,3	1,574	16,5	58	1,365
Highest	93,7	6,3	1,653	11,5	74	1,549
Total	91,4	8,6	7,902	15,9	47	7,224

11.2.2 Consumption of Vitamin A

Vitamin A is necessary for the development and conservation of the epithelial tissue of the digestive and respiratory systems, among others, and is essential for the proper functioning of the retina. Vitamin A also helps maintain the immune system. It is stored in the liver, but when quantities are too low or have been exhausted, the consequences of insufficiency become apparent. Vitamin A deficiency affects the immune system and increases the child's risk of dying from infectious diseases. Vitamin A deficiency can affect vision and cause night blindness in children; it can also affect the health of pregnant or lactating women. However, it can be prevented by Vitamin A supplementation and enriched foods. UNICEF and WHO recommend that all countries that have infant and child mortality rates higher than 70 per thousand, and where vitamin deficiency is a public health issue, set up a program to monitor Vitamin A.

Table 11.7 shows the percentage of last-born children who were given foods rich in Vitamin A in the last seven days and the percentage of children under age 5 who received at least one dose of Vitamin A supplementation in the last six months.

Table 11.7 Micronutrient intake among children

Among youngest children age 6-23 months who are living with their mother, the percentages who consumed vitamin A-rich and iron-rich foods in the day or night preceding the survey, and among all children 6-59 months, the percentages who were given vitamin A supplements in the six months preceding the survey, who were given iron supplements in the past seven days, and who were given deworming medication in the six months preceding the survey, and among all children age 6-59 months who live in households that were tested for iodized salt, the percentage who live in households with iodized salt, by background characteristics, EDS-MICS, Senegal 2010-11

	Among youngest children age 6-23 months living with the mother:			Among all children age 6-59 months:				Among children age 6-59 months living in households tested for iodized salt:	
Background characteristic	Percentage who consumed foods rich in vitamin A in past 24 hours[1]	Percentage who consumed foods rich in iron in past 24 hours[2]	Number of children	Percentage given vitamin A supplements in past 6 months	Percentage given iron supplements in past 7 days	Percentage given deworming medication in past 6 months[3]	Number of children	Percentage living in households with iodized salt[4]	Number of children
Age in months									
6-8	34.2	16.9	478	62.9	9.2	22.4	491	37.1	470
9-11	56.5	39.4	591	75.3	11.5	30.0	607	42.2	585
12-17	68.9	54.2	1,214	81.3	11.8	53.0	1,259	41.1	1,221
18-23	73.9	61.5	872	81.1	13.8	57.0	940	40.3	904
24-35	na	na	na	80.0	14.6	62.3	2,195	44.3	2,093
36-47	na	na	na	77.9	11.9	60.8	2,234	41.5	2,153
48-59	na	na	na	78.7	13.2	59.1	1,963	39.9	1,897
Sex									
Male	63.4	47.6	1,651	78.9	13.0	56.8	4,967	41.6	4,761
Female	62.0	48.0	1,504	77.7	12.6	54.2	4,722	41.3	4,562
Breastfeeding status									
Breastfeeding	60.0	45.0	2,738	76.7	11.8	43.7	304	40.5	2,919
Not breastfeeding	80.7	65.9	417	79.1	13.2	60.9	6,665	41.9	6,404
Mother's age at child's birth'									
15-19	59.4	43.3	260	72.1	11.9	46.8	481	41.1	458
20-29	63.1	47.3	1,616	76.4	12.5	54.2	4,643	39.3	4,458
30-39	61.9	48.2	1,062	80.0	13.0	56.9	3,662	44.4	3,543
40-49	67.5	54.4	217	85.0	13.7	61.8	903	40.8	865
Residence									
Urban	68.8	52.2	1,230	81.6	14.8	57.3	3,819	63.3	3,645
Rural	58.8	44.9	1,926	76.3	11.5	54.4	5,870	27.5	5,679
Region									
Dakar	67.8	46.6	639	80.8	13.5	55.3	2,033	73.9	1,949
Ziguinchor	69.1	61.2	100	77.5	13.7	58.0	306	34.5	296
Diourbel	68.3	47.5	381	59.6	5.5	52.4	1,170	18.4	1,149
Saint-Louis	66.7	51.4	197	74.4	18.8	39.3	636	61.2	609
Tambacounda	49.0	35.0	167	82.8	22.0	72.6	528	48.4	512
Kaolack	59.3	49.2	276	83.0	7.8	60.1	822	30.4	792
Thies	67.4	51.1	398	91.2	26.9	64.9	1,166	53.8	1,121
Louga	65.9	58.2	220	75.8	12.9	29.6	675	22.7	651
Fatick	61.7	54.0	178	75.6	6.4	58.7	542	13.5	519
Kolda	44.5	32.3	174	84.5	5.1	63.0	531	20.8	480
Matam	67.9	56.4	121	69.5	9.0	41.1	408	40.8	399
Kaffrine	54.5	40.5	152	76.9	7.3	58.8	436	31.6	417
Keougou	29.3	12.1	30	73.9	6.0	58.1	89	34.3	86
Sedhiou	53.1	45.6	122	87.5	6.2	73.1	348	1.1	344
Education									
No education	59.2	44.7	2,191	76.5	11.9	52.9	6,847	36.1	6,585
Primary	67.5	52.3	710	83.2	14.0	61.1	2,019	49.5	1,954
Secondary or more	80.0	61.5	254	82.0	17.2	63.4	823	66.2	784
Wealth quintile									
Lowest	49.8	39.5	725	70.4	8.8	53.7	2,176	22.5	2,088
Second	59.1	45.6	676	80.2	11.8	54.5	2,085	29.8	2,000
Middle	70.8	56.7	622	80.4	15.0	55.1	1,898	40.8	1,832
Fourth	62.2	43.4	642	81.5	12.8	54.9	1,913	54.1	1,842
Highest	77.1	57.5	490	80.7	16.7	60.5	1,617	67.7	1,561
Total	62.7	47.8	3,155	78.4	12.8	55.5	9,689	41.5	9,324

Note: Information on vitamin A is based on both mother's recall and the immunization card (where available). Information on iron supplements and deworming medication is based on the mother's recall.
na = Not applicable
[1] Includes meat (and organ meat), fish, poultry, eggs, pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, dark green leafy vegetables, mango, papaya, and other locally grown fruits and vegetables that are rich in vitamin A, and red palm oil [if data are collected].
[2] Includes meat (including organ meat), fish, poultry, and eggs.
[3] Deworming for intestinal parasites is commonly done for helminths and for schistosomiasis.
[4] Excludes children in households in which salt was not tested.

Overall, nearly two-thirds of children (63 percent) under age 2 were given foods rich in Vitamin A in the day or night preceding the survey. The consumption of these foods rich in Vitamin A increases with the age of the child, from 34 percent of children age 6-8 months to 74 percent age 18-23 months. It is higher for children who are not breastfed (81 percent), children living in urban areas (69 percent), children whose mothers are educated (80 percent with secondary level or higher), and children in the richest quintile (77 percent). By region, the consumption of these foods varies from 29 percent in Kédougou to 69 percent in Ziguinchor. Among children age 6-59 months, over three-fourths (78 percent) received Vitamin A supplements in the last six months, but only one in ten received any in the last seven days. Smaller proportions of children age 6-8 months (63 percent) received Vitamin A supplements.

The proportion of children age 6-59 months who received Vitamin A supplements in the last six months varies depending on the status of breastfeeding, place of residence, region, education, age of the mother at child's birth, and level of household wealth. Children in urban areas are more likely to receive supplements (82 percent) than those in rural areas (76 percent). By region, results show that the regions of Thiès (91 percent), Sédhiou (88 percent), and Kolda (85 percent) have the highest proportions of children receiving Vitamin A supplements. At the other extreme, in the region of Matam the proportion is about 70 percent. According to the level of education, children of the most educated mothers are more likely to receive Vitamin A supplements (82 percent, versus 76 percent for children of mothers with no education). According to the wealth index, children from the wealthier households (richest quintile) are more likely to receive these supplements (81 percent) compared with children in the poorest household quintile (70 percent). In addition, children whose mother's age at their birth is under 20 received Vitamin A less often than other children. This proportion is higher when the age of the mother is 20-29 at the time of the child's birth (76 percent) or age 40 or older (85 percent). Finally, when the child is not breastfed, supplementation is slightly more common (79 percent versus 77 percent for breastfed children).

Mothers who gave birth in the last five years were asked if they received Vitamin A during the first two months after delivery. Table 11.8 reports the results of micronutrient intake by mothers. It shows that 45 percent of mothers received a dose of Vitamin A in the two months following the birth of the last child. The frequency of receiving the dose increases with women's age, from 38 percent for women age 15-19 to 47 percent for women age 40-49). It is higher in urban areas (50 percent) than in rural areas (42 percent). It also increases with levels of education and household wealth (43 percent for uneducated women compared with 59 percent for women with secondary or higher education; 33 percent for the poorest household quintile versus 51 percent for the wealthiest). At the regional level, the proportion is lowest in the region of Kédougou (24 percent), followed by the regions of Matam and Kolda (respectively, 33 percent and 34 percent). By comparison, the Thiès region (64 percent) has the highest proportion of women who received Vitamin A.

Table 11.8 gives the results concerning the use of iodized salt by mothers of children under age 5. It shows that 43 percent of mothers live in households with iodized salt. The proportion of women living in a houshold with adequately iodized salt does not vary with age, but varies by place of residence, level of education, and level of household wealth. The proportion is higher in urban areas (64 percent) than in rural areas (28 percent). The most educated women consume more iodized salt (67 percent of women with secondary education or higher versus 37 percent of uneducated women). Iodized salt intake increases steadily with the level of wealth (22 percent in the poorest households and 69 percent in the richest households).

Consumption of iodized salt by mothers of children under age 5 varies considerably from one region to another. In Dakar three-fourths of mothers (75 percent) live in households with iodized salt, compared with 14 percent in Fatick and only 1 percent in Sédhiou.

Table 11.8 Micronutrient intake among mothers

Among women age 15-49 with a child born in the past five years, the percentage who received a vitamin A dose in the first two months after the birth of the last child, the percent distribution by number of days they took iron tablets or syrup during the pregnancy of the last child, and the percentage who took deworming medication during the pregnancy of the last child; and among women age 15-49 with a child born in the past five years and who live in households that were tested for iodized salt, the percentage who live in households with iodized salt, by background characteristics, EDS-MICS, Senegal 2010-11

| Background characteristic | Percentage who received vitamin A dose post-partum[1] | Number of days women took iron tablets or syrup during pregnancy of last birth | | | | | Percentage of women who took deworming medication during pregnancy of last birth | Number of women | Among women with a child born in the past five years, who live in households that were tested for iodized salt: | |
		None	<60	60-89	90+	Don't know/ missing			Percentage living in households with iodized salt[2]	Number of women
Age of mother										
15-19	38.4	9.0	13.8	9.8	57.4	10.0	22.2	529	39.6	500
20-29	45.1	5.4	12.4	9.1	64.4	8.7	25.7	3,634	41.0	3,491
30-39	46.8	6.4	14.4	8.1	61.6	9.4	24.9	2,756	46.2	2,659
40-49	46.9	6.4	13.7	7.6	61.4	10.9	22.7	771	41.1	739
Residence										
Urban	50.0	3.0	12.2	6.6	67.6	10.6	26.7	3,182	63.8	3,023
Rural	42.2	8.3	14.2	10.1	59.1	8.3	23.7	4,508	28.2	4,366
Region										
Dakar	44.9	2.6	14.7	5.4	65.2	12.1	30.1	1,674	75.0	1,599
Ziguinchor	58.5	2.5	7.9	4.8	80.8	3.9	33.5	250	33.9	241
Diourbel	35.2	5.4	11.9	14.3	52.8	15.6	22.4	905	18.2	888
Saint-Louis	49.4	7.8	17.5	10.5	56.6	7.7	26.2	495	62.5	477
Tambacounda	49.7	13.8	13.6	6.9	56.8	8.9	41.8	418	48.8	406
Kaolack	39.0	3.1	25.0	12.9	53.4	5.6	26.5	625	33.5	604
Thies	63.8	2.8	5.9	8.4	69.7	13.2	18.3	958	56.0	912
Louga	44.2	6.2	8.3	7.7	69.4	8.3	23.6	525	23.5	509
Fatick	46.1	5.6	14.3	7.4	70.2	2.5	25.3	397	14.1	379
Kolda	33.9	14.7	17.9	11.6	53.4	2.3	22.8	427	19.6	387
Matam	33.5	14.5	15.8	4.3	50.9	14.5	14.4	322	40.5	315
Kaffrine	48.4	10.2	8.5	6.3	74.5	0.4	9.8	342	31.5	327
Keougou	24.4	11.6	24.4	11.3	39.8	12.8	19.7	73	34.0	70
Sedhiou	42.6	7.3	7.9	10.5	73.5	0.8	23.2	279	1.2	275
Education										
No education	42.7	7.8	14.0	9.4	59.5	9.3	23.6	5,289	36.6	5,083
Primary	48.2	2.5	12.7	8.1	67.8	8.9	28.3	1,647	51.7	1,594
Secondary or more	58.7	2.1	10.4	4.5	72.8	10.1	26.8	754	66.7	713
Wealth quintile										
Lowest	32.9	13.9	15.7	10.4	54.2	5.8	21.3	1,672	22.2	1,603
Second	44.6	6.2	15.5	9.1	61.6	7.5	23.6	1,600	31.6	1,536
Middle	51.3	4.9	13.1	9.8	63.6	8.6	23.8	1,492	41.4	1,440
Fourth	49.6	2.6	10.5	8.2	66.1	12.7	26.2	1,552	54.5	1,488
Highest	50.6	1.9	11.4	5.3	69.1	12.3	30.5	1,375	68.9	1,322
Total	45.4	6.1	13.3	8.7	62.6	9.3	24.9	7,690	42.8	7,389

[1] In the first two months after delivery of last birth
[2] Excludes women in households where salt was not tested

11.2.3 Consumption of Iron

Table 11.7 (above) also provides information on the consumption of foods rich in iron for children age 6-23 months. Less than half of children (48 percent) consumed foods rich in iron in the 24 hours preceding the survey. Iron consumption increases with the age of the child, from 17 percent of children age 6-8 months to 62 percent of children age 18-23 months. It is higher among children who are not breastfed (66 percent), children in urban areas (52 percent), children with an educated mother (62 percent for secondary level or higher), and children in the richest quintile (58 percent). By region, consumption of iron rich foods varies from 12 percent in Kédougou to 61 percent in Ziguinchor.

Taking iron tablets or syrup during the pregnancy of the most recent birth was also studied (Table 11.8). In the Senegalese context, 6 percent of pregnant women have not taken any iron at all. The percentage is higher in rural areas (8 percent, versus 3 percent in urban areas; in the regions of Kolda, Matam, and

Tambacounda (14 percent, on average, versus 3 percent in the regions of Dakar, Ziguinchor, and Thiès); among women with no education (8 percent, versus 2 percent for educated women), and in the poorest households (14 percent, versus 2 percent in the richest households). Thirteen percent of women took iron for less than 60 days, 8 percent between 60 and 89 days, and 63 percent for at least 90 days.

The proportion of women who took iron for at least 90 days is slightly lower among women age 15-19 (57 percent) compared with women age 30-39 (62 percent) and women age 20-29 (64 percent). It is higher in urban areas (68 percent) than rural areas (59 percent). It increases with the level of education (60 percent among uneducated women versus 73 percent among the most educated) and increases with the level of household wealth (54 percent in the poorest households versus 69 percent in the richest households). By region, women in the regions of Ziguinchor (81 percent), Kaffrine (74 percent), and Sédhiou (73 percent) are most likely to take iron for at least 90 days. The regions of Kédougou (40 percent), Matam (51 percent), Diourbel (53 percent), and Kolda (53 percent) have the lowest proportions.

11.3 IRON DEFICIENCY ANEMIA

Lack of iron is the most common micronutrient deficiency in the world, and it affects more than 3.5 billion people in developing countries (ACC/SCN, 2000). Anemia is a condition characterized by a reduced number of red blood cells and a weakening of the concentration of hemoglobin in the blood. Anemia is usually the result of a dietary deficiency in iron, Vitamin $B_{12,}$ or other nutrients. Although anemia can be caused by parasites, hemorrhage, congenital diseases or chronic illnesses, it is often due to a dietary deficiency, including at base, a lack of iron (DeMaeyer, 1989; Yip, 1994).

During the EDS-MICS 2010-11, in addition to measuring the height and weight of women, men, and children, a blood sample was taken in a third of households in the sample. The sample was taken as follows: (1) capillary blood was drawn through a finger prick made using a small retractable lance (Tenderlette); (2) one or two blood drops were allowed to flow into a tiny bowl that was then placed in a portable hemoglobin meter (HemoCue), an apparatus that, in less than a minute, can give an exact measure of the level (in grams) of hemoglobin per deciliter of blood; and (3) finally, this value was recorded on the survey questionnaire.

Anemia can be classified into three levels according to the concentration of hemoglobin in the blood; this classification was developed by researchers from WHO (DeMaeyer, 1989). Thus, anemia is considered severe if the measurement of hemoglobin per deciliter of blood is less than 7.0 g/dl; it is moderate if this value is between 7.0 and 9.9 g/dl and, finally, it is regarded as mild if the measurement is between 10.0 and 11.9 g/dl. For pregnant women and children under age 5, anemia is considered mild if the hemoglobin level is between 10.0 et 10.9 g/dl.

The level of hemoglobin in the blood increases with altitude. This is due to the fact that the partial pressure of oxygen decreases at high altitude, and it is the same for the oxygen saturation in the blood. In addition, a compensatory phenomenon is seen that increases the production of red blood cells to ensure adequate blood supply (CDC, 1998). In other words, the higher the altitude, the more the need for hemoglobin in the blood increases. In Senegal, since a majority of the population is living in regions with low altitude, it was not necessary to adjust the values for the concentration of hemoglobin in the blood.

11.3.1 Prevalence of Anemia in Children

Table 11.9 shows that in Senegal more than three out of four children age 6-59 months (76 percent) have anemia: 23 percent in a mild form, 48 percent in a moderate form, and 5 percent have severe anemia.

According to age, children are most affected by anemia between 12 and 23 months (85 percent). As previously seen, this is the period during which many children do not receive complementary foods in sufficient quantity and quality. The results show differences between the sexes (80 percent of boys and 72 percent of girls), between places of residence (72 percent in urban areas and 79 percent in rural areas), and by region (73 percent in Dakar and Thiès, 74 percent in Louga and Saint-Louis, and more than 76 percent in other regions). By the level of education, the proportion of anemic children is 78 percent when the mother has no education, compared with 75 percent when she has primary education and 73 percent, secondary education. The prevalence of anemia is higher when the mother lives in the household (77 percent versus 73 percent when the mother is absent). Finally, the results by wealth quintile show that the prevalence of anemia in children decreases from the poorest to the richest households (82 percent versus 70 percent).

Table 11.9 Prevalence of anemia in children

Percentage of children age 6-59 months classified as having anemia, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Anemia status by hemoglobin level				Number of children
	Any anemia (<11.0 g/dl)	Mild anemia (10.0-10.9 g/dl)	Moderate anemia (7.0-9.9 g/dl)	Severe anemia (<7.0 g/dl)	
Age in months					
6-8	80.5	35.4	42.4	2.7	168
9-11	84.8	24.0	59.6	1.2	232
12-17	85.5	20.3	60.4	4.8	495
18-23	85.4	13.2	66.3	6.0	326
24-35	81.4	20.6	54.5	6.3	848
36-47	71.3	24.6	40.6	6.2	866
48-59	64.6	27.8	33.5	3.3	826
Sex					
Male	80.3	24.2	51.1	5.1	1,941
Female	72.3	22.3	45.3	4.7	1,820
Mother's interview status					
Interviewed	76.9	23.4	48.6	4.9	3,264
Not interviewed, but in household					
Not interviewed, and not	76.5	22.8	44.1	9.6	129
In the household1	72.7	22.7	46.5	3.5	368
Residence					
Urban	72.0	24.0	45.9	2.1	1,434
Rural	79.2	22.9	49.7	6.6	2,327
Region					
Dakar	72.5	23.5	48.0	1.0	766
Ziguinchor	76.9	30.1	45.6	1.3	95
Diourbel	75.6	29.2	42.4	4.0	445
Saint-Louis	74.0	22.0	47.0	5.1	224
Tambacounda	82.6	23.4	50.9	8.3	209
Kaolack	78.2	21.2	48.9	8.1	335
Thies	72.8	21.3	46.0	5.4	447
Louga	74.2	23.0	46.9	4.3	275
Fatick	81.8	17.5	60.3	4.0	243
Kolda	83.2	23.1	49.5	10.6	228
Matam	76.1	18.4	51.3	6.4	142
Kaffrine	81.1	26.6	45.5	9.0	187
Kedougou	79.6	22.4	51.4	5.8	29
Sedhiou	80.3	23.4	53.7	3.3	133
Education					
No education	77.8	23.4	48.5	5.9	2,449
Primary	74.7	21.5	50.3	2.9	663
Secondary	73.2	27.0	43.5	2.8	279
Wealth quintile					
Lowest	82.1	21.5	51.8	8.8	852
Second	81.0	20.6	53.4	7.1	815
Middle	74.3	27.0	44.2	3.2	752
Fourth	72.1	22.4	46.8	3.0	749
Highest	70.1	26.0	43.2	0.9	593
Total	76.4	23.3	48.3	4.9	3,761

Note: Table is based on children who stayed in the household on the night before the interview and who were tested for anemia. Prevalence of anemia, based on hemoglobin levels, is adjusted for altitude using formulas in CDC, 1998. Hemoglobin in grams per deciliter (g/dl).
[1] Includes children whose mothers are deceased.
[2] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

About two-thirds of anemic children (63 percent) have a moderate form of anemia. Children with severe anemia have a sociodemographic profile that differs from that of children with a mild form. The prevalence of severe anemia found in the most affected regions (Kolda, Kaffrine, Tambacounda ,and Kaolack) is two to ten times higher than in the least affected regions (Dakar, Ziguinchor, and Diourbel). Children whose mothers have no education also have twice the level of severe anemia compared with those whose mothers have primary level or higher (6 percent and 3 percent, respectively). Finally, the prevalence of severe anemia in children from the poorest households is nine times higher than that for children in the richest households (9 percent versus 1 percent).

The prevalence of anemia has decreased slightly compared with the survey in 2005, and this holds for all forms of anemia except for mild anemia (all anemia: 76 percent versus 83 percent in 2005; mild anemia: 23 percent versus 20 percent in 2005; moderate anemia: 48 percent versus 55 percent in 2005; and severe anemia: 5 percent versus 7 percent in 2005).

11.3.2 Prevalence of Anemia in Women

Table 11.10 presents the results of anemia testing in women. More than half of women (54%) are anemic (54 percent): 39 percent are mildly anemic, 14 percent are moderately anemic, and 2 percent have severe anemia. The presence of anemia differs according to background characteristics. It is higher in women age 15-29 (mean, 55 percent) than among older women. Pregnant women, who are more vulnerable, are more often anemic (61 percent) than those who are breastfeeding (49 percent), or those who are neither pregnant nor breastfeeding (56 percent). Breastfeeding does not appear to increase the risk of anemia.

The table does not show a difference in prevalence of anemia by urban or rural residence. At the regional level, the prevalence varies from 43 percent (Ziguinchor) to 61 percent (Tambacounda and Fatick). The prevalence of anemia does not appear to decrease with the level of education (54 percent for women with no education compared with 57 percent for those with a secondary level). It drops slightly with the level of wealth (58 percent for women in the poorest households compared with 53 percent for those in the richest households).

The majority of anemic women are mildly or moderately so. The severe form affects only 2 percent of women. The prevalence of severe anemia is highest among pregnant women (3 percent) and women from the region of Fatick (3 percent).

Table 11.10 Prevalence of anemia in women

Percentage of women age 15-49 with anemia, by background characteristics, Senegal 2010-11

Background characteristic	Not pregnant / Pregnant	Anemia status by hemoglobin level				Number of women
		Any	Mild	Moderate	Severe	
		<12.0 g/dl / <11.0 g/dl	10.0-11.9 g/dl / 10.0-10.9 g/dl	7.0-9.9 g/dl / 7.0-9.9 g/dl	<7.0 g/dl / < 7.0 g/dl	
Age						
15-19		55.5	39.9	13.3	2,3	1,266
20-29		55.3	38.6	15.3	1,4	2,086
30-39		52.9	36.7	14.2	2,0	1,370
40-49		52.7	39.7	11.5	1,5	900
Number of children ever born						
0		59.0	41.9	14.8	2,3	1,962
1		50.6	37.5	12.3	0,7	752
2-3		51.4	34.4	14.6	2,4	1,131
4-5		50.2	37.3	11.9	1,0	818
6+		54,8	38.7	14.6	1,5	958
Maternity status						
Pregnant		61.4	28.9	29.7	2,8	440
Breastfeeding		48.9	37.5	10.5	0,8	1,495
Neither		55.7	40.2	13.5	2,0	3 687
Residence						
Urban		54.7	40.4	12.6	1,7	2,749
Rural		54.0	36.9	15.3	1,8	2,873
Region						
Dakar		58.5	42.2	14.3	2,1	1,483
Ziguinchor		42.5	33.8	8.0	0,6	192
Diourbel		47.7	33.4	13.0	1,4	652
Saint-Louis		56.8	39.2	16.3	1,3	327
Tambacounda		61.3	42.5	17.1	1,6	246
Kaolack		53.8	36.3	15.2	2,2	445
Thies		50.0	37.8	11.1	1,1	745
Louga		54.9	36.7	15.8	2,4	401
Fatick		61.5	42.4	16.3	2,8	275
Kolda		55.8	39.4	14.7	1,7	237
Matam		52.9	39.9	11.2	1,8	211
Kaffrine		52.4	34.9	14.9	2,5	216
Kedougou		53.5	36.8	14.6	2,1	36
Sedhiou		51.9	35.4	15.9	0,6	157
Education						
No education		53.7	37.4	14.7	1,6	3,225
Primary		53.3	38.3	12.4	2,5	1,216
Secondary		57.2	42.2	13.5	1,4	1,180
Wealth quintile						
Lowest		57.8	36.8	18.3	2,7	913
Second		55.0	37.6	15.7	1,6	956
Middle		52.4	38.2	12.8	1,4	1,139
Fourth		53.0	37.9	12.9	2,2	1,244
Highest		54.4	41.4	11.8	1,2	1,368
Total		58.5	42.2	14.3	2,1	1,483

11.3.3 Prevalence of Anemia in Men

Table 11.11 shows the prevalence of anemia among men age 15-49. The proportion of men age 15-49 who are anemic is 31 percent. The prevalence is significantly higher for adolescents (15-19 years) than for older men (54 percent versus about 21-25 percent in other groups). There are no significant variations in prevalence of anemia related to tobacco consumption (29 percent for smokers and 32 percent for non-smokers) or according to place of residence (29 percent in urban areas and 33 percent in rural areas). The prevalence of anemia in men decreases with the level of wealth (from 38 percent in the poorest households to 28 percent in the richest households). Depending on the region, the variation in prevalence nearly doubles: 23 percent in Kédougou, 25 percent in Diourbel and Matam, 39 percent in Louga and Saint-Louis, and 42 percent in Fatick.

The prevalence of anemia among men age 50-59 (33 percent) is higher than for men age 40-49 (25 percent).

With regard to the two tables (11.10 and 11.11), it should be noted that the prevalence of anemia is lower in men (31 percent) than women (54 percent).

11.4 NUTRITIONAL STATUS OF CHILDREN AND WOMEN

One objective of the survey is to assess the nutritional status of children under age 5 and their mothers.

11.4.1 Nutritional Status of Children

Methodology

Protein-energy malnutrition in children is a set of disorders characterized primarily by stunting, a stop or delay in growth. It results from both inadequate dietary intake and morbidity. Malnutrition can be evaluated by clinical criteria, biochemical analyses, or anthropometric measurements. However, for practical reasons, most nutritional surveys use anthropometric indicators. In children younger than age 5, the most commonly used indicators are weight in relation to age (weight-for-age), height in relation to age (height-for-age), and weight in relation to height (weight-for-height). These indices are expressed as the standard deviation (Z-score) compared with the median of an international reference population (WHO, 2006). The conventional definition of malnutrition among children, as proposed by the WHO, is weight-for-age, height-for-age, or weight-for-height that is at least 2 standard deviations lower (Table 11.12); when the level reaches less than 3 standard deviations, malnutrition is considered to be severe:

- Height-for-age is a specific measure of stunting.

- Weight-for-age reflects the overall nutritional status of the child and can be used to monitor the weight gain of a child. However, it does not distinguish wasting from stunting.Weight-for-height is a specific measure of thinness or wasting.

Table 11.11 Prevalence of anemia in men

Percentage of men age 15-49 with anemia, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Any anemia (<13.0 g/dl)	Number of men
Age group		
15-19	54.0	1,030
20-29	22.3	1,378
30-39	21.3	846
40-49	25.1	571
Smoking status		
Smokes cigarettes/tobacco	29.1	679
Does not smoke	31.5	3,146
Residence		
Urban	29.2	2,144
Rural	33.3	1,681
Region		
Dakar	30.7	1,205
Ziguinchor	25.9	159
Diourbel	24.9	272
Saint-Louis	38.8	212
Tambacounda	33.8	195
Kaolack	32.9	277
Thies	27.5	513
Louga	38.9	226
Fatick	42.1	191
Kolda	27.8	188
Matam	25.5	125
Kaffrine	28.2	127
Kedougou	22.7	22
Sedhiou	29.9	113
Education		
No education	29.7	1,365
Primary	29.7	1,116
Secondary or more	33.5	1,344
Wealth quintile		
Lowest	37.7	566
Second	31.8	593
Middle	32.4	783
Fourth	29.0	863
Highest	27.6	1,020
Total 15-49	31.0	3,825
Men 50-59	33.0	458
Total 15-59	31.2	4,283

Table 11.12 Significance of different measures of undernutrition

Prevalence (percentage) range used by WHO to categorize the public health significance of different measures of undernutrition (< -2 SD)

	Nutritiopnal situation			
Indicators	Low	Medium	High	Very high
Height-for-age (stunted) (percent of children Z < -2)	<20	≥20 et <30	≥30 et <40	≥40
Weight-for-age (underweight) (percent of children Z < -2)	<10	≥10 et <20	≥20 et <30	≥30
Weigt-for-height (wasted) (percent of children Z < -2)	<5	≥ 5 et <10	≥10 et <15	≥15

Stunting

According to the results in Table 11.13 on the height-for-age index, 26 percent of children in Senegal have stunted growth, and 11 percent suffer from severe stunting. Stunting reflects chronic malnutrition. Overall, the nutritional situation as reflected in the height-for-age index can be characterized as inconclusive, but this situation masks significant differences with regard to background variables. First, the proportion of children who are stunted is almost twice as high as in rural areas (31 percent) compared with urban areas (19 percent).

According to age, significant differences are found in the prevalence of stunting, whether moderate or severe (Table 11.13 and Figure 11.3). The proportion of children who are stunted increases with age: from 14 percent at less than 6 months, the prevalence of stunting rises to more than 37 percent at age 18-23 months, before dropping back to 25 percent at age 48-59 months. Stunting affects boys and girls about equally (28 percent and 25 percent, respectively).

Regarding the effect of birth interval, for multipara women, stunting of children decreases as the interval increases. Stunting, which is severe when the interval is less than 24 months (34 percent), lessens steadily and becomes inconclusive for an interval longer than 48 months (25 percent). Stunting affects 26 percent of children born to primipara mothers. The same pattern is observed for severe stunting, whose prevalence varies from 16 percent for birth intervals shorter than 24 months to 9-10 percent for intervals of 24 months or longer.

When the mother does not live in the household, there is no significant difference in the prevalence of stunting (25 percent, versus 26 percent when the mother does live in the household).

Stunting is high among children age 18-35 months, in children with thin mothers according to the body mass index, in rural areas, in the regions of Kaffrine and Kédougou, and in the poorest households (first and second quintiles). It is very high in the regions of Kolda and Sédhiou.

Table 11.13 Nutritional status of children

Percentage of children under age 5 classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Height-for-age[1] Percent-age below -3 SD	Percent-age below -2 SD2	Mean Z-score (SD)	Weight-for-height Percent-age below -3 SD	Percent-age below -2 SD2	Percent-age above +2 SD	Mean Z-score (SD)	Weight-for-age Percent-age below -3 SD	Percent-age below -2 SD2	Percent-age above +2 SD	Mean Z-score (SD)	Number of children
Age in months												
<6	5.6	13.9	(0.2)	4.4	14.0	9.2	(0.2)	2.0	7.7	2.8	(0.4)	376
6-8	5.1	14.6	(0.5)	5.5	15.5	3.8	(0.6)	5.4	14.6	2.0	(0.8)	167
9-11	4.9	12.2	(0.6)	5.1	10.4	5.3	(0.4)	3.4	9.8	2.1	(0.6)	230
12-17	9.6	27.3	(1.1)	2.5	11.9	3.4	(0.6)	4.5	17.8	0.2	(1.0)	468
18-23	17.1	37.3	(1.5)	0.8	8.0	0.0	(0.5)	5.9	23.0	0.3	(1.1)	300
24-35	13.8	34.3	(1.4)	1.2	7.8	1.8	(0.4)	4.6	20.6	0.7	(1.0)	777
36-47	10.9	28.4	(1.2)	1.5	8.0	1.1	(0.6)	3.9	17.7	0.5	(1.1)	780
48-59	10.3	25.1	(1.2)	1.9	11.4	0.2	(0.8)	5.8	20.8	0.1	(1.2)	664
Sex												
Male	11.1	28.1	(1.2)	2.0	10.2	2.2	(0.5)	4.8	18.6	0.9	(1.0)	1,930
Female	10.1	24.9	(1.0)	2.5	10.0	2.7	(0.5)	4.2	16.7	0.8	(1.0)	1,832
Birth interval in months[3]												
First birth[4]	10.3	25.5	(1.0)	1.9	9.9	3.2	(0.5)	3.1	15.0	0.9	(0.9)	774
<24	15.9	33.9	(1.4)	2.6	10.1	2.9	(0.5)	7.0	22.1	0.8	(1.1)	445
24-47	9.2	26.0	(1.1)	1.8	9.5	2.2	(0.5)	4.6	17.7	0.7	(1.0)	1,581
48+	9.5	24.5	(1.0)	3.7	11.5	2.6	(0.5)	3.6	17.0	1.5	(0.9)	618
Birth interval in months[3]												
Very small	13.1	36.2	(1.4)	3.2	14.8	2.0	(0.8)	7.9	28.0	2.4	(1.4)	315
Small	10.7	30.9	(1.3)	4.6	13.4	2.3	(0.7)	4.8	25.2	0.3	(1.2)	601
Average or larger	10.0	24.3	(1.0)	1.6	8.6	2.7	(0.4)	3.9	14.2	0.8	(0.9)	2,483
Missing	5.4	38.9	(1.4)	0.0	7.7	0.0	(0.5)	4.4	22.8	0.0	(1.1)	19
Mother's Interview status												
Interviewed	10.4	26.7	(1.1)	2.3	10.0	2.6	(0.5)	4.4	17.5	0.9	(1.0)	3,419
Not interviewed, but in household	17.1	26.4	(1.3)	3.3	13.6	2.5	(0.5)	7.4	22.0	0.0	(1.1)	102
Not interviewed,and not in the household[5]	10.6	25.0	(1.1)	1.5	10.1	0.9	(0.6)	4.0	17.7	0.5	(1.0)	241
Mother's nutritional status[6]												
Thin (BMI<18.5)	13.9	33.2	(1.3)	3.2	14.5	3.4	(0.8)	6.1	25.1	0.8	(1.3)	592
Normal (BMI 18.5-24.9)	11.3	26.8	(1.1)	2.1	9.8	2.6	(0.5)	4.4	17.3	0.9	(1.0)	2,119
Overweight/ obese (BMI >= 25)	4.6	20.2	(0.9)	2.5	7.3	1.8	(0.4)	3.2	12.1	0.9	(0.7)	722
Residence												
Urban	6.7	19.0	(0.8)	1.6	9.5	2.8	(0.5)	2.4	11.8	1.1	(0.8)	1,461
Rural	13.0	31.3	(1.3)	2.7	10.5	2.3	(0.5)	5.8	21.3	0.7	(1.1)	2,301
Region												
Dakar	6.7	18.0	(0.8)	0.0	7.8	3.4	(0.4)	1.0	9.2	1.3	(0.7)	775
Ziguinchor	7.9	21.3	(1.2)	2.2	4.1	2.0	(0.2)	4.9	10.7	0.9	(0.8)	124
Diourbel	11.6	29.6	(1.2)	2.2	9.4	2.1	(0.5)	3.4	19.1	0.0	(1.0)	404
Saint-Louis	7.0	22.8	(1.0)	4.4	17.6	0.7	(0.8)	4.8	25.2	0.9	(1.1)	225
Tambacounda	11.6	26.2	(1.0)	2.8	12.3	1.8	(0.8)	6.0	22.1	0.0	(1.1)	189
Kaolack	9.4	29.0	(1.2)	2.1	7.3	2.4	(0.6)	4.8	17.8	1.3	(1.1)	361
Thies	9.3	23.5	(0.8)	5.5	14.3	2.8	(0.6)	4.6	15.4	1.4	(0.9)	440
Louga	9.9	26.8	(1.1)	3.9	15.6	1.9	(0.8)	8.3	23.3	0.7	(1.2)	236
Fatick	6.5	21.6	(1.0)	2.1	7.5	1.9	(0.4)	2.5	11.4	0.6	(0.8)	268
Kolda	18.1	43.5	(1.7)	1.2	6.6	1.8	(0.4)	6.8	25.6	0.9	(1.2)	236
Matam	13.0	26.1	(1.2)	3.9	17.3	2.1	(0.8)	8.1	24.8	0.6	(1.2)	128
Kaffrine	21.0	37.6	(1.6)	1.6	9.8	3.7	(0.5)	7.3	24.3	0.3	(1.2)	205
Kedougou	12.0	39.1	(1.5)	0.4	5.4	0.0	(0.3)	6.4	20.7	0.0	(1.1)	30
Sedhiou	21.3	41.0	(1.8)	0.8	6.9	4.0	(0.3)	7.8	26.8	0.2	(1.2)	143
Mother's education[7]												
No education	12.6	29.7	(1.2)	2.7	10.4	2.7	(0.5)	5.4	20.5	0.8	(1.1)	2,478
Primary	6.6	22.4	(0.9)	1.9	9.7	1.9	(0.5)	3.1	12.1	0.4	(0.8)	745
Secondary or more	3.6	12.2	(0.5)	0.4	9.2	2.7	(0.3)	0.6	7.3	2.7	(0.5)	297
Wealth quintile												
Lowest	15.0	35.4	(1.4)	2.6	9.5	2.5	(0.5)	6.6	23.6	0.5	(1.2)	850
Second	12.9	33.3	(1.3)	3.0	11.5	1.9	(0.6)	6.0	22.3	0.8	(1.1)	828
Middle	9.8	23.7	(1.1)	1.9	9.3	2.4	(0.5)	3.4	16.1	0.8	(1.0)	752
Fourth	8.2	22.6	(1.0)	2.3	8.9	3.3	(0.5)	3.5	13.5	0.8	(0.9)	717
Highest	5.1	13.3	(0.5)	1.2	11.6	2.4	(0.5)	1.7	9.9	1.4	(0.6)	614
Total	10.6	26.5	(1.1)	2.3	10.1	2.5	(0.5)	4.5	17.7	0.8	(1.0)	3,761

Note: Table is based on children who stayed in the household on the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards adopted in 2006. The indices in this table are NOT comparable to those based on the previously used 1977 NCHS/CDC/WHO Reference. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.

[1] Recumbent length is measured for children under age 2, or in the few cases when the age of the child is unknown and the child is less than 85 cm; standing height is measured for all other children.
[2] Includes children who are below –3 standard deviations (SD) from the WHO Growth Standards population median.
[3] Excludes children whose mothers were not interviewed.
[4] First-born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval.
[5] Includes children whose mothers are deceased.
[6] Excludes children whose mothers were not weighed and measured. Mother's nutritional status in terms of BMI (Body Mass Index) is presented in Table 11.10.
[7] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Figure 11.3
Nutritional status of children by age

Percentage

Age in months
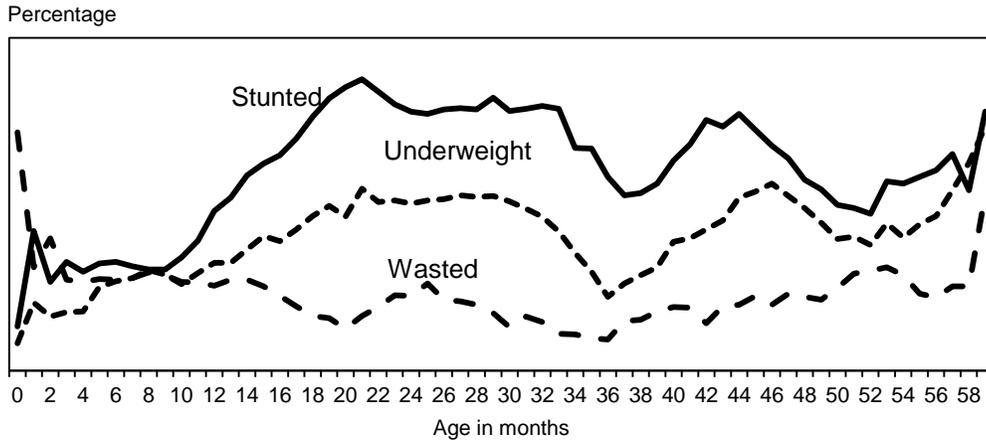
EDS-MICS 2010-11

According to place of residence, levels of stunting show considerable differences. Almost a third of children in rural areas (31 percent) are affected by stunting, compared with 19 percent in urban areas. Depending on the region, the prevalence of stunting is very high in the regions of Kolda (44 percent) and Sédhiou (41 percent); it is high in the regions of Kaffrine (38 percent) and Kédougou (39 percent), while the situation can be characterized as inconclusive in all the other regions except in Dakar (18 percent), where it is satisfactory (Figure 11.4).

Figure 11.4
Prevalence of stunting by region and mother's education
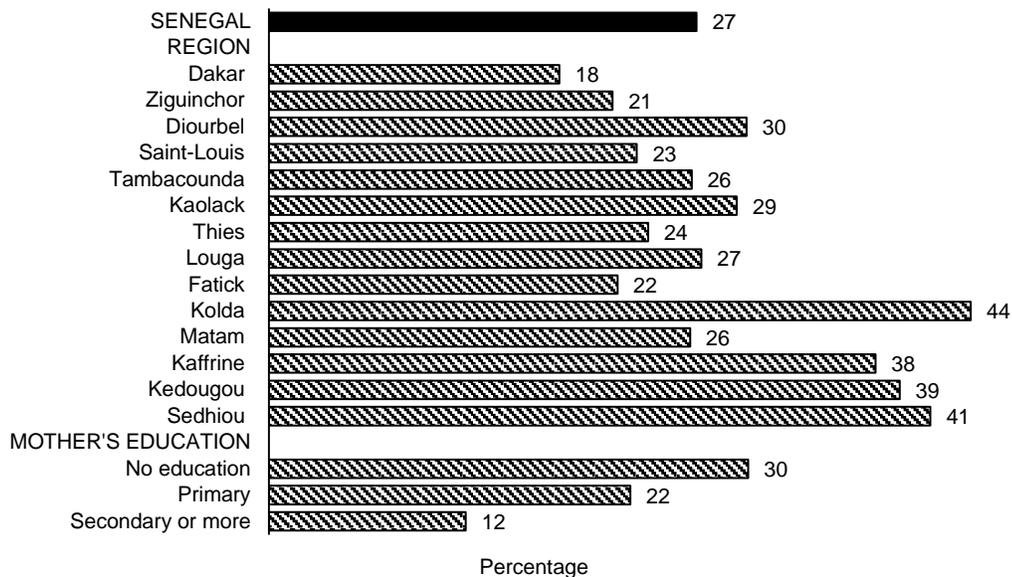
Percentage

EDS-MICS 2010-11

The educational level of the mother shows the greatest difference in the nutritional status of chidren: children whose mothers have no education (30 percent) are more affected by stunting than those whose mothers have a primary level of schooling (22 percent), and almost three times more affected than those whose mothers have secondary education or higher (12 percent). The same is true for severe stunting, which is 13 percent for children whose mothers have no education compared with 7 percent for those whose mothers have primary level, and 4 percent for children whose mothers have at least secondary education. The prevalence of stunting drops steadily from 35 percent in the poorest wealth quintile to 13 percent in the richest. This situation is not new; an econometric study using all available information on the indices of nutritional status (stunting and underweight) has showed that the wealth index, which estimates the standard of living, can explain well the nutritional status of children under age 5 in Senegal (Badji, 2006).

Based on the results of the Demographic and Health Surveys (DHS) using the new WHO standards, the degree of overall stunting in Senegal is less than that in West African countries such as Ghana 2008 (28 percent), Sierra Leone (36 percent), Mali (38 percent), Guinea (39 percent), Liberia (39 percent), Nigeria (41 percent), Benin (43 percent), Burkina Faso (43 percent), and Niger (55 percent)[1].

Wasting or thinness

Table 11.13 also shows the results for the proportion of children who are thin, measured by the weight-for-height index. This index can be strongly influencd by the season in which the data are collected. Indeed, most otf the factors that may cause an imbalance between the weight and height of the child, whether diseases (measles, diarrhea, malaria, etc.) or periods of food shortages (drought, lean periods), are very sensitive to the season. Children whose weight-for-height is below minus two standard deviations from the median of the reference population are considered to be thin or wasted, while those found below minus three standard deviations are considered to be suffering from severe wasting (WHO and UNICEF 2009). Wasting reflects acute malnutrition.

Overall acute malnutrition (OAM) is characterized as high in Senegal: one child in ten (10 percent) has a moderate or severe form of thinness. From the point of view of age, children under age 8 months are most frequently thin (more than 14 percent). Prevalence drops and the situation becomes inconclusive between 18 and 47 months (8 percent), then increases once more for children age 48-59 months (11 percent) (Figure 11.3).

Overall acute malnutrition does not differ by gender. It is high when the interval between births is less than 24 months or more than 48 months. It is also higher when the mother is malnourished (15 percent). This suggests that OAM observed in children under age 8 months could have started in uterine life. Place of residence has little connection to OAM (11 percent in rural areas and 10 percent in urban areas). OAM varies greatly by region. It is very high in the regions of Saint–Louis (18 percent), Matam (17 percent), and Louga (16 percent). It is high in Thiès (14 percent) and Tambacounda (12 percent). The situation is inconclusive in all the other regions except Ziguinchor, where it is satisfactory (4 percent). OAM is also higher when the mother has no education. OAM is not related to the level of wealth; the highest values are found in the second and fifth quintiles.

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[1] Kothari, Monica, and Noureddine Abderrahim, 2010. Nutrition Update 2010. Calverton, Maryland, USA: ICF Macro, p.7.

Overweight and obesity

A weight-for-height higher than + 2 Z-scores and lower or equal to + 3 Z-scores defines overweight. Obesity is determined by a weight index greater than +3 Z-scores. Overweight and obesity, consequences of overeating, correspond with an excessive accumulation of fat and are a risk to health. Overweight was observed in children under age 5 (Table 11.13), especially among infants. The prevalence of overweight is higher among infants under age 6 months (9 percent). It drops rapidly with age, from 5 percent for children age 9-11 months, 3 percent for those age 12-17 months, and 1 percent, on average, for children over age 17 months. Overweight is not related to gender or birth interval. If the mother is not living in the household, the prevalence of overweight drops (1 percent, versus 3 percent when the mother does live in the household). This prevalence is also slightly higher among children with malnourished mothers (3 percent, versus 2 percent when the mother is overweight or obese), and in the regions of Sédhiou (4 percent), Kaffrine (4 percent), and Dakar (3 percent). The educational level of the mother and the level of wealth do not seem to have an impact on the prevalence of overweight.

Underweight

Table 11.13 also shows the nutritional status of children as measured by the weight-for-age index. This is a combined index; a low weight-for-age can be caused by wasting or by stunting. It reflects underweight. This index is most often used by health services to monitor nutritional progress and growth of children. Like weight-for-height, this index is sensitive to seasonal variations. Children whose weight-for-age is below minus two standard deviations from the median of the reference population are considered underweight; those falling below minus three standard deviations are considered to be severely underweight. Underweight is a composite indicator that reflects chronic malnutrition and acute malnutrition at the same time.

In the EDS-MICS 2010-11, 18 percent of children are underweight (compared with 17 percent in 2005), and 5 percent are severely underweight (compared with 3 percent in 2005). Overall, the magnitude of the nutritional problem is average according to this criterion. However, there are significant disparities in the level of prevalence by background characteristics. The prevalence of underweight status is higher among children over age 11 months (Figure 11.3). This form of malnutrition occurs very early (8 percent at less than age 6 months) and increases rapidly, affecting 15 percent of children age 6-8 months, and 23 percent of children age 18-23 months. It is slightly higher in boys (19 percent) than in girls (17 percent). Children whose birth interval is less than 24 months are more likely than others to be underweight (22 percent, versus 17 percent when the interval is higher than 48 months). Being underweight is higher for children from malnourished mothers (25 percent, versus 17 percent when the nutritional status of the mother is normal). In rural areas 21 percent of children are affected by this form of malnutrition, compared with 12 percent in urban areas.

The prevalence of underweight status is high in the regions of Sédhiou (27 percent), Kolda (26 percent), Saint-Louis (25 percent), Matam (25 percent), Kaffrine (24 percent), Louga (23 percent), Tambacounda (22 percent), and Kédougou (21 percent); in these regions more than one in five children are affected. The prevalence of this form of malnutrition is lowest in the region of Dakar (9 percent). As for stunting, the mother's educational level is one of the most discriminating variables of underweight status: 7 percent of children whose mothers have secondary education or higher are underweight, versus 12 percent for those whose mothers have primary education, and 21 percent for those whose mothers have no education (Figure 11.5). Finally, in the richest households 10 percent of children are underweight, compared with 24 percent in the poorest households.

By comparing the results of the EDS-MICS 2010-11, using the new WHO standards, with those of DHS surveys in other countries in the sub-region, the situation of overall underweight status in Senegal (18 percent) is worse than that of Ghana in 2008 (14 percent); it is better than that of Liberia in 2007 (19 percent), Sierra Leone in 2008 (21 percent), Guinea (22 percent), Nigeria in 2008 (23 percent), Mali in 2006 (27 percent), Burkina Faso (33 percent), and Niger in 2006 (39 percent).[2]

Figure 11.5
Prevalence of underweight by region and mother's education

Percentage
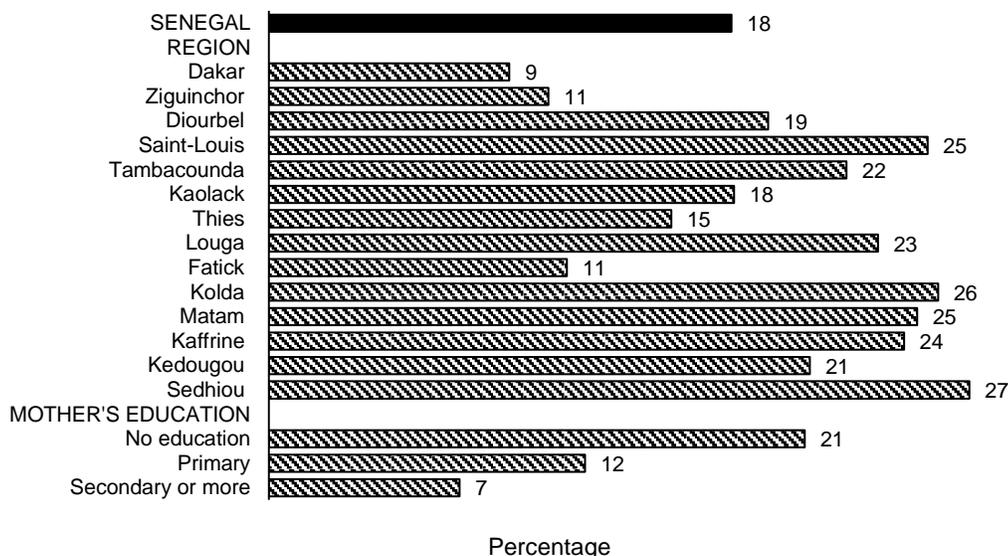
EDS-MICS 2010-11

Trends in malnutrition

The new WHO standards were introduced starting in 2006. The change in reference makes it difficult, in principle, to analyze the trends in malnutrition in Senegal between 1992 and 2010. WHO recommends a recalculation of the indices from previous studies on the basis of the new standards. Comparative studies between NCHS standards and WHO standards indicate that the transfer of the weight-for-height Z-scores of the NCHS reference data to the WHO standards using the same threshold has little effect on the overall prevalence of acute malnutrition or moderate acute malnutriiton but results in a significant increase of severe acute malnutrition. The prevalence of wasting differs, especially for infants under age 12 months (Myatt et Duffield 2007; Nutrition Group 2009).

Underweight prevalence is three times higher in children under age 6 months if the WHO standards are used. After this period, the situation is reversed. In all, for children under age 5, underweight prevalence from the WHO standards is 6 percent lower than from the NCHS reference.

Stunting calculated from the WHO standards is high in all age groups of children under age 5. For all children under age 5, the transfer of NCHS standards to those of WHO increases the prevalence of stunting by 10 percent (Onis et al., 2006).

Stunting increased between 2005 and 2010. It declined from 30 percent in 1992 to 19 percent in 2005 and increased to 27 percent in 2010. Underweight and wasting also increased between 2005 and 2010. Underweight prevalence was 18 percent in 1992, 14 percent in 2005, and 18 percent in 2010. Wasting went from 9 percent in 1992 to 9 percent in 2005 and to 10 percent in 2010.

The differences, especially in stunting between 2005 and 2010, can be explained in part by the transfer to WHO standards.

11.4.2 Nutritional Status of Women

The nutritional status of women age 15-49 is one of the determinants of maternal mortality, uneventful pregnancies, and their outcome. It also affects the morbidity and mortality of young children. The nutritional status of mothers is determined by the energy balance, their state of health, and the time elapsed since the last birth. There is, therefore, a close relationhip between fertility levels, morbidity, and the nutritional status of mothers. For these reasons, the assessment of the nutritional status of women of childbearing age is particularly useful, since it identifies groups at high risk.

Although height may vary in populations because of genetic factors, it is nevertheless an indirect indicator of socioeconomic status of the mother, since short height can result from chronic malnutrition during childhood. In addition, from an anatomical point of view, the height of mothers is associated with the width of the pelvis; women of short height are more likely to have complications during pregnancy and especially during childbirth. They are also more likely than others to have children with low birth weight. The critical size below which a woman can be considered at risk varies between populations, but it is generally accepted to be between 140 and 150 centimeters.

Table 11.14.1 shows that less than 1 percent of women have a height less than 145 centimeters, which is considered here as the critical size limit. The proportion of women whose height is below the critical limit varies by region but is less than 1 percent in all regions. The low weight of a woman before pregnancy is an important risk factor for the course and outcome of pregnancy. However, since weight varies substantially depending on height, it is preferable to use an indicator taking into account this relationship. The body mass index (BMI), or Quetelet index, is often used to express this relationship—weight (in kilograms) to the square of the height in meters (kg/m^2). It highlights the lack of weight or excess weight by controlling the height and, in addition, it has the advantage of not requiring the use of reference tables as is the case for weight-for-height. Women with a BMI of less than 18.5 are considered to have chronic energy deficiency, while a BMI above 25 indicates overweight.

In Senegal the BMI is, on average, 22 kg/m^2. The mean BMI increases with age (20 for age 15-19 and 25 for age 40 and over). It is higher in urban areas (23) than in rural areas (21). The difference by region is not significant (from 21 in the region of Thiès to 23 in the region of Dakar). It does not vary with the level of education of women but increases slightly with the level of household wealth.

A relatively large proportion of women (22 percent) are below the critical BMI threshold of 18.5 corresponding to chronic energy deficiency. In contrast, 21 percent of women have a high index (25 or more) and fall into the category of overweight. The proportion of women below the critical threshold of 18.5 varies significantly by background characteristics (Table 10.14). The level of chronic energy deficiency is highest (35 percent) among the youngest women (age 15-19). The proportion declines steadily with age: among women age 20-29 this proportion is 25 percent compared with 9 percent among those age 40 and over. The prevalence of chronic energy deficiency is higher in rural areas (26 percent) than urban areas (18 percent). By region, the level of energy deficiency varies from 11 percent in the region of Ziguinchor to 39 percent in the Louga region.

There is no obvious connection with the level of women's education or with household wealth. However, prevalence is higher among the poorest households (26 percent) than the richest households (16 percent).

Overweight and obesity (IMC≥25) affect 21 percent of women of childbearing age. The prevalence of overweight status increases with age (7 percent for age 15-19 to 41 percent for age 40 and over). The proportion of overweight or obese women is twice as high in urban areas as in rural areas (29 percent versus 14 percent). It also varies with the level of household wealth (13 percent for the poorest households compared with 31 percent for the richest households). Less than one woman in five is overweight or obese in all regions except Dakar (33 percent), Ziguinchor (26 percent), Saint-Louis and Thiès (21 percent each). In the regions of Kédougou and Kaffrine, one woman in ten is overweight or obese.

Obesity affects 6 percent of women and especially concerns women age 40 and over. The prevalence of obesity is three times higher in urban areas than in rural areas (9 percent versus 3 percent). It also varies from from 13 percent for the poorest households to 31 percent for the richest households.

Table 11.14.1 Nutritional status of women

Among women age 15-49, the percentage with height under 145 cm, mean body mass index (BMI), and the percentage with specific BMI levels, by background characteristics, EDS-MICS, Senegal 2010-11

| | Height | | | Body Mass Index[1] | | | | | | | |
| | | | | Normal | Thin | | | Overweight/obese | | | |
Background characteristic	Percentage below 145 cm	Number of women	Mean body mass index (BMI	18.5-24.9 (total normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17 (moder-ately and severely thin)	≥25.0 (total over-weight or obese)	25.0-29.9 (over-weight)	≥30.0 (obese)	Number of women
Age											
15-19	0.5	1,301	20.0	58.4	34.5	18.7	15.8	7.1	6.6	0.5	1,230
20-29	0.2	2,144	21.3	59.2	24.6	16.2	8.4	16.2	12.5	3.7	1,858
30-39	0.1	1,419	23.1	55.6	14.6	9.8	4.8	29.8	21.0	8.8	1,227
40-49	0.1	914	24.6	50.2	9.2	5.9	3.3	40.6	26.9	13.7	872
Residence											
Urban	0.2	2,840	22.8	52.9	18.3	11.3	6.9	28.9	20.3	8.6	2,610
Rural	0.3	2,937	21.1	60.5	25.8	15.8	10.0	13.7	10.7	3.0	2,577
Region											
Dakar	0.0	1,498	23.3	50.3	16.5	10.8	5.8	33.2	24.0	9.2	1,366
Ziguinchor	0.6	228	22.8	62.6	11.4	6.4	5.0	26.0	17.7	8.3	209
Diourbel	0.2	661	20.8	56.8	29.4	16.0	13.5	13.8	11.2	2.6	609
Saint-Louis	0.2	349	22.0	58.5	20.6	12.1	8.5	20.9	12.8	8.1	309
Tambacounda	0.2	251	21.7	55.5	25.4	16.0	9.4	19.1	13.2	6.0	213
Kaolack	0.4	453	21.6	65.9	18.6	12.6	6.0	15.5	12.2	3.2	407
Thies	0.0	767	22.1	58.5	20.9	12.4	8.4	20.6	15.3	5.3	698
Louga	0.6	407	20.5	47.7	39.3	20.8	18.5	13.0	9.5	3.6	373
Fatick	0.0	284	22.0	65.4	16.1	12.0	4.1	18.5	13.6	4.9	247
Kolda	0.9	241	21.3	56.9	25.9	18.3	7.5	17.2	12.7	4.5	202
Matam	0.3	217	21.4	57.8	27.0	16.6	10.5	15.2	10.0	5.2	192
Kaffrine	0.3	223	21.1	63.2	24.2	17.4	6.8	12.6	9.6	3.0	191
Kedougou	0.4	40	21.1	71.0	19.1	13.1	6.0	9.9	9.0	0.8	36
Sedhiou	0.9	159	21.4	65.7	21.3	15.6	5.7	13.0	9.0	4.0	135
Education											
No education	0.3	3,315	21.9	57.3	22.5	14.4	8.1	20.2	14.6	5.6	2,904
Primary	0.2	1,255	22.4	54.8	19.6	11.5	8.1	25.6	18.3	7.4	1,124
Secondary or more	0.0	1,208	21.8	57.1	22.9	13.4	9.6	19.9	15.2	4.8	1,160
Wealth quintile											
Lowest	0.7	942	21.0	61.6	25.8	16.7	9.1	12.5	10.0	2.5	795
Second	0.2	991	21.2	63.1	23.9	15.3	8.5	13.1	9.9	3.2	870
Middle	0.2	1,173	21.9	58.6	21.8	12.6	9.1	19.6	13.4	6.2	1,066
Fourth	0.1	1,275	22.1	50.3	24.9	14.9	9.9	24.8	19.0	5.9	1,168
Highest	0.1	1,397	23.1	53.5	15.9	9.9	6.0	30.6	21.3	9.3	1,288
Total	0.2	5,778	22.0	56.7	22.0	13.5	8.4	21.3	15.5	5.8	5,187

Note: The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m2).
[1] Excludes pregnant women and women with a birth in the preceding two months.

11.4.3 Nutritional Status of Men

The BMI is, on average, 20 kg/m^2 for men age 15-49 and 21 kg/m^2 for men age 15-59. The mean BMI increases slightly with age (19 for men age 15-19 and 22 for those age 40 and over). It does not vary with place of residence or level of household wealth. There is little variation by region (from 19 in the Louga region to 21 in Ziguinchor).

A relatively high proportion of men (27 percent) are below the critical threshold of 18.5 BMI, the level corresponding to chronic energy deficiency. On the other end, 9 percent of men have a high BMI (25 or more) and fall into the category of overweight. The proportion of men with chronic energy deficiency varies significantly by background characteristics (Table 11.14.2). The level of chronic energy deficiency is highest (51 percent) among the youngest men (age 15-19), and decreases with age to 15 percent among men age 40-49. The prevalence of chronic energy deficiency is higher in rural areas (31 percent) than in urban areas (26 percent). By region, the level of energy deficiency varies from 17 percent in the region of Ziguinchor to 41 percent in Diourbel. There are no significant variations with the level of household wealth.

Table 11.14.2 Nutritional status of men

Among men age 15-49, mean body mass index (BMI), and the percentage with specific BMI levels, by background characteristics, EDS-MICS, Senegal 2010-11

		Body Mass Index							
		Normal	Thin			Overweight/obese			
Background characteristic	Mean body mass index (BMI)	18.5-24.9 (total normal)	<18.5 (total thin)	17.0-18.4 (mildly thin)	<17 (moderately and severely thin)	≥25.0 (total overweight or obese)	25.0-29.9 (overweight)	≥30.0 (obese)	Number of men
Age									
15-19	18.5	48.2	51.4	25.7	25.7	0.4	0.4	0.1	1,068
20-29	20.4	74.8	21.8	14.6	7.2	3.4	2.8	0.6	1,447
30-39	21.2	69.0	18.2	10.1	8.1	12.8	11.8	1.0	884
40-49	22.1	65.6	14.9	9.8	5.1	19.5	15.8	3.7	597
Residence									
Urban	20.6	65.6	25.8	14.7	11.2	8.6	7.4	1.2	2,257
Rural	20.0	64.3	30.5	17.4	13.1	5.1	4.3	0.8	1,739
Region									
Dakar	20.8	67.9	23.4	12.2	11.2	8.7	7.7	1.1	1,243
Ziguinchor	21.3	74.7	16.6	11.9	4.7	8.8	6.9	1.9	200
Diourbel	19.4	53.1	40.9	21.2	19.7	6.0	5.1	0.9	287
Saint-Louis	19.9	58.0	36.1	17.5	18.7	5.8	5.4	0.4	224
Tambacounda	20.4	73.7	21.7	12.0	9.6	4.6	3.0	1.6	197
Kaolack	20.1	63.0	30.4	19.3	11.1	6.6	5.4	1.2	283
Thies	20.4	68.7	24.2	14.6	9.6	7.1	6.4	0.7	533
Louga	19.0	46.5	48.0	27.7	20.3	5.4	5.4	0.0	237
Fatick	20.9	65.9	25.3	13.8	11.5	8.8	6.0	2.8	200
Kolda	20.2	68.0	27.7	20.2	7.5	4.3	3.8	0.5	190
Matam	20.0	57.8	34.4	17.2	17.2	7.7	6.3	1.5	126
Kaffrine	19.7	61.7	34.6	22.1	12.5	3.7	2.9	0.8	133
Kedougou	20.7	79.7	17.8	13.7	4.0	2.5	1.9	0.6	25
Sedhiou	20.7	73.9	19.5	13.4	6.1	6.6	6.2	0.3	116
Education									
No education	20.5	65.6	26.5	15.4	11.1	7.9	6.9	1.0	1,435
Primary	20.4	65.1	28.4	15.3	13.1	6.6	5.7	0.9	1,166
Secondary or more	20.2	64.4	28.9	16.8	12.1	6.7	5.6	1.1	1,395
Wealth quintile									
Lowest	19.8	65.5	31.5	18.1	13.4	3.1	2.4	0.7	588
Second	20.2	66.5	28.3	16.7	11.5	5.3	4.1	1.2	617
Middle	20.2	65.3	28.1	16.7	11.4	6.6	5.9	0.6	829
Fourth	20.3	64.3	29.3	16.0	13.3	6.4	5.4	1.1	896
Highest	20.8	64.3	24.3	13.3	11.0	11.3	10.0	1.3	1,066
Total 15-49	20.3	65.0	27.9	15.9	12.0	7.1	6.1	1.0	3,996
Men 50-59	22.4	59.3	16.7	11.2	5.5	24.1	19.3	4.7	473
Total 15-59	20.6	64.4	26.7	15.4	11.3	8.9	7.5	1.4	4,469

Note: The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m^2).

Overweight and obesity (IMC≥25) affect 7 percent of men age 15-49 and 24 percent of men age 50-59. Prevalence increases with age (from less than 1 percent for men age 15-19 to 20 percent for those age 40-49). The proportion of overweight or obese men is higher in urban than rural areas. (9 percent versus 5 percent). It also varies with the level of household wealth (3 percent for the poorest households compared with 11 percent for the richest households). Less than one man in every ten is overweight or obese in all regions and, at least in the region of Kédougou, in one man in every forty (2.5 percent).

Obesity affects 1 percent of men overall, and its prevalence does not reach 5 percent in any group.

The mean BMI for men (21 kg/m^2) is slightly lower than that for women (22 kg/m^2). However, the proportion of men classed as normal according to the BMI is higher among men (65 percent, versus 57 percent for women). The prevalence of overweight and obesity (IMC≥25) among men (9 percent) is almost three times lower than among women (21 percent).

MALARIA

12

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Malaria is caused by a parasite, *Plasmodium*, transmitted by mosquitoes that carry it. The populations most vulnerable to malaria are children under age 5 and pregnant women. The burden of malaria remains most significant in Africa. However, in its 2010 report on malaria worldwide, WHO reported that in 11 African countries the numbers of confirmed malaria cases, hospitalizations, and deaths from the disease have dropped by more than 50 percent over the past decade. These positive results are the consequence of a sustained effort to eliminate deaths from malaria by 2015. These important advances have been made through the mass distribution of insecticide-treated nets (ITNs), development of programs for indoor spraying of residual insecticide (IRS), and greater use of artemisinine combination therapy (ACT).

In Senegal, the National Program Against Malaria [Programme National de Lutte contre le Paludisme] (PNLP) has included in its strategic planning the promotion of the use of ITNs as a focus of major intervention to reduce morbidity and mortality related to malaria. This choice is in line with the recommendations made by WHO and is justified by the proven reduction by about 20 percent of infant mortality due to the extensive use of treated mosquito nets by communities—hence, the PNLP's goal of achieving an ITN usage rate of 80 percent in 2010. In order to achieve this objective, the PNLP and its partners have implemented programs for the supply and distribution of Llong-lasting insecticidal nets (LLINs). This distribution is made during routine activities through health facilities and grassroots organizers (subsidized sales), but also through free distribution campaigns.

Senegal also adopted a therapeutic treatment policy in 2003. This therapy consists of prescribing an artemisinine combination therapy in health facilities. For the treatment of uncomplicated malaria, new ACT treatment protocols are being adopted by health providers in all health facilities. During the period before the arrival of the first ACTs, the policy prescribed the combination of sulfadoxine-pyrimethamine (SP or Fansidar) and amodiaquine. Beginning in the first half of 2006 with the arrival of artesunate-amodiaquine, the new protocols were in place. As for quinine, it is only indicated for severe cases of malaria in children, as well as adults and pregnant women.

Rapid diagnostic tests (RDTs) that were the subject of a feasibility and acceptablilty study at the operational level in 2006 have proven indispensible for proper management of cases and for a better understanding of malarial morbidity in the country. Therefore, in the third quarter of 2007 the PNLP proceeded with the implementation of this diagnostic tool in health facilities by starting first with the training of providers and then with the free allocation of RDTs. The RDT implementation was accompanied by the introduction of a flow chart for the diagnosis and management of uncomplicated malaria. This flowchart requires RDTs for people of any age with a fever, after eliminating any other cause of fever and only treating cases testing positive.

The information collected during the EDS-MICS 2010-11 assesses the interventions that have been conducted in Senegal in the campaign against malaria, in order to highlight progress and efforts needed to strengthen the prevention system.

12.1 MOSQUITO NETS AND INDOOR SPRAYING

Malaria prevention is based on two measures: a set of precautions to reduce the risk of infections and preventive use of certain medications. The use of insecticide-treated nets and indoor residual spraying of insecticide are among the most effective means of prevention.

The strategic option chosen by the PNLP is that of universal access to LLINs, to ensure coverage and their use, particularly by the most vulnerable populations. Indoor residual spraying is also a key component of the strategy in the campaign against malaria in Senegal.

12.1.1 Possession of Mosquito Nets

The data collected during the EDS-MICS 2010-11 were used to assess the proportion of households with mosquito nets, treated or untreated, those with ITNs, and those with an LLIN. An LLIN is a mosquito net which has been impregnated with insecticide by the manufacturer and which does not require further treatment. An ITN is either an LLIN or a pre-treated mosquito net obtained less than 12 months ago, or a mosquito net that has been soaked in an insecticide less than 12 months ago.

Table 12.1.1 shows the percentage of households with at least one mosquito net of any type, those with more than one net, and the average number of nets per household. The same information is provided for possession of ITNs, as well as LLINs.

More than seven out of ten households (72 percent, versus 68 percent in the ENPS-II of 2008-2009), have at least one mosquito net. Most nets are treated: 63 percent have an ITN type mosquito net, and 58 percent have an LLIN.

The proportion of households with at least one ITN type of treated net is higher in rural areas (73 percent) than urban areas (52 percent). Variations between regions are also significant, which is due to the implementation of the strategy of universal coverage with LLINs by the PNLP. Before the interviewers came, the regions of Kolda, Sédhiou, Kédougou, and Tambacounda were given a mass distribution of nets targeting each sleeping area. The highest proportions of households with mosquito nets are found in the regions of Kolda (95 percent), Sédhiou and Kédougou (94 percent each), and Kaolack (88 percent). The lowest proportions are found in Dakar (37 percent), followed by Thiès (53 percent), Louga (61 percent), and Diourbel (65 percent). Similar differences are generally observed for LLIN type treated nets.

An average household has 2.3 mosquito nets of any type (versus 2.0 nets in the ENPS-II of 2008-2009). With regard to ITNs, the average is 1.9. In addition, 43 percent of households have more than one LLIN, with an average of 1.6 per household.

Table 12.1.1 Household possession of mosquito nets

Percentage of households with at least one mosquito net (treated or untreated), insecticide-treated net (ITN), and long-lasting insecticidal net (LLIN); average number of nets, ITNs, and LLINs per household; and percentage of households with at least one net, ITN, and LLIN per two persons who stayed in the household last night, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Any mosquito net			Insecticide-treated mosquito net (ITN)[1]			Long-lasting insecticidal net (LLIN)			Number of households
	Percentage having at least one per household	Percentage having more than one per household	Average number of nets per household	Percentage having at least one per household	Percentage having more than one per household	Average number of ITNs per household	Percentage having at least one per household	Percentage having more than one per household	Average number of LLINs per household	
Residence										
Urban	60.2	44.4	1.7	52.2	36.7	1.4	47.1	32.1	1.2	3,864
Rural	83.8	72.9	2.9	73.2	60.0	2.4	67.5	53.7	2.1	4,038
Region										
Dakar	46.6	28.9	1.0	37.0	21.7	0.8	32.2	19.1	0.7	2,112
Ziguinchor	86.7	71.2	2.9	79.5	63.9	2.5	77.4	61.6	2.4	343
Diourbel	85.6	73.0	2.9	65.1	50.4	1.9	63.2	48.7	1.8	810
Saint-Louis	91.2	79.8	3.1	79.3	63.4	2.2	67.9	51.6	1.8	558
Tambacounda	82.5	69.4	2.8	79.3	65.3	2.6	76.7	62.0	2.5	373
Kaolack	90.8	82.4	3.6	87.6	76.1	3.3	72.3	51.4	1.8	514
Thies	58.4	45.4	1.6	52.8	38.6	1.4	47.8	33.2	1.2	1,017
Louga	78.3	61.6	2.2	61.3	42.8	1.5	50.5	32.1	1.2	496
Fatick	87.6	77.5	3.0	77.5	63.0	2.4	72.1	58.3	2.1	413
Kolda	95.4	88.0	4.0	94.7	86.9	3.9	93.5	86.8	3.9	333
Matam	92.2	81.4	3.3	69.6	51.1	2.0	62.4	44.9	1.7	286
Kaffrine	69.2	57.8	2.2	68.9	57.5	2.2	68.9	57.4	2.2	330
Kedougou	96.0	86.5	3.4	94.2	82.6	3.2	92.3	79.6	3.1	83
Sedhiou	95.2	89.6	4.2	94.4	88.8	4.1	94.1	88.6	4.0	235
Wealth quintile										
Lowest	85.1	72.2	2.8	75.0	60.0	2.4	70.4	55.6	2.1	1,600
Second	84.2	72.4	2.8	75.5	61.5	2.3	68.9	53.4	2.0	1,584
Middle	77.9	64.9	2.7	69.1	55.4	2.2	62.9	47.9	1.8	1,490
Fourth	65.8	49.7	2.0	53.8	38.5	1.5	48.4	35.3	1.3	1,574
Highest	49.7	36.8	1.4	42.4	28.8	1.1	37.8	24.6	0.9	1,653
Total	72.3	59.0	2.3	62.9	48.6	1.9	57.5	43.2	1.6	7,902

[1] An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN), or (2) a pretreated net obtained within the past 12 months, or (3) a net that has been soaked with insecticide within the past 12 months.

Notable differences are found according to wealth quintile. Possession of mosquito nets decreases with improvement in the economic level of households. The wealthiest households are less exposed to mosquitoes or can get other means of protection such as insecticides or screens or curtains in the doors and windows.

It should be noted that field work for the EDS-MICS 2010-11 took place between October 2010 and April 2011. More than half of the field work (55 percent) took place between October and December. The regions surveyed during this time period are Dakar, Saint-Louis, Louga, and Matam, as shown in Table 12.1.2.

Table 12.1.2 Month of interview

Percent distribution of the households by month of interview according to the region, EDS-MICS, Senegal 2010-11

| | Month of interview | | | | | | | | |
| | 2010 | | | 2011 | | | | | |
Region	October	November	December	January	February	March	Aprill	May	Total
Dakar	57.8	29.1	13.0	-000	-	-	-	0.1	100.0
Ziguinchor	-	-	-	-	-	9.6	90.4	-	100.0
Diourbel	-	-	34.9	40.0	13.9	11.3	-	-	100.0
Saint-Louis	17.4	71.5	11.1	-	-	-	-	-	100.0
Tambacounda	-	-	23.2	31.3	32.5	10.7	2.3	-	100.0
Kaolack	-	-	11.7	25.0	24.6	28.6	10.1	-	100.0
Thies	-	-	35.7	26.7	23.3	14.3	0.0	-	100.0
Louga	11.2	59.7	26.8	-	-	-	2.3	-	100.0
Fatick	-	-	0.0	8.7	38.5	35.5	17.3	-	100.0
Kolda	-	-	23.2	41.9	34.0	0.8	-	-	100.0
Matam	4.4	41.5	54.1	-	-	-	-	-	100.0
Kaffrine	-	-	12.2	33.2	22.6	30.7	1.2	-	100.0
Kedougou	-	-	14.7	34.3	31.9	19.0	-	-	100.0
Sedhiou	-	-	-	-	10.2	71.2	18.6	-	100.0
Total	17.5	18.1	19.6	14.6	12.6	11.3	6.3	0.1	100.0
Number of households	1,383	1,429	1,546	1,155	995	890	501	3	7,902

12.1.2 Indoor Residual Spraying (IRS)

IRS is a highly effective preventive strategy, which has proven itself and saves lives. It is a vector control technique that consists of spraying liquid insecticide on the interior walls of houses. Its effect is twofold:

- A lethal effect: Anopheles that are inside the house are killed within a few moments of landing on the walls.

- A repellent effect: IRS deters anopheles from entering a house whose walls are sprayed with insecticide.

- In addition, some insecticides used in IRS greatly reduce the presence of other pests such as cockroaches and flies.

In Senegal, indoor residual spraying is one of the main focal points of strategic intervention in the PNLP campaign against malaria. However, given its cost and complexity, it has only been implemented in a few health districts in the regions of Saint-Louis, Tambacounda, Kaolack, Kédougou, and Kolda. Overall, the results in Table 12.2.1 show that 9 percent of the households surveyed reported that the internal walls of their homes were sprayed in the 12 months preceding the survey. This percentage has more than tripled over that reported in the ENPS-I of 2006 (3 percent), but has changed very little since the ENPS-II of 2008-2009 (10 percent).

Differential analysis of IRS according to select background characteristics of households shows that houses in rural areas are sprayed slightly more often than those in urban areas (10 percent versus 8 percent). By region, Kolda (39 percent) and Kaolack (37 percent) come first, followed by Tambacounda (21 percent), Saint-Louis (17 percent), and Kédougou (14 percent). In other regions the proportions vary between 6 percent in Dakar and less than 1 percent in Louga. The percentage of IRS also varies by wealth quintile (14 percent in the poorest quintile and less than 6 percent in the fourth quintile).

The same table shows that two-thirds of Senegalese households (66 percent) have at least one ITN and/or have received IRS in the last 12 months. Overall, differential analysis of this indicator according to household characteristics shows results that are similar to those related to the possession of mosquito nets reported in Table 12.2.1.

Table 12.2.1 Indoor residual spraying against mosquitoes by background characteristics

Percentage of households in which someone has come into the dwelling to spray the interior walls against mosquitoes (IRS) in the past 12 months, the percentage of households with at least one ITN and/or IRS in the past 12 months, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage of households with IRS[1] in the past 12 months	Percentage of households with at least one ITN[2] and/or IRS in the past 12 months	Number of households
Residence			
Urban	7.7	55.5	3,864
Rural	11.0	75.2	4,038
Region			
Dakar	6.0	41.6	2,112
Ziguinchor	3.3	79.8	343
Diourbel	2.1	66.0	810
Saint-Louis	16.5	83.4	558
Tambacounda	21.0	85.8	373
Kaolack	37.4	91.7	514
Thies	3.3	54.0	1,017
Louga	0.8	61.5	496
Fatick	2.6	77.5	413
Kolda	39.0	98.6	333
Matam	4.1	70.6	286
Kaffrine	5.7	70.8	330
Kedougou	14.0	94.2	83
Sedhiou	1.0	94.4	235
Wealth quintile			
Lowest	13.9	77.6	1,600
Second	11.7	77.4	1,584
Middle	8.6	71.7	1,490
Fourth	5.5	55.6	1,574
Highest	7.2	46.5	1,653
Total	9.4	65.6	7,902

[1] Indoor residual spraying (IRS) is limited to spraying conducted by a government, private, or non-governmental organization.
[2] An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN), or (2) a pretreated net obtained within the past 12 months, or (3) a net that has been soaked with insecticide within the past 12 months.

Regarding the six health districts (PMI project) that have been oversampled, Table 12.2.2 shows that the percentage of IRS has reached 80 percent compared with 9 percent at the national level. The percentages observed in the six districts vary between 73 percent in the Guinguinéo district of Kaolack and 91 percent in the district of Koumpentoum in the Tambacounda region.

Comparing sources of spraying (table not shown), public sector services are by far in the lead, with 58 percent, followed by non-governmental organizations (NGOs), with 19 percent, while the private sector plays only a limited role (11 percent).

Table 12.2.2 Indoor residual spraying against mosquitoes by health district

Percentage of households in which someone has come into the dwelling to spray the interior walls against mosquitoes (IRS) in the past 12 months, the percentage of households with at least one ITN and/or IRS in the past 12 months, by health district, EDS-MICS, Senegal 2010-11

Health district	Percentage of households with IRS[1] in the past 12 months	Percentage of households with at least one ITN[2] and/or IRS in the past 12 months	Number of households
Kaolack	**75.2**	**93.4**	**842**
-GUINGUINEO	73.0	90.1	189
-NIORO	75.8	94.3	654
Kaffrine	**78.5**	**97.5**	**89**
-MALEME HODAR	78.5	97.5	89
Kolda	**84.7**	**99.4**	**520**
-VELINGARA	84.7	99.4	520
Saint-Louis	**76.1**	**97.4**	**256**
-RICHARD TOLL	76.1	97.4	256
Tambacounda	**91.3**	**98.7**	**205**
-KOUMPENTOUM	91.3	98.7	205
Ensemble	79.8	93.1	1,913

[1] Indoor residual spraying (IRS) is limited to spraying conducted by a government, private or non-governmental organization.
[2] An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN), or (2) a pretreated net obtained within the past 12 months, or (3) a net that has been soaked with insecticide within the past 12 months.

12.1.3 Use of Mosquito Nets by Persons in the Household

The PNLP has set a goal of 80 percent for ITN use in the general population. Special attention is always given to vulnerable groups, such as children under age 5 and pregnant women. To assess the level of net use by the population, during the survey respondents were asked for a list of all persons who slept under a mosquito net the night preceding the interview. Information on each person's age and the pregnancy status of women provided the frequency of net use in the general population (all ages and all sexes combined), as well as net use among the two vulnerable groups of children under age 5 and pregnant women.

Table 12.3 on the use of mosquito nets by the general population shows that 35 percent of members in the households interviewed slept under a net of any kind the night preceding the survey (in the ENPS-II of 2008-09 the proportion was 27 percent). This level of use is still low compared with the target goal set for this indicator (80 percent). Approximately 29 percent of household members reported that they slept under an ITN net and 25 percent under an LLIN type net (these proportions were, respectively, 23 percent and 22 percent in the ENPS-II of 2008-09). In addition, 36 percent of members slept under an ITN net the night before the survey or in a dwelling whose interior walls had been sprayed (IRS) in the last 12 months. Finally, among households with ITNs, 44 percent of members slept under this type of mosquito net the previous night.

Table 12.3 Use of mosquito nets by persons in the household

Percentage of the *de facto* household population who slept the night before the survey under a mosquito net (treated or untreated), under an insecticide-treated net (ITN), under a long-lasting insecticidal net (LLIN), and under an ITN or in a dwelling in which the interior walls have been sprayed against mosquitoes (IRS) in the past 12 months; and among the *de facto* household population in households with at least one ITN, the percentage who slept under an ITN the night before the survey, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Household population					Household population in households with at least one ITN[1]	
	Percentage who slept under any net last night	Percentage who slept under an ITN[1] last night	Percentage who slept under an LLIN last night	Percentage who slept under an ITN[1] last night or in a dwelling sprayed with IRS[2] in the past 12 months	Number	Percentage who slept under an ITN[1] last night	Number
Age (in months)							
<5	41.0	34.5	30.8	41.7	12,395	49.0	8,722
5-14	33.2	27.4	23.9	35.3	20,457	40.1	13,964
15-34	31.7	26.3	22.6	33.6	22,975	40.8	14,774
35-39	37.4	30.8	27.0	37.3	8,233	48.3	5,240
50+	38.6	30.5	26.7	37.0	9,002	47.8	5,752
DK/Missing	14.9	10.3	8.6	22.7	304	29.0	107
Sexe							
Male	32.9	27.0	23.5	34.9	34,580	40.8	22,946
Female	37.1	30.6	26.8	37.4	38,785	46.3	25,615
Residence							
Urban	29.9	25.2	21.9	31.6	32,901	44.5	18,624
Rural	39.4	32.0	28.0	40.0	40,464	43.2	29,937
Region							
Dakar	17.0	13.7	11.8	20.4	17,028	32.1	7,256
Ziguinchor	44.3	40.2	38.9	42.6	2,781	48.6	2,297
Diourbel	38.6	25.5	24.6	27.6	8,122	39.9	5,179
Saint-Louis	63.4	47.6	39.8	57.0	4,769	58.7	3,861
Tambacounda	37.8	35.2	33.2	51.5	3,772	43.8	3,030
Kaolack	45.0	41.5	24.5	68.0	5,669	47.9	4,910
Thies	22.3	19.7	16.8	22.7	9,670	38.1	5,003
Louga	30.4	21.9	15.7	22.5	5,113	32.7	3,422
Fatick	32.3	25.6	23.0	27.3	4,023	32.7	3,147
Kolda	57.5	56.3	56.0	76.1	3,429	59.2	3,261
Matam	59.9	36.2	31.3	38.9	2,891	48.2	2,170
Kaffrine	31.8	31.5	31.4	36.9	2,991	45.1	2,086
Kedougou	48.7	46.7	44.2	57.0	622	49.1	591
Sedhiou	61.6	60.3	60.1	60.9	2,484	63.8	2,348

...Continued

Table 12.3 Use of mosquito nets by persons in the household--*Continued*

| Background characteristic | Household population | | | | | Household population in households with at least one ITN[1] | |
	Percentage who slept under any net last night	Percentage who slept under an ITN[1] last night	Percentage who slept under an LLIN last night	Percentage who slept under an ITN[1] last night or in a dwelling sprayed with IRS[2] in the past 12 months	Number	Percentage who slept under an ITN[1] last night	Number
Wealth quintile							
Lowest	40.4	34.5	31.2	44.7	14,615	45.1	11,166
Second	42.2	35.5	30.3	44.3	14,630	46.2	11,247
Middle	41.3	33.8	29.2	39.5	14,642	46.8	10,556
Fourth	31.4	24.6	21.9	30.2	14,735	41.7	8,713
Highest	20.4	16.3	13.8	22.7	14,743	35.0	6,879
Total	35.1	28.9	25.3	36.2	73,365	43.7	48,561

[1] An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN), or (2) a pretreated net obtained within the past 12 months, or (3) a net that has been soaked with insecticide within the past 12 months.
[2] Indoor residual spraying (IRS) is limited to spraying conducted by a government, private, or non-governmental organization.

12.1.4 Use of Mosquito Nets by Vulnerable Groups

Although the Ministry of Health, Prevention and Public Hygiene has set a goal to protect the general population with ITNs, it nevertheless gives special attention to children under age 5 and to pregnant women. These two vulnerable population groups are the subject of special monitoring.

Use of mosquito nets by children under age 5: Table 12.4 shows the proportion of children under age 5 who slept under a mosquito net the night preceding the survey, for each type of net and by selected background characteristics.

More than four out of ten children (41 percent) slept under some kind of mosquito net the night preceding the survey. In the ENPS-II, this proportion was 33 percent, for an increase of 23 percent between surveys. Approximately 35 percent of children slept under an ITN, and 31 percent under an LLIN type net (these proportions were, respectively, 31 percent and 29 percent in the ENPS-II). In addition, 42 percent of children slept under an ITN or in a house where the interior walls were sprayed in the last 12 months.

Among children living in households with at least one ITN net, almost half (49 percent) slept under this type of net the night before the survey. The proportion of children who slept under an ITN does not vary significantly with the age of the child, at 51 percent for children age 12-23 months and 47 percent for those age 48-59 months.

It is important to note that there is no gender difference in the use of mosquito nets; whatever the type, the proportion is almost the same for girls and boys. The use of any type of mosquito net is more common in rural than urban areas.

By region, there is significant variation in the level of net use among children under age 5. For example, for ITNs, the regions of Dakar (18 percent), Louga (25 percent), Thiès (26 percent), Fatick (28 percent), and Diourbel (29 percent) have the lowest proportions. Conversely, Sédhiou (66 percent), Kolda (58 percent), Saint-Louis (54 percent), Kédougou (54 percent), and Ziguinchor (50 percent) have the highest levels of use.

Table 12.4 Use of mosquito nets by children

Percentage of children under age 5 who, the night before the survey, slept under a mosquito net (treated or untreated), under an insecticide-treated net (ITN), under a long-lasting insecticidal net (LLIN), and under an ITN or in a dwelling in which the interior walls have been sprayed against mosquitoes (IRS) in the past 12 months; and among children under age 5 in households with at least one ITN, the percentage who slept under an ITN the night before the survey, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Children under age 5 in all households					Children under age 5 in households with at least one ITN[1]	
	Percentage who slept under any net last night	Percentage who slept under an ITN[1] last night	Percentage who slept under an LLIN last night	Percentage who slept under an ITN[1] last night or in a dwelling sprayed with IRS[2] in the past 12 months	Number of children	Percentage who slept under an ITN[1] last night	Number
Age (in months)							
<12	41.7	35.3	30.7	42.8	2,505	50.1	1,767
12-23	44.0	36.9	33.6	43.7	2,397	51.1	1,732
24-35	39.9	34.4	30.9	41.6	2,524	48.6	1,785
36-47	40.1	32.8	29.2	40.2	2,596	48.5	1,756
48-59	39.5	33.1	29.6	40.4	2,373	46.8	1,681
Sex							
Male	41.1	34.2	30.2	41.2	6,340	48.4	4,477
Female	41.0	34.9	31.4	42.3	6,054	49.7	4,245
Residence							
Urban	36.2	31.3	27.4	37.2	4,648	50.7	2,867
Rural	43.9	36.4	32.8	44.4	7,746	48.2	5,855
Region							
Dakar	20.6	17.5	15.5	24.2	2,372	36.1	1,150
Ziguinchor	52.8	49.7	47.5	50.4	400	58.3	340
Diourbel	43.9	28.9	28.6	30.4	1,526	44.2	997
Saint-Louis	69.1	54.4	46.5	62.9	831	65.7	688
Tambacounda	39.1	37.0	35.1	52.5	703	46.6	559
Kaolack	49.8	46.2	30.4	73.7	1,086	53.5	938
Thies	29.0	25.9	21.7	28.1	1,495	46.1	841
Louga	34.6	25.3	20.4	25.8	855	36.5	592
Fatick	34.9	28.3	25.9	29.3	748	36.4	582
Kolda	59.7	58.4	58.4	77.4	687	61.5	652
Matam	64.0	40.1	35.7	42.1	542	51.7	420
Kaffrine	36.8	36.7	36.6	42.6	581	50.1	425
Kedougou	54.6	53.5	51.1	62.1	111	55.9	106
Sedhiou	66.2	65.5	65.4	66.3	461	69.7	433
Wealth quintile							
Lowest	44.2	38.2	35.3	48.2	2,904	49.2	2,257
Second	46.8	40.6	35.2	49.9	2,785	51.2	2,208
Middle	48.6	39.7	35.3	44.0	2,408	54.0	1,770
Fourth	35.5	28.6	25.6	33.6	2,295	46.5	1,413
Highest	25.7	21.1	18.6	27.3	2,002	39.3	1,074
Total	41.0	34.5	30.8	41.7	12,395	49.0	8,722

Note: Table is based on children who stayed in the household the night before the interview.
[1] An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN), or (2) a pretreated net obtained within the past 12 months, or (3) a net that has been soaked with insecticide within the past 12 months.
[2] Indoor residual spraying (IRS) is limited to spraying conducted by a government, private, or non-governmental organization.

As in the general population, the results show that children under age 5 living in the wealthiest households have the lowest levels of mosquito net use.

Use of mosquito nets by pregnant women: Table 12.5 presents the percentages of pregnant women age 15-49 who slept under a mosquito net the night preceding the survey, by each type of net. More than four out of ten pregnant women (41 percent) slept under a net; with regard to ITNs, the proportion is 36 percent, and for LLINs, 32 percent. In addition, more than 43 percent of pregnant women slept under an ITN or in a house whose interior walls were sprayed in the last 12 months. Among pregnant women living in a house with at least one ITN, more than half of pregnant women (52 percent) slept under this type of net the night preceding the survey.

Table 12.5 Use of mosquito nets by pregnant women

Percentages of pregnant women age 15-49 who, the night before the survey, slept under a mosquito net (treated or untreated), under an insecticide-treated net (ITN), under a long-lasting insecticidal net (LLIN), and under an ITN or in a dwelling in which the interior walls have been sprayed against mosquitoes (IRS) in the past 12 months; and among pregnant women age 15-49 in households with at least one ITN, the percentage who slept under an ITN the night before the survey, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Among pregnant women age 15-49 in all households					Among pregnant women age 15-49 in households with at least one ITN[1]	
	Percentage who slept under any net last night	Percentage who slept under an ITN[1] last night	Percentage who slept under an LLIN last night	Percentage who slept under an ITN[1] last night or in a dwelling sprayed with IRS[2] in the past 12 months	Number of women	Percentage who slept under an ITN[1] last night	Number of women
Residence							
Urban	37.6	32.2	28.5	38.3	485	57.0	274
Rural	44.4	38.4	33.3	46.1	793	49.2	619
Region							
Dakar	21.7	14.7	13.5	22.5	277	33.5	121
Ziguinchor	40.5	40.5	38.5	46.8	41	47.0	35
Diourbel	41.3	29.9	29.9	29.9	125	44.2	84
Saint-Louis	73.4	67.3	49.5	72.8	92	77.8	79
Tambacounda	50.4	48.3	46.8	59.5	93	57.8	78
Kaolack	53.0	51.5	32.3	76.5	107	59.2	93
Thies	25.9	21.8	17.7	22.5	149	40.7	80
Louga	37.3	28.1	19.6	28.7	76	42.8	50
Fatick	29.4	21.8	21.2	22.5	69	29.7	51
Kolda	60.0	58.4	57.6	79.9	81	62.0	76
Matam	72.2	51.2	47.9	51.8	53	60.8	44
Kaffrine	40.3	40.3	40.3	48.0	60	53.5	45
Kedougou	59.1	59.1	57.8	59.1	12	59.1	12
Sedhiou	67.7	67.3	66.7	67.3	45	68.3	44
Education							
No education	42.4	37.7	33.2	45.0	877	52.6	627
Primary	42.2	33.3	27.7	40.1	276	48.2	191
Secondary or more	36.4	30.3	27.7	36.7	126	51.3	74
Wealth quintile							
Lowest	46.9	41.0	36.9	51.1	329	52.4	257
Second	47.3	45.0	37.9	52.7	262	54.0	219
Middle	47.4	42.9	38.8	47.3	233	55.8	179
Fourth	43.5	31.5	26.5	36.9	217	53.6	128
Highest	21.6	16.4	14.1	23.0	237	35.4	110
Total	41.8	36.0	31.5	43.1	1,279	51.6	893

Note: Table is based on women who stayed in the household the night before the interview.
[1] An insecticide-treated net (ITN) is (1) a factory-treated net that does not require any further treatment (LLIN), (2) a pretreated net obtained within the past 12 months, or (3) a net that has been soaked with insecticide within the past 12 months.
[2] Indoor residual spraying (IRS) is limited to spraying conducted by a government, private, or non-governmental organization.

The percentage of pregnant women who used a mosquito net are higher is rural than urban areas. For ITNs, the proportions are, respectively, 38 percent and 32 percent, and for LLINs, 33 percent and 29 percent. Pregnant women use LTNs in varying proportions according to region. The regions of Saint-Louis (67 percent), Sédhiou (67 percent), Kédougou (59 percent), Kolda (58 percent), Kaolack (52 percent), and Matam (51 percent) have the highest proportions, while the regions of Dakar (18 percent), Thiès (22 percent), Fatick (22 percent), and Louga (28 percent) have the lowest proportions. Differences are also noted in the use of ITNs according to level of education. The percentage of pregnant women using mosquito nets drops in relation to the level of education. It is also notable that the percentage of pregnant women using ITNs is highest in households from the second wealth quintile (45 percent compared with 16 percent in the richest quintile). Finally, significant progress between the surveys in 2008-09 and 2010-11 can be noted in the use of mosquito nets by pregnant women, from 34 percent to 42 percent for both treated and untreated mosquito nets (an increase of 24 percent), from 30 percent to 36 percent for ITNs (an increase of 19 percent), and from 29 percent to 32 percent for LLINs (an increase of 11 percent).

12.2 PREVENTIVE TREATMENT OF MALARIA DURING PREGNANCY

During the EDS-MICS 2010-2011, women who had given birth in the last five years were asked several questions about whether they had taken preventive antimalarial drugs during their last pregnancy and what type of antimalarial drugs they had taken. These questions on malaria are part of the sections on maternal and child health that focus on the five-year period preceding the survey.

Table 12.6 shows that 85 percent of pregnant women have taken antimalarial drugs as a preventive measure during the last pregnancy that occurred in the two years preceding the survey (in the ENPS-II of 2008-2009 this proportion was 81 percent). In accordance with the policy guidelines for Intermittent Preventive Treatment (IPT), 68 percent of women received Fansidar during their last pregnancy, nearly 65 percent received intermittent preventive treatment (IPT) of Fansidar during a routine antenatal visit, and nearly four in ten women (39 percent) received two or more of the recommended doses of IPT. In the ENPS-II, these percentages were, respectively, 78 percent, 76 percent, and 52 percent.

Regional differences are significant. The percentages of women who took two or more of the recommended doses during the last pregnancy exceed 50 percent in the regions of Thiès (69 percent) and Ziguinchor (53 percent). The regions with the least coverage are Matam, Kaffrine, Kaolack, Tambacounda, Kédougou, and Diourbel, at under 30 percent; the other regions are between 32 percent and 48 percent. Differences between urban and rural areas are also pronounced (respectively, 46 percent and 34 percent). In addition, the percentage of women who took two or more doses of IPT is higher among women with secondary or higher education (49 percent) or primary school (44 percent) than among women who never attended school (36 percent). This percentage is also higher among women in the three richest household quintiles compared with the two poorest quintiles.

The differences between the IPT 1 (SP/Fansidar during a routine antenatal visit) and the IPT 2 (two or more doses of SP/Fansidar during a routine antenatal visit), while considerable, remain insignificant between urban areas (25 percentage points) and rural areas (27 percentage points). At the regional level this difference is very significant in Diourbel and Tambacounda (36 percentage points), Louga (34 percentage points), and Kolda (32 percentage points). The regions with a slight difference between IPT 1 and IPT 2 are at the two extremes of IPT coverage—Thiès (9 percentage points) and Kédougou (19 percentage points).

By the level of education, women with no education show the greatest gap (27 percentage points). With regard to level of wealth, the greatest gap is found among women in the second and third quintiles (29 percentage points).

Table 12.6 Use of antimalarial drugs for prevention of malaria and use of intermittent preventive treatment (IPTp) by women during pregnancy

Percentage of women age 15-49 with a live birth in the two years preceding the survey who, during the pregnancy preceding the last birth, received any antimalarial drug for prevention of malaria, recived any SP/Fansidar during an ANC visit, and who took at least two doses of SP/Fansidar and received at least one dose during an ANC visit, by background characteristics, EDS-MICS, Senegal 2010-11

| Background characteristic | Percentage who took any antimalarial drug | SP/Fansidar | | Intermittent preventive treatment | | Number of women with a live birth in the two years preceding the survey |
		Percentage who took SP/Fansidar	Percentage who took SP/Fansidar during an ANC visit	Percentage who took at least two doses of SP/Fansidar during an ANC visit	Percentage who took at least two doses of SP/Fansidar, and at least one dose during an ANC visit	
Residence						
Urban	90.5	72.6	70.4	46.6	45.7	1,695
Rural	82.3	65.6	61.8	36.2	34.4	2,814
Region						
Dakar	88.7	65.0	63.5	41.9	41.5	825
Ziguinchor	93.8	88.2	82.5	55.2	53.1	149
Diourbel	80.7	66.7	65.2	29.4	29.2	563
Saint-Louis	84.6	63.1	59.9	33.9	32.5	291
Tambacounda	74.0	70.2	62.5	29.1	27.0	246
Kaolack	87.8	58.1	55.6	28.0	26.5	412
Thies	96.3	80.9	78.5	71.4	69.2	577
Louga	86.8	66.1	65.3	32.4	31.6	311
Fatick	87.9	73.0	68.6	41.1	40.3	266
Kolda	77.8	69.3	65.8	34.7	33.4	248
Matam	69.0	57.5	50.6	26.4	24.7	186
Kaffrine	82.6	57.7	52.5	29.1	26.6	221
Kedougou	64.1	54.0	48.2	33.1	28.8	43
Sedhiou	83.5	82.0	75.3	53.6	47.6	172
Education						
No education	83.6	65.9	62.8	37.1	35.7	3,159
Primary	89.1	72.0	68.7	45.7	44.2	981
Secondary or more	90.6	77.7	74.1	50.5	49.1	369
Wealth quintile						
Lowest	72.5	57.1	52.1	28.3	26.2	1,061
Second	85.6	68.2	65.0	37.6	35.8	1,020
Middle	90.7	76.0	73.3	45.6	44.6	865
Fourth	92.9	69.7	67.9	44.3	43.3	878
Highest	88.6	73.7	71.0	49.7	48.6	685
Total	85.4	68.2	65.0	40.1	38.6	4,509

12.3 FEVER AND ANTIMALARIAL TREATMENT OF CHILDREN UNDER AGE 5

The survey also asked whether children under age 5 had a fever during the two weeks preceding the survey. If the answer was positive, a series of questions about the treatment of fever were then asked (see Chapter 10 – Child Health). These questions focused on the taking of antimalarial drugs and when antimalarial treatment was administered for the first time.

The results, shown in Table 12.7, are that 23 percent of children under age 5 had a fever in the two weeks preceding the survey. This proportion is significantly lower than that recorded in the ENPS-II of 2008-09, which was 31 percent.

The greatest variations in the prevalence of fever are related to the child's age and region of residence. The proportion of children with a fever in the two weeks preceding the survey generally decreases with age, from 28 percent of children younger than age 12-23 months to 15 percent of children age 48-59 months.

Table 12.7 Prevalence, diagnosis, and prompt treatment of children with fever

Percentage of children under age 5 with fever in the two weeks preceding the survey; and with fever, the percentage who had blood taken from a finger or heel, the percentage who took antimalarial drugs, and the percentage who took the drugs the same or next day following the onset of fever, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Among children under age 5:		Among children under age 5 with fever:			
	Percentage with fever in the two weeks preceding the survey	Number of children	Percentage who had blood taken from a finger or heel for testing	Percentage who took antimalarial drugs	Percentage who took antimalarial drugs same or next day	Number of children
Age (in months)						
<12	27.4	2,303	8.5	5.9	4.6	630
12-23	28.2	2,199	7.5	6.8	4.9	620
24-35	22.9	2,195	12.3	10.6	6.7	502
36-47	19.0	2,234	9.2	11.6	9.2	424
48-59	14.6	1,963	13.7	7.4	5.3	287
Sex						
Male	23.9	5,573	8.9	9.3	6.1	1,332
Female	21.3	5,321	10.7	7.0	5.9	1,131
Residence						
Urbain	28.6	4,239	10.4	10.2	7.6	1,211
Rural	18.8	6,654	9.1	6.3	4.4	1,252
Region						
Dakar	36.3	2,204	12.0	11.9	8.9	800
Ziguinchor	12.6	349	10.0	11.1	11.1	44
Diourbel	22.3	1,329	10.8	5.1	2.4	297
Saint-Louis	26.0	716	5.8	7.9	4.6	187
Tambacounda	14.3	596	16.6	19.9	16.6	85
Kaolack	17.9	948	5.2	1.8	1.4	170
Thies	15.1	1,324	6.9	4.9	4.2	200
Louga	24.9	752	3.7	5.7	3.2	187
Fatick	20.2	623	12.5	5.1	4.2	126
Kolda	20.3	596	14.2	7.9	6.3	121
Matam	20.2	466	8.6	6.4	4.1	94
Kaffrine	11.4	500	5.5	6.1	4.0	57
Kedougou	21.5	100	22.0	2.4	2.4	21
Sedhiou	18.6	390	5.3	8.1	7.7	73
Education						
No education	21.1	7,705	8.6	7.2	5.1	1,628
Primary	26.1	2,262	11.0	10.2	7.0	590
Secondary or more	26.5	927	14.4	10.2	9.6	245
Wealth quintile						
Lowest	19.9	2,468	8.0	5.5	3.4	490
Second	16.3	2,393	7.7	7.3	5.6	390
Middle	20.3	2,114	7.8	8.5	5.3	430
Fourth	29.4	2,126	9.9	7.6	5.0	626
Highest	29.4	1,793	14.2	11.9	10.5	528
Total	22.6	10,893	9.7	8.2	6.0	2,463

Results show a higher prevalence of children with fever in urban areas (29 percent) than in rural areas (19 percent). At the regional level, Dakar (36 percent) and Saint-Louis (26 percent) are the most affected areas; while the least affected are Kaffrine (11 percent), Ziguinchor (13 percent), Tambacounda (14 percent), and Thiès (15 percent). In addition, the proportion of children with fever is higher among wealthy households (29 percent in the fourth and fifth quintiles, compared with 16 percent in the second quintile) and among children whose mothers are educated (26 percent with primary level and 27 percent with at least a secondary level education, compared with 21 percent with no education).

Among children who had a fever in the two weeks preceding the survey, 10 percent had blood taken from a finger or heel in order to test for malaria, and 8 percent were treated with antimalarial drugs. In addition, in 6 percent of cases the antimalarials were started early, that is, the same day the fever appeared, or the next day.

With regard to treatment with antimalarial drugs, there are variations according to selected background characteristics:

- The proportion of children treated increases with age up to the exact age of four years, from 6 percent of children under age 12 months to 12 percent among those age 36-47 months;

- The proportion of children with fever who were treated with antimalarial drugs varies from 6 percent in rural areas to 10 percent in urban areas;

- The proportion of children treated with antimalarial drugs is higher among those whose mothers have at least primary education (10 percent) than among those whose mothers have no education (7 percent);

- Treatment is also more common among children in the richest household quintile (12 percent) compared with those in the poorest quintile (6 percent).

- Children in the regions of Tambacounda (20 percent), Dakar (12 percent), and Ziguinchor (11 percent) received antimalarials more often than children in other regions.

The proportion of children treated promptly with antimalarials is lower than the proportion treated at any time. There are probably a number of reasons that mothers are unable to obtain prompt treatment for fever (distance, cost, etc.).

Regarding specific antimalarials taken by children, Table 12.8 shows that 41 percent took ACT (artemisine-based combination therapy), 23 percent took amodiaquine, 11 percent quinine, and less than 11 percent SP/Fansidar.

For children under age 5 with fever, Table 12.9 below shows the proportions who took different types of antimalarials and the proportions who took them promptly after the onset of the fever.

Note that 1.9 percent of children with fever (versus 0.7 percent in the ENPS-II of 2008-09) were treated with amodiaquine, and 1.4 percent (versus 0.2 percent in 2008-2009)

Table 12.8   Type of antimalarial drugs taken by children

Among children under age 5 who had fever in the two weeks preceding the survey and who took some antimalarials, the percentage who took specific antimalarial drugs, EDS-MICS, Senegal 2010-11

Antimalarial drug	Percentage
SP/Fansidar	10.9
Amodiaquine	22.7
Quinine	11.1
ACT/artemisinine	41.0
Other	22.2
Number of children who had fever and took some antimalarial drugs	202

received treatment on the same day or the day following the onset of fever. ACTs and artemisinine are the most used antimalarials: 3.4 percent of children received them at any time and 2.9 percent received them promptly. Other medications are, in order of importance, the "other antimalarials" (1.8 percent) and quinine (0.9 percent). Finallly, the proportion of children treated with SP/Fansidar is negligible (0.7 percent).

Results on the use of ACTs (artemisinine and ACTs) against malaria according to the region show that the proportions of children treated are highest in Tambacounda (10 percent), Dakar (6 percent), and Kolda (4 percent). In Ziguinchor, Kaffrine, and Sédhiou, use of ACTs is virtually non-existent. Children in urban areas are more likely to use ACTs (5 percent) than those in rural areas (2 percent). The proportion of children treated with ACTs increases with mothers' level of education (8 percent for children of mothers with at least secondary level compared with 3 percent for children of mothers with no education). The level of use also increases with the wealth quintile (6 percent among children in the richest quintile versus 1 percent in the poorest quintile).

Table 12.9 Type of antimalarial drugs used

Among children under age 5 with fever in the two weeks preceding the survey who took any antimalarial medication, the percentage who took specific antimalarial drugs, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage of children who took drug					Percentage who took antimalarial drug the same day or the next day:					Number of children with fever
	SP/ Fansidar	Amodia-quine	Quinine	ACT	Other anti-malarial drug	SP/ Fansidar	Amodia-quine	Quinine	ACT	Other anti-malarial drug	
Age (in months)											
<12	0.4	0.9	1.0	2.2	1.3	0.3	0.8	0.6	2.1	0.8	630
12-23	1.0	2.0	0.6	2.3	1.8	0.7	1.2	0.6	2.0	1.3	620
24-35	1.1	2.4	0.8	3.6	3.2	0.9	1.7	0.4	2.5	1.7	502
36-47	0.8	2.5	1.5	7.3	1.8	0.8	2.2	0.6	6.2	1.6	424
48-59	1.4	1.6	0.7	3.1	0.7	0.2	1.3	0.5	3.0	0.4	287
Sex											
Male	1.0	1.7	1.1	3.3	2.8	0.6	1.1	0.5	2.8	1.7	1,332
Female	0.8	2.1	0.7	3.7	0.7	0.7	1.7	0.6	3.1	0.6	1,131
Residence											
Urbain	1.1	2.2	0.4	5.0	2.9	0.8	1.4	0.3	4.6	2.0	1,211
Rural	0.7	1.6	1.4	2.0	0.8	0.5	1.5	0.8	1.4	0.5	1,252
Region											
Dakar	1.7	1.5	0.3	6.3	3.8	1.3	0.8	0.3	5.9	2.4	800
Ziguinchor	0.0	9.4	1.7	0.0	0.0	0.0	9.4	1.7	0.0	0.0	44
Diourbel	0.9	0.0	1.0	1.9	1.3	0.5	0.0	0.0	1.3	0.5	297
Saint-Louis	0.0	2.9	1.1	3.8	0.0	0.0	1.9	0.5	2.2	0.0	187
Tambacounda	3.1	8.0	0.9	10.3	0.0	2.2	7.4	0.9	8.0	0.0	85
Kaolack	0.4	0.0	0.0	1.4	0.0	0.0	0.0	0.0	1.4	0.0	170
Thies	0.0	1.3	2.8	0.9	0.7	0.0	1.3	2.1	0.9	0.7	200
Louga	0.0	0.9	0.8	1.5	2.5	0.0	0.6	0.0	0.5	2.1	187
Fatick	1.1	1.0	2.0	1.0	0.0	0.5	0.7	2.0	1.0	0.0	126
Kolda	0.0	2.1	0.6	4.0	1.3	0.0	2.1	0.0	3.8	0.5	121
Matam	0.1	5.1	0.0	1.0	0.8	0.1	3.3	0.0	0.5	0.8	94
Kaffrine	1.1	0.0	2.9	0.0	2.1	1.1	0.0	0.9	0.0	2.1	57
Kedougou	0.0	0.8	0.0	0.8	0.8	0.0	0.8	0.0	0.8	0.8	21
Sedhiou	0.0	5.8	1.5	0.0	0.8	0.0	5.8	1.1	0.0	0.8	73
Education											
No education	1.3	1.7	1.1	2.8	1.0	0.9	1.4	0.6	2.2	0.7	1,628
Primary	0.1	2.1	0.4	3.4	4.3	0.1	1.2	0.4	3.1	2.4	590
Secondary or more	0.0	2.5	0.8	7.8	1.6	0.0	2.2	0.5	7.8	1.6	245
Wealth quintile											
Lowest	0.9	1.4	1.6	1.4	0.3	0.6	1.3	0.6	1.0	0.0	490
Second	0.5	2.9	1.1	1.8	1.0	0.0	2.7	1.0	1.2	0.8	390
Middle	1.3	1.0	0.8	3.1	2.4	0.5	0.9	0.3	2.3	1.4	430
Fourth	0.5	2.0	0.6	4.0	1.4	0.5	0.6	0.6	3.2	1.0	626
Highest	1.3	2.1	0.5	6.3	3.8	1.3	1.9	0.3	6.3	2.7	528
Total	0.9	1.9	0.9	3.4	1.8	0.6	1.4	0.5	3.0	1.2	2,463

ACT = Artemisinin-based combination therapy.

12.4 HEMOGLOBIN RATES

In countries where malaria is endemic, a hemoglobin rate under 8.0 g/dl is considered to be an indirect indicator of the prevalence of anemia related to malaria. Nationally, 14 percent of children age 6 to 59 months have a hemoglobin rate under 8.0 g/dl (Table 12.10). Variations exist according to certain characteristics:

- The proportion of children with a hemoglobin level below 8.0 g/dl is highest among children age 12-23 months (about 24 percent);

- It is slightly higher in boys (16 percent) than girls (13 percent);

- It is higher among rural children compared with urban children (16 percent versus 11 percent);

- The highest proportion is observed in the Kolda region (23 percent), followed by the regions of Kaolack, Matam, and Kaffrine (19 percent each), and the lowest proportions in the regions of Dakar, Ziguinchor, and Diourbel (9 percent each). In the other regions the proportions vary between 12 percent and 17 percent;

- When the mother has no education, the proportion of children with a hemoglobin level below 8.0 g/dl is higher (16 percent) in comparison with those whose mothers have a primary level (12 percent) or at least a secondary level (8 percent);

- Among children in the poorest household wealth quintile, the proportion with a hemoglobin level below 8.0 g/dl is two and a half times higher (20 percent) than among children in the richest quintile (8 percent).

Comparison of the results of the the EDS-MICS 2010-11 with earlier surveys in 2005 and 2008-09, shows a continued decline in anemia, from 20 percent in 2005 to 17 percent in 2008-09, and to 14 percent in 2010-11.

12.5 MALARIA PARASITEMIA

This section presents the results of the survey on the prevalence of malaria estimated by means of thick drops of blood collected in the field and examined microscopically at the Laboratory of Parasitology of the Faculty of Medicine, Université Cheikh Anta Diop in Dakar.

12.5.1 Principles and Methodology

Malaria parasitemia testing involved only children age 6-59 months and was performed on slides of thick blood drop smears. The examination is based on a sample of a drop of blood from the fingertip on a microscope slide which, after staining, is analyzed for the precise identification of the *Plasmodium* parasite. An examination of a thick drop of blood has the advantage of being 20 times more sensitive than a thin smear. In the laboratory, each smear was analyzed independently by two different operators, and a confirmation was made by a third operator in cases of discrepancy between the first two.

Table 12.10 Hemoglobin <8.0 g/dl in children

Percentage of children age 6-59 months with hemoglobin lower than 8.0 g/dl, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Hemoglobin <8.0 g/dl	Number of children
Age (in months)		
6-8	10.8	168
9-11	6.8	232
12-17	16.3	495
18-23	24.3	326
24-35	17.4	848
36-47	13.2	866
48-59	9.2	826
Sex		
Male	15.6	1,941
Female	12.6	1,820
Mother's interview status		
Interviewed	14.0	3,264
Not interviewed, but in household	17.5	129
Not interviewed, and not in household[1]	14.1	368
Residence		
Urban	10.6	1,434
Rural	16.3	2,327
Region		
Dakar	9.0	766
Ziguinchor	9.1	95
Diourbel	9.4	445
Saint-Louis	12.5	224
Tambacounda	17.0	209
Kaolack	19.4	335
Thies	16.1	447
Louga	14.0	275
Fatick	16.2	243
Kolda	23.2	228
Matam	18.6	142
Kaffrine	18.5	187
Kedougou	14.3	29
Sedhiou	11.8	133
Education		
No education	15.5	2,449
Primary	11.7	663
Secondary or more	8.2	279
Wealth quintile		
Lowest	19.9	852
Second	17.6	815
Middle	11.7	752
Fourth	11.6	749
Highest	7.6	593
Total	14.1	3,761

Note: Table is based on children who stayed in the household the night before the interview. Hemoglobin levels are adjusted for altitude using CDC formulas (CDC, 1998). Hemoglobin is measured in grams per deciliter (g/dl).
[1] Includes children whose mothers are deceased
[2] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Participation in the parasitemia test was subject to voluntary and informed consent of those responsible for the child. The interviewer recorded the response of parents/caregivers/other adult on the questionnaire and signed the questionnaire stating that he/she had read the consent and that the decision recorded on the questionnaire was that of the respondent.

Once consent was obtained, drops of blood were collected using the technique of drawing blood by pricking the fingertip. Before collecting the blood, the finger was cleaned using gauze soaked in alcohol and allowed to dry in the open air. In a second step, the finger was pricked with a sterile, non-reusable, retractable lancet. The first drop of blood was removed with a sterile dressing. The following drops were used for the thick smear. Two slides were prepared for each child tested. The slides thus prepared were packed and sent to the central office of the survey for recording before being sent to the laboratory of the Department of Parasitology.

The tests were anonymous, and no name or any identifying element was included on the blood samples. However, preprinted bar codes corresponding to numbers generated at random were glued to the slides used for the thick blood smear as well as on the questionnaires.

The risks associated with the procedure for collecting blood are considered low. The blood collection area was thoroughly cleansed with gauze pre-soaked in alcohol before the finger prick. The prick was performed with a sterile, non-reusable, retractable, lancet which contained a very small blade activated by a trigger. The flow of blood was stopped by pressure with gauze on the site of the prick. Once the bleeding stopped, the area was protected from infection by a bandaid. In addition, samples were taken by accredited laboratory technicians who had received a special upgraded training on the procedure and the universal precautions to be observed in order to avoid transmitting pathogenic agents through blood. Lancets and all other instruments contaminated with blood were discarded at the end of the day in a bag for hazardous, organic waste products, according to an established protocol.

The laboratory of the Department of Parasitology was responsibe for creating a data file containing the identification number of the sample and the results of all tests performed on each sample. Once verified, the data were sent to the main office of the survey.

12.5.2 Prevalence of Malaria Parasitemia in Children

The prevalence of malaria in children age 6-59 months was measured by the presence of the *Plasmodium* parasite in thick smears from blood samples collected in the field and examined by microscope in the laboratory. Table 12.11 presents the results of this testing.

Table 12.11 Coverage of testing for malaria in children

Percentage of eligible children age 6-59 months who were tested for malaria by microscopy, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage of children tested	Number of children	Percentage tested positive	Number of children tested positive
Age (in months)				
6-8	77.0	214	2.6	165
9-11	82.8	280	1.3	232
12-17	85.4	576	1.0	492
18-23	81.9	393	2.1	321
24-35	86.6	982	2.2	851
36-47	86.7	1 001	4.2	868
48-59	56.0	1 489	4.0	834
Sex				
Male	76.5	2 545	3.0	1,947
Female	75.9	2 389	2.7	1,814
Mother's interview status				
Interviewed	78.0	4 180	2.7	3,260
Not interviewed, but in household	39.5	331	3.0	131
Not interviewed, and not in household[1]	87.7	424	3.9	371
Residence				
Urban	78.4	1 837	1.4	1,440
Rural	75.0	3 097	3.8	2,321
Region				
Dakar	80.4	947	1.5	761
Ziguinchor	81.3	135	2.0	110
Diourbel	72.6	608	2.6	441
Saint-Louis	69.0	324	0.0	224
Tambacounda	74.7	281	6.7	210
Kaolack	74.3	451	4.0	335
Thiès	74.1	605	0.7	448
Louga	78.4	348	0.7	273
Fatick	76.2	318	2.7	242
Kolda	84.8	269	11.9	228
Matam	67.8	209	0.9	142
Kaffrine	81.7	227	5.6	186
Kedougou	60.0	49	13.5	29
Sedhiou	80.8	164	0.3	132
Education				
No education	73.8	3 299	3.2	2,436
Primary	79.0	848	1.7	670
Secondary or more	78.7	360	0.7	283
Wealth quintile				
Lowest	74.1	1 146	6.2	849
Second	75.0	1 089	2.1	817
Middle	78.0	979	1.6	764
Fourth	77.7	944	1.6	734
Highest	77.0	776	2.3	597
Total	76.2	4 934	2.9	3,762

Note: The table is based on children who spent the night before the survey in the household.
[1] Includes children whose mothers are deceased.
[2] For mothers who were not interviewed, information comes from the Household Questionnaire. Excludes children whose mothers were not listed in the Household Questionnaire.

The prevalence of malaria at the national level as reported by the survey, which took place from October 2010 to April 2011, is 2.9 percent. The percentage of children with malaria shows an overall trend that rises with age starting at 18 months. A relatively high prevalence, however, was observed among children age 6-8 months (2.6 percent). The survey did not find any significant differences by gender (3.0 percent for boys and 2.7 percent for girls). In contrast, variations according to place of residence were considerable: children in rural areas (3.8 percent) are more affected by the disease than those in urban areas (1.4 percent).

Differences across regions are also substantial (Figure 12.1). The highest prevalence is in the regions of Kédougou and Kolda, followed by the regions of Tambacounda, Kaffrine, and Kaolack. The low prevalence in Ziguinchor and in Sédhiou (0.3 percent) could be due to the fact that data collection took place during periods of low malaria transmission in these two regions (in March-April and February-April, respectively) (see Table 12.1.2). The lowest prevalence is in the region of Saint-Louis, where no cases were detected in the EDS-MICS 2010-11 (the same as in the 2008-09 survey). Overall, prevalence levels in 2010-11 are lower than those in 2008-09 (3.6 percent versus 6.7 percent). Only the Dakar region experienced a rise in prevalence of malaria, to 1.5 percent in 2011 from 0.8 percent in 2008-09. This could be due to heavy floods in 2010 that resulted in an increase in transmission.

Figure 12.1
Prevalence of malaria parasitemia among children age 6-59 months by region according to ENPS 2008-09 and EDS-MICS 2010-11
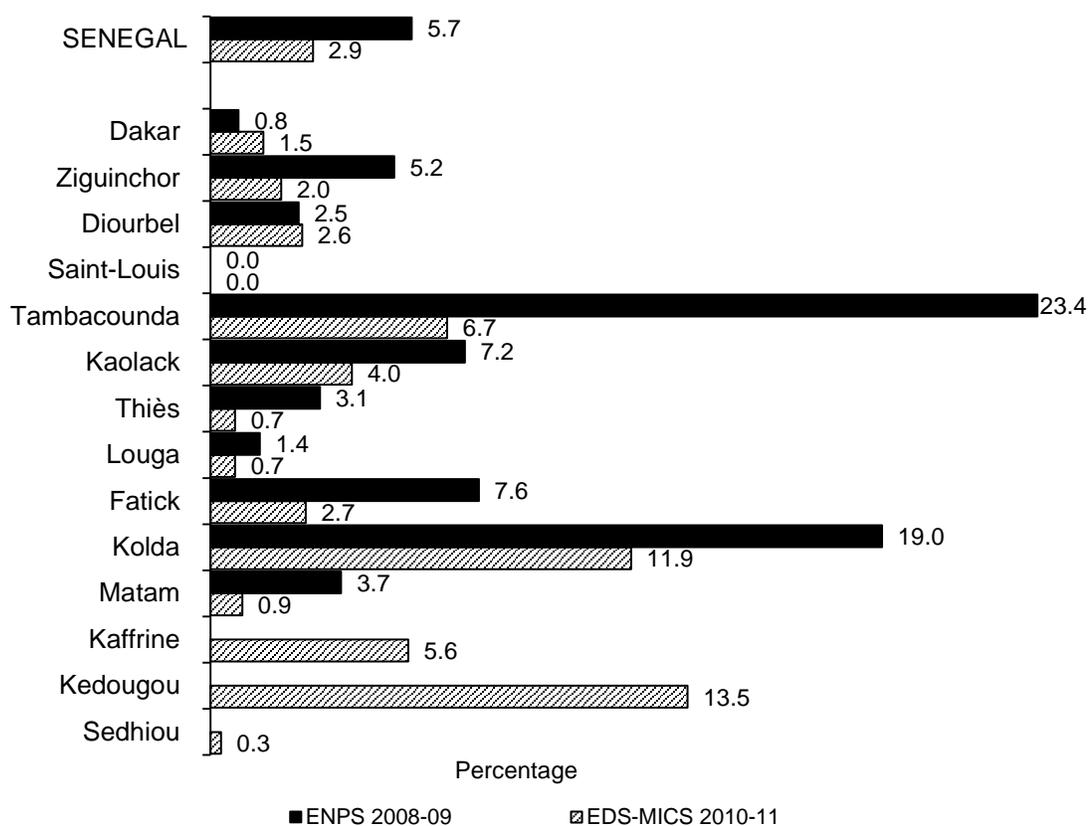
Finally, according to the wealth index, the results show that the prevalence of malaria decreases from 6.2 percent among children in the poorest households to 0.7 percent among those in the richest households.

HIV/AIDS AND SEXUALLY TRANSMITTED INFECTIONS

13

Samba NDIAYE

In its most recent worldwide report, UNAIDS noted that the overall growth of the AIDS epidemic appears to have stabilized (UNAIDS, 2010). This trend is attributed to a combination of many factors, including the natural course of HIV epidemics, as well as expansion of and increased access to treatment and care programs; prevention efforts also have born fruit and partly explain these recent results. However, the establishment of prevention and effective management programs targeting population groups at high risk for HIV infection remains a priority.

In this context, the data collected during the EDS-MICS 2010-11 regarding knowledge of HIV/AIDS, the means of prevention and transmission, and attitudes and behavior of women and men in relation to this disease are very useful. The information collected is essential for the adjustment of current programs, as well as the establishment of new communication campaigns with the goal of changing behavior concerning AIDS, in order to strengthen prevention programs and assess the results of interventions.

The results presented here mainly concern the following points:

- Knowledge of the existence of HIV/AIDS, its modes of transmission, and the means of prevention, as well as misconceptions about transmission and prevention;

- Knowledge about transmission of HIV from mother to child;

- Attitudes and behavior toward people living with HIV/AIDS;

- Sexual intercourse with multiple partners and condom use at the last high-risk sexual intercourse;

- Age at first sexual intercourse among young people age 15-24;

- Sexual intercourse with multiple partners and condom use at the last sexual intercourse among young people age 15-24;

- Premarital sexual intercourse among young people age 15-24 and condom use;

- Knowledge of other STIs and their symptoms;

- Seeking treatment for STIs.

In addition, during the EDS-MICS 2010-2011, testing to determine the seroprevalence of HIV in the general male and female population was carried out. These results are presented in Chapter 14.

13.1 KNOWLEDGE OF HIV/AIDS, THE MEANS OF PREVENTION, AND TRANSMISSION

The EDS-MICS 2010-11 sought to evaluate among the general population the levels of knowledge of HIV/AIDS and its modes of transmission, as well as knowledge of the means of prevention.

To assess the level of knowledge of HIV infection, the survey asked women and men if they had ever heard of AIDS. The results presented in Table 13.1 show that the level of knowledge of HIV/AIDS is very high in Senegal. Virtually all men and women have heard of AIDS (95 percent of women and 97 percent of men, compared with 97 percent and 98 percent, respectively, in 2005). In addition, for both men and women, this level of knowledge is high regardless of the background characteristic considered. The regions of Kaffrine and Kolda have the lowest level of knowledge among women, at 85 percent,.

Table 13.1 Knowledge of AIDS

Percentage of women and men age 15-49 who have heard of AIDS by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Women		Men	
	Have heard of AIDS	Number of women	Have heard of AIDS	Number of men
Age				
15-24	94.9	6,648	95.1	2,067
15-19	93.9	3,429	92.8	1,170
20-24	95.9	3,220	98.0	897
25-29	95.5	2,746	99.0	701
30-39	96.2	3,966	99.1	983
40-49	94.6	2,328	98.3	666
Marital status				
Never married	96.3	4,585	96.2	2,738
Ever had sex	96.5	624	98.9	1,066
Never had sex	96.3	3,960	94.5	1,672
Married/living together	94.8	10,347	98.5	1,609
Divorced/separated/widowed	95.3	757	96.9	71
Residence				
Urban	98.1	7,738	99.5	2,467
Rural	92.6	7,950	94.0	1,951
Region				
Dakar	98.2	4,078	99.6	1,381
Ziguinchor	96.8	581	98.5	210
Diourbel	96.3	1,851	87.9	354
Saint-Louis	96.7	1,034	96.2	266
Tambacounda	93.6	725	95.4	214
Kaolack	96.1	1,172	98.8	317
Thies	98.3	2,030	97.3	565
Louga	92.8	1,130	93.1	262
Fatick	92.3	717	97.9	204
Kolda	84.8	640	97.1	198
Matam	92.6	595	98.2	152
Kaffrine	84.7	572	97.2	141
Kedougou	92.0	115	99.6	34
Sedhiou	90.0	448	96.1	120
Education				
No education	93.2	9,079	94.6	1,632
Primary	97.1	3,414	97.3	1,261
Secondary or more	99.4	3,195	99.5	1,525
Wealth quintile				
Lowest	86.7	2,585	92.1	665
Second	93.4	2,805	94.2	688
Middle	97.1	3,114	98.0	908
Fourth	97.4	3,494	98.4	1,019
Highest	99.2	3,689	99.7	1,137
Total 15-49	95.3	15,688	97.1	4,417
50-59	na	na	97.5	512
Total 15-59	na	na	97.1	4,929

na = Not applicable

Knowledge of the means of prevention of HIV/AIDS

Knowledge of appropriate means of prevention is essential to being protected against HIV infection. Limiting sexual intercourse to one faithful, uninfected partner and using condoms remain the primary means of preventing HIV infection. During the EDS-MICS 2010-11, respondents were asked if they knew that they could reduce the risks of contracting HIV by using both these means. Table 13.2 presents the results according to various background characteristics, for women and men.

Table 13.2 Knowledge of HIV prevention methods

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting the AIDS virus by using condoms every time they have sexual intercourse, and by having one sex partner who is not infected and has no other partners, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Women				Men			
	Using condoms	Limiting sexual intercourse to one uninfected partner	Using condoms and limiting sexual intercourse to one uninfected partner	Number of women	Using condoms	Limiting sexual intercourse to one uninfected partner	Using condoms and limiting sexual intercourse to one uninfected partner	Number of men
Age								
15-24	67.8	84.7	64.2	6,648	75.0	80.9	70.8	2,067
15-19	62.5	81.1	58.6	3,429	69.7	75.8	65.1	1,170
20-24	73.4	88.4	70.1	3,220	82.0	87.6	78.2	897
25-29	72.2	87.4	68.9	2,746	83.9	90.0	80.9	701
30-39	74.0	88.7	70.4	3,966	84.5	91.7	81.4	983
40-49	68.3	87.0	65.8	2,328	80.8	88.4	77.4	666
Marital status								
Never married	70.7	85.2	66.5	4,585	78.2	84.1	74.6	2,738
Ever had sex	81.2	85.4	73.2	624	87.8	90.1	83.6	1,066
Never had sex	69.1	85.2	65.5	3,960	72.2	80.3	68.8	1,672
Married/living together	69.9	87.2	67.0	10,347	80.8	88.8	77.3	1,609
Divorced/separated/widowed	71.5	84.4	65.9	757	93.7	88.5	87.0	71
Residence								
Urban	79.6	89.4	75.4	7,738	86.8	91.7	83.0	2,467
Rural	61.1	83.7	58.5	7,950	70.1	78.6	66.5	1,951
Region								
Dakar	80.1	89.2	76.0	4,078	90.0	94.3	87.2	1,381
Ziguinchor	77.0	85.2	71.4	581	84.4	84.9	76.4	210
Diourbel	63.8	90.2	62.4	1,851	65.3	72.5	63.9	354
Saint-Louis	65.7	85.4	62.6	1,034	58.4	62.8	50.5	266
Tambacounda	51.5	76.0	47.7	725	62.0	77.8	55.4	214
Kaolack	63.7	92.8	62.5	1,172	84.7	92.7	83.5	317
Thies	82.4	91.0	78.6	2,030	81.8	88.0	78.6	565
Louga	68.3	84.5	64.8	1,130	68.3	80.4	63.4	262
Fatick	69.7	83.9	64.5	717	80.5	86.6	79.3	204
Kolda	61.0	72.6	56.5	640	80.4	85.9	78.1	198
Matam	43.0	77.8	40.2	595	72.2	78.5	64.3	152
Kaffrine	62.4	81.3	60.9	572	83.1	95.8	82.3	141
Kedougou	59.0	81.5	55.5	115	64.0	86.9	58.7	34
Sedhiou	68.4	79.3	63.9	448	73.0	76.1	65.1	120
Education								
No education	62.7	84.4	60.2	9,079	68.5	79.1	65.1	1,632
Primary	75.9	87.6	71.2	3,414	82.1	86.8	78.3	1,261
Secondary or more	85.5	91.4	80.9	3,195	88.9	92.4	85.1	1,525
Wealth quintile								
Lowest	50.1	76.3	47.6	2,585	65.6	77.3	62.6	665
Second	63.2	84.9	60.4	2,805	69.3	77.5	65.5	688
Middle	69.6	87.8	66.3	3,114	77.2	83.4	72.2	908
Fourth	77.0	89.0	73.7	3,494	85.0	89.9	81.4	1,019
Highest	83.7	91.3	79.1	3,689	90.3	94.4	87.3	1,137
Total	70.2	86.5	66.8	15,688	79.4	85.9	75.8	4,417

Table 13.2 shows that 67 percent of women and 76 percent of men know that the use of both of these two methods can reduce the risk of contracting HIV/AIDS. Of these two ways, limiting sexual intercourse to one faithful, uninfected partner was cited most frequently, by 87 percent of women and 86 percent of men, while 70 percent of women and 79 percent of men cited condom use. Knowing both of these means of prevention is most commen among women and men in the regions of Dakar, Thiès, and Ziguinchor, as well as

among those who are single and have had sexual intercourse, among those with secondary education or higher, and among those in the richest households.

Accurate knowledge of the transmission of HIV/AIDS and rejection of misconceptions

Respondents were asked a series of questions to measure their level of accurate knowledge about transmission and prevention of HIV/AIDS. The responses provide an indicator of what is considered here to be comprehensive knowledge about AIDS. The results are presented in Table 13.3.1 for women and Table 13.3.2 for men.

To the question, "Is it possible for a healthy looking person, to be, in fact, infected with the AIDS virus?", 69 percent of women responded correctly (affirmatively). This view, however, varies widely according to background characteristics, from 62 percent for women with no education to 86 percent for those with at least a level of secondary education (Table 13.3.1). There is also a difference by the level of household wealth, from 44 percent of women in the poorest households to 83 percent in the richest. Urban women are more likely than rural women to have correct knowledge about this aspect of HIV (respectively, 79 percent and 60 percent). By region, the proportion of women who responded affirmatively to this question are in the regions of Thiès (81 percent), Dakar (80 percent), Kaolack (74 percent), and Ziguinchor (70 percent). By comparison, the proportions are lower in the regions of Kédougou (43 percent), Tambacounda (44 percent), and Matam (52 percent).

When asked whether the AIDS virus can be transmitted by mosquito bites, only 50 percent of women answered correctly—that is, in the negative. The proportion of women who responded correctly is even lower among women in rural areas (39 percent), women age 40-49 (45 percent), women in the poorest households (29 percent), and women with no education (38 percent). The results also show significant regional differences. In the regions of Sédhiou (33 percent), Kédougou (34 percent), and Kolda (35 percent) the percentage of women who responded correctly is lower than in the Dakar region (67 percent).

Regarding transmission of HIV by withcraft or by supernatural means, nearly nine out of ten women (88 percent) responded correctly (in the negative) to this question. This proportion is lowest (63 percent) in the region of Tambacounda.

To the question, "Can the AIDS virus be contracted by sharing meals with someone who has AIDS?", 77 percent of women rejected this misconception. However, among women in the poorest households the proportion is only 50 percent. There are also significant differences among regions. The proportion of women rejecting this misconception is lowest in the region of Tambacounda (44 percent).

The two most common local misconceptions cited by women are transmission of HIV through mosquito bites (50 percent) and sharing food with a person who has HIV (77 percent). Table 13.3.1 also shows the proportion of women who reject these misconceptions and who also know that a healthy person can still be infected with the AIDS virus. Overall, only 38 percent of women have accurate information according to this indicator. This percentage varies little with age, but is considerably higher among women in urban areas (50 percent) than in rural areas (26 percent), and it also varies substantially from one region to another (from 14 percent in Tambacounda and 15 percent in Kédougou to 56 percent in Dakar). Moreover, this level of correct knowledge increases with the level of education and level of wealth.

Finally, Table 13.3.1 presents the proportion of women who have what is considered to be comprehensive knowledge about HIV/AIDS. Comprehensive knowledge is defined as knowing that the risk of infection by the AIDS virus can be reduced by using condoms and limiting sexual intercourse to one faithful

partner who is not infected, by rejecting the two most common misconceptions (as defined above) about the transmission of AIDS, and also by knowing that a person who appears healthy can still have the AIDS virus. About three in ten women (31 percent) can be considered to have comprehensive knowledge about

Table 13.3.1 Comprehensive knowledge about AIDS: Women

Percentage of women age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about transmission or prevention of the AIDS virus, and the percentage with a comprehensive knowledge about AIDS by background characteristics, EDS-MICS, Senegal 2010-11

| Background characteristic | Percentage of women who say that: | | | | Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local misconceptions[1] | Percentage with a compre-hensive knowledge about AIDS[2] | Number of women |
	A healthy-looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	The AIDS virus cannot be transmitted by supernatural means	A person cannot become infected by sharing food with a person who has AIDS			
Age							
15-24	67.9	50.9	86.5	77.4	38.3	30.7	6,648
15-19	64.4	49.1	84.2	75.1	35.4	27.3	3,429
20-24	71.6	52.9	89.0	79.9	41.5	34.4	3,220
25-29	69.8	50.7	88.9	77.4	39.5	32.4	2,746
30-39	71.9	49.7	89.0	77.4	39.2	32.6	3,966
40-49	68.3	45.0	86.3	72.8	34.5	28.1	2,328
Marital status							
Never married	71.9	58.6	90.4	82.8	45.8	36.7	4,585
Ever had sex	77.1	55.9	91.5	83.8	45.4	35.4	624
Never had sex	71.1	59.0	90.3	82.7	45.8	36.9	3,960
Married/living together	67.7	45.6	86.1	73.9	34.5	28.5	10,347
Divorced/separated/widowed	75.7	51.3	89.7	79.1	43.1	33.1	757
Residence							
Urban	78.8	61.2	93.5	86.8	50.3	42.0	7,738
Rural	60.1	38.5	81.7	67.0	26.4	20.5	7,950
Region							
Dakar	80.3	66.6	94.6	87.2	55.9	45.8	4,078
Ziguinchor	70.2	51.8	89.7	76.2	39.1	32.6	581
Diourbel	62.6	41.1	89.3	82.7	28.8	23.0	1,851
Saint-Louis	59.1	46.7	83.8	74.9	29.6	23.4	1,034
Tambacounda	43.5	25.8	62.9	43.7	14.4	11.3	725
Kaolack	73.8	44.6	88.6	75.7	33.1	23.7	1,172
Thies	80.9	52.0	95.0	87.6	44.2	38.7	2,030
Louga	69.1	45.2	86.1	73.4	34.0	27.1	1,130
Fatick	66.0	40.6	86.6	71.8	29.2	22.6	717
Kolda	57.0	35.4	75.3	57.6	23.3	18.7	640
Matam	52.1	38.5	76.0	62.9	22.9	16.8	595
Kaffrine	61.2	56.9	80.2	67.7	47.6	39.9	572
Kedougou	42.6	34.0	79.3	49.7	15.3	10.4	115
Sedhiou	60.1	33.0	75.0	49.8	20.5	17.3	448
Education							
No education	61.5	38.0	82.7	68.6	26.4	20.6	9,079
Primary	74.8	56.3	92.2	83.6	43.2	35.2	3,414
Secondary or more	85.7	75.8	96.4	92.5	66.4	56.4	3,195
Wealth quintile							
Lowest	44.4	29.1	70.1	49.8	15.5	11.5	2,585
Second	63.9	40.4	83.0	67.6	28.1	21.1	2,805
Middle	69.8	45.1	89.6	79.6	33.8	27.1	3,114
Fourth	77.4	55.3	92.6	84.8	44.9	37.1	3,494
Highest	82.8	69.8	96.7	92.6	59.2	50.0	3,689
Total	69.3	49.7	87.5	76.7	38.2	31.1	15,688

[1] Two most common local misconceptions: The AIDS virus can be transmitted by mosquito bites and a person can become infected by sharing food with a person who has AIDS.
[2] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about transmission or prevention of the AIDS virus.

AIDS. The proportion is particularly low in the regions of Kédougou (10 percent) and Tambacounda (11 percent). It is much higher in urban than rural areas (42 percent versus 21 percent), in the region of Dakar (46 percent), and among women with secondary education or more (56 percent versus 35 percent among those with primary level, and only 21 percent among those with no education). The proportion of women with a comprehensive knowledge of AIDS increases steadily with the level of household wealth, from 12 percent among women in the poorest quintile to 27 percent in the middle quintile and 50 percent in the richest quintile. Table 13.3.2 shows the same results for men. Overall, there is no significant disparity between results for men and for women.

Table 13.3.2 Comprehensive knowledge about AIDS: Men

Percentage of men age 15-49 who say that a healthy-looking person can have the AIDS virus and who, in response to prompted questions, correctly reject local misconceptions about transmission or prevention of the AIDS virus, and the percentage with a comprehensive knowledge about AIDS by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage of men who say that:				Percentage who say that a healthy-looking person can have the AIDS virus and who reject the two most common local misconceptions[1]	Percentage with a compre-hensive knowledge about AIDS[2]	Number of men
	A healthy-looking person can have the AIDS virus	The AIDS virus cannot be transmitted by mosquito bites	The AIDS virus cannot be transmitted by supernatural means	Une personne ne peut pas être infectée en partageant les repas			
Age							
15-24	66.1	52.2	84.2	74.0	37.9	32.5	2,067
15-19	61.6	50.6	80.6	69.8	36.8	30.7	1,170
20-24	71.8	54.2	88.8	79.5	39.4	34.9	897
25-29	73.0	53.0	90.6	78.4	42.1	35.8	701
30-39	80.0	55.6	93.0	83.0	46.8	40.1	983
40-49	73.1	53.1	87.6	79.4	43.2	38.4	666
Marital status							
Never married	70.2	55.0	86.4	76.6	42.0	36.3	2,738
Ever had sex	77.4	60.6	91.8	82.4	46.7	41.0	1,066
Never had sex	65.6	51.5	83.0	72.8	39.0	33.3	1,672
Married/living together	73.1	50.6	89.5	78.7	40.4	34.4	1,609
Divorced/separated/widowed	75.8	41.7	95.1	85.8	37.7	36.0	71
Residence							
Urban	80.7	62.8	94.0	86.4	52.9	46.6	2,467
Rural	59.5	41.0	79.7	66.3	26.8	21.7	1,951
Region							
Dakar	83.1	64.6	95.6	86.1	55.8	50.5	1,381
Ziguinchor	82.8	58.9	94.2	80.2	50.5	42.0	210
Diourbel	70.2	37.2	74.4	66.9	31.6	27.1	354
Saint-Louis	64.2	48.8	83.9	75.9	36.3	22.8	266
Tambacounda	59.2	50.6	82.7	77.2	35.8	22.8	214
Kaolack	74.0	48.8	87.2	72.3	38.3	33.5	317
Thie	67.5	56.7	85.0	79.5	42.2	38.0	565
Louga	56.6	39.5	74.4	75.0	24.6	18.9	262
Fatick	52.7	56.2	87.7	81.8	33.9	31.4	204
Kolda	60.1	53.2	92.5	74.7	32.9	30.0	198
Matam	56.9	34.6	83.0	62.3	20.6	16.5	152
Kaffrine	86.0	30.2	85.8	57.5	26.6	26.3	141
Kedougou	61.9	50.4	90.0	62.8	35.7	22.7	34
Sedhiou	52.8	44.8	83.5	63.2	20.9	15.9	120
Education							
No education	59.8	36.8	79.3	64.5	24.3	19.3	1,632
Primary	71.0	50.9	89.1	77.6	37.4	31.3	1,261
Secondary or more	83.9	72.7	95.5	91.3	62.9	56.6	1,525
Wealth quintile							
Lowest	53.7	35.8	77.5	61.1	21.3	16.3	665
Second	57.7	40.0	77.0	61.5	25.9	20.5	688
Middle	70.5	49.4	88.2	78.5	35.5	29.1	908
Fourth	77.8	58.4	91.5	84.7	48.0	42.0	1,019
Highest	84.7	69.7	96.2	89.5	61.2	55.5	1,137
Total	71.3	53.2	87.7	77.5	41.4	35.6	4,417

[1] Two most common local misconceptions: The AIDS virus can be transmitted by mosquito bites and a person can become infected by sharing food with a person who has AIDS.
[2] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about transmission or prevention of the AIDS virus.

Among men, 36 percent have accurate knowledge of HIV transmission, 4 percentage points more than women. In addition, as among women, the highest proportions of men with correct information about the transmission and prevention of HIV/AIDS are found in urban areas (47 percent versus 22 percent in rural areas), among the richest households (56 percent versus 16 percent in the poorest), and among the best educated (57 percent versus 19 percent for men with no education).

Knowledge about mother-to-child transmission

During the survey, respondents were asked if they knew that the virus that causes AIDS could be transmitted from mother to child through breastfeeding. In addition, all respondents were asked if they knew of any special drugs that a mother could take during pregnancy to reduce the risk of maternal transmision of the AIDS virus. Table 13.4 shows the results.

Table 13.4 Knowledge of prevention of mother-to-child transmission of HIV

Percentage of women and men age 15-49 who know that HIV can be transmitted from mother to child by breastfeeding and that the risk of mother to child transmission (MTCT) of HIV can be reduced by mother taking special drugs during pregnancy, by background characteristics, EDS-MICS, Senegal 2010-11

	Women				Men			
Background characteristic	HIV can be transmitted by breast-feeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of women	HIV can be transmitted by breast-feeding	Risk of MTCT can be reduced by mother taking special drugs during pregnancy	HIV can be transmitted by breastfeeding and risk of MTCT can be reduced by mother taking special drugs during pregnancy	Number of men
Age								
15-24	51.7	47.8	35.0	6,648	52.9	36.9	27.8	2,067
15-19	50.2	44.8	32.5	3,429	49.8	32.6	24.3	1,170
20-24	53.4	51.0	37.7	3,220	56.9	42.5	32.3	897
25-29	52.8	54.0	38.0	2,746	56.3	39.8	29.3	701
30-39	55.9	52.8	39.0	3,966	53.4	44.6	28.9	983
40-49	57.6	47.6	36.9	2,328	52.8	39.3	24.8	666
Marital status								
Never married	49.9	50.6	34.5	4,585	53.3	39.0	29.1	2,738
Ever had sex	50.7	58.5	36.2	624	59.0	45.4	35.4	1,066
Never had sex	49.8	49.3	34.2	3,960	49.7	34.9	25.1	1,672
Married/living together	55.5	49.8	37.8	10,347	53.8	39.0	25.1	1,609
Divorced/separated/widowed	55.1	51.4	37.1	757	55.2	66.2	38.4	71
Pregnancy status								
Currently pregnant	54.6	49.1	37.6	1,208	na	na-	na-	na
Not pregnant/not sure	53.8	50.2	36.8	14,480	na	na-	na-	na
Residence								
Urban	53.2	58.6	39.6	7,738	55.0	46.7	32.9	2,467
Rural	54.5	41.9	34.1	7,950	51.6	30.2	21.4	1,951
Region								
Dakar	53.6	63.1	39.7	4,078	56.4	47.7	33.1	1,381
Ziguinchor	57.0	52.2	40.8	581	48.6	40.2	26.5	210
Diourbel	57.1	45.9	37.8	1,851	53.6	26.2	21.5	354
Saint-Louis	51.3	45.4	31.6	1,034	50.3	32.7	22.2	266
Tambacounda	45.0	23.3	20.9	725	58.8	25.8	18.9	214
Kaolack	59.8	53.5	39.6	1,172	48.8	44.6	23.1	317
Thies	47.3	47.2	35.4	2,030	44.8	40.0	26.7	565
Louga	55.2	47.5	36.1	1,130	49.2	32.6	24.2	262
Fatick	52.8	48.7	34.0	717	57.2	38.6	30.6	204
Kolda	57.1	39.7	36.3	640	54.4	35.4	29.7	198
Matam	52.2	38.8	35.4	595	58.9	31.4	25.7	152
Kaffrine	53.0	52.7	41.9	572	63.3	46.0	35.6	141
Kedougou	60.0	29.6	24.3	115	58.3	34.3	26.6	34
Sedhiou	68.2	46.7	44.1	448	62.3	31.8	28.6	120
Education								
No education	54.3	42.9	34.7	9,079	52.1	28.3	21.1	1,632
Primary	52.1	54.8	37.0	3,414	55.9	37.5	28.2	1,261
Secondary or more	54.5	65.7	42.8	3,195	53.1	52.9	34.6	1,525
Wealth quintile								
Lowest	51.3	30.5	26.8	2,585	53.4	21.9	16.6	665
Second	57.5	45.2	36.8	2,805	51.2	31.6	22.6	688
Middle	54.2	48.7	37.1	3,114	50.9	38.3	25.9	908
Fourth	54.1	56.7	41.1	3,494	58.2	43.8	31.8	1,019
Highest	52.3	62.6	39.6	3,689	52.9	51.4	35.5	1,137
Total	53.8	50.1	36.8	15,688	53.5	39.4	27.8	4,417

na = not applicable

An equal proportion of women and men (54 percent) said they knew that HIV could be transmitted during breastfeeding. This proportion does not differ significantly by background characteristics, either among men or women.

The second indicator covers knowledge of the existence of special drugs that can reduce the risk of HIV transmission from mother to child. Half of women (50 percent) and 39 percent of men responded that the risk of maternal transmission of HIV to the child can be reduced if an infected mother takes special drugs. Overall, 37 percent of women and 28 percent of men said they knew both about transmission of the virus through breastfeeding and the possibility of reducing the risk of maternal transmission by the mother's taking special drugs. The proportions are higher among those with at least a secondary education, at 43 percent of women and 35 percent of men.

13.2   STIGMA TOWARD PEOPLE LIVING WITH HIV/AIDS

Stigma and discrimination are major obstacles to universal access to HIV prevention and treatment. To assess the level of stigma against people with AIDS, women and men who had heard of the disease were asked what attitude they would adopt if they found themselves in certain situations involving people living with HIV/AIDS. Specifically, the survey asked whether the respondents would take care of a relative who had HIV in their home, and whether they would buy fresh vegetables from a shopkeeper with HIV. They were also asked if a teacher living with HIV should be allowed to continue teaching, and if they would want the state of health of a family member with AIDS to be kept secret. From these results, an indicator was defined that assesses the overall level of tolerance toward people living with HIV/AIDS. The results are presented in Table 13.5.1, for women, and Table 13.5.2, for men.

Table 13.5.1 shows that 83 percent of women age 15-49 would be willing to take care of a family member at their home who had contracted HIV. A smaller proportion (49 percent) said they would buy fresh vegetables from a shopkeeper with HIV; 59 percent of women responded that a teacher living with HIV and who is not sick should be allowed to continue to teach; finally, only 17 percent of women said it is not necessary to keep secret the status of a family member living with HIV. Overall, only 4 percent of women expressed all four accepting attitudes toward people living with HIV.

Although the proportion of women with all four accepting attitudes is low, there is some variation by background characteristics. Those most likely to express all four accepting attitides are women in urban areas (6 percent, versus 2 percent in rural areas), women with at least secondary education (7 percent, versus 2 percent with no education), and women in the richest household quintile (7 percent, versus 1 percent in the poorest quintile). The results by region show that the proportion of women who would exercise tolerance in the four situations mentioned is highest in Dakar (7 percent, versus 1 percent in the Sedhiou region and 0.8 percent in the Kaffrine region).

Table 13.5.2 shows the same information for men. There is no significant difference between findings for men and women, although the proportion of men who would be willing to take care of a relative with HIV at home is higher than among women (at 92 percent versus 83 percent). Overall, 5 percent of men age 15-49, compared with 4 percent of women, expressed all four accepting attitudes. As among women, tolerant attitudes are more common among men in urban areas (7 percent, versus 1 percent in rural areas), among men with at least a secondary education (9 percent, versus 3 percent with primary education and 2 percent with no education), and men in the richest household quintile (8 percent, versus 1 percent in the second wealth quintile). By region, the results for men differ from those for women. Among men, the region of Kaolack shows the lowest proportion (0.5 percent) expressing all four accepting attitudes, while the Ziguinchor region shows the highest (9 percent).

In general, the results show that the level of overall tolerance toward those living with HIV/AIDS is relatively low in Senegal. Only 4 percent of women and 5 percent of men expressed accepting attitudes on all four indicators of tolerance.

Table 13.5.1 Accepting attitudes toward those living with HIV/AIDS: Women

Among women age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage of women who:					
	Are willing to care for a family member with AIDS in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators	Number of women who have heard of AIDS
Age						
15-24	84.5	50.5	59.4	15.7	4.0	6,307
15-19	83.0	47.2	57.7	15.9	3.9	3,219
20-24	86.1	53.9	61.2	15.4	4.2	3,088
25-29	83.5	52.1	61.6	17.8	4.8	2,622
30-39	81.9	47.7	59.9	17.8	3.5	3,816
40-49	79.3	40.9	54.2	19.4	3.2	2,203
Marital status						
Never married	88.4	59.6	67.4	13.4	5.0	4,417
Ever had sex	89.7	62.2	69.1	15.9	5.5	603
Never had sex	88.2	59.1	67.1	13.0	4.9	3,814
Married/living together	80.2	43.5	55.4	18.9	3.3	9,810
Divorced/separated/widowed	85.7	51.5	60.7	16.3	5.5	721
Residence						
Urban	91.3	64.2	74.6	12.7	5.5	7,588
Rural	74.3	32.7	43.2	21.8	2.2	7,360
Region						
Dakar	92.2	68.7	75.6	12.5	6.8	4,006
Ziguinchor	84.4	50.9	65.0	16.1	2.9	563
Diourbel	77.2	42.5	49.6	17.9	3.2	1,782
Saint-Louis	80.0	49.1	59.5	19.3	4.5	1,000
Tambacounda	62.7	18.3	25.8	42.0	2.7	679
Kaolack	71.4	38.2	48.8	15.2	2.2	1,126
Thies	92.7	56.4	71.8	11.4	2.6	1,996
Louga	83.2	42.6	52.2	18.7	4.4	1,048
Fatick	89.1	42.2	56.7	11.4	2.2	661
Kolda	68.7	26.7	39.9	33.6	2.8	543
Matam	78.9	29.6	50.2	17.3	2.2	551
Kaffrine	75.4	36.2	44.7	11.1	0.8	485
Kedougou	63.1	16.6	32.5	47.0	3.3	106
Sedhiou	66.8	19.7	36.6	30.8	1.2	404
Education						
No education	76.9	35.1	47.6	19.9	2.4	8,457
Primary	88.3	59.6	66.9	15.1	5.1	3,316
Secondary or more	93.2	73.4	81.9	12.1	6.9	3,174
Wealth quintile						
Lowest	63.7	16.9	27.8	32.8	1.4	2,241
Second	73.0	30.6	41.6	21.0	2.5	2,621
Middle	84.6	46.5	60.3	14.0	2.9	3,022
Fourth	90.5	60.9	71.5	12.3	4.3	3,404
Highest	93.3	71.5	78.6	12.0	7.0	3,659
Total	82.9	48.7	59.2	17.2	3.9	14,948

Table 13.5.2 Accepting attitudes toward those living with HIV/AIDS: Men

Among men age 15-49 who have heard of AIDS, percentage expressing specific accepting attitudes toward people with HIV/AIDS, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage of men who:					
	Are willing to care for a family member with AIDS in the respondent's home	Would buy fresh vegetables from shopkeeper who has the AIDS virus	Say that a female teacher who has the AIDS virus but is not sick should be allowed to continue teaching	Would not want to keep secret that a family member got infected with the AIDS virus	Percentage expressing accepting attitudes on all four indicators	Number of men who have heard of AIDS
Age						
15-24	90.8	40.1	51.5	19.2	5.0	1,965
15-19	88.2	36.9	47.4	19.3	5.2	1,086
20-24	93.9	44.1	56.6	19.0	4.7	880
25-29	92.2	43.1	59.1	18.3	4.3	693
30-39	93.7	49.5	60.5	18.2	5.0	975
40-49	93.3	46.9	55.8	18.1	4.5	655
Marital status						
Never married	92.1	43.5	56.5	18.3	5.7	2,635
Ever had sex	94.8	47.3	60.6	19.8	7.7	1,054
Never had sex	90.3	41.0	53.7	17.4	4.3	1,581
Married/living together	91.9	44.2	53.6	18.6	3.2	1,584
Divorced/separated/widowed	92.3	43.8	58.1	31.3	8.0	69
Residence						
Urban	95.3	55.5	66.9	18.6	7.3	2,455
Rural	87.7	28.0	40.0	18.7	1.5	1,833
Region						
Dakar	97.6	56.9	68.3	19.4	8.0	1,376
Ziguinchor	92.4	45.2	52.5	24.6	8.9	207
Diourbel	93.7	43.7	53.2	15.4	1.5	311
Saint-Louis	85.4	48.2	57.9	18.4	6.2	256
Tambacounda	78.7	24.3	46.5	14.7	1.4	204
Kaolack	94.5	34.4	51.3	8.2	0.5	313
Thies	91.4	49.0	57.8	14.7	4.5	550
Louga	93.6	34.3	47.8	13.2	2.0	244
Fatick	93.0	33.9	45.8	6.3	1.5	200
Kolda	85.9	26.9	39.7	33.8	4.1	192
Matam	84.4	29.1	43.2	29.9	4.3	149
Kaffrine	84.5	29.3	39.0	26.3	1.9	137
Kedougou	79.0	22.4	28.4	52.7	4.9	34
Sedhiou	84.1	16.7	25.5	35.4	1.6	115
Education						
No education	88.5	27.7	40.7	19.3	2.0	1,544
Primary	91.5	40.9	53.6	17.4	3.4	1,227
Secondary or more	96.1	62.4	72.0	19.0	8.8	1,517
Wealth quintile						
Lowest	82.5	18.0	29.5	24.3	1.7	613
Second	87.5	24.8	37.5	17.8	1.3	648
Middle	91.6	41.0	56.5	16.6	4.1	889
Fourth	94.2	53.6	62.7	17.9	6.1	1,003
Highest	98.3	61.9	72.4	18.3	7.9	1,134
Total	92.1	43.8	55.4	18.6	4.8	4,288

13.3 OPINIONS ON THE PREVENTION OF HIV AND STIS

Negotiating safer sexual relations with the spouse

Women are more exposed than men to the risk of contracting HIV. This physiological and biological vulnerability to the AIDS virus is even more serious since, for a majority of women, access to information, instruction, and reproductive health services is limited, which can, among other things, limit their ability to negotiate sexual intercourse. During the survey women and men were asked whether they thought that, in a couple where the husband/partner has sexual relations with another woman, the wife is justified in refusing to have sexual intercourse with him, and also, when the woman knows that her husband/partner has an STI, whether she is justified in asking that he use a condom. Table 13.6 presents the results, for women and men.

A slightly higher proportion of women than men (66 percent versus 58 percent) say that a woman is justified in refusing to have sexual intercourse with her husband when she knows that he has sexual relations with other women. Women with at least a secondary level of education (72 percent, versus 63 percent among women with no education), women in the richest household quintile (72 percent, versus 60 percent in the poorest quintile), and women in the regions of Tambacounda and Thiès (74 percent each) are most likely to express this view.

Table 13.6 Attitudes toward negotiating safer sexual relations with husband

Percentage of women and men age 15-49 who believe that a woman is justified in refusing to have sexual intercourse with her husband if she knows that he has sexual intercourse with other women, and percentage who believe that a woman is justified in asking that they use a condom if she knows that her husband has a sexually transmitted infection (STI), by background characteristics, EDS-MICS, Senegal 2010-11

	Women			Men		
Background characteristic	Refusing to have sexual intercourse with her husband if she knows he has sex with other women	Asking that they use a condom if she knows that her husband has an STI	Number of women	Refusing to have sexual intercourse with her husband if she knows he has sex with other women	Asking that they use a condom if she knows that her husband has an STI	Number of men
Age						
15-24	65.3	75.7	6,648	54.3	69.8	2,067
15-19	63.4	72.1	3,429	53.4	63.8	1,170
20-24	67.2	79.6	3,220	55.3	77.7	897
25-29	66.1	80.9	2,746	60.3	81.8	701
30-39	67.1	82.2	3,966	63.1	87.5	983
40-49	64.6	80.1	2,328	56.7	84.9	666
Marital status						
Never married	65.9	77.6	4,585	56.6	73.9	2,738
Ever had sex	67.2	89.2	624	61.7	81.8	1,066
Never had sex	65.7	75.8	3,960	53.3	68.9	1,672
Married/living together	65.5	79.2	10,347	58.9	84.2	1,609
Divorced/separated/widowed	69.1	82.8	757	64.3	90.8	71
Residence						
Urban	67.6	85.8	7,738	60.4	82.2	2,467
Rural	64.1	72.2	7,950	53.9	72.5	1,951
Region						
Dakar	65.9	87.1	4,078	67.8	85.4	1,381
Ziguinchor	55.8	84.5	581	57.7	84.6	210
Diourbel	68.6	78.8	1,851	59.2	73.0	354
Saint-Louis	67.5	75.5	1,034	53.8	68.2	266
Tambacounda	73.7	68.0	725	74.3	86.8	214
Kaolack	59.5	76.1	1,172	71.4	77.0	317
Thies	74.0	82.3	2,030	27.9	72.3	565
Louga	64.8	71.5	1,130	50.9	64.6	262
Fatick	63.4	81.4	717	44.8	73.2	204
Kolda	58.9	72.4	640	48.9	68.3	198
Matam	67.4	62.1	595	58.6	72.0	152
Kaffrine	53.2	62.3	572	81.9	91.9	141
Kedougou	66.1	77.7	115	52.7	79.8	34
Sedhiou	57.9	82.8	448	38.7	72.9	120
Education						
No education	63.3	74.0	9,079	51.5	73.1	1,632
Primary	66.4	82.8	3,414	55.7	75.4	1,261
Secondary or more	72.3	88.7	3,195	65.5	85.2	1,525
Wealth quintile						
Lowest	60.2	65.0	2,585	57.5	71.2	665
Second	63.9	73.4	2,805	50.0	70.8	688
Middle	64.7	77.7	3,114	53.5	76.6	908
Fourth	66.1	84.1	3,494	56.3	78.3	1,019
Highest	71.6	88.9	3,689	66.5	86.9	1,137
Total	65.8	78.9	15,688	57.6	77.9	4,417

Men's attitudes do not differ as much as women's by background characteristics. Whatever the background characteristic, the proportion of men who say that a woman is justified in refusing to have sexual intercourse with her husband when she knows he has sexual relations with other women is always a little lower than among women.

In addition, 79 percent of women and 78 percent of men say that a woman who knows that her husband/partner has an STI is justified in asking him to use a condom. Overall, among both women and men, differences by background characteristics in attitudes concerning justification of condom use are similar to the differences concerning refusal to have sexual intercourse.

Teaching the use of condoms to young people age 12-14

The use of condoms as a means of HIV prevention for young people age 12-14 is a component of any strategy for controlling the AIDS epidemic. Table 13.7 shows the proportions of women and men age 18-49 who agree that children age 12-14 should be taught about using a condom to avoid AIDS. Overall, the results show that a similar proportion of women and men (42 percent and 43 percent, respectively) agree with this AIDS prevention measure. The differences by background characteristics are quite small. Nevertheless, women and men most likely to support condom education among young people age 12-14 are those in urban areas, those with secondary education or higher, and those in the richest household quintile.

13.4 MULTIPLE SEXUAL PARTNERS AND CONDOM USE

Because the AIDS virus is transmitted primarily by sexual means, it is recognized that addressing the AIDS epidemic necessarily involves a change in the sexual behavior of both men and women. To assess exposure to the risk of contracting HIV, questions were asked about the number of sexual partners during the 12 months preceding the survey, and on condom use during the last sexual intercourse. The results are presented in Table 13.8.1, for women, and Table 13.8.2, for men.

Table 13.7 Adult support of education about condom use to prevent AIDS

Percentage of women and men age 18-49 who agree that children age 12-14 years should be taught about using a condom to avoid AIDS, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Women		Men	
	Percentage who agree	Number of women	Percentage who agree	Number of men
Age				
18-24	44.9	4,676	47.9	1,328
18-19	46.3	1,456	47.9	431
20-24	44.3	3,220	47.9	897
25-29	43.1	2,746	45.9	701
30-39	41.3	3,966	40.6	983
40-49	34.9	2,328	36.1	666
Marital status				
Never married	49.8	2,946	49.8	2,000
Married/living together	39.2	10,027	35.7	1,608
Divorced/separated/ widowed	44.6	743	37.5	71
Residence				
Urban	48.1	6,813	45.9	2,112
Rural	35.6	6,903	40.1	1,566
Region				
Dakar	50.5	3,669	45.9	1,228
Ziguinchor	61.9	494	55.8	180
Diourbel	33.3	1,600	51.2	254
Saint-Louis	38.9	904	27.4	215
Tambacounda	24.1	618	36.9	177
Kaolack	47.6	1,012	39.4	251
Thies	37.4	1,772	38.0	463
Louga	40.6	969	56.2	216
Fatick	46.8	631	38.2	163
Kolda	45.9	557	48.1	163
Matam	27.5	519	36.9	128
Kaffrine	20.9	487	37.5	115
Kedougou	43.2	98	45.8	29
Sedhiou	43.1	386	39.4	98
Education				
No education	34.9	8,343	34.7	1,452
Primary	50.1	2,951	43.7	1,050
Secondary or more	55.3	2,422	53.9	1,176
Wealth quintile				
Lowest	30.8	2,259	38.3	548
Second	36.7	2,429	35.6	544
Middle	41.4	2,650	44.5	724
Fourth	45.9	3,078	45.6	848
Highest	49.6	3,300	47.8	1,015
Total	41.8	13,716	43.4	3,678

Multiple sexual partners and condom use

Having multiple sexual partners increases the risk of STIs and, in particular, the risk of contracting HIV. This risk is even greater when the level of condom use as a means of prevention is low.

Very few sexually active women reported having two or more sexual partners in the 12 months preceding the survey (0.5 percent). In addition, according to women' responses, the average number of lifetime sexual partners is estimated at 1.4. It reaches a maximum of 2.0 among women in the region of Ziguinchor (Table 13.8.1).

Table 13.8.1 Multiple sexual partners: Women

Among all women age 15-49, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months; among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; and the mean number of sexual partners during their lifetime for women who ever had sexual intercourse, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	All women		Among women who ever had sexual intercourse[1]:	
	Percentage who had 2+ partners in the past 12 months	Number of women	Mean number of sexual partners in lifetime	Number of women
Age				
15-24	0.3	6,648	1.2	3,114
15-19	0.1	3,429	1.1	949
20-24	0.5	3,220	1.2	2,165
25-29	0.7	2,746	1.3	2,381
30-39	0.7	3,966	1.5	3,805
40-49	0.2	2,328	1.6	2,274
Marital status				
Never married	0.4	4,585	1.7	621
Married/living together	0.5	10,347	1.3	10,198
Divorced/separated/widowed	1.3	757	1.6	755
Residence				
Urban	0.6	7,738	1.5	5,109
Rural	0.3	7,950	1.3	6,465
Region				
Dakar	0.7	4,078	1.5	2,689
Ziguinchor	1.9	581	2.0	430
Diourbel	0.0	1,851	1.2	1,407
Saint-Louis	0.2	1,034	1.6	739
Tambacounda	0.6	725	1.4	627
Kaolack	0.1	1,172	1.2	880
Thies	0.4	2,030	1.1	1,408
Louga	0.1	1,130	1.2	846
Fatick	0.1	717	1.3	541
Kolda	0.8	640	1.4	557
Matam	0.6	595	1.6	497
Kaffrine	0.2	572	1.1	470
Kedougou	0.8	115	1.4	100
Sedhiou	1.3	448	1.5	385
Education				
No education	0.3	9,079	1.4	7,816
Primary	1.0	3,414	1.4	2,429
Secondary or more	0.3	3,195	1.4	1,330
Wealth quintile				
Lowest	0.4	2,585	1.3	2,286
Second	0.5	2,805	1.4	2,276
Middle	0.4	3,114	1.4	2,245
Fourth	0.8	3,494	1.5	2,494
Highest	0.2	3,689	1.3	2,274
Total	0.5	15,688	1.4	11,575

[1] Means are calculated excluding respondents who gave non-numeric responses.

Table 13.8.2 shows that the proportion of men age 15-49 who reported having at least two sexual partners in the last 12 months, although small, is significantly higher than for women (8 percent for men versus 0.3 percent for women). As might be expected, the proportion of men having multiple sexual partners is particularly high among polygynous men (92 percent, versus 7 percent among monogamous men). Also, the proportion of men with multiple sexual partners in the last 12 months increases with age, from 4 percent at age 20-24 to 23 percent at 40-49; this proportion is also higher among men in union than for those formerly in union, and especially for single men (17 percent versus, respectively, 10 percent and 4 percent). It is higher among men in rural areas than in urban areas (12 percent versus 6 percent), and higher among men with no education (13 percent) compared with men who attended school (7 percent, primary level, and 5 percent,

secondary or higher). Finally, the proportion with multiple sexual partners in the last 12 months is higher among men in the two poorest household quintiles than in the other quintiles.

Table 13.8.2 Multiple sexual partners: Men

Among all men age 15-49, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months; among those having more than one partner in the past 12 months, the percentage reporting that a condom was used at last intercourse; and the mean number of sexual partners during their lifetime for men who ever had sexual intercourse, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	All men		Among men who had 2+ partners in the past 12 months:		Among men who ever had sexual intercourse[1]:	
	Percentage who had 2+ partners in the past 12 months	Number of men	Percentage who reported using a condom during last sexual intercourse	Number of men	Mean number of sexual partners in lifetime	Number of men
Age						
15-24	2.4	2,067	48.8	50	2.7	620
15-19	1.3	1,170	*	16	2.3	218
20-24	3.9	897	(44.7)	35	2.9	402
25-29	8.6	701	52.1	60	3.9	506
30-39	11.0	983	16.9	108	3.8	877
40-49	23.1	666	2.0	154	4.9	609
Marital status						
Never married	3.6	2,738	64.5	99	3.5	1,030
Married/living together	16.5	1,609	3.6	266	4.0	1,519
Divorced/separated/widowed	9.7	71	*	7	4.4	64
Type of union						
In polygynous union	92.1	189	0.9	175	4.0	182
In non-polygynous union	6.5	1,419	8.6	92	4.0	1,337
Not currently in union	3.8	2,809	63.8	106	3.6	1,093
Residence						
Urban	6.0	2,467	35.4	149	4.0	1,474
Rural	11.5	1,951	11.0	224	3.7	1,139
Region						
Dakar	5.1	1,381	37.8	71	4.1	852
Ziguinchor	18.3	210	(41.0)	38	4.2	142
Diourbel	9.2	354	*	33	2.6	153
Saint-Louis	8.7	266	*	23	3.4	130
Tambacounda	11.6	214	(27.5)	25	6.0	158
Kaolack	10.6	317	(4.3)	34	1.8	141
Thies	3.4	565	*	19	3.6	305
Louga	6.9	262	*	18	2.3	146
Fatick	6.7	204	*	14	3.7	129
Kolda	16.7	198	(25.2)	33	4.3	145
Matam	11.7	152	(7.8)	18	5.9	110
Kaffrine	12.3	141	(2.7)	17	2.7	92
Kedougou	16.4	34	(19.7)	6	2.9	23
Sedhiou	20.2	120	23.2	24	4.1	86
Education						
No education	12.9	1,632	7.0	211	3.3	1,067
Primary	7.1	1,261	33.6	90	3.9	767
Secondary or more	4.7	1,525	45.1	72	4.4	779
Wealth quintile						
Lowest	12.6	665	7.3	84	4.1	457
Second	11.4	688	12.4	79	3.4	392
Middle	9.2	908	23.7	84	3.6	519
Fourth	5.7	1,019	21.1	58	3.5	564
Highest	6.0	1,137	43.0	68	4.3	680
Total 15-49	8.4	4,417	20.7	372	3.8	2,613
50-59	34.8	512	2.1	178	4.8	462
Total 15-59	11.2	4,929	14.7	550	4.0	3,074

[1] Means are calculated excluding respondents who gave non-numeric responses.
( ) Based on 25-49 unweighted cases.
* Based on less than 25 unweighted cases.

Among men age 15-49 with multiple sexual partners in the last 12 months, 21 percent reported using a condom with the last partner. Condom use is more common among men age 25-29 (52 percent), single men (65 percent), men with secondary education or higher (45 percent), and men in the richest wealth quintile (43 percent).

Point prevalence and cumulative prevalence of concurrent sexual partners

Multiple sexual partners may be serial, which is considered monogamous sexual intercourse, during periods of varying length with several partners who succeed each other, or they may be concurrent, which is considered sexual intercourse with several different partners over shorter or longer periods that overlap. Two sexual partners are considered concurrent when the date of first sexual intercourse with the most recent partner is before the date of the last sexual intercourse with the preceding partner. If having multiple sexual partners increases the risk of contracting AIDS, then sexual intercourse with concurrent sexual partners, in theory, carries an increased risk of infection. Indeed, this type of relationship creates extensive sexual networks, that is, groups of persons indirectly interconnected to each other through sexual intercourse, which increases the risk of contracting HIV for each member of the group.

During the EDS-MICS 2010-11, information was collected on the timing of the first sexual intercourse and when the most recent sexual intercourse took place with each sexual partner in the last 12 months. From this information it was determined whether the respondent had sexual intercoursee with several partners during the same period—that is, concurrent sexual partners.

Two indicators measure concurrent sexual partnerships: point prevalence and cumulative prevalence. Point prevalence of concurrent sexual partners is defined as the proportion of women and men age 15-49 who have had sex with concurrent sexual partners at a specific time (six months before the survey). The cumulative prevalence of concurrent sexual partners is defined as the proportion of women and men age 15-49 who have had concurrent sexual partners at any time during the last 12 months. Furthermore, with regard to men who live in polygynous unions, sexual intercourse with different wives during the same period is, by definition, considered to be concurrent relationships by two indicators.

Point prevalence is always lower than cumulative prevalence because point prevalence concerns only sexual intercourse taking place on a specific day and not in an entire year. Thus, sexual intercourse covering a short length of time has little chance of being counted, while all concurrent relationships, regardless of duration, are counted in cumulative prevalence.

Table 13.9 shows that a small proportion of men age 15-49 had concurrent sexual partners: about 5 percent had concurrent sexual partners six months before the survey (point prevalence) and 7 percent had concurrent sexual partners at any time during the 12 months preceding the survey (cumulative prevalence). However, among men who had sexual intercourse with multiple partners in the past 12 months, 84 percent were concurrent sexual partners. Like the proportion of men having multiple partners, cumulative prevalence and point prevalence of concurrent partners increase with age and are higher among men in union and among those in rural areas than for other categories of men.

Table 13.9 Point prevalence and cumulative prevalence of concurrent sexual partners

Percentage of all men age 15-49 who had concurrent sexual partners six months before the survey (point prevalence[1]), and percentage of all men age 15-49 who had any concurrent sexual partners during the 12 months before the survey (cumulative prevalence[2]), and among women and men age 15-49 who had multiple sexual partners during the 12 months before the survey, percentage who had concurrent sexual partners, EDS-MICS, Senegal 2010-11

Background characteristic	Among all respondents:			Among respondents who had multiple partners during the 12 months before the survey:	
	Point prevalence of concurrent sexual partners[1]	Cumulative prevalence of concurrent sexual partners[2]	Number of respondents	Percentage who had concurrent sexual partners[2]	Number of respondents
Age					
15-24	1.0	1.5	2,067	63.2	50
15-19	0.7	0.8	1,170	*	16
20-24	1.4	2.5	897	(64.1)	35
25-29	2.6	5.8	701	67.7	60
30-39	6.4	9.9	983	89.7	108
40-49	18.3	21.5	666	93.0	154
Marital status					
Never married	1.0	2.1	2,738	58.5	99
Married/living together	12.0	15.5	1,609	93.7	266
Divorced/separated/ widowed	2.9	7.0	71	*	7
Residence					
Urban	2.6	4.1	2,467	68.5	149
Rural	8.2	10.8	1,951	94.2	224
Total 15-49	5.1	7.1	4,417	83.9	372
50-59	29.7	33.2	512	95.4	178
Total 15-59	7.6	9.8	4,929	87.6	550

Note: Two sexual partners are considered to be concurrent if the date of the most recent sexual intercourse with the earlier partner is after the date of the first sexual intercourse with the later partner.
[1] The percentage of respondents who had two (or more) sexual partners that were concurrent at the point in time six months before the survey.
[2] The percentage of respondents who had two (or more) sexual partners that were concurrent anytime during the 12 months preceding the survey.
( ) Based on 25-49 unweighted cases
* Based on less than 25 unweighted cases.

Paid sexual intercourse

Paid sexual intercourse is considered to be high-risk sexual behavior since it is with women who have many sexual partners. During the EDS-MICS 2010-11, men were asked if they had ever paid for sexual intercourse and if they had done so during the past 12 months. Table 13.10 presents the results.

Among men age 15-49, 4 percent reported ever having commercial sex. Among men formerly in union, this proportion is much higher (11 percent). In addition, the results show that over the last 12 months 0.7 percent of men age 15-49 paid for sexual intercourse. For men formerly in union, this figure is 3 percent.

Table 13.10 Payment for sexual intercourse and condom use at last paid sexual intercourse

Percentage of men age 15-49 who ever paid for sexual intercourse and percentage reporting payment for sexual intercourse in the past 12 months, and among them, the percentage reporting that a condom was used the last time they paid for sexual intercourse, by background characteristics, EDS-MICS, Senegal 2010-11

	Among all men :		
Background characteristic	Percentage who ever paid for sexual intercourse	Percentage who paid for sexual intercourse in the past 12 months	Number of men
Age			
15-24	1.8	0.4	2,067
15-19	0.7	0.2	1,170
20-24	3.4	0.7	897
25-29	6.5	1.6	701
30-39	6.3	0.8	983
40-49	6.9	0.5	666
Marital status			
Never married	2.7	0.6	2,738
Married/living together	6.9	0.8	1,609
Divorced/separated/ widowed	10.8	2.5	71
Residence			
Urban	4.3	0.6	2,467
Rural	4.3	0.8	1,951
Region			
Dakar	2.9	0.4	1,381
Ziguinchor	23.0	3.3	210
Diourbel	0.7	0.7	354
Saint-Louis	3.4	0.0	266
Tambacounda	8.9	2.1	214
Kaolack	5.7	0.7	317
Thies	1.5	0.2	565
Louga	0.6	0.6	262
Fatick	0.4	0.0	204
Kolda	6.9	0.6	198
Matam	3.9	2.3	152
Kaffrine	3.6	1.0	141
Kedougou	3.6	1.5	34
Sedhiou	15.2	0.2	120
Education			
No education	5.0	0.9	1,632
Primary	4.5	0.7	1,261
Secondary or more	3.5	0.5	1,525
Wealth quintile			
Lowest	6.9	1.6	665
Second	4.0	0.6	688
Middle	6.1	0.8	908
Fourth	2.4	0.3	1,019
Highest	3.3	0.5	1,137
Total	4.3	0.7	4,417

13.5 PRIOR HIV TESTING

HIV testing for all respondents

Knowledge of HIV status allows people to protect themselves and protect their partners, and thus can help reduce the AIDs epidemic. During the EDS-MICS 20-2011, respondents were asked if they were ever tested for HIV and if they received their test results or not. Tables 13.11.1 and 13.11.2 present the findings, for women and men.

The first column of Table 13.11.1 indicates that 63 percent of women know where to go for an HIV test. Among women with a secondary or higher level of education and among those whose household is classified in the richest quintile, the proportion is much higher, reaching 86 percent and 80 percent, respectively.

Table 13.11.1 Coverage of prior HIV testing: Women

Percentage of women age 15-49 who know where to get an HIV test, percent distribution of women age 15-49 by testing status and by whether they received the results of the last test, the percentage of women ever tested, and the percentage of women age 15-49 who were tested in the past 12 months and received the results of the last test, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of women by testing status and by whether they received the results of the last test				Percentage ever tested	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of women
		Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total			
Age								
15-24	60.3	23.3	1.8	74.9	100.0	25.1	12.8	6,648
15-19	54.8	16.1	1.8	82.1	100.0	17.9	9.6	3,429
20-24	66.1	31.0	1.9	67.2	100.0	32.8	16.3	3,220
25-29	67.7	36.2	2.0	61.8	100.0	38.2	17.3	2,746
30-39	66.7	32.7	2.1	65.2	100.0	34.8	14.6	3,966
40-49	57.2	21.6	1.9	76.6	100.0	23.4	9.9	2,328
Marital status								
Never married	64.5	19.2	1.5	79.3	100.0	20.7	10.3	4,585
Ever had sex	79.2	39.1	1.5	59.4	100.0	40.6	21.0	624
Never had sex	62.2	16.1	1.5	82.4	100.0	17.6	8.6	3,960
Married/living together	61.7	31.1	2.1	66.8	100.0	33.2	15.0	10,347
Divorced/separated/widowed	65.1	32.3	2.3	65.4	100.0	34.6	15.3	757
Residence								
Urban	76.2	35.1	1.7	63.2	100.0	36.8	17.5	7,738
Rural	49.6	20.4	2.2	77.4	100.0	22.6	9.9	7,950
Region								
Dakar	75.9	36.4	1.1	62.5	100.0	37.5	18.1	4,078
Ziguinchor	81.1	44.7	3.8	51.5	100.0	48.5	29.0	581
Diourbel	46.3	21.2	1.0	77.8	100.0	22.2	7.7	1,851
Saint-Louis	62.8	31.1	1.7	67.2	100.0	32.8	16.0	1,034
Tambacounda	44.5	17.4	2.7	79.9	100.0	20.1	8.9	725
Kaolack	69.0	23.3	2.5	74.2	100.0	25.8	13.3	1,172
Thies	71.9	30.8	3.3	65.9	100.0	34.1	13.4	2,030
Louga	59.1	18.2	2.5	79.3	100.0	20.7	8.1	1,130
Fatick	63.2	27.1	3.0	69.9	100.0	30.1	13.2	717
Kolda	54.8	24.7	2.3	73.0	100.0	27.0	15.3	640
Matam	42.3	15.5	0.3	84.2	100.0	15.8	7.7	595
Kaffrine	25.9	10.0	0.4	89.6	100.0	10.4	5.2	572
Kedougou	43.3	24.9	4.9	70.2	100.0	29.8	12.3	115
Sedhiou	56.9	27.6	2.7	69.7	100.0	30.3	12.7	448
Education								
No education	51.1	21.9	2.0	76.1	100.0	23.9	10.5	9,079
Primary	71.7	32.0	1.3	66.7	100.0	33.3	15.6	3,414
Secondary or more	86.2	39.4	2.5	58.0	100.0	42.0	20.5	3,195
Wealth quintile								
Lowest	38.2	13.1	2.2	84.7	100.0	15.3	6.3	2,585
Second	54.0	22.8	2.5	74.6	100.0	25.4	11.4	2,805
Middle	63.2	27.5	2.0	70.5	100.0	29.5	13.3	3,114
Fourth	69.1	31.3	2.0	66.8	100.0	33.2	14.4	3,494
Highest	80.1	38.2	1.3	60.5	100.0	39.5	20.1	3,689
Total15-49	62.7	27.7	1.9	70.4	100.0	29.6	13.6	15,688

[1] Includes 'don't know/missing'.

Even though 63 percent of women say they know a place to get an HIV test, 70 percent have never been tested. Only 28 percent of women have been tested for HIV and received the results, while 2 percent were tested without receiving the results. Those most frequently tested and receiving the results are single women who have had sexual intercourse (39 percent), women in urban areas (35 percent), women in the region of Ziguinchor (45 percent), women with at least a secondary education (39 percent), and women in the richest household wealth quintile (38 percent).

The next-to-last column of Table 13.11.1 shows the proportion of women who received the result of the last test in the past 12 months. Only 14 percent of women know their recent HIV status. Women who are most likely to know their recent HIV status are in the same sociodemographic categories as women who know where to get an HIV test and who have been tested—that is, single women who have had sexual intercourse (21 percent), women in urban areas (18 percent), women in the region of Ziguinchor (29 percent), women with at least a secondary education (21 percent), and women in the richest quintile (20 percent).

Table 13.11.2 shows that 68 percent of men know where to get an HIV test, a slightly higher proportion than for women (63 percent). The proportion of men formerly in union who say they know where to get an HIV test is very high (91 percent). As among women, men most likely to know where to get tested are those in urban areas (76 percent), those in the region of Ziguinchor (85 percent), those with secondary education or more (87 percent), and those in the richest quintile (83 percent).

In addition, Table 13.11.2 shows that 81 percent of men have never been tested for HIV, a larger proportion than for women (70 percent). Only 17 percent of men have taken an HIV test and received the results, compared wtih 28 percent of women. In 3 percent of cases, men were tested but did not receive the results. Men most likely to have been tested and received the results are in the same sociodemographic categories as women.

A lower proportion of men than women received the results of their last HIV test in the past 12 months (9 percent versus 14 percent). The proportion is highest among men formerly in union (15 percent), men in the regions of Kédougou (31 percent) and Ziguinchor (17 percent), men with the most education (16 percent), and men in the richest quintile (14 percent). In contrast, among men with no education and men in the poorest quintile, these proportions are only 4 percent and 5 percent, respectively.

Table 13.11.2 Coverage of prior HIV testing: Men

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men age 15-49 by testing status and by whether they received the results of the last test, the percentage of women ever tested, and the percentage of women age 15-49 who were tested in the past 12 months and received the results of the last test, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of of women 2010-11 by testing status and by whether they received the results of the last test				Percentage ever tested	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of men
		Ever tested and received results	Ever tested, did not receive results	Never tested[1]	Total			
Age								
15-24	63.9	12.6	2.7	84.7	100.0	15.3	7.3	2,067
15-19	59.2	10.6	3.0	86.3	100.0	13.7	6.0	1,170
20-24	70.0	15.2	2.2	82.6	100.0	17.4	8.9	897
25-29	66.6	17.3	2.9	79.9	100.0	20.1	9.9	701
30-39	76.8	22.2	2.6	75.1	100.0	24.9	12.6	983
40-49	72.2	19.3	2.5	78.3	100.0	21.7	7.9	666
Marital status								
Never married	66.4	14.9	2.7	82.4	100.0	17.6	8.7	2,738
Ever had sex	76.6	21.4	2.8	75.8	100.0	24.2	12.4	1,066
Never had sex	59.9	10.7	2.6	86.7	100.0	13.3	6.3	1,672
Married/living together	70.9	18.5	2.6	78.9	100.0	21.1	9.1	1,609
Divorced/separated/ widowed	91.2	34.5	2.3	63.2	100.0	36.8	15.3	71
Residence								
Urban	76.4	19.6	2.9	77.4	100.0	22.6	11.1	2,467
Rural	58.3	12.5	2.3	85.1	100.0	14.9	6.3	1,951
Region								
Dakar	73.9	17.1	3.0	80.0	100.0	20.0	9.8	1,381
Ziguinchor	85.4	29.3	9.1	61.7	100.0	38.3	17.3	210
Diourbel	51.1	12.0	2.4	85.6	100.0	14.4	8.3	354
Saint-Louis	71.1	21.8	1.2	77.0	100.0	23.0	10.2	266
Tambacounda	77.1	10.7	0.7	88.6	100.0	11.4	8.8	214
Kaolack	77.7	21.9	4.1	74.0	100.0	26.0	7.5	317
Thies	66.6	11.5	1.7	86.8	100.0	13.2	4.5	565
Louga	51.0	10.1	2.4	87.5	100.0	12.5	7.2	262
Fatick	45.7	12.2	0.9	86.9	100.0	13.1	6.0	204
Kolda	84.0	25.0	0.8	74.2	100.0	25.8	13.6	198
Matam	72.0	16.1	3.2	80.8	100.0	19.2	8.9	152
Kaffrine	33.2	10.2	1.6	88.3	100.0	11.7	6.3	141
Kedougou	69.5	40.2	5.6	54.2	100.0	45.8	30.7	34
Sedhiou	77.4	17.6	2.0	80.5	100.0	19.5	6.9	120
Education								
No education	53.0	9.0	1.3	89.6	100.0	10.4	3.9	1,632
Primary	65.6	14.4	2.2	83.5	100.0	16.5	7.5	1,261
Secondary or more	87.3	26.3	4.5	69.2	100.0	30.8	15.6	1,525
Wealth quintile								
Lowest	54.5	10.6	1.9	87.5	100.0	12.5	4.9	665
Second	60.6	13.4	2.4	84.2	100.0	15.8	6.9	688
Middle	68.6	17.0	3.0	80.0	100.0	20.0	8.3	908
Fourth	66.4	15.1	3.2	81.7	100.0	18.3	7.6	1,019
Highest	83.0	22.7	2.5	74.7	100.0	25.3	14.4	1,137
Total 15-49	68.4	16.5	2.7	80.8	100.0	19.2	9.0	4,417
50-59	66.3	12.6	1.8	85.5	100.0	14.5	6.2	512
Total 15-59	68.2	16.1	2.6	81.3	100.0	18.7	8.7	4,929

[1] Includes 'don't know/missing'.

HIV testing for pregnant women

Table 13.12 shows, among all women age 15-49 who gave birth in the two years preceding the survey, the percentage who received HIV pretest counseling, the percentage who received an HIV test during antenatal care for their most recent birth by whether they received their results and post-test counseling, and percentage who received an HIV test during ANC or labor for their most recent birth by whether they received their test results, according to background characteristics.

Overall, the results show that only 27 percent of women received HIV counseling during an antenatal visit. In 23 percent of cases, the women received an HIV test during an antenatal visit, learned the results and received counseling after the test. Another 12 percent of women received an HIV test, received the result but no counseling after the test and, finally, 2 percent of women received an HIV test and did not receive the results. Overall, during an antenatal visit, only 19 percent of pregnant women both received counseling on HIV/AIDS before the test and took the test and received the results. The women most likely to have received counseling and who also received the HIV test results are those formerly in union (34 percent), those in urban areas (29 percent, versus 14 percent in rural areas), those from the regions of Ziguinchor and Dakar (36 percent and 30 percent, respectively, compared with 7 percent in the region of Kaffrine), those with secondary education or higher (32 percent, versus 14 percent among women with no education), and those in the richest household wealth quintile (32 percent, versus 8 percent in the poorest quintile).

Table 13.12 Pregnant women counseled and tested for HIV

Among all women age 15-49 who gave birth in the two years preceding the survey, the percentage who received HIV pretest counseling, the percentage who received an HIV test during antenatal care for their most recent birth by whether they received their results and post-test counseling, and percentage who received an HIV test during ANC or labor for their most recent birth by whether they received their test results, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage who received counseling on HIV during antenatal care[1]	Percentage who were tested for HIV during antenatal care and who:			Percentage who received counseling on HIV and an HIV test during ANC, and the results	Number of women who gave birth in the past two years[2]
		Received post-test counseling	Did not receive post-test counseling	Did not receive results		
Age						
15-24	25.2	22.1	14.1	2.3	18.6	1,553
15-19	17.4	22.2	11.5	2.8	14.3	424
20-24	28.1	22.0	15.1	2.1	20.2	1,129
25-29	29.9	27.7	11.0	2.0	21.6	1,219
30-39	28.8	21.6	12.9	1.5	19.4	1,473
40-49	21.7	21.3	6.7	1.9	14.5	271
Marital status						
Never married	32.2	31.4	13.8	1.2	22.9	168
Married/living together	27.0	22.8	12.4	2.0	18.9	4,249
Divorced/separated/widowed	39.5	35.4	12.7	1.6	34.3	99
Residence						
Urban	36.5	32.0	19.7	1.8	28.8	1,702
Rural	22.0	18.2	8.0	2.0	13.7	2,814
Region						
Dakar	36.4	31.7	22.1	1.5	29.6	831
Ziguinchor	45.8	54.0	5.8	4.7	36.1	149
Diourbel	35.9	23.1	7.0	1.3	18.0	563
Saint-Louis	24.5	26.3	14.6	1.2	18.1	291
Tambacounda	9.4	16.4	2.9	0.9	8.6	246
Kaolack	16.0	20.8	8.3	2.6	12.6	412
Thies	38.0	20.6	28.4	4.2	27.6	577
Louga	15.5	15.6	8.8	1.9	10.0	311
Fatick	30.8	25.8	7.4	1.8	19.1	266
Kolda	22.0	19.9	4.8	1.3	13.9	248
Matam	11.7	12.5	5.1	0.0	8.8	186
Kaffrine	11.3	9.5	2.2	0.5	7.3	221
Kedougou	11.6	13.7	5.7	1.1	7.5	43
Sedhiou	28.9	25.7	3.9	2.8	22.4	172
Education						
No education	22.3	18.6	9.7	2.1	14.4	3,166
Primary	38.3	33.7	16.8	1.1	30.7	981
Secondary or more	42.5	37.0	24.9	2.8	32.3	369
Wealth quintile						
Lowest	13.5	11.4	4.0	2.3	7.8	1,061
Second	23.3	20.6	8.7	2.4	15.9	1,020
Middle	30.0	27.6	13.4	1.7	21.7	865
Fourth	36.3	29.2	17.7	2.5	25.3	882
Highest	40.4	33.2	23.1	0.2	32.0	688
Total 15-49	27.4	23.4	12.4	1.9	19.4	4,516

[1] In this context, "pretest counseling" means that someone talked with the respondent about all three of the following topics: 1) babies getting the AIDS virus from their mother, 2) preventing the virus, and 3) getting tested for the virus.
[2] Denominator for percentages includes women who did not receive antenatal care for their last birth in the past two years.

13.6 SEXUALLY TRANSMITTED INFECTIONS (STIs)

Because STIs can facilitate transmission of the AIDS virus, prevention of STIs is a priority in the fight against HIV/AIDS. During the survey, in order to establish a reported prevalence of STIs, respondents who have had sexual intercourse were asked if they had an STI or symptoms associated with STIs during the 12 months preceding the surey. Table 13.13 presents the results for women and men age 15-49 according to background characteristics.

Table 13.13 Self-reported prevalence of sexually transmitted infections (STIs) and STI symptoms

Among women and men age 15-49 who ever had sexual intercourse, the percentage reporting having an STI and/or symptoms of an STI in the past 12 months, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Women					Men				
	STI	Bad-smelling/ abnormal genital discharge	Genital sore or ulcer	STI/ genital discharge/ sore or ulcer	Number of women who ever had sexual intercourse	STI	Bad-smelling/ abnormal genital discharge	Genital sore or ulcer	STI/ genital discharge/ sore or ulcer	Number of men who ever had sexual intercourse
Age										
15-24	0.8	11.2	3.4	13.2	3,127	0.2	2.8	0.9	3.5	627
15-19	0.5	10.6	3.0	12.6	956	0.0	1.7	0.2	1.7	224
20-24	1.0	11.4	3.5	13.5	2,171	0.3	3.5	1.3	4.5	404
25-29	2.7	11.6	4.9	14.5	2,384	0.2	0.5	0.3	0.8	519
30-39	2.0	9.9	4.3	12.6	3,809	1.6	1.1	0.8	2.5	930
40-49	1.1	5.9	3.7	8.7	2,281	0.8	1.2	0.9	2.3	662
Marital status										
Never married	2.1	12.9	4.9	15.9	624	0.2	1.9	0.7	2.4	1,066
Married/living together	1.6	9.8	4.0	12.3	10,220	1.1	1.0	0.6	2.2	1,602
Divorced/separated/widowed	1.5	7.9	4.0	10.8	757	4.2	4.8	5.3	5.9	71
Residence										
Urban	2.1	10.7	3.2	12.6	5,131	0.8	1.3	0.4	1.9	1,533
Rural	1.3	9.1	4.7	12.2	6,470	0.9	1.5	1.2	3.0	1,206
Region										
Dakar	2.0	12.4	3.1	13.8	2,706	1.0	1.2	0.3	1.9	880
Ziguinchor	4.2	10.7	3.2	13.7	430	0.8	2.6	1.2	3.3	153
Diourbel	1.0	11.2	7.1	13.9	1,408	2.6	3.7	0.4	4.8	160
Saint-Louis	2.0	11.9	6.7	15.4	740	0.9	2.4	1.0	4.3	158
Tambacounda	1.8	17.6	2.8	19.4	627	1.0	3.5	5.2	8.9	160
Kaolack	1.3	6.9	7.1	13.9	881	2.0	1.4	0.5	2.0	169
Thies	1.1	6.3	3.6	8.7	1,410	0.0	0.6	0.0	0.6	314
Louga	2.3	9.9	2.2	12.1	849	0.5	0.0	0.0	0.5	150
Fatick	0.6	7.4	4.7	11.4	541	0.0	0.3	0.0	0.3	129
Kolda	1.7	6.7	3.3	8.7	557	0.0	0.0	0.0	0.0	146
Matam	1.9	8.2	2.8	11.3	497	0.7	2.1	1.9	4.0	114
Kaffrine	1.1	6.4	0.8	7.3	470	0.0	0.5	1.6	1.6	93
Kedougou	1.1	5.6	2.7	7.6	100	0.7	1.0	0.0	1.7	26
Sedhiou	0.7	2.8	1.6	4.2	385	0.0	1.2	0.6	1.2	87
Education										
No education	1.3	8.8	4.2	11.4	7,829	0.6	1.5	1.0	2.6	1,126
Primary	1.5	11.0	3.8	13.5	2,439	1.1	1.1	0.6	2.3	798
Secondary or more	3.7	13.6	3.4	16.1	1,333	0.8	1.7	0.6	2.1	815
Wealth quintile										
Lowest	1.2	10.3	4.3	13.0	2,287	0.8	1.7	1.8	3.6	478
Second	1.2	7.0	4.0	10.3	2,279	0.4	0.6	0.8	1.4	419
Middle	1.3	9.2	5.0	12.2	2,246	0.4	1.5	0.9	2.3	551
Fourth	1.7	9.1	3.9	11.6	2,506	0.6	1.2	0.0	1.6	580
Highest	2.8	13.5	2.9	15.0	2,284	1.5	1.9	0.6	2.8	710
Total 15-49	1.6	9.8	4.0	12.4	11,601	0.8	1.4	0.8	2.4	2,739
50-59	na	na	na	na	na	2.3	0.2	0.2	2.5	506
Total 15-59	na	na	na	na	na	1.0	1.2	0.7	2.4	3,244

na = Not applicable

The results show that 2 percent of women who ever had sexual intercourse reported having an STI in the last 12 months. In addition, some respondents reported symptoms that may indicate an STI: for example, 10 percent of women reported having foul smelling vaginal discharge, and 4 percent reported genital sores or ulcers. If these reports of symptoms are taken into account, STI prevalence increases from 2 percent to 12 percent. However, this measure of prevalence is based solely on the statements of survey respondents and thus should be taken as an order of magnitude rather than as a precise estimate. Reported prevalence of STIs is highest among women in the region of Tambacounda (19 percent), single women (16 percent), women with secondary education or higher (16 percent), and women in the richest quintile (15 percent).

Among men who ever had sexual intercourse, less than 1 percent reported having an STI in the last 12 months, 1 percent reported having discharge from the penis, and less than 1 percent had genital sores or ulcers. If symptoms are taken into account, the prevalence of STIs among these men is 2 percent. Unlike women, men who are formerly in union have the highest reported prevalence of STIs (6 percent).

Figure 13.1 shows that, among women and men age 15-49 who reported having an STI and/or symptoms associated with STIs in the past 12 months, 40 percent of women and 45 percent of men did not seek advice or treatment for their STI. However, 55 percent of women and 51 percent of men who had an STI did seek treatment or advice at a clinic, hospital, or health professional, and 2 percent of women and 4 percent of men sought advice or treatment at a pharmacy.

Figure 13.1
Women and men age 15-49 reporting an STI or symptoms
of an STI in the past 12 months who sought advice or treatment
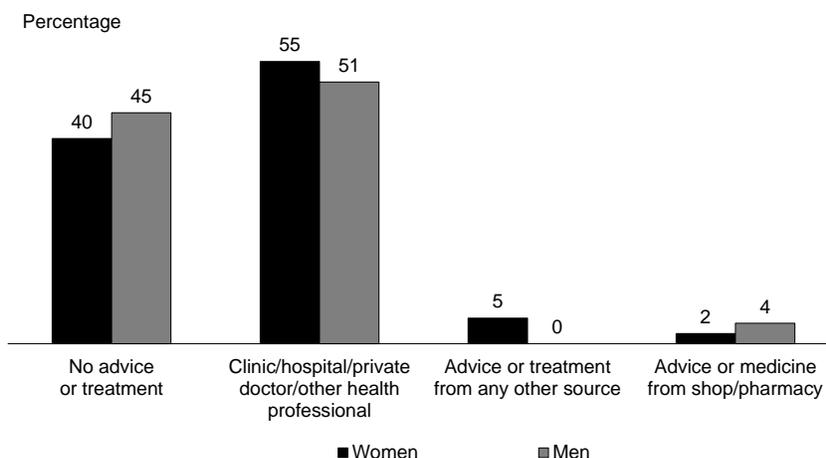
EDS-MICS 2010-11

13.7 PREVALENCE OF INJECTIONS

Injections done without adherence to aseptic norms can be a source of contamination. It is thus important to know to what extent the population receives injections done by health personnel according to the recommended standards. In addition to questions estimating the proportion of people who received medical injections, respondents were asked about how the needle and syringe used for the last injection were presented. Table 13.14 shows the results for women and men age 15-49.

Overall, 34 percent of women and 28 percent of men received a medical injection performed by health personnel during the 12 months preceding the survey. The average number of injections received by women is estimated at 1.1, and for men at 0.8.

Table 13.14 Prevalence of medical injections

Percentage of women and men age 15-49 who received at least one medical injection in the past 12 months, the average number of medical injections per person in the past 12 months, and among those who received a medical injection, the percentage of last medical injections for which the syringe and needle were taken from a new, unopened package, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Women					Men				
	Percentage who received a medical injection in the past 12 months	Average number of medical injections per person in the past 12 months	Number of women	For last injection, syringe and needle taken from a new, unopened package	Number of women receiving medical injections in the past 12 months	Percentage who received a medical injection in the past 12 months	Average number of medical injections per person in the past 12 months	Number of men	For last injection, syringe and needle taken from a new, unopened package	Number of men receiving medical injections in the past 12 months
Age										
15-24	32.0	0.8	6,648	97.6	2,129	26.2	0.6	2,067	96.5	542
15-19	25.2	0.6	3,429	97.4	864	25.6	0.5	1,170	98.1	299
20-24	39.3	1.1	3,220	97.8	1,265	27.0	0.6	897	94.6	242
25-29	40.9	1.5	2,746	96.3	1,124	29.9	0.8	701	95.4	210
30-39	37.5	1.2	3,966	97.8	1,489	31.2	1.5	983	97.8	307
40-49	26.9	1.4	2,328	98.0	626	29.8	0.8	666	98.3	199
Marital status										
Never married	23.5	0.7	4,585	96.6	1,075	27.6	0.7	2,738	96.2	755
Ever had sex	38.4	0.9	624	95.1	239	30.6	1.0	1,066	94.8	326
Never had sex	21.1	0.7	3,960	97.1	836	25.7	0.6	1,672	97.3	429
Married/living together	39.2	1.3	10,347	97.6	4,061	29.6	1.0	1,609	97.8	476
Divorced/separated/ widowed	30.6	1.1	757	97.9	232	35.3	1.1	71	100.0	25
Residence										
Urban	33.9	1.1	7,738	98.2	2,623	30.9	1.0	2,467	97.6	763
Rural	34.5	1.1	7,950	96.7	2,744	25.3	0.7	1,951	95.9	493
Region										
Dakar	35.7	1.1	4,078	99.1	1,455	34.0	1.2	1,381	98.1	470
Ziguinchor	30.7	1.1	581	96.9	178	22.2	0.4	210	96.9	47
Diourbel	34.0	1.2	1,851	97.4	629	27.1	0.6	354	93.8	96
Saint-Louis	33.2	1.0	1,034	97.6	343	26.0	0.6	266	97.0	69
Tambacounda	32.9	1.0	725	95.5	239	24.3	0.5	214	100.0	52
Kaolack	46.4	1.6	1,172	96.5	543	35.5	0.9	317	97.4	113
Thiès	24.9	0.9	2,030	95.9	506	26.6	0.9	565	96.0	150
Louga	30.6	1.3	1,130	98.1	345	18.9	0.4	262	98.9	50
Fatick	44.2	1.1	717	95.7	317	26.7	0.5	204	96.9	55
Kolda	36.5	1.1	640	99.1	234	24.5	0.5	198	96.8	48
Matam	36.7	1.2	595	98.5	218	16.1	0.4	152	93.5	25
Kaffrine	31.6	0.8	572	92.9	181	33.9	1.0	141	92.5	48
Kedougou	34.7	0.8	115	95.9	40	37.0	1.7	34	100.0	13
Sedhiou	31.1	0.8	448	97.5	139	19.5	0.4	120	88.5	23
Education										
No education	34.2	1.1	9,079	97.1	3,102	22.7	0.6	1,632	96.0	370
Primary	36.8	1.2	3,414	98.6	1,257	32.7	1.1	1,261	96.6	412
Secondary or more	31.6	0.9	3,195	97.1	1,008	31.1	0.9	1,525	97.9	475
Wealth quintile										
Lowest	35.3	1.2	2,585	97.1	914	23.5	0.6	665	94.3	156
Second	35.3	1.2	2,805	95.7	990	22.5	0.5	688	97.5	155
Middle	31.4	0.8	3,114	97.8	977	26.7	0.7	908	94.5	242
Fourth	33.3	1.2	3,494	97.4	1,163	28.4	0.9	1,019	99.2	289
Highest	35.9	1.1	3,689	98.8	1,324	36.4	1.1	1,137	97.5	414
Total 15-49	34.2	1.1	15,688	97.4	5,368	28.4	0.8	4,417	96.9	1,257
50-59	na	na	na	na	na	22,3	1,1	512	96.4	114
Total 15-59	na	na	na	na	na	27,8	0,9	4,929	96.9	1,370

Note: Medical injections are those given by a doctor, nurse, pharmacist, dentist, or any other health worker.
na = Not applicable

In almost all cases, women and men (97 percent each) who received a medical injection in the last 12 months reported that the last injection was made with a syringe and needle taken from a new, unopened package. There is no significant difference by background characteristics.

13.8 Young People Age 15-24 and HIV/AIDS

The data collected on HIV/AIDS and sexual behavior were used to calculate indicators specific to the youth population age 15-24. This section discusses these results.

Comprehensive knowledge of HIV/AIDS and knowledge of where to obtain condoms

Overall, 29 percent of women and 31 percent of men age 15-24 have comprehensive knowledge of HIV/AIDS (Table 13.15). That is, they know they can reduce the risk of contracting the AIDS virus by using condoms and limiting sex to one faithful partner who is not infected, they reject the most common misconceptions about AIDS transmission (transmission by mosuqitoes and sharing meals with someone who has HIV/AIDS), and they know that a healthy-looking person may nevertheless have contracted the AIDS virus[1].

Among young people, the level of comprehensive knowledge of AIDS increases with age, from 24 percent of women age 15-17 to 35 percent of women age 23-24. Among men the increase is from 25 percent to 38 percent in these two age groups. In addition, young women and young men in urban areas (41 percent and 40 percent, respectively) and young women and men with at least a secondary level of education (51 percent and 46 percent, respectively) are most likely to have a comprehensive knowledge of AIDS.

Respondents were also asked if they knew a place where they could get condoms. Table 13.15 shows that 44 percent of women age 15-24 know a place to get condoms. This proportion is higher among young men (75 percent). Significant differences by background characteristics were found among both men and women. Knowledge of a place to get condoms increases with age, among women from 35 percent at age 15-17 to 55 percent at age 23-24, and among men from 61 percent to 86 percent. If marital status is taken into consideration, overall, singles who have had sexual intercourse are more likely to know a place to get condoms (64 percent for women and 93 percent for men). There is also a large gap between urban areas (60 percent of women and 88 percent of men) and rural areas (28 percent of women and 59 percent of men). Knowledge of a source of condoms increases with the level of education among young people age 15-24, from 27 percent of women and 54 percent of men with no education to 70 percent of women and 90 percent of men with a secondary level or higher.

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[1] This definition of comprehensive knowledge is the same as for the total population (see Tables 13.3.1 and 13.3.2).

Table 13.15 Comprehensive knowledge about AIDS and of a source of condoms among young people

Percentage of young women and young men age 15-24 with comprehensive knowledge about AIDS and percentage with knowledge of a source of condoms, by background characteristics, EDS-MICS, Senegal 2010-11

	Women			Men		
Background characteristic	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[2]	Number of women	Percentage with comprehensive knowledge of AIDS[1]	Percentage who know a condom source[2]	Number of men
Age						
15-19	26.1	39.2	3,429	28.2	68.3	1,170
15-17	24.1	34.7	1,972	25.1	61.0	739
18-19	28.9	45.2	1,456	33.7	81.0	431
20-24	32.8	49.7	3,220	34.0	83.7	897
20-22	31.8	46.7	2,092	32.0	82.7	602
23-24	34.6	55.3	1,128	37.9	85.7	295
Marital status						
Never married	33.2	49.3	3,782	31.4	75.1	2,010
Ever had sex	32.3	64.4	367	32.1	93.4	572
Never had sex	33.3	47.7	3,415	31.1	67.8	1,438
Ever married	24.3	37.7	2,866	8.9	71.3	58
Residence						
Urban	40.5	60.4	3,314	40.3	88.2	1,144
Rural	18.3	28.3	3,335	18.9	58.6	924
Education						
No education	16.6	27.1	3,082	13.4	54.0	561
Primary	25.7	44.0	1,486	21.7	71.5	559
Secondary or more	50.8	70.0	2,080	46.3	89.5	947
Total	29.4	44.3	6,648	30.7	75.0	2,067

[1] Comprehensive knowledge means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting the AIDS virus, knowing that a healthy-looking person can have the AIDS virus, and rejecting the two most common local misconceptions about transmission or prevention of the AIDS virus. The components of comprehensive knowledge are presented in Tables 13.2, 13.3.1, and 13.3.2.
[2] For this table, the following responses are not considered a source for condoms: friends, family members, and home.

Age at first sexual intercourse among young people and condom use

As a determinant of sexual activity, age at first sexual intercourse among young people age 15-24 is important in the prevention of HIV. Table 13.16 shows the proportions of men and women age 15-24 who had first sexual intercourse before exact age 15 and exact age 18, according to selected background characteristics.

Overall, about one in ten women already had first sexual intercourse before exact age 15 (11 percent). This proportion is higher among young women in union (23 percent), women in rural areas (16 percent), and women with no education (18 percent). About one-third (34 percent) of women age 18-24 already had first sexual intercourse before reaching exact age 18. This proportion is higher among women in union than among single women (57 percent versus 7 percent), among women in rural areas than in urban areas (48 percent versus 21 percent), and among women with no education (48 percent, versus 31 percent with primary education and 11 percent with secondary education or more.

Table 13.16 Age at first sexual intercourse among young people

Percentage of young women and young men age 15-24 who had sexual intercourse before age 15 and percentage of young women and young men age 18-24 who had sexual intercourse before age 18, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Women				Men			
	Percentage having sexual intercourse before age 15	Number of women (age 15-24)	Percentage having sexual intercourse before age 18	Number of women (age 18-24)	Percentage having sexual intercourse before age 15	Number of men (age 15-24)	Percentage having sexual intercourse before age 18	Number of men (age 18-24)
Age								
15-19	9.6	3,429	na	na	6.3	1,170	na	na
15-17	8.3	1,972	na	na	6.2	739	na	na
18-19	11.2	1,456	32.9	1,456	6.3	431	24.5	431
20-24	11.9	3,220	34.8	3,220	3.1	897	19.7	897
20-22	12.5	2,092	36.3	2,092	3.3	602	19.8	602
23-24	10.8	1,128	32.1	1,128	2.7	295	19.4	295
Marital status								
Never married	1.8	3,782	7.2	2,143	4.9	2,010	20.5	1,271
Ever married	22.5	2,866	57.1	2,533	5.7	58	36.7	57
Knows condom source[1]								
Yes	7.3	2,945	26.5	2,260	6.0	1,550	24.0	1,099
No	13.4	3,703	41.4	2,416	1.6	517	7.7	229
Residence								
Urban	5.3	3,314	20.6	2,388	4.9	1,144	20.4	789
Rural	16.1	3,335	48.4	2,288	5.0	924	22.5	539
Education								
No education	18.0	3,082	48.3	2,346	3.8	561	19.2	380
Primary	7.7	1,486	31.1	1,022	4.3	559	20.8	349
Secondary or more	2.1	2,080	11.3	1,308	5.9	947	22.8	598
Total	10.7	6,648	34.2	4,676	4.9	2,067	21.2	1,328

na = Not applicable
[1] For this table, the following responses are not considered a source for condoms: friends, family members and home.

Prenuptial sexual intercourse and condom use

Never-married young people are particularly at risk of HIV, since at these ages sexual relationships are generally unstable and multiple partners are common. During the EDS-MICS 2010-11, it was therefore important to understand the behavior patterns of young singles age 15-24 with regard to the prevention of HIV/AIDS. Table 13.17 shows the proportion of never-married young women and men age 15-24 who had sexual intercourse during the 12 months preceding the survey and those who used a condom at their last sexual intercourse, according to selected background characteristics.

As Table 13.17 shows, 90 percent of never-married women age 15-24 have never had sexual intercourse. Only 7 percent of single women reported having sexual intercourse in the past 12 months. The proportion of young single women who reported having sexual intercourse in the last 12 months increases from 4 percent at age 15-19 to 12 percent at age 20-24. This proportion is slightly higher in rural areas than in urban areas (8 percent versus 6 percent), and is higher among women with primary education (11 percent, versus 6 percent among women with secondary or higher), and 5 percent among those with no education). Among single women age 15-24 who had sexual intercourse in the 12 past months, 40 percent used a condom during their last sexual intercourse. The highest proportions are found among women age 23-24 (61 percent), women who know a place where they can get condoms (51 percent), women in urban areas (47 percent), and women with secondary education or more (62 percent).

The results for men show that 72 percent of never-married men age 15-24 have nver had sexual intercourse, while 18 percent reported having sexual intercourse in the past 12 months. The proportion having sexual intercourse in the past 12 months increases with age, from 11 percent at age 15-19 to 32 percent at age 23-24. It also varies slightly by place of residence (19 percent in urban areas compared with 17 percent in rural areas) and by level of education (19 percent among those who are educated versus 16 percent among those with no education). Among never-married young men who had sexual intercourse in the past 12 months, 64 percent used a condom during their last sexual intercourse. This proportion is highest in urban areas (71 percent) and among men with a secondary level or higher (70 percent).

Table 13.17 Premarital sexual intercourse and condom use during premarital sexual intercourse among never-married young people

Among never-married women and men age 15-24, the percentage who have never had sexual intercourse, the percentage who had sexual intercourse in the past 12 months, and, among those who had premarital sexual intercourse in the past 12 months, the percentage who used a condom at the last sexual intercourse, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Women					Men				
	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of never-married women	Percentage who used a condom at last sexual intercourse	Number of women	Percentage who have never had sexual intercourse	Percentage who had sexual intercourse in the past 12 months	Number of never-married men	Percentage who used a condom at last sexual inter-course	Number of men
Age										
15-19	94.0	4.4	2,564	36.2	113	81.4	10.8	1,161	53.4	125
15-17	96.0	3.0	1,639	41.1	49	87.3	6.0	738	42.2	45
18-19	90.5	6.9	925	32.4	64	71.1	19.0	423	59.5	80
20-24	82.4	11.9	1,218	43.3	145	58.1	28.0	848	68.9	237
20-22	82.8	12.0	883	36.9	106	60.6	26.1	581	71.7	152
23-24	81.5	11.6	336	60.7	39	52.7	32.0	268	64.1	86
Knows condom source[1]										
Yes	87.3	8.9	1,865	51.3	167	64.6	22.4	1,509	66.6	339
No	93.2	4.8	1,918	19.9	91	92.5	4.8	500	(20.6)	24
Residence										
Urban	90.5	6.4	2,320	47.2	147	69.3	19.0	1,138	70.0	216
Rural	89.9	7.6	1,462	30.8	111	74.4	16.8	872	54.1	146
Education										
No education	93.0	5.0	1,125	13.3	56	76.0	15.8	521	48.3	82
Primary	84.7	11.3	876	32.5	99	70.0	18.7	544	63.3	102
Secondary or more	91.4	5.8	1,782	62.2	103	70.0	18.9	944	70.8	178
Total	90.3	6.8	3,782	40.2	258	71.5	18.0	2,010	63.6	362

[1] This table, the following responses are not considered a source for condoms: friends, family members, and home.
( ) Based on 25-49 unweighted cases.

Multiple sexual partners

Table 13.18 presents the proportions of women and men age 15-24 who reported having sexual intercourse with more than one partner in the 12 months preceding the survey. The results show that having multiple sexual partners is not a frequent occurrence among young people age 15-24; only 0.3 percent of women reported having sexual intercourse with more than one partner in the past 12 months. Among young men this proportion is 2 percent. Nevertheless, it should be noted that among young men in union 9 percent reported having sexual intercourse with more than one sexual partner in the 12 months preceding the survey.

Table 13.18 Multiple sexual partners in the past 12 months among young people

Among all young women and men age 15-24, the percentage who had sexual intercourse with more than one sexual partner in the past 12 months, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Among all women age 15-24:		Among all men age 15-24:	
	Percentage who had 2+ partners in the past 12 months	Number of women	Percentage who had 2+ partners in the past 12 months	Number of men
Age				
15-19	0.1	3,429	1.3	1,170
15-17	0.1	1,972	0.5	739
18-19	0.2	1,456	2.8	431
20-24	0.5	3,220	3.9	897
20-22	0.6	2,092	2.6	602
23-24	0.3	1,128	6.5	295
Marital status				
Never married	0.3	3,782	2.3	2,010
Ever married	0.3	2,866	9.1	58
Knows condom source[1]				
Yes	0.5	2,945	2.7	1,550
No	0.1	3,703	1.6	517
Residence				
Urban	0.3	3,314	2.3	1,144
Rural	0.3	3,335	2.7	924
Education				
No education	0.1	3,082	2.6	561
Primary	0.5	1,486	3.1	559
Secondary	0.4	2,080	2.0	947
Total 15-24	0.3	6,648	2.4	2,067

[1] For this table, the following responses are not considered a source for condoms: friends, family members, and home

Age differences betweeen sexual partners

Table 13.19 focuses on young women age 15-19 who had sexual intercourse during the past 12 months, and presents the percentage who had sexual intercourse with a man who was at least 10 years older than herself.

Nearly half of sexually active women age 15-19 (47 percent) reported having sexual intercourse with a partner who was at least 10 years older. This proportion is highest among young women in union (53 percent). In addition, the proportion is much higher among young women with no education (54 percent) than those with at least a secondary level of education (34 percent).

Table 13.19 Age-mixing in sexual relationships among women age 15-19

Among women age 15-19 who had sexual intercourse in the past 12 months, percentage who had sexual intercourse with a partner who was 10 or more years older than themselves, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Women age 15-19 who had sexual intercourse in the past 12 months	
	Percentage who had sexual intercourse with a man 10+ years older	Number of women
Age		
15-17	41.8	317
18-19	50.7	509
Marital status		
Never married	12.0	113
Ever married	52.9	713
Knows condom source[1]		
Yes	43.1	274
No	49.4	552
Residence		
Urban	48.3	238
Rural	46.9	588
Education		
No education	53.7	526
Primary	37.4	198
Secondary or more	33.7	103
Total	47.3	826

[1] For this table, the following responses are not considered a source for condoms: friends, family members, and home.

Recent HIV testing among young people

Table 13.20 shows, among young women and young men age 15-24 who had sexual intercourse in the past 12 months, the proportion who were tested for HIV in the past 12 months and received the results.

Among young women age 15-24 who had sexual intercourse during the past 12 months, nearly one in five (19 percent) reported having been tested for HIV in the 12 months preceding the survey and received the results. Young women age 23-24 (24 percent), never-married women (24 percent), women in urban areas (31 percent), and women with a secondary level of education or higher (31 percent) are most likely to know their recent HIV status.

Among young men age 15-24, 11 percent were tested for HIV in the 12 months preceding the survey and received the results. Differences according to men's background characteristics are similar to those among women.

Table 13.20 Recent HIV tests among young people

Among young women and young men age 15-24 who had sexual intercourse in the past 12 months, the percentage who were tested for HIV in the past 12 months and received the results of the last test, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Women age 15-24 who had sexual intercourse in the past 12 months		Men age 15-24 who had sexual intercourse in the past 12 months	
	Percentage who were tested for HIV in the past 12 months and received results of the last test	Number of women	Percentage who were tested for HIV in the past 12 months and received results of the last test	Number of men
Age				
15-19	15.5	826	9.4	133
15-17	14.6	317	12.5	46
18-19	16.0	509	7.8	87
20-24	20.5	1,901	11.9	282
20-22	18.7	1,158	10.8	171
23-24	23.5	743	13.6	111
Marital status				
Never married	24.1	258	12.5	362
Ever married	18.5	2,469	1.2	52
Knows condom source[1]				
Yes	25.9	1,104	12.3	375
No	14.3	1,624	(0.0)	39
Residence				
Urban	30.9	1,014	14.2	222
Rural	12.0	1,714	7.5	192
Education				
No education	15.3	1,746	3.4	118
Primary	22.5	629	7.0	115
Secondary or more	30.9	352	18.7	181
Total	19.0	2,727	11.1	414

[1] For this table, the following responses are not considered a source for condoms: friends, family members, and home.
( ) Based on 25-49 unweighted cases.

HIV PREVALENCE AND ASSOCIATED FACTORS   **14**

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According to the latest report from UNAIDS, 34 million people were living with HIV at the end of 2010 (UNAIDS, 2010), reflecting a greater number of new infections, but also a greater expansion of access to antiretroviral therapy (ART) throughout the world. The overall vision of UNAIDS is zero new infections, zero discrimination, and zero AIDS-related deaths by 2015.

In Senegal, the EDH-MICS 2010-11, conducted five years after the previous survey, has provided a better understanding of the magnitude of the AIDS epidemic in the general population of childbearing age and an improved view of the profile of HIV infection. The survey also provides data on HIV that is necessary for planning strategies to combat the epidemic and to assess the impact of prevention efforts. The estimate of HIV prevalence in the population and the analysis of social, biological, and behavioral factors associated with HIV infection provide new insights into understanding the HIV epidemic in Senegal. This could lead to interventions as well as more specific and targeted messages.

In addition, the results of the DHS-IV survey in 2005 have readjusted estimates of prevalence based on data from sentinel surveillance, which are a benchmark for assessing trends in HIV infection in the general population between the two surveys. These surveys, which provide behavioral data related to the prevalence of HIV, can better inform policy and program interventions on HIV.

The system of sentinel surveillance sites set up in 1989 now covers all 14 regions of the country in both rural and urban areas and, every two years, reports the prevalence of HIV and syphilis among pregnant women. The results of this surveillance have shown a concentrated type of epidemic (low and stable prevalence of around 1 percent in pregnant women and between 15 and 30 percent in the group of registered prostitutes) with a circulation of both types of virus (HIV-1 and HIV-2) (Mboup et al., 2004).

After a decade of classic sentinel surveillance, several evaluations have identified the strengths and weaknesses of this system. These analyses warranted the development and installation of a strengthened second-generation system of surveillance in 2000, according to the recommendations of UNAIDS and WHO, including:

- A more comprehensive sentinel surveillance;

- Surveys of behavioral surveillance conducted in 2001 and 2002, with the 2002 survey targeting mobile groups (military, truckers, fishermen, seasonal workers);

- A combined pilot study conducted in Dakar in 2003 for the same mobile groups;

- A national combined surveillance survey carried out in 2006 and 2010 that integrated the study on STI prevalence with the addition of HIV (gold prospectors, fishermen, truckers, prison inmates, policemen, and prostitutes);

- Specific surveys carried out, including a combined survey of prostitutes and their male sexual partners, a combined survey of MSM (men who have sex with men), a survey of people with disabilities, and a survey among users of injectable drugs.

All these achievements were possible due to the commitment of the Head of State and the government through the CNLS in the fight against AIDS.

The latest 2011-2015 strategic plan has several strategic objectives including sentinel surveillance of HIV infection, safety of blood transfusion, support for people living with HIV, prevention of mother-to-child transmission, anonymous and voluntary testing, and medical care. It has been decentralized to the district level across all regions.

Despite the abundance and quality of the work, it has been shown that the extrapolation of HIV prevalence rates from data in the sentinel surveillance system alone to the entire population of adult men and women has limits (UNAIDS and WHO, 2000). In the first place, these data are not representative of all women because a number of women do not use antenatal clinics. In addition, given that in sub-Saharan Africa HIV transmision occurs primarily during unprotected heterosexual intercourse (UNAIDS/WHO, 1999), pregnant women are more vulnerable to HIV infection than women who protect themselves from HIV and avoid pregnancy by using condoms, or those who are less sexually active. Moreover, a study conducted in four cities in sub-Saharan Africa established that the rates of HIV prevalence among pregnant women are higher than for men (Buvé et al, 2001).

Even though information from the sentinel surveillance system has been very useful for monitoring trends in HIV infection in Senegal, the inclusion of HIV testing in the EDS-MICS 2010-11 provides insight into the magnitude of the epidemic in the general population of reproductive age and a better understanding of the profile of the infection. HIV data also provide the information necessary for the planning of action programs against the epidemic, and for assessing the impact of the program currently in progress.

14.1 APPROACH USED FOR HIV AND HEMOGLOBIN TESTING

14.1.1 Methodology

As explained above, most of the current data on HIV prevalence in Senegal comes from oversight of specific populations such as pregnant women who come to antenatal clinics. However, the results of such monitoring do not allow the estimation of the prevalence of HIV in the general population. This system does not take into account either women who are not pregnant or men. Therefore, the Ministry of Health decided to include HIV testing starting with the DHS-IV in 2005. The purpose is to provide data for estimating the prevalence of HIV (HIV-1 and HIV-2) at the national level, in urban and rural areas, and in each of the 11 regions in the country, from a representative sample of women age 15-49 and men age 15-59.

Pilot Survey

For the EDS-MICS 2010-11, a pilot survey was conducted in July 2010 to test the acceptability of testing for anemia and HIV in the general population, the logistics used for blood sampling, and the procedures for the survey, from administration of the questionnnaire to anemia testing and collection of blood drops on filter paper for the HIV test.

The acceptance rate of blood collection and HIV testing was high enough during the pretest to demonstrate that its implementation for the main survey would be possible, and also to show that after appropriate training health technicians would be able properly to take blood samples for use in HIV testing.

Main Survey

In one household in three, all women age 15-49 and all men age 15-59 were eligible for HIV testing. In addition, all children under age 5 were eligible for anemia and malaria parasitemia testing. The findings concerning the anemia tests were presented in Chapters 11 and 12, and those for malaria parasitemia in Chapter 12 of this report. Table 14.1 in this chapter shows the coverage rates for the tests.

Detection of HIV infection

HIV testing was performed in the sub-sample of households selected for the men's survey, and included all men and all eligible women in these households who voluntarily agreed to take a test.

The protocol used for HIV testing is based on the anonymous-link protocol developed by the DHS project and approved by the internal Ethics Committee of ICF Macro. The national Ethics Committee in Senegal approved, after amendment, the anonymous-link protocol of the EDS-MICS 2010-11 and the statement of informed consent[1]. According to this protocol, the testing technique used for HIV screening in the EDS-MICS 2010-11 consists of pricking the end of the finger and collecting blood drops on filter paper. In general, the blood sample is obtained from the same prick used for the anemia test. Dried blood samples on filter paper were sent to the National Reference Laboratory of Bacteriology and Virology at A. Le Dantec Hospital, which is in charge of HIV testing. The test was anonymous, that is, no name or individual or geographic characteristic identifying the respondent could be linked to the blood sample. Therefore, it was not possible to give the test results to the respondents. However, they were given a green-colored card if they wished to get counseling and a free test at the Voluntary Testing Centers (VTC). All the VTCs operating in the country were listed on the back of this card.

14.1.2 Training and Fieldwork

Interviewer training was conducted in two stages. An initial training in July 2010 was held during the pilot survey; most of the people who participated in this training were later used as team leaders and/or interviewer/technicians specially assigned to blood sampling. A second training in September 2010 was carried out for all field staff for the main survey.

This training focused on filling out questionnaires but also on the procedures for collecting drops of blood for anemia testing, drops of blood on filter paper for HIV testing, and the handling and storage of these samples, as well as their transfer to the national reference laboratory. This training included a theoretical part and a practical part in both the classroom and health facilities and was conducted by the team from the Laboratory of Bacteriology and Virology at A. Le Dantec Hospital, with support from ICF Macro.

In order to collect blood samples from eligible persons, each field team included an interviewer/technician assigned to blood sampling, who received special training on all aspects of blood collection in addition to interviewer training. For each eligible respondent, the interviewer/technician first had to obtain his/her informed consent after explaining the significance and benefits of the survey, as well as the technique used to collect the blood sample, and the confidentiality and anonymity of the test. The green card was then offered for getting counseling, if desired, and a free HIV test at a Voluntary Testing Center (VTC).

For men and women who agreed to be tested, the interviewer/technician, following universal hygiene and safety precautions, collected drops of blood according to the following steps. After cleaning the skin with a

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[1] The text of the voluntary consent form was prepared on the basis of the standard text developed by ICF Macro then submitted, along with the protocol for HIV testing, to the Ethics Committee of the Ministry of Health and Medical Prevention.

pad soaked in alcohol, the interviewer/technician pricked the end of the finger with a lancet of appropriate size. For adults, blue or white lancets with a blade of 2.4 mm in length were used. When the blood appeared, a sterile gauze pad was used to wipe the first drop of blood. For children, the second drop was also wiped, and the third drop was used to test for anemia. If the respondent was an adult, the second and third drops were collected on filter paper for HIV testing, and the fourth used to perform the test for anemia.

The drops of blood collected on filter paper were dried for at least 24 hours in a drying box with desiccants to absorb moisture. The next day each dried sample was placed in a small, waterproof plastic bag and hermetically sealed. For storing samples, dessicants and a humidity indicator were placed in the small bag. These individual plastic baggies were kept dry until their shipment to ANSD, where they were immediately checked by the medical coordinator before being registered and sent on to the reference Laboratory of Bacteriology and Virology of A. Le Dantec Hospital.

Unlike the anemia test, whose result was immediately communicated to the participants, the result of the HIV test was not given out in the field. HIV testing was anonymous, and no name or any other individual or geographical feature was linked to the blood sample. Only a label containing a bar code was pasted on the blood sample in order to establish an anonymous laboratory file containing test results. Another label with the same bar code that was used for the blood sample was glued to the Household Questionnaire. The use of bar codes enabled the merging of results from blood tests with sociodemographic characteristics contained in the questionnaires, at the end of data processing. However, before merging the files, all information that could identify individuals (number of the survey cluster and number of the household) were deleted from both the computerized file and the questionnaires, in order to maintain the anonymity of the data.

14.1.3 Laboratory Procedures

Choice of laboratory

For the implementation of the EDS-MICS 2010-11, ICF Macro chose the Laboratory of Bacteriology and Virology (LBV). LBV was assigned responsibility for HIV testing procedures. LBV is a national and international reference laboratory for the diagnosis of HIV infection and has extensive experience in screeening for HIV from dried blood spots. This laboratory is regularly subjected to rigorous internal quality control, as well as external quality control. It therefore participates in various programs for quality control of HIV serology organized by WHO (serology carried out on sera) and the US Centers for Disease Control and Prevention (CDC) (serology carried out on sera and on drops of dried blood). It was assisted by ICF Macro through its worldwide MEASURE DHS program.

Validation testing of drops of dried blood compared to plasma

Before the start of field work, the EDS-MICS 2010-11 team, including ICF Macro, made visits to the reference laboratory (LBV) to meet and talk with the staff; a questionnaire to assess the skills of the laboratory was also given to the head of the virology unit in charge of the diagnosis of HIV infection at the laboratory.

Previously, when an evaluation of rapid diagnostic tests for HIV infection was conducted in collaboration with the CDC, the laboratory performed the detection of HIV infection on 1,500 sample pairs (drops of dried blood "Dried Blood Spots" (DBS) + plasma) by using two ELISA (Genscreen then Murex) as screening tests and Western blot (HIV Blot 2.2) as a confirmatory test. All 215 HIV-1 and 8 HIV-2 as well as 1,587 negatives were correctly identified both in the plasma and on the dried blood spots. However, cases of false positives were obtained after screening with the two ELISA both in the plasma (15/1587) and on the DBS (40/1586). Use of a confirmatory test clearly defined these false positives on both types of sample.

Testing procedure

Copies of the transfer forms and samples of dried blood spots were sent to the reference laboratory in large Ziploc bags containing baggies, with each baggie containing a filter paper corresponding to the blood sample of a participant. After checking for agreement between the numbers of samples contained in the large Ziplocs and those stated on the transfer sheet plus the degree of humidity, entry of sample numbers was carried out using the bar code reader that ICF Macro made available to the reference laboratory. Using CSPro (Census and Survey Processing System) software, the bar codes were transformed into serial numbers. All the bar codes were entered, and after the end of data collection in the field the ICF Macro computer specialist rendered the samples anonymous before the technicians could begin laboratory analyses. All the samples received by the laboratory were tested over a one-month period.

The software drew up a work plan, depending on the number of samples, which was then used to carry out the screening tests. The entry program was designed to take into account the screening algorithm used in the EDS-MICS, 2010-11 and was linked to a program for reading ELISA plates, which functioned so well that after each ELISA series the results were automatically captured by the program. Only Western blot results were entered manually. As the bar codes and ELISA results were entered, automatic counting of all entries (number of samples tested, number of positive and negative samples depending on the kits used) was done. Approximately every two weeks, officials from the reference laboratory provided ICF Macro with aggregate results of these counts so that progress with the tests could be monitored and any abnormalities detected.

In addition, with regard to test procedures in the laboratory, after the registration of each sample received, the filter paper containing the drops of dried blood was perforated with a punch. The paper circle cut, measuring approximately 6 mm in diameter, was then immersed in 150 microliters of PBS for extraction and reconstruction of the solution of whole blood.

Screening

The algorithm used (Figure 14.1) consisted of testing all the samples with ELISA 1, which is the Vironostika® HIV Uni-Form II plus O (Biomérieux), according to the protocol provided by the manufacturer. It is a sandwich type of ELISA, which detects HIV-1, HIV-2 and HIV-1 group O, and is therefore very sensitive, hence its use in the initial round.

Confirmation

The samples that tested positive with ELISA 1 (DO sample > threshold value) and 10 percent of the negatives were then analyzed using a second ELISA (ELISA 2: Enzygnost® Anti-HIV1/2 plus). This second

ELISA, composed of recombinant proteins (HIV-1, HIV-2, HIV1 group O) was used in the second round because of its high specificity.

Figure 14.1
HIV Diagnostic Testing Algorithm
Bacteriology-Virology Laboratory Le Dantec Hospital, Dakar
EDS-MICS, Senegal 2010-11
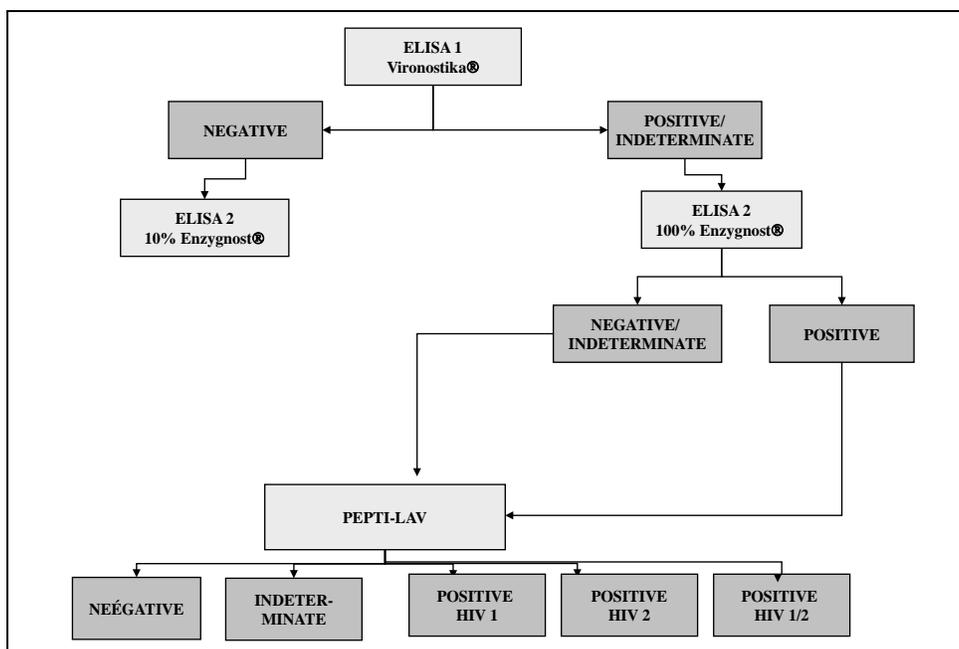
Quality control

Quality control was carried out at several levels:

- On each test plate, according to the criteria of the manufacturer of the test kits: positive and negative controls, provided with the screening test kit by the manufacturer, were included for each plate.

- All positive or discordant samples with both ELISA tests were retested in Pepti-Lav, which confirmed the positives for both ELISA and typed them HIV-1 and HIV-2.

- The discordant ones (positive in Vironostika Uniform II and negative in Enzygnost) were confirmed negative by Pepti-Lav.

- The 10 percent negative and all the positives were reconfirmed.

14.2 Coverage Rates for HIV Testing

14.2.1 Coverage of HIV Testing by Residence and Region

Eligibility for HIV testing involved men age 15-59 and women age 15-49. Table 14.1 gives the coverage rates of HIV testing by sex, place of residence, region, and HIV testing status. Testing status is assessed according to various situations: DBS tested, refused to provide blood,and absent at the moment of blood collection. For each situation findings are presented for two sub-groups—interviewed and not interviewed. Overall, the coverage rate is quite high, at 80 percent in rural areas and 81 percent in urban areas. However, discrepancies are noted according to region, with a remarkably low rate in Kédougou (52 percent) compared with other regions, where rates are above 70 percent. It is also notable that the refusal rate for blood sampling is higher in Kédougou (17 percent) and in Saint Louis (13 percent) than elsewhere. The Kédougou region also shows the highest number of people absent at the time of blood collection: 7 percent for those interviewed and 9 percent for those not interviewed. Disparities are also notable by sex. Coverage is higher among women, at 84 percent, compared with 76 percent among men.

In the region of Kédougou the rate for testing status and for the interview is lower both among women (51 percent) and among men (53 percent). Among men, this region also shows a higher refusal rate for blood sampling (17 percent), and also for absences at the time of blood collection (9 percent of respondents interviewed and 10 percent of those not interviewed). The regions of Diourbel (14 percent) and Saint-Louis (15 percent) have equally high rates for men. For women, similar differences are observed among the various regions, with higher rates in Kédougou (17 percent) and Saint-Louis (12 percent) for respondents who refused blood sampling but agreed to be interviewed.

Table 14.1 Coverage of HIV testing by residence and region

Percent distribution of women age 15-49 and men age 15-59 eligible for HIV testing by testing status, according to residence and region (unweighted), EDS-MICS, Senegal 20101-11

Residence and region	DBS tested[1] Inter-viewed	DBS tested[1] Not inter-viewed	Refused to provide blood Inter-viewed	Refused to provide blood Not inter-viewed	Absent at the time of blood collection Inter-viewed	Absent at the time of blood collection Not inter-viewed	Other/missing[2] Inter-viewed	Other/missing[2] Not inter-viewed	Total	Number
WOMEN										
Residence										
Urban	83.5	2.1	6.7	3.8	1.0	1.8	0.5	0.5	100.0	2,608
Rural	83.9	2.4	6.4	2.1	1.5	2.0	1.3	0.5	100.0	4,070
Region										
Dakar	83.2	2.4	6.3	3.6	1.9	2.3	0.2	0.2	100.0	576
Ziguinchor	94.1	1.0	1.3	0.0	1.5	1.3	0.3	0.5	100.0	393
Diourbel	82.2	2.7	6.5	3.5	1.3	1.5	1.8	0.5	100.0	602
Saint-Louis	79.6	1.4	11.8	4.6	0.9	1.2	0.2	0.2	100.0	431
Tambacounda	83.0	1.5	8.4	3.2	0.6	1.1	1.9	0.2	100.0	464
Kaolack	86.1	2.1	4.5	2.8	0.5	2.9	0.8	0.3	100.0	618
Thies	84.2	2.0	6.6	1.6	1.6	1.1	2.3	0.5	100.0	558
Louga	82.2	1.1	7.1	3.7	1.3	1.7	0.9	2.0	100.0	538
Fatick	89.6	1.6	5.0	1.6	0.7	1.6	0.0	0.0	100.0	444
Kolda	88.1	2.2	3.1	1.3	0.9	2.5	0.9	0.9	100.0	447
Matam	76.0	4.4	8.8	4.8	2.0	2.0	1.6	0.4	100.0	500
Kaffrine	92.3	0.5	5.1	0.7	0.7	0.7	0.0	0.0	100.0	414
Kedougou	51.1	9.8	17.4	6.2	4.7	7.6	1.8	1.4	100.0	276
Sedhiou	90.9	1.7	3.4	0.7	1.2	1.9	0.2	0.0	100.0	417
Total	83.7	2.3	6.5	2.7	1.3	1.9	1.0	0.5	100.0	6,678
MEN										
Residence										
Urban	75.5	2.5	6.4	4.6	2.0	6.9	0.9	1.3	100.0	2,428
Rural	77.0	1.9	7.3	3.7	3.3	4.6	1.0	1.2	100.0	3,241
Region										
Dakar	76.2	1.9	5.6	3.1	2.7	6.8	1.7	1.9	100.0	585
Ziguinchor	87.3	2.7	1.0	1.0	2.7	4.1	1.0	0.2	100.0	411
Diourbel	67.1	1.6	14.2	3.9	3.9	5.3	2.4	1.6	100.0	380
Saint-Louis	66.5	1.8	15.2	6.5	2.9	7.1	0.0	0.0	100.0	382
Tambacounda	79.1	2.3	4.8	6.8	1.4	5.4	0.0	0.2	100.0	441
Kaolack	77.0	1.4	4.9	2.9	4.1	7.0	1.8	0.8	100.0	488
Thies	79.6	2.4	6.4	3.3	2.2	2.9	0.9	2.4	100.0	455
Louga	70.4	2.3	7.3	7.6	3.0	3.8	1.0	4.6	100.0	395
Fatick	84.0	1.8	4.8	3.8	0.8	4.1	0.3	0.5	100.0	393
Kolda	84.9	1.0	2.9	2.9	1.4	6.7	0.0	0.2	100.0	416
Matam	62.1	5.3	8.6	10.6	3.6	6.4	1.9	1.4	100.0	359
Kaffrine	87.2	0.9	7.9	0.6	1.2	1.8	0.0	0.3	100.0	329
Kedougou	52.6	3.6	17.0	3.2	8.9	10.1	1.6	2.8	100.0	247
Sédhiou	83.8	2.1	2.8	1.0	1.8	7.5	0.3	0.8	100.0	388
Total	76.3	2.2	6.9	4.1	2.8	5.6	0.9	1.3	100.0	5,669
TOTAL										
Residence										
Urban	79.6	2.3	6.6	4.2	1.5	4.3	0.7	0.9	100.0	5,036
Rural	80.8	2.2	6.8	2.8	2.3	3.2	1.1	0.8	100.0	7,311
Region										
Dakar	79.7	2.2	5.9	3.4	2.3	4.6	0.9	1.0	100.0	1,161
Ziguinchor	90.7	1.9	1.1	0.5	2.1	2.7	0.6	0.4	100.0	804
Diourbel	76.4	2.2	9.5	3.7	2.3	3.0	2.0	0.9	100.0	982
Saint-Louis	73.4	1.6	13.4	5.5	1.8	3.9	0.1	0.1	100.0	813
Tambacounda	81.1	1.9	6.6	5.0	1.0	3.2	1.0	0.2	100.0	905
Kaolack	82.1	1.8	4.7	2.8	2.1	4.7	1.3	0.5	100.0	1,106
Thies	82.1	2.2	6.5	2.4	1.9	1.9	1.7	1.4	100.0	1,013
Louga	77.2	1.6	7.2	5.4	2.0	2.6	1.0	3.1	100.0	933
Fatick	87.0	1.7	4.9	2.6	0.7	2.7	0.1	0.2	100.0	837
Kolda	86.6	1.6	3.0	2.1	1.2	4.5	0.5	0.6	100.0	863
Matam	70.2	4.8	8.7	7.2	2.7	3.8	1.7	0.8	100.0	859
Kaffrine	90.0	0.7	6.3	0.7	0.9	1.2	0.0	0.1	100.0	743
Kedougou	51.8	6.9	17.2	4.8	6.7	8.8	1.7	2.1	100.0	523
Sedhiou	87.5	1.9	3.1	0.9	1.5	4.6	0.2	0.4	100.0	805
Total	80.3	2.2	6.7	3.3	2.0	3.6	0.9	0.9	100.0	12,347

[1] Includes all dried blood samples (DBS) tested at the lab and for which there is a result, i.e., positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.
[2] Includes: (1) other results of blood collection (e.g., technical problem in the field), (2) lost specimens, (3) non corresponding bar codes, and (4) the lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

14.2.2 Coverage of HIV Testing by Selected Background Characteristics

Table 14.2 shows the coverage by selected background characteristics among women and men. Regardless of gender, there are no significant differences in coverage by age group. The completion rate for both HIV testing and the interview is over 80 percent for all age groups. Among women, this rate varies from 80 percent for age 25-39 to 86 percent for age 15-19. Among men, the rate is less than 80 percent except for age 15-19, where it is 81 percent.

Table 14.2 Coverage of HIV testing by selected background characteristics

Percent distribution of women age 15-49 and men age 15-59 eligible for HIV testing by testing status, according to selected background characteristics (unweighted), EDS-MICS, Senegal 2010-11

Background characteristic	DBS tested[1] Inter-viewed	DBS tested[1] Not inter-viewed	Refused to provide blood Inter-viewed	Refused to provide blood Not inter-viewed	Absent at the time of blood collection Inter-viewed	Absent at the time of blood collection Not inter-viewed	Other/missing[2] Inter-viewed	Other/missing[2] Not inter-viewed	Total	Number
WOMEN										
Age										
15-19	85.7	1.7	5.0	2.5	1.4	2.1	1.0	0.5	100.0	1,557
20-24	83.1	2.0	7.5	2.9	1.3	2.0	0.8	0.5	100.0	1,320
25-29	84.3	2.0	6.4	2.6	1.5	1.6	1.4	0.2	100.0	1,111
30-34	83.5	2.7	6.4	3.1	0.8	1.6	0.8	1.1	100.0	877
25-39	80.1	2.5	8.7	2.8	1.7	2.7	1.3	0.3	100.0	773
40-44	83.4	3.4	6.7	2.7	1.0	1.5	0.7	0.7	100.0	597
45-49	84.0	3.2	5.6	2.7	1.6	1.8	0.7	0.5	100.0	443
Education										
No education	81.6	2.8	7.2	2.9	1.4	2.2	1.2	0.6	100.0	4,165
Primary	86.0	1.6	6.4	2.4	1.0	1.7	0.5	0.4	100.0	1,302
Secondary or more	88.9	1.0	4.5	2.3	1.3	1.2	0.5	0.3	100.0	1,204
Missing	0.0	14.3	0.0	57.1	0.0	14.3	0.0	14.3	100.0	7
Wealth quintile										
Lowest	82.0	2.8	7.8	1.9	1.7	2.4	0.8	0.7	100.0	1,619
Second	83.5	2.0	6.4	2.4	1.3	2.0	2.1	0.3	100.0	1,473
Middle	85.1	2.3	5.9	2.3	1.4	2.0	0.6	0.3	100.0	1,536
Fourth	86.9	1.6	4.7	3.3	0.8	1.5	0.7	0.4	100.0	1,139
Highest	80.8	2.7	7.8	4.7	1.2	1.4	0.3	1.0	100.0	911
Total	83.7	2.3	6.5	2.7	1.3	1.9	1.0	0.5	100.0	6,678
MEN										
Age										
15-19	81.0	2.4	6.4	2.9	2.4	3.6	0.7	0.6	100.0	1,397
20-24	77.2	2.0	5.9	4.2	3.0	5.3	0.8	1.6	100.0	1,018
25-29	74.0	1.7	6.4	4.7	3.9	6.4	1.6	1.2	100.0	746
30-34	71.9	2.0	7.3	5.2	2.9	8.0	1.0	1.8	100.0	615
25-39	72.6	1.6	7.8	4.1	3.9	7.0	1.4	1.4	100.0	486
40-44	73.3	2.7	8.3	5.6	1.8	5.2	1.1	2.0	100.0	446
45-49	75.7	2.4	7.5	3.5	2.2	6.5	0.5	1.6	100.0	371
50-54	74.8	2.2	9.3	3.1	1.9	6.8	0.6	1.2	100.0	322
55-59	79.9	2.6	6.3	4.1	1.5	4.9	0.4	0.4	100.0	268
Education										
No education	71.6	2.9	8.1	5.2	3.4	6.2	0.8	1.8	100.0	2,552
Primary	80.1	1.9	6.0	2.9	2.8	4.7	1.1	0.5	100.0	1,403
Secondary or more	81.9	1.1	6.1	2.7	1.8	4.6	1.0	0.8	100.0	1,680
Missing	0.0	11.8	0.0	32.4	0.0	44.1	0.0	11.8	100.0	34
Wealth quintile										
Lowest	76.5	1.9	7.3	3.3	3.6	5.7	0.8	1.0	100.0	1,347
Second	77.9	1.8	6.7	3.7	3.5	5.0	1.0	0.4	100.0	1,205
Middle	75.3	2.4	7.7	4.6	2.0	6.1	0.4	1.5	100.0	1,369
Fourth	76.0	2.9	5.6	4.9	2.8	5.1	0.8	1.8	100.0	994
Highest	75.9	1.7	6.9	4.0	1.5	6.1	2.1	1.9	100.0	754
Total	76.3	2.2	6.9	4.1	2.8	5.6	0.9	1.3	100.0	5,669

[1] Includes all dried blood samples (DBS) tested at the lab and for which there is a result, i.e,. positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.
[2] Includes (1) other results of blood collection (e.g., technical problem in the field), (2) lost specimens, (3) non corresponding bar codes, and (4) the lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc..

Among women the highest coverage rates are for those with primary education or secondary or more, at 86 percent and 89 percent, respectively. The same is true among men, with coverage of 80 percent for primary education and 82 percent for secondary or higher education.

No significant disparity in coverage is seen according to wealth status among either women or men. Among men the coverage rate is below 80 percent for all wealth quintiles, while for women it is above 80 percent for all quintiles.

14.3 PREVALENCE OF HIV

14.3.1 Prevalence of HIV by Age[2]

Table 14.3 shows that 0.7 percent of adults age 15-49 are seropositive, infected by HIV-1 or HIV-2 (0.5 percent infected by HIV-1 and 0.2 percent infected by HIV-2). The rate of HIV prevalence among women age 15-49 is estimated to be 0.8 percent (0.6 percent HIV-1 and 0.3 percent HIV-2), and it is higher than the rate found for men in the same age group, which is 0.5 percent (0.4 percent HIV-1 and 0.1 percent HIV-2). This results in a ratio of infection between women and men of 1.6; in other words, there are 160 women infected for every 100 men infected. This ratio, which is comparable to the ratios found in similar surveys in sub-Saharan Africa, confirms that women are much more vulnerable than men to HIV infection. At these rates of HIV prevalence, the adult population (women age 15-49 and men age 15-59) living with HIV can be estimated to be about 39,133 people (23,908 women and 15,225 men) in 2010.[3]

Table 14.3 HIV prevalence by age

Among women age 15-49 and men age 15-59 who were interviewed and tested, the percentage HIV-positive, by age, EDS-MICS. Senegal 2010-11

	Women				Men				Total			
Age	Percentage HIV-1 positive	Percentage HIV-2 positive	Percentage HIV-1 or HIV-2 positive	Number	Percentage HIV-1 positive	Percentage HIV-2 positive	Percentage HIV-1 or HIV-2 positive	Number	Percentage HIV-1 positive	Percentage HIV-2 positive	Percentage HIV-1 or HIV-2 positive	Number
15-19	0.1	0.1	0.2	1,204	0.0	0.0	0.0	1,107	0.1	0.0	0.1	2,311
20-24	0.5	0.0	0.5	1,070	0.1	0.0	0.1	836	0.4	0.0	0.4	1,905
25-29	0.6	0.0	0.6	900	0.4	0.1	0.5	641	0.5	0.0	0.6	1,541
30-34	0.7	0.2	0.9	731	0.5	0.0	0.5	503	0.6	0.1	0.7	1,233
25-39	0.7	0.8	1.5	579	0.8	0.0	0.8	406	0.7	0.5	1.2	985
40-44	1.1	0.4	1.5	496	1.4	0.2	1.5	348	1.2	0.3	1.5	844
45-49	1.1	1.3	2.4	347	0.7	0.5	1.2	263	0.9	0.9	1.9	610
Total 15-49	0.6	0.3	0.8	5,326	0.4	0.1	0.5	4,104	0.5	0.2	0.7	9,430
50-59	na	Na	na	na	0.7	0.3	1.0	487	0.7	0.3	1.0	487
Total 15-59	na	Na	na	na	0,4	0,1	0,5	4,591	na	na	na	na

Note : In the following tables, HIV prevalence focuses on persons infected with HIV-1 and / or HIV-2.
na = Not applicable

Overall, the prevalence of HIV increases with age among both women and men up to age 40-44 (Figure 14.2). Among women, the highest prevalence is at age 45-49, with a rate of 2.4 percent, and for men, the highest prevalence is at age 40-44, at 1.5 percent.

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[2] Table 14.3 shows the prevalence of HIV-1, HIV-2, and the total. In the tables that follow, only the total prevalence is presented (HIV-1 and HIV-2).
[3] These estimates are based on a population of 3,044,960 men age 15-59 and 2,988,459 women age 15-49 in 2010 in Senegal (Source: "Estimations de la population du Sénégal de 2003 à 2012 [Estimates of the population of Senegal from 2003 to 2012]," Agence Nationale de la Statistique et de la Démographie [National Agency of Statistics and Demography], July 2008).

The prevalence of HIV among all men and women age 15-49 has remained the same (0.7 percent) between the two surveys in 2005 (0.5 percent infected by HIV-1 and 0.2 percent infected by HIV-2) and 2010-11 (0.5 percent infected by HIV-1 and 0.2 percent infected by HIV-2).

Figure 14.2
HIV prevalence by age and sex
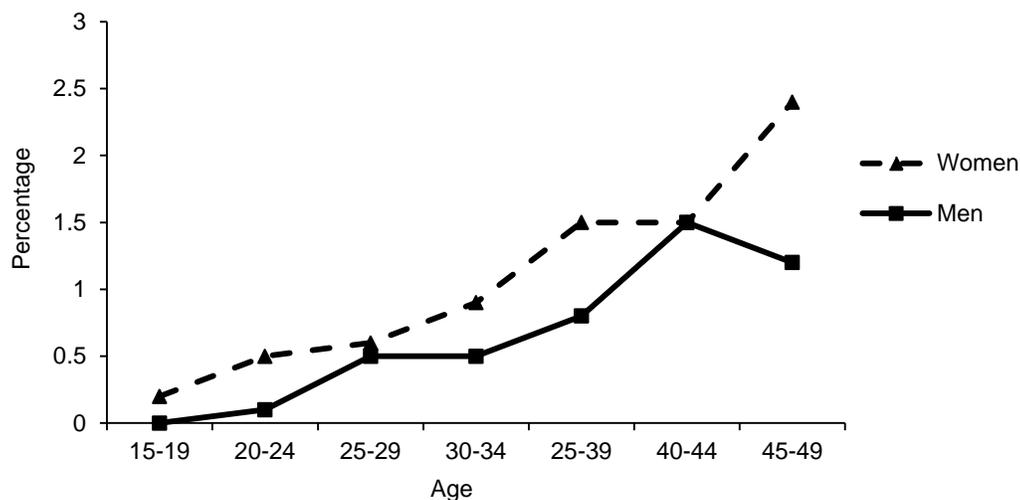
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14.3.2 HIV Prevalence by Select Socioeconomic Characteristics

Table 14.4 presents HIV prevalence by select socioeconomic characteristics. With regard to prevalence by employment status in the last 12 months, overall, prevalence is lower for those who did not work during this period (0.6 percent, versus 0.7 percent for those who worked). The pattern is the same for women (0.7 percent versus 0.9 percent) as for men (0.1 percent versus 0.5 percent).

Overall, HIV prevalence is the same in urban and rural areas, at 0.7 percent. For men it is higher in rural areas, at 0.6 percent, versus 0.3 percent in urban areas, while for women it is higher in urban areas, at 0.9 percent, versus 0.7 percent in rural areas.

Prevalence according to region shows significant differences, with rates below 1 percent for some regions—Dakar (0.4 percent); Diourbel (0.2 percent); Saint Louis (0.9 percent); Thiès (0.3 percent); Louga (0.1 percent); Matam (0.3 percent); and Kaffrine (0.5 percent). For the other regions, the prevalence is 1 percent or higher—Ziguinchor (1.0 percent); Tambacounda (1.4 percent); Kaolack (1.1 percent); Fatick (1.0 percent); Kédougou (1.7 percent) and Sédhiou (1.1 percent). The highest rate is seen in Kolda, at 2.4 percent.

For women, six regions have prevalence rates below 1 percent: Dakar (0.4 percent); Diourbel (0.2 percent); Thiès (0.6 percent); Louga (0.2 percent); Matam (0.5 percent) and Kaffrine (0.5 percent). In the other regions, prevalence rates are higher than 1 percent. There are three regions where prevalence rates are above 2 percent: Kolda (2.4 percent), Kédougou (2.5 percent), and Sédhiou (2.0 percent).

Table 14.4 HIV prevalence by socioeconomic characteristics

Percentage HIV-positive among women and men age 15-49 who were tested, by socioeconomic characteristics, EDS-MICS, Senegal. 2010-11

Background characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Employment (past 12 months)						
Not employed	0.7	2 855	0.1	576	0.6	3 430
Employed	0.9	2 472	0.5	3 528	0.7	6 000
Residence						
Urban	0.9	2 608	0.3	2 297	0.7	4 905
Rural	0.7	2 718	0.6	1 807	0.7	4 525
Region						
Dakar	0.4	1 379	0.5	1 285	0.4	2 664
Ziguinchor	1.1	197	0.9	195	1.0	392
Diourbel	0.2	632	0.0	327	0.2	960
Saint-Louis	1.2	318	0.5	249	0.9	567
Tambacounda	1.6	251	1.2	199	1.4	449
Kaolack	1.5	415	0.6	292	1.1	707
Thies	0.6	711	0.0	525	0.3	1 236
Louga	0.2	381	0.0	244	0.1	625
Fatick	1.8	246	0.0	191	1.0	436
Kolda	2.4	217	2.4	184	2.4	401
Matam	0.5	204	0.1	141	0.3	345
Kaffrine	0.5	193	0.5	130	0.5	323
Kedougou	2.5	44	0.7	31	1.7	75
Sedhiou	2.0	140	0.0	112	1.1	252
Education						
No education	1.0	3 062	0.9	1 484	1.0	4 546
Primary	1.2	1 145	0.0	1 196	0.6	2 341
Secondary or more	0.1	1 119	0.3	1 424	0.2	2 543
Wealth quintile						
Lowest	0.9	869	0.8	607	0.8	1 476
Second	1.5	906	0.7	625	1.2	1 531
Middle	0.9	1 084	0.1	850	0.5	1 934
Fourth	0.4	1 189	0.5	940	0.5	2 129
Highest	0.6	1 278	0.3	1 082	0.5	2 360
Total 15-49	0.8	5 326	0.5	4 104	0.7	9 430
50-59	na	na	1.0	487	1.0	487
Total 15-59	na	na	0.5	4 591	0.5	4 591

na = Not applicable.

With regard to level of education, overall, HIV prevalence is 1.0 percent for men and women with no education, 0.6 percent for those who reached primary level, and 0.2 percent for those with secondary or higher education. Prevalence among men is higher for those with no education (0.9 percent, versus 0.0 percent for primary level and 0.3 percent for middle/secondary or higher). Prevalence among women is higher for those with a primary education, at 1.2 percent, followed by those with no education, at 1.0 percent, and secondary level or higher, at 0.1 percent.

According to wealth quintile, overall, the second quintile shows the highest prevalence, at 1.2 percent. This result is strongly influenced by HIV prevalence among women of 1.5 percent for the second quintile, with rates below 1 percent among women in all other quintiles. Prevalence rates are below 1 percent for all wealth quintiles among men, with prevalence of 0.8 percent for the poorest quintile and 0.7 percent for the second quintile.

14.3.3 HIV Prevalence by Selected Background Characteristics

Table 14.5 presents HIV prevalence by selected background characteristics. HIV prevalence varies considerably by marital status. Women who were formerly in union (4.6 percent) have a prevalence about six times higher than those in union (0.8 percent). Women in union also have twice the level of HIV infection as never-married (single) women (0.8 percent versus 0.4 percent). By contrast, among men, those formerly in union have about the same rate of infection (0.9 percent) as men in union (1.0 percent), but a much higher HIV prevalence than never-married men (0.1 percent).

Table 14.5 HIV prevalence by demographic characteristics

Percentage HIV-positive among women and men age 15-49 who were tested, by demographic characteristics, EDS-MICS, Senegal. 2010-11

Background characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Marital status						
Never married	0.4	1,561	0.1	2,573	0.3	4,134
Ever had sexual intercourse	1.9	212	0.4	1,006	0.6	1,219
Never had sexual intercourse	0.2	1,349	0.0	1,566	0.1	2,915
Married/living together	0.8	3,528	1.0	1,468	0.9	4,996
Divorced or separated	4.6	180	0.9	58	3.7	238
Widowed	0.0	57	*	6	0.0	62
Type of union						
In polygynous union	1.0	1,202	1.1	182	1.1	1,384
In non-polygynous union	0.7	2,319	0.9	1,286	0.8	3,605
Not currently in union	0.8	1,798	0.2	2,636	0.4	4,434
DK/Missing	*	7	-	0	*	7
Times slept away from home in past 12 months						
None	0.8	2,248	0.6	1,268	0.7	3,516
1-2	0.8	2,184	0.4	1,414	0.6	3,599
3-4	0.7	418	0.6	542	0.6	960
5+	1.3	469	0.3	821	0.7	1,290
Missing	*	7	0.0	58	0.0	65
Time away in past 12 months						
Away for more than 1 month	0.8	1,008	0.8	983	0.8	1,990
Away only for less than 1 month	0.9	2,069	0.2	1,823	0.6	3,891
Not away	0.8	2,250	0.6	1,298	0.7	3,548
Currently pregnant						
Pregnant	1.5	412	na	na	na	na
Not pregnant or not sure	0.8	4,914	na	na	na	na
ANC for last birth in past 3 years						
ANC provided by the public sector	1.0	1,882	na	na	na	na
ANC provided by other than the public sector	0.0	208	na	na	na	na
No ANC/No birth in past 3 years	0.8	3,236	na	na	na	na

na = Not applicable
* Based on less than 25 unweighted cases.

Depending on the type of union, people who are in polygnous unions are more likely to be infected with HIV (1.0 percent for women and 1.1 percent for men) than those who are in monogamous unions (0.8 percent for women and 0.9 percent for men).

Concerning mobility, no particular disparity is noted in HIV prevalence depending on the number of times that the respondent slept somewhere else in the last 12 months. However, the highest prevalence (1.3 percent) is found among women who slept away from home more than five times over the one-year period preceding the survey. No significant disparity in HIV prevalence is observed among women according to the length of time spent away from home during the last 12 months.

Women who are currently pregnant have a higher prevalence of HIV (1.5 percent) than those who report that they are not pregnant or are not sure they are pregnant (0.8 percent).

Regarding antenatal care for the last birth in the three years preceding the survey, HIV prevalence among women who went to a public facility is 1.0 percent compared with zero percent for those who received antenatal care in a facility other than in the public sector. Women who did not have antenatal care or did not give birth during the last three years have an HIV prevalence of 0.8 percent.

14.3.4 Prevalence of HIV by selected sexual behavior characteristics

Certain sexual behaviors are risk factors that may affect the level of HIV and STIs. Table 14.6 presents the prevalence of HIV by selected sexual behavior characteristics of women and men age 15-49. It is important to remember that questions about sexual behavior are very sensitive to ask and that respondents may not report certain risky sexual behaviors. Furthermore, most of the information collected focuses on sexual behavior during the 12 months preceding the survey, which may not always reflect earlier sexual behavior. The results, therefore, should be interpreted with caution.

By age at first sexual intercourse, HIV prevalence is higher among women whose first intercourse was before age 16 (1.8 percent), while for men prevalence is highest among those whose first intercourse was at age 16-17 (1.5 percent).

Table 14.6 HIV prevalence by sexual behavior

Percentage HIV-positive among women and men age 15-49 who ever had sex and were tested for HIV, by sexual behavior characteristics, EDS-MICS, Senegal 2011-11

Sexual behavior characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Number	Percentage HIV positive	Number
Age at first sexual intercourse						
<16	1.8	1,274	0.5	405	1.5	1,679
16-17	0.6	686	1.5	345	0.9	1,031
18-19	0.6	663	0.9	479	0.7	1,142
20+	0.7	1,037	0.6	1,217	0.6	2,254
Missing	1.3	271	0.0	87	1.0	359
Multiple sexual partners and partner concurrency in the past 12 months						
0	2.0	568	0.2	469	1.2	1,037
1	0.9	3,337	0.4	1,705	0.7	5,042
2 +	*	26	3.0	360	2.8	386
Had concurrent partners[1]	*	10	2.6	222	2.5	232
None of the partners were concurrent	*	16	3.6	138	3.2	154
Condom use at last sexual intercourse in past 12 months						
Used condom	1.9	113	0.8	474	1.0	587
Did not use condom	0.9	3,250	0.9	1,591	0.9	4,841
No sexual intercourse in past 12 months	2.0	568	0.2	469	1.2	1,037
Number of lifetime partners						
1	0.6	3,089	0.1	719	0.5	3,808
2	2.1	634	0.7	534	1.4	1,168
3-4	3.9	185	1.5	587	2.1	772
5-9	*	11	1.3	402	1.5	413
10+	*	2	0.1	190	0.1	192
Missing	*	10	0.2	101	1.2	112

na = Not applicable.
[1] A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey. (Respondents with concurrent partners include polygynous men who had overlapping sexual partnerships with two or more wives).
* Based on less than 25 unweighted cases.

Men who have had two partners or more in the last 12 months are more likely to be infected: 3.0 percent, versus 0.4 percent for those with one partner and 0.2 percent for those who had no partner during this period. The reverse is observed among women, with a prevalence of 2.0 percent for those who did not have a partner in the past 12 months compared with 0.9 percent for those with one partner. Concerning concurrent partners, the prevalence of HIV is especially notable among men, at 3.6 percent for those with no concurrent partners compared with 2.6 percent for those with at least one concurrent partner in the last 12 months.

For all respondents, no significant difference in HIV prevalence is found between those who used a condom during their last sexual intercourse (1.0 percent) and those who did not use one (0.9 percent). This difference is more striking among women, with a prevalence of 1.9 percent for those who used a condom compared with 0.9 percent for those who did not.

With regard to the number of sexual partners over the lifetime of respondents, HIV prevalence among women increases steadily with the number of partners. Prevalence is highest among women who have had three or four partners (3.9 percent, versus 0.6 percent among women who have had just one). For men, the highest prevalence is also found among those having three to four partners over their lifetime (2.1 percent).

14.3.5 Prevalence of HIV among Young People Age 15-24

Table 14.7 shows the prevalence of HIV among young people age 15-24 by selected background characteristics. Given that few children infected with HIV survive until adolescence, infection among young people provides an indication of recent infections and can indirectly provide an estimate of the incidence of new cases.

The average prevalence of HIV among young people age 15-24 is 0.2 percent, with 0.3 percent among women and 0.1 percent for men. For women, HIV prevalence increases with age: 0.2 percent at age 15-19 compared with 0.5 percent at age 20-24. For young men, the increase is from zero percent at age 15-19 to 0.1 percent at age 20-24 (Figure 14.3).

By marital status, HIV prevalence is highest among never-married young women who have had sexual intercourse (1.6 percent), whereas for young men prevalence is highest among those in union (1.0 percent). Furthermore, young pregnant women have a prevalence of 1.4 percent compared with 0.3 percent for those who are not pregnant or not sure if they are pregnant.

HIV infections are more common in rural areas (0.3 percent) than in urban areas (0.1 percent). This observation is true both for young women (0.5 percent in rural areas versus 0.2 percent in urban areas) and for young men (0.1 percent in rural areas versus zero percent in urban areas).

According to region, for all respondents, only the following regions show any prevalence of HIV: Kolda (1.4 percent), Sédhiou (1.1 percent), Ziguinchor (0.9 percent), Tambacounda (0.7 percent), Fatick (0.5 percent), and Kaolack (0.2 percent). By gender, only two regions show any prevalence of HIV among young men: Kolda (0.6 percent) and Tambacounda (0.5 percent), while for young women the following regions have some level of prevalence: Kolda (2.1 percent), Sédhiou (2.1 percent), Ziguinchor (1.9 percent), Fatick (0.9 percent), Tambacounda (0.9 percent), and Kaolack (0.5 percent).

Table 14.7 HIV prevalence among young people by background characteristics

Percentage HIV-positive among women and men age 15-24 who were tested for HIV, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Percentage HIV positive	Number	Percentage HIV positive
Age						
15-19	0.2	1,204	0.0	1,107	0.1	2,311
15-17	0.1	686	0.0	702	0.0	1,388
18-19	0.3	517	0.0	406	0.2	923
20-24	0.5	1,070	0.1	835	0.4	1,904
20-22	0.5	698	0.1	557	0.3	1,256
23-24	0.7	371	0.2	277	0.5	649
Marital status						
Never married	0.2	1,319	0.0	1,888	0.1	3,207
Ever had sex	1.6	127	0.1	528	0.4	656
Never had sex	0.0	1,192	0.0	1,360	0.0	2,551
Married/living together	0.6	921	1.0	54	0.6	975
Widowed/divorced/separated	(0.0)	34	*	0	(0.0)	34
Currently pregnant						
Pregnant	1.4	162	na	na	na	na
Not pregnant or not sure	0.3	2,111	na	na	na	na
Residence						
Urban	0.2	1,147	0.0	1,080	0.1	2,227
Rural	0.5	1,127	0.1	862	0.3	1,989
Region						
Dakar	0.0	547	0.0	541	0.0	1,088
Ziguinchor	1.9	97	0.0	98	0.9	195
Diourbel	0.0	269	0.0	180	0.0	449
Saint-Louis	0.0	129	0.0	123	0.0	252
Tambacounda	0.9	108	0.5	96	0.7	204
Kaolack	0.5	184	0.0	153	0.2	337
Thies	0.0	321	0.0	245	0.0	566
Louga	0.0	169	0.0	116	0.0	285
Fatick	0.9	99	0.0	90	0.5	189
Kolda	2.1	102	0.6	88	1.4	190
Matam	0.0	92	0.0	73	0.0	165
Kaffrine	0.0	84	0.0	66	0.0	150
Kedougou	(0.0)	14	(0.0)	12	0.0	27
Sedhiou	2.1	60	0.0	61	1.1	120
Education						
No education	0.4	1,004	0.1	516	0.3	1,519
Primary	0.6	482	0.1	537	0.3	1,020
Secondary or more	0.1	787	0.0	889	0.0	1,677
Wealth quintile						
Lowest	0.5	341	0.0	264	0.3	605
Second	0.8	399	0.0	294	0.5	693
Middle	0.5	474	0.2	450	0.4	923
Fourth	0.1	503	0.0	475	0.0	979
Highest	0.0	557	0.0	459	0.0	1,015
Total	0.3	2,273	0.1	1,942	0.2	4,216

na = Not applicable
( ) Based on 25-49 unweighted cases ; * Based on less than 25 unweighted cases.

Figure 14.3
HIV prevalence by age and sex among young people age 15-24

Percentage
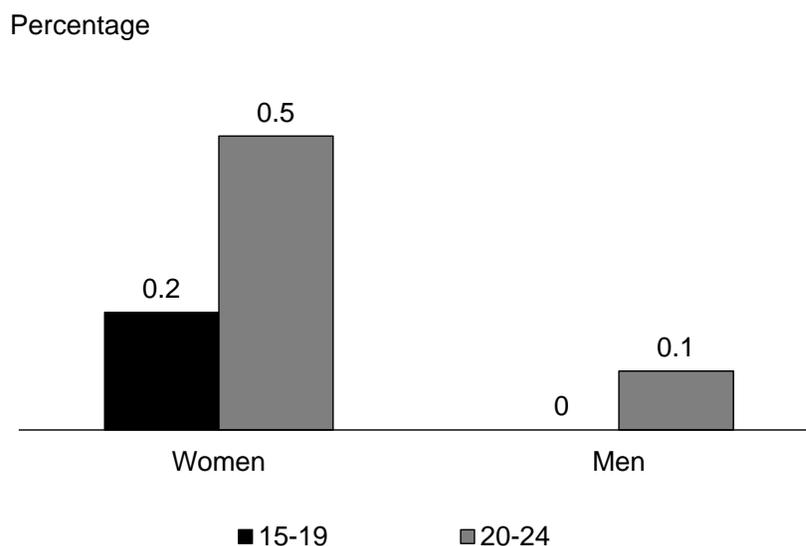
EDS-MICS 2012

Among young men with a secondary education or higher, no respondent was found to be infected with HIV. Among young women, those with a primary school education have a prevalence of 0.6 percent, compared with 0.4 percent for those with no education. By wealth quintile, the highest prevalence for young women is in the second quintile (0.8 percent).

14.3.6 Prevalence of HIV among young people age 15-24 by selected sexual behavior characteristics

Table 14.8 presents HIV prevalence among young people according to sexual behavior in the last 12 months. For all respondents age 15-24, young people with one sexual partner in the last 12 months have an HIV prevalence of 0.7 percent, compared with 0.2 percent among those with no partner in this period. Prevalence among women age 15-24 with one partner during this time period is higher, at 0.9 percent.

By condom use during their last sexual intercourse, results show higher HIV prevalence among young women who used a condom (1.8 percent) than among those who did not (0.8 percent). However, for young women and men combined, HIV prevalence is higher among those who did not use a condom (0.7 percent, versus 0.5 percent among those who used a condom).

Table 14.8 HIV prevalence among young people by sexual behavior

Percentage HIV-positive among women and men age 15-24 who have ever had sex and were tested for HIV, by sexual behavior, EDS-MICS, Senegal 2010-11]

Sexual behavior characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Percentage HIV positive	Number	Percentage HIV positive
Multiple sexual partners and partner concurrency in the past 12 months						
0	0.0	150	0.3	189	0.2	339
1	0.9	886	0.1	342	0.7	1 228
2 +	*	9	0.0	49	0.0	59
Had concurrent partners1	*	3	(0.0)	22	(0.0)	25
None of the partners were concurrent	*	6	(0.0)	27	(0.0)	33
Condom use at last sex in past 12 months						
Used condom at last sex	1.8	53	0.2	226	0.5	280
Did not use condom	0.8	842	0.0	165	0.7	1 007
No sexual intercourse in past 12 months	0.0	150	0.3	189	0.2	339
Total	0.7	1 045	0.2	580	0.5	1 625

na = Not applicable
[1] A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey. (Respondents with concurrent partners include polygynous men who had overlapping sexual partnerships with two or more wives).
( ) Based on 25-49 unweighted cases
* Based on less than 25 unweighted cases

14.4 PREVALENCE OF HIV BY OTHER CHARACTERISTICS

Table 14.9 shows HIV prevalence by other characteristics recorded in the survey. Women and men age 15-49 who say they have not had an STI or its symptoms in the past 12 months have higher HIV prevalence, at 1.0 percent, than those who report an STI or its symptoms, at 0.3 percent). This distribution is found both for women (1.2 percent versus 0.3 percent) and for men (0.7 percent versus 0.3 percent).

Table 14.9 HIV prevalence by other characteristics

Percentage HIV-positive among women and men age 15-49 who have ever had sex and were tested for HIV, by whether had an STI in the past 12 months and by prior testing for HIV, EDS-MICS, Senegal 2010-11

Characteristic	Women		Men		Total	
	Percentage HIV positive	Number	Percentage HIV positive	Percentage HIV positive	Number	Percentage HIV positive
Sexually transmitted infection in past 12 months[1]						
Had STI or STI symptoms	0.3	533	0.3	68	0.3	601
No STI, no symptoms	1.2	3,393	0.7	2,442	1.0	5,835
Ever tested for HIV						
Ever tested	0.9	1,315	0.9	586	0.9	1,901
Received results	0.9	1,230	1.0	522	0.9	1,751
Did not receive results	0.7	86	0.0	64	0.4	150
Never tested	1.2	2,616	0.7	1,948	1.0	4,563
Total 15-49	1.1	3,931	0.7	2,533	0.9	6,464

na = Not applicable
[1] 33 unweighted cases (6 women and 27 men) of missing/DK are not presented here.

For all respondents, HIV prevalence is 1.0 percent for those who had never been tested for HIV compared with 0.9 percent for those who reported having ever been tested. A similar distribution is found for women (1.2 percent versus 0.9 percent), while for men the opposite distribution is found (0.7 percent versus 0.9 percent).

Respondents who have ever been tested for HIV and received the results are more likely to be infected than those who were tested but did not receive the results, at 0.9 percent versus 0.4 percent. The distribution is similar for both women and men, at 0.9 percent versus 0.7 percent for women, and 1.0 percent versus zero percent for men.

14.5 PREVALENCE OF HIV AMONG COUPLES

In the EDS-MICS 2001-11, 1,604 couples living in the surveyed households were interviewed and tested for HIV. Table 14.10 shows that 98 percent tested negative for HIV, while in 0.4 percent of the couples, both partners tested HIV-positive. Furthermore, 1.3 percent of couples are discordant, that is, one partner is infected and the other is not. Among discordant partners, in 0.6 percent of cases the man is HIV-positive and the woman is HIV-negative, while in 0.7 percent of cases the woman is HIV-positive and the man is HIV-negative.

Table 14.10 HIV prevalence among couples

Percent distribution of couples living in the same household, both of whom were tested for HIV, by HIV status, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Both HIV positive[1]	Man HIV positive, woman HIV negative[1]	Woman HIV positive, man HIV negative[1]	Both HIV negative[1]	Total	Number
Woman's age						
15-19	0.0	0.6	0.5	98.8	100.0	91
20-29	0.4	0.3	0.3	99.0	100.0	621
30-39	0.6	0.7	1.0	97.7	100.0	589
40-49	0.3	0.9	0.8	98.0	100.0	304
Men's age						
15-19	*	*	*	*	100.0	3
20-29	0.0	0.1	0.0	99.9	100.0	140
30-39	0.4	0.4	0.3	98.8	100.0	527
40-49	0.6	0.8	0.6	98.0	100.0	514
50-59	0.3	0.6	1.5	97.6	100.0	420
Age difference between partners						
Woman older	(3.6)	(90.0)	(3.4)	(93.1)	100.0	24
Same age/man older by 0-4 years	0.0	0.7	0.0	99.3	100.0	192
Man older by 5-9 years	0.4	0.9	0.3	98.4	100.0	530
Man older by 10-14 years	0.1	0.3	0.5	99.0	100.0	480
Man older by 15+ years	0.8	0.4	1.6	97.2	100.0	379
Type of union						
Non-polygynous	0.2	0.7	0.7	98.4	100.0	1,123
Polygynous	0.9	0.4	0.7	98.1	100.0	482
Multiple partners in past 12 months[1]						
Both no	0.3	0.4	0.7	98.6	100.0	1,073
Man yes, woman no	0.6	1.0	0.6	97.8	100.0	516
Woman yes, man no	*	*	*	*	100.0	14
Both yes	*	*	*	*	100.0	0
Residence						
Urban	0.0	0.6	1.1	98.3	100.0	666
Rural	0.7	0.5	0.4	98.4	100.0	938
Region						
Dakar	0.0	0.9	0.8	98.3	100.0	404
Ziguinchor	1.3	0.7	0.0	98.0	100.0	50
Diourbel	0.0	0.0	0.7	99.3	100.0	155
Saint-Louis	1.3	0.0	0.0	98.7	100.0	95
Tambacounda	0.4	0.8	1.1	97.7	100.0	97
Kaolack	1.3	0.0	1.1	97.6	100.0	145
Thies	0.0	0.6	0.0	99.4	100.0	180
Louga	0.0	0.0	0.9	99.1	100.0	111
Fatick	0.6	0.0	0.6	98.8	100.0	81
Kolda	1.7	2.5	0.7	95.2	100.0	92
Matam	0.0	1.1	1.5	97.4	100.0	63
Kaffrine	0.0	0.4	0.0	99.6	100.0	70
Kedougou	1.5	1.5	0.0	97.1	100.0	15
Sedhiou	0.9	0.0	2.1	97.0	100.0	47
Woman's education						
None	0.6	0.5	0.5	98.4	100.0	1,127
Primary	0.0	0.0	1.6	98.4	100.0	341
Secondary or more	0.0	2.7	0.0	97.3	100.0	137
Man's education						
None	0.7	0.8	0.6	98.0	100.0	962
Primary	0.0	0.2	0.4	99.4	100.0	372
Secondary or more	0.1	0.3	1.5	98.1	100.0	270
Wealth quintile						
Lowest	0.8	0.5	0.5	98.2	100.0	363
Second	1.2	0.9	1.1	96.8	100.0	326
Middle	0.0	0.1	0.3	99.5	100.0	296
Fourth	0.0	1.2	0.4	98.4	100.0	327
Highest	0.0	0.0	1.1	98.9	100.0	291
Total	0.4	0.6	0.7	98.3	100.0	1,604

Note: The table is based on couples for which a valid test result (positive or negative) is available for both partners.
[1] with two or more wives.) A respondent is considered to have had multiple sexual partners in the past 12 months if he or she had sexual intercourse with two or more people during this time period. (Respondents with multiple partners include polygynous men who had sexual intercourse).
( ) Based on 25-49 unweighted cases
* Based on less than 25 unweighted cases

ADULT MORTALITY AND MATERNAL MORTALITY 15

Mohamed AYAD and Salif NDIAYE

15.1 INTRODUCTION

Maternal mortality is a health indicator showing an enormous disparity between developing countries and developed countries. Virtually all deaths related to pregnancy and childbirth (95 percent) occur in Africa and Asia. In sub-Saharan Africa, women have 1 chance in 12 of dying during pregnancy or childbirth compared with 1 chance in 4,000 in rich countries.

Maternal mortality is a particularly important indicator of women's status, women's access to health care, and how well the health system meets women's needs. It is therefore important to have information on the levels of maternal mortality, not only to measure the risks of pregnancy and childbirth, but also to examine their impact on women's health and, indirectly, on women's economic and social situation. In this context, the measurement of maternal mortality and risk factors associated with it is necessary both for a diagnosis of the problems and for monitoring and evaluating programs to address them.

The EDS-MICS 2010-11 collected data nationally to estimate the level of maternal mortality using direct and indirect estimation methods. These estimates are based upon data on the survival of sisters of women interviewed. For each of the sisters of women interviewed, information was collected on the sister's current age, and, if she was deceased, questions were asked about her age at death and the number of years since her death. For deceased sisters, additional questions were asked to determine whether her death was related to motherhood, that is, if it occurred during pregnancy, during childbirth, or within two months after delivery or termination of the pregnancy.

The direct method for estimating maternal mortality requires data on the age of the surviving sisters as well as the age at death of the deceased sisters and the number of years since death. In order to obtain specific reference periods, the data are aggregated to determine the number of person-years of exposure to mortality and the number of maternal deaths that occurred in each reference period. The rate of maternal mortality is then calculated by dividing the number of deaths by the number of person-years subject to exposure. The result of this calculation is the proportion of sisters, among all the sisters of women interviewed, who died of causes related to pregnancy and childbirth. This gives an unbiased estimate of the probability of dying from maternal causes, provided that the risk of death is the same for all the sisters (Trussell and Rodriguez, 1990).

The indirect method of estimating maternal mortality does not require information on age at maternal death or the number of years since the death of the mother's sister. This method estimates the risk, for all the sisters, of dying from maternal causes for the duration of the reproductive period. Given that the estimates refer to the length of life of the sisters of the respondents, they do not apply to a well-defined period of time, but reflect mortality conditions that correspond to a time period approximately 12 years before the survey.

15.2 DATA COLLECTION

The questionnaire used to collect data on maternal mortality is presented in Appendix E (section 13 of the Women's Questionnaire). First, the woman being interviewed was asked for a list of all her brothers and sisters, that is, all the children that her mother had given birth to, beginning with the first born. Then, the respondent was asked about the survival status of her brothers and sisters, and for those still alive, she was asked their current ages. For those who were deceased, information was gathered on the number of years since the death and the age at death. In cases where specific answers to age at death or the number of years since the death could not be obtained, the interviewers were allowed to accept approximate answers.

For sisters deceased at age 12 or over, the woman was asked other questions to determine if the death was related to motherhood:

- *Was (NAME) pregnant when she died?* If the answer was no or the respondent did not know, the following question was asked:

- *Did (NAME) die during childbirth?* When the response was negative, she was then asked:

- *Did (NAME) die in the 42 days after the end of a pregnancy or delivery?*

These questions are structured to encourage the respondent to report any deaths that followed a pregnancy, regardless of the outcome and, in particular, a pregnancy that resulted in an induced abortion, so that no direct questions were asked about this type of event. All these deaths are considered to be maternal deaths.

15.3 EVALUATION OF DATA QUALITY

Whether the direct or indirect method is used, the estimate of maternal mortality requires accurate data on the number of sisters of women interviewed, the number who died, and the number whose deaths were related to motherhood. There is no clearly defined procedure for establishing the completeness of data from a retrospective household survey on the survival of sisters. Direct estimation requires, in addition to exact data on the survival of sisters, data on the age and number of years since the death of the sisters—information that may trouble respondents or that the respondents may not know. Table 15.1 presents data on the number of siblings reported by the respondents and the completeness of reported data on age, age at death, and years since death.

Table 15.1 Completeness of information on siblings

Number of siblings reported by survey respondents and completeness of the reported data on age, age at death (AD), and years since death (YSD), EDS-MICS, Senegal 2010-11

Sibling status and completeness of reporting	Females		Males		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
All siblings	43,706	100.0	47,018	100.0	90,724	100.0
Surviving	36,485	83.5	38,062	81.0	74,547	82.2
Deceased	7,206	16.5	8,918	19.0	16,125	17.8
Missing information	14	0.0	38	0.1	52	0.1
Surviving siblings	36,485	100.0	38,062	100.0	74,547	100.0
Age reported	35,128	96.3	36,831	96.8	71,959	96.5
Age missing	1,357	3.7	1,231	3.2	2 588	3.5
Deceased siblings	7,206	100.0	8,918	100.0	16,125	100.0
AD and YSD reported	6,754	93.7	8,433	94.6	15,187	94.2
Missing only AD	14	0.2	12	0.1	26	0.2
Missing only YSD	138	1.9	136	1.5	274	1.7
Missing both	300	4.2	337	3.8	637	4.0

Complete data were obtained on almost all sisters of respondents, regardless of their survival status. An age was reported for 96 percent of surviving sisters, and age at death and number of years since death were reported for 94 percent of deceased sisters. These percentages indicate good data quality. Rather than exclude siblings whose data were missing from the following analyses, information on sibling birth order in conjunction with other information was used to impute values for missing data.[1] Data on the survival of siblings, including cases with imputed values, were used in the direct calculation of adult mortality rates and mortality rates for a maternal cause.

The amount of missing information regarding dates is an indicator only of the overall quality of the data. Completeness of basic information, namely the possible omission of siblings, is much more important. Table 15.2 presents various tests to assess completeness. It is expected that, on average, the date of birth of the woman interviewed is in the middle of the birth years of her siblings. If the median year of birth for siblings is much later than that of the woman being interviewed, it would mean that the interviewed woman has consistently eliminated older siblings, perhaps because some had died before she herself was born. Such omissions affect the estimation of adult mortality. In the case of Senegal, the median year of sibling birth is equal to 1973; that for the women interviewed is equal to 1974[2]. This means that apparently there was no under-reporting of siblings by respondents. From the point of view of measuring maternal mortality, whether all the brothers and sisters are declared or not is not the most important aspect. However, it is crucial that data on persons subject to the risk of maternal mortality, namely the sisters of childbearing age, be as complete as possible.

Two other tests, the sex ratio at birth and the average number of siblings, can be used to assess the completeness of the recording of the brothers and sisters. Table 15.2 shows the results.

For all brothers and sisters, the sex ratio at birth (number of males versus females) is 108, slightly higher than the estimates from international data, which are around 105 regardless of the population group, which could indicate a small under-declaration of sisters in Senegal. Depending on the year of birth of the respondent, the sex ratio varies irregularly between 104 and 110; however, taking into account the well-known variability of the sex ratio in small samples, no tendency toward under-reporting is shown in the declaration of sisters.

Table 15.2   Data on Siblings

Indicators on data quality, EDS-MICS, Senegal 2010-11

| Year of birth | Percent distribution | |
	Respondents	Siblings
Before 1960	0.0	3.9
1960-64	4.0	4.2
1965-69	7.6	6.5
1970-74	11.4	10.1
1975-79	12.6	13.0
1980-84	16.5	16.0
1985-89	20.4	15.1
1990-94	23.0	12.9
1995 or later	4.6	18.3
Total	100.0	100.0
Year of birth interval	1960-1996	1925-2010
Median	1974	1973
Number	15,688	87,563

Respondent's year of birth	Mean sibship size	Sex ratio at birth
1960-64	6.8	110.3
1965-69	6.9	107.0
1970-74	7.0	104.4
1975-79	7.0	106.5
1980-84	6.7	110.6
1985-89	6.7	105.0
1990-95	6.4	108.5
Total	6.8	107.6

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[1] The allocation is based on the assumption that the order of siblings is correct. First, we calculated a date of birth for each sibling survivor of known age and for each deceased brother and sister for whom we had complete information on age at death and the number of years since death. For brothers and sisters for whom data are missing, a birth date has been imputed within the range defined by the dates of the "surrounding" siblings. For surviving siblings, an age was calculated from the date of birth imputed. In the case of deceased brothers and sisters, if either age at death or the number of years since the death were available, this information was combined with the date of birth assigned to provide the missing information. If neither was available, the distribution of age at death of siblings, where only age at death was known but not the number of years since the death, was used as the basis for the imputation of age at death.

[2] Note that the distribution of year of sibling birth does not follow that of the respondent: while the birth years of respondents are spread over 36 years (1960-1996), those for the brothers and sisters cover 75 years (1925-2010).

The average number of siblings is 6.8 (including the respondent), which is slightly higher than the final parity for women in Senegal[3]. The trend in the number of siblings by year of birth of the respondent shows an average size ranging between 6.4 and 6.7 for the period 1980-1995. For the period 1960-1979, the size varies between 6.8 and 7.0. Thus, the small amount of variation in average size suggests, as in previous results, that omission of brothers and sisters is not apparent.

With regard to the estimates of overall mortality and maternal mortality, the period 1998-2011 was kept in order to obtain a reliable estimate of the level of maternal mortality, based on a sufficient number of maternal deaths (which are still relatively rare) to minimize sampling errors.

15.4 ESTIMATE OF ADULT MORTALITY

Estimates by age of male and female mortality for the period 1998-2011, calculated using the direct procedure, according to statements on survival, are shown in Table 15.3. The number of sibling deaths that occurred during the reference period at age 15-49 is relatively large (827 women and 930 men), but the individual rates that are based on relatively few events are subject to variations in sampling.

Overall mortality among adults age 15-49 for the period 1998-2011 is estimated at 2.9 percent for all women and 3.1 percent for all men, showing male mortality to be 7 percent higher than female mortality (Table 15.3). Since death at these ages is relatively rare and since the data are from a sample, mortality rates do not vary regularly by age (Figure 15.1). Nevertheless, overall, mortality rates increase by age for both men and women. For men, the rates increase from 2.2 percent at age 15-19 and 3.4 at age 30-34 to 5.8 percent at age 45-49. For women, the rates vary from 1.9 percent at age 15-19 and 3.9 percent at age 30-34 to 5.8 percent at age 45-49.

Table 15.3 Adult mortality rates

Age-specific mortality rates for women and men age 15-49 based on the survivorship of sisters and brothers of survey respondents for the period 1998-2011, EDS-MICS, Senegal 2010-11

Age group	Period 1998-2011		
	Deaths	Exposure	Mortality rates
WOMEN			
15-19	148	77,229	1.9
20-24	147	74,470	2.0
25-29	118	61,171	1.9
30-34	175	44,425	3.9
35-39	109	29,633	3.7
40-44	85	17,360	4.9
45-49	46	8,965	5.2
15-49	827	313,251	2.9[a]
MEN			
15-19	174	79,921	2.2
20-24	177	77,965	2.3
25-29	135	65,095	2.1
30-34	161	47,076	3.4
35-39	126	30,694	4.1
40-44	100	18,214	5.5
45-49	56	9,611	5.8
15-49	930	328,577	3.1[a]

[a] Age-standardized.

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[3] The average number of live births is estimated to be 6.1 for all women age 45-49, and 6.4 for women in union age 45-49 (see Table 5.4 in Chapter 5).

Figure 15.1
Adult mortality rates by age for the period 1998-2011

Deaths per 1,000

Men

Women

Age
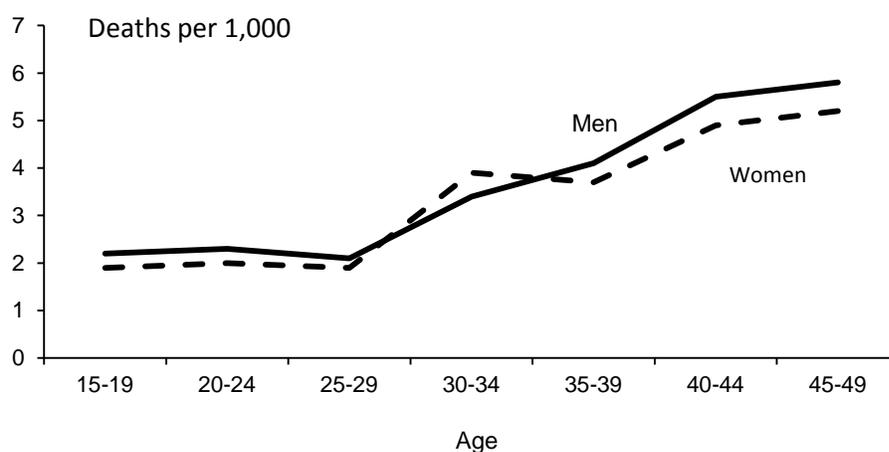
EDS-MICS 2010-11

15.5 ESTIMATE OF MATERNAL MORTALITY

Data on the survival of sisters can also be used to estimate maternal mortality by the indirect method (Graham et al., 1989). In this case, the data are aggregated by five-year age groups of the respondents. For each age group, information on the number of maternal deaths among all the sisters of respondents and the number of sisters/units of exposure are used to estimate the lifetime risk of death related to a maternal cause. The indirect approach provides an overall estimate of maternal mortality for the sisters of all the respondents that are linked to a period of time centered approximately 12 years before the survey. When working with small samples, it is preferable to use an overall assessment, which is less sensitive to variations in sampling[4].

Table 15.4 presents indirect estimates of maternal mortality. Apart from the youngest age groups, where very few units of exposure were observed, estimates of the lifetime risk of death related to a maternal cause, by age group, vary from 0.017 to 0.034. Overall, the estimated rates vary little, even though the estimates for the youngest age groups are slightly higher. To the extent that this trend is real, it can be interpreted either as a recent increase in the risk of dying due to maternal causes or as a more complete record of recent events for the youngest respondents. When the statements of all respondents are aggregated, the lifetime risk of dying (LRD) from a maternal cause is equal to 0.023. In other words, in Senegal, a woman runs a risk of about 1 in 43 of dying due to a maternal cause during the childbearing years. These values can be converted into an estimate of the maternal mortality ratio (maternal deaths per 100,000 births). The estimated maternal mortality ratio, which refers to the last decade, is 392 per 100,000 births. Because of the importance of the confidence interval associated with this indicator[5], one must be very cautious about the interpretation of the level of maternal mortality. The actual value of the maternal mortality ratio estimated by the EDS-MICS 2010-11 (392 per 100,000) is between 330 and 453.

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[4] In the DHS-IV of 2005, maternal mortality was calculated for the seven years preceding the survey.

[5] The confidence interval is affected by sampling errors. Moreover, in addition to sampling errors, the estimates obtained during a survey are also subject to errors of measurement and data collection.

Table 15.4 Maternal mortality estimates

Maternal mortality estimates using indirect method, EDS-MICS, Senegal 2010-11

Age group	Number of respondents	Number of sisters 15+	Adjustment factors	Number of sisters 15+ (mod)	Units of risk	Maternal deaths	Life-time risk (LTR)
15-19	3,429	4,957	0.107	7,899	845.2	26	0.031
20-24	3,220	6,007	0.206	7,417	1,527.9	30	0.020
25-29	2,746	6,254	0.343	6,326	2,169.7	74	0.034
30-34	2,148	5,304	0.503	5,304	2,667.8	54	0.020
35-39	1,817	4,350	0.664	4,350	2,888.1	64	0.022
40-44	1,379	3,231	0.802	3,231	2,591.2	44	0.017
45-49	949	1,969	0.900	1,969	1,771.8	33	0.019
Total	15,688	32,071		36,494	14,461.7	326	0.023

Maternal mortality ratio (MMR) = 392

The estimated maternal mortality ratio using the indirect method from the 2005 DHS in Senegal was 434 maternal deaths per 100,000 live births. Because of the importance of the confidence interval associated with this indicator, it is clear that maternal mortality has remained practically unchanged between the 2005 survey and the EDS-MICS 2010-11.

Maternal mortality ratios estimated from DHS surveys conducted in other African countries, as well as Senegal, are shown in Figure 15.2.

Figure 15.2
Maternal mortality ratio in Senegal and
in several other sub-Saharan African countries

Country	Value
Nambia, 2000	225
Senegal, 2010-11	392
Benin, 2006	397
Uganda, 2006	435
Tanzania, 2010	454
Mali, 2006	464
Gabon, 2000	519
Cote d'Ivoire, 2005	543
Nigeria, 2008	545
Zimbabwe, 2005	555
Zambia, 2007	591
Niger, 2006	648
Malawi, 2010	675
Rwanda, 2005	750
Sierra Lieone, 2008	857

Maternal mortality ratio per 100,000 live births

EDS-MICS 2010-11

GENDER RELATIONS

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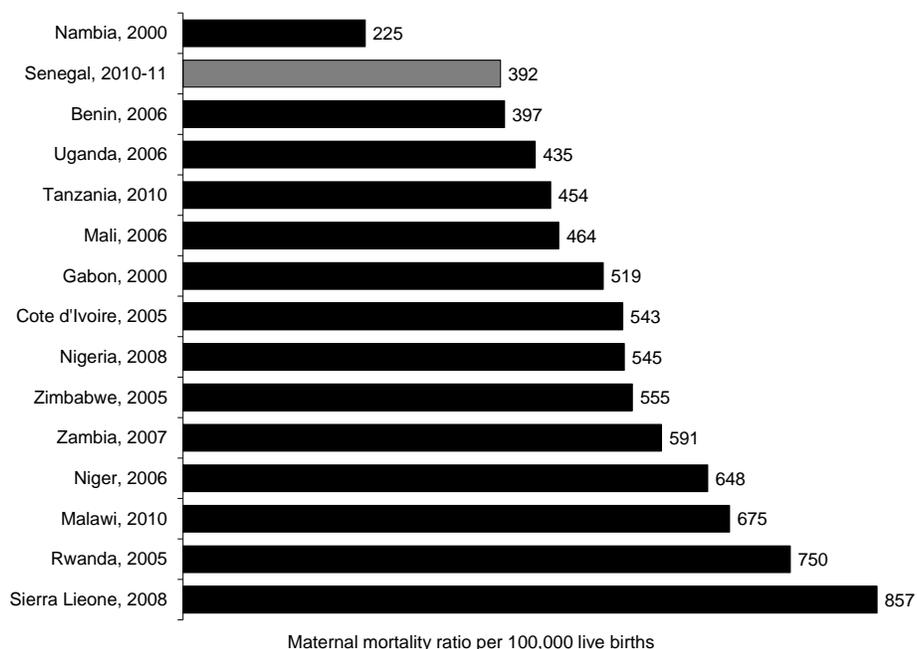
Diatta CAMARA

Themen analysis of gender relations can highlight and foster understanding of the differences seen in the relationships between men and women. The information collected in the EDS-MICS 20-2011 contributes to a gender analysis of economic activity, control of the use of income, the importance of women's earnings relative to those of the husband/partner, access to property (house and land), decisionmaking within the household, and opinions on domestic violence. Furthermore, the data emphasize the influence of the empowerment of women on contraceptive use and reproductive health care. The survey questions asked of women yield information that has helped develop indicators for evaluating the status of women.

16.1 EMPLOYMENT AND COMPENSATION

During the survey, men and women were asked if they had worked during the 12 months preceding the survey and how they were paid for their work. Table 16.1 shows that 49 percent of women in union age 15-49 reported having worked during the 12 months preceding the survey. This proportion increases with age, from 27 percent for women age 15-19 to 69 percent for those age 45-49.

Table 16.1 Employment and cash earnings of currently married women and men

Percentage of currently married women and men age 15-49 who were employed at any time in the past 12 months and the percent distribution of currently married women and men employed in the past 12 months by type of earnings, according to age, EDS-MICS, Senegal 2010-11

Age	Among currently married respondents			Percent distribution of currently married respondents employed in past 12 months, by type of earnings					
	Percentage employed in past 12 months	Number of respondents	Cash only	Cash and in kind	In kind only	Not paid	Total	Number
WOMEN								
15-19	27.4	832	56.7	7.3	4.8	31.2	100.0	227
20-24	35.0	1,932	72.0	5.7	2.9	19.4	100.0	676
25-29	43.5	2,128	75.2	7.2	3.2	14.4	100.0	925
30-34	53.4	1,825	82.8	5.8	2.6	8.9	100.0	975
35-39	57.4	1,614	83.0	6.0	1.5	9.5	100.0	927
40-44	64.8	1,192	82.4	8.5	1.9	7.2	100.0	772
45-49	68.6	825	84.2	5.6	3.0	7.2	100.0	566
Total	49.0	10,347	78.9	6.5	2.6	12.0	100.0	5,068
MEN								
15-19	*	9	*	*	*	*	100.0	9
20-24	100.0	49	49.2	18.6	4.6	27.5	100.0	49
25-29	98.5	246	73.8	14.2	0.4	11.6	100.0	242
30-34	98.1	350	79.0	10.0	0.4	10.6	100.0	343
35-39	99.4	345	80.0	12.0	0.3	7.7	100.0	343
40-44	99.2	352	80.6	12.1	0.8	6.4	100.0	349
45-49	98.5	258	72.9	14.7	0.4	12.0	100.0	254
Total 15-49	98.8	1,609	76.7	12.7	0.6	10.0	100.0	1,590
50-59	93.3	479	72.0	12.4	0.9	14.7	100.0	447
Total 15-59	97.6	2,087	75.7	12.6	0.7	11.1	100.0	2,036

* Based on less than 25 unweighted cases.

Among women who worked, 79 percent were paid in cash only, 7 percent were paid in cash and in kind, and 3 percent were paid exclusively in kind, while 12 percent were not paid for the work done.

Among men age 15-49, almost all worked in the past 12 months (99 percent). Among those who worked, 77 percent were paid in cash only, 13 percent were paid in cash and in kind, and 1 percent were paid in kind only, while 10 percent of men were not paid for the work done.

Control over decisionmaking on the use of a woman's income is considered to be one of the direct indicators of women's status. It can measure the level of financial independence. In order to assess this, the survey asked women who worked in the past 12 months and had cash earnings who mainly decided how her earnings were used. The results presented in Table 16.2.1 relate only to women in union who were paid in cash for employment.

Table 16.2.1 Control over women's cash earnings and relative magnitude of women's cash earnings

Percent distribution of currently married women age 15-49 who received cash earnings for employment in the 12 months preceding the survey by person who decides how wife's cash earnings are used and by whether she earned more or less than her husband, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Person who decides how wife's cash earnings are used					Wife's cash earnings compared with husband's cash earnings:						
	Mainly wife	Wife and husband jointly	Mainly husband	Other	Total	More	Less	About the same	Husband has no earnings	Don't know	Total	Number of women
Age												
15-19	77.4	8.7	8.8	5.0	100.0	2.3	89.4	3.0	0.0	5.3	100.0	146
20-24	76.8	10.2	8.8	4.1	100.0	5.0	92.1	1.3	0.1	1.4	100.0	525
25-29	82.3	9.9	6.9	0.9	100.0	7.5	85.9	2.9	0.2	3.6	100.0	762
30-34	79.7	9.6	9.7	1.0	100.0	6.6	86.9	3.8	0.5	2.2	100.0	863
35-39	84.7	5.8	9.0	0.5	100.0	8.0	85.3	3.2	1.3	2.1	100.0	825
40-44	82.4	9.7	7.8	0.1	100.0	12.0	76.8	3.5	2.4	5.3	100.0	702
45-49	84.7	6.6	8.5	0.2	100.0	14.6	71.8	4.3	4.4	5.0	100.0	508
Number of living children												
0	78.7	7.6	8.0	5.7	100.0	6.6	90.6	1.4	0.0	1.4	100.0	388
1-2	81.1	8.6	8.6	1.7	100.0	7.2	85.8	3.3	0.0	3.7	100.0	1,230
3-4	81.8	8.3	9.5	0.4	100.0	9.1	83.8	2.0	1.6	3.5	100.0	1,248
5+	83.0	9.3	7.6	0.1	100.0	9.6	80.0	4.6	2.5	3.3	100.0	1,465
Residence												
Urban	82.5	8.8	7.3	1.4	100.0	11.5	79.3	3.8	1.5	3.9	100.0	2,195
Rural	80.9	8.5	9.7	0.9	100.0	5.4	88.3	2.6	1.1	2.6	100.0	2,136
Region												
Dakar	81.8	10.3	5.8	2.1	100.0	13.4	77.8	3.1	1.4	4.4	100.0	1,255
Ziguinchor	89.7	8.7	1.6	0.0	100.0	4.8	86.6	4.4	2.1	2.1	100.0	147
Diourbel	93.2	0.9	4.9	1.0	100.0	5.6	86.9	2.2	1.5	3.8	100.0	675
Saint-Louis	83.2	8.3	6.5	2.0	100.0	12.1	77.9	1.9	1.3	6.9	100.0	245
Tambacounda	82.6	2.0	14.1	1.3	100.0	8.6	85.8	4.3	0.0	1.3	100.0	184
Kaolack	82.1	12.7	4.6	0.6	100.0	6.1	83.0	3.5	2.0	5.4	100.0	306
Thies	71.8	4.9	23.3	0.0	100.0	7.3	85.2	4.8	1.6	1.1	100.0	464
Louga	84.1	7.7	7.0	1.2	100.0	5.4	92.1	1.4	0.0	1.1	100.0	277
Fatick	75.4	13.4	10.4	0.9	100.0	8.0	83.6	5.0	1.7	1.7	100.0	192
Kolda	67.2	26.4	6.1	0.3	100.0	4.6	89.6	4.2	0.5	1.2	100.0	215
Matam	85.0	9.7	3.9	1.5	100.0	7.4	81.3	4.7	2.1	4.4	100.0	85
Kaffrine	64.4	4.5	31.1	0.0	100.0	3.6	89.5	1.2	1.7	4.0	100.0	77
Kedougou	58.7	25.0	14.3	2.0	100.0	4.1	85.1	4.8	3.4	2.7	100.0	31
Sedhiou	83.7	10.0	6.2	0.2	100.0	4.1	92.4	2.7	0.5	0.3	100.0	177
Education												
No education	82.2	7.9	9.0	0.9	100.0	8.0	83.7	3.4	1.3	3.6	100.0	2,890
Primary	81.5	10.0	7.7	0.9	100.0	9.4	84.4	2.3	1.5	2.4	100.0	952
Secondary or more	79.3	10.5	7.2	3.0	100.0	9.5	82.7	3.6	1.1	3.2	100.0	488
Wealth quintile												
Lowest	75.1	12.8	10.1	2.0	100.0	5.2	88.4	3.3	0.5	2.5	100.0	661
Second	80.3	9.6	9.1	1.0	100.0	6.3	86.7	2.7	1.2	3.1	100.0	711
Middle	86.3	5.3	8.0	0.4	100.0	9.5	81.5	3.8	1.4	3.8	100.0	870
Fourth	83.2	7.2	8.3	1.3	100.0	9.6	82.8	3.8	1.6	2.2	100.0	1,053
Highest	81.5	9.7	7.5	1.3	100.0	10.2	81.4	2.4	1.5	4.5	100.0	1,035
Total	81.7	8.7	8.5	1.2	100.0	8.5	83.7	3.2	1.3	3.3	100.0	4,330

Overall, Senegalese women who work have a great deal of financial autonomy, since 82 percent of women in union who earn money decide for themselves the use of their earnings, while in 9 percent of cases this decision is made jointly by the couple. Another 9 percent of women say that their husband mainly decides. The proportion of women deciding themselves about the use of their income is lower in the regions of Kédougou (59 percent), Kaffrine (64 percent), and Thiès (72 percent). Differences according to other sociodemographic variables are less significant.

During the survey, women were also asked it they thought they earned more, less, or about the same as their husbands/partners. The results show that more than eight out of ten women (84 percent) think they earn less than their spouse, while 9 percent of women think they earn more than their spouse, and 3 percent think they earn about the same.

Table 16.2.2 shows the proportion of men age 15-49 with cash earnings in relation to the person who decides the use of their earnings. About nine in every ten men (91 percent) say they themselves decide on the use of their income. For 7 percent of men, this decision is made jointly with their wife, and only 1 percent say their wife mainly decides how the husband's earnings will be used.

Table 16.2.2 also shows the distribution of women whose husbands received cash earnings according to who decides on the use of the husband's earnings. This information is based on the women's responses. The results show that 11 percent of women say this decision is made jointly by the couple (while only 7 percent of men say the same). Eighty-three percent of women say their husband mainly decides alone on the use of his earnings (while 91 percent of men say the same), and 5 percent of women (compared with 1 percent of men) say the decision on use of the husband's earnings is made mainly by the wife.

The highest proportions of women who say that the decision on use of the husbnd's earnings is made jointly by the couple are found in urban areas, in the regions of Dakar, Louga, and Fatick, among women with a secondary level of education or higher, and among women in the lowest household wealth quintile.

Table 16.2.2 Control over men's cash earnings

Percent distribution of currently married men age 15-49 who receive cash earnings and of currently married women age 15-49 whose husbands receive cash earnings, by person who decides how husband's cash earnings are used, according to background characteristics, EDS-MICS, Senegal 2010-11]

Background characteristic	Men: Person who decides how husband's cash earnings are used						Women: Person who decides how husband's cash earnings are used					
	Mainly wife	Husband and wife jointly	Mainly husband	Other	Total	Number of men	Mainly wife	Wife and husband jointly	Mainly husband	Other	Total	Number of women
Age												
15-19	*	*	*	*	100.0	6	5.0	9.2	82.9	2.9	100.0	818
20-24	(0.0)	(3.6)	(91.4)	(5.0)	100.0	33	3.9	12.1	82.3	1.7	100.0	1,924
25-29	0.3	7.0	89.4	3.3	100.0	213	5.0	10.2	83.3	1.5	100.0	2,106
30-34	0.0	6.0	92.7	1.4	100.0	306	5.2	10.3	83.9	0.6	100.0	1,815
35-39	0.0	8.2	91.0	0.8	100.0	316	5.7	11.3	82.6	0.4	100.0	1,593
40-44	1.0	3.3	95.7	0.0	100.0	324	6.1	10.7	82.8	0.3	100.0	1,168
45-49	1.9	11.2	86.0	0.9	100.0	223	5.2	10.2	84.1	0.5	100.0	790
Number of living children												
0	0.4	7.1	89.7	2.8	100.0	176	5.2	12.3	80.8	1.8	100.0	1,241
1-2	0.1	6.3	91.4	2.2	100.0	522	5.1	11.5	81.6	1.7	100.0	3,459
3-4	0.9	4.9	93.8	0.4	100.0	371	4.6	10.5	84.0	0.9	100.0	2,740
5+	1.0	9.0	89.7	0.3	100.0	351	5.4	9.2	85.2	0.2	100.0	2,774
Residence												
Urban	0.9	6.0	92.4	0.7	100.0	732	6.5	14.7	77.9	0.9	100.0	4,187
Rural	0.2	7.5	90.3	1.9	100.0	689	4.1	7.9	86.7	1.2	100.0	6,027
Region												
Dakar	0.3	3.3	95.8	0.6	100.0	435	7.5	17.9	73.8	0.8	100.0	2,172
Ziguinchor	0.0	6.0	94.0	0.0	100.0	45	4.0	9.6	86.4	0.0	100.0	264
Diourbel	0.0	9.2	89.3	1.5	100.0	102	3.8	7.0	88.9	0.2	100.0	1,357
Saint-Louis	2.0	16.9	77.8	3.4	100.0	74	8.7	9.4	78.5	3.4	100.0	660
Tambacounda	1.4	2.7	95.9	0.0	100.0	87	4.7	4.7	89.8	0.8	100.0	572
Kaolack	0.0	0.8	98.5	0.7	100.0	97	1.6	10.4	86.4	1.7	100.0	800
Thies	1.3	12.3	86.4	0.0	100.0	182	2.8	4.3	91.7	1.3	100.0	1,292
Louga	0.0	13.7	77.6	8.7	100.0	85	6.6	15.6	76.6	1.2	100.0	803
Fatick	0.0	1.0	98.2	0.8	100.0	64	4.0	13.0	80.0	3.0	100.0	477
Kolda	0.7	8.1	88.5	2.7	100.0	87	5.8	15.6	78.2	0.4	100.0	508
Matam	1.5	9.8	88.3	0.4	100.0	55	8.7	7.8	82.1	1.4	100.0	438
Kaffrine	0.0	0.0	98.4	1.6	100.0	57	0.8	3.9	95.2	0.1	100.0	447
Kedougou	(0.0)	(19.1)	(77.6)	(3.3)	100.0	9	2.6	13.2	82.3	1.9	100.0	94
Sedhiou	0.4	11.8	87.8	0.0	100.0	42	3.9	8.6	87.2	0.3	100.0	328
Education												
No education	0.5	6.5	91.6	1.4	100.0	736	4.6	8.0	86.3	1.1	100.0	7,227
Primary	0.2	6.6	91.8	1.4	100.0	395	5.9	14.6	78.0	1.4	100.0	2,028
Secondary or more	1.2	7.6	90.1	1.1	100.0	290	6.8	22.8	69.7	0.7	100.0	958
Wealth quintile												
Lowest	0.5	5.6	92.2	1.7	100.0	281	4.1	8.4	86.3	1.1	100.0	2,146
Second	0.9	9.1	88.4	1.6	100.0	232	3.1	7.8	87.6	1.5	100.0	2,053
Middle	0.1	6.4	90.7	2.8	100.0	265	5.6	8.9	84.5	1.1	100.0	1,954
Fourth	1.0	7.5	90.5	1.0	100.0	312	6.0	12.5	80.5	1.0	100.0	2,133
Highest	0.4	5.5	94.1	0.0	100.0	330	6.6	16.3	76.2	0.8	100.0	1,928
Total 15-49	0.6	6.7	91.4	1.3	100.0	1,421	5.1	10.7	83.1	1.1	100.0	10,214
50-59	0.1	7.0	92.9	0.0	100.0	377	na	na	na	na	0.0	na
Total 15-59	0.5	6.8	91.7	1.0	100.0	1,798	na	na	na	na	0.0	na

na = Not applicable
( ) Based on 25-49 unweighted cases
* Based on less than 25 unweighted cases

Table 16.3 shows that women's control over their own earnings varies by the level of earnings of the woman compared with those of her husband. While, on average, 82 percent of women decide for themselves how to use their income, this percentage varies from 64 percent when the woman earns as much as her spouse to 95 percent when the spouse has no income or does not work. Among women who earn about the same as their husbands earn, about one-third (31 percent) say they decide jointly with their husbands how to use their own earnings.

Similarly, a husband's control over his own earnings is more common when his wife does not work (86 percent). When the wife earns the same amount as her husband, decisions on using the husband's cash earnings are made jointly in 40 percent of the cases, or made mainly by the husband (56 percent).

Table 16.3 Women's control over their earnings and over those of their husbands

Percent distribution of currently married women age 15-49 with cash earnings in the last 12 months by person who decides how the wife's cash earnings are used and percent distribution of currently married women age 15-49 whose husbands have cash earnings by person who decides how the husband's cash earnings are used, according to the relation between wife's and husband's cash earnings, EDS-MICS, Senegal 2010-11

Women's earnings relative to husband's earnings	Person who decides how the wife's cash earnings are used:						Person who decides how husband's cash earnings are used:					
	Mainly wife	Wife and husband jointly	Mainly husband	Other	Total	Number of women	Mainly wife	Wife and husband jointly	Mainly husband	Other	Total	Number of women
More than husband	84.4	10.1	4.1	1.3	100.0	368	14.0	20.3	65.7	0.0	100.0	355
Less than husband	81.8	7.8	9.3	1.1	100.0	3,625	5.5	12.0	81.9	0.6	100.0	3,623
Same as husband	63.9	31.2	5.0	0.0	100.0	139	3.4	40.1	55.9	0.6	100.0	139
Husband has no cash earnings or did not work	95.0	3.9	1.2	0.0	100.0	56	na	na	na	na	na	na
Woman worked but has no cash earnings	na	na	na	na	na	na	10.1	10.1	78.2	1.6	100.0	732
Woman did not work	na	na	na	na	na	na	3.5	8.6	86.4	1.5	100.0	5,224
Don't know	85.7	6.9	3.9	3.5	100.0	142	3.5	6.8	88.7	1.0	100.0	142
Total	81.7	8.7	8.5	1.2	100.0	4,330	5.1	10.7	83.1	1.1	100.0	10,214

na = Not Applicable
[1] Includes cases where a woman does not know whether she earned more or less than her husband.

16.2 OWNERSHIP OF ASSETS

Possession of assets such as land and houses may have a beneficial effect on households, especially in difficult financial situations. For women, owning property can strengthen their empowerment and protection in the event of separation or ending of their union. Table 16.4.1 shows the proportions of women age 15-49 who, either alone or with someone else, own a house and own land.

Only 14 percent of women age 15-49 own a house. In 12 percent of cases, there is common ownership while 2 percent of women are the sole owners. In contrast, nearly nine out of ten women (86 percent) do not own a house. The proportion of women who do not own a house is higher among young women age 15-19 (92 percent), and among women from the regions of Kaffrine (97 percent), Thiès (95 percent), Matam (94 percent), and Kédougou (92 percent).

In addition, with regard to land ownership, like home ownership, the results show that very few women own land (11 percent). In 6 percent of cases, this is joint ownership, and in 4 percent of cases women own land alone. However, as with ownership of houses, the vast majority of women (89 percent) do not own land (Figure 16.1).

Table 16.4.1 Ownership of assets: Women

Percent distribution of women age 15-49 by ownership of housing and land, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage who own a house:					Percentage who own land:					Number of women
	Alone	Jointly	Alone and jointly	Percentage who do not own a house	Total	Alone	Jointly	Alone and jointly	Percentage who do not own land	Total	
Age											
15-19	0.6	6.7	1.1	91.5	100.0	0.9	4.7	0.9	93.5	100.0	3,429
20-24	0.6	9.2	1.4	88.8	100.0	2.0	5.5	0.7	91.7	100.0	3,220
25-29	0.9	11.3	1.9	85.9	100.0	2.8	7.3	1.8	88.2	100.0	2,746
30-34	1.8	13.1	1.4	83.8	100.0	4.0	6.2	1.2	88.6	100.0	2,148
35-39	3.4	12.5	2.5	81.6	100.0	6.1	8.2	1.7	84.0	100.0	1,817
40-44	6.1	12.0	3.1	78.7	100.0	7.5	7.7	1.9	82.9	100.0	1,379
45-49	6.9	11.1	2.4	79.6	100.0	9.6	7.7	1.9	80.7	100.0	949
Residence											
Urban	2.0	11.1	2.0	84.9	100.0	2.8	5.6	1.0	90.6	100.0	7,738
Rural	2.0	9.5	1.6	86.9	100.0	4.4	7.1	1.6	86.9	100.0	7,950
Region											
Dakar	1.9	14.3	1.8	82.0	100.0	2.8	7.2	0.8	89.2	100.0	4,078
Ziguinchor	0.3	7.6	4.4	87.8	100.0	1.4	5.0	2.7	90.9	100.0	581
Diourbel	1.2	12.1	0.7	85.9	100.0	1.3	8.1	0.3	90.3	100.0	1,851
Saint-Louis	2.4	8.0	2.6	87.0	100.0	4.6	6.1	2.1	87.2	100.0	1,034
Tambacounda	3.1	1.4	9.9	85.6	100.0	9.0	1.1	9.3	80.7	100.0	725
Kaolack	5.7	16.7	1.6	76.0	100.0	6.7	12.6	1.0	79.7	100.0	1,172
Thies	1.8	2.6	0.5	95.2	100.0	1.8	1.3	0.4	96.4	100.0	2,030
Louga	1.6	10.6	0.4	87.4	100.0	6.8	6.4	0.8	86.0	100.0	1,130
Fatick	1.5	6.6	2.3	89.6	100.0	2.1	2.8	1.7	93.4	100.0	717
Kolda	1.5	20.4	0.9	77.3	100.0	7.1	11.6	1.6	79.7	100.0	640
Matam	1.4	4.3	0.7	93.6	100.0	4.2	3.5	0.5	91.7	100.0	595
Kaffrine	0.8	1.9	0.2	97.0	100.0	0.5	1.7	0.1	97.7	100.0	572
Kedougou	4.9	2.9	0.2	92.0	100.0	13.7	4.7	0.9	80.7	100.0	115
Sedhiou	1.3	19.5	1.0	78.1	100.0	2.0	18.3	0.3	79.5	100.0	448
Education											
No education	2.1	9.9	1.8	86.1	100.0	4.0	7.0	1.5	87.5	100.0	9,079
Primary	1.5	11.7	1.7	85.1	100.0	2.6	5.6	1.3	90.5	100.0	3,414
Secondary or more	2.4	9.9	1.6	86.2	100.0	3.5	5.4	0.8	90.3	100.0	3,195
Wealth quintile e											
Lowest	2.6	9.8	2.2	85.4	100.0	6.4	8.4	2.5	82.7	100.0	2,585
Second	2.3	9.5	1.4	86.8	100.0	4.0	7.4	1.5	87.1	100.0	2,805
Middle	1.7	9.2	1.4	87.6	100.0	3.2	5.4	0.9	90.5	100.0	3,114
Fourth	1.2	11.4	2.0	85.4	100.0	1.9	5.6	0.9	91.7	100.0	3,494
Highest	2.4	11.1	1.8	84.7	100.0	3.4	5.8	1.0	89.8	100.0	3,689
Total	2.0	10.3	1.8	85.9	100.0	3.6	6.4	1.3	88.7	100.0	15,688

na = Not applicable

Figure 16.1
Ownership of assets by men and women age 15-49
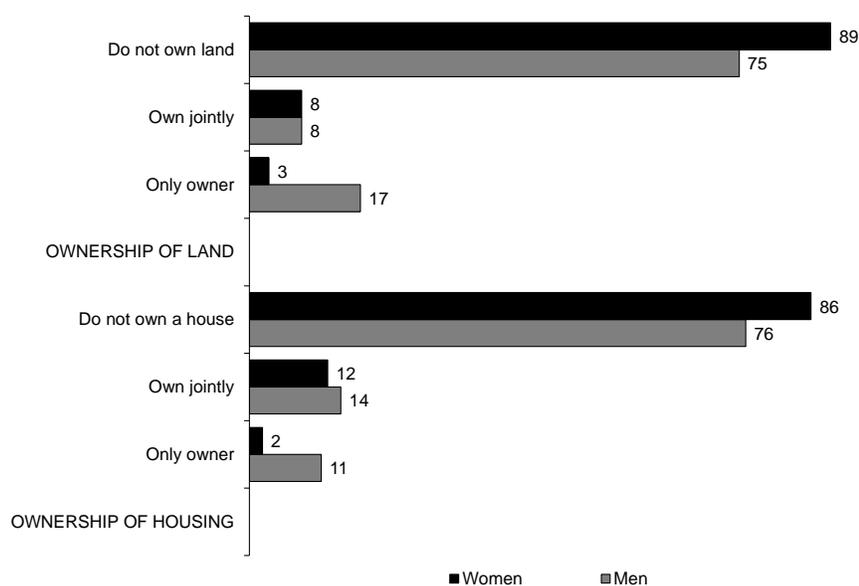
EDS-MICS 2010-11

Table 16.4.2 presents the same information for men age 15-49, where the situation is different from that of women. Less than one in four men (24 percent) own a house. In 11 percent of cases, the man is the sole owner, and in 14 percent of cases the house is common property. In contrast, over three-fourths of men (76 percent) do not own houses (Figure 16.1). This proportion is higher among young people age 15-19 (90 percent) and age 20-24 (89 percent), and higher in urban areas (85 percent), in the regions of Dakar (89 percent) and Thiès (87 percent), among men with a secondary level of education or higher (85 percent), and among men in the richest household wealth quintile (89 percent).

It should be noted that the EDS-MICS 2010-11 did not ask about the quality and type of houses owned by men and women.

Table 16.4.2 Ownership of assets: Men

Percent distribution of men 15-49 by ownership of housing and land, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage who own a house:					Percentage who own land:					Number of men
	Alone	Jointly	Alone and jointly	Percentage who do not own a house	Total	Alone	Jointly	Alone and jointly	Percentage who do not own land	Total	
Age											
15-19	0.9	7.6	1.8	89.7	100.0	3.4	3.0	1.8	91.8	100.0	1,170
20-24	2.4	6.6	1.7	89.3	100.0	7.3	3.7	1.3	87.6	100.0	897
25-29	6.5	11.6	2.0	79.8	100.0	16.2	6.5	2.2	75.0	100.0	701
30-34	11.5	16.7	2.3	69.5	100.0	22.0	8.0	1.6	68.4	100.0	545
35-39	19.7	19.7	1.7	58.9	100.0	30.9	9.6	2.7	56.7	100.0	438
40-44	30.8	16.7	1.2	51.3	100.0	36.1	10.4	1.8	51.7	100.0	383
45-49	47.0	15.2	3.0	34.7	100.0	47.8	8.1	1.2	43.0	100.0	284
Residence											
Urban	5.9	7.8	1.2	85.1	100.0	10.8	3.8	1.1	84.3	100.0	2,467
Rural	17.1	16.5	2.8	63.7	100.0	24.7	8.7	2.7	64.0	100.0	1,951
Region											
Dakar	3.7	6.7	0.5	89.0	100.0	8.7	3.0	1.1	87.3	100.0	1,381
Ziguinchor	9.1	13.1	3.5	74.4	100.0	14.9	9.3	3.4	72.4	100.0	210
Diourbel	22.7	3.0	0.0	74.3	100.0	20.5	3.5	0.0	76.0	100.0	354
Saint-Louis	18.9	22.8	0.5	57.8	100.0	16.3	21.3	0.5	61.9	100.0	266
Tambacounda	9.1	17.1	18.9	54.8	100.0	11.6	15.8	13.4	59.1	100.0	214
Kaolack	9.5	44.9	0.0	45.7	100.0	17.7	5.7	0.0	76.6	100.0	317
Thies	8.0	4.9	0.0	87.0	100.0	16.1	3.4	0.0	80.5	100.0	565
Louga	19.1	6.6	1.8	72.6	100.0	30.0	4.1	0.7	65.2	100.0	262
Fatick	11.3	10.2	0.3	78.2	100.0	23.1	8.0	0.0	68.9	100.0	204
Kolda	18.4	17.3	0.3	64.1	100.0	34.2	6.6	0.0	59.2	100.0	198
Matam	15.8	4.2	14.6	65.3	100.0	23.4	3.7	16.3	56.7	100.0	152
Kaffrine	16.8	10.6	0.0	72.6	100.0	23.2	1.8	0.4	74.6	100.0	141
Kedougou	21.7	21.1	0.7	56.5	100.0	40.4	12.8	0.7	46.0	100.0	34
Sedhiou	15.0	11.8	0.0	73.2	100.0	27.9	7.8	0.5	63.8	100.0	120
Education											
No education	19.6	14.8	2.3	63.3	100.0	24.8	8.4	2.5	64.4	100.0	1,632
Primary	8.3	10.0	1.9	79.9	100.0	14.1	5.6	1.4	78.9	100.0	1,261
Secondary or more	3.6	9.6	1.5	85.4	100.0	10.9	3.6	1.4	84.1	100.0	1,525
Wealth quintile											
Lowest	20.8	17.1	2.7	59.4	100.0	31.9	8.7	2.8	56.6	100.0	665
Second	17.0	16.1	3.7	63.2	100.0	22.4	7.6	3.0	66.9	100.0	688
Middle	10.3	16.7	2.0	71.0	100.0	15.0	9.1	1.8	74.1	100.0	908
Fourth	7.1	7.8	1.0	84.0	100.0	11.4	4.5	1.6	82.5	100.0	1,019
Highest	5.1	5.0	1.0	88.9	100.0	11.4	2.1	0.7	85.9	100.0	1,137
Total 15-49	10.8	11.6	1.9	75.6	100.0	16.9	5.9	1.8	75.3	100.0	4,417
50-59	57.8	10.0	2.9	29.2	100.0	50.1	6.8	0.7	42.4	100.0	512
Total 15-59	15.7	11.5	2.0	70.8	100.0	20.4	6.0	1.7	71.9	100.0	4,929

na = Not applicable

In addition, about 25 percent of men reported owning land, twice the percentage as among women. In 17 percent of cases, they are sole owners versus 8 percent who own land in common with someone else. Three-fourths of men (75 percent) do not own land.

Among men age 50-59, 71 percent own a house; 58 percent are the sole owners. Also, 58 percent of men age 50-59 own land, and 50 percent are the sole owners.

16.3   PARTICIPATION IN DECISION MAKING

To assess the involvement of women and men in household decisionmaking, questions were asked about who, between the respondent and another person, usually makes the decisions about various issues. The questions addressed to women in union focused on three topics: decisions about women's own health care, major household purchases, and visits to family or relatives of the woman. For men, the questions focused on two topics: decisions about women's health care and major household purchases (Table 16.5).

Table 16.5 Participation in decisionmaking

Percent distribution of currently married women and currently married men age 15-49 by person who usually makes decisions about various issues, EDS-MICS, Senegal 2010-11

Decision	Mainly wife	Wife and husband jointly	Mainly husband	Someone else	Other	Total	Number
WOMEN							
Own health care	12.7	17.9	66.2	2.8	0.4	100.0	10,347
Major household purchases	7.5	18.6	61.6	11.2	1.1	100.0	10,347
Visits to her family or relatives	14.2	26.7	52.9	5.5	0.8	100.0	10,347
MEN							
Own health care	0.8	7.6	87.6	3.9	0.1	100.0	1,609
Major household purchases	1.5	9.8	65.7	20.5	2.5	100.0	1,609

For women, the results show that decisions about the woman's health care and major household purchases are made primarily by the husband (respectively, 66 percent and 62 percent). In only 13 percent of cases, the woman mainly decides about her own health care, and in 8 percent of cases decides about major household purchases. With regard to family visits, decisions are made in 53 percent of cases solely by the husband, in 27 percent of cases by the woman and her husband together, and in 14 percent of cases primarily by the woman (Figure 16.2).

For men, decisions about their own health care and major household purchases are made mainly by themselves in, respectively, 88 percent and 66 percent of cases.

Figure 16.2
Participation in decision making by women

■Own health care ■Major household purchases ■Visits to her family or relatives
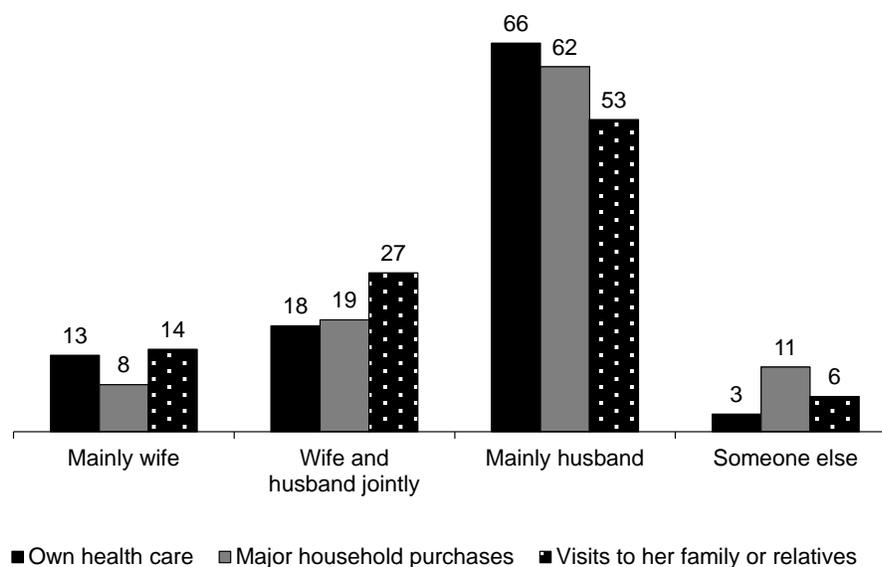
EDS-MICS 2010-11

Table 16.6.1 shows the results for women by selected background characteristics. Overall, less than one-fifth of women (18 percent) are involved in all three decisions, either alone or jointly. This proportion increases with age, from 11 percent age 15-19 to 29 percent age 45-49. By the number of living children, the proportion is from 16 percent for women with no children to 21 percent for those with at least five children. In addition, women in urban areas (23 percent) are more involved in making all three decisions than women in rural areas (14 percent).

By region, women in Dakar (29 percent) and Diourbel (24 percent) are the most likely to participate in decisionmaking on all three issues; in contrast, Thiès (6 percent), Kédougou (9 percent), and Tambacounda (9 percent) have the lowest proportions of women involved in all three decisions. According to education, the participation of women in making the three types of decisions increases from 16 percent for women with no education to 29 percent for women with a secondary education or more. In addition, the percentage participating in the three decisions increases by wealth quintile, from 13 percent in the first two quintiles to 27 percent in the wealthiest quintile.

Table 16.6.1 Women's participation in decisionmaking by background characteristics

Percentage of currently married women age 15-49 who usually make specific decisions either by themselves or jointly with their husband, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Specific decisions					
	Woman's own health care	Making major household purchases	Visits to her family or relatives	All three decisions	None of the three decisions	Number of women
Age						
15-19	19.5	14.5	29.0	10.5	65.3	832
20-24	23.4	19.3	36.6	12.8	57.4	1,932
25-29	28.0	23.6	36.7	15.4	54.9	2,128
30-34	29.9	25.4	40.5	16.2	50.5	1,825
35-39	37.1	30.9	47.9	21.5	43.1	1,614
40-44	38.9	34.5	46.4	24.3	44.5	1,192
45-49	42.0	39.8	52.2	29.3	40.8	825
Employment (past 12 months)						
Not employed	23.3	19.6	33.4	13.3	60.3	5,278
Employed for cash	40.5	35.3	51.2	24.0	38.6	4,330
Employed, not for cash	24.4	18.1	33.5	13.1	60.9	738
Number of living children						
0	26.9	22.1	37.9	15.8	55.8	1,253
1-2	28.6	24.0	40.1	16.1	52.4	3,489
3-4	31.2	25.6	41.9	17.6	50.4	2,776
5+	34.0	30.9	42.0	20.8	48.8	2,829
Residence						
Urban	38.4	34.9	49.5	23.4	40.6	4,256
Rural	25.1	19.9	34.8	13.8	58.7	6,091
Region						
Dakar	48.1	42.3	61.3	29.1	27.4	2,217
Ziguinchor	21.8	26.1	51.2	13.2	42.0	270
Diourbel	40.5	26.7	55.1	23.8	40.1	1,375
Saint-Louis	28.9	26.8	41.2	13.7	47.7	666
Tambacounda	15.1	18.5	28.8	9.3	66.2	577
Kaolack	26.5	28.7	27.6	16.4	60.2	815
Thies	12.6	8.9	16.1	6.4	79.8	1,301
Louga	30.0	20.5	34.0	15.3	55.9	806
Fatick	28.7	24.0	35.6	18.7	56.5	485
Kolda	20.2	21.2	38.8	10.0	55.9	510
Matam	30.6	29.0	40.2	16.6	50.7	446
Kaffrine	16.9	16.9	16.9	15.2	81.7	449
Kedougou	23.7	23.8	27.3	9.3	58.2	97
Sedhiou	31.0	20.5	50.7	14.8	43.1	332
Education						
No education	28.0	22.7	37.7	15.8	55.4	7,326
Primary	34.3	29.2	45.7	19.4	44.4	2,049
Secondary or more	42.5	44.9	53.9	29.0	34.5	972
Wealth quintile						
Lowest	23.4	20.6	33.0	13.3	60.6	2,170
Second	21.6	19.6	32.1	13.3	62.3	2,079
Middle	29.2	24.0	40.0	16.2	52.6	1,976
Fourth	36.2	28.5	45.4	19.7	44.2	2,168
Highest	43.3	38.4	54.6	26.7	35.6	1,954
Total	30.6	26.1	40.8	17.7	51.3	10,347

Table 16.6.2 presents the results for the two specific decisions concerning men's health care and major household purchases, by background characteristics. Nearly eight out of ten men (79 percent) are involved, alone or jointly, in the two decisions, and 4 percent are not involved in either of them.

Table 16.6.2 Men's participation in decision making by background characteristics

Percentage of currently married men age 15-49 who usually make specific decisions either alone or jointly with their wife, by background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Specific decisions				Number of men
	Man's own health care	Making major household purchases	Both decisions	Neither of the two decisions	
Age					
15-19	*	*	*	*	9
20-24	76.7	48.7	48.7	23.3	49
25-29	96.9	64.5	64.5	3.1	246
30-34	93.3	67.8	67.5	6.3	350
35-39	97.1	77.6	77.4	2.7	345
40-44	98.4	87.4	86.8	1.1	352
45-49	94.0	83.9	82.1	4.2	258
Employment (past 12 months)					
Not employed	*	*	*	*	19
Employed for cash	97.6	77.3	76.8	1.9	1,421
Employed, not for cash	78.9	61.7	61.1	20.5	169
Numebr of living children					
0	90.2	63.6	63.3	9.5	217
1-2	95.0	68.8	68.5	4.8	582
3-4	95.0	79.0	77.9	3.9	402
5+	98.6	88.0	87.5	1.0	408
Residence					
Urban	97.0	77.2	76.4	2.3	760
Rural	93.7	74.0	73.6	6.0	848
Region					
Dakar	97.6	78.9	77.8	1.3	445
Ziguinchor	96.4	85.0	85.0	3.6	52
Diourbel	96.4	85.2	85.2	3.6	126
Saint-Louis	97.9	80.3	80.3	2.1	96
Tambacounda	90.5	72.6	71.3	8.1	95
Kaolack	99.3	70.3	70.3	0.7	125
Thies	95.8	66.2	66.2	4.2	194
Louga	78.7	72.8	71.5	20.0	118
Fatick	90.5	59.3	59.3	9.5	76
Kolda	100.0	76.5	76.5	0.0	93
Matam	97.1	87.7	87.7	2.9	65
Kaffrine	95.0	61.3	60.3	4.1	63
Kedougou	98.4	90.5	88.9	0.0	17
Sedhiou	96.5	83.5	83.5	3.5	44
Education					
No education	94.3	76.4	76.0	5.4	877
Primary	97.8	70.2	70.2	2.2	427
Secondary or more	94.5	80.3	78.5	3.7	304
Wealth quintile					
Lowest	91.9	72.7	71.9	7.3	361
Second	94.2	77.8	77.8	5.8	282
Middle	96.2	74.2	73.9	3.6	294
Fourth	97.7	81.1	81.1	2.3	332
Highest	96.5	72.1	70.7	2.1	339
Total 15-49	95.2	75.5	75.0	4.2	1,609
50-59	97.8	94.1	93.6	1.7	479
Total 15-59	95.8	79.8	79.2	3.6	2,087

* Based on less than 25 unweighted cases

Compared with women, men have much greater participation in these decisions. The proportion of men who participate in the decisions on major purchases is 80 percent, versus 26 percent for women. The level of men's participation changes with the number of living children, from 64 percent for men with no children to 88 percent for men with at least five children. As among women, men's participation in this type of decision is more common in urban areas. It is also more common among men age 40-44, men employed for cash, and men with secondary education or more.

Regarding the participation of men in decision making about their own health care, it is much more significant (95 percent) compared with women's participation in their own health care.

16.4 OPINIONS ON DOMESTIC VIOLENCE

To assess the degree of acceptance of domestic violence, men and women were asked if they thought it was justified, for various reasons given by the interviewer, for a man to beat his wife. These reasons, five in number, are the following: burning the food, arguing with him, going out without telling him, neglecting the children, and refusing to have sexual intercourse with him.

Table 16.7.1 presents the results for all women age 15-49.

Table 16.7.1 Attitude toward wife beating: Women

Percentage of all women age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, EDS-MICS, Senegal 20101-11

Background characteristic	Husband is justified in hitting or beating his wife if she:					Percentage who agree with at least one specified reason	Number of women
	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him		
Age							
15-19	25.0	47.0	39.1	40.5	41.4	61.0	3,429
20-24	23.9	43.1	39.3	39.8	45.2	59.7	3,220
25-29	23.2	42.6	36.9	38.2	46.2	58.6	2,746
30-34	23.9	43.2	40.2	41.1	47.1	59.5	2,148
35-39	25.0	43.7	41.9	38.9	46.7	58.5	1,817
40-44	25.0	46.8	42.7	42.1	51.5	62.1	1,379
45-49	27.1	46.5	44.8	41.9	52.5	61.9	949
Employment (past 12 months)							
Not employed	24.4	45.3	40.1	40.3	45.5	59.9	8,393
Employed for cash	23.2	41.1	37.5	37.5	45.1	57.8	6,135
Employed, not for cash	31.4	56.6	51.4	52.1	54.1	72.0	1,160
Number of living children							
0	20.7	39.4	32.5	34.4	36.5	54.2	5,595
1-2	23.8	43.3	39.2	39.8	46.9	60.0	4,187
3-4	27.4	48.4	44.9	43.4	51.6	63.2	2,937
5+	29.5	52.0	49.8	47.8	56.8	67.5	2,969
Marital status							
Never married	19.4	36.9	30.0	33.5	33.2	53.0	4,585
Married or living together	27.0	48.5	44.9	43.5	52.1	63.4	10,347
Divorced/separated/widowed	19.8	35.1	31.3	33.0	39.1	54.6	757
Residence							
Urban	14.9	31.7	26.6	28.3	32.3	49.2	7,738
Rural	33.7	56.9	52.8	51.6	59.3	70.5	7,950
Region							
Dakar	12.0	26.5	22.8	24.0	28.1	46.0	4,078
Ziguinchor	23.2	34.0	32.5	40.2	34.2	58.1	581
Diourbel	34.4	51.1	48.3	46.1	57.4	63.7	1,851
Saint-Louis	24.2	42.4	35.9	36.7	42.8	58.7	1,034
Tambacounda	46.5	69.6	67.1	63.6	66.7	79.3	725
Kaolack	33.5	55.2	46.8	52.5	57.5	68.1	1,172
Thies	15.5	35.8	27.9	25.7	36.7	45.3	2,030
Louga	22.8	48.9	40.1	36.3	52.0	66.2	1,130
Fatick	29.1	60.4	51.3	54.8	58.4	72.1	717
Kolda	36.7	61.0	59.5	61.8	61.6	79.6	640
Matam	29.8	59.2	54.2	53.0	55.7	72.7	595
Kaffrine	37.2	67.8	69.5	69.3	74.9	79.6	572
Kedougou	44.9	61.0	65.7	71.2	64.0	84.7	115
Sedhiou	30.6	56.1	61.4	55.6	51.2	79.9	448
Education							
No education	30.5	53.6	48.9	47.6	57.2	68.0	9,079
Primary	19.1	37.5	33.4	33.1	37.0	55.1	3,414
Secondary or more	12.8	26.2	21.2	26.3	23.7	42.5	3,195
Wealth quintile							
Lowest	41.0	65.9	64.0	61.4	68.1	80.1	2,585
Second	31.8	56.9	51.8	51.5	58.2	69.9	2,805
Middle	27.2	48.1	43.4	43.1	49.0	62.7	3,114
Fourth	17.3	35.0	29.2	30.1	37.8	53.6	3,494
Highest	11.7	26.0	21.1	23.3	26.4	42.1	3,689
Total	24.4	44.5	39.9	40.1	46.0	60.0	15,688

These results show that six out of every ten women think a man is justified in hitting or beating his wife for at least one of the reasons given. The reason cited most often is a wife's refusal to have sexual intercourse with her husband, mentioned by 46 percent of women. In addition, 45 percent of women approve of this violence when a woman argues with her husband. Approximately four in ten women justify physical violence against the woman if she neglects the children or goes out without telling her husband. Finally, 24 percent of women believe that burning the food is justification for being beaten.

The results according to background characteristics show that, overall, the proportion of women for whom at least one of the reasons cited is sufficient to justify a husband beating his wife decreases as women's level of education increases (from 68 percent among women with no education to 43 percent among those with a secondary or higher level). It also decreases with increases in household wealth (from 80 percent in the poorest quintile to 42 percent in the richest). In addition, approval of domestic violence under at least one of the circumstances is lower in urban than rural areas (49 percent versus 71 percent), and lower in the regions of Thiès (45 percent) and Dakar (46 percent) than in the other regions (ranging from 58 percent to 85 percent).

Table 16.7.2 shows the same results among men age 15-49. Contrary to expectations, men are much less likely than women (25 percent versus 60 percent) to think that it is justified, for at least one of the reasons cited, for a man to beat his wife. The reasons men cite justifying violence differ from those that women cite. Men cite, in order of magnitude, the wife arguing with him (17 percent), neglecting the children (14 percent), going out without telling him (13 percent), refusing to have sexual intercourse with him (13 percent), and burning the food (8 percent).

The same differences according to background characteristics found among women are also found among men.

Table 16.7.2 Attitude toward wife beating: Men

Percentage of all men age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, EDS-MICS, Senegal 20101-11

Background characteristic	Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sexual intercourse with him	Percentage who agree with at least one specified reason	Number of men
Age							
15-19	12.9	21.4	16.7	17.3	17.7	31.1	1,170
20-24	11.1	20.2	15.5	19.4	15.4	29.6	897
25-29	4.6	12.9	9.3	12.4	8.6	19.5	701
30-34	5.1	12.6	8.4	12.1	9.6	18.9	545
35-39	4.0	13.2	9.7	8.2	9.7	20.0	438
40-44	6.7	15.6	10.4	9.6	8.8	21.8	383
45-49	4.8	12.8	10.9	9.1	6.3	18.5	284
Employment (past 12 months)							
Not employed	10.6	16.6	11.3	12.4	11.8	23.2	624
Employed for cash	6.1	14.4	10.2	12.5	10.2	21.9	2,715
Employed, not for cash	12.7	23.2	19.5	19.6	18.7	32.8	1,078
Number of living children							
0	10.1	17.6	13.6	15.9	13.9	26.7	2,915
1-2	4.4	13.7	9.6	11.5	9.8	20.5	672
3-4	5.1	15.1	8.8	9.0	8.4	19.1	421
5+	5.5	18.0	14.7	11.8	11.4	23.4	409
Marital status							
Never married	10.1	17.4	13.4	15.8	13.9	26.5	2,738
Married or living together	5.6	16.1	11.5	11.8	10.6	22.2	1,609
Divorced/separated/widowed	2.6	10.0	7.5	7.9	4.0	12.2	71
Residence							
Urban	6.2	13.8	9.5	12.4	9.0	20.9	2,467
Rural	11.0	20.7	16.7	16.5	17.0	29.6	1,951
Region							
Dakar	6.6	13.7	9.3	14.0	10.1	21.2	1,381
Ziguinchor	5.7	8.8	6.1	7.2	6.4	13.3	210
Diourbel	5.4	7.5	6.6	6.5	8.6	15.6	354
Saint-Louis	12.6	24.0	16.2	17.0	15.4	30.0	266
Tambacounda	18.2	42.3	27.0	28.8	22.5	46.8	214
Kaolack	9.5	21.5	15.4	11.4	17.7	24.2	317
Thies	3.8	12.0	8.5	12.0	8.1	20.2	565
Louga	7.3	14.3	14.0	12.3	10.0	24.1	262
Fatick	5.4	9.0	7.4	7.8	8.7	15.2	204
Kolda	12.3	21.0	20.7	19.7	21.3	33.0	198
Matam	11.4	23.3	14.0	12.5	11.7	35.1	152
Kaffrine	16.0	34.8	29.9	29.4	28.2	51.4	141
Kedougou	9.6	30.0	31.3	28.9	13.1	45.6	34
Sedhiou	19.5	22.9	23.9	24.1	25.2	38.6	120
Education							
No education	10.1	20.3	15.4	15.2	16.4	28.7	1,632
Primary	6.5	16.3	11.6	14.8	11.0	22.9	1,261
Secondary or more	7.9	13.5	10.6	12.6	9.6	22.0	1,525
Wealth quintile							
Lowest	14.9	30.5	25.1	23.3	24.8	39.3	665
Second	9.7	18.9	15.4	16.1	15.0	29.0	688
Middle	7.8	15.1	10.0	11.5	11.0	22.9	908
Fourth	7.4	16.7	12.4	14.4	11.7	23.9	1,019
Highest	4.8	9.1	6.1	9.8	5.7	15.8	1,137
Total 15-49	8.3	16.8	12.6	14.2	12.5	24.7	4,417
50-59	4.2	10.4	8.4	8.9	7.2	17.4	512
Total 15-59	7.9	16.2	12.2	13.7	12.0	24.0	4,929

16.5 INDICATORS OF WOMEN'S EMPOWERMENT

Table 16.8 shows the intersection of two indicators measuring women's empowerment, namely the number of decisions in which a woman participates and the number of reasons she cites that justify a husband beating his wife. The first indicator reflects the level of decisionmaking power exercised by a woman in her immediate environment and in areas that affect her own life. The higher the number of decisions in which the woman is involved (between 0 and 3), the greater her level of autonomy is estimated to be. The second indicator measures the degee to which women agree with certain reasons that justify a man beating his wife. The values of this indicator are between 0 and 5. Thus, the higher the score, the more a woman accepts certain forms of violence and consequently is less aware of her rights.

The results show the more that women are involved in decisionmaking, the less they think that domestic violence is justified. The percentage of women who do not agree with any of the reasons justifying wife beating increases steadily with the number of decisions in which she participates. One-third (33 percent) of women who do not participate in any decisionmaking think that a husband is not justified in beating his wife for any reason. When the woman participates in one or two decisions, the proportion rises slightly, to 36 percent. Among women who participate in all three decisions, about half (49 percent) say that a husband is never justified in hitting or beating his wife for any of the reasons.

In addition, the percentage of women who participate in all three decisions decreases with the number of reasons cited for justifying wife beating. Among women who do not agree with any reason, 24 percent are involved in all three decisions. Among woman who agree with three or four reasons, 14 percent participate in all three decisions, and among women who agree with all five reasons that could justify wife beating, only 12 percent participate in all three decisions.

Table 16.8 Indicators of women's empowerment

Percentage of currently married women age 15-49 who participate in all decisionmaking and the percentage who disagree with all of the reasons justifying wife-beating, by value on each of the indicators of women's empowerment, EDS-MICS, Senegal 2010-11

Empowerment indicator	Percentage who participate in all decision making	Percentage who disagree with all the reasons justifying wife beating	Number of women
Number of decisions in which women participate[1]			
0	na	32.9	5,304
1-2	na	35.5	3,208
3	na	49.1	1,835
Number of reasons for which wife beating is justified[2]			
0	23.8	na	3,784
1-2	17.3	na	1,966
3-4	13.6	na	2,551
5	12.0	na	2,046

na = Not applicable
[1] See Table 15.6.1 for the list of decisions.
[2] See Table 15.7.1 for the list of reasons.

Women's empowerment and use of contraception

Table 16.9 shows the distribution of women age 15-49 by use of contraception, according to two indicators of women's empowerment—the number of decisions in which a woman participates and the number of reasons that justify a man beating his wife. Although the trends are not very regular, the proportion of women using a contraceptive method increases with the number of decisions in which women participate. Use of a modern method of contraception varies from 10 percent among women who do not participate in any of the three decisions to 14 percent among those who participate in either one or two decisions, or in all three. Thus it appears likely that involvement in decisionmaking affects a woman's ability to control her fertility and to use modern contraceptive methods.

The results according to the second indicator show that use of modern contraception declines from 16 percent among women who say that a man is not justified in beating his wife for any reason to 7 percent among women who say that a man is justified in beating his wife for all five reasons asked about in the survey.

Table 16.9 Current use of contraception by women's empowerment

Percent distribution of currently married women age 15-49 by current contraceptive method, according to selected indicators of women's status, EDS-MICS, Senegal 2010-11

Empowerment indicator	Any method	Any modern method[1]	Modern methods			Any traditional method	Not currently using	Total	Number of women
			Female sterilization	Temporary modern female methods[1]	Male condom				
Number of decisions in which women participate[2]									
0	10.8	10.1	0.2	9.5	0.4	0.8	89.1	100.0	5,304
1-2	15.5	14.1	0.3	12.8	1.0	1.4	84.4	100.0	3,208
3	15.3	14.3	0.2	13.3	0.7	1.1	84.7	100.0	1,835
Number of reasons for which wife beating is justified[3]									
0	16.7	15.8	0.2	14.5	1.0	1.0	83.3	100.0	3,784
1-2	15.3	13.7	0.1	13.0	0.6	1.6	84.7	100.0	1,966
3-4	10.6	9.5	0.1	9.0	0.5	1.1	89.3	99.9	2,551
5	7.3	6.7	0.5	6.1	0.1	0.6	92.6	100.0	2,046
Total	13.1	12.1	0.2	11.2	0.6	1.0	86.9	100.0	10,347

Note: If more than one method is used, only the most effective method is considered in this tabulation.
[1] Pill, IUD, injectables, implants, female condom, diaphragm, foam/jelly, and lactational amenorrhea method.
[2] See Table 16.6.1 for the list of decisions.
[3] See Table 16.7.1 for the list of reasons.

Women's empowerment: ideal number of children and unmet need for family planning

Table 16.10 presents the ideal number of children cited by women age 15-49 and the percentage of women with unmet need for family planning, by indicators of women's empowerment. The table shows some association between indicators of women's decisionmaking power and unmet need for family planning. The proportion of women with unmet need increases from 28 percent for women who participate in no decisions to 31 percent for participation in one or two decisions, and to 30 percent for all three decisions.

The ideal number of children desired by women varies slightly with women's opinions on the reasons that justify physical violence from a husband. Women who justify physical violence by a husband for all five reasons asked about have a higher average ideal number of children than women who accept none of the reasons, or accept several but not all of them (Table 16.10).

Table 16.10 Women's empowerment and ideal number of children and unmet need for family planning

Mean ideal number of children for women age 15-49 and the percentage of currently married women age 15-49 with an unmet need for family planning, by indicators of women's empowerment, EDS-MICS, Senegal 2010-11

| Empowerment indicator | Mean ideal number of children[1] | Number of women | Percentage of currently married women with an unmet need for family planning[2] | | | Number of currently married women |
			For spacing	For limiting	Total	
Number of decisions in which women participate[3]						
0	5.8	4,035	22.0	6.2	28.2	5,304
1-2	5.3	2,481	23.4	7.7	31.1	3,208
3	5.4	1,438	18.7	11.6	30.3	1,835
Number of reasons for which wife beating is justified[4]						
0	4.8	5,003	22.0	7.9	29.9	3,784
1-2	5.0	2,661	20.8	6.2	27.0	1,966
3-4	5.6	2,871	23.6	7.5	31.1	2,551
5	6.1	1,982	20.1	8.7	28.8	2,046
Total	5.2	12,517	21.8	7.6	29.4	10,347

[1] Mean excludes respondents who gave non-numeric responses.
[2] See Table 7.12.1 for the definition of unmet need for family planning.
[3] Restricted to currently married women. See Table 16.6.1 for the list of decisions.
[4] See Table 16.7.1 for the list of reasons.

Women's empowerment and maternal health care

Table 16.11 shows the percentage of women age 15-49 who gave birth in the five years preceding the survey who received antenatal and postnatal care from health personnel and whose birth was attended by health personnel for the most recent birth, according to indicators of women's empowerment.

Table 16.11 Reproductive health care by women's empowerment

Percentage of women age 15-49 with a live birth in the five years preceding the survey who received antenatal care. delivery assistance, and postnatal care from health personnel for the most recent birth, by indicators of women's empowerment, EDS-MICS, Senegal 2010-11

Empowerment indicator	Percentage receiving antenatal care from a skilled provider[1]	Percentage receiving delivery care from a skilled provider[1]	Percentage of women with a postnatal checkup in the first two days after birth[2]	Number of women with a child born in the past five years
Number of decisions in which women participate[3]				
0	92.4	61.7	61.1	3,780
1-2	94.3	68.9	64.7	2,212
3	94.2	74.9	66.8	1,148
Number of reasons for which wife beating is justified[4]				
0	96.7	79.8	74.5	2,792
1-2	95.4	71.0	65.6	1,509
3-4	91.3	57.9	56.6	1,889
5	87.7	50.2	51.0	1,489
Total	93.3	67.0	63.8	7,678

[1] 'Skilled provider' includes doctor, Nurse, midwife, or auxiliary nurse/midwife.
[2] Includes women who received a postnatal checkup from a doctor, nurse, midwife, community health worker, or traditional birth attendant (TBA) in the first two days after the birth. Includes women who gave birth in a health facility and those who did not give birth in a health facility.
[3] Restricted to currently married women. See Table 16.6.1 for the list of decisions.
[4] See Table 16.7.1 for the list of reasons.

It is clear from this table that a woman's opinion on the reasons justifying violence by her husband is associated with her reproductive health care. The prevalence of reproductive health care decreases significantly with the number of reasons women cite that justify domestic violence. Furthermore, use of reproductive health care is slightly lower among women who do not participate in major household decisions. In sum, the empowerment of women appears to have a significant positive impact on reproductive health care.

FEMALE CIRCUMCISION

17

Marie DIOP, Babacar MANÉ, Fatou Bintou Niang CAMARA, and Rémy PIGOIS

Female circumcision, or female genital mutilation (FGM), is a cultural practice that has its roots in Egyptian traditions[1] and cultural justification in initiation rites, including the transition from childhood to adolescence and adulthood for girls in some communities.

Female circumcision actually covers four types of mutilation: *Type I*: Partial or total removal of the clitoris and/or the prepuce (clitoridectomy); *Type II*: Partial or total removal of the clitoris and the labia minora, with or without mutilation of labia majora; *Type III*: Constriction of the vaginal orifice with creation of a covering seal by cutting and sewing together the labia minora and/or labia majora, with or without mutilation of the clitoris (infibulation); *Type IV*: All other harmful procedures practiced on the female genitalia for non-therapeutic purposes, such as puncturing, piercing, incising, scarring, and cauterization.[2]

In Senegal, numerous measures have been taken to strengthen the campaigns organized for the total abandonment of FGM. A law prohibiting FGM was enacted in 1999. A new action plan was adopted in 2010 (National Action Plan to Accelerate the Discontinuance of FGM 2010-2015). Drawing lessons from the evaluation of the implementation of the Action Plan 2000-2005 and taking into account the data collected for the first time as part of the DHS IV, the actions of the government and its partners have been reoriented around a number of guiding principles: a holistic and multisectoral approach based on human rights, community empowerment, and cross-border activities; advocacy at the national and international level; efficient systems for monitoring and evaluation; and improvement in coordination.

A study on the status of implementation of the law published in 2011 shows that its implementation remains limited; the law established the fear of criminal sanctions and, therefore, the establishment of the practice underground, even its medicalization. Assessing the extent of the practice in the country is thus of the highest necessity, and will measure the road yet to be traveled to achieve total abandonment of this social practice, and inform relevant strategies.

The results presented in this chapter provide information on the prevalence of FGM in Senegal and the types of FGM practiced, women's age at the time of circumcision, and the type of person who performed the circumcision. The EDS-MICS 2010-11 also collected information on the circumcision of girls under age 10 to determine the extent to which this practice is perpetuated from one generation of women to another. The views of women about the practice and the relationship that they establish between the practice and religion are also presented.

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[1] According to the Senegalese historian and anthropologist, Cheick Anta Diop (1923-1986), female circumcision originally came from the Egypt of the Pharoahs and was then extended to black Africa. Egyptian mummies were found to have been circumcised in a particular manner, which led to the usage of the term "Pharaonic circumcision" to refer to infibulation. According to some Egyptologists, female circumcision had a basis in fertility ritual in ancient Egypt.

[2] Study from the UNICEF Center for Research on Innocenti published in 2010: The dynamics of social change: towards the abandonment of FGC/FGM in five African countries.

17.1 KNOWLEDGE AND PRACTICE OF FEMALE CIRCUMCISION

Knowledge of circumcision

Taking into account the difficulties of obtaining reliable information during the survey about the type of circumcision undergone, women were asked if they underwent a simple cut or if pieces of flesh had been removed in the genital area. This question is used to differentiate practices that make a "simple" cut from those involving removal of a more or less important part of the external genitalia. In addition, in order to try and identify women who underwent the most radical form of circumcision, namely infibulation, respondents were asked the following question: "At the time of your circumcision, was your vaginal area closed by stitching?"

Table 17.1 shows that almost all women (91 percent) know about female circumcision. Regardless of background characteristics, the proportion of women who reported knowledge of female circumcision is high.

Practice of female circumcision

Table 17.2 shows the proportion of women circumcised. In the EDS-MICS 2010-11, 26 percent of women age 15-49 reported being circumcised compared with 28 percent in 2005. With regard to the type of circumcision performed, the results show that in about half of the cases (53 percent) parts of flesh were removed; in 10 percent of cases a cut was made without removing flesh, and in 14 percent of cases the genital area was sewn closed. It should be noted that one-quarter of women (24 percent) were not able to give an answer or a specific response, probably because they were too young at the time of circumcision.

Data according to women's age do not show significant changes in prevalence of FGM from older generations to the most recent; the proportion goes from 29 percent of women age 45-49 to 24 percent of women age 15-19. There are significant differences in prevalence depending on the region and ethnicity, however (Figure 17.1). The practice of circumcision is mainly confined to certain regions—Kédougou (92 percent), Matam (87 percent), Sédhiou (86 percent), and Tambacounda and Kolda (85 percent each); the ethnic groups where this practice is deeply rooted in the social norms are concentrated in these regions, particularly in initiation rites. In contrast, in the Dakar region FGM prevalence is 20 percent, while the region of Diourbel has the lowest proportion of circumcised women, at 0.5 percent.

Table 17.1 Knowledge of female circumcision

Percentage of men and women who have heard of female circumcision, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage who have heard of female circumcision	Number of women
Age		
15-19	85.4	3,429
20-24	91.1	3,220
25-29	92.6	2,746
30-34	92.4	2,148
35-39	94.9	1,817
40-44	94.1	1,379
45-49	95.6	949
Residence		
Urban	95.1	7,738
Rural	87.6	7,950
Region		
Dakar	96.2	4,078
Ziguinchor	90.4	581
Diourbel	91.0	1,851
Saint-Louis	89.9	1,034
Tambacounda	96.9	725
Kaolack	76.6	1,172
Thies	92.7	2,030
Louga	83.9	1,130
Fatick	76.0	717
Kolda	96.7	640
Matam	97.3	595
Kaffrine	93.8	572
Kedougou	98.3	115
Sedhiou	96.7	448
Education		
No education	90.3	9,079
Primary	91.8	3,414
Secondary or more	93.5	3,195
Religion		
Muslim	91.6	14,967
Christian	85.5	656
Other/no religion	78.8	65
Ethnic group		
Wolof	90.3	6,066
Poular	94.4	4,164
Serer	85.2	2,353
Mandingue	98.0	652
Diola	90.3	634
Soninke	98.0	362
Other/non-Senegalese	92.2	1,458
Wealth quintile		
Lowest	87.6	2,585
Second	85.2	2,805
Middle	90.7	3,114
Fourth	94.8	3,494
Highest	95.7	3,689
Total 15-49	91.3	15,688

Table 17.2 Prevalence of female circumcision

Percentage of women circumcised, and the percent distribution of circumcised women by type of circumcision, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage of women circumcised	Number of women	Type of circumcision				Total	Number of women circumcised
			Nicked, no flesh removed	Cut, flesh removed	Genital area sewn closed	DK/Missing		
Age								
15-19	24.0	3,429	10.4	49.4	10.9	29.3	100.0	822
20-24	24.3	3,220	8.9	53.9	12.4	24.8	100.0	784
25-29	26.1	2,746	10.4	53.6	14.9	21.1	100.0	716
30-34	24.9	2,148	9.4	51.8	13.5	25.3	100.0	535
35-39	29.0	1,817	11.0	54.9	11.7	22.4	100.0	526
40-44	26.9	1,379	9.7	54.5	20.8	15.1	100.0	371
45-49	28.5	949	9.2	52.3	18.9	19.5	100.0	270
Residence								
Urban	23.4	7,738	10.4	50.2	13.8	25.5	100.0	1,813
Rural	27.8	7,950	9.4	54.8	13.8	21.9	100.0	2,211
Region								
Dakar	20.1	4,078	9.0	41.6	16.0	33.3	100.0	822
Ziguinchor	55.5	581	4.2	82.0	4.7	9.1	100.0	323
Diourbel	0.5	1,851	*	*	*	*	100.0	9
Saint-Louis	39.5	1,034	6.5	49.6	13.3	30.6	100.0	409
Tambacounda	85.3	725	11.4	50.4	18.2	19.9	100.0	618
Kaolack	5.6	1,172	10.8	50.3	16.7	22.2	100.0	65
Thies	3.5	2,030	(5.5)	(25.7)	(34.5)	(34.3)	100.0	72
Louga	3.8	1,130	21.4	38.3	22.3	18.0	100.0	42
Fatick	7.3	717	10.5	55.5	17.0	16.9	100.0	52
Kolda	84.8	640	14.7	61.5	6.8	17.0	100.0	543
Matam	87.2	595	11.1	35.2	19.3	34.4	100.0	519
Kaffrine	10.3	572	2.9	82.9	5.9	8.2	100.0	59
Kedougou	92.0	115	2.5	50.9	15.5	31.2	100.0	106
Sedhiou	86.3	448	11.7	72.6	7.2	8.5	100.0	387
Religion								
Muslim	26.5	14,967	9.9	52.7	13.9	23.5	100.0	3,969
Christian	6.5	656	6.8	50.1	8.8	34.4	100.0	43
Other/no religion	19.3	65	(6.0)	(53.6)	(18.8)	(21.6)	100.0	13
Ethnic group								
Wolof	0.9	6,066	11.3	48.8	13.9	26.1	100.0	57
Poular	54.5	4,164	9.3	49.7	14.6	26.4	100.0	2,270
Serer	2.2	2,353	7.3	50.4	14.9	27.4	100.0	53
Mandingue	81.9	652	12.1	57.0	9.8	21.2	100.0	534
Diola	51.5	634	8.8	69.5	6.6	15.1	100.0	326
Soninke	64.9	362	14.3	49.3	17.4	18.9	100.0	235
Other/non-Senegalese	37.7	1,458	8.9	53.3	17.2	20.6	100.0	549
Total	25.7	15,688	9.9	52.7	13.8	23.6	100.0	4,025

( ) Based on 25-49 unweighted cases.
* Based on less than 25 unweighted cases.

The prevalence of circumcision is strongly influenced by ethnicity. The prevalence is highest among the Mandingue (82 percent), followed by the Soninké (65 percent), the Poular (55 percent), and the Diola (52 percent). The practice is uncommon among the Serer (2 percent) and Wolof (0.9 percent) (Figure 17.1).

Figure 17.1
Prevalence of female circumcision by ethnic group
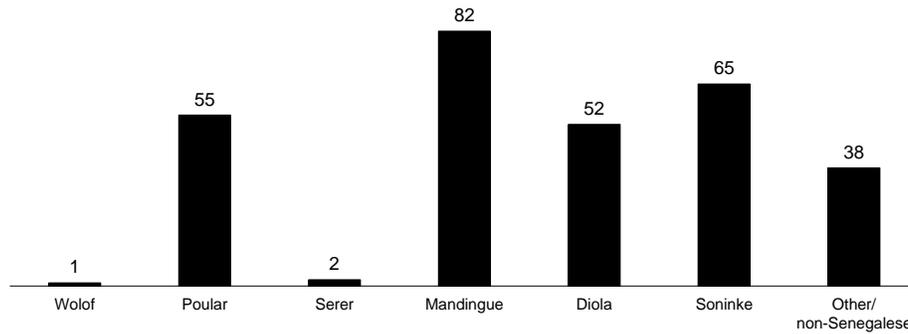
EDS-MICS 2010-11

17.2 WOMEN'S AGE AT CIRCUMCISION

Table 17.3 presents data on women's age at the time of circumcision. In most cases circumcision is practiced at very young ages. Half of women (51 percent) said they were circumcised in infancy, without being able to give a precise age; in 2005, at the time of the previous survey, this proportion was 60 percent. In addition, 11 percent of women reported having been circumcised at age 0-1 year, and 10 percent at age 2-4. Overall, 71 percent of women were circumcised before age 5. For one in five women (21 percent), the age at circumcision is later: 14 percent of women were circumcised at age 5-9, 6 percent at age 10-14, and 0.7 percent at age 15 or older. Eight percent of women did not know the age at which they were circumcised.

Overall, in almost every region most women were circumcised at age 0-9, with the exception of the Fatick region, where FGM is practiced at a later age: 24 percent at age 10-14 and 11 percent at age 15 or older. In the regions with high prevalence of FGM, more than half of the women were circumcised in infancy: 67 percent in Matam, 61 percent in Kédougou, 59 percent in Kaolack, 56 percent in Sédhiou, and 54 percent in Kolda. In the ethnic groups where circumcision is a common practice, such as the Mandingue and Poular, a high proportion of women were circumcised in infancy (respectively, 56 percent and 54 percent), and in almost all ethnic groups, circumcision took place at age 0-9.

Table 17.3 Age at circumcision

Percent distribution of women who have been circumcised by age at circumcision, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Age at circumcision in years							Total	Number of women circumcised
	During infancy	0-1	2-4	5-9	10-14	15+	DK/ Missing		
Age									
15-19	51.9	12.1	8.4	13.7	6.3	0.3	7.3	100.0	822
20-24	52.7	9.7	10.4	13.4	4.4	1.1	8.3	100.0	784
25-29	51.5	11.1	11.4	12.4	5.4	0.5	7.7	100.0	716
30-34	51.6	8.5	8.6	15.7	6.4	1.1	8.2	100.0	535
35-39	47.5	12.8	8.4	13.5	10.0	0.2	7.6	100.0	526
40-44	50.4	8.5	9.5	14.3	7.6	1.2	8.5	100.0	371
45-49	48.0	12.5	9.0	14.4	1.6	0.1	14.4	100.0	270
Residence									
Urban	47.7	8.6	9.5	17.6	7.7	0.6	8.5	100.0	1,813
Rural	53.7	12.5	9.5	10.6	4.7	0.7	8.2	100.0	2,211
Region									
Dakar	44.2	8.6	10.5	19.2	9.2	0.5	7.8	100.0	822
Ziguinchor	53.0	2.2	9.5	22.0	10.5	1.4	1.4	100.0	323
Diourbel	*	*	*	*	*	*	*	100.0	9
Saint-Louis	49.0	7.9	11.4	13.2	2.3	1.0	15.1	100.0	409
Tambacounda	45.3	30.2	4.3	9.1	3.6	0.2	7.4	100.0	618
Kaolack	59.4	3.5	9.7	12.5	8.3	0.0	6.5	100.0	65
Thies	(31.2)	(3.2)	(17.9)	(23.7)	(12.4)	(3.3)	(8.4)	100.0	72
Louga	53.9	9.4	15.3	5.8	4.4	0.0	11.1	100.0	42
Fatick	23.9	7.7	13.4	11.3	24.1	11.1	8.5	100.0	52
Kolda	54.3	10.8	11.5	13.6	2.4	0.4	7.0	100.0	543
Matam	66.6	7.0	7.4	2.4	2.5	0.2	14.0	100.0	519
Kaffrine	33.7	8.8	11.2	9.6	5.2	0.0	31.6	100.0	59
Kedougou	60.8	0.7	5.4	25.1	6.7	0.4	1.0	100.0	106
Sedhiou	55.5	5.5	11.1	15.8	9.5	0.2	2.4	100.0	387
Education									
No education	53.5	12.0	9.0	11.3	4.6	0.4	9.2	100.0	2,578
Primary	47.9	7.8	10.6	15.9	9.3	1.5	7.1	100.0	821
Secondary or more	44.7	9.4	10.1	21.0	7.8	0.5	6.5	100.0	625
Religion									
Muslim	50.9	10.8	9.6	13.7	5.9	0.7	8.4	100.0	3,969
Christian	56.7	2.0	2.6	20.1	14.0	1.5	3.2	100.0	43
Other/no religion	(50.1)	(17.6)	(11.7)	(8.4)	(12.2)	(0.0)	(0.0)	100.0	13
Ethnic group									
Wolof	46.1	3.2	8.1	10.2	16.1	3.1	13.1	100.0	57
Poular	53.5	13.3	9.4	10.7	3.1	0.3	9.8	100.0	2,270
Serer	26.3	12.9	6.5	12.3	23.4	9.5	9.0	100.0	53
Mandingue	55.8	7.1	9.9	16.9	7.0	0.7	2.6	100.0	534
Diola	35.6	3.0	14.0	26.2	16.2	2.6	2.4	100.0	326
Soninke	61.5	10.0	3.3	5.1	3.7	0.0	16.4	100.0	235
Other/non-Senegalese	43.2	9.6	10.0	20.3	9.5	0.2	7.2	100.0	549
Wealth quintile									
Lowest	52.9	14.3	9.6	12.0	4.0	0.1	7.1	100.0	1,101
Second	52.3	10.7	9.4	11.8	6.0	0.8	8.9	100.0	852
Middle	54.3	10.1	9.3	12.2	4.7	0.8	8.6	100.0	813
Fourth	51.3	7.1	7.2	16.0	9.0	0.9	8.5	100.0	715
Highest	39.2	9.5	12.8	19.7	8.5	1.1	9.2	100.0	543
Total	51.0	10.8	9.5	13.8	6.0	0.7	8.3	100.0	4,025

( ) Based on 25-49 unweighted cases.
* Based on less than 25 unweighted cases.

17.3 PERSON PERFORMING CIRCUMCISION

Table 17.4 shows that circumcision is primarily performed by traditional circumcisers (91 percent), compared with 96 percent in 2005. This high proportion shows that their role is vested by the community. Circumcisers enjoy social recognition through this function. The practice of circumcision by people with a recognized social status gives this practice a normative and social character. In 1 percent of cases, circumcision is performed by traditional birth attendants.

Table 17.4 Person performing circumcision

Percent distribution of women who have been circumcised by person performing the circumcision, according to type of circumcision, EDS-MICS, Senegal 2010-11

| Person performing circumcision | Type of circumcision | | | |
	Cut, flesh removed	Nicked, no flesh removed	Genital area sewn closed	Total
Traditional 'circumciser'	92.6	98.6	91.1	91.4
Traditional birth attendant	0.7	0.1	1.0	1.0
Other traditional	6.6	1.2	7.9	7.6
Total	100.0	100.0	100.0	100.0
Number of women circumcised	2,476	482	556	4,025

17.4 PRACTICE OF CIRCUMCISION IN GIRLS UNDER THE AGE OF 10

The EDS-MICS 2010-11 assessed the prevalence of circumcision among girls under age 10. All women who had one or more daughters under age 10 were asked if any of their daughters had been circumcised. In the event that one or more daughters were circumcised, the women were asked if their genital area had been sewn closed (Table 17.5).

Prevalence of circumcision among daughters

Table 17.5 shows that 13 percent of daughters under age 10 are already circumcised. Among mothers who are circumcised themselves, this proportion is 41 percent, compared with 0.2 percent among those who are not circumcised. The fact that the mother is circumcised, therefore, influences the prevalence of FGM among their daughters. In addition, the results show the same variations as those observed among all women. The regions with high prevalence of FGM show the highest proportion of daughters circumcised: these include the regions of Sédhiou (51 percent), Tambacounda (46 percent), Matam (43 percent), and Kolda (43 percent). With regard to ethnicity, the proportion of circumcised daughters is highest among those groups where circumcision is a common practice (Figure 17.2)[3]: the Mandingue (32 percent) and Poular (30 percent). The proportion of daughters circumcised decreases with an increase in the level of education of the mother (15 percent among daughters of mothers with no education compared with 3 percent with secondary level). Prevalence also decreases as the level of household wealth increases, from 24 percent in the poorest quintile to 2 percent in the richest quintile.

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[3] This figure compares the circumcision of daughters with that of women, so this comparison must be interpreted with caution, because many daughters under age 10 are not yet circumcised.

Table 17.5 Practice of female circumcision among respondent's daughters

Percentage of daughters under age 10 circumcised and percentage of circumcised daughters for whom the genital area was sewn closed, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Percentage circumcised	Number of daughters	Percentage circumcised with genital area sewn closed	Number of daughters circumcised
Circumcision status of the mother				
Circumcised	40.7	2,810	21.0	1,143
Not circumcised	0.2	6,173	*	14
Age of the mother				
15-19	15.5	268	21.3	42
20-24	14.0	1,327	25.7	186
25-29	12.0	2,253	19.5	270
30-34	12.7	2,136	21.6	272
35-39	11.5	1,730	18.1	199
40-44	13.0	916	18.1	119
45-49	19.7	355	30.6	70
Age of the daughter				
0-4	8.8	4,897	24.1	429
5-9	17.8	4,087	19.7	728
Residence				
Urban	7.8	3,597	20.9	282
Rural	16.2	5,386	21.5	875
Region				
Dakar	5.7	1,835	(21.1	105
Ziguinchor	21.7	277	12.7)	60
Diourbel	0.2	1,143	*	2
Saint-Louis	22.3	588	14.8	131
Tambacounda	46.1	536	49.2	247
Kaolack	0.3	632	*	2
Thiès	0.6	1,160	*	7
Louga	3.9	613	(25.3)	24
Fatick	0.7	446	*	3
Kolda	42.6	486	7.5	207
Matam	42.3	400	18.7	169
Kaffrine	2.8	440	*	12
Kédougou	17.6	95	35.7	17
Sédhiou	51.4	333	6.1	171
Education				
No education	15.4	6,502	22.6	999
Primary	7.5	1,810	13.6	135
Secondary or more	3.4	671	(14.2)	23
Religion				
Muslim	13.2	8,691	21.4	1,148
Christian	2.6	255	*	7
Other/no religion	7.8	38	*	3
Ethnic group				
Wolof	0.3	3,297	*	10
Poular	29.5	2,656	22.2	783
Serer	0.6	1,307	*	8
Mandingue	31.9	472	13.1	151
Diola	15.6	257	12.8	40
Soninke	18.5	169	36.0	31
Other/non-Senegalese	16.3	825	26.2	135
Wealth quintile				
Lowest	23.8	2,043	25.0	485
Second	15.8	1,852	19.6	292
Middle	12.0	1,779	20.5	214
Fourth	7.1	1,838	17.2	131
Highest	2.4	1,472	(6.4)	36
Total	12.9	8,983	21.3	1,157

( ) Based on 25-49 unweighted cases.
* Based on less than 25 unweighted cases.

Figure 17.2
Prevalence of female circumcision among mothers
and daughters age 0-9 by ethnic group
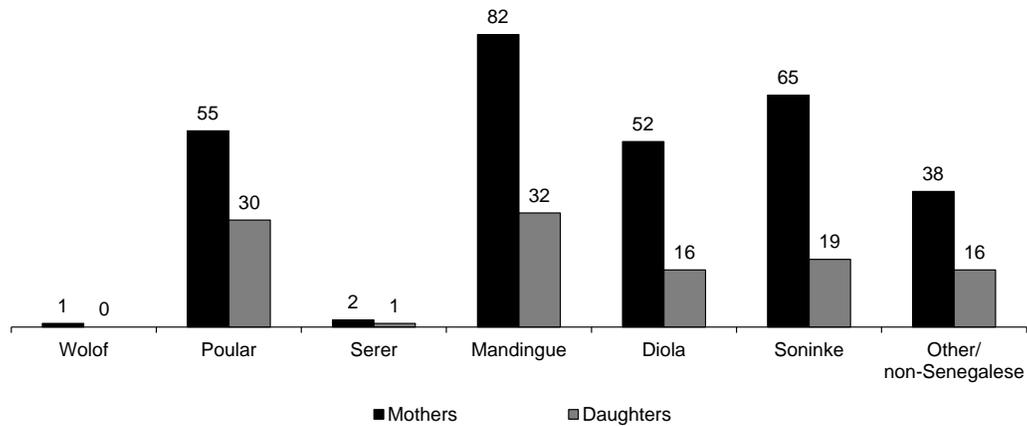
EDS-MICS 2010-11

Among daughters under age 10 who have been circumcised, 21 percent had the genital area sewn closed. This type of circumcision is common in the region of Tambacounda (49 percent) and in the Soninké ethnic group, where 36 percent of circumcised daughters underwent this type of circumcision.

Daughter's age at circumcision

Table 17.6 shows the distribution of daughters under age 10 by age at the time of circumcision. In almost all cases circumcision was performed at age 0-4, regardless of the background characteristics considered.

Table 17.6 Daughter's age at circumcision

Percent distribution of circumcised daughters age 0-9 by age of daughter at the time of circumcision, according to background characteristics, EDS-MICS, Senegal 2010-11

Background Characteristic	Age at circumcision in years				Total	Number of daughters circumcised
	0-1	2-4	5-9	DK/Missing		
Age of the daughter						
0-4	80.4	18.8	0.0	0.8	100.0	429
5-9	58.5	32.3	8.9	0.3	100.0	728
Person performing the circumcision						
Traditional "circumciser"	66.9	27.3	5.4	0.4	100.0	1,125
Traditional birth attendant	(65.4)	(25.1)	(9.4)	(0.0)	100.0	25
Other traditional	*	*	*	*	100.0	5
DK/Missing	*	*	*	*	100.0	2
Residence						
Urban	65.0	25.4	9.4	0.3	100.0	282
Rural	67.2	27.9	4.4	0.5	100.0	875
Region						
Dakar	(58.7)	(27.6)	(13.8)	(0.0)	100.0	105
Ziguinchor	29.6	48.2	22.2	0.0	100.0	60
Diourbel	*	*	*	*	100.0	2
Saint-Louis	77.8	17.8	4.4	0.0	100.0	131
Tambacounda	80.3	15.8	3.8	0.0	100.0	247
Kaolack	*	*	*	*	100.0	2
Thies	*	*	*	*	100.0	7
Louga	70.3	19.4	0.0	10.3	100.0	24
Fatick	*	*	*	*	100.0	3
Kolda	67.5	28.7	3.5	0.3	100.0	207
Matam	70.3	26.5	2.0	1.2	100.0	169
Kaffrine	59.1	36.7	4.2	0.0	100.0	12
Kedougou	56.1	32.3	10.1	1.5	100.0	17
Sedhiou	54.5	42.4	3.1	0.0	100.0	171
Education						
No education	66.6	27.9	5.1	0.4	100.0	999
Primary	68.0	21.9	9.0	1.1	100.0	135
Secondary or more	(61.9)	(31.2)	(6.9)	(0.0)	100.0	23
Religion						
Muslim	66.6	27.2	5.7	0.5	100.0	1,148
Christian	*	*	*	*	100.0	7
Other/no religion	*	*	*	*	100.0	3
Ethnic group						
Wolof	*	*	*	*	100.0	10
Poular	69.9	25.3	4.4	0.4	100.0	783
Serer	*	*	*	*	100.0	8
Mandingue	62.1	31.5	6.4	0.0	100.0	151
Diola	22.4	48.6	29.1	0.0	100.0	40
Soninke	88.9	8.6	0.0	2.5	100.0	31
Other/non-Senegalese	59.7	33.4	5.9	1.0	100.0	135
Wealth quintile						
Lowest	68.3	27.5	3.8	0.4	100.0	485
Second	66.8	26.1	6.3	0.9	100.0	292
Middle	65.5	29.5	5.0	0.0	100.0	214
Fourth	65.1	24.0	10.3	0.6	100.0	131
Highest	(56.6)	(32.1)	(11.3)	(0.0)	100.0	36
Total	66.7	27.3	5.6	0.5	100.0	1,157

( ) Based on 25-49 unweighted cases.
* Based on fewer than 25 unweighted cases.

17.5 BELIEFS AND OPINIONS ABOUT FEMALE CIRCUMCISION

Beliefs about female circumcision

In order to better understand the reasons for the persistence of the practice of female circumcision, women who know about the practice of circumcision were asked if they believe female circumcision is required by religion. Overall, 17 percent of women think that female circumcision is a practice required by religion (Table 17.7). Among circumcised women this proportion is much higher, at about half of circumcised women (51 percent, versus 4 percent among women who are not circumcised). The survey found no evidence of significant differences according to women's age. Difference according to region and ethnic group are the most significant. Among women in the regions with high prevalence of FGM, such as Matam and Tambacounda, 72 percent and 60 percent, respectively, think female circumcision is required by religion. In the regions of Sédhiou and Kédougou, which have a high proportion of circumcised women, however, the percentage who think that circumcision is required by religion is lower (respectively, 39 percent and 36 percent). The results according to ethnicity show that the proportions of women who think that circumcision is required by religion are highest in the ethnic groups where the practice of female circumcision is common (37 percent among the Poular, 39 percent among the Mandingue, and 38 percent among the Soninké). Finally, this opinion is more common among women with no education (20 percent, versus 14 percent for women with a primary level and 13 percent for women with a secondary level or higher), among Muslim women (18 percent, versus 5 percent for Christians), and among women in the poorest wealth quintile (28 percent, versus 9 percent in the richest quintile).

Opinion on female circumcision

Respondents were also asked their opinion on whether the practice of circumcision should be continued, or should be discontinued. Table 17.8 shows that, overall, 79 percent of women think that the practice of female circumcision should be discontinued. Among circumcised women this proportion is 41 percent, compared with 52 percent who believe that the practice ought to be continued.

Table 17.7   Beliefs about female circumcision

Among women who have heard of female circumcision (FGC), percentage who think that the practice is required by religion, by background characteristics, EDS-MICS, Senegal 2010-11.

Background characteristic	Percentage who think FGC is required by religion	Number of women
Circumcision status of the mother		
Circumcised	50.6	4,025
Not circumcised	4.1	10,295
Age		
15-19	16.9	2,928
20-24	16.4	2,934
25-29	17.9	2,543
30-34	15.8	1,985
35-39	18.1	1,725
40-44	16.4	1,298
45-49	20.1	907
Residence		
Urban	14.5	7,357
Rural	19.9	6,963
Region		
Dakar	12.3	3,925
Ziguinchor	19.1	526
Diourbel	1.5	1,684
Saint-Louis	40.6	929
Tambacounda	60.4	703
Kaolack	5.1	897
Thies	1.8	1,882
Louga	8.1	948
Fatick	6.2	544
Kolda	35.3	619
Matam	72.0	579
Kaffrine	2.2	537
Kedougou	36.1	114
Sedhiou	38.7	433
Education		
No education	20.0	8,199
Primary	14.0	3,134
Secondary or more	12.7	2,988
Religion		
Muslim	17.6	13,708
Christian	5.4	561
Other/no religion	14.2	51
Ethnic group		
Wolof	3.2	5,476
Poular	36.9	3,929
Serer	2.6	2,005
Mandingue	38.8	639
Diola	16.8	572
Soninke	37.8	355
Other/non-Senegalese	22.0	1,344
Wealth quintile		
Lowest	28.2	2,263
Second	22.6	2,389
Middle	18.5	2,824
Fourth	12.7	3,312
Highest	9.4	3,531
Total	17.1	14,320

Analysis by region shows that in the regions of Matam (65 percent), Sédhiou (57 percent), and Tambacounda (55 percent), which have high prevalence of FGM, a majority of women think that female circumcision should continue. Similarly, the highest proportions of women who favor maintaining the practice are in the ethnic groups where female circumcision is a common practice (48 percent among the Mandingue, 35 percent among the Poular, and 30 percent among the Soninké). Moreover, the view that female circumcision should be discontinued is more common as the level of education rises, and as the level of household wealth improves. In addition, 78 percent of Muslim women and 90 percent of Christian women say that female circumcision should be discontinued.

Table 17.8 Attitudes toward female circumcision

Percent distribution of women who have heard of female circumcision by opinion on whether female circumcision should be continued, according to background characteristics, EDS-MICS, Senegal 2010-11

Background Characteristic	Should be continued	Should be discontinued	Depends	Total	Number of women
Circumcision status of the mother					
Circumcised	52.4	41.4	6.1	100.0	4,025
Not circumcised	2.6	93.2	4.2	100.0	10,295
Age					
15-19	15.9	78.9	5.2	100.0	2,928
20-24	16.5	79.0	4.4	100.0	2,934
25-29	15.9	79.2	4.9	100.0	2,543
30-34	16.4	79.2	4.4	100.0	1,985
35-39	18.1	76.9	5.1	100.0	1,725
40-44	17.2	79.2	3.6	100.0	1,298
45-49	17.7	77.2	5.1	100.0	907
Residence					
Urban	12.6	83.6	3.8	100.0	7,357
Rural	20.9	73.5	5.6	100.0	6,963
Region					
Dakar	9.7	87.0	3.3	100.0	3,925
Ziguinchor	33.5	60.9	5.6	100.0	526
Diourbel	1.5	93.4	5.1	100.0	1,684
Saint-Louis	33.5	60.0	6.4	100.0	929
Tambacounda	55.3	39.7	5.0	100.0	703
Kaolack	5.0	89.1	6.0	100.0	897
Thies	1.9	96.1	1.9	100.0	1,882
Louga	5.5	89.4	5.1	100.0	948
Fatick	5.6	89.5	4.9	100.0	544
Kolda	41.7	49.6	8.6	100.0	619
Matam	64.6	21.8	13.6	100.0	579
Kaffrine	2.5	95.3	2.2	100.0	537
Kedougou	36.1	58.4	5.5	100.0	114
Sedhiou	56.7	38.8	4.5	100.0	433
Education					
No education	20.7	73.6	5.6	100.0	8,199
Primary	13.7	82.3	4.0	100.0	3,134
Secondary or more	8.3	88.8	2.9	100.0	2,988
Religion					
Muslim	17.1	78.3	4.6	100.0	13,708
Christian	4.3	90.2	5.6	100.0	561
Other/no religion	18.9	69.3	11.8	100.0	51
Ethnic group					
Wolof	1.7	94.8	3.5	100.0	5,476
Poular	35.1	59.0	5.9	100.0	3,929
Serer	2.5	91.9	5.7	100.0	2,005
Mandingue	48.0	47.3	4.7	100.0	639
Diola	25.0	71.9	3.1	100.0	572
Soninke	30.2	62.9	6.9	100.0	355
Other/non-Senegalese	22.2	73.1	4.7	100.0	1,344
Wealth quintile					
Lowest	30.1	61.9	8.0	100.0	2,263
Second	24.5	70.2	5.3	100.0	2,389
Middle	17.9	77.5	4.6	100.0	2,824
Fourth	10.6	85.1	4.4	100.0	3,312
Highest	7.2	90.1	2.6	100.0	3,531
Total	16.6	78.7	4.7	100.0	14,320

SITUATION OF CHILDREN

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18

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Papa Ibrahima Sylmang SENE et Rémy PIGOIS

The Convention on the Rights of the Child (CRC) of 20 November 1989, ratified by Senegal, says in Article 3, paragraph 2: "Parties in all States shall be involved in ensuring that the child has the protection and care necessary for their well-being, taking into account the rights and duties of their parents, their guardians or other persons legally responsible for them, and that they take all the appropriate administrative and legislative measures to achieve this end."

In addition to information on mortality and morbidity of children analyzed in Chapter 8 and 10, the EDS-MICS 2010-11 collected various data about the socioeconomic environment in which children live, in order to better assess the degree of actualization of children's rights in Senegal. These socioeconomic and environmental characteristics are significant determinants of living conditions and child development. More specifically, the findings concern registration of births with civil authorities for children under age 5, access to education, employment of children age 5-14, the situation of children in relation to separation from biological parents, and early childhood development.

18.1 REGISTRATION OF BIRTHS

Registration of birth with civil authorities makes a child legally a full member of a family and the nation. It gives children a nationality, the right to be protected by the state when parental protection is lacking, and the right to participate in society. It also allows children to participate in all the social benefits given to parents, such as health insurance and rights to inheritance. Children without a birth certificate have no legal existence and, in addition, run the risk of growing up without access to education, health care, and protection against labor exploitation, abuse, and violence. Birth registration in the official registry is, therefore, an essential means of preserving those rights as stipulated in Article 7 of the CRC. In addition, the birth registration of children with civil authorities provides a reliable source of sociodemographic statistics, as well as an indicator of their functionality and performance.

In Senegal this legal obligation is found in Article 33 of the Family Code: "Statements are to be entered in the registry within one month by the persons listed in Articles 51 and 67. If the statements of births and deaths occurring in their jurisdiction are not made within the period of one month, the neighborhood or village heads are required to report the omitted statements in the next fifteen days to the officer of civil status, subject to fines for petty offenses ranging from 2,000 to 5,000 francs."

During the EDS-MICS 2010-11, respondents were asked if the births of their youngest children (under age 5) had been reported to the registry of civil status. Table 18.1 shows that the vast majority of Senegalese children are recorded in the civil registry (75 percent). In the survey, 60 percent of children under age 5 had a birth certificate. There is no difference by age (74 percent of children under age 2 and 75 percent of children age 2-4 are recorded in the registry), and virtually no difference by gender (75 percent of boys and 74 percent of girls are registered).

However, recording of births in the registry varies widely according to region and other socioeconomic categories. Children registered in the civil registry and having a birth certificate are proportionally much less numerous in rural areas (50 percent) than urban areas (78 percent). At the regional level, children in Tambacounda (55 percent), Kolda (57 percent), and Sédhiou (57 percent) are least likely to be recorded in the registry. In contrast, 92 percent of children in Dakar, 87 percent in Thiès, and 82 percent in Ziguinchor have been reported in the civil registry and have a birth certificate.

The proportion of registered children is influenced by the level of wealth of the child's household, from 50 percent in the poorest households to 94 percent in the richest.

18.2 CHILDREN LIVING APART FROM THEIR BIOLOGICAL PARENTS AND ORPHANHOOD

In Senegal as in many African countries, society and the family play an important role in the survival and development of children. The "extended family," composed of uncles, aunts, and other close family members, is recognized as responsible for this role. However, this protective framework is not sufficient, and the biological family is the primary support for children in any strategy aimed at ensuring child survival, development, and protection. It is therefore essential to identify children who are separated from their biological parents, know their proportion compared with the general population of children, and know with whom they live. Table 18.2 presents this information for children under age 18.

The survey findings show that in Senegal 15 percent of children live with neither biological parent, and that 55 percent of children under age 18 live with both biological parents. The proportion of children living with neither biological parent is very high for children over age 10 (20 percent at age 10-14 and 30 percent at age 15-17), but also remains high for children under age 9. It is also significantly higher for girls (17 percent) than for boys (13 percent).

Table 18.1 Birth registration of children under age five

Percentage of *de jure* children under age 5 whose births are registered with the civil authorities, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Children whose births are registered		Percentage registered	Number of children
	Percentage who had birth certificate	Percentage who did not have birth certificate		
Age				
<2	57.7	16.1	73.8	4,774
2-4	61.7	13.4	75.1	7,453
Sex				
Male	60.8	14.1	75.0	6,256
Female	59.4	14.7	74.2	5,970
Residence				
Urban	78.3	11.0	89.3	4,527
Rural	49.5	16.4	65.9	7,700
Region				
Dakar	83.4	8.4	91.8	2,275
Ziguinchor	67.5	14.7	82.2	396
Diourbel	56.7	12.7	69.4	1,529
Saint-Louis	56.6	14.9	71.5	824
Tambacounda	32.5	22.7	55.2	696
Kaolack	53.7	18.8	72.5	1,060
Thies	73.1	13.7	86.8	1,475
Louga	52.9	12.9	65.8	844
Fatick	61.7	17.9	79.5	749
Kolda	45.0	11.6	56.6	679
Matam	50.4	17.4	67.8	540
Kaffrine	46.9	17.2	64.1	575
Kedougou	59.6	16.2	75.8	116
Sedhiou	33.9	22.6	56.5	469
Wealth quintile				
Lowest	33.3	17.1	50.4	2,887
Second	53.3	18.4	71.7	2,778
Middle	64.1	15.6	79.7	2,385
Fourth	78.4	9.1	87.5	2,247
Highest	84.1	9.4	93.5	1,929
Total	60.2	14.4	74.6	12,226

Table 18.2 Children's living arrangements and orphanhood

Percent distribution of *de jure* children under age 18 by living arrangements and survival status of parents, the percentage of children not living with a biological parent, and the percentage of children with one or both parents dead, according to background characteristics, EDS-MICS, Senegal 2010-11

| Background characteristic | Living with both parents | Living with mother but not with father | | Living with father but not with mother | | Not living with either parent | | | | | Total | Percentage not living with a bio-logical parent | Percentage with one or both parents dead[1] | Number of children |
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only mother alive	Only father alive	Both dead	Missing information on father/ mother				
Age														
0-4	60.1	29.8	1.2	2.0	0.2	5.8	0.4	0.3	0.1	0.1	100	6.6	2.2	12,226
<2	62.2	34.3	1.1	0.6	0.1	1.4	0.1	0.0	0.0	0.2	100	1.6	1.5	4,774
2-4	58.8	27.0	1.3	2.9	0.2	8.6	0.6	0.5	0.1	0.0	100	9.8	2.7	7,453
5-9	56.4	21.3	2.6	4.5	0.7	12.2	1.1	1.1	0.2	0.0	100	14.5	5.6	11,080
10-14	51.1	17.6	4.8	4.6	1.4	16.1	1.3	2.2	0.7	0.1	100	20.3	10.5	9,303
15-17	43.0	13.3	7.3	4.1	2.0	21.3	2.9	4.0	1.5	0.6	100	29.8	17.8	4,332
Sex														
Male	56.1	21.9	3.3	4.4	1.0	10.4	0.9	1.4	0.4	0.2	100	13.1	7.1	18,526
Female	53.3	22.7	3.2	2.9	0.7	13.8	1.4	1.5	0.4	0.1	100	17.2	7.2	18,415
Residence														
Urban	52.3	23.8	3.7	3.7	0.8	12.1	1.3	1.5	0.5	0.2	100	15.5	7.9	14,371
Rural	56.3	21.3	3.0	3.6	0.9	12.1	1.0	1.4	0.4	0.1	100	14.9	6.7	22,570
Region														
Dakar	56.3	22.1	4.3	4.0	0.7	9.1	1.4	1.4	0.5	0.3	100	12.4	8.4	6,830
Ziguinchor	45.8	17.9	3.3	5.4	1.5	20.6	1.6	2.9	0.8	0.2	100	25.9	10.3	1,308
Diourbel	44.6	33.4	2.3	2.6	0.9	13.6	1.1	1.1	0.3	0.2	100	16.0	5.6	4,346
Saint-Louis	54.5	23.3	2.1	3.3	1.2	12.7	1.2	1.1	0.5	0.2	100	15.4	6.0	2,476
Tambacounda	63.3	13.7	2.7	5.1	1.2	11.5	1.0	1.2	0.4	0.0	100	14.1	6.5	2,045
Kaolack	56.9	20.4	3.4	2.2	0.4	13.8	0.8	1.7	0.3	0.1	100	16.5	6.6	3,134
Thies	53.2	26.0	2.6	3.4	0.6	11.8	1.1	0.8	0.4	0.0	100	14.2	5.5	4,858
Louga	55.6	24.4	3.0	2.2	0.6	11.7	1.1	1.0	0.2	0.2	100	14.0	5.9	2,699
Fatick	50.1	23.1	3.5	4.5	1.1	14.5	1.3	1.6	0.3	0.0	100	17.7	7.8	2,287
Kolda	64.4	12.2	4.0	4.3	2.4	8.8	1.0	2.3	0.6	0.0	100	12.8	10.4	1,924
Matam	54.7	23.6	4.7	3.5	0.3	9.8	1.1	1.7	0.4	0.0	100	13.0	8.3	1,564
Kaffrine	64.6	13.7	2.6	5.1	0.6	11.1	1.0	0.9	0.5	0.0	100	13.4	5.6	1,687
Kedougou	69.1	11.5	3.9	2.3	1.3	9.4	0.6	1.6	0.3	0.1	100	11.9	7.7	354
Sedhiou	52.3	14.5	4.4	5.2	0.5	17.5	1.3	3.5	0.6	0.0	100	23.0	10.4	1,428
Wealth quintile														
Lowest	64.4	13.6	3.0	4.3	1.4	10.5	0.9	1.4	0.3	0.0	100	13.2	7.1	8,353
Second	56.8	20.7	3.5	3.3	1.0	11.8	1.1	1.2	0.5	0.1	100	14.7	7.3	8,157
Middle	52.1	24.3	3.4	3.3	0.6	13.1	1.1	1.5	0.4	0.1	100	16.2	7.1	7,597
Fourth	51.3	25.8	3.5	3.7	0.8	11.7	1.3	1.4	0.3	0.2	100	14.8	7.4	6,909
Highest	45.5	29.9	2.8	3.5	0.3	13.9	1.6	1.7	0.5	0.3	100	17.7	7.0	5,925
Total <15	56.3	23.5	2.7	3.6	0.7	10.9	0.9	1.1	0.3	0.1	100	13.2	5.7	32,609
Total <18	54.7	22.3	3.3	3.6	0.9	12.1	1.2	1.4	0.4	0.1	100	15.1	7.2	36,941

Note: Table is based on *de jure* members, i.e., usual residents.
[1] Includes children with father dead, mother dead, both dead, and one parent dead but missing information on survival status of the other parent.

Age plays a crucial role. The proportion of children living with their biological parents steadily decreases as children's age increases, from a peak of 62 percent at age 0-2 to 56 percent at age 5-9, and to 51 percent at age 10-14. Girls are less likely (53 percent) than boys (56 percent) to be living with both parents. Among children under age 18, 26 percent live with only their mother, whether the father is alive (22 percent) or deceased (3 percent). About 5 percent live with only their father, while 15 percent do not live with either parent.

Place of residence appears to be an important determinant of children's situation. The proportion of children living with both parents is slightly higher in rural areas (56 percent) than in urban areas (52 percent). There are considerable differences among regions in the country. In Diourbel and Ziguinchor the proportion of children living with both parents is lowest (45 percent), while it is highest in Kédougou (69 percent).

The proportion of children living with both parents decreases steadily as the level of household wealth increases, from 64 percent for children in the poorest households to 46 percent for children in the richest households.

Table 18.2 also shows that, overall, 7 percent of children under age 18 are orphaned—that is, one or both of their parents are dead. Less than 1 percent (0.4 percent) have lost both parents; 5 percent are orphans through their fathers (father deceased and child lives with mother, 3 percent; father deceased but child does not live with mother, 1 percent), and 2 percent are orphans through their mothers (mother deceased and child lives with father, 1 percent; mother deceased but child does not live with father, 1 percent). Because of the increased risk of parents dying as their children grow older, the proportion of orphans significantly increases with children's age, from 2 percent at age 0-2 to 3 percent at age 2-4, and to 18 percent at age 15-17. Sex, place of residence, and level of household wealth do not appear to play major roles in the risk of a child being orphaned.

18.3   ACCESS TO EDUCATION

Access to education is a universal right. UNICEF considers it as a "key factor" for the development of children. In Senegal, Law 2004-37 of 15 December 2004 specifies, in Article 3a, that "education is compulsory for all children of both sexes age 6 to 16 years. The State has the obligation to maintain children age 6 to 16 years in the school system. Free compulsory education is provided in the public schools. It is the obligation of parents whose children reach the age of 6 years, to enroll them in a public or private school. Parents are required to ensure the attendance of their children until the age of 16 years."

To assess the situation of children in terms of schooling, the survey focused on the indicator for the net attendance ratio (NAR). To be comparable to statistics from the Ministry of Education, this indicator has been calculated for the elementary and middle school levels and therefore focuses on children age 6-16. The survey also collected data on dropout rates for these two levels, as well as non-attendance.

18.3.1 Net Attendance Ratio[1]

Table 18.3 shows that 54 percent of children age 6-11 are attending primary school. The net attendance ratio is only slightly influenced by the survival status of parents (at 56 percent for orphans compared with 54 percent for non-orphans).

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[1] Net attendance ratios are calculated according to the 2004 law which makes school attendance compulsory for all children from age 6 to age 16.

Table 18.3 School net attendance ratios

Net attendance ratios (NAR) of children age 6-16 by sex and level of schooling; and the Gender Parity Index (GPI), according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	School net attendance ratios[1]			Gender Parity Index [2]
	Boys	Girls	Total	
PRIMARY SCHOOL (6-11 YEARS)				
Orphan (father and/or mother dead)				
Yes	54.5	57.6	56.0	1.06
No	52.1	55.9	54.0	1.07
Residence				
Urban	71.2	73.3	72.2	1.03
Rural	41.3	45.9	43.6	1.11
Region				
Dakar	73.2	74.2	73.7	1.01
Ziguinchor	81.6	87.2	84.2	1.07
Diourbel	22.1	26.3	24.3	1.19
Saint-Louis	60.0	70.5	65.3	1.18
Tambacounda	43.4	51.5	47.2	1.19
Kaolack	47.7	56.1	52.1	1.17
Thies	54.4	58.2	56.2	1.07
Louga	31.7	37.6	34.6	1.18
Fatick	61.1	64.1	62.5	1.05
Kolda	66.7	60.2	63.5	0.90
Matam	39.5	56.6	48.0	1.43
Kaffrine	27.3	33.9	30.8	1.24
Kedougou	80.6	80.0	80.3	0.99
Sedhiou	63.4	58.5	60.9	0.92
Wealth quintile				
Lowest	37.7	44.4	41.0	1.18
Second	47.7	52.0	49.8	1.09
Middle	54.6	57.7	56.1	1.06
Fourth	59.4	62.8	61.2	1.06
Highest	70.8	69.3	70.0	0.98
Total	52.3	56.1	54.2	1.07
MIDDLE SECONDARY SCHOOL (12-16 YEARS)				
Orphan (father and/or mother dead)				
Yesi	31.0	27.0	28.9	0.87
No	29.1	27.5	28.3	0.94
Residence				
Urban	44.2	43.4	43.8	0.98
Rural	18.0	15.4	16.7	0.86
Region				
Dakar	42.7	42.2	42.5	0.99
Ziguinchor	51.6	46.6	49.2	0.90
Diourbel	13.8	13.8	13.8	1.00
Saint-Louis	35.1	36.7	35.9	1.05
Tambacounda	17.6	17.5	17.6	0.99
Kaolack	29.7	24.6	26.9	0.83
Thies	32.4	31.6	32.0	0.98
Louga	16.2	18.0	17.2	1.11
Fatick	31.1	29.6	30.4	0.95
Kolda	29.8	18.0	23.6	0.60
Matam	15.4	21.0	18.1	1.37
Kaffrine	13.1	13.7	13.4	1.04
Kedougou	30.8	26.4	28.5	0.86
Sedhiou	21.9	16.7	19.4	0.76
Wealth quintile				
Lowest	12.9	9.5	11.1	0.74
Second	19.6	17.6	18.6	0.90
Middle	28.2	28.7	28.5	1.02
Fourth	36.3	34.2	35.2	0.94
Highest	54.3	51.6	52.9	0.95
Total	29.4	27.4	28.4	0.93

[1] The NAR for primary school is the percentage of the primary-school age (6-11 years) population that is attending primary school. The NAR for secondary school is the percentage of the secondary-school age (12-16 years) population that is attending secondary school. By definition the NAR cannot exceed 100 percent.
[2] The Gender Parity Index for primary school is the ratio of the primary school NAR for females to the NAR for males. The Gender Parity Index for secondary school is the ratio of the secondary school NAR for females to the NAR for males.

However, this ratio is influenced by gender, children's place of residence, and socioeconomic conditions of the parents. The results show a positive bias for girls age 6-11, of whom 56 percent are enrolled in school versus 53 percent for boys age 6-11. The proportion of children age 6-11 attending primary school is much higher in urban areas (72 percent) than in rural areas (44 percent). The lowest ratios are observed in the regions of Diourbel (23 percent), Kaffrine (31 percent), and Louga (35 percent), while the highest ratio is found in the Ziguinchor region (84 percent), much higher than in Dakar (74 percent). Moreover, the net attendance ratio at the primary level appears to depend on the level of household wealth, at 41 percent for children in the poorest households and 70 percent for those in the richest households.

Table 18.3 also indicates that at the national level less than a third (28 percent) of children age 12-16 are enrolled in middle secondary school. This national average hides disparities detrimental to girls and to children in rural areas. Among girls age 12-16, 27 percent are enrolled in middle secondary school, compared with 30 percent for boys age 12-16. Similarly, the proportion of children age 12-16 enrolled in middle secondary school is considerably larger in urban areas (44 percent) than in rural areas (17 percent). There are also disparities among regions. As at the primary level, the lowest net attendance ratios at the middle secondary school level are found in Kaffrine (14 percent), Diourbel (14 percent), and Louga (17 percent), while the highest are found in Ziguinchor (49 percent) and Dakar (43 percent). The net attendance ratio for children in middle secondary school is also related to the level of household wealth: only 11 percent of children in the poorest households are enrolled in middle school, versus 53 percent of children in the wealthiest households.

18.3.2 Non-attendance of Children

The survey also asked respondents about non-attendance in school of children in the household. Table 18.4 shows that 43 percent of children age 6-11 have never attended school. This percentage is twice as high in rural areas (55 percent) compared with urban areas (24 percent). Non-attendance of children age 6-11 also appears to be linked to socioeconomic status and household standard of living, since the percentage of children not enrolled in school decreases steadily as the level of household wealth increases, from 57 percent for children in the poorest households to 25 percent for children in the richest households.

Table 18.4 Children who have never been in school

Percentage of children age 6-16 who have never been to school according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Boys	Girls	Total
6-11 YEARS			
Orphan (father and/or mother dead)			
Yes	41.4	39.9	40.7
No	45.5	41.6	43.6
Residence			
Urban	25.2	23.5	24.3
Rural	57.0	52.1	54.6
Region			
Dakar	21.2	20.7	20.9
Ziguinchor	16.7	12.3	14.7
Diourbel	75.7	72.4	73.9
Saint-Louis	38.3	26.2	32.2
Tambacounda	55.2	46.8	51.3
Kaolack	49.0	42.1	45.4
Thies	45.0	39.1	42.3
Louga	65.5	60.5	63.0
Fatick	35.9	33.1	34.6
Kolda	32.6	38.9	35.7
Matam	58.0	41.8	50.0
Kaffrine	72.3	64.2	68.0
Kedougou	17.4	17.6	17.5
Sedhiou	35.6	40.8	38.3
Wealth quintile			
Lowest	60.5	53.5	57.1
Second	50.1	45.8	48.0
Middle	43.4	40.3	41.9
Fourth	38.2	35.5	36.8
Highest	24.6	25.9	25.3
Total	45.3	41.5	43.4
12-16 YEARS			
Orphan (father and/or mother dead)			
Yes	32.7	35.2	34.0
No	32.9	33.0	33.0
Residence			
Urban	15.6	15.7	15.6
Rural	46.1	46.5	46.3
Region			
Dakar	13.3	14.0	13.7
Ziguinchor	3.5	6.3	4.8
Diourbel	65.0	64.1	64.5
Saint-Louis	30.8	22.7	26.7
Tambacounda	44.1	43.5	43.8
Kaolack	32.8	33.8	33.3
Thies	30.6	29.2	29.9
Louga	53.3	49.5	51.1
Fatick	22.1	21.3	21.7
Kolda	19.3	27.8	23.8
Matam	59.1	40.9	50.2
Kaffrine	63.4	64.4	63.9
Kedougou	6.5	15.1	11.0
Sedhiou	23.2	30.6	26.8
Wealth quintile			
Lowest	48.7	49.1	48.9
Second	42.3	42.8	42.6
Middle	33.0	30.9	31.9
Fourth	22.3	26.4	24.4
Highest	15.0	13.8	14.4
Total	32.9	33.3	33.1

Among middle secondary school-age children (age 12-16), 33 percent have never been to school. This indicator varies little depending on whether children are separated from their parents or not. It reaches 34 percent for orphans and 33 percent for children with one or both parents still living. However, place of residence appears to be a determining factor for school attendance among children age 12-16. In rural areas 46 percent of children age 12-16 have never been enrolled in school, compared with 16 percent in urban areas.

18.4 CHILD LABOR

According to the Convention on the Rights of the Child (CRC, 1989), "the child has the right to be protected against economic exploitation and from performing any work that is hazardous or likely to compromise their education or harmful to their health or physical, mental, spiritual, moral or social development." Thus, all measures must be taken by the authorities, society, and parents to ensure that children are neither exposed nor exploited. If certain activities, such as involvement of children in household chores or income-generating activities of the family, are sometimes considered part of the socialization process, children engaged in such activities often remain less likely to be educated, more likely to drop out of school, and more likely to be exploited.

During the survey, information on child labor was collected for children age 5-17. Table 18.5 shows the situation of children who, during the week preceding the survey, either worked for someone other than a family member, worked in the fields or in income-generating activities for the family, or performed domestic work. The variable "number of hours worked" was also taken into account.

The findings show that during the week preceding the survey, 72 percent of children age 5-17 did some work of any kind. Prolonged labor is common: 47 percent worked four hours or more per day, whether the work was domestic, performed for someone other than a household member, took place in the fields, or was income-generating activity for the family.

About 67 percent of children performed work in the home, with 41 percent of them devoting four hours or more per day, and 22 percent less than four hours per day. Twelve percent worked in the fields or in income-generating activities for the family.

A higher proportion of girls than boys performed work (78 percent versus 66 percent). The proportion of working children increases with age, from 61 percent at age 5-9 to 83 percent at age 15-17.

Analysis of the results according to place of residence indicates significant disparities unfavorable to rural children. In rural areas 76 percent of children performed work in the week before the survey, versus 66 percent in urban areas. In the region of Dakar this proportion reaches 58 percent. In rural areas 17 percent of children worked in the fields or in the family business (versus 5 percent among children in urban areas). In 5 percent of cases in rural areas and 7 percent of cases in urban areas, children performed work for someone other than a member of their household.

There are also wide disparities by region,. The proportion of children performing work varies from 43 percent in Kaffrine to 87 percent in Sédhiou and Kaolack. The proportion of children who worked for someone outside the family in the week before the survey varies from 1 percent in Fatick to 21 percent in Sédhiou.

Analysis of the results according to the level of household wealth shows that child labor is more prevalent among the poorest households (77 percent) compared with the wealthiest households (59 percent).

Table 18.5 Child labor

Percentage of children age 5-17 by involvement in economic activity and household chores during the past week, according to background characteristics, EDS-MICS, Senegal 2010-11

Background characteristic	Children involved in economic activity outside household					Children involved in economic activity for family business			Children involved in household chores			Total of children age 5-17 involved in child labor			Number of children age 5-17
	Paid, <4 hours/ a day	Paid, 4+ hours/ a day	Not paid, <4 hours/ a day	Not paid, 4+ hours/ a day	Total	<4 hours/ a day	4+ hours/ a day	Total	<4 hours/ a day	4+ hours/ a day	Total	<4 hours/ a day	4+ hours/ a day	Total	
Age															
5-9	0.2	0.1	1.7	0.8	3.0	1.4	5.2	7.7	24.2	30.2	58.1	27.3	33.4	60.7	11,080
10-14	0.3	1.1	2.5	2.2	6.4	2.1	11.6	15.3	20.6	49.6	75.4	24.1	56.1	80.2	9,303
15-17	0.7	4.6	2.1	3.3	11.4	2.1	13.0	17.0	17.5	52.2	74.1	20.8	61.8	82.6	4,332
Sex															
Male	0.4	1.0	2.3	2.2	6.3	1.9	11.7	15.2	22.5	31.5	58.1	25.1	40.5	65.7	12,270
Female	0.3	1.5	1.9	1.4	5.3	1.7	6.3	9.2	20.8	51.1	76.6	24.8	53.2	78.0	12,445
Residence															
Urban	0.2	1.8	2.1	2.6	7.3	1.6	3.1	5.1	24.7	33.3	62.5	29.4	36.7	66.1	9,845
Rural	0.4	0.9	2.1	1.2	4.7	1.9	12.9	16.8	19.6	46.6	70.7	22.1	53.6	75.7	14,870
Region															
Dakar	0.3	2.0	2.8	3.8	10.0	2.0	3.4	6.0	21.2	28.0	53.5	26.3	31.7	58.1	4,556
Ziguinchor	0.3	0.1	5.1	0.6	6.1	1.2	7.9	9.1	31.7	45.9	79.8	32.7	49.7	82.4	912
Diourbel	0.0	2.4	0.0	1.6	4.1	0.9	11.2	12.0	12.0	59.0	71.1	10.8	64.6	75.4	2,817
Saint-Louis	0.3	1.0	0.4	1.3	3.3	3.2	10.1	14.3	17.0	36.6	58.8	21.5	43.4	64.9	1,652
Tambacounda	0.1	2.1	0.0	1.6	3.8	0.2	8.5	9.1	2.0	54.2	65.1	10.8	58.9	69.7	1,349
Kaolack	0.3	0.8	0.0	0.8	2.0	2.2	4.8	8.1	19.1	62.9	84.6	18.9	68.1	87.0	2,074
Thies	0.4	0.6	1.2	0.9	3.5	1.7	5.4	13.3	42.8	19.7	75.0	53.4	25.0	78.4	3,383
Louga	0.2	0.9	0.9	1.4	3.8	1.0	23.7	27.4	14.1	45.0	66.4	21.8	53.7	75.6	1,855
Fatick	0.2	0.6	0.2	0.5	1.4	1.2	8.1	9.4	14.2	54.1	68.3	12.8	58.0	70.8	1,537
Kolda	0.4	0.9	7.4	5.3	14.1	3.4	15.1	18.5	22.0	54.2	76.4	18.4	62.5	80.9	1,244
Matam	0.3	1.3	1.4	0.7	3.7	1.4	14.7	17.4	19.2	44.0	67.3	23.3	52.0	75.3	1,024
Kaffrine	1.1	0.3	0.1	0.1	1.6	2.7	1.0	3.8	26.4	15.8	42.2	25.4	18.0	43.4	1,112
Kedougou	0.2	0.7	0.2	2.1	3.3	0.8	6.5	8.4	20.2	46.5	73.2	26.4	49.8	76.1	239
Sedhiou	1.1	1.1	17.3	1.2	20.7	3.6	18.6	22.2	32.3	49.4	81.6	26.8	60.7	87.4	959
Wealth quintile															
Lowest	0.4	1.0	2.3	1.4	5.2	2.4	16.2	19.6	15.5	50.9	69.9	17.4	59.7	77.1	5,466
Second	0.3	1.0	2.7	1.2	5.4	2.3	12.0	17.8	21.7	45.0	73.1	25.4	51.8	77.3	5,379
Middle	0.3	1.4	1.5	1.7	5.3	1.2	8.1	10.7	24.0	41.0	69.2	26.8	46.1	72.9	5,212
Fourth	0.3	1.8	1.6	2.5	6.8	1.6	3.1	5.1	26.0	35.9	66.0	30.1	38.9	69.0	4,661
Highest	0.2	1.1	2.3	2.3	6.4	1.4	2.9	4.6	22.0	30.2	55.7	26.4	33.0	59.4	3,996
Orphan (father and/or mother dead)															
Yes	0.5	2.9	3.0	3.2	10.1	2.2	12.5	15.5	19.2	50.5	72.5	20.9	58.6	79.5	2,370
No	0.3	1.1	2.0	1.6	5.3	1.8	8.6	11.8	21.9	40.4	66.9	25.4	45.7	71.1	22,345
Total	0.3	1.2	2.1	1.8	5.8	1.8	9.0	12.2	21.7	41.3	67.4	25.0	46.9	71.9	24,715

Note: The table is based on children who usually live in the household.
[1] One child can be involved in business activity for someone else outside the household, involved in economic activity for family business, and involved in household chores. The overall proportion of working children (71.9 percent) is less than the sum of these three types of activities.

Finally, the proportion of orphaned children working is generally greater than for non-orphans (respectively, 80 percent and 71 percent). Ten percent of orphans versus 5 percent of non-orphans worked for someone else outside the household during the week preceding the survey.

18.5 EARLY CHILDHOOD DEVELOPMENT

Early childhood learning starts in infancy, long before formal education. Various studies have shown that the contributions made to children during their first years of life are crucial to their development. Early childhood development programs during infancy and preschool provide children with care and education, before they enter school. The EDS-MICS 2010-2011 explored early childhood learning and development programs according to selected background characteristics of children. The survey obtained information on access to and attendance at early childhood education or development programs for young children age 3-5. Table 18.6 shows the percentage of children age 3-5 who attended an early childhood learning institution during the school year.

Table 18.6 Early childhood education or development program

Percentage of children age 3-5 who have attended an early childhood education program during the school year, by type of early childhood learning institution, according to background characteristics, EDS-MICS, Senegal 2010-11

| Background characteristic | Type of early childhood learning institution | | | | | Percentage attending an early childhood learning institution | Number of children age 3-5 |
	Preschool/ Kindergarden	Nursery school	*Daara*, Koranic school	*Case des Tout-Petits*	Other		
Sex							
Male	2.6	6.4	11.3	1.2	1.1	22.5	3,638
Female	2.2	6.4	8.9	1.8	1.2	20.6	3,577
Residence							
Urban	5.8	11.4	12.7	1.5	1.6	33.1	2,669
Rural	0.4	3.5	8.6	1.5	0.9	14.8	4,546
Region							
Dakar	7.5	10.2	12.1	0.4	2.4	32.5	1,357
Ziguinchor	2.5	32.1	3.6	6.2	0.2	44.6	234
Diourbel	0.6	1.7	14.0	1.2	0.9	18.3	911
Saint-Louis	1.6	2.7	7.9	2.0	1.5	15.7	463
Tambacounda	0.4	3.5	5.1	3.4	1.1	13.5	422
Kaolack	0.3	2.6	15.2	1.6	1.0	20.8	642
Thies	2.2	10.1	15.0	1.2	0.4	28.9	853
Louga	1.4	3.6	10.5	2.3	0.8	18.5	507
Fatick	0.2	6.0	10.9	2.5	1.1	20.8	447
Kolda	2.6	4.1	0.5	0.8	1.4	9.4	380
Matam	1.2	7.3	2.0	0.5	0.8	11.8	334
Kaffrine	0.6	0.3	7.5	0.1	0.1	8.7	315
Kedougou	0.2	5.0	1.8	4.8	3.1	14.8	66
Sedhiou	2.5	4.9	3.8	0.3	0.8	12.3	285
Wealth quintile							
Lowest	0.3	1.3	3.7	1.0	0.7	7.0	1,708
Second	0.3	3.1	10.0	2.0	0.8	16.2	1,623
Middle	1.0	5.8	12.4	1.5	1.5	22.3	1,415
Fourth	2.1	8.2	14.5	1.7	1.2	27.7	1,354
Highest	10.8	17.5	12.0	1.2	1.8	43.4	1,115
Orphan (father and/or mother dead)							
Yes	1.6	6.9	9.8	2.2	1.1	21.7	228
No	2.4	6.4	10.1	1.5	1.2	21.6	6,987
Total	2.4	6.4	10.1	1.5	1.2	21.6	7,215

Note: The table is based on children who usually live in the household.

The survey indicates that 22 percent of children age 3-5 attended an early childhood learning institution. Among these, nearly half (10 percent) were in a school for learning the Koran, or a *Daara*. About 6 percent attended a nursery school during the school year. Just 2 percent attended a kindergarden, and 2 percent a *Case des Tout-Petits*.

At the national level there is only a slight difference in attendance by gender, but there is a significant geographic disparity. The attendance ratio of children age 3-5 in an early childhood facility reaches 33 percent in urban areas, compared with 15 percent in rural areas. In rural areas less than 1 percent of children age 3-5 attended a kindergarden (versus 6 percent in urban areas), and only 4 percent attended a nursery school (versus 11 percent in urban areas).

Geographic accessibility by region and availability of schooling in the rural regions determine the level of attendance. In the regions of Kolda and Kaffrine, children age 3-5 (9 percent) have the fewest opportunities to attend early childhood education. The attendance ratio in a *Case des Tout-Petits* among children age 3-5 is below 1 percent in the regions of Kolda, Matam, Kaffrine, and Sédhiou. Kindergarden attendance is practically zero in a large portion of the country (Diourbel, Tambacounda, Kaolack, Fatick, Kaffrine, and Kédougou). Attendance at a *Daara* is especially high in Kaolack and Thiès (15 percent of children age 3-5).

Analysis according to household wealth quintile shows that the proportion of children attending early childhood learning and development institutions is six times higher in the richest households (43 percent) than in the poorest (7 percent). Differences based on the economic level of the household are especially significant for attendance at kindergarden or nursery school (Table 18.6).

SAMPLE DESIGN

APPENDIX A

A.1   INTRODUCTION

T he Senegal EDS-MICS 2010-2011 follows those of previous surveys in 2005 (EDS-IV), 1997 (EDS-III), 1992 (EDS-II), and 1986 (EDS-I). It is based on a nationally representative sample of approximately 8,200 households and 15,000 completed interviews of women. All women age 15-49 who are household members or who slept in the selected households the night before the survey are eligible for the interview. As in previous surveys, the main objective of the EDS-MICS 2010-2011 is to gather information on the health of women and their young children, fertility, knowledge and use of contraceptive methods, maternal mortality, child mortality, knowledge and attitudes concerning sexually transmitted infections (STIs) and AIDS, and the prevalence of HIV/AIDS among the adult population. The survey produces representative results for the country as a whole, for the capital, Dakar, and other urban cities separately, for the total urban and total rural areas separately, and for each of the country's 14 administrative regions.

Apart from the women's survey, a men's survey is conducted in a subsample of eight households per cluster, one of every two households selected for the women's survey. All men age 15-59 who are household members or who slept in the selected households the night before the survey are eligible for the men's interview. The main objective of the men's survey is to gather information on knowledge and use of contraceptive methods, and knowledge and attitudes concerning STIs and AIDS. All eligible men 15-59 and all eligible women 15-49 in the subsample of households selected for the men's survey are eligible for HIV testing, after they have given their informed consent.

A.2   SAMPLING FRAME

The National Agency of Statistics and Demography (ANSD) has an electronic file of enumeration areas (EAs) created for the needs of the 2002 General Census of Population and Housing (RGPH-2002). This file is used as the sampling frame for the EDS-MICS 2010-2011. In this file are 9,733 EAs; each EA comes with its identifiers (region, department, commune/*arrondissement*, and identification code), the household size, and type of residence (urban or rural). Maps for each EA, created for the 2002 RGPH, are also available where the boundaries of each EA are clearly identifiable. Among the 9,733 EAs, 4,117 are in urban areas, and 5,616 are in rural areas. The average size of an EA is 127 households in urban areas and 99 households in rural areas, with an overall average size of 111 households. The distribution of EAs by region and type of residence is given in Table A.1. The distribution of households and population by region and type of residence is given in Table A.2. The Ministry of Interior recently completed a newly updated division of the country, with the number of regions increasing from 11 to 14 in the 2002 RGPH. Some rural towns in the 2002 RGPH have been redefined as urban areas, increasing the total urban area to about 2 percent. Senegal now has 14 regions; each region is subdivided into departments, with a total of 46 departments; each department is divided into communes and *arrondissements*, etc. In Senegal, 42 percent of the population lives in urban areas, representing 49 percent of all households, with 22 percent of the population and 27 percent of households located in the Dakar region. At the regional level, population size varies widely, from 1 percent in Kédougou to 22 percent in Dakar.

Table A.1 Distribution of enumeration areas (EAs) by the number of EAs and the average number of households per EA by type of residence, and by region.

	Urban		Rural		Total	
Region	Average number of households per EA	Number of EAs	Average number of households per EA	Number of EAs	Average number of households per EA	Number of EAs
Dakar	139	2,060	131	50	139	2,110
Diourbel	106	167	92	923	94	1,090
Fatick	117	79	105	456	107	535
Kaffrine	143	40	102	340	106	380
Kaolack	122	202	103	429	109	631
Kédougou	113	23	107	88	108	111
Kolda	116	94	91	396	96	490
Louga	126	108	95	546	100	654
Matam	116	65	129	275	126	340
Saint-Louis	113	317	119	373	116	690
Sédhiou	106	47	89	285	92	332
Tambacounda	113	110	101	355	104	465
Thiès	111	576	85	812	96	1,388
Ziguinchor	111	229	101	288	106	517
Senegal	127	4,117	99	5,616	111	9,733

Table A.2 Population and household distribution by type of residence and region

	Urban		Rural		Total	
Region	Household	Population	Household	Population	Household	Population
Dakar	0.978	0.972	0.022	0.028	0.273	0.220
Diourbel	0.173	0.159	0.827	0.841	0.095	0.107
Fatick	0.161	0.140	0.839	0.860	0.053	0.056
Kaffrine	0.142	0.121	0.858	0.879	0.037	0.043
Kaolack	0.357	0.310	0.643	0.690	0.064	0.071
Kédougou	0.216	0.191	0.784	0.809	0.011	0.010
Kolda	0.232	0.191	0.768	0.809	0.043	0.048
Louga	0.208	0.190	0.792	0.810	0.061	0.069
Matam	0.175	0.183	0.825	0.817	0.040	0.043
Saint-Louis	0.448	0.441	0.552	0.559	0.074	0.070
Sédhiou	0.164	0.152	0.836	0.848	0.028	0.035
Tambacounda	0.257	0.204	0.743	0.796	0.045	0.052
Thiès	0.483	0.440	0.517	0.560	0.123	0.134
Ziguinchor	0.466	0.477	0.534	0.523	0.051	0.041
Senegal	0.485	0.424	0.515	0.576	1.000	1.000

A.3 SAMPLE ALLOCATION AND SAMPLE SELECTION

The sample for the EDS-MICS 2010-2011 is a stratified sample selected in two stages. The primary sampling unit is the EA as defined in the 2002 Census. Each domain of study is divided into urban and rural areas to form the sampling strata, and the sample is drawn independently in each stratum. In the first stage, 392 EAs were selected with probability proportional to their size, with size being the number of households in the EA. Before the main survey, a household listing and updating of the maps is carried out in all of the selected EAs. The resulting lists of households serve as a sampling frame for the selection of households in the second stage. Some of the selected EAs may be of large size. In order to minimize the task of household listing, selected EAs that have more than 200 households are segmented. Only one segment is selected for the survey with probability proportional to the segment size. In the second stage, for each EA selected in the first stage, a fixed number of 21 households is selected with systematic sampling of equal probability from the newly established household listing.

Before selecting the EAs for the first stage, the sampling frame is sorted by region and type of residence (urban-rural) to form the sampling strata. In all, 28 sampling strata were created. Within each stratum, before selecting the EAs, the EAs are sorted according to administrative units within the region (departments, communes and *arrondissements*, etc.). This introduces an implicit stratification of all administrative units within the region with allocation proportional to the size of the sample unit.

Because of the wide variation in population distribution, a proportional distribution of 15,000 completed interviews for women gives a sample size by region ranging from 153 women for Kédougou to 3,297 women for the Dakar region. Such a distribution of the sample cannot give a statistical precision comparable across the regions. Analysis of DHS surveys in other countries shows that a minimum sample of 800 completed interviews of women is needed to produce reliable indicators within a regional domain, especially fertility rate and child mortality rate. In order to enhance the comparability of information among regions, an allocation according to power (a compromise between the proportional distribution and identical distribution) is used, as shown in Table A.3, with a minimum of 804 completed interviews for women in Kédougou. This distribution of the sample also shows an under-sampling in the Dakar region and in urban areas. Under-sampling or over-sampling in some regions is not a problem because the sampling weights are developed. Use of sampling weights in all analyses can eventually correct the effects of under- or over-sampling.

Table A.3 gives the sample allocation of EAs and households by type of residence (urban-rural) and by region. A total of 392 EAs are selected, with 147 in urban areas and 245 in rural areas. With regard to households, a total of 8,232 are selected, with 3,087 in urban areas, and 5,145 in rural areas. Table A.4 gives the expected sample allocation of completed interviews for women age 15-49 and men age 15-59 by type of residence and by region. The expected number of completed interviews for women is 15,044, with 5,770 in urban areas and 9,274 in rural areas. The expected number of completed interviews for men is 4,429, with 1,970 in urban areas and 2,459 in rural areas. For HIV testing, tables A.5 and A.6 give the expected sample allocation of women and men eligible for the HIV test and the expected sample allocation of women and men both interviewed and tested for HIV, by type of residence and by region.

Table A.3 Sample allocation of EAs and households by type of residence and by region

Region	Number of EAs			Number of households		
	Urban	Rural	Total	Urban	Rural	Total
Dakar	30	4	34	630	84	714
Diourbel	8	23	31	168	483	651
Fatick	7	21	28	147	441	588
Kaffrine	6	21	27	126	441	567
Kaolack	11	18	29	231	378	609
Kédougou	6	15	21	126	315	441
Kolda	8	19	27	168	399	567
Louga	8	20	28	168	420	588
Matam	8	19	27	168	399	567
Saint-Louis	13	16	29	273	336	609
Sédhiou	7	19	26	147	399	546
Tambacounda	8	19	27	168	399	567
Thiès	14	17	31	294	357	651
Ziguinchor	13	14	27	273	294	567
Senegal	147	245	392	3,087	5,145	8,232

Table A.4 Sample allocation of completed women's and men's interviews by type of residence and by region

Region	Expected number of women age 15-49			Expected number of men age 15-59		
	Urban	Rural	Total	Urban	Rural	Total
Dakar	1,178	151	1,329	400	40	440
Diourbel	313	870	1,183	108	231	339
Fatick	276	796	1,072	93	211	304
Kaffrine	236	796	1,032	81	211	292
Kaolack	432	681	1,113	147	180	327
Kédougou	236	568	804	81	151	232
Kolda	313	719	1,032	108	191	299
Louga	313	757	1,070	108	200	308
Matam	313	719	1,032	108	191	299
Saint-Louis	511	606	1,117	174	160	334
Sédhiou	276	719	995	93	191	284
Tambacounda	313	719	1,032	108	191	299
Thiès	549	644	1,193	187	171	358
Ziguinchor	511	529	1,040	174	140	314
Senegal	5,770	9,274	15,044	1,970	2,459	4,429

Note: the men's interviews are undertaken in a sub-sample of eight households per EA

Table A.5 Sample allocation of women and men eligible for HIV test by type of residence and by region

Région	Eligible women			Eligible men		
	Urban	Rural	Total	Urban	Rural	Total
Dakar	480	62	542	468	46	514
Diourbel	128	354	482	126	267	393
Fatick	112	324	436	109	244	353
Kaffrine	96	324	420	95	244	339
Kaolack	176	277	453	172	208	380
Kédougou	96	231	327	95	175	270
Kolda	128	293	421	126	221	347
Louga	128	308	436	126	231	357
Matam	128	293	421	126	221	347
Saint-Louis	208	247	455	204	185	389
Sédhiou	112	293	405	109	221	330
Tambacounda	128	293	421	126	221	347
Thiès	224	262	486	219	198	417
Ziguinchor	208	216	424	204	162	366
Senegal	2,352	3,777	6,129	2,305	2,844	5,149

Note: HIV testing is undertaken in households selected for men's interview, that is, eight houseuseholds per EA.

Table A.6 Sample allocation of women and men to be interviewed and tested for HIV by type of residence and by region

Region	Women to be tested			Men to be tested		
	Urban	Rural	Total	Urban	Rural	Total
Dakar	393	54	447	342	36	378
Diourbel	105	307	412	92	208	300
Fatick	92	281	373	80	190	270
Kaffrine	79	281	360	69	190	259
Kaolack	144	240	384	126	162	288
Kédougou	79	200	279	69	136	205
Kolda	105	254	359	92	172	264
Louga	105	267	372	92	180	272
Matam	105	254	359	92	172	264
Saint-Louis	170	214	384	149	144	293
Sédhiou	92	254	346	80	172	252
Tambacounda	105	254	359	92	172	264
Thiès	183	227	410	160	154	314
Ziguinchor	170	187	357	149	126	275
Senegal	1,927	3,274	5,201	1,684	2,214	3,898

The above calculations are based on the results of the EDS-IV in 2005: the number of women age 15-49 per household was 2.15 for urban areas and 2.05 for rural areas; the number of men age 15-59 was 2.1 per household for urban areas and 1.55 for rural areas; the response rate at the household level was 93 percent for urban areas and 94 percent for rural areas; the response rate for women was 93.5 percent for both urban and rural areas; the response rate for men was 85.5 percent for urban areas and 86.4 percent for rural areas; the response rate among women for HIV testing was 81.9 percent and 86.6 percent for urban and rural areas, respectively; and finally, the response rate among men for HIV testing was 73.1 percent and 77.9 percent for urban and rural areas, respectively.

A.4   SELECTION PROBABILITY AND SAMPLING WEIGHT

Sampling probabilities are calculated separately for each sampling stage and for each cluster. We use the following notations:

P_{1hi}: first-stage sampling probability of the ith cluster in stratum h
P_{2hi}: second-stage sampling probability within the ith cluster (household selection)

Let a_h be the number of clusters selected in stratum h, M_i the number of households in cluster i, and t_{hij} the estimated size in proportion to segment j selected for cluster i of stratum h. Note that $t_{hij} = 1$ if the cluster was not segmented and the sum of t_{hij} is equal to 1.

Then the first-stage sampling probability of the ith cluster in stratum h is:

$$P_{1hi} = \frac{a_h \times M_i}{\sum_i M_i} \times t_{hij}$$

Let L_{hi} be the number of households listed in the household listing operation in cluster i in stratum h, let b_{hi} be the number of households selected in the cluster. The second stage's selection probability for each household in the cluster is calculated as follows:

$$P_{2hi} = \frac{b_{hi}}{L_{hi}}$$

The overall selection probability of each household in cluster i of stratum h is therefore the production of the two stages selection probabilities:

$$P_{hi} = P_{1hi} \times P_{2hi}$$

Because of the nonproportional allocation of the sample to the different domains, sampling weights are required to ensure the actual representativeness of the sample at the national level and at the domain level as well. The sampling weight for each household in cluster i of stratum h is the inverse of its overall selection probability:

$$W_{hi} = \frac{1}{P_{hi}}$$

The sampling weights are adjusted to correct for nonresponse in the household and individual interviews. Several sets of weights are calculated. For the women's survey: a set of weights for the household survey; a set of weights for the women interviewed; for the men's survey: a set of weights for the household survey; a set of weights for the men interviewed; for HIV testing, a set of weights for all women interviewed and tested; a set of weights for all men interviewed and tested. Weights at the household level are calculated based on the sampling weights taking into account correction of the household nonresponse; weights for the women interviewed are calculated based on the household weights for the women's survey taking into account correction of the women's individual nonresponse; weights for the men interviewed are calculated based on the household weights for the men's survey taking into account correction of the men's individual non-response; for HIV testing, weights for women interviewed and tested and weights for men interviewed and tested are calculated in the same way as weights for the individual interviews, but based on the household weights for the men's survey taking into account correction of the HIV testing nonresponse, for women and men eligible for the test, respectively. An individual is considered responding to HIV testing if he both responded to the individual interview and was tested with a valid HIV test result. All of the nonresponse corrections are made at the sampling stratum level. The final weights are standardized at the national level so that the weighted number of cases equals the unweighted number of cases for the households interviewed, the women interviewed and the men interviewed, respectively. The final weights for HIV testing are standardized differently: in order for HIV prevalence results to be valid for men and women together, standardization of weight is imperative for men and women to be tested together at the national level. An Excel spreadsheet containing all the sampling parameters was prepared to facilitate calculation of the sampling weights.

Sampling errors are calculated for selected indicators, and for each of the study domains.

A.5 RESULTS OF THE SURVEY

Tables A.7 and A.8 give detailed results of the household, women's, and men's surveys by residence. Following classification of the households according to the various code results, the household response rate (HRR) is calculated as follows:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

The eligible women's response rate (EWRR) is equivalent to the percentage of interviews completed (EWC).

The overall women's response rate (OWRR) is calculated as follows:

$$OWRR = HRR * EWRR/100$$

The overall men's response rate is the product of the household response rate and the men's response rate.

In addition, Tables A.9-A.12 give the coverage rate for HIV testing among women and men by selected sociodemographic variables and sexual behavior.

Table A.7 Sample implementation: Women

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall women response rates, according to urban-rural residence and region (unweighted), EDS-MICS, Senegal 2010-11

| | Residence | | Region | | | | | | | | | | | | | | |
Result	Urban	Rural	Dakar	Ziguin chor	Diour bel	Saint-Louis	Tamba counda	Kao lack	Thiès	Louga	Fatick	Kolda	Matam	Kaffrine	Kédou gou	Sédhiou	Total
Selected households																	
Completed (C)	96.0	96.4	96.1	95.8	96.3	96.2	97.4	98.9	96.9	94.6	97.4	95.2	90.3	98.4	95.7	97.4	96.2
Household present but no competent respondent at home (HP)	0.5	0.2	0.3	1.1	0.2	0.0	0.4	0.2	0.2	0.5	0.7	0.4	0.2	0.2	0.5	0.2	0.3
Postponed (P)	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.0
Refused (R)	1.3	1.1	1.7	0.2	1.8	1.5	0.4	0.0	1.2	1.7	0.3	0.4	5.3	0.2	0.5	0.5	1.1
Dwelling not found (DNF)	0.1	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Household absent (HA)	0.8	1.1	0.8	1.6	0.6	0.8	0.9	0.5	0.6	1.2	1.0	1.4	2.2	0.4	1.4	0.9	1.0
Dwelling vacant/address not a dwelling (DV)	1.1	0.8	0.8	1.1	0.9	1.1	0.5	0.3	0.8	1.0	0.5	2.3	1.6	0.5	1.1	0.2	0.9
Dwelling destroyed (DD)	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.2	0.0	0.4	0.0	0.2	0.1
Other (O)	0.2	0.3	0.1	0.4	0.2	0.0	0.4	0.2	0.2	0.7	0.0	0.0	0.4	0.0	0.9	0.4	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	3,088	5,124	714	567	651	609	567	609	651	588	588	567	546	568	441	546	8,212
Household response rate (HRR)[1]	98.0	98.6	97.9	98.7	98.0	98.2	99.3	99.8	98.4	97.5	99.0	99.1	94.3	99.6	99.1	99.1	98.4
Eligible women																	
Completed (EWC)	91.8	93.3	90.6	94.5	92.7	92.3	95.7	93.8	95.3	92.1	95.2	93.5	86.6	97.5	77.8	94.1	92.7
Not at home (EWNH)	3.2	2.9	3.8	3.4	2.9	3.0	1.4	3.4	2.0	2.9	2.0	2.9	5.1	1.0	5.8	3.6	3.0
Postponed (EWP)	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.3	0.1	0.0	0.2	0.0	0.0
Refused (EWR)	3.3	2.2	3.4	0.6	2.7	3.4	1.9	1.3	1.2	3.6	0.9	1.8	6.1	1.1	11.3	0.7	2.6
Partly completed (EWPC)	0.3	0.1	0.3	0.4	0.2	0.1	0.1	0.1	0.1	0.2	0.0	0.0	0.6	0.0	0.8	0.1	0.2
Incapacitated (EWI)	1.0	1.0	1.3	0.9	1.3	0.8	0.8	1.0	1.1	0.6	1.4	0.9	1.3	0.4	1.3	1.3	1.0
Other (EWO)	0.4	0.4	0.5	0.2	0.1	0.4	0.1	0.3	0.3	0.5	0.5	0.5	0.3	0.0	2.8	0.3	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	6,742	10,183	1,497	1,001	1,538	1,180	1,185	1,493	1,381	1,375	1,109	1,160	1,194	1,062	635	1,115	16,925
Eligible women response rate (EWRR)[2]	91.8	93.3	90.6	94.5	92.7	92.3	95.7	93.8	95.3	92.1	95.2	93.5	86.6	97.5	77.8	94.1	92.7
Overall women response rate (OWRR)[3]	90.0	92.0	88.7	93.3	90.8	90.6	95.0	93.6	93.8	89.9	94.2	92.7	81.6	97.1	77.1	93.2	91.2

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] The eligible women response rate (EWRR) is equivalent to the percentage of interviews completed (EWC).

[3] The overall women response rate (OWRR) is calculated as:

$$OWRR = HRR * EWRR/100$$

Table A.8 Sample implementation: Men

Percent distribution of households and eligible men by results of the household and individual interviews, and household, eligible men, and overall men response rates, according to urban-rural residence and region (unweighted), EDS-MICS, Senegal 2010-11

| | Residence | | Region | | | | | | | | | | | | | | |
Result	Urban	Rural	Dakar	Ziguin chor	Diour bel	Saint-Louis	Tamba counda	Kao lack	Thiès	Louga	Fatick	Kolda	Matam	Kaffrine	Kédou gou	Sédhiou	Total
Selected households																	
Completed (C)	95.2	96.5	96.0	93.1	94.4	97.0	97.7	98.7	96.4	93.3	99.1	94.9	88.9	99.5	98.2	97.1	96.0
Household present but no competent respondent at home (HP)	0.7	0.2	0.0	1.4	0.4	0.0	0.5	0.4	0.0	1.3	0.0	0.5	0.5	0.0	0.0	0.0	0.4
Postponed (P)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5	0.1
Refused (R)	1.8	1.0	2.2	0.5	2.0	1.3	0.0	0.0	2.0	1.8	0.4	0.9	6.3	0.0	0.0	0.5	1.3
Dwelling not found (DNF)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Household absent (HA)	0.5	1.2	0.7	2.8	1.2	1.3	0.5	0.0	0.8	0.9	0.4	1.4	2.4	0.0	0.0	1.0	1.0
Dwelling vacant/address not a dwelling (DV) / Dwelling destroyed (DD)	1.4	0.8	1.1	1.9	2.0	0.4	1.4	0.4	0.4	1.8	0.0	1.9	1.9	0.5	0.6	0.5	1.1
Other (O)	0.1	0.3	0.0	0.5	0.0	0.0	0.0	0.4	0.0	0.9	0.0	0.0	0.0	0.0	1.2	0.5	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	1,177	1,952	272	216	248	232	216	232	248	224	224	216	208	217	168	208	3,129
Household response rate (HRR)[1]	97.2	98.8	97.8	98.0	97.5	98.7	99.5	99.6	97.6	96.8	99.6	98.1	93.0	100.0	100.0	99.0	98.2
Eligible men																	
Completed (EMC)	84.9	88.6	86.5	92.0	87.6	84.6	85.3	87.9	89.0	82.2	90.1	89.2	76.3	96.4	80.2	88.7	87.0
Not at home (EMNH)	8.4	6.4	7.2	5.8	6.3	10.5	7.0	9.0	5.7	6.6	5.6	6.3	6.7	2.1	15.8	9.0	7.2
Postponed (EMP)	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Refused (EMR)	4.6	3.5	5.0	0.5	4.7	3.9	6.1	1.0	2.9	8.7	2.8	3.1	12.5	1.5	2.0	0.5	4.0
Partly completed (EMPC)	0.2	0.1	0.2	0.0	0.0	0.3	0.5	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Incapacitated (EMI)	1.3	1.2	0.5	1.7	1.1	0.8	0.9	1.0	2.0	0.3	1.3	1.2	3.3	0.0	2.0	1.5	1.2
Other (EMO)	0.6	0.2	0.5	0.0	0.3	0.0	0.2	1.0	0.4	1.3	0.3	0.2	0.8	0.0	0.0	0.3	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of men	2,425	3,240	584	411	380	382	441	488	455	393	392	416	359	329	247	388	5,665
Eligible men response rate (EMRR)[2]	84.9	88.6	86.5	92.0	87.6	84.6	85.3	87.9	89.0	82.2	90.1	89.2	76.3	96.4	80.2	88.7	87.0
Overall men response rate (OMRR)[3]	82.5	87.5	84.5	90.2	85.4	83.4	84.9	87.5	86.8	79.5	89.6	87.5	71.0	96.4	80.2	87.8	85.4

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 * C}{C + HP + P + R + DNF}$$

[2] The eligible men response rate (EMRR) is equivalent to the percentage of interviews completed (EMC).
[3] The overall men response rate (OMRR) is calculated as:

$$OMRR = HRR * EMRR/100$$

Table A.9 Coverage of HIV testing by social and demographic characteristics: Women

Percent distribution of interviewed women age 15-49 by HIV testing status, according to social and demographic characteristics (unweighted), EDS-MICS, Senegal 2010-11

| | HIV test status | | | | | |
Characteristic	DBS tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]	Total	Number of women
Marital status						
Never married	92.2	5.7	1.3	0.8	100.0	1,661
Ever had sex	92.6	5.9	1.1	0.4	100.0	271
Never had sex	92.2	5.7	1.3	0.9	100.0	1,390
Married/living together	90.1	7.5	1.4	0.9	100.0	4,227
Divorced/separated	90.7	6.9	1.5	1.0	100.0	204
Widowed	91.3	7.2	1.4	0.0	100.0	69
Type of union						
In polygynous union	90.3	7.1	1.6	1.0	100.0	1,553
In non-polygynous union	90.0	7.8	1.3	0.8	100.0	2,669
Not currently in union	92.0	5.9	1.3	0.8	100.0	1,934
Don't know/missing	100.0	0.0	0.0	0.0	100.0	5
Ever had sexual intercourse						
Yes	90.3	7.4	1.4	0.9	100.0	4,718
No	92.0	5.9	1.2	0.8	100.0	1,443
Currently pregnant						
Pregnant	90.7	6.9	1.9	0.4	100.0	518
Not pregnant/not sure	90.7	7.0	1.3	0.9	100.0	5,643
Times slept away from home in the past 12 months						
None	89.3	8.3	1.3	1.2	100.0	2,724
1-2	91.8	6.3	1.4	0.4	100.0	2,557
3-5	94.4	3.5	1.1	1.1	100.0	461
5+	89.5	7.3	1.9	1.2	100.0	411
Missing	100.0	0.0	0.0	0.0	100.0	8
Time away in past 12 months						
Away more than 1 month	92.5	5.4	1.6	0.6	100.0	1,246
Away less than 1 month	91.5	6.4	1.4	0.6	100.0	2,188
Not away	89.3	8.3	1.3	1.2	100.0	2,727
Total	90.7	7.0	1.4	0.9	100.0	6,161

[1] Includes all dried blood samples (DBS) tested at the lab and for which there is a result, i.e., positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.
[2] Includes: (1) other results of blood collection (e.g., technical problem in the field), (2) lost specimens, (3) noncorresponding bar codes, and (4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.

Table A.10 Coverage of HIV testing by social and demographic characteristics: Men

Percent distribution of interviewed men age 15-59 by HIV testing status, according to social and demographic characteristics (unweighted), EDS-MICS, Senegal 2010-11

Characteristic	HIV test status				Total	Number
	DBS tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]		
Marital status						
Never married	88.9	7.1	3.0	1.0	100.0	2,689
Ever had sex	90.6	5.3	3.2	0.9	100.0	1,122
Never had sex	87.7	8.4	2.9	1.0	100.0	1,567
Married/living together	86.5	8.9	3.3	1.2	100.0	2,159
Divorced/separated	85.5	11.6	1.4	1.4	100.0	69
Widowed	83.3	8.3	8.3	0.0	100.0	12
Type of union						
In polygynous union	88.1	8.1	3.3	0.5	100.0	420
In non-polygynous union	86.1	9.1	3.3	1.4	100.0	1,739
Not currently in union	88.8	7.2	3.0	1.0	100.0	2,770
Ever had sexual intercourse						
Yes	87.8	7.8	3.3	1.1	100.0	3,356
No	87.7	8.4	2.9	1.0	100.0	1,573
Times slept away from home in the past 12 months						
None	86.4	8.6	3.8	1.3	100.0	1,645
1-2	89.5	6.9	2.5	1.0	100.0	1,642
3-5	88.4	7.5	3.7	0.4	100.0	670
5+	87.2	8.6	2.9	1.2	100.0	886
Missing	82.6	14.0	2.3	1.2	100.0	86
Time away in past 12 months						
Away more than 1 month	88.4	8.0	2.6	1.0	100.0	1,231
Away less than 1 month	88.6	7.4	3.0	1.0	100.0	2,015
Not away	86.4	8.6	3.7	1.2	100.0	1,683
Total	87.8	8.0	3.2	1.1	100.0	4,929

[1] Includes all dried blood samples (DBS) tested at the lab and for which there is a result, i.e., positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.
[2] Includes: (1) other results of blood collection (e.g., technical problem in the field), (2) lost specimens, (3) noncorresponding bar codes, and (4) other lab results such as blood not tested for technical reasons, not enough blood to complete the algorithm, etc.

Table A.11 Coverage of HIV testing by sexual behavior characteristics: Women

Percent distribution of interviewed women age 15-49 who ever had sexual intercourse by HIV test status, according to sexual behavior characteristics (unweighted), EDS-MICS, Senegal 2010-11

	HIV test status					
Sexual behavior characteristic	DBS tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]	Total	Number
Age at first sexual intercourse						
< 16	90.3	7.6	1.4	0.7	100.0	1,723
16-17	90.2	7.5	1.4	0.9	100.0	911
18-19	91.3	6.0	1.6	1.1	100.0	751
20+	89.7	8.2	1.2	0.9	100.0	996
Missing	90.5	6.5	1.8	1.2	100.0	337
Multiple sexual partners and partner concurrency in past 12 months						
0	88.7	7.6	2.3	1.4	100.0	726
1	90.6	7.3	1.3	0.8	100.0	3,969
2+	91.3	8.7	0.0	0.0	100.0	23
Had concurrent partners[3]	90.0	10.0	0.0	0.0	100.0	10
None of the partners were concurrent	92.3	7.7	0.0	0.0	100.0	13
Condom use at last sexual intercourse in past 12 months						
Used condom	95.9	3.4	0.0	0.7	100.0	147
Did not use condom at last sex in past 12 months	90.4	7.5	1.3	0.8	100.0	3,845
No sexual intercourse in past 12 months	88.7	7.6	2.3	1.4	100.0	726
Number of sexual partners in lifetime						
1	90.0	7.6	1.4	0.9	100.0	3,674
2	92.0	5.5	1.5	0.9	100.0	775
3-4	91.5	7.6	0.8	0.0	100.0	236
5-9	100.0	0.0	0.0	0.0	100.0	18
10+	22.2	66.7	11.1	0.0	100.0	9
Missing	100.0	0.0	0.0	0.0	100.0	6
Prior HIV testing						
Ever tested	92.2	5.8	1.2	0.8	100.0	1,432
Received results	92.1	5.9	1.2	0.8	100.0	1,340
Did not receive results	94.6	4.3	1.1	0.0	100.0	92
Never tested	89.5	8.1	1.5	0.9	100.0	3,286
Total	90.3	7.4	1.4	0.9	100.0	4,718

[1] Includes all dried blood samples (DBS) tested at the lab and for which there is a result, i.e., positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.
[2] Includes (1) other results of blood collection (e.g. technical problem in the field), (2) lost specimens, (3) noncorresponding bar codes, and (4) other lab results such as blood not tested for technical reasons, not enough blood to complete the algorithm, etc.
[3] A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey. (Respondents with concurrent partners include polygynous men who had overlapping sexual partnerships with two or more wives).

Table A.12 Coverage of HIV testing by sexual behavior characteristics: Men

Percent distribution of interviewed men age 15-59 who ever had sexual intercourse by HIV test status, according to sexual behavior characteristics (unweighted), EDS-MICS, Senegal 2010-11

Sexual behavior characteristic	HIV test status					
	DBS tested[1]	Refused to provide blood	Absent at the time of blood collection	Other/ missing[2]	Total	Number
Age at first sexual intercourse						
< 16	90.0	5.7	3.4	0.9	100.0	530
16-17	88.6	8.0	3.0	0.4	100.0	473
18-19	88.7	6.6	3.4	1.3	100.0	609
20+	87.0	8.3	3.5	1.2	100.0	1,598
Missing	83.6	13.7	0.7	2.1	100.0	146
Multiple sexual partners and partner concurrency in past 12 months						
0	88.9	7.6	2.7	0.8	100.0	488
1	87.1	8.1	3.5	1.3	100.0	2,217
2+	89.6	6.9	2.9	0.6	100.0	651
Had concurrent partners[3]	89.6	6.9	3.0	0.5	100.0	433
None of the partners were concurrent	89.4	6.9	2.8	0.9	100.0	218
Condom use at last sexual intercourse in past 12 months						
Used condom	90.2	5.4	3.9	0.5	100.0	591
Did not use condom at last sex in past 12 months	87.0	8.4	3.2	1.3	100.0	2 277
No sexual intercourse in past 12 months	88.9	7.6	2.7	0.8	100.0	488
Paid for sexual intercourse in past 12 months						
Yes	93.3	2.2	4.4	0.0	100.0	45
Used condom	92.9	3.6	3.6	0.0	100.0	28
Did not use condom	94.1	0.0	5.9	0.0	100.0	17
No paid sex in the last 12 months	87.8	7.9	3.3	1.1	100.0	3,311
Number of sexual partners in lifetime						
1	85.9	9.1	3.6	1.4	100.0	858
2	87.3	6.8	5.4	0.6	100.0	707
3-4	89.3	6.7	2.8	1.2	100.0	819
5-9	90.7	6.3	1.8	1.3	100.0	558
10+	93.8	5.0	0.8	0.4	100.0	240
Missing	75.9	19.0	3.4	1.7	100.0	174
Prior HIV testing						
Ever tested	90.1	5.7	2.9	1.3	100.0	771
Received results	90.1	5.4	3.0	1.5	100.0	689
Did not receive results	90.2	8.5	1.2	0.0	100.0	82
Never tested	87.2	8.4	3.4	1.0	100.0	2,585
Total	87.8	7.8	3.3	1.1	100.0	3,356

[1] Includes all dried blood samples (DBS) tested at the lab and for which there is a result, i.e., positive, negative, or indeterminate. Indeterminate means that the sample went through the entire algorithm, but the final result was inconclusive.
[2] Includes(1) other results of blood collection (e.g., technical problem in the field), (2) lost specimens, (3) noncorresponding bar codes, and (4) other lab results such as blood not tested for technical reason, not enough blood to complete the algorithm, etc.
[3] A respondent is considered to have had concurrent partners if he or she had overlapping sexual partnerships with two or more people during the 12 months before the survey. (Respondents with concurrent partners include polygynous men who had overlapping sexual partnerships with two or more wives).

SAMPLING ERRORS

APPENDIX B

T he estimates from a sample survey are affected by two types of errors: nonsampling errors and sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the Senegal EDS-MICS 2010-2011 to minimize this type of error, nonsampling errors are impossible to avoid and are difficult to evaluate statistically.

Sampling errors, in contrast, can be evaluated statistically. The sample of respondents selected in the EDS-MICS 2010-2011 is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

Sampling error is usually measured in terms of the *standard error* for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the EDS-MICS 2010-2011 sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulas. Sampling errors are computed in SAS using programs developed by ICF Macro. These programs use the Taylor linearization method of variance estimation for survey estimates that are means, proportions, or ratios. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$SE^2(r) = var(r) = \frac{1-f}{x^2} \sum_{h=1}^{H} \left[\frac{m_h}{m_h - 1} \left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h} \right) \right]$$

in which

$$z_{hi} = y_{hi} - rx_{hi} \text{, and } z_h = y_h - rx_h$$

where h represents the stratum which varies from 1 to H,
         m_h is the total number of clusters selected in the hth stratum,
         y_{hi} is the sum of the weighted values of variable y in the ith cluster in the hth stratum,
         x_{hi} is the sum of the weighted number of cases in the ith cluster in the hth stratum, and
         f is the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers *all but one* cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the EDS-MICS 2010-2011 there were 391 non-empty clusters. Hence, 391 replications were created. The variance of a rate r is calculated as follows:

$$SE^2(r) = var(r) = \frac{1}{k(k-1)} \sum_{i=1}^{k} (r_i - r)^2$$

in which

$$r_i = kr - (k-1)r_{(i)}$$

where r is the estimate computed from the full sample of 391 clusters,
         $r_{(i)}$ is the estimate computed from the reduced sample of 390 clusters (i^{th} cluster excluded), and
         k is the total number of clusters.

In addition to the standard error, the design effect (DEFT) for each estimate is also calculated The design effect is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. Relative standard errors and confidence limits for the estimates are also calculated.

Sampling errors for the EDS-MICS 2010-2011 are calculated for selected variables considered to be of primary interest. The results are presented in this appendix for the country as a whole, for urban and rural areas separately, and for each of the 14 administrative regions. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 through B.18 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE), for each variable. The sampling errors for mortality rates are presented for the five-year period preceding the survey for the whole country and for the ten-year period preceding the survey, by residence and region. The DEFT is considered undefined when the standard error considering a simple random sample is zero (when the estimate is close to 0 or 1). In the case of the total fertility rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to childbearing.

The confidence interval (e.g., as calculated for *children ever born* can be interpreted as follows: the overall average from the national sample is 2.509 and its standard error is 0.038. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e., 2.509±2×0.038. There is a high probability (95 percent) that the *true* average number of children ever born is between 2.433 and 2.585.

For the total sample, the value of the DEFT, averaged over all variables, is 1.684. This means that, due to multi-stage clustering of the sample, the average standard error is increased by a factor of 1.684 over that in an equivalent simple random sample.

Table B.1 List of selected variables for sampling errors, EDS-MICS, Senegal 2010-11

Variable	Estimate	Base population
WOMEN		
Urban residence	Proportion	All women 15-49
Literacy	Proportion	All women 15-49
No education	Proportion	All women 15-49
Secondary education or higher	Proportion	All women 15-49
Never married/in union	Proportion	All women 15-49
Currently married/in union	Proportion	All women 15-49
Married before age 20	Proportion	All women 25-49
Currently pregnant	Proportion	All women 15-49
Children ever born	Mean	All women 15-49
Children surviving	Mean	All women 15-49
Children ever born to women age 40-49	Mean	All women 40-49
Know any contraceptive method	Proportion	Currently married women 15-49
Currently using any method	Proportion	Currently married women 15-49
Currently using pill	Proportion	Currently married women 15-49
Currently using condoms	Proportion	Currently married women 15-49
Currently using female sterilization	Proportion	Currently married women 15-49
Currently using rhythm	Proportion	Currently married women 15-49
Using public sector source	Proportion	Current users of modern method
Want no more children	Proportion	Currently married women 15-49
Want to delay next birth at least 2 years	Proportion	Currently married women 15-49
Ideal number of children	Mean	All women 15-49
Mothers protected against tetanus for last birth	Proportion	Women with a live birth in last five years
Mothers received medical assistance at delivery	Proportion	Births occurring 1-59 months before survey
Had diarrhea in the past 2 weeks	Proportion	Children under 5
Treated with ORS	Proportion	Children under 5 with diarrhea in past 2 weeks
Taken to health provider	Proportion	Children under 5 with diarrhea in past 2 weeks
Vaccination card seen	Proportion	Children 12-23 months
Received BCG vaccination	Proportion	Children 12-23 months
Received DPT vaccination (3 doses)	Proportion	Children 12-23 months
Received polio vaccination (3 doses)	Proportion	Children 12-23 months
Received measles vaccination	Proportion	Children 12-23 months
Fully immunized	Proportion	Children 12-23 months
Height-for-age (-2SD)	Proportion	Children under 5 who are measured
Weight-for-height (-2SD)	Proportion	Children under 5 who are measured
Weight-for-age (-2SD)	Proportion	Children under 5 who are measured
Body Mass Index (BMI) <18.5	Proportion	All women 15-49 who were measured
Prevalence of anemia (children 6-59 months)	Proportion	All children 6-59 months who were tested
Prevalence of anemia (women 15-49)	Proportion	All women 15-49 who were tested
Total fertility rate (last 3 years)	Rate	Women-years of exposure to childbearing
Neonatal mortality rate[1]	Rate	Children exposed to the risk of mortality
Post-neonatal mortality rate[1]	Rate	Children exposed to the risk of mortality
Infant mortality rate[1]	Rate	Children exposed to the risk of mortality
Child mortality rate[1]	Rate	Children exposed to the risk of mortality
Under-five mortality rate[1]	Rate	Children exposed to the risk of mortality
HIV prevalence among all women 15-49	Proportion	All interviewed women who were tested at the lab
MEN		
Urban residence	Proportion	All men 15-49
Literacy	Proportion	All men 15-49
No education	Proportion	All men 15-49
Secondary education or higher	Proportion	All men 15-49
Never married/in union	Proportion	All men 15-49
Currently married/in union	Proportion	All men 15-49
HIV prevalence among all men 15-49	Proportion	All interviewed men 15-49 who were tested at the lab
HIV prevalence among all men 15-59	Proportion	All interviewed men 15-59 who were tested at the lab
WOMEN AND MEN		
HIV prevalence among all women and men 15-49	Proportion	All interviewed men and women 15-49 who were tested at the lab

[1] The mortality rates are calculated for 5 years and 10 years before the survey for the national sample and regional samples, respectively.

Variable	Value (R)	Standard error (SE)	Un-weighted number (N)	Weighted number (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence interval R-2SE	Confidence interval R+2SE
			WOMEN					
Urban residence	0.493	0.014	15,687	15,687	3.571	0.029	0.465	0.522
Literacy	0.378	0.011	15,687	15,687	2.725	0.028	0.357	0.399
No education	0.579	0.012	15,687	15,687	3.129	0.021	0.554	0.603
Secondary education or higher	0.204	0.009	15,687	15,687	2.936	0.046	0.185	0.223
Never married/in union	0.292	0.007	15,687	15,687	1.947	0.024	0.278	0.306
Currently married/in union	0.660	0.007	15,687	15,687	1.847	0.011	0.646	0.674
Married before age 20	0.544	0.011	8,915	9,040	2.133	0.021	0.521	0.566
Currently pregnant	0.077	0.003	15,687	15,687	1.372	0.038	0.071	0.083
Children ever born	2.509	0.038	15,687	15,687	1.734	0.015	2.433	2.585
Children surviving	2.220	0.032	15,687	15,687	1.687	0.015	2.156	2.285
Children ever born to women age 40-49	5.714	0.098	2,313	2,328	1.565	0.017	5.519	5.910
Know any contraceptive method	0.927	0.006	10,804	10,347	2.325	0.006	0.915	0.938
Currently using any method	0.131	0.006	10,804	10,347	1.726	0.043	0.120	0.143
Currently using pill	0.041	0.003	10,804	10,347	1.618	0.075	0.035	0.047
Currently using condom	0.006	0.001	10,804	10,347	1.527	0.185	0.004	0.009
Currently using female sterilization	0.002	0.001	10,804	10,347	1.280	0.254	0.001	0.004
Currently using periodic abstinence	0.003	0.001	10,804	10,347	1.686	0.276	0.002	0.005
Using public sector source	0.836	0.016	1,232	1,368	1.554	0.020	0.803	0.869
Want no more children	0.216	0.006	10,804	10,347	1.485	0.027	0.205	0.228
Want to delay next birth at least 2 years	0.379	0.006	10,804	10,347	1.386	0.017	0.366	0.392
Ideal number of children	5.227	0.037	12,492	12,516	1.874	0.007	5.152	5.301
Mothers protected against tetanus for last birth	0.686	0.010	8,147	7,678	1.860	0.014	0.666	0.705
Mothers received medical assistance at delivery	0.651	0.013	12,326	11,479	2.408	0.020	0.625	0.677
Had diarrhea in the last 2 weeks	0.206	0.008	11,633	10,893	1.949	0.038	0.191	0.222
Treated with ORS	0.224	0.013	2,196	2,246	1.495	0.060	0.197	0.251
Taken to health provider	0.347	0.014	2,196	2,246	1.351	0.040	0.319	0.374
Vaccination card seen	0.664	0.016	2,377	2,199	1.620	0.024	0.632	0.697
Received BCG vaccination	0.947	0.006	2,377	2,199	1.245	0.006	0.935	0.959
Received DPT vaccination (3 doses)	0.826	0.012	2,377	2,199	1.520	0.015	0.801	0.850
Received polio vaccination (3 doses)	0.727	0.014	2,377	2,199	1.444	0.019	0.700	0.754
Received measles vaccination	0.821	0.011	2,377	2,199	1.355	0.013	0.799	0.843
Fully immunized	0.628	0.014	2,377	2,199	1.417	0.023	0.600	0.657
Height-for-age (-2SD)	0.265	0.011	3,931	3,761	1.331	0.040	0.244	0.287
Weight-for-height (-2SD)	0.101	0.006	3,931	3,761	1.092	0.055	0.090	0.112
Weight-for-age (-2SD)	0.177	0.008	3,931	3,761	1.197	0.047	0.160	0.193
Prevalence of anemia (children 6-59 months)	0.764	0.011	3,861	3,761	1.422	0.014	0.743	0.785
Prevalence of anemia (women 15-49)	0.543	0.010	5,553	5,622	1.518	0.019	0.523	0.564
Body Mass Index (BMI) <18.5	0.220	0.009	5,126	5,187	1.621	0.042	0.201	0.238
Total fertility rate (last 3 years)	4.984	0.118	43,859	44,056	1.632	0.024	4.748	5.219
Neonatal mortality rate (last 0-4 years)	29.176	2.022	12,374	11,544	1.238	0.069	25.132	33.221
Post-neonatal mortality rate (last 0-4 years)	17.561	1.506	12,302	11,479	1.161	0.086	14.550	20.573
Infant mortality rate (last 0-4 years)	46.738	2.420	12,393	11,562	1.167	0.052	41.898	51.578
Child mortality rate (last 0-4 years)	26.105	2.214	11,834	11,058	1.305	0.085	21.677	30.533
Under-five mortality rate (last 0-4 years)	71.623	3.399	12,537	11,673	1.257	0.047	64.825	78.421
HIV prevalence among all women 15-49	0.008	0.001	5,589	5,325	1.063	0.155	0.006	0.011
			MEN					
Urban residence	0.559	0.018	4,413	4,416	2.433	0.033	0.522	0.595
No education	0.369	0.014	4,413	4,416	1.979	0.039	0.341	0.398
Secondary education or higher	0.345	0.015	4,413	4,416	2.091	0.043	0.315	0.375
Never married/in union	0.620	0.012	4,413	4,416	1.594	0.019	0.596	0.643
Currently married/in union	0.364	0.011	4,413	4,416	1.564	0.031	0.342	0.387
HIV prevalence among all men 15-49	0.005	0.001	3,871	4,103	1.199	0.286	0.002	0.007
HIV prevalence among all men 15-59	0.005	0.001	4,326	4,590	1.141	0.242	0.003	0.008
			WOMEN AND MEN					
HIV prevalence among all women and men 15-49	0.007	0.001	9,460	9,428	1.175	0.147	0.005	0.009

na = Not applicable

Variable	Value (R)	Standard error (SE)	Un-weighted number (N)	Weighted number (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence interval R-2SE	Confidence interval R+2SE
			WOMEN					
Urban residence	1.000	0.000	6,192	7,738	na	0.000	1.000	1.000
Literacy	0.555	0.019	6,192	7,738	2.948	0.034	0.518	0.592
No education	0.375	0.021	6,192	7,738	3.331	0.055	0.334	0.416
Secondary education or higher	0.328	0.020	6,192	7,738	3.269	0.059	0.289	0.367
Never married/in union	0.386	0.013	6,192	7,738	2.094	0.034	0.360	0.412
Currently married/in union	0.550	0.013	6,192	7,738	2.063	0.024	0.524	0.576
Married before age 20	0.407	0.019	3,356	4,424	2.252	0.047	0.369	0.446
Currently pregnant	0.059	0.005	6,192	7,738	1.556	0.079	0.050	0.068
Children ever born	1.951	0.060	6,192	7,738	1.944	0.031	1.831	2.070
Children surviving	1.778	0.051	6,192	7,738	1.835	0.028	1.677	1.879
Children ever born to women age 40-49	4.755	0.163	860	1,120	1.653	0.034	4.428	5.081
Know any contraceptive method	0.964	0.007	3,448	4,256	2.172	0.007	0.951	0.978
Currently using any method	0.220	0.013	3,448	4,256	1.881	0.060	0.193	0.246
Currently using pill	0.075	0.007	3,448	4,256	1.595	0.095	0.061	0.090
Currently using condom	0.013	0.003	3,448	4,256	1.485	0.221	0.007	0.019
Currently using female sterilization	0.002	0.001	3,448	4,256	1.408	0.500	0.000	0.005
Currently using periodic abstinence	0.007	0.002	3,448	4,256	1.565	0.307	0.003	0.012
Using public sector source	0.793	0.022	742	951	1.504	0.028	0.749	0.838
Want no more children	0.229	0.011	3,448	4256	1.606	0.050	0.206	0.252
Want to delay next birth at least 2 years	0.374	0.013	3,448	4256	1.534	0.034	0.349	0.400
Ideal number of children	4.666	0.050	5,213	6,513	1.942	0.011	4.566	4.766
Mothers protected against tetanus for last birth	0.704	0.016	2,593	3,171	1.736	0.022	0.673	0.736
Mothers received medical assistance at delivery	0.907	0.008	3,645	4,399	1.522	0.009	0.891	0.924
Had diarrhea in the last 2 weeks	0.231	0.016	3,491	4,239	2.140	0.070	0.198	0.263
Treated with ORS	0.244	0.025	659	978	1.543	0.102	0.194	0.293
Taken to health provider	0.348	0.026	659	978	1.471	0.074	0.297	0.400
Vaccination card seen	0.651	0.032	725	849	1.744	0.049	0.587	0.715
Received BCG vaccination	0.966	0.009	725	849	1.230	0.009	0.948	0.983
Received DPT vaccination (3 doses)	0.836	0.023	725	849	1.592	0.027	0.791	0.882
Received polio vaccination (3 doses)	0.726	0.024	725	849	1.417	0.034	0.677	0.775
Received measles vaccination	0.848	0.018	725	849	1.303	0.022	0.812	0.885
Fully immunized	0.631	0.026	725	849	1.394	0.041	0.579	0.683
Height-for-age (-2SD)	0.190	0.020	1,164	1,461	1.561	0.104	0.151	0.230
Weight-for-height (-2SD)	0.095	0.010	1,164	1,461	1.113	0.107	0.075	0.115
Weight-for-age (-2SD)	0.118	0.013	1,164	1,461	1.204	0.111	0.092	0.144
Prevalence of anemia (children 6-59 months)	0.720	0.021	1,125	1,434	1.473	0.029	0.678	0.762
Prevalence of anemia (women 15-49)	0.547	0.016	2,137	2,749	1.553	0.030	0.514	0.580
Body Mass Index (BMI) <18.5	0.183	0.014	2,076	2,610	1.659	0.077	0.155	0.211
Total fertility rate (last 3 years)	3.911	0.142	17,256	21,814	1.854	0.036	3.627	4.195
Neonatal mortality rate (last 0-4 years)	27.887	2.388	6,753	8,083	1.072	0.086	23.111	32.662
Post-neonatal mortality rate (last 0-4 years)	15.645	2.382	6,735	8,053	1.421	0.152	10.880	20.410
Infant mortality rate (last 0-4 years)	43.531	3.010	6,756	8,092	1.081	0.069	37.511	49.552
Child mortality rate (last 0-4 years)	19.422	2.543	6,574	7,873	1.205	0.131	14.335	24.508
Under-five mortality rate (last 0-4 years)	62.108	3.769	6,799	8,129	1.057	0.061	54.569	69.647
HIV prevalence among all women 15-49	0.009	0.002	2,177	2,608	1.081	0.239	0.005	0.014
			MEN					
Urban residence	1.000	0.000	1,885	2,467	na	0.000	1.000	1.000
No education	0.203	0.019	1,885	2,467	2.008	0.092	0.166	0.240
Secondary education or higher	0.466	0.025	1,885	2,467	2.187	0.054	0.416	0.516
Never married/in union	0.670	0.017	1,885	2,467	1.532	0.025	0.637	0.703
Currently married/in union	0.308	0.016	1,885	2,467	1.492	0.052	0.276	0.340
HIV prevalence among all men 15-49	0.003	0.002	1,683	2,297	1.378	0.574	0.000	0.007
HIV prevalence among all men 15-59	0.003	0.002	1,832	2,536	1.336	0.544	0.000	0.007
			WOMEN AND MEN					
HIV prevalence among all women and men 15-49	0.007	0.001	3,860	4,905	1.154	0.229	0.004	0.010

na = Non applicable

Variable	Value (R)	Standard error (SE)	Un-weighted number (N)	Weighted number (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence interval R-2SE	Confidence interval R+2SE
			WOMEN					
Urban residence	0.000	0.000	9,495	7,948	na	na	0.000	0.000
Literacy	0.206	0.011	9,495	7,948	2.607	0.053	0.184	0.227
No education	0.777	0.012	9,495	7,948	2.809	0.015	0.753	0.801
Secondary education or higher	0.083	0.006	9,495	7,948	2.151	0.074	0.070	0.095
Never married/in union	0.201	0.008	9,495	7,948	2.052	0.042	0.184	0.218
Currently married/in union	0.766	0.008	9,495	7,948	1.930	0.011	0.750	0.783
Married before age 20	0.674	0.011	5,559	4,615	1.703	0.016	0.653	0.695
Currently pregnant	0.094	0.004	9,495	7,948	1.370	0.044	0.086	0.103
Children ever born	3.052	0.053	9,495	7,948	1.767	0.017	2.946	3.159
Children surviving	2.651	0.046	9,495	7,948	1.771	0.017	2.559	2.743
Children ever born to women age 40-49	6.604	0.098	1,453	1,208	1.320	0.015	6.408	6.800
Know any contraceptive method	0.901	0.009	7,356	6,091	2.438	0.009	0.884	0.918
Currently using any method	0.070	0.005	7,356	6,091	1.758	0.075	0.059	0.080
Currently using pill	0.017	0.002	7,356	6,091	1.352	0.121	0.013	0.021
Currently using condom	0.002	0.000	7,356	6,091	0.983	0.292	0.001	0.002
Currently using female sterilization	0.002	0.001	7,356	6,091	1.085	0.260	0.001	0.004
Currently using periodic abstinence	0.001	0.000	7,356	6,091	1.031	0.475	0.000	0.001
Using public sector source	0.934	0.013	490	417	1.139	0.014	0.908	0.960
Want no more children	0.208	0.006	7,356	6,091	1.294	0.029	0.195	0.220
Want to delay next birth at least 2 years	0.383	0.007	7,356	6,091	1.182	0.018	0.369	0.396
Ideal number of children	5.834	0.053	7,279	6,004	1.851	0.009	5.729	5.940
Mothers protected against tetanus for last birth	0.673	0.012	5,554	4,508	1.966	0.018	0.648	0.697
Mothers received medical assistance at delivery	0.492	0.016	8,681	7,080	2.447	0.033	0.459	0.524
Had diarrhea in the last 2 weeks	0.191	0.007	8,142	6,654	1.482	0.035	0.177	0.204
Treated with ORS	0.209	0.014	1,537	1,268	1.322	0.068	0.180	0.237
Taken to health provider	0.346	0.014	1,537	1,268	1.134	0.041	0.317	0.374
Vaccination card seen	0.673	0.017	1,652	1,350	1.422	0.025	0.639	0.706
Received BCG vaccination	0.935	0.008	1,652	1,350	1.349	0.009	0.919	0.952
Received DPT vaccination (3 doses)	0.819	0.014	1,652	1,350	1.461	0.017	0.791	0.847
Received polio vaccination (3 doses)	0.727	0.016	1,652	1,350	1.439	0.022	0.695	0.759
Received measles vaccination	0.804	0.014	1,652	1,350	1.421	0.017	0.776	0.832
Fully immunized	0.627	0.017	1,652	1,350	1.412	0.027	0.593	0.661
Height-for-age (-2SD)	0.313	0.012	2,767	2,301	1.186	0.037	0.290	0.336
Weight-for-height (-2SD)	0.105	0.006	2,767	2,301	1.076	0.060	0.093	0.118
Weight-for-age (-2SD)	0.213	0.010	2,767	2,301	1.191	0.047	0.193	0.233
Prevalence of anemia (children 6-59 months)	0.792	0.011	2,736	2,327	1.328	0.014	0.770	0.813
Prevalence of anemia (women 15-49)	0.540	0.012	3,416	2,873	1.394	0.022	0.516	0.564
Body Mass Index (BMI) <18.5	0.258	0.012	3,050	2,577	1.480	0.045	0.234	0.281
Total fertility rate (last 3 years)	6.039	0.126	26,603	22,243	1.615	0.021	5.788	6.290
Neonatal mortality rate (last 0-4 years)	34.986	2.046	16,546	13,411	1.244	0.058	30.894	39.079
Post-neonatal mortality rate (last 0-4 years)	23.533	1.532	16,484	13,369	1.198	0.065	20.470	26.596
Infant mortality rate (last 0-4 years)	58.519	2.497	16,561	13,424	1.198	0.043	53.525	63.514
Child mortality rate (last 0-4 years)	46.330	2.700	16,307	13,203	1.224	0.058	40.930	51.729
Under-five mortality rate (last 0-4 years)	102.138	3.864	16,763	13,565	1.309	0.038	94.410	109.866
HIV prevalence among all women 15-49	0.007	0.001	3,412	2,717	0.935	0.186	0.005	0.010
			MEN					
Urban residence	0.000	0.000	2528	1949	na	na	0.000	0.000
No education	0.580	0.019	2528	1949	1.915	0.032	0.542	0.618
Secondary education or higher	0.192	0.016	2528	1949	1.979	0.081	0.161	0.223
Never married/in union	0.556	0.014	2528	1949	1.446	0.026	0.527	0.584
Currently married/in union	0.435	0.014	2528	1949	1.433	0.032	0.407	0.463
HIV prevalence among all men 15-49	0.006	0.002	2188	1806	0.928	0.258	0.003	0.009
HIV prevalence among all men 15-59	0.007	0.002	2494	2054	0.956	0.222	0.004	0.011
			WOMEN AND MEN					
HIV prevalence among all women and men 15-49	0.007	0.001	5,600	4,523	1.134	0.183	0.004	0.009

na = Non applicable

Table B.5 Sampling errors: Dakar, EDS-MICS, Senegal 2010-11

Variable	Value (R)	Standard error (SE)	Un-weighted number (N)	Weighted number (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence interval R-2SE	R+2SE
WOMEN								
Urban residence	0.975	0.004	1,357	4,078	0.987	0.004	0.967	0.984
Literacy	0.596	0.033	1,357	4,078	2.502	0.056	0.529	0.662
No education	0.333	0.036	1,357	4,078	2.795	0.108	0.261	0.405
Secondary education or higher	0.348	0.036	1,357	4,078	2.748	0.102	0.276	0.419
Never married/in union	0.383	0.022	1,357	4,078	1.700	0.059	0.338	0.427
Currently married/in union	0.544	0.023	1,357	4,078	1.689	0.042	0.498	0.589
Married before age 20	0.371	0.031	817	2,459	1.837	0.084	0.308	0.433
Currently pregnant	0.065	0.008	1,357	4,078	1.132	0.116	0.050	0.080
Children ever born	1.886	0.099	1,357	4,078	1.526	0.052	1.689	2.084
Children surviving	1.719	0.085	1,357	4,078	1.471	0.049	1.549	1.888
Children ever born to women age 40-49	4.623	0.260	199	603	1.237	0.056	4.102	5.144
Know any contraceptive method	0.965	0.012	750	2,217	1.736	0.012	0.942	0.988
Currently using any method	0.239	0.024	750	2,217	1.566	0.102	0.191	0.288
Currently using pill	0.073	0.012	750	2,217	1.297	0.168	0.049	0.098
Currently using condom	0.017	0.005	750	2,217	1.153	0.323	0.006	0.028
Currently using female sterilization	0.003	0.002	750	2,217	0.970	0.617	0.000	0.007
Currently using periodic abstinence	0.009	0.004	750	2,217	1.179	0.462	0.001	0.017
Using public sector source	0.792	0.037	183	518	1.240	0.047	0.718	0.867
Want no more children	0.235	0.017	750	2,217	1.105	0.073	0.200	0.269
Want to delay next birth at least 2 years	0.362	0.023	750	2,217	1.305	0.063	0.316	0.408
Ideal number of children	4.583	0.077	1,192	3,554	1.492	0.017	4.430	4.736
Mothers protected against tetanus for last birth	0.673	0.024	569	1,663	1.190	0.035	0.626	0.720
Mothers received medical assistance at delivery	0.950	0.010	789	2,280	1.199	0.011	0.930	0.971
Had diarrhea in the last 2 weeks	0.270	0.027	759	2,204	1.577	0.100	0.216	0.325
Treated with ORS	0.266	0.039	185	596	1.184	0.148	0.187	0.344
Taken to health provider	0.323	0.034	185	596	1.000	0.105	0.256	0.391
Vaccination card seen	0.667	0.059	141	416	1.475	0.089	0.549	0.785
Received BCG vaccination	0.950	0.014	141	416	0.770	0.015	0.922	0.979
Received DPT vaccination (3 doses)	0.794	0.036	141	416	1.025	0.045	0.722	0.866
Received polio vaccination (3 doses)	0.725	0.040	141	416	1.047	0.056	0.645	0.806
Received measles vaccination	0.838	0.031	141	416	0.945	0.037	0.776	0.899
Fully immunized	0.643	0.040	141	416	0.976	0.062	0.563	0.724
Height-for-age (-2SD)	0.180	0.034	264	775	1.219	0.190	0.112	0.249
Weight-for-height (-2SD)	0.078	0.014	264	775	0.819	0.183	0.049	0.107
Weight-for-age (-2SD)	0.092	0.020	264	775	0.958	0.222	0.051	0.133
Prevalence of anemia (children 6-59 months)	0.725	0.034	260	766	1.118	0.047	0.656	0.793
Prevalence of anemia (women 15-49)	0.585	0.028	481	1,483	1.271	0.048	0.529	0.642
Body Mass Index (BMI) <18.5	0.165	0.023	442	1,366	1.343	0.142	0.118	0.212
Total fertility rate (last 3 years)	3.652	0.237	3,857	11,620	1.560	0.065	3.178	4.126
Neonatal mortality rate (last 0-4 years)	25.739	3.497	1,467	4,139	0.814	0.136	18.746	32.732
Post-neonatal mortality rate (last 0-4 years)	16.794	4.419	1,459	4,118	1.137	0.263	7.955	25.633
Infant mortality rate (last 0-4 years)	42.533	4.703	1,469	4,147	0.846	0.111	33.127	51.938
Child mortality rate (last 0-4 years)	17.437	3.684	1,434	4,031	0.834	0.211	10.069	24.805
Under-five mortality rate (last 0-4 years)	59.228	4.812	1,473	4,157	0.695	0.081	49.604	68.852
HIV prevalence among all women 15-49	0.004	0.003	479	1,379	0.954	0.694	0.000	0.009
MEN								
Urban residence	0.987	0.003	450	1,381	0.634	0.003	0.981	0.994
No education	0.183	0.028	450	1,381	1.538	0.153	0.127	0.240
Secondary education or higher	0.468	0.041	450	1,381	1.755	0.089	0.385	0.551
Never married/in union	0.651	0.028	450	1,381	1.250	0.043	0.595	0.707
Currently married/in union	0.322	0.027	450	1,381	1.216	0.083	0.269	0.376
HIV prevalence among all men 15-49	0.005	0.003	397	1,285	0.999	0.723	0.000	0.012
HIV prevalence among all men 15-59	0.004	0.003	446	1,436	0.999	0.721	0.000	0.010
WOMEN AND MEN								
HIV prevalence among all women and men 15-49	0.004	0.002	876	2,664	0.960	0.491	0.000	0.009

na = Non applicable

Variable	Value (R)	Standard error (SE)	Un-weighted number (N)	Weighted number (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence interval R-2SE	Confidence interval R+2SE
			WOMEN					
Urban residence	0.567	0.037	946	581	2.273	0.065	0.494	0.640
Literacy	0.637	0.025	946	581	1.589	0.039	0.587	0.687
No education	0.253	0.020	946	581	1.399	0.078	0.214	0.293
Secondary education or higher	0.449	0.023	946	581	1.447	0.052	0.402	0.495
Never married/in union	0.499	0.022	946	581	1.362	0.044	0.454	0.543
Currently married/in union	0.465	0.020	946	581	1.248	0.044	0.425	0.506
Married before age 20	0.405	0.031	496	308	1.419	0.077	0.342	0.468
Currently pregnant	0.064	0.010	946	581	1.293	0.161	0.043	0.084
Children ever born	2.074	0.102	946	581	1.240	0.049	1.869	2.279
Children surviving	1.877	0.090	946	581	1.217	0.048	1.697	2.056
Children ever born to women age 40-49	5.393	0.261	114	70	0.950	0.048	4.872	5.914
Know any contraceptive method	0.979	0.014	442	270	2.053	0.014	0.951	1.007
Currently using any method	0.179	0.018	442	270	1.007	0.103	0.142	0.216
Currently using pill	0.034	0.010	442	270	1.119	0.283	0.015	0.054
Currently using condom	0.022	0.007	442	270	0.977	0.313	0.008	0.035
Currently using female sterilization	0.006	0.004	442	270	1.148	0.712	0.000	0.014
Currently using periodic abstinence	0.004	0.003	442	270	0.958	0.692	0.000	0.010
Using public sector source	0.760	0.045	132	85	1.214	0.060	0.669	0.850
Want no more children	0.223	0.021	442	270	1.042	0.093	0.182	0.265
Want to delay next birth at least 2 years	0.358	0.030	442	270	1.314	0.084	0.298	0.418
Ideal number of children	4.638	0.124	831	514	1.703	0.027	4.390	4.886
Mothers protected against tetanus for last birth	0.788	0.023	406	250	1.121	0.029	0.742	0.833
Mothers received medical assistance at delivery	0.673	0.040	599	367	1.753	0.059	0.593	0.753
Had diarrhea in the last 2 weeks	0.111	0.017	569	349	1.294	0.156	0.076	0.145
Treated with ORS	0.355	0.062	64	39	1.003	0.174	0.231	0.479
Taken to health provider	0.451	0.060	64	39	0.925	0.133	0.331	0.571
Vaccination card seen	0.676	0.050	127	77	1.174	0.074	0.576	0.776
Received BCG vaccination	1.000	0.000	127	77	na	0.000	1.000	1.000
Received DPT vaccination (3 doses)	0.951	0.025	127	77	1.274	0.026	0.901	1.000
Received polio vaccination (3 doses)	0.825	0.034	127	77	0.974	0.042	0.756	0.894
Received measles vaccination	0.937	0.024	127	77	1.087	0.025	0.890	0.985
Fully immunized	0.755	0.041	127	77	1.036	0.054	0.673	0.837
Height-for-age (-2SD)	0.213	0.032	194	124	1.015	0.148	0.150	0.276
Weight-for-height (-2SD)	0.041	0.013	194	124	0.960	0.323	0.015	0.068
Weight-for-age (-2SD)	0.107	0.028	194	124	1.203	0.266	0.050	0.164
Prevalence of anemia (children 6-59 months)	0.769	0.049	149	95	1.339	0.064	0.670	0.868
Prevalence of anemia (women 15-49)	0.425	0.034	312	192	1.215	0.080	0.357	0.493
Body Mass Index (BMI) <18.5	0.114	0.016	342	209	0.923	0.140	0.082	0.145
Total fertility rate (last 3 years)	4.815	0.346	2,624	1,617	1.117	0.072	4.123	5.508
Neonatal mortality rate (last 0-4 years)	26.853	5.661	1,106	676	1.025	0.211	15.531	38.175
Post-neonatal mortality rate (last 0-4 years)	26.000	5.132	1,103	674	0.947	0.197	15.737	36.264
Infant mortality rate (last 0-4 years)	52.853	7.586	1,107	677	0.990	0.144	37.681	68.025
Child mortality rate (last 0-4 years)	21.430	4.226	1,078	660	0.970	0.197	12.977	29.882
Under-five mortality rate (last 0-4 years)	73.150	8.626	1,112	679	0.997	0.118	55.898	90.403
HIV prevalence among all women 15-49	0.011	0.005	370	197	0.954	0.463	0.001	0.022
			MEN					
Urban residence	0.554	0.064	350	210	2.372	0.115	0.427	0.681
No education	0.138	0.029	350	210	1.584	0.212	0.080	0.197
Secondary education or higher	0.617	0.043	350	210	1.652	0.070	0.531	0.703
Never married/in union	0.715	0.032	350	210	1.307	0.044	0.652	0.778
Currently married/in union	0.247	0.029	350	210	1.269	0.119	0.188	0.305
HIV prevalence among all men 15-49	0.009	0.007	332	195	1.301	0.748	0.000	0.023
HIV prevalence among all men 15-59	0.010	0.006	359	211	1.215	0.634	0.000	0.023
			WOMEN AND MEN					
HIV prevalence among all women and men 15-49	0.010	0.005	702	392	1.304	0.485	0.000	0.020

na = Non applicable

Table B.7 Sampling errors: Diourbel, EDS-MICS, Senegal 2010-11

Variable	Value (R)	Standard error (SE)	Un-weighted number (N)	Weighted number (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence interval R-2SE	Confidence interval R+2SE
WOMEN								
Urban residence	0.161	0.018	1,426	1,851	1.870	0.113	0.124	0.197
Literacy	0.203	0.019	1,426	1,851	1.785	0.094	0.165	0.241
No education	0.790	0.021	1,426	1,851	1.953	0.027	0.748	0.832
Secondary education or higher	0.097	0.012	1,426	1,851	1.585	0.128	0.072	0.122
Never married/in union	0.223	0.013	1,426	1,851	1.160	0.057	0.197	0.248
Currently married/in union	0.743	0.012	1,426	1,851	1.033	0.016	0.719	0.767
Married before age 20	0.644	0.021	789	1,031	1.258	0.033	0.601	0.687
Currently pregnant	0.066	0.009	1,426	1,851	1.369	0.136	0.048	0.084
Children ever born	2.625	0.118	1,426	1,851	1.583	0.045	2.390	2.861
Children surviving	2.250	0.106	1,426	1,851	1.696	0.047	2.038	2.463
Children ever born to women age 40-49	6.083	0.247	217	284	1.272	0.041	5.590	6.576
Know any contraceptive method	0.934	0.015	1,039	1,375	1.952	0.016	0.903	0.964
Currently using any method	0.056	0.008	1,039	1,375	1.172	0.149	0.039	0.073
Currently using pill	0.027	0.005	1,039	1,375	0.965	0.181	0.017	0.036
Currently using condom	0.001	0.001	1,039	1,375	0.833	1.001	0.000	0.002
Currently using female sterilization	0.001	0.001	1,039	1,375	0.871	1.014	0.000	0.002
Currently using periodic abstinence	0.000	0.000	1,039	1,375	na	na	0.000	0.000
Using public sector source	0.773	0.069	65	73	1.316	0.090	0.635	0.912
Want no more children	0.180	0.013	1,039	1,375	1.079	0.071	0.155	0.206
Want to delay next birth at least 2 years	0.357	0.018	1,039	1,375	1.227	0.051	0.320	0.393
Ideal number of children	5.774	0.093	958	1,244	1.232	0.016	5.587	5.961
Mothers protected against tetanus for last birth	0.686	0.025	689	905	1.399	0.036	0.636	0.735
Mothers received medical assistance at delivery	0.685	0.036	1,072	1,417	2.077	0.052	0.614	0.756
Had diarrhea in the last 2 weeks	0.213	0.017	1,008	1,329	1.212	0.078	0.180	0.247
Treated with ORS	0.103	0.023	210	284	1.079	0.220	0.058	0.148
Taken to health provider	0.271	0.037	210	284	1.147	0.135	0.198	0.345
Vaccination card seen	0.687	0.043	206	272	1.321	0.063	0.601	0.773
Received BCG vaccination	0.923	0.019	206	272	1.025	0.021	0.885	0.961
Received DPT vaccination (3 doses)	0.830	0.035	206	272	1.325	0.042	0.760	0.899
Received polio vaccination (3 doses)	0.715	0.043	206	272	1.353	0.060	0.630	0.801
Received measles vaccination	0.805	0.045	206	272	1.623	0.056	0.716	0.895
Fully immunized	0.637	0.046	206	272	1.366	0.072	0.545	0.729
Height-for-age (-2SD)	0.296	0.026	297	404	0.963	0.089	0.243	0.348
Weight-for-height (-2SD)	0.094	0.016	297	404	0.937	0.170	0.062	0.126
Weight-for-age (-2SD)	0.191	0.025	297	404	1.062	0.133	0.140	0.241
Prevalence of anemia (children 6-59 months)	0.756	0.031	323	445	1.320	0.040	0.695	0.817
Prevalence of anemia (women 15-49)	0.477	0.019	496	652	0.850	0.040	0.439	0.515
Body Mass Index (BMI) <18.5	0.294	0.033	460	609	1.557	0.111	0.229	0.360
Total fertility rate (last 3 years)	5.202	0.305	3,968	5,155	1.497	0.059	4.593	5.811
Neonatal mortality rate (last 0-4 years)	42.585	6.408	1,984	2,603	1.250	0.150	29.770	55.400
Post-neonatal mortality rate (last 0-4 years)	25.403	4.423	1,977	2,599	1.137	0.174	16.558	34.248
Infant mortality rate (last 0-4 years)	67.988	6.371	1,987	2,608	1.017	0.094	55.245	80.730
Child mortality rate (last 0-4 years)	38.375	5.658	1,967	2,585	1.056	0.147	27.060	49.690
Under-five mortality rate (last 0-4 years)	103.754	9.235	2,005	2,631	1.179	0.089	85.284	122.224
HIV prevalence among all women 15-49	0.002	0.002	495	632	0.730	0.662	0.000	0.006
MEN								
Urban residence	0.179	0.030	286	354	1.337	0.170	0.118	0.240
No education	0.664	0.030	286	354	1.056	0.045	0.605	0.723
Secondary education or higher	0.156	0.028	286	354	1.282	0.177	0.101	0.211
Never married/in union	0.640	0.039	286	354	1.378	0.061	0.561	0.718
Currently married/in union	0.355	0.038	286	354	1.352	0.108	0.278	0.431
HIV prevalence among all men 15-49	0.000	0.000	217	327	na	na	0.000	0.000
HIV prevalence among all men 15-59	0.000	0.000	255	383	na	na	0.000	0.000
WOMEN AND MEN								
HIV prevalence among all women and men 15-49	0.002	0.001	712	960	0.712	0.663	0.000	0.004

na = Non applicable

Table B.8 Sampling errors: Saint-Louis, EDS-MICS, Senegal 2010-11

Variable	Value (R)	Standard error (SE)	Un-weighted number (N)	Weighted number (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence interval R-2SE	Confidence interval R+2SE
			WOMEN					
Urban residence	0.530	0.035	1,089	1,034	2.311	0.066	0.460	0.600
Literacy	0.362	0.031	1,089	1,034	2.141	0.086	0.299	0.424
No education	0.568	0.036	1,089	1,034	2.413	0.064	0.495	0.640
Secondary education or higher	0.189	0.024	1,089	1,034	1.997	0.125	0.142	0.237
Never married/in union	0.316	0.017	1,089	1,034	1.195	0.053	0.282	0.350
Currently married/in union	0.644	0.019	1,089	1,034	1.291	0.029	0.607	0.682
Married before age 20	0.572	0.034	653	620	1.757	0.060	0.504	0.640
Currently pregnant	0.085	0.008	1,089	1,034	0.904	0.090	0.070	0.101
Children ever born	2.589	0.143	1,089	1,034	1.705	0.055	2.303	2.875
Children surviving	2.301	0.106	1,089	1,034	1.440	0.046	2.088	2.514
Children ever born to women age 40-49	5.497	0.315	185	174	1.445	0.057	4.866	6.127
Know any contraceptive method	0.941	0.012	713	666	1.413	0.013	0.916	0.966
Currently using any method	0.177	0.020	713	666	1.433	0.116	0.136	0.218
Currently using pill	0.085	0.013	713	666	1.249	0.153	0.059	0.111
Currently using condom	0.006	0.003	713	666	0.946	0.472	0.000	0.011
Currently using female sterilization	0.001	0.001	713	666	0.668	1.019	0.000	0.002
Currently using periodic abstinence	0.009	0.005	713	666	1.444	0.583	0.000	0.019
Using public sector source	0.837	0.038	110	106	1.081	0.046	0.760	0.913
Want no more children	0.246	0.022	713	666	1.338	0.088	0.203	0.289
Want to delay next birth at least 2 years	0.401	0.019	713	666	1.033	0.047	0.363	0.439
Ideal number of children	4.867	0.198	898	843	2.404	0.041	4.471	5.262
Mothers protected against tetanus for last birth	0.660	0.042	531	495	2.043	0.064	0.575	0.744
Mothers received medical assistance at delivery	0.688	0.048	806	750	2.319	0.070	0.591	0.784
Had diarrhea in the last 2 weeks	0.213	0.018	768	716	1.206	0.087	0.176	0.249
Treated with ORS	0.243	0.029	164	152	0.841	0.121	0.184	0.301
Taken to health provider	0.408	0.034	164	152	0.856	0.083	0.340	0.476
Vaccination card seen	0.642	0.045	157	149	1.193	0.071	0.551	0.733
Received BCG vaccination	0.965	0.018	157	149	1.204	0.018	0.930	1.000
Received DPT vaccination (3 doses)	0.771	0.054	157	149	1.603	0.069	0.663	0.878
Received polio vaccination (3 doses)	0.725	0.044	157	149	1.231	0.060	0.638	0.812
Received measles vaccination	0.800	0.042	157	149	1.320	0.052	0.716	0.884
Fully immunized	0.556	0.062	157	149	1.572	0.112	0.432	0.680
Height-for-age (-2SD)	0.228	0.027	235	225	0.944	0.116	0.175	0.281
Weight-for-height (-2SD)	0.176	0.028	235	225	1.096	0.160	0.120	0.232
Weight-for-age (-2SD)	0.252	0.031	235	225	0.918	0.122	0.191	0.314
Prevalence of anemia (children 6-59 months)	0.740	0.035	229	224	1.160	0.048	0.670	0.811
Prevalence of anemia (women 15-49)	0.568	0.030	343	327	1.111	0.052	0.509	0.627
Body Mass Index (BMI) <18.5	0.206	0.022	320	309	0.985	0.107	0.162	0.250
Total fertility rate (last 3 years)	4.980	0.270	3,041	2,881	1.271	0.054	4.441	5.520
Neonatal mortality rate (last 0-4 years)	39.071	6.413	1,490	1,394	1.090	0.164	26.246	51.896
Post-neonatal mortality rate (last 0-4 years)	19.772	3.453	1,480	1,385	0.901	0.175	12.865	26.678
Infant mortality rate (last 0-4 years)	58.843	7.722	1,491	1,395	1.100	0.131	43.399	74.287
Child mortality rate (last 0-4 years)	33.898	7.662	1,466	1,381	1.232	0.226	18.574	49.221
Under-five mortality rate (last 0-4 years)	90.746	12.242	1,504	1,409	1.330	0.135	66.261	115.230
HIV prevalence among all women 15-49	0.012	0.006	343	318	1.000	0.485	0.000	0.024
			MEN					
Urban residence	0.533	0.045	294	266	1.551	0.085	0.442	0.623
No education	0.399	0.045	294	266	1.574	0.113	0.308	0.489
Secondary education or higher	0.278	0.037	294	266	1.420	0.134	0.204	0.353
Never married/in union	0.623	0.033	294	266	1.176	0.053	0.556	0.690
Currently married/in union	0.359	0.035	294	266	1.238	0.097	0.290	0.429
HIV prevalence among all men 15-49	0.005	0.005	232	249	1.092	1.010	0.000	0.015
HIV prevalence among all men 15-59	0.005	0.005	254	274	1.085	1.007	0.000	0.014
			WOMEN AND MEN					
HIV prevalence among all women and men 15-49	0.009	0.005	575	567	1.240	0.540	0.000	0.019

na = Non applicable

Variable	Value (R)	Standard error (SE)	Un-weighted number (N)	Weighted number (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence interval R-2SE	Confidence interval R+2SE
			WOMEN					
Urban residence	0.273	0.036	1,134	725	2.719	0.132	0.201	0.345
Literacy	0.169	0.023	1,134	725	2.069	0.136	0.123	0.216
No education	0.773	0.029	1,134	725	2.345	0.038	0.714	0.831
Secondary education or higher	0.082	0.014	1,134	725	1.692	0.169	0.054	0.109
Never married/in union	0.152	0.017	1,134	725	1.607	0.113	0.117	0.186
Currently married/in union	0.796	0.018	1,134	725	1.537	0.023	0.759	0.833
Married before age 20	0.732	0.028	643	413	1.590	0.038	0.676	0.788
Currently pregnant	0.117	0.012	1,134	725	1.280	0.104	0.093	0.142
Children ever born	3.114	0.113	1,134	725	1.293	0.036	2.888	3.339
Children surviving	2.705	0.116	1,134	725	1.534	0.043	2.473	2.937
Children ever born to women age 40-49	6.226	0.254	178	112	1.017	0.041	5.718	6.733
Know any contraceptive method	0.761	0.048	890	577	3.324	0.063	0.665	0.856
Currently using any method	0.043	0.007	890	577	1.099	0.175	0.028	0.057
Currently using pill	0.008	0.003	890	577	1.102	0.412	0.001	0.015
Currently using condom	0.001	0.001	890	577	0.866	1.010	0.000	0.002
Currently using female sterilization	0.000	0.000	890	577	na	na	0.000	0.000
Currently using periodic abstinence	0.000	0.000	890	577	na	na	0.000	0.000
Using public sector source	0.945	0.035	43	30	0.995	0.037	0.875	1.015
Want no more children	0.198	0.024	890	577	1.785	0.121	0.150	0.246
Want to delay next birth at least 2 years	0.350	0.015	890	577	0.945	0.043	0.320	0.380
Ideal number of children	6.091	0.158	803	490	1.738	0.026	5.775	6.407
Mothers protected against tetanus for last birth	0.535	0.041	650	418	2.095	0.077	0.453	0.617
Mothers received medical assistance at delivery	0.324	0.046	971	634	2.520	0.141	0.232	0.415
Had diarrhea in the last 2 weeks	0.191	0.012	912	596	0.913	0.061	0.168	0.215
Treated with ORS	0.264	0.055	170	114	1.660	0.209	0.154	0.375
Taken to health provider	0.412	0.051	170	114	1.356	0.124	0.310	0.514
Vaccination card seen	0.553	0.054	178	113	1.437	0.098	0.445	0.662
Received BCG vaccination	0.879	0.033	178	113	1.327	0.037	0.814	0.944
Received DPT vaccination (3 doses)	0.713	0.056	178	113	1.643	0.079	0.601	0.825
Received polio vaccination (3 doses)	0.618	0.067	178	113	1.833	0.109	0.483	0.753
Received measles vaccination	0.749	0.031	178	113	0.937	0.041	0.688	0.811
Fully immunized	0.471	0.066	178	113	1.733	0.140	0.339	0.602
Height-for-age (-2SD)	0.262	0.027	283	189	0.999	0.104	0.208	0.316
Weight-for-height (-2SD)	0.123	0.014	283	189	0.718	0.111	0.096	0.151
Weight-for-age (-2SD)	0.221	0.022	283	189	0.795	0.100	0.177	0.266
Prevalence of anemia (children 6-59 months)	0.826	0.034	295	209	1.520	0.042	0.757	0.895
Prevalence of anemia (women 15-49)	0.613	0.047	382	246	1.891	0.077	0.519	0.707
Body Mass Index (BMI) <18.5	0.254	0.038	335	213	1.595	0.150	0.178	0.330
Total fertility rate (last 3 years)	5.983	0.227	3,161	2,015	1.183	0.038	5.529	6.437
Neonatal mortality rate (last 0-4 years)	29.368	6.643	1,894	1,255	1.578	0.226	16.082	42.655
Post-neonatal mortality rate (last 0-4 years)	19.239	3.441	1,894	1,256	1.085	0.179	12.357	26.120
Infant mortality rate (last 0-4 years)	48.607	8.232	1,894	1,255	1.502	0.169	32.142	65.072
Child mortality rate (last 0-4 years)	54.414	6.993	1,855	1,234	1.156	0.129	40.428	68.400
Under-five mortality rate (last 0-4 years)	100.376	12.801	1,920	1,270	1.627	0.128	74.773	125.978
HIV prevalence among all women 15-49	0.016	0.007	385	251	1.075	0.425	0.002	0.030
			MEN					
Urban residence	0.293	0.046	327	214	1.828	0.158	0.201	0.386
No education	0.560	0.054	327	214	1.951	0.096	0.452	0.667
Secondary education or higher	0.172	0.041	327	214	1.958	0.239	0.090	0.254
Never married/in union	0.541	0.038	327	214	1.367	0.070	0.465	0.616
Currently married/in union	0.443	0.037	327	214	1.341	0.083	0.370	0.517
HIV prevalence among all men 15-49	0.012	0.006	303	199	0.904	0.482	0.000	0.023
HIV prevalence among all men 15-59	0.012	0.006	349	229	0.974	0.479	0.000	0.023
			WOMEN AND MEN					
HIV prevalence among all women and men 15-49	0.014	0.005	688	449	1.093	0.347	0.004	0.024

na = Non applicable

Variable	Value (R)	Standard error (SE)	Un-weighted number (N)	Weighted number (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence interval R-2SE	Confidence interval R+2SE
			WOMEN					
Urban residence	0.384	0.035	1,400	1,172	2.657	0.090	0.315	0.454
Literacy	0.318	0.028	1,400	1,172	2.270	0.089	0.261	0.375
No education	0.657	0.032	1,400	1,172	2.510	0.049	0.593	0.721
Secondary education or higher	0.153	0.018	1,400	1,172	1.828	0.115	0.118	0.189
Never married/in union	0.269	0.018	1,400	1,172	1.484	0.065	0.234	0.304
Currently married/in union	0.695	0.019	1,400	1,172	1.525	0.027	0.658	0.733
Married before age 20	0.620	0.022	793	661	1.274	0.035	0.576	0.664
Currently pregnant	0.087	0.009	1,400	1,172	1.185	0.102	0.070	0.105
Children ever born	2.981	0.111	1,400	1,172	1.361	0.037	2.759	3.202
Children surviving	2.591	0.089	1,400	1,172	1.273	0.034	2.413	2.770
Children ever born to women age 40-49	6.882	0.235	203	172	1.192	0.034	6.412	7.352
Know any contraceptive method	0.962	0.012	969	815	2.031	0.013	0.937	0.987
Currently using any method	0.117	0.013	969	815	1.291	0.114	0.090	0.143
Currently using pill	0.028	0.006	969	815	1.149	0.218	0.016	0.040
Currently using condom	0.003	0.001	969	815	0.855	0.533	0.000	0.005
Currently using female sterilization	0.001	0.001	969	815	1.001	1.021	0.000	0.003
Currently using periodic abstinence	0.001	0.001	969	815	1.159	0.985	0.000	0.004
Using public sector source	0.872	0.026	111	90	0.814	0.030	0.820	0.924
Want no more children	0.284	0.022	969	815	1.519	0.078	0.240	0.328
Want to delay next birth at least 2 years	0.419	0.018	969	815	1.113	0.042	0.384	0.454
Ideal number of children	5.587	0.107	1,278	1,072	1.845	0.019	5.372	5.801
Mothers protected against tetanus for last birth	0.830	0.029	740	625	2.087	0.035	0.773	0.888
Mothers received medical assistance at delivery	0.493	0.039	1,176	997	2.191	0.079	0.415	0.571
Had diarrhea in the last 2 weeks	0.185	0.015	1,120	948	1.256	0.081	0.155	0.214
Treated with ORS	0.192	0.027	208	175	0.942	0.141	0.138	0.246
Taken to health provider	0.371	0.041	208	175	1.199	0.111	0.289	0.454
Vaccination card seen	0.668	0.045	217	184	1.378	0.067	0.579	0.757
Received BCG vaccination	0.984	0.011	217	184	1.362	0.012	0.961	1.007
Received DPT vaccination (3 doses)	0.834	0.028	217	184	1.125	0.034	0.777	0.891
Received polio vaccination (3 doses)	0.815	0.029	217	184	1.067	0.035	0.758	0.872
Received measles vaccination	0.794	0.022	217	184	0.819	0.028	0.749	0.839
Fully immunized	0.657	0.026	217	184	0.802	0.040	0.605	0.709
Height-for-age (-2SD)	0.290	0.024	413	361	1.012	0.084	0.241	0.338
Weight-for-height (-2SD)	0.073	0.012	413	361	1.000	0.165	0.049	0.097
Weight-for-age (-2SD)	0.178	0.019	413	361	1.019	0.106	0.140	0.215
Prevalence of anemia (children 6-59 months)	0.782	0.025	384	335	1.053	0.032	0.732	0.832
Prevalence of anemia (women 15-49)	0.538	0.029	445	445	1.344	0.054	0.479	0.596
Body Mass Index (BMI) <18.5	0.186	0.015	489	407	0.842	0.080	0.157	0.216
Total fertility rate (last 3 years)	5.988	0.385	3,910	3,264	1.389	0.064	5.218	6.757
Neonatal mortality rate (last 0-4 years)	36.385	5.551	2,194	1,865	1.229	0.153	25.283	47.486
Post-neonatal mortality rate (last 0-4 years)	19.792	2.841	2,186	1,857	0.922	0.144	14.109	25.475
Infant mortality rate (last 0-4 years)	56.177	5.227	2,195	1,866	0.985	0.093	45.722	66.631
Child mortality rate (last 0-4 years)	44.073	6.730	2,122	1,803	1.322	0.153	30.613	57.533
Under-five mortality rate (last 0-4 years)	97.774	6.897	2,219	1,887	0.910	0.071	83.981	111.567
HIV prevalence among all women 15-49	0.015	0.006	532	415	1.079	0.375	0.004	0.027
			MEN					
Urban residence	0.419	0.041	389	317	1.632	0.098	0.337	0.501
No education	0.467	0.053	389	317	2.097	0.114	0.361	0.574
Secondary education or higher	0.316	0.037	389	317	1.566	0.117	0.242	0.390
Never married/in union	0.597	0.029	389	317	1.151	0.048	0.539	0.654
Currently married/in union	0.394	0.029	389	317	1.160	0.073	0.336	0.452
HIV prevalence among all men 15-49	0.006	0.004	338	292	1.004	0.708	0.000	0.014
HIV prevalence among all men 15-59	0.005	0.004	376	325	1.002	0.707	0.000	0.013
			WOMEN AND MEN					
HIV prevalence among all women and men 15-49	0.011	0.004	870	707	1.234	0.389	0.003	0.020

na = Non applicable

Table B.11 Sampling errors: Thiès, EDS-MICS, Senegal 2010-11

Variable	Value (R)	Standard error (SE)	Un-weighted number (N)	Weighted number (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence interval	
							R-2SE	R+2SE
WOMEN								
Urban residence	0.513	0.028	1,316	2,030	2.033	0.055	0.457	0.569
Literacy	0.402	0.032	1,316	2,030	2.341	0.079	0.338	0.465
No education	0.559	0.036	1,316	2,030	2.636	0.065	0.487	0.632
Secondary education or higher	0.199	0.020	1,316	2,030	1.848	0.102	0.159	0.240
Never married/in union	0.327	0.021	1,316	2,030	1.616	0.064	0.285	0.368
Currently married/in union	0.641	0.022	1,316	2,030	1.661	0.034	0.597	0.685
Married before age 20	0.437	0.028	765	1,167	1.541	0.063	0.382	0.492
Currently pregnant	0.063	0.009	1,316	2,030	1.301	0.138	0.046	0.081
Children ever born	2.287	0.113	1,316	2,030	1.595	0.049	2.061	2.513
Children surviving	2.130	0.101	1,316	2,030	1.558	0.048	1.927	2.333
Children ever born to women age 40-49	5.114	0.292	195	293	1.429	0.057	4.531	5.698
Know any contraceptive method	0.949	0.012	857	1,301	1.587	0.013	0.925	0.973
Currently using any method	0.167	0.018	857	1,301	1.440	0.110	0.131	0.204
Currently using pill	0.056	0.008	857	1,301	1.033	0.145	0.040	0.073
Currently using condom	0.002	0.002	857	1,301	0.971	0.677	0.000	0.006
Currently using female sterilization	0.005	0.002	857	1,301	0.952	0.480	0.000	0.009
Currently using periodic abstinence	0.004	0.002	857	1,301	0.934	0.486	0.000	0.008
Using public sector source	0.896	0.026	138	217	0.991	0.029	0.844	0.948
Want no more children	0.227	0.021	857	1,301	1.496	0.094	0.184	0.270
Want to delay next birth at least 2 years	0.441	0.013	857	1,301	0.766	0.030	0.415	0.467
Ideal number of children	4.970	0.079	949	1,472	1.575	0.016	4.811	5.129
Mothers protected against tetanus for last birth	0.751	0.031	630	958	1.822	0.042	0.688	0.814
Mothers received medical assistance at delivery	0.853	0.035	915	1,376	2.389	0.041	0.784	0.923
Had diarrhea in the last 2 weeks	0.177	0.019	879	1,324	1.403	0.108	0.139	0.216
Treated with ORS	0.255	0.040	153	235	1.112	0.159	0.174	0.335
Taken to health provider	0.388	0.047	153	235	1.146	0.121	0.294	0.482
Vaccination card seen	0.708	0.046	179	273	1.353	0.065	0.615	0.800
Received BCG vaccination	0.988	0.011	179	273	1.422	0.012	0.966	1.011
Received DPT vaccination (3 doses)	0.910	0.026	179	273	1.207	0.028	0.858	0.961
Received polio vaccination (3 doses)	0.712	0.040	179	273	1.183	0.057	0.631	0.792
Received measles vaccination	0.908	0.027	179	273	1.242	0.030	0.854	0.961
Fully immunized	0.669	0.044	179	273	1.251	0.066	0.581	0.758
Height-for-age (-2SD)	0.235	0.031	273	440	1.161	0.133	0.173	0.298
Weight-for-height (-2SD)	0.143	0.024	273	440	1.060	0.165	0.095	0.190
Weight-for-age (-2SD)	0.154	0.022	273	440	0.961	0.140	0.111	0.197
Prevalence of anemia (children 6-59 months)	0.728	0.032	282	447	1.148	0.043	0.665	0.791
Prevalence of anemia (women 15-49)	0.500	0.022	483	745	0.982	0.045	0.455	0.545
Body Mass Index (BMI) <18.5	0.209	0.026	450	698	1.369	0.125	0.156	0.261
Total fertility rate (last 3 years)	4.801	0.252	3,712	5,721	1.220	0.052	4.298	5.304
Neonatal mortality rate (last 0-4 years)	21.872	3.318	1,737	2,609	0.872	0.152	15.236	28.507
Post-neonatal mortality rate (last 0-4 years)	14.284	3.466	1,729	2,600	1.093	0.243	7.351	21.216
Infant mortality rate (last 0-4 years)	36.155	4.019	1,737	2,609	0.827	0.111	28.117	44.194
Child mortality rate (last 0-4 years)	17.878	4.272	1,668	2,500	1.208	0.239	9.334	26.422
Under-five mortality rate (last 0-4 years)	53.387	6.110	1,741	2,615	1.043	0.114	41.167	65.607
HIV prevalence among all women 15-49	0.006	0.004	470	711	1.185	0.715	0.000	0.014
HOMMES								
Urban residence	0.581	0.042	366	565	1.624	0.072	0.497	0.665
No education	0.341	0.053	366	565	2.133	0.156	0.235	0.447
Secondary education or higher	0.342	0.045	366	565	1.800	0.131	0.253	0.432
Never married/in union	0.652	0.025	366	565	1.014	0.039	0.602	0.703
Currently married/in union	0.344	0.024	366	565	0.962	0.070	0.296	0.391
HIV prevalence among all men 15-49	0.000	0.000	326	525	na	na	0.000	0.000
HIV prevalence among all men 15-59	0.002	0.002	362	578	0.810	1.013	0.000	0.005
FEMMES ET HOMMES								
HIV prevalence among all women and men 15-49	0.003	0.002	796	1,236	1.184	0.724	0.000	0.008

na = Non applicable

Variable	Value (R)	Standard error (SE)	Un-weighted number (N)	Weighted number (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence interval R-2SE	Confidence interval R+2SE
WOMEN								
Urban residence	0.206	0.025	1,267	1,130	2.235	0.123	0.155	0.257
Literacy	0.227	0.025	1,267	1,130	2.115	0.110	0.177	0.277
No education	0.782	0.024	1,267	1,130	2.085	0.031	0.733	0.830
Secondary education or higher	0.079	0.012	1,267	1,130	1.519	0.146	0.056	0.102
Never married/in union	0.252	0.027	1,267	1,130	2.246	0.109	0.197	0.307
Currently married/in union	0.714	0.026	1,267	1,130	2.005	0.036	0.663	0.765
Married before age 20	0.606	0.039	688	616	2.110	0.065	0.527	0.685
Currently pregnant	0.067	0.011	1,267	1,130	1.548	0.163	0.045	0.089
Children ever born	2.496	0.117	1,267	1,130	1.544	0.047	2.262	2.730
Children surviving	2.270	0.088	1,267	1,130	1.283	0.039	2.093	2.446
Children ever born to women age 40-49	5.914	0.227	175	154	1.149	0.038	5.460	6.368
Know any contraceptive method	0.891	0.021	901	806	2.060	0.024	0.848	0.934
Currently using any method	0.078	0.015	901	806	1.678	0.192	0.048	0.108
Currently using pill	0.026	0.007	901	806	1.285	0.262	0.012	0.040
Currently using condom	0.002	0.002	901	806	1.291	0.970	0.000	0.006
Currently using female sterilization	0.000	0.000	901	806	na	na	0.000	0.000
Currently using periodic abstinence	0.001	0.001	901	806	0.991	1.006	0.000	0.003
Using public sector source	0.907	0.030	68	60	0.855	0.033	0.846	0.967
Want no more children	0.199	0.017	901	806	1.308	0.087	0.164	0.234
Want to delay next birth at least 2 years	0.352	0.017	901	806	1.091	0.049	0.317	0.386
Ideal number of children	5.432	0.103	929	822	1.500	0.019	5.227	5.637
Mothers protected against tetanus for last birth	0.622	0.035	593	525	1.727	0.056	0.553	0.691
Mothers received medical assistance at delivery	0.633	0.039	895	799	1.987	0.061	0.556	0.710
Had diarrhea in the last 2 weeks	0.144	0.017	843	752	1.334	0.115	0.110	0.177
Treated with ORS	0.228	0.055	120	108	1.372	0.242	0.118	0.339
Taken to health provider	0.370	0.049	120	108	1.068	0.134	0.271	0.469
Vaccination card seen	0.610	0.062	165	153	1.620	0.102	0.486	0.735
Received BCG vaccination	0.926	0.028	165	153	1.402	0.030	0.870	0.982
Received DPT vaccination (3 doses)	0.842	0.039	165	153	1.395	0.046	0.764	0.920
Received polio vaccination (3 doses)	0.716	0.059	165	153	1.656	0.083	0.598	0.834
Received measles vaccination	0.825	0.034	165	153	1.131	0.041	0.757	0.892
Fully immunized	0.634	0.058	165	153	1.514	0.091	0.519	0.749
Height-for-age (-2SD)	0.268	0.033	258	236	1.119	0.124	0.202	0.335
Weight-for-height (-2SD)	0.156	0.026	258	236	1.075	0.167	0.103	0.208
Weight-for-age (-2SD)	0.233	0.031	258	236	1.117	0.132	0.172	0.295
Prevalence of anemia (children 6-59 months)	0.742	0.035	303	275	1.213	0.047	0.672	0.812
Prevalence of anemia (women 15-49)	0.549	0.046	447	401	1.952	0.084	0.457	0.640
Body Mass Index (BMI) <18.5	0.393	0.031	419	373	1.298	0.079	0.331	0.455
Total fertility rate (last 3 years)	4.760	0.247	3,517	3,136	1.195	0.052	4.266	5.254
Neonatal mortality rate (last 0-4 years)	39.837	6.277	1,731	1,554	1.164	0.158	27.284	52.391
Post-neonatal mortality rate (last 0-4 years)	17.384	4.393	1,727	1,551	1.320	0.253	8.599	26.170
Infant mortality rate (last 0-4 years)	57.222	8.663	1,732	1,555	1.380	0.151	39.895	74.548
Child mortality rate (last 0-4 years)	23.795	4.344	1,715	1,545	1.068	0.183	15.107	32.483
Under-five mortality rate (last 0-4 years)	79.655	11.431	1,739	1,561	1.563	0.144	56.793	102.517
HIV prevalence among all women 15-49	0.002	0.002	442	381	1.033	1.002	0.000	0.007
MEN								
Urban residence	0.243	0.033	291	262	1.290	0.134	0.178	0.308
No education	0.603	0.051	291	262	1.767	0.085	0.501	0.705
Secondary education or higher	0.175	0.037	291	262	1.642	0.210	0.102	0.249
Never married/in union	0.534	0.049	291	262	1.681	0.092	0.435	0.633
Currently married/in union	0.450	0.048	291	262	1.626	0.106	0.355	0.545
HIV prevalence among all men 15-49	0.000	0.000	250	244	na	na	0.000	0.000
HIV prevalence among all men 15-59	0.000	0.000	278	273	na	na	0.000	0.000
WOMEN AND MEN								
HIV prevalence among all women and men 15-49	0.001	0.001	692	625	1.011	1.003	0.000	0.004

na = Non applicable

Table B.13 Sampling errors: Fatick, EDS-MICS, Senegal 2010-11

Variable	Value (R)	Standard error (SE)	Un-weighted number (N)	Weighted number (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence interval R-2SE	Confidence interval R+2SE
			WOMEN					
Urban residence	0.172	0.012	1,055	716	1.025	0.069	0.148	0.196
Literacy	0.389	0.042	1,055	716	2.774	0.107	0.306	0.473
No education	0.594	0.046	1,055	716	3.028	0.077	0.502	0.686
Secondary education or higher	0.220	0.031	1,055	716	2.440	0.142	0.158	0.283
Never married/in union	0.272	0.027	1,055	716	1.998	0.101	0.217	0.327
Currently married/in union	0.678	0.029	1,055	716	2.008	0.043	0.620	0.736
Married before age 20	0.625	0.032	606	420	1.642	0.052	0.560	0.689
Currently pregnant	0.090	0.010	1,055	716	1.126	0.111	0.070	0.109
Children ever born	3.078	0.156	1,055	716	1.679	0.051	2.766	3.391
Children surviving	2.699	0.118	1,055	716	1.457	0.044	2.463	2.934
Children ever born to women age 40-49	6.659	0.292	162	112	1.328	0.044	6.076	7.242
Know any contraceptive method	0.940	0.018	694	485	1.993	0.019	0.904	0.976
Currently using any method	0.109	0.018	694	485	1.523	0.165	0.073	0.145
Currently using pill	0.034	0.010	694	485	1.406	0.285	0.015	0.053
Currently using condom	0.002	0.002	694	485	0.932	0.711	0.000	0.006
Currently using female sterilization	0.006	0.004	694	485	1.249	0.626	0.000	0.013
Currently using periodic abstinence	0.000	0.000	694	485	na	na	0.000	0.000
Using public sector source	0.964	0.020	90	56	1.001	0.021	0.924	1.003
Want no more children	0.241	0.014	694	485	0.889	0.060	0.213	0.270
Want to delay next birth at least 2 years	0.410	0.020	694	485	1.088	0.050	0.369	0.450
Ideal number of children	5.562	0.149	871	581	2.323	0.027	5.264	5.860
Mothers protected against tetanus for last birth	0.540	0.043	556	397	2.044	0.080	0.454	0.626
Mothers received medical assistance at delivery	0.529	0.039	899	654	1.933	0.073	0.451	0.606
Had diarrhea in the last 2 weeks	0.215	0.018	854	623	1.278	0.085	0.178	0.251
Treated with ORS	0.252	0.033	186	134	0.984	0.131	0.186	0.318
Taken to health provider	0.405	0.036	186	134	0.982	0.090	0.332	0.477
Vaccination card seen	0.788	0.028	185	132	0.927	0.035	0.733	0.844
Received BCG vaccination	0.963	0.020	185	132	1.461	0.021	0.923	1.003
Received DPT vaccination (3 doses)	0.881	0.029	185	132	1.223	0.033	0.824	0.939
Received polio vaccination (3 doses)	0.799	0.026	185	132	0.898	0.033	0.747	0.852
Received measles vaccination	0.824	0.028	185	132	0.991	0.033	0.768	0.879
Fully immunized	0.702	0.033	185	132	0.987	0.047	0.636	0.768
Height-for-age (-2SD)	0.216	0.036	347	268	1.251	0.169	0.143	0.289
Weight-for-height (-2SD)	0.075	0.012	347	268	0.872	0.157	0.052	0.099
Weight-for-age (-2SD)	0.114	0.024	347	268	1.178	0.211	0.066	0.163
Prevalence of anemia (children 6-59 months)	0.818	0.025	315	243	1.172	0.030	0.768	0.868
Prevalence of anemia (women 15-49)	0.615	0.028	398	275	1.151	0.045	0.559	0.671
Body Mass Index (BMI) <18.5	0.161	0.024	362	247	1.223	0.146	0.114	0.208
Total fertility rate (last 3 years)	6.282	0.416	2,975	2,026	1.790	0.066	5.450	7.113
Neonatal mortality rate (last 0-4 years)	26.176	4.206	1,696	1,226	1.035	0.161	17.764	34.587
Post-neonatal mortality rate (last 0-4 years)	21.066	4.631	1,692	1,223	1.238	0.220	11.805	30.328
Infant mortality rate (last 0-4 years)	47.242	7.463	1,698	1,227	1.351	0.158	32.316	62.168
Child mortality rate (last 0-4 years)	43.278	7.407	1,658	1,197	1.211	0.171	28.464	58.092
Under-five mortality rate (last 0-4 years)	88.476	11.565	1,720	1,244	1.491	0.131	65.346	111.606
HIV prevalence among all women 15-49	0.018	0.006	397	245	0.882	0.331	0.006	0.029
			MEN					
Urban residence	0.173	0.019	312	203	0.904	0.112	0.134	0.212
No education	0.333	0.049	312	203	1.838	0.148	0.234	0.431
Secondary education or higher	0.381	0.042	312	203	1.507	0.109	0.298	0.465
Never married/in union	0.622	0.037	312	203	1.326	0.059	0.549	0.695
Currently married/in union	0.375	0.036	312	203	1.319	0.097	0.303	0.448
HIV prevalence among all men 15-49	0.000	0.000	293	190	na	na	0.000	0.000
HIV prevalence among all men 15-59	0.002	0.002	329	213	0.886	1.025	0.000	0.007
			WOMEN AND MEN					
HIV prevalence among all women and men 15-49	0.010	0.003	690	434	0.895	0.340	0.003	0.017

na = Non applicable

Variable	Value (R)	Standard error (SE)	Un-weighted number (N)	Weighted number (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence interval	
							R-2SE	R+2SE
WOMEN								
Urban residence	0.238	0.026	1,085	640	1.976	0.108	0.187	0.289
Literacy	0.263	0.025	1,085	640	1.853	0.094	0.213	0.312
No education	0.676	0.028	1,085	640	1.975	0.042	0.620	0.732
Secondary education or higher	0.127	0.019	1,085	640	1.881	0.150	0.088	0.165
Never married/in union	0.164	0.017	1,085	640	1.535	0.105	0.130	0.199
Currently married/in union	0.797	0.021	1,085	640	1.696	0.026	0.756	0.839
Married before age 20	0.790	0.024	586	348	1.436	0.031	0.741	0.838
Currently pregnant	0.119	0.009	1,085	640	0.868	0.072	0.102	0.136
Children ever born	3.352	0.110	1,085	640	1.223	0.033	3.131	3.572
Children surviving	2.759	0.106	1,085	640	1.436	0.038	2.548	2.970
Children ever born to women age 40-49	7.264	0.173	146	91	0.772	0.024	6.919	7.610
Know any contraceptive method	0.952	0.009	832	510	1.261	0.010	0.933	0.971
Currently using any method	0.120	0.022	832	510	1.936	0.182	0.076	0.164
Currently using pill	0.015	0.005	832	510	1.126	0.320	0.005	0.024
Currently using condom	0.010	0.003	832	510	0.993	0.346	0.003	0.017
Currently using female sterilization	0.003	0.002	832	510	1.041	0.694	0.000	0.006
Currently using periodic abstinence	0.001	0.001	832	510	0.889	1.009	0.000	0.003
Using public sector source	0.895	0.039	103	61	1.278	0.044	0.817	0.973
Want no more children	0.201	0.019	832	510	1.386	0.096	0.163	0.240
Want to delay next birth at least 2 years	0.365	0.017	832	510	1.016	0.046	0.331	0.399
Ideal number of children	5.461	0.195	937	551	2.198	0.036	5.070	5.852
Mothers protected against tetanus for last birth	0.666	0.039	694	427	2.180	0.058	0.588	0.744
Mothers received medical assistance at delivery	0.333	0.035	1,054	653	2.046	0.107	0.262	0.403
Had diarrhea in the last 2 weeks	0.262	0.032	964	596	2.206	0.121	0.199	0.325
Treated with ORS	0.201	0.047	228	156	1.868	0.233	0.107	0.295
Taken to health provider	0.284	0.030	228	156	1.004	0.104	0.224	0.343
Vaccination card seen	0.607	0.044	190	118	1.250	0.073	0.518	0.695
Received BCG vaccination	0.881	0.028	190	118	1.169	0.032	0.824	0.938
Received DPT vaccination (3 doses)	0.751	0.057	190	118	1.807	0.077	0.636	0.866
Received polio vaccination (3 doses)	0.702	0.060	190	118	1.784	0.085	0.583	0.822
Received measles vaccination	0.766	0.044	190	118	1.425	0.057	0.679	0.853
Fully immunized	0.601	0.054	190	118	1.516	0.090	0.493	0.710
Height-for-age (-2SD)	0.435	0.031	355	236	1.133	0.072	0.372	0.498
Weight-for-height (-2SD)	0.066	0.010	355	236	0.804	0.158	0.045	0.087
Weight-for-age (-2SD)	0.256	0.043	355	236	1.803	0.168	0.169	0.342
Prevalence of anemia (children 6-59 months)	0.832	0.028	345	228	1.329	0.033	0.777	0.888
Prevalence of anemia (women 15-49)	0.558	0.031	394	237	1.261	0.056	0.495	0.620
Body Mass Index (BMI) <18.5	0.259	0.032	337	202	1.337	0.123	0.195	0.322
Total fertility rate (last 3 years)	6.762	0.355	3,032	1,793	1.443	0.053	6.051	7.472
Neonatal mortality rate (last 0-4 years)	38.106	6.343	1,958	1,213	1.355	0.166	25.419	50.792
Post-neonatal mortality rate (last 0-4 years)	31.080	4.916	1,956	1,212	1.178	0.158	21.247	40.912
Infant mortality rate (last 0-4 years)	69.185	8.763	1,960	1,215	1.416	0.127	51.658	86.712
Child mortality rate (last 0-4 years)	81.653	13.302	1,940	1,203	1.609	0.163	55.050	108.257
Under-five mortality rate (last 0-4 years)	145.189	16.161	1,993	1,238	1.556	0.111	112.867	177.512
HIV prevalence among all women 15-49	0.024	0.008	394	217	1.081	0.345	0.008	0.041
MEN								
Urban residence	0.226	0.029	342	198	1.287	0.129	0.168	0.285
No education	0.433	0.037	342	198	1.361	0.084	0.360	0.506
Secondary education or higher	0.325	0.043	342	198	1.702	0.133	0.238	0.411
Never married/in union	0.518	0.033	342	198	1.231	0.064	0.451	0.585
Currently married/in union	0.472	0.034	342	198	1.269	0.073	0.403	0.541
HIV prevalence among all men 15-49	0.024	0.008	326	184	0.966	0.345	0.007	0.040
HIV prevalence among all men 15-59	0.027	0.009	353	199	1.050	0.334	0.009	0.045
WOMEN AND MEN								
HIV prevalence among all women and men 15-49	0.024	0.007	720	401	1.264	0.301	0.010	0.038

na = Non applicable

Table B.15 Sampling errors: Matam, EDS-MICS, Senegal 2010-11

Variable	Value (R)	Standard error (SE)	Un-weighted number (N)	Weighted number (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence interval R-2SE	Confidence interval R+2SE
WOMEN								
Urban residence	0.299	0.064	1,034	595	4.451	0.214	0.171	0.427
Literacy	0.216	0.033	1,034	595	2.563	0.153	0.150	0.281
No education	0.758	0.038	1,034	595	2.804	0.050	0.683	0.833
Secondary education or higher	0.089	0.016	1,034	595	1.803	0.180	0.057	0.121
Never married/in union	0.177	0.033	1,034	595	2.752	0.185	0.112	0.243
Currently married/in union	0.749	0.032	1,034	595	2.387	0.043	0.685	0.814
Married before age 20	0.740	0.027	578	335	1.500	0.037	0.686	0.795
Currently pregnant	0.085	0.013	1,034	595	1.488	0.152	0.059	0.110
Children ever born	2.909	0.151	1,034	595	1.679	0.052	2.608	3.210
Children surviving	2.568	0.127	1,034	595	1.607	0.049	2.314	2.821
Children ever born to women age 40-49	6.308	0.180	158	95	0.737	0.029	5.947	6.668
Know any contraceptive method	0.843	0.033	768	446	2.477	0.039	0.777	0.908
Currently using any method	0.032	0.008	768	446	1.309	0.258	0.016	0.049
Currently using pill	0.016	0.005	768	446	1.147	0.322	0.006	0.027
Currently using condom	0.001	0.001	768	446	0.692	1.028	0.000	0.002
Currently using female sterilization	0.000	0.000	768	446	na	na	0.000	0.000
Currently using periodic abstinence	0.000	0.000	768	446	0.582	1.014	0.000	0.001
Using public sector source	0.896	0.069	30	15	1.208	0.077	0.758	1.034
Want no more children	0.141	0.016	768	446	1.267	0.113	0.109	0.173
Want to delay next birth at least 2 years	0.307	0.022	768	446	1.293	0.070	0.264	0.350
Ideal number of children	6.462	0.275	625	369	1.904	0.043	5.911	7.012
Mothers protected against tetanus for last birth	0.641	0.034	544	322	1.657	0.053	0.573	0.709
Mothers received medical assistance at delivery	0.458	0.050	828	493	2.359	0.108	0.359	0.557
Had diarrhea in the last 2 weeks	0.176	0.018	782	466	1.245	0.105	0.139	0.213
Treated with ORS	0.201	0.046	135	82	1.286	0.227	0.110	0.292
Taken to health provider	0.265	0.052	135	82	1.358	0.196	0.161	0.369
Vaccination card seen	0.606	0.072	160	96	1.856	0.120	0.461	0.750
Received BCG vaccination	0.878	0.052	160	96	2.003	0.059	0.775	0.981
Received DPT vaccination (3 doses)	0.731	0.069	160	96	1.970	0.094	0.593	0.869
Received polio vaccination (3 doses)	0.627	0.074	160	96	1.919	0.118	0.479	0.776
Received measles vaccination	0.696	0.071	160	96	1.951	0.102	0.554	0.838
Fully immunized	0.528	0.083	160	96	2.072	0.157	0.363	0.694
Height-for-age (-2SD)	0.261	0.038	231	128	1.254	0.144	0.186	0.336
Weight-for-height (-2SD)	0.173	0.032	231	128	1.227	0.184	0.109	0.237
Weight-for-age (-2SD)	0.248	0.035	231	128	1.179	0.141	0.178	0.318
Prevalence of anemia (children 6-59 months)	0.761	0.031	258	142	1.110	0.041	0.699	0.824
Prevalence of anemia (women 15-49)	0.529	0.039	381	211	1.485	0.073	0.451	0.606
Body Mass Index (BMI) <18.5	0.270	0.025	355	192	1.023	0.092	0.221	0.320
Total fertility rate (last 3 years)	5.430	0.353	2904	1,676	1.878	0.065	4.723	6.136
Neonatal mortality rate (last 0-4 years)	38.612	4.138	1,551	931	0.853	0.107	30.336	46.889
Post-neonatal mortality rate (last 0-4 years)	24.284	4.365	1,544	927	1.049	0.180	15.555	33.013
Infant mortality rate (last 0-4 years)	62.897	6.090	1,552	932	0.979	0.097	50.718	75.076
Child mortality rate (last 0-4 years)	28.234	4.939	1,514	911	1.058	0.175	18.355	38.113
Under-five mortality rate (last 0-4 years)	89.355	7.634	1,558	935	1.063	0.085	74.087	104.622
HIV prevalence among all women 15-49	0.005	0.004	380	204	1.179	0.850	0.000	0.014
MEN								
Urban residence	0.302	0.068	247	152	2.288	0.224	0.167	0.437
No education	0.606	0.058	247	152	1.843	0.095	0.491	0.722
Secondary education or higher	0.197	0.045	247	152	1.751	0.226	0.108	0.287
Never married/in union	0.563	0.031	247	152	0.966	0.054	0.502	0.624
Currently married/in union	0.429	0.033	247	152	1.034	0.076	0.364	0.494
HIV prevalence among all men 15-49	0.001	0.001	201	141	0.395	1.051	0.000	0.002
HIV prevalence among all men 15-59	0.004	0.004	223	158	0.895	0.913	0.000	0.012
WOMEN AND MEN								
HIV prevalence among all women and men 15-49	0.003	0.003	581	345	1.070	0.774	0.000	0.008

na = Non applicable

Variable	Value (R)	Standard error (SE)	Un-weighted number (N)	Weighted number (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence interval R-2SE	Confidence interval R+2SE
				WOMEN				
Urban residence	0.170	0.018	1,035	572	1.529	0.105	0.134	0.205
Literacy	0.165	0.026	1,035	572	2.249	0.158	0.113	0.217
No education	0.834	0.025	1,035	572	2.164	0.030	0.784	0.884
Secondary education or higher	0.072	0.017	1,035	572	2.175	0.244	0.037	0.107
Never married/in union	0.180	0.017	1,035	572	1.430	0.095	0.146	0.214
Currently married/in union	0.785	0.018	1,035	572	1.447	0.024	0.748	0.822
Married before age 20	0.717	0.023	598	330	1.266	0.033	0.670	0.764
Currently pregnant	0.098	0.010	1,035	572	1.069	0.101	0.078	0.118
Children ever born	3.176	0.078	1,035	572	0.841	0.025	3.020	3.332
Children surviving	2.786	0.059	1,035	572	0.739	0.021	2.669	2.903
Children ever born to women age 40-49	7.007	0.269	144	80	1.200	0.038	6.468	7.546
Know any contraceptive method	0.833	0.027	800	449	2.077	0.033	0.778	0.888
Currently using any method	0.054	0.011	800	449	1.381	0.204	0.032	0.076
Currently using pill	0.006	0.003	800	449	0.896	0.395	0.001	0.011
Currently using condom	0.000	0.000	800	449	na	na	0.000	0.000
Currently using female sterilization	0.003	0.003	800	449	1.432	0.986	0.000	0.008
Currently using periodic abstinence	0.001	0.001	800	449	0.758	1.010	0.000	0.002
Using public sector source	0.984	0.015	49	22	0.816	0.015	0.955	1.013
Want no more children	0.241	0.017	800	449	1.156	0.073	0.206	0.276
Want to delay next birth at least 2 years	0.402	0.018	800	449	1.046	0.045	0.366	0.438
Ideal number of children	6.085	0.077	979	541	1.123	0.013	5.931	6.240
Mothers protected against tetanus for last birth	0.701	0.026	610	342	1.389	0.037	0.650	0.753
Mothers received medical assistance at delivery	0.440	0.047	951	532	2.425	0.107	0.346	0.535
Had diarrhea in the last 2 weeks	0.154	0.021	894	500	1.622	0.136	0.113	0.196
Treated with ORS	0.172	0.040	133	77	1.236	0.232	0.092	0.252
Taken to health provider	0.353	0.055	133	77	1.312	0.155	0.244	0.463
Vaccination card seen	0.662	0.032	188	104	0.908	0.048	0.598	0.727
Received BCG vaccination	0.969	0.019	188	104	1.495	0.020	0.931	1.007
Received DPT vaccination (3 doses)	0.916	0.027	188	104	1.338	0.030	0.862	0.971
Received polio vaccination (3 doses)	0.708	0.031	188	104	0.917	0.044	0.645	0.771
Received measles vaccination	0.818	0.033	188	104	1.158	0.040	0.752	0.884
Fully immunized	0.593	0.048	188	104	1.314	0.081	0.497	0.690
Height-for-age (-2SD)	0.376	0.041	335	205	1.499	0.108	0.295	0.458
Weight-for-height (-2SD)	0.098	0.017	335	205	1.114	0.172	0.064	0.132
Weight-for-age (-2SD)	0.243	0.034	335	205	1.332	0.138	0.176	0.310
Prevalence of anemia (children 6-59 months)	0.811	0.022	300	187	0.908	0.027	0.767	0.854
Prevalence of anemia (women 15-49)	0.524	0.027	383	216	1.057	0.051	0.470	0.577
Body Mass Index (BMI) <18.5	0.242	0.023	343	191	0.988	0.094	0.196	0.287
Total fertility rate (last 3 years)	6.523	0.375	2,858	1,579	1.437	0.057	5.774	7.272
Neonatal mortality rate (last 0-4 years)	29.568	5.651	1,797	998	1.222	0.191	18.265	40.871
Post-neonatal mortality rate (last 0-4 years)	13.601	2.734	1,783	991	0.985	0.201	8.132	19.070
Infant mortality rate (last 0-4 years)	43.169	7.050	1,798	999	1.312	0.163	29.069	57.270
Child mortality rate (last 0-4 years)	52.308	7.689	1,792	997	1.168	0.147	36.930	67.686
Under-five mortality rate (last 0-4 years)	93.219	10.465	1,825	1,014	1.264	0.112	72.290	114.149
HIV prevalence among all women 15-49	0.005	0.005	382	193	1.320	0.928	0.000	0.015
				MEN				
Urban residence	0.226	0.053	278	141	2.086	0.233	0.121	0.332
No education	0.627	0.050	278	141	1.729	0.080	0.526	0.728
Secondary education or higher	0.157	0.030	278	141	1.387	0.193	0.097	0.218
Never married/in union	0.545	0.034	278	141	1.125	0.062	0.478	0.613
Currently married/in union	0.449	0.033	278	141	1.106	0.074	0.383	0.515
HIV prevalence among all men 15-49	0.005	0.003	251	130	0.761	0.671	0.000	0.012
HIV prevalence among all men 15-59	0.008	0.005	287	148	0.948	0.612	0.000	0.018
				WOMEN AND MEN				
HIV prevalence among all women and men 15-49	0.005	0.003	633	323	1.090	0.599	0.000	0.011

na = Non applicable

Table B.17 Sampling errors: Kédougou, EDS-MICS, Senegal 2010-11

Variable	Value (R)	Standard error (SE)	Un-weighted number (N)	Weighted number (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence interval R-2SE	Confidence interval R+2SE
			WOMEN					
Urban residence	0.258	0.037	494	115	1.888	0.145	0.183	0.333
Literacy	0.227	0.030	494	115	1.602	0.133	0.166	0.288
No education	0.646	0.033	494	115	1.522	0.051	0.580	0.712
Secondary education or higher	0.127	0.025	494	115	1.691	0.200	0.076	0.177
Never married/in union	0.132	0.022	494	115	1.434	0.166	0.088	0.176
Currently married/in union	0.843	0.024	494	115	1.489	0.029	0.794	0.892
Married before age 20	0.850	0.019	299	71	0.900	0.022	0.812	0.887
Currently pregnant	0.111	0.016	494	115	1.124	0.143	0.080	0.143
Children ever born	3.524	0.189	494	115	1.458	0.054	3.147	3.902
Children surviving	2.796	0.132	494	115	1.324	0.047	2.532	3.061
Children ever born to women age 40-49	6.683	0.300	73	17	0.893	0.045	6.084	7.283
Know any contraceptive method	0.903	0.021	401	97	1.405	0.023	0.862	0.945
Currently using any method	0.071	0.018	401	97	1.375	0.249	0.036	0.106
Currently using pill	0.008	0.005	401	97	1.052	0.568	0.000	0.018
Currently using condom	0.002	0.002	401	97	0.951	1.014	0.000	0.007
Currently using female sterilization	0.012	0.007	401	97	1.311	0.598	0.000	0.026
Currently using periodic abstinence	0.005	0.004	401	97	1.126	0.764	0.000	0.014
Using public sector source	0.769	0.126	31	6	1.599	0.164	0.517	1.022
Want no more children	0.178	0.020	401	97	1.053	0.113	0.138	0.219
Want to delay next birth at least 2 years	0.412	0.019	401	97	0.761	0.045	0.375	0.449
Ideal number of children	5.489	0.151	326	73	1.232	0.028	5.187	5.791
Mothers protected against tetanus for last birth	0.655	0.044	299	73	1.592	0.067	0.568	0.742
Mothers received medical assistance at delivery	0.254	0.039	427	108	1.579	0.154	0.176	0.333
Had diarrhea in the last 2 weeks	0.121	0.019	397	100	1.162	0.159	0.082	0.159
Treated with ORS	0.210	0.075	47	12	1.221	0.358	0.060	0.361
Taken to health provider	0.404	0.101	47	12	1.388	0.251	0.201	0.607
Vaccination card seen	0.574	0.062	87	22	1.189	0.108	0.450	0.697
Received BCG vaccination	0.910	0.031	87	22	1.043	0.035	0.847	0.972
Received DPT vaccination (3 doses)	0.588	0.051	87	22	0.986	0.087	0.487	0.690
Received polio vaccination (3 doses)	0.560	0.070	87	22	1.350	0.126	0.419	0.701
Received measles vaccination	0.765	0.061	87	22	1.366	0.080	0.643	0.886
Fully immunized	0.404	0.060	87	22	1.165	0.149	0.284	0.524
Height-for-age (-2SD)	0.391	0.033	131	30	0.935	0.085	0.325	0.457
Weight-for-height (-2SD)	0.054	0.014	131	30	0.756	0.267	0.025	0.083
Weight-for-age (-2SD)	0.207	0.036	131	30	1.031	0.176	0.134	0.279
Prevalence of anemia (children 6-59 months)	0.796	0.038	125	29	1.327	0.047	0.721	0.871
Prevalence of anemia (women 15-49)	0.535	0.060	143	36	1.496	0.113	0.414	0.656
Body Mass Index (BMI) <18.5	0.191	0.043	141	36	1.347	0.224	0.106	0.277
Total fertility rate (last 3 years)	6.130	0.406	1,375	323	1.608	0.066	5.318	6.942
Neonatal mortality rate (last 0-4 years)	30.216	9.283	872	220	1.482	0.307	11.650	48.783
Post-neonatal mortality rate (last 0-4 years)	37.517	9.031	872	220	1.326	0.241	19.455	55.579
Infant mortality rate (last 0-4 years)	67.734	8.258	873	221	0.973	0.122	51.218	84.249
Child mortality rate (last 0-4 years)	92.131	14.227	876	222	1.056	0.154	63.678	120.584
Under-five mortality rate (last 0-4 years)	153.625	14.906	893	227	0.955	0.097	123.813	183.436
HIV prevalence among all women 15-49	0.025	0.016	141	44	1.240	0.659	0.000	0.057
			MEN					
Urban residence	0.321	0.047	170	34	1.296	0.145	0.227	0.414
No education	0.309	0.033	170	34	0.917	0.105	0.244	0.374
Secondary education or higher	0.296	0.059	170	34	1.670	0.199	0.178	0.414
Never married/in union	0.484	0.049	170	34	1.285	0.102	0.385	0.583
Currently married/in union	0.499	0.049	170	34	1.279	0.099	0.400	0.598
HIV prevalence among all men 15-49	0.007	0.007	111	31	0.868	0.983	0.000	0.021
HIV prevalence among all men 15-59	0.006	0.006	130	38	0.853	0.988	0.000	0.017
			WOMEN AND MEN					
HIV prevalence among all women and men 15-49	0.017	0.012	252	75	1.459	0.693	0.000	0.042

na = Non applicable

Table B.18 Sampling errors: Sédhiou, EDS-MICS, Senegal 2010-11

Variable	Value (R)	Standard error (SE)	Un-weighted number (N)	Weighted number (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence interval R-2SE	Confidence interval R+2SE
WOMEN								
Urban residence	0.186	0.021	1,049	448	1.770	0.115	0.143	0.228
Literacy	0.261	0.038	1,049	448	2.800	0.146	0.184	0.337
No education	0.705	0.034	1,049	448	2.430	0.049	0.637	0.774
Secondary education or higher	0.133	0.024	1,049	448	2.291	0.181	0.085	0.182
Never married/in union	0.220	0.022	1,049	448	1.708	0.099	0.176	0.264
Currently married/in union	0.740	0.025	1,049	448	1.849	0.034	0.690	0.790
Married before age 20	0.695	0.026	604	260	1.410	0.038	0.642	0.748
Currently pregnant	0.096	0.008	1,049	448	0.897	0.085	0.079	0.112
Children ever born	3.143	0.091	1,049	448	1.010	0.029	2.960	3.325
Children surviving	2.594	0.082	1,049	448	1.120	0.031	2.431	2.757
Children ever born to women age 40-49	6.788	0.238	164	71	1.127	0.035	6.312	7.265
Know any contraceptive method	0.962	0.013	748	332	1.802	0.013	0.937	0.987
Currently using any method	0.074	0.013	748	332	1.354	0.176	0.048	0.100
Currently using pill	0.003	0.001	748	332	0.694	0.484	0.000	0.005
Currently using condom	0.009	0.004	748	332	1.159	0.443	0.001	0.017
Currently using female sterilization	0.002	0.002	748	332	0.948	0.768	0.000	0.005
Currently using periodic abstinence	0.002	0.002	748	332	1.162	1.000	0.000	0.005
Using public sector source	0.680	0.070	79	28	1.326	0.103	0.540	0.821
Want no more children	0.111	0.014	748	332	1.236	0.128	0.083	0.140
Want to delay next birth at least 2 years	0.373	0.023	748	332	1.285	0.061	0.328	0.419
Ideal number of children	6.119	0.307	916	390	3.040	0.050	5.504	6.734
Mothers protected against tetanus for last birth	0.794	0.033	636	279	2.079	0.042	0.728	0.861
Mothers received medical assistance at delivery	0.349	0.033	944	418	1.826	0.094	0.284	0.415
Had diarrhea in the last 2 weeks	0.210	0.024	884	390	1.703	0.113	0.163	0.258
Treated with ORS	0.235	0.038	193	82	1.206	0.164	0.158	0.312
Taken to health provider	0.418	0.046	193	82	1.231	0.110	0.326	0.510
Vaccination card seen	0.683	0.035	197	89	1.053	0.051	0.614	0.753
Received BCG vaccination	0.969	0.021	197	89	1.711	0.021	0.928	1.011
Received DPT vaccination (3 doses)	0.856	0.035	197	89	1.403	0.041	0.787	0.925
Received polio vaccination (3 doses)	0.804	0.039	197	89	1.384	0.048	0.727	0.882
Received measles vaccination	0.824	0.029	197	89	1.093	0.036	0.765	0.882
Fully immunized	0.683	0.049	197	89	1.485	0.072	0.586	0.781
Height-for-age (-2SD)	0.410	0.029	315	143	0.918	0.071	0.351	0.468
Weight-for-height (-2SD)	0.069	0.017	315	143	1.292	0.248	0.035	0.103
Weight-for-age (-2SD)	0.268	0.027	315	143	0.942	0.103	0.213	0.323
Prevalence of anemia (children 6-59 months)	0.803	0.033	293	133	1.449	0.041	0.737	0.869
Prevalence of anemia (women 15-49)	0.519	0.038	377	157	1.441	0.072	0.444	0.595
Body Mass Index (BMI) <18.5	0.213	0.027	331	135	1.191	0.129	0.158	0.268
Total fertility rate (last 3 years)	6.925	0.253	2,926	1,252	1.075	0.037	6.419	7.432
Neonatal mortality rate (last 0-4 years)	37.583	5.659	1,822	811	1.216	0.151	26.265	48.901
Post-neonatal mortality rate (last 0-4 years)	34.215	7.179	1,817	809	1.477	0.210	19.858	48.572
Infant mortality rate (last 0-4 years)	71.799	7.993	1,824	811	1.228	0.111	55.813	87.784
Child mortality rate (last 0-4 years)	76.060	8.297	1,796	805	1.264	0.109	59.466	92.653
Under-five mortality rate (last 0-4 years)	142.397	10.607	1,860	828	1.209	0.074	121.183	163.612
HIV prevalence among all women 15-49	0.020	0.007	379	140	1.002	0.357	0.006	0.035
MEN								
Urban residence	0.217	0.031	311	120	1.327	0.143	0.155	0.279
No education	0.383	0.056	311	120	2.021	0.146	0.271	0.495
Secondary education or higher	0.323	0.043	311	120	1.622	0.134	0.236	0.409
Never married/in union	0.623	0.029	311	120	1.063	0.047	0.565	0.682
Currently married/in union	0.368	0.027	311	120	0.989	0.074	0.314	0.422
HIV prevalence among all men 15-49	0.000	0.000	294	112	na	na	0.000	0.000
HIV prevalence among all men 15-59	0.003	0.003	325	125	1.024	0.968	0.000	0.010
WOMEN AND MEN								
HIV prevalence among all women and men 15-49	0.011	0.004	673	252	1.003	0.361	0.003	0.020

na = Non applicable

DATA QUALITY TABLES

Table C.1 Household age distribution

Single-year age distribution of the *de facto* household population by sex (weighted), EDS-MICS, Senegal 2010-11

Age	Women Number	Women Percent	Men Number	Men Percent	Age	Women Number	Women Percent	Men Number	Men Percent
0	1,213	3.1	1,284	3.7	36	383	1.0	258	0.7
1	1,115	2.9	1,200	3.5	37	330	0.9	236	0.7
2	1,188	3.1	1,321	3.8	38	385	1.0	277	0.8
3	1,319	3.4	1,317	3.8	39	243	0.6	146	0.4
4	1,185	3.1	1,186	3.4	40	596	1.5	492	1.4
5	1,096	2.8	1,165	3.4	41	205	0.5	128	0.4
6	1,261	3.3	1,218	3.5	42	294	0.8	259	0.7
7	1,229	3.2	1,266	3.7	43	206	0.5	210	0.6
8	1,164	3.0	1,139	3.3	44	218	0.6	148	0.4
9	790	2.0	836	2.4	45	368	0.9	326	0.9
10	1,145	3.0	1,177	3.4	46	166	0.4	173	0.5
11	751	1.9	818	2.4	47	188	0.5	169	0.5
12	1,000	2.6	942	2.7	48	207	0.5	197	0.6
13	997	2.6	875	2.5	49	123	0.3	73	0.2
14	893	2.3	759	2.2	50	563	1.5	391	1.1
15	783	2.0	883	2.6	51	261	0.7	120	0.3
16	668	1.7	644	1.9	52	339	0.9	142	0.4
17	722	1.9	633	1.8	53	280	0.7	169	0.5
18	1,007	2.6	887	2.6	54	201	0.5	130	0.4
19	547	1.4	431	1.2	55	384	1.0	258	0.7
20	1,089	2.8	888	2.6	56	147	0.4	160	0.5
21	526	1.4	432	1.2	57	132	0.3	101	0.3
22	734	1.9	588	1.7	58	229	0.6	142	0.4
23	611	1.6	428	1.2	59	105	0.3	106	0.3
24	610	1.6	449	1.3	60	384	1.0	289	0.8
25	975	2.5	733	2.1	61	79	0.2	85	0.2
26	524	1.4	410	1.2	62	100	0.3	148	0.4
27	508	1.3	386	1.1	63	102	0.3	105	0.3
28	608	1.6	459	1.3	64	100	0.3	56	0.2
29	342	0.9	254	0.7	65	225	0.6	173	0.5
30	927	2.4	630	1.8	66	68	0.2	63	0.2
31	305	0.8	264	0.8	67	73	0.2	62	0.2
32	476	1.2	408	1.2	68	100	0.3	91	0.3
33	344	0.9	271	0.8	69	40	0.1	38	0.1
34	371	1.0	273	0.8	70+	1,171	3.0	1,093	3.2
35	664	1.7	509	1.5	NSP/ND	105	0.3	201	0.6
					Total	29,990	100.0	33,502	100.0

Note: The *de facto* population includes all residents and non-residents who stayed in the household the night before the interview.

Table C.2.1 Age distribution of eligible and interviewed women

De facto household population of women age 10-54 and interviewed women age 15-49; and percent distribution and percentage of eligible women who were interviewed (weighted), by five-year age groups, EDS-MICS, Senegal 2010-11

Age group	Household population of women age 10-54	Interviewed women age 15-49		Percentage of eligible women interviewed
		Number	Percentage	
10-14	4,785	na	na	na
15-19	3,726	3,491	21.9	93.7
20-24	3,570	3,310	20.8	92.7
25-29	2,957	2,768	17.4	93.6
30-34	2,422	2,199	13.8	90.8
35-39	2,004	1,832	11.5	91.4
40-44	1,519	1,380	8.7	90.8
45-49	1,052	956	6.0	90.9
50-54	1,643	na	na	na
15-49	17,251	15,936	100.0	92.4

Note: The *de facto* population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the Household Questionnaire.
na = Not applicable

Table C.2.2 Age distribution of eligible and interviewed men

De facto household population of men age 10-64 and interviewed men age 15-59; and percent distribution and percentage of eligible men who were interviewed (weighted), by five-year age groups, EDS-MICS, Senegal 2010-11

Age group	Household population of men age 10-64	Interviewed men age 15-59		Percentage of eligible men interviewed
		Number	Percentage	
10-14	1,806	na	na	na
15-19	1,309	1,204	23.4	92.0
20-24	1,055	938	18.2	88.9
25-29	846	735	14.3	86.8
30-34	690	590	11.5	85.5
35-39	555	473	9.2	85.2
40-44	484	395	7.7	81.7
45-49	333	270	5.2	80.9
50-54	344	296	5.8	86.2
55-59	297	242	4.7	81.3
60-64	290	na	na	na
15-59	5,913	5,143	100.0	87.0

Note: The *de facto* population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of men and interviewed men are household weights. Age is based on the Household Questionnaire.
na = Not applicable

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), EDS-MICS, Senegal 2010-11

Subject	Reference group	Percentage with information missing	Number of cases
Birth date			
Month only	Births in the 15 years preceding the survey	19.81	29,220
Month and year	Births in the 15 years preceding the survey	0.44	29,220
Age at death	Deceased children born in the 15 years preceding the survey	0.19	2,703
Age/date at first union[1]	Ever-married women age 15-49	0.51	11,103
Age/date at first union[1]	Ever-married men age 15-54	0.54	2,176
Respondent's education	All women	0.00	15,688
Respondent's education	All men	0.00	4,929
Diarrhea in past 2 weeks	Living children age 0-59 months	2.43	10,893
Anthropometry[2]	Living children age 0-59 months (from Household Questionnaire)		
Height		11.56	4,941
Weight		11.18	4,941
Height or weight		11.63	4,941
Anemia[3]			
Anemia	Living children age 0-59 months (from Household Questionnaire)	14.55	4,402
Anemia	All women (from Household Questionnaire)	14.00	6,824
Anemia	All men (from Household Questionnaire)	22.41	5,905
Anemia	All women (from Household Questionnaire)	14.00	6,824

[1] Both year and age missing.
[2] Child not measured.
[3] Not tested.

Table C.4 Births by calendar years

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living (L), dead (D), and total (T) children (weighted), EDS-MICS, Senegal 2010-11

Calendar year	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar year ratio[3]		
	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total	Living	Dead	Total
2011	197	6	204	100.0	100.0	100.0	104.5	103.7	104.5	na	na	na
2010	2,227	86	2,313	98.5	93.5	98.3	107.3	127.6	108.0	na	na	na
2009	2,213	115	2,328	95.6	81.7	94.9	107.0	163.4	109.3	101.3	108.2	101.7
2008	2,141	127	2,267	92.7	81.5	92.0	102.0	153.7	104.3	96.6	96.1	96.6
2007	2,219	149	2,367	89.4	79.3	88.7	101.1	134.7	102.9	108.0	112.0	108.3
2006	1,968	139	2,106	85.8	74.4	85.0	106.0	94.2	105.1	98.5	93.5	98.2
2005	1,776	148	1,924	84.9	66.2	83.5	107.6	116.5	108.3	87.6	80.9	87.1
2004	2,085	227	2,312	79.1	62.4	77.5	97.2	159.8	102.0	112.7	123.2	113.7
2003	1,923	221	2,144	73.4	58.3	71.8	99.5	112.4	100.7	99.0	97.0	98.8
2002	1,798	228	2,026	71.7	59.8	70.3	101.7	105.0	102.1	110.5	118.9	111.4
2007-2011	8,997	483	9,480	94.2	83.3	93.6	104.4	144.0	106.1	na	na	na
2006-2002	9,550	962	10,512	79.0	63.1	77.6	102.2	117.6	103.5	na	na	na
2001-1997	6,902	1,063	7,965	70.7	55.3	68.6	108.0	113.6	108.8	na	na	na
1996-1992	4,769	896	5,665	65.8	54.4	64.0	98.3	122.8	101.8	na	na	na
1991+	4,607	1,128	5,735	61.8	46.0	58.7	99.7	127.3	104.6	na	na	na
Total	34,824	4,533	39,357	77.2	57.5	74.9	103.0	122.6	105.1	na	na	na

na = Not applicable
[1] Both year and month of birth given.
[2] (Bm/Bf)x100, where Bm and Bf are the numbers of male and female births, respectively.
[3] [2Bx/(Bx-1+Bx+1)]x100, where Bx is the number of births in calendar year x.

Table C.5 Reporting of age at death in days

Distribution of reported deaths under age 1 month by age at death in days and the percentage of neonatal deaths reported to occur at age 0-6 days, for five-year periods of birth preceding the survey (weighted), EDS-MICS, Senegal 2010-11

Age at death (days)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1	100	98	93	67	357
1	75	65	43	27	211
2	20	17	16	9	61
3	26	36	42	20	125
4	10	15	8	12	45
5	11	16	24	14	65
6	13	19	14	10	56
7	21	28	34	21	104
8	9	20	12	10	52
9	4	9	2	0	14
10	2	5	8	2	17
11	0	1	1	1	3
12	2	3	0	2	7
13	0	1	0	0	1
14	3	1	5	2	11
15	20	8	11	6	44
16	0	1	0	0	1
17	0	1	0	1	1
18	1	1	0	0	1
19	0	1	0	0	1
20	1	3	4	1	8
21	3	4	6	2	15
22	0	1	1	1	3
23	0	2	2	0	5
24	1	0	0	0	1
25	1	1	0	2	4
26	0	0	0	1	1
28	1	0	0	0	1
29	0	0	1	0	1
30	3	2	3	0	9
31+	0	1	0	0	1
Total 0-30	325	358	330	213	1,227
Percentage early neonatal[1]	78,4	74,2	72,6	74,7	75,0

[1] 0-6 days / 0-30 days

Table C.6 Reporting of age at death in months

Distribution of reported deaths under age 2 years by age at death in months and the percentage of infant deaths reported to occur at age under one month, for five-year periods of birth preceding the survey (weighted), EDS-MICS, Senegal 2010-11

| Age at death (months) | Number of years preceding the survey | | | | Total 0-19 |
	0-4	5-9	10-14	15-19	
<1[a]	325	358	330	213	1 227
1	33	43	22	14	112
2	25	29	37	11	101
3	25	30	20	17	92
4	10	20	12	13	55
5	15	17	11	2	44
6	9	29	21	14	73
7	11	14	19	19	64
8	11	13	15	8	47
9	12	17	25	14	68
10	2	9	4	4	18
11	12	13	13	5	44
12	12	22	37	19	90
13	5	6	9	3	23
14	3	1	8	2	15
15	3	4	4	5	17
16	2	4	7	4	17
17	1	2	5	2	10
18	9	16	26	29	81
19	1	0	5	1	7
20	0	2	3	3	8
21	0	1	0	0	2
22	2	0	3	2	7
23	2	4	1	1	9
24+	0	6	3	2	10
1 an	18	52	51	53	174
Total 0-11	490	593	528	334	1 945
Percentage neonatal[1]	66,4	60,4	62,4	63,8	63,1

[a] Includes deaths under one month reported in days.
[1] Under one month / under one year.

Table C.7 Nutritional status of children based on NCHS/CDC/WHO International Reference Population

Percentage of children under age 5 classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, based on the NCHS/CDC/WHO International Reference Population, EDS-MICS, Senegal 2010-11

Background characteristic	Height-for-age			Weight-for-height				Weight-for-age				Number of children
	Per-centage below -3 SD	Per-centage below -2 SD[1]	Mean Z-score (SD)	Per-centage below -3 SD	Per-centage below -2 SD[1]	Per-centage above +2 SD	Mean Z-score (SD)	Per-centage below -3 SD	Per-centage below -2 SD[1]	Per-centage above +2 SD	Mean Z-score (SD)	
Age in months												
<6	0.8	5.4	(0.0)	0.1	4.6	7.2	0.1	0.1	2.1	3.9	0.1	371
6-8	3.0	10.6	(0.6)	1.4	10.8	3.2	(0.6)	3.5	13.3	2.3	(0.9)	170
9-11	2.1	11.7	(0.7)	1.1	9.8	2.8	(0.6)	3.6	14.4	1.6	(1.0)	228
12-17	8.3	25.4	(1.2)	1.1	14.0	2.3	(0.8)	6.0	31.8	0.2	(1.4)	469
18-23	14.8	37.0	(1.6)	0.8	10.4	0.2	(0.9)	7.2	33.8	0.3	(1.5)	302
24-35	9.2	25.0	(1.1)	0.3	7.8	1.5	(0.8)	5.2	26.7	1.1	(1.3)	787
36-47	9.1	24.8	(1.1)	1.0	7.1	1.0	(0.8)	3.3	22.5	0.5	(1.3)	786
48-59	9.6	23.0	(1.1)	1.2	8.4	0.2	(0.9)	4.8	24.5	0.2	(1.3)	668
Sex												
Male	7.7	23.1	(1.0)	0.5	8.7	1.8	(0.7)	4.4	22.9	0.9	(1.2)	1 945
Fémale	8.4	21.3	(0.9)	1.2	8.7	1.9	(0.7)	4.2	22.9	1.1	(1.2)	1 835
Birth interval in months[2]												
First birth[3]	8.0	20.8	(0.9)	1.4	8.9	2.5	(0.7)	3.1	21.0	1.0	(1.1)	775
<24	13.4	29.9	(1.2)	1.1	8.3	1.8	(0.7)	7.4	28.9	0.8	(1.3)	440
24-47	6.7	21.3	(0.9)	0.5	8.0	1.5	(0.6)	4.7	22.6	1.0	(1.1)	1 583
48+	7.0	20.5	(0.9)	0.9	10.6	2.3	(0.7)	3.0	22.2	1.5	(1.1)	621
Size at birth[2]												
Very small	10.7	30.0	(1.3)	1.7	12.4	2.5	(0.8)	7.3	32.7	2.4	(1.5)	315
Small	7.7	26.4	(1.1)	2.4	12.0	0.9	(0.8)	5.4	31.4	0.3	(1.3)	600
Average or larger	7.6	20.0	(0.9)	0.4	7.4	2.1	(0.6)	3.7	19.7	1.1	(1.0)	2 484
Missing	5.4	25.8	(1.3)	0.0	7.7	0.0	(0.7)	4.4	22.8	0.0	(1.3)	19
Mother's interview status												
Interviewed	7.9	22.1	(0.9)	0.8	8.7	1.9	(0.7)	4.4	23.0	1.1	(1.1)	3 418
Not interviewed, but in household	11.7	21.3	(2.1)	0.0	8.8	2.2	(1.7)	4.6	21.5	0.0	(2.2)	114
Not interviewed, and not in the household[4]	8.7	24.2	(1.0)	0.9	8.2	1.2	(0.9)	3.4	22.3	0.8	(1.3)	248
Mother's nutritional status[5]												
Thin (BMI<18.5)	10.2	28.8	(1.1)	1.0	12.6	2.6	(0.9)	6.5	32.1	1.3	(1.4)	592
Normal (BMI 18.5-24.9)	8.8	22.8	(1.0)	0.6	8.4	1.8	(0.6)	4.2	22.2	0.9	(1.1)	2 119
Overweight/ obese (BMI ≥25)	3.0	14.3	(0.7)	1.4	6.2	1.9	(0.6)	3.0	17.7	1.4	(0.9)	719
Residence												
Urban	4.9	15.0	(0.7)	0.9	7.8	2.2	(0.6)	2.4	17.5	1.3	(1.0)	1 463
Rural	10.0	26.8	(1.2)	0.7	9.2	1.6	(0.7)	5.5	26.3	0.9	(1.3)	2 318
Region												
Dakar	5.3	14.1	(0.6)	0.0	5.7	2.7	(0.6)	1.0	14.7	1.6	(0.9)	775
Ziguinchor	6.9	16.1	(1.0)	0.5	4.5	2.3	(0.3)	3.8	16.7	1.4	(0.9)	123
Diourbel	8.7	25.9	(1.1)	0.0	7.5	2.4	(0.7)	2.6	22.7	0.3	(1.3)	409
Saint-Louis	5.8	18.4	(1.0)	1.6	14.9	0.4	(1.1)	5.4	31.2	0.9	(1.4)	226
Tambacounda	6.8	22.0	(0.9)	1.1	13.2	1.3	(0.9)	5.4	28.7	1.0	(1.3)	190
Kaolack	7.7	23.9	(1.1)	0.5	6.2	1.8	(0.7)	3.8	23.3	1.1	(1.2)	363
Thiès	6.6	19.7	(0.7)	2.8	12.2	2.4	(0.7)	5.0	19.1	1.1	(1.0)	442
Louga	8.2	22.7	(1.0)	1.6	16.0	0.9	(1.0)	8.5	31.4	0.7	(1.4)	238
Fatick	5.4	18.0	(0.9)	0.3	6.3	1.1	(0.6)	2.8	16.6	0.6	(1.0)	266
Kolda	13.9	37.3	(1.6)	0.4	5.5	0.6	(0.8)	6.3	30.3	1.2	(1.5)	241
Matam	8.4	22.7	(1.3)	2.0	14.6	1.9	(1.2)	8.1	30.7	0.9	(1.6)	129
Kaffrine	14.9	33.1	(1.4)	0.8	7.6	2.4	(0.6)	7.8	31.3	0.6	(1.3)	204
Kédougou	10.8	29.5	(1.4)	0.0	5.3	0.5	(0.5)	4.2	22.4	0.0	(1.3)	30
Sédhiou	16.8	35.7	(1.6)	0.2	5.7	1.8	(0.5)	7.6	28.8	0.5	(1.3)	143
Mother's education[6]												
No education	9.8	25.2	(1.1)	1.0	8.8	1.9	(0.7)	5.3	25.5	0.9	(1.3)	2 492
Primary	3.9	16.5	(0.7)	0.6	8.3	1.5	(0.6)	2.9	18.1	0.8	(1.0)	744
Secondary	2.9	10.0	(0.4)	0.0	9.1	2.8	(0.5)	0.6	13.8	2.7	(0.7)	297
Wealth quintile												
Lowest	11.6	31.6	(1.3)	1.1	8.7	1.9	(0.7)	6.1	28.6	1.0	(1.3)	854
Second	9.6	27.0	(1.2)	0.6	9.1	1.0	(0.8)	5.9	27.3	0.8	(1.3)	836
Middle	8.0	19.2	(1.0)	0.2	8.6	1.9	(0.7)	3.6	21.2	0.8	(1.2)	754
Fourth	6.2	18.4	(0.8)	1.3	7.7	2.8	(0.7)	3.5	18.8	1.2	(1.1)	721
Highest	3.3	11.0	(0.4)	0.9	9.4	1.8	(0.7)	1.7	15.9	1.4	(0.8)	616
Total	8.1	22.2	(1.0)	0.8	8.7	1.9	(0.7)	4.3	22.9	1.0	(1.2)	3 780

Note: The table is based on children who slept in the household the night before the survey. Each index is expressed in terms of number of standard deviation units (SD) from the median of the International Reference Population NCHS / CDC / WHO. The table is based on children whose dates of birth (month and year) and measures of weight and size are valid.
1 Includes children who are below -3 SD from the median of the international reference population.
2 Excludes children whose mothers had not been interviewed.
3 The first multiple births (twins or triplets, etc.) are considered first birth because there is no gap with the previous birth.
4 Includes children whose mother has died.
5 The nutritional status of the mother, assessed by BMI (body mass index) is presented in Table 11.10.
6 For women who have not been interviewed, the information comes from the Household Questionnaire. Children whose mother is not listed in the household are excluded.

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Dr. Mohamed NDIAYE, Researcher at Lab. Parasitology

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QUESTIONNAIRE TRANSLATION TO THE NATIONAL LANGUAGES
Tahir DIOP: Wolof
Mahé DIOUF: Serer
Mamadou PENE: Poular
Seydi Aboubacar KEBE: Mandingue

CARTOGRAPHY AND HOUSEHOLD LISTING STAFF

Management

</div>

First name	Last name	First name	Last name
Abdallah	FALL	Ousseynou	KEBE
Tahir	DIOP	Mamadou	DIATTA
Ibra	DIOME	Abdoulaye	SARR
Papa Djiby	BA	Alioune Ndoumbe	GUEYE
Edmon	RODRIGUEZ	Ousmane	DIOUF
El Hadji Ibrahima	NDAO	Lamine	SARR
Konimba	COULIBALY		

<div align="center">

Mappers and Listing staff

</div>

First name	Last name	First name	Last name
El Hadji S. F.	BESSANE	Gorgui Nd.	FALL
Dramé	BIAYE	Zeynou Abidine	FALL
Mamadou	BODIAN	Madiéye	GNINGUE
Mamadou	CAMARA	Aly	GNINGUE
Ougué	CISSE	Mbaye	KEINDE
Sécou	COLY	Ousmane	SAR
Ibou	DIAITE	Souleymane	SOW
Youssou	DIALLO	Pierre Baye	THIAW
Samba	DIALLO	Moussa	TOUNKARA
Alioune Badara	DIARRA	Mor Talla	WADE
Omar	DJIBA		

<div align="center">

DATA COLLECTION STAFF

Team leaders

</div>

First name	Last name	First name	Last name
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Salif	CAMARA	Amadou Lamine	JANTEY
Arona	DIAGNE	Mamadou	MAR
Moussa	DIALLO	Ousmane	MBENGUE
Mbaye	DIENE	El Hadji Mamadou Barka	MBODJI
Gamal Abdel Nasser	DIENG	Aliou	NGOM
Mbaye	DIOKHANE	Mamadou	NIANG
Adama	DIONE	Diala	SY

Health technicians

First name	Last name	First name	Last name
Félix	BARAYE	Sokhna	MBAYE
Maty	BARO	Ndeye Bineta Leroux	MBOW
Moussa	CISS	Ngoundia	NDIAYE
Ousseynou	CISSE	Diarra	NDOYE
Mariama	COLY	Gaston	SAMBOU
Awa	DIAW	Ndèye Oulèye	SARR
Ndane	DIOUF	Mamadou Lamine	SENGHOR
Fatou	FALL	El Mamath	TOURE
Fatou Karim	GUEYE	Khadidiatou	TOURE

Interviewers

First name	Last name	First name	Last name
Diouldé Guidado	BA	Ndéye Ami	FALL
Oumou Diallo	BA	Oumou	GANGUE
Ndéye Aida	BARRY	Aminata	GUEYE
Coumba	BEYE	Fatim	GUEYE
Assiétou	BEYE	Aita	GUEYE
Mafoudya	CAMARA	Rokhaya	GUEYE
Fatou	CISSE	Séraphine	MANDIAME
Astou	CISSE	Rachelle	MANDIAME
Mariama Dianke	COLY	Betty	MBENGUE
Aminata	DIA	Yacine	NDOYE
Fatime	DIAKHATE	Mariéme	NGOM
Oumy	DIAO	Marame	NIANG
Bijou Astride	DIATTA	Clara	SADIO
Kantome	DIAW	Ndeye Yacine	SAGNA
Nafissatou	DIEDHIOU	Mame Thiongane	SALANE
Gnima	DIEDHIOU	Aïssatou	SAMB
Fatoumata	DIEME	Hippolyte	SAMBOU
Seynabou	DIEME	Pauline	SANE
Binetou	DIEME	Lala	SANKARE
Seynabou	DIENG	Amy	SECK
Marième	DIEYE	Amy	SEYE
Seynabou THIOYE	DIOP	Coumba	SOW
Siny	DIOP	Raky	SOW
Tabasky	DIOUF	Adja mame Rokhaya	THIAM
Daba	DIOUF	Fatimata	THIAM
Aminata	DRAME	Goundo	TOURE

QUESTIONNAIRES

ENQUÊTE DÉMOGRAPHIQUE ET DE SANTÉ A INDICATEURS MULTIPLES (EDSV-MICS_2010)
QUESTIONNAIRE MÉNAGE

République du Sénégal
Ministère de l'Economie et des Finances
Ministère de la Santé et de la Prévention Médicale

ORC Macro

IDENTIFICATION

NOM DE LA LOCALITÉ _____

NOM DU CHEF DE MÉNAGE _____ NUMÉRO DU MÉNAGE . | MÉNAGE .... |☐☐|

NUMÉRO DE CONCESSION .... | CONCES. ... |☐☐|

NUMÉRO DE GRAPPE .... | GRAPPE....... |☐☐|

RÉGION _____ | RÉGION .... |☐☐|

DEPARTEMENT _____ | DEPARTEMENT . |☐☐|

DISTRICT SANITAIRE _____ | DISTRICT SANITAIR |☐☐|

URBAIN/RURAL (URBAIN=1, RURAL=2.......................... | MILIEU .... |☐|

DAKAR/CAPITALE RÉGIONALE/AUTRE VILLE/RURAL .... | MILIEU (DÉTAILLÉ) ... |☐|
(DAKAR=1, CAPITALE RÉGIONALE=2, AUTRE VILLE=3, RURAL=4)

MÉNAGE SÉLECTIONNÉ DANS UNE ENQUÊTE HOMME ? (OUI=1, NON............. | ENQUÊTE HOMME ... |☐|

VISITES D'ENQUÊTRICES

	1	2	3	VISITE FINALE		
DATE	_____	_____	_____	JOUR	☐☐	
				MOIS	☐☐	
				ANNÉE....	2	0	1 |☐|
NOM DE L'ENQUÊTRICE	_____	_____	_____	CODE ENQU. ...	☐☐	
RÉSULTAT*	_____	_____	_____	CODE RÉSULTAT	☐	
PROCHAINE DATE VISITE : HEURE	_____	_____	▓▓▓▓	NOMBRE TOTAL DE VISITES	☐	

*CODES RÉSULTATS :
   1   REMPLI
   2   PAS DE MEMBRE DU MÉNAGE À LA MAISON OU PAS D'ENQUÊTE
       COMPÉTENT AU MOMENT DE LA VISITE
   3   MÉNAGE TOTALEMENT ABSENT POUR UNE LONGUE PÉRIODE
   4   DIFFÉRÉ
   5   REFUSÉ
   6   LOGEMENT VIDE OU PAS DE LOGEMENT À L'ADRESSE
   7   LOGEMENT DÉTRUIT
   8   LOGEMENT NON TROUVÉ
   9   AUTRE _____

(PRÉCISER)

TOTAL DANS LE MÉNAGE .... |☐☐|

TOTAL FEMMES ÉLIGIBLES ..... |☐☐|

TOTAL HOMMES ÉLIGIBLES ..... |☐☐|

Nᵁ LIGNE ENQUÊTÉ POUR QUESTION. MÉNAGE |☐☐|

CONTRÔLEUSE	CHEF D'ÉQUIPE	CONTRÔLE BUREAU	SAISI PAR
NOM _____	NOM _____		
DATE _____ |☐☐|	DATE _____ |☐☐|	|☐☐☐|	|☐☐|

PRÉSENTATION ET CONSENTEMENT APRÈS INFORMATION

Bonjour. Je m'appelle _____. Je travaille pour l'Agence Nationale de la Statistique et de la Démographie . Nous effectuons une enquête nationale sur la santé de la population du Sénégal. Les informations que nous collectons aideront votre gouvernement à améliorer les services de santé. Votre ménage a été sélectionné pour cette enquête. Nous voudrions vous poser quelques questions sur votre ménage. Les questions prennent habituellement entre 15 et 20 minutes. Toutes les informations que vous nous donnerez sont strictement confidentielles et elles ne seront transmises à personne d'autres que les membres de l'équipe d'enquête. Vous n'êtes pas obligé de participer à cette enquête, mais nous espérons que vous accepterez d'y participer car votre opinion est très importante. S'il arrivait que je pose une question à laquelle vous ne voulez pas répondre, dites-le moi et je passerai à la question suivante ; vous pouvez également interrompre l'interview à n'importe quel moment.
Si vous souhaitez plus d'informations sur l'enquête, vous pouvez contacter les personnes figurant sur cette carte.

DONNEZ LA CARTE AVEC LES INFORMATIONS POUR CONTACTER CES PERSONNES

Avez-vous des questions à me poser ?
Puis-je commencer l'interview maintenant ?

SIGNATURE DE
    L'ENQUÊTEUR/ENQUÊTRICE : _____   DATE: _____

L'ENQUÊTÉ ACCEPTE DE RÉPONDR   1   L'ENQUÊTÉ REFUSE DE RÉPONDRE . . . .   2 → FIN
                                                            ↓

TABLEAU MÉNAGE

								SI 15 ANS OU PLUS			
N° LIGNE	RÉSIDENTS HABITUELS ET VISITEURS	LIEN AVEC LE CHEF DE MÉNAGE	SEXE	RÉSIDENCE		ÂGE	ÉTAT MATRIMONIAL	ÉLIGIBILITÉ			
1	2	3	4	5	6	7	8	9	10	11
	S'il vous plait, donnez-moi les noms des personnes qui vivent habituellement dans votre ménage et des visiteurs qui ont passé la nuit dernière ici, en commençant par le chef de ménage. APRÈS AVOIR LISTÉ LES NOMS ET ENREGISTRÉ LE LIEN DE PARENTÉ ET LE SEXE POUR CHAQUE PERSONNE, POSEZ LES QUESTIONS 2A, 2B, 2C POUR VOUS ASSURER QUE LA LISTE EST COMPLÈTE. POSEZ ENSUITE LES QUESTIONS APPRO-PRIÉES DES COLONNES 5-20 POUR CHAQUE PERSONNE.	Quel est le lien de parenté de (NOM) avec le chef de ménage ? VOIR CODES CI-DESSOUS	(NOM) est-il de sexe masculin ou féminin ?	(NOM) vit-il/elle ici habituel-lement ?	(NOM) a t-il/elle passé la nuit dernière ici ?	Quel âge a (NOM) ? SI 95 OU PLUS, INSCRIVEZ '95'.	Quel est l'état matrimonial actuel de (NOM) ? 1 = MARIÉ OU VIVANT ENSEMBLE 2 = DIVORCÉ/ SÉPARÉ 3 = VEUF 4 = JAMAIS MARIÉ ET N'A JAMAIS VÉCU AVEC QUELQU'UN	ENCER-CLEZ LE N° DE LIGNE DE TOUTES LES FEMMES DE 15-49 ANS	ENCER-CLEZ LE N° DE LIGNE DE TOUS LES HOMMES DE 15-59 ANS Si le ménage est selectionné pour le question-naire homme	ENCER-CLEZ LE N° DE LIGNE DE TOUS LES ENFANTS DE 0 - 5 ANS
			M F	O N	O N	EN ANNÉES				
01		☐☐	1 2	1 2	1 2	☐☐	☐	01	01	01
02		☐☐	1 2	1 2	1 2	☐☐	☐	02	02	02
03		☐☐	1 2	1 2	1 2	☐☐	☐	03	03	03
04		☐☐	1 2	1 2	1 2	☐☐	☐	04	04	04
05		☐☐	1 2	1 2	1 2	☐☐	☐	05	05	05
06		☐☐	1 2	1 2	1 2	☐☐	☐	06	06	06
07		☐☐	1 2	1 2	1 2	☐☐	☐	07	07	07
08		☐☐	1 2	1 2	1 2	☐☐	☐	08	08	08
09		☐☐	1 2	1 2	1 2	☐☐	☐	09	09	09
10		☐☐	1 2	1 2	1 2	☐☐	☐	10	10	10

CODES POUR Q. 3: LIEN DE PARENTÉ AVEC LE CHEF DE MÉNAGE

01 = CHEF DE MÉNAGE
02 = MARI OU FEMME
03 = FILS OU FILLE
04 = GENDRE OU BELLE-FILLE
05 = PETIT-FILS OU PETITE FILLE
06 = PÈRE OU MÈRE

07 = BEAU-PÈRE OU BELLE MÈRE
08 = FRÈRE OU SOEUR
09 = CO-EPOUSE
10 = AUTRES PARENTS
11 = ENFANTS ADOPTÉS/EN GARDE/ENF DU CONJOINT
12 = SANS PARENTÉ
98 = NE SAIT PAS

		SI ÂGE DE 0-17 ANS			SI ÂGE DE 5 ANS OU PLUS		SI ÂGE DE 5-24 ANS				SI ÂGE 0-5 ANS
N° LIGNE		ÉTAT DE SURVIE ET RÉSIDENCE DES PARENTS BIOLOGIQUES			A FRÉQUENTÉ L'ÉCOLE		FRÉQUENTATION SCOLAIRE ACTUELLE OU RÉCENTE		FRÉQUENTATION SCOLAIRE ANNEE PRECEDENTE		DÉCLARATION DE NAISSANCE
		12	13	14	15	16	17	18	19	19A	19B	20
		La mère de (NOM) est-elle en vie ?	La mère biologique de (NOM) vit-elle habituel-lement dans ce ménage ou était-elle en visite ici la nuit dernière ? SI OUI: Quel est son nom ? INSCRIVEZ LE N° DE LIGNE DE LA MÈRE. SI NON, INSCRIVEZ '00'.	Le père de (NOM) est-il en vie ?	Le père biologique de (NOM) vit-il habituel-lement dans ce ménage ou était-il en visite ici la nuit dernière ? SI OUI: Quel est son nom? INSCRIVEZ LE N° DE LIGNE DU PÈRE. SI NON, INSCRIVEZ '00'.	(NOM) a-t-il/elle déjà fréquenté l'école ?	Quel est le plus haut niveau d'études que (NOM) a atteint ? VOIR CODES CI-DESSOUS Quelle est la dernière classe que (NOM) a achevée à ce niveau ? VOIR CODES CI-DESSOUS	(Nom) a-t il /elle fréquenté l'école à n'importe quel moment durant l'année scolaire (2009-2010) ?	Au cours de cette année scolaire 2010/2011, à quel niveau et en quelle classe est/était (NOM) ? VOIR CODES CI-DESSOUS	Au cours de l'année scolaire précéden-te 2009/2010, NOM a-t-il/elle fréquenté l'école à un certain moment ?	Durant l'année scolaire précé-dente, à quel niveau et dans quelle classe était (NOM) ?	(NOM) a t-il/elle un certificat de naissance ? SI NON, INSISTEZ: La naissance de (NOM) a t-elle été déclarée à l'état civil ? 1 = A UN CERTIFICAT 2 = DÉCLARÉE 3 = NI L'UN, NI L'AUTRE 8 = NE SAIT PAS
		O N NSP		O N NSP		O N	NIVEAU CLASSE	O N	NIVEAU CLASSE	O N	NIVEAU CLASSE	
01		1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐ ☐☐	1 2 ↓ 19A	☐ ☐☐	1 2 ↓ 20G	☐ ☐☐	☐
02		1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐ ☐☐	1 2 ↓ 19A	☐ ☐☐	1 2 ↓ 20G	☐ ☐☐	☐
03		1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐ ☐☐	1 2 ↓ 19A	☐ ☐☐	1 2 ↓ 20G	☐ ☐☐	☐
04		1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐ ☐☐	1 2 ↓ 19A	☐ ☐☐	1 2 ↓ 20G	☐ ☐☐	☐
05		1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐ ☐☐	1 2 ↓ 19A	☐ ☐☐	1 2 ↓ 20G	☐ ☐☐	☐
06		1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐ ☐☐	1 2 ↓ 19A	☐ ☐☐	1 2 ↓ 20G	☐ ☐☐	☐
07		1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐ ☐☐	1 2 ↓ 19A	☐ ☐☐	1 2 ↓ 20G	☐ ☐☐	☐
08		1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐ ☐☐	1 2 ↓ 19A	☐ ☐☐	1 2 ↓ 20G	☐ ☐☐	☐
09		1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐ ☐☐	1 2 ↓ 19A	☐ ☐☐	1 2 ↓ 20G	☐ ☐☐	☐
10		1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐ ☐☐	1 2 ↓ 19A	☐ ☐☐	1 2 ↓ 20G	☐ ☐☐	☐

CODES POUR Qs. 17 ET 19: NIVEAU D'INSTRUCTION

NIVEAU	CLASSE
1 = ELEMENTAIRE	00 = MOINS D'1 ANNÉE ACHEVÉE
2 = MOYEN	(UTILISEZ '00' POUR Q. 17
3 = SECONDAIRE	SEULEMENT. CE CODE N'EST
4 = SUPÉRIEUR	PAS AUTORISÉ À Q. 19).
6 = PRESCOLAIRE	98 = NE SAIT PAS
8 = NE SAIT PAS	

			SI 15 ANS OU PLUS		

N° LIGNE	RÉSIDENTS HABITUELS ET VISITEURS	LIEN AVEC LE CHEF DE MÉNAGE	SEXE	RÉSIDENCE		ÂGE	ÉTAT MATRIMONIAL	ÉLIGIBILITÉ		
1	2	3	4	5	6	7	8	9	10	11
	S'il vous plait, donnez-moi les noms des personnes qui vivent habituellement dans votre ménage et des visiteurs qui ont passé la nuit dernière ici, en commençant par le chef de ménage. APRÈS AVOIR LISTÉ LES NOMS ET ENREGISTRÉ LE LIEN DE PARENTÉ ET LE SEXE POUR CHAQUE PERSONNE, POSEZ LES QUESTIONS 2A, 2B, 2C POUR VOUS ASSURER QUE LA LISTE EST COMPLÈTE. POSEZ ENSUITE LES QUESTIONS APPRO-PRIÉES DES COLONNES 5-20 POUR CHAQUE PERSONNE.	Quel est le lien de parenté de (NOM) avec le chef de ménage ? VOIR CODES CI-DESSOUS	(NOM) est-il de sexe masculin ou féminin ?	(NOM) vit-il/elle ici habituel-lement ?	(NOM) a t-il/elle passé la nuit dernière ici ?	Quel âge a (NOM) ? SI 95 OU PLUS, INSCRIVEZ '95'.	Quel est l'état matrimonial actuel de (NOM) ? 1 = MARIÉ OU VIVANT ENSEMBLE 2 = DIVORCÉ/ SÉPARÉ 3 = VEUF 4 = JAMAIS MARIÉ ET N'A JAMAIS VÉCU AVEC QUELQU'UN	ENCER-CLEZ LE N° DE LIGNE DE TOUTES LES FEMMES DE 15-49 ANS	ENCER-CLEZ LE N° DE LIGNE DE TOUS LES HOMMES DE 15-59 ANS Si le ménage est selectionné pour le question-naire homme	ENCER-CLEZ LE N° DE LIGNE DE TOUS LES ENFANTS DE 0 - 5 ANS
			M 1 F 2	O 1 N 2	O 1 N 2	EN ANNÉE				
11			1 2	1 2	1 2			11	11	11
12			1 2	1 2	1 2			12	12	12
13			1 2	1 2	1 2			13	13	13
14			1 2	1 2	1 2			14	14	14
15			1 2	1 2	1 2			15	15	15
16			1 2	1 2	1 2			16	16	16
17			1 2	1 2	1 2			17	17	17
18			1 2	1 2	1 2			18	18	18
19			1 2	1 2	1 2			19	19	19
20			1 2	1 2	1 2			20	20	20

COCHER ICI SI UNE AUTRE FEUILLE EST UTILISÉE ☐

CODES POUR Q. 3: LIEN AVEC LE CHEF DE MENAGE

2A) Juste pour être sûre que j'ai une liste complète Y a-t-il d'autres personnes telles que des petits enfants ou des nourrissons que nous n'avons pas listés?
OUI ☐ → AJOUTER AU TABLEAU   NON ☐

2B) Ya t-il d'autres personnes qui ne sont peut-être pas membres de votre famille, tels que des domestiques, locataires ou amis qui vivent habituellement ici ?
OUI ☐ → AJOUTER AU TABLEAU   NON ☐

2C) Avez-vous des invités ou des visiteurs temporaires qui sont chez vous, ou d'autres personnes qui ont dormi ici la nuit dernière et qui n'ont pas été listés?
OUI ☐ → AJOUTER AU TABLEAU   NON ☐

01 = CHEF DE MÉNAGE
02 = MARI OU FEMME
03 = FILS OU FILLE
04 = GENDRE OU BELLE-FILLE
05 = PETIT-FILS OU PETITE FILLE
06 = PÈRE OU MÈRE
07 = BEAUX-PARENTS

07 = BEAU-PÈRE OU BELLE MÈRE
08 = FRÈRE OU SOEUR
09 = CO-EPOUSE
10 = AUTRES PARENTS
11 = ENFANTS ADOPTÉS/EN GARDE/ENF DU CONJOINT
12 = SANS PARENTÉ
98 = NE SAIT PAS

N° LIGNE	SI ÂGE DE 0-17 ANS				SI ÂGE DE 5 ANS OU PLUS		SI ÂGE DE 5-24 ANS				SI ÂGE 0-5 ANS
	ÉTAT DE SURVIE ET RÉSIDENCE DES PARENTS BIOLOGIQUES				A FRÉQUENTÉ L'ÉCOLE		FRÉQUENTATION SCOLAIRE ACTUELLE OU RÉCENTE		FRÉQUENTATION SCOLAIRE ANNEE PRECEDENTE		DÉCLARATION DE NAISSANCE
	12	13	14	15	16	17	18	19	19A	19B	20
	La mère de (NOM) est-elle en vie ?	La mère biologique de (NOM) vit-elle habituel-lement dans ce ménage ou était-elle en visite ici la nuit dernière ? SI OUI: Quel est son nom ? INSCRIVEZ LE N° DE LIGNE DE LA MÈRE. SI NON, INSCRIVEZ '00'.	Le père de (NOM) est-il en vie ?	Le père biologique de (NOM) vit-il habituel-lement dans ce ménage ou était-il en visite ici la nuit dernière ? SI OUI: Quel est son nom? INSCRIVEZ LE N° DE LIGNE DU PÈRE. SI NON, INSCRIVEZ '00'.	(NOM) a-t-il/elle déjà fréquenté l'école ?	Quel est le plus haut niveau d'études que (NOM) a atteint ? VOIR CODES CI-DESSOUS Quelle est la dernière classe que (NOM) a achevée à ce niveau ? VOIR CODES CI-DESSOUS	(Nom) a t-il /elle fréquenté l'école à n'importe quel moment durant l'année scolaire (2009-2010) ?	Au cours de cette année scolaire 2010/2011, à quel niveau et en quelle classe est/était (NOM) ? VOIR CODES CI-DESSOUS	Au cours de l'année scolaire précéden-te 2009/2010, NOM a-t-il/elle fréquenté l'école à un certain moment ?	Durant l'année scolaire précé-dente, à quel niveau et dans quelle classe était (NOM) ?	(NOM) a t-il/elle un certificat de naissance ? SI NON, INSISTEZ: La naissance de (NOM) a t-elle été déclarée à l'état civil ? 1 = A UN CERTIFICAT 2 = DÉCLARÉE 3 = NI L'UN, NI L'AUTRE 8 = NE SAIT PAS
	O N NSP		O N NSP		O N	NIVEAU- CLASSE	O N	NIVEAU CLASSE	O N	NIVEAU CLASSE	
11	1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐☐	1 2 ↓ 19A	☐☐	1 2 ↓ 20G	☐☐	☐
12	1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐☐	1 2 ↓ 19A	☐☐	1 2 ↓ 20G	☐☐	☐
13	1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐☐	1 2 ↓ 19A	☐☐	1 2 ↓ 20G	☐☐	☐
14	1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐☐	1 2 ↓ 19A	☐☐	1 2 ↓ 20G	☐☐	☐
15	1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐☐	1 2 ↓ 19A	☐☐	1 2 ↓ 20G	☐☐	☐
16	1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐☐	1 2 ↓ 19A	☐☐	1 2 ↓ 20G	☐☐	☐
17	1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐☐	1 2 ↓ 19A	☐☐	1 2 ↓ 20G	☐☐	☐
18	1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐☐	1 2 ↓ 19A	☐☐	1 2 ↓ 20G	☐☐	☐
19	1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐☐	1 2 ↓ 19A	☐☐	1 2 ↓ 20G	☐☐	☐
20	1 2 — 8 ALLEZ À 14	☐☐	1 2 — 8 ALLEZ À 16	☐☐	1 2 ↓ 20G	☐☐	1 2 ↓ 19A	☐☐	1 2 ↓ 20G	☐☐	☐

CODES POUR Qs. 17 ET 19: NIVEAU D'INSTRUCTION

NIVEAU	CLASSE
1 = ELEMENTAIRE	00 = MOINS D'1 ANNÉE ACHEVÉE
2 = MOYEN	(UTILISEZ '00' POUR Q. 17
3 = SECONDAIRE	SEULEMENT. CE CODE N'EST
4 = SUPÉRIEUR	PAS AUTORISÉ À Q. 19).
6 = PRESCOLAIRE	98 = NE SAIT PAS
8 = NE SAIT PAS	

	PRISE EN CHARGE DES ENFANTS ENFANTS DE 3 - 5 ANS			TRAVAIL DES ENFANTS DE 5 - 17 ANS					
N° LIGNE	Au cours de cette année scolaire, (NOM) fréquente t-il/elle un lieu d'encadrement en dehors de la maison tel qu'une école maternelle, une Case des Tout Petits, un centre communautaire, ou autre ?	Quel établissement (NOM) fréquente-il? 01= ECOLE MATERNELLE 02= JARDIN D'ENFANT 03= CASE DE TP 04= ECOLE ELEMENTAIRE 05= DAARA, CORAN, ARABE 06= CENTRE COMMUNAUTAIRE 96= AUTRE INSCRIRE LE CODE APPROPRIE	Depuis combien d'années ? 1= ANNEE EN COURS 2= ANNEE DERNIERE 3= ANNEE D'AVANT 7= AUTRE INSCRIRE LE CODE APPROPRIE	Maintenant, je voudrais vous poser des questions sur tous les types de travail que les enfants vivant dans votre ménage ont fait la semaine dernière. Depuis le (JOUR DE LA SEMAINE), (NOM) avait-il/elle fait un travail quelconque pour quelqu'un qui n'est pas un membre de ce ménage ? SI OUI: Devait-il/elle être payé/e ? 1: OUI, PAYE (argent,nature) 2: OUI, PAS PAYE 3: AUCUN TRAVAIL	SI OUI: Depuis le (JOUR DE LA SEMAINE) dernier, environ combien d'heures a-t-il/elle travaillé pour quelqu'un qui n'est pas membre du ménage ? SI PLUS D'UN TRAVAIL, FAIRE LA SOMME DE TOUTES LES HEURES.	Depuis le (JOUR DE LA SEMAINE) (NOM) avait-il/elle aidé aux travaux de ce ménage ? Par exemple: faire des courses, faire la cuisine, nettoyer, chercher de l'eau, garder les enfants, laver les vêtements....?	SI OUI: Depuis le (JOUR DE LA SEMAINE) dernier, environ combien d'heures a-t-il/elle passé à faire ces travaux ménagers ? SI PLUS D'UN TRAVAIL, FAIRE LA SOMME DE TOUTES LES HEURES.	SI OUI: Depuis le (JOUR DE LA SEMAINE) (NOM) avait-il/elle fait des/d'autres travaux pour la famille (dans une ferme, un commerce, dans les affaires, ...) ?	SI OUI: Depuis le (JOUR DE LA SEMAINE) dernier, environ combien d'heures a-t-il/elle passé à faire ces travaux? FAIRE LA SOMME DE TOUTES LES HEURES.
	(20D)	(20E)	(20F)	(20G)	(20H)	(20I)	(20J)	(20K)	(20L)
	O 1 N 2 ↳ALLER À 20G NSP 8	☐☐	☐	OUI PAYE 1 OUI PAS P. 2 NON 3 ALLER À 20I	NBRE D'HEURES ☐☐	OUI 1 NON 2 ALLER À 20K	NBRE D'HEURES ☐☐	OUI 1 NON 2 LIGNE SUIVANTE	NBRE D'HEURES ☐☐
	1 2 ↳ALLER À 20G 8	☐☐	☐	1 2 3 ALLER À 20I	☐☐	1 2 ALLER À 20K	☐☐	1 2 LIGNE SUIVANTE	☐☐
	1 2 ↳ALLER À 20G 8	☐☐	☐	1 2 3 ALLER À 20I	☐☐	1 2 ALLER À 20K	☐☐	1 2 LIGNE SUIVANTE	☐☐
	1 2 ↳ALLER À 20G 8	☐☐	☐	1 2 3 ALLER À 20I	☐☐	1 2 ALLER À 20K	☐☐	1 2 LIGNE SUIVANTE	☐☐
	1 2 ↳ALLER À 20G 8	☐☐	☐	1 2 3 ALLER À 20I	☐☐	1 2 ALLER À 20K	☐☐	1 2 LIGNE SUIVANTE	☐☐
	1 2 ↳ALLER À 20G 8	☐☐	☐	1 2 3 ALLER À 20I	☐☐	1 2 ALLER À 20K	☐☐	1 2 LIGNE SUIVANTE	☐☐
	1 2 ↳ALLER À 20G 8	☐☐	☐	1 2 3 ALLER À 20I	☐☐	1 2 ALLER À 20K	☐☐	1 2 LIGNE SUIVANTE	☐☐
	1 2 ↳ALLER À 20G 8	☐☐	☐	1 2 3 ALLER À 20I	☐☐	1 2 ALLER À 20K	☐☐	1 2 LIGNE SUIVANTE	☐☐
	1 2 ↳ALLER À 20G 8	☐☐	☐	1 2 3 ALLER À 20I	☐☐	1 2 ALLER À 20K	☐☐	1 2 LIGNE SUIVANTE	☐☐
	1 2 ↳ALLER À 20G 8	☐☐	☐	1 2 3 ALLER À 20I	☐☐	1 2 ALLER À 20K	☐☐	1 2 LIGNE SUIVANTE	☐☐
	1 2 ↳ALLER À 20G 8	☐☐	☐	1 2 3 ALLER À 20I	☐☐	1 2 ALLER À 20K	☐☐	1 2 LIGNE SUIVANTE	☐☐
	1 2 ↳ALLER À 20G 8	☐☐	☐	1 2 3 ALLER À 20I	☐☐	1 2 ALLER À 20K	☐☐	1 2 LIGNE SUIVANTE	☐☐
	1 2 ↳ALLER À 20G 8	☐☐	☐	1 2 3 ALLER À 20I	☐☐	1 2 ALLER À 20K	☐☐	1 2 LIGNE SUIVANTE	☐☐
	1 2 ↳ALLER À 20G 8	☐☐	☐	1 2 3 ALLER À 20I	☐☐	1 2 ALLER À 20K	☐☐	1 2 LIGNE SUIVANTE	☐☐
	1 2 ↳ALLER À 20G 8	☐☐	☐	1 2 3 ALLER À 20I	☐☐	1 2 ALLER À 20K	☐☐	1 2 LIGNE SUIVANTE	☐☐
	1 2 ↳ALLER À 20G 8	☐☐	☐	1 2 3 ALLER À 20I	☐☐	1 ALLER À 20K 2	☐☐	1 2 LIGNE SUIVANTE	☐☐

	CARACTÉRISTIQUES DU MÉNAGE		
N°	QUESTIONS ET FILTRES	CODES	PASSER À
101A	Quel est le statut d'occupation du logement de votre ménage ?	PROPRIÉTAIRE .... 01 COPROPRIÉTAIRE .... 02 LOCATAIRE-ACHETEUR .... 03 LOCATAIRE SIMPLE .... 04 COLOCATAIRE .... 05 SOUS-LOCATAIRE .... 06 LOGÉ PAR L'EMPLOYEUR .... 07 LOGÉ GRATUITEMENT PAR UN PARENT OU AMI 08	

102	D'où provient principalement l'eau que boivent les membres de votre ménage ?	EAU DU ROBINET
		   ROBINET DANS LOGEMENT 11
		   ROBINET DANS COUR/PARCELLE 12
		   ROBINET PUBLIC/BORNE FONTAINE ... 13
		PUITS À POMPE OU FORAGE 21
		PUITS CREUSÉ
		   PUITS PROTÉGÉ 31
		   PUITS NON PROTÉGÉ 32
		EAU DE SOURCE
		   SOURCE PROTÉGÉE 41
		   SOURCE NON PROTÉGÉE 42
		EAU DE PLUIE 51
		CAMION CITERNE 61
		CHARRETTE AVEC PETITE CITERNE/
		TONNEAU 71
		EAU DE SURFACE (RIVIÈRES/BARRAGES/
		   LACS/MARES/FLEUVES/CANAUX
		   D'IRRIGATION 81
		EAU EN BOUTEILLE 91
		
		AUTRE _____ 96
		            (PRÉCISEZ)
			→ 105
			
			→ 105

103	Où est située cette source d'approvisionnement de l'eau ?	DANS VOTRE LOGEMENT .... 1 DANS VOTRE COUR/PARCELLE .... 2 AILLEURS 3	→ 105
104	Combien de temps faut-il pour s'y rendre, prendre l'eau et revenir ?	MINUTES .... ☐☐☐ NE SAIT PAS 998	
104A	Qui se rend habituellement à cette source d'approvisionnement pour prendre l'eau pour votre ménage ?	FEMME ADULTE (15 ANS OU PLUS) ...... 1 HOMME ADULTE (15 ANS OU PLUS) ...... 2 JEUNE FILLE (MOINS DE 15 ANS) .... 3 JEUNE GARÇON (MOINS DE 15 ANS) ...... 4 NSP 8	
105	Faites-vous quelque chose pour rendre l'eau plus saine à boire ?	OUI .... 1 NON................................. 2 NE SAIT PAS 8	→ 107

106	Habituellement, que faites-vous pour rendre l'eau que vous buvez plus saine ?
	
	Quelque chose d'autre ?
	
	ENREGISTREZ TOUT CE QUI EST MENTIONNÉ.
		LA FAIRE BOUILLIR .... A
		AJOUTER EAU DE JAVEL/CHLORE ...... B
		LA FILTRER À TRAVERS UN LINGE C
		UTILISER UN FILTRE (CÉRAMIQUE/
		   SABLE/COMPOSITE/ ETC.) .... D
		DÉSINFECTION SOLAIRE .... E
		LA LAISSER REPOSER .... F
		
		AUTRE _____ X
		            (PRÉCISEZ)
		NE SAIT PAS .... Z	

N°	QUESTIONS ET FILTRES	CODES	PASSER À

107	Quel type de toilettes les membres de votre ménage utilisent-ils habituellement ?	**TOILETTE AVEC CHASSE**
		    CHASSE BRANCHÉE À L'ÉGOÛT 11
		    CHASSE BRANCHÉE À FOSSE 12
		FOSSE/LATRINES
		    AMÉLIORÉES/VENTILEES 21
		    LATRINES A CHASSE MANUELLE 22
		    TOILETTE AVEC FOSSE SANS CHASSE 23
		    AUTRES SYSTÈMES AMELIORES 24
		    LATRINES TRADITIONNELLES 25
		PAS DE TOILETTES /NATURE 31
		
		AUTRE _____ 96
		                    (PRÉCISER)
			→ 110

108	Partagez-vous ces toilettes avec d'autres ménages ?	OUI .... 1 NON 2	→ 110
109	Combien de ménages utilisent ces toilettes ?	N°. DE MÉNAGES SI MOINS DE 10 .... 0 ⬚ 10 MÉNAGES OU PLUS .... 95 NE SAIT PAS 98	

110	Dans votre ménage, y-a-t-il :
	
	        L'électricité ?
	        Une radio ?
	        Une télévision ?
	        Une antenne MMDS/TV5 ?
	        Un abonnement à CANAL ?
	        Un téléphone fixe ?
	        Un téléphone cellulaire ?
	        Une machine à laver ?
	        Un réfrigérateur ?
	        Un réchaud/cuisinière à gaz/électrique ?
	        Un foyer amélioré ?
	        Un Vidéo/Lecteur CD/DVD ?
	        Un climatiseur ?
	        Un ordinateur ?
	        Internet à la maison ?
		OUI NON
		ÉLECTRICITÉ 1 2
		RADIO 1 2
		TÉLÉVISION 1 2
		ANTENNE TV5 .... 1 2
		CANAL....................... 1 2
		TÉLÉPHONE 1 2
		TÉLÉP-CEL 1 2
		MACHINE À LAVER 1 2
		RÉFRIGÉRATEUR 1 2
		RÉCHAUD/CUISINIÈRE 1 2
		FOYER AMÉLIORÉ 1 2
		VIDÉO/CD/DVD 1 2
		CLIMATISEUR 1 2
		ORDINATEUR 1 2
		INTERNET 1 2	

111	Quel type de combustible votre ménage utilise-t-il principalement pour cuisiner ?	ÉLECTRICITÉ .... 1 GAZ EN BOUTEILLE .... 2 CHARBON DE BOIS .... 3 BOIS À BRÛLER, PAILLE .... 4 BOUSE .... 5 AUTRE _____ 6 (PRÉCISER)	

N°	QUESTIONS ET FILTRES	CODES	PASSER À
111A	Quelle source d'éclairage votre ménage utilise-t-il principalement?	ELECTRICITE (SENELEC) .... 01 GROUPE ELECTROGENE .... 02 SOLAIRE .... 03 LAMPE TORCHE .... 04 LAMPE A GAZ .... 05 LAMPE TEMPETE .... 06 LAMPE A PETROLE ARTISANALE ...... 07 BOUGIE .... 08 BOIS .... 09 AUTRE_____ 96 (PRÉCISEZ)	
112	Est-ce que la cuisine est faite habituellement dans la maison, dans un bâtiment séparé ou à l'extérieur ?	DANS LA MAISON .... 1 DANS UN BÂTIMENT SÉPARÉ .... 2 À L'EXTÉRIEUR .... 3 AUTRE _____ 6 (PRÉCISEZ)	114
113	Avez-vous une pièce séparée que vous utilisez comme cuisine ?	OUI .... 1 NON 2	
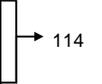
114	PRINCIPAL MATÉRIAU DU SOL
	
	ENREGISTREZ l'OBSERVATION.
		MATÉRIAU NATUREL
		  TERRE/SABLE 11
		  BOUSE 12
		MATÉRIAU RUDIMENTAIRE
		  PLANCHES EN BOIS 21
		  PALMES/BAMBOU 22
		MATÉRIAU ÉLABORÉ
		  PARQUET OU BOIS CIRÉ 31
		  BANDES DE VINYLE/ASPHALTE 32
		  CARRELAGE 33
		  CIMENT 34
		  MOQUETTE 35
		
		AUTRE _____ 96
		(PRÉCISEZ)	

Nº	QUESTIONS ET FILTRES	CODES	PASSER À

115	PRINCIPAL MATÉRIAU DU TOIT
	
	ENREGISTREZ L'OBSERVATION.
		MATÉRIAU NATUREL
		  PAS DE TOIT 11
		  CHAUME/PALMES/FEUILLES 12
		  MOTTES DE TERRE 13
		MATÉRIAU RUDIMENTAIRE
		  NATTES 21
		  PALMES/BAMBOU 22
		  PLANCHES EN BOIS 23
		  CARTON 24
		MATÉRIAU ÉLABORÉ
		  TÔLE 31
		  BOIS 32
		  ZINC/FIBRE DE CIMENT 33
		  TUILES 34
		  CIMENT 35
		  SHINGLES 36
		
		AUTRE _____ 96
		         (PRÉCISEZ)	

116	PRINCIPAL MATÉRIAU DES MURS
	
	ENREGISTREZ L'OBSERVATION.
		MATÉRIAU NATUREL
		  PAS DE MUR 11
		  BAMBOU/CANE/PALME/TRONC 12
		  TERRE 13
		MATÉRIAU RUDIMENTAIRE
		  BAMBOU AVEC BOUE 21
		  PIERRES AVEC BOUE 22
		  ADOBE NON RECOUVERT 23
		  CONTRE-PLAQUÉ 24
		  CARTON 25
		  BOIS DE RÉCUPÉRATION 26
		MATÉRIAU ÉLABORÉ
		  CIMENT 31
		  PIERRES AVEC CHAUX/CIMENT 32
		  BRIQUES 33
		  BLOCS DE CIMENT 34
		  ADOBE RECOUVERT 35
		  PLANCHE EN BOIS/SHINGLES 36
		
		AUTRE _____ 96
		         (PRÉCISEZ)	

117	Dans ce ménage, combien de pièces utilisez-vous pour dormir ?	NOMBRE DE PIÈCES . . . . ☐☐	

118	Est-ce qu'un membre de votre ménage possède :
	
	  Bicyclette ?
	  Mobylette ou motocyclette ou Scooter ?
	  Une voiture personnelle ?
	  Voiture ou Camion à titre commercial ?
	  Charrette ?
	  Charrue ?
	  Pirogue/Filet de pêche ?
		OUI NON
		BICYCLETTE 1 2
		MOBYLETTE/MOTOCYCLETTE . . . 1 2
		VOITURE PERSONNELLE 1 2
		VOITURE/CAMION 1 2
		CHARRETTE 1 2
		CHARRUE 1 2
		PIROGUE/FILET 1 2	

Nº	QUESTIONS ET FILTRES	CODES	PASSER À
119	Est-ce qu'un membre de votre ménage possède des terres cultivables ?	OUI . . . . 1 NON 2	→ 121
120	Combien d'hectares de terres cultivables les membres du ménage possèdent-ils ? SI 95 OU PLUS, ENCERCLEZ '950'.	NOMBRE D'HECTARES . . . ☐☐.☐ 95 HECTARES OU PLUS . . . . 950 NE SAIT PAS 998	
121	Est-ce que votre ménage possède du bétail, des troupeaux d'autres animaux de ferme ou de la volaille ?	OUI . . . . 1 NON 2	→ 123
122	Parmi les animaux suivants, combien votre ménage en possède t-il ? SI AUCUN, INSCRIVEZ '00'. SI 95 OU PLUS, INSCRIVEZ '95'. SI NE SAIT PAS, INSCRIVEZ '98'. Vaches laitières ou taureaux ? Des chameaux ? Chevaux, ânes ou mules ? Chèvres ? Moutons ? Porcs? Volaille?	 VACHES/TAUREAUX . . . . ☐☐ CHAMEAUX . . . . ☐☐ CHEVAUX/ÂNES/MULES . . . . ☐☐ CHÈVRES . . . . ☐☐ MOUTONS . . . . ☐☐ PORCS . . . . ☐☐ VOLAILLES . . . . ☐☐	
123	Est-ce qu'un membre de votre ménage a un compte en banque ou dans une autre institution financière (mutuelles d'épargne et de crédit, caisse d'épargne…)?	OUI . . . . 1 NON . . . . 2 NSP 8	
123A	Est-ce qu'un membre de votre ménage participe à une tontine?	OUI . . . . 1 NON . . . . 2 NSP 8	
123B	Est-ce qu'il arrive que quelqu'un fume dans votre maison ? Diriez-vous que cela arrive tous les jours,une fois par semaine,une fois par mois, moins d'un mois ou jamais ?	TOUS LES JOURS . . . . 1 UNE FOIS PAR SEMAINE. . . . . 2 UNE FOIS PAR MOIS . . . . 3 MOINS D'UNE FOIS PAR MOIS . . . . 4 JAMAIS 5	
123C	Au cours des 6 derniers mois, avez-vous entendu des messages sur la prévention du paludisme?	OUI . . . . 1 NON . . . . 2 NSP 8	→ 124

123D	Quel était le contenu de ces messages?	DORMIR SOUS UNE MOUSTIQUAIRE . . . . . . A
		 EFFICACITE DES ACT . . . . B
		 DILIGENCE DANS LE TRAITEMENT. C
		 IDENTIFICATION DES SYMPTOME
		     PALUDISME . . . . D
		 DIAGNOSTIC DU PALUDISME . . . . E
		 PULVERISATION INTRA DOMICILIAIRE . . . F
		 MOYEN DE PREVENTION . . . . G
		
		 AUTRE _____ X
		                (PRECISER)
		 NE SE RAPPELLE PAS . . . . Z	

124	Est-ce qu'à n'importe quel moment au cours des 12 derniers mois, quelqu'un est venu dans votre logement pour pulvériser les murs intérieurs contre les moustiques ?	OUI . . . . 1 NON . . . . 2 NE SAIT PAS 8	→ 125A

Nº	QUESTIONS ET FILTRES	CODES	PASSER À

125	Qui a pulvérisé les murs du logement ?	EMPLOYÉ/PROGRAMME GOUVERNEMENT A
		SOCIÉTÉ PRIVÉE . . . . B
		ORGANISATION NON
		   GOUVERNEMENTALE (ONG) C
		
		AUTRE _____ X
		             (PRÉCISEZ)
		NE SAIT PAS . . . . Y	

125A	Les fenêtres des pièces à usage d'habitation sont-elles dotées de grillages pour empêcher aux moustiques d'entrer ?	OUI . . . . 1 NON . . . . 2 NE SAIT PAS 8	
125B	Les portes des pièces à usage d'habitation sont-elles dotées de grillages ou rideaux pour empêcher aux moustiques d'entrer ?	OUI . . . . 1 NON . . . . 2 NE SAIT PAS 8	
126	Est-ce que votre ménage a des moustiquaires qui peuvent être utilisées pour dormir ?	OUI . . . . 1 NON 2	→ 127D
127	Combien de moustiquaires votre ménage a t-il ? SI 25 MOUSTIQUAIRES OU PLUS, ENREGISTREZ '25'.	NOMBRE DE MOUSTIQUAIRES ☐☐	
127A	Utilisez-vous les moustiquaires en dehors des chambres: par exemple dans la cour, sous les arbres ?	OUI . . . . 1 NON 2	
127B	Les membres de votre ménage dorment-ils sous une moustiquaire de façon continue toute l'année ?	OUI . . . . 1 NON . . . . 2 NSP/NE SE SOUVIENT PAS 8	→ 128
127C	Pourquoi les membres de votre ménage ne dorment-ils pas sous une moustiquaire de façon continue toute l'année ?	PAS BEAUCOUP DE MOUSTIQUES . . . . . . 1 À CAUSE DE LA CHALEUR . . . . 2 N'AIME PAS . . . . 3 PAR OUBLI/NÉGLIGENCE . . . . 4 AUTRE_____ 6 (PRÉCISER) NSP/NE SE SOUVIENT PAS 8	→128
127D	Pour quoi n'y a t-il pas de moustiquaires qui peuvent être utilisées dans votre ménage?	FAUTE DE MOYENS . . . . A PAS NÉCESSAIRE . . . . B UTILISE AUTRE CHOSE . . . . C N'ONT PAS DE MOUSTIQUES . . . . D N'AIMENT PAS . . . . E NE SAIT PAS . . . . F AUTRE_____ X (PRÉCISER)	→137

128	DEMANDER À L'ENQUÊTÉ DE VOUS MONTRER LES MOUSTIQUAIRES. POSEZ LES QUESTIONS SUIVANTES POUR CHAQUE MOUSTIQUAIRE. SI PLUS DE 3 MOUSTIQUAIRES, UTILISER UN QUESTIONNAIRE SUPPLÉMENTAIRE.	MOUSTIQUAIRE 1	MOUSTIQUAIRE 2	MOUSTIQUAIRE 3
		VU . . . . 1 NON VU 2	VU . . . . 1 NON VU 2	VU . . . . 1 NON VU 2
128A	OBSERVER OU DEMANDER LA FORME DE LA MOUSTIQUAIRE.	RECTANGULAIRE . . . 1 CIRCUL./CONIQUE . . . . 2 AUTRE _____ 6 (PRÉCISEZ)	RECTANGULAIRE . . 1 CIRCUL./CONIQUE . . . 2 AUTRE _____ 6 (PRÉCISEZ)	RECTANGULAIRE . . 1 CIRCUL./CONIQUE . . . . 2 AUTRE _____ 6 (PRÉCISEZ)
128B	OBSERVER OU DEMANDER LA TAILLE DE LA MOUSTIQUAIRE.	1 PLACE . . . . 1 2 PLACES . . . . 2 3 PLACES . . . . 3 POUR BEBE 4	1 PLACE . . . . 1 2 PLACES . . . . 2 3 PLACES . . . . 3 POUR BEBE 4	1 PLACE . . . . 1 2 PLACES . . . . 2 3 PLACES . . . . 3 POUR BEBE 4
129	Depuis combien de temps votre ménage possède-t-il la moustiquaire ?	MOIS . . . . . . ☐☐ 37 MOIS OU PLUS 95 NSP/PAS SÛR 98	MOIS . . . . . . ☐☐ 37 MOIS OU PLUS . 95 NSP/PAS SÛR . . . 98	MOIS . . . . . . ☐☐ 37 MOIS OU PLUS . 95 NSP/PAS SÛR . . . 98

130	OBSERVER OU DEMANDER LA MARQUE DE LA MOUSTIQUAIRE (1).	MOUSTIQUAIRE
		PERMANENTE (MILDA) :
		  PERMANET 11 ←
		  OLYSET-NET 12 ←
		  DAWA PLUS 13 ←
		  ICONLIFE . 14 ←
		  AUTRE . . . 16 ←
		  _____
		  (PRÉCISEZ)
		(PASSER À 134) ←
		
		AUTRE MOUST. TRAITÉE
		  K-ONET . . . 21 ←
		  NETTO . . . 22 ←
		  SENTINELLE . 23 ←
		  INTERCEPTOR 24 ←
		  AUTRE . . . 26 ←
		  _____
		  (PRECISER)
		(PASSER À 132) ←
		
		AUTRE 31
		_____
		(PRECISER)
		NSP/PAS SÛR . 98
			MOUSTIQUAIRE
			PERMANENTE (MILDA) :
			  PERMANET . 11 ←
			  OLYSET-NET . 12 ←
			  DAWA PLUS . 13 ←
			  ICONLIFE . . . 14 ←
			  AUTRE . . . 16 ←
			  _____
			  (PRÉCISEZ)
			(PASSER À 134) ←
			
			AUTRE MOUST. TRAITÉE
			  K-ONET . . . 21 ←
			  NETTO . . . 22 ←
			  SENTINELLE . 23 ←
			  INTERCEPTOR 24 ←
			  AUTRE . . . 26 ←
			  _____
			  (PRECISER)
			(PASSER À 132) ←
			
			AUTRE 31
			_____
			(PRECISER)
			NSP/PAS SÛR . . . 98
				MOUSTIQUAIRE
				PERMANENTE (MILDA) :
				  PERMANET . 11 ←
				  OLYSET-NET . 12 ←
				  DAWA PLUS . 13 ←
				  ICONLIFE . . . 14 ←
				  AUTRE . . . 16 ←
				  _____
				  (PRÉCISEZ)
				(PASSER À 134) ←
				
				AUTRE MOUST. TRAITÉE
				  K-ONET . . . 21 ←
				  NETTO . . . 22 ←
				  SENTINELLE . 23 ←
				  INTERCEPTOR 24 ←
				  AUTRE . . . 26 ←
				  _____
				  (PRECISER)
				(PASSER À 132) ←
				
				AUTRE 31
				_____
				(PRECISER)
				NSP/PAS SÛR . . . 98

131	Quand vous avez obtenu cette moustiquaire, était-elle déjà traitée par le fabricant avec un insecticide qui tue ou éloigne les moustiques ?	OUI . . . . 1 NON . . . . 2 PAS SÛR/NSP 8	OUI . . . . 1 NON . . . . 2 PAS SÛR/NSP . . . 8	OUI . . . . 1 NON . . . . 2 PAS SÛR/NSP . . . 8

132	Depuis que vous avez cette moustiquaire, a-t-elle été trempée ou plongée dans un liquide qui tue ou éloigne les moustiques ou les insectes ?	OUI 1
		
		NON 2
		  (ALLER À 134) ←┤
		PAS SÛR/NSP 8
			OUI 1
			
			NON 2
			  (ALLER À 134) ←┤
			PAS SÛR/NSP . . . 8
				OUI 1
				
				NON 2
				  (ALLER À 134) ←┤
				PAS SÛR/NSP . . . 8

128	DEMANDER À L'ENQUÊTÉ DE VOUS MONTRER LES	MOUSTIQUAIRE 1	MOUSTIQUAIRE 2	MOUSTIQUAIRE 3
133	Combien de temps s'est-il écoulé depuis que la mousti-quaire a été trempée ou plongée pour la dernière fois dans un liquide insecticide ? SI MOINS DE 1 MOIS, ENREGISTRER '00'. SI MOINS DE 2 ANS, ENREGIS-TRER LE NOMBRE DE MOIS.	MOIS . . . ☐☐ 24 MOIS OU + ... 95 PAS SÛR/NSP 98	MOIS . . . ☐☐ 24 MOIS OU + . . . 95 PAS SÛR/NSP . . . 98	MOIS . . . ☐☐ 24 MOIS OU + . . . 95 PAS SÛR/NSP . . . 98
134	Est-ce que, la nuit dernière, quelqu'un a dormi sous cette moustiquaire ?	OUI . . . . 1 NON . . . . 2 (ALLER À 136A) ↵ NE SAIT PAS 8	OUI . . . . 1 NON . . . . 2 (ALLER À 136A) ↵ NE SAIT PAS . . . 8	OUI . . . . 1 NON . . . . 2 (ALLER À 136A) ↵ NE SAIT PAS . . . 8
135	Qui a dormi sous cette moustiquaire la nuit dernière ? REPORTEZ LE NUMÉRO DE LIGNE À PARTIR DU TABLEAU DE MÉNAGE. ENREGISTREZ TOUTES LES PERSONNES QUI ONT DORMI SOUS CHAQUE MOUSTI-QUAIRE LA NUIT DERNIÈRE.	NOM _____ No DE LIGNE . . . ☐☐ NOM _____ No DE LIGNE . . . ☐☐ NOM _____ No DE LIGNE . . . ☐☐ NOM _____ No DE LIGNE . . . ☐☐ NOM _____ No DE LIGNE . . . ☐☐	NOM _____ No DE LIGNE . . . ☐☐ NOM _____ No DE LIGNE . . . ☐☐ NOM _____ No DE LIGNE . . . ☐☐ NOM _____ No DE LIGNE . . . ☐☐ NOM _____ No DE LIGNE . . . ☐☐	NOM _____ No DE LIGNE . . . ☐☐ NOM _____ No DE LIGNE . . . ☐☐ NOM _____ No DE LIGNE . . . ☐☐ NOM _____ No DE LIGNE . . . ☐☐ NOM _____ No DE LIGNE . . . ☐☐
136A	Pendant combien de mois un membre de votre ménage a t-il dormi sous cette moustiquaire au cours des 12 derniers mois?	MOIS . . . ☐☐ PAS SÛR/NSP . 98	MOIS . . . ☐☐ PAS SÛR/NSP . 98	MOIS . . . ☐☐ PAS SÛR/NSP . 98
136B	Cette moustiquaire a t-elle été fabriquée en usine ou bien a t-elle été confectionnée par un tailleur ?	FAB. USINE . . . . . . 1 TAILLEUR . . . . 2 AUTRE _____ 6 (PRÉCISEZ) NSP 8	FAB. USINE . . . . . . 1 TAILLEUR . . . . 2 AUTRE _____ 6 (PRÉCISEZ) NSP 8	FAB. USINE . . . . . . 1 TAILLEUR . . . . 2 AUTRE _____ 6 (PRÉCISEZ) NSP 8
136C	VERIFIEZ 134:	OUI . . . . 1 (ALLER À 136E) ↵ NON/NSP 2	OUI . . . . 1 (ALLER À 136E) ↵ NON/NSP 2	OUI . . . . 1 (ALLER À 136E) ↵ NON/NSP 2

128	DEMANDER À L'ENQUÊTÉ DE VOUS MONTRER LES	MOUSTIQUAIRE 1	MOUSTIQUAIRE 2	MOUSTIQUAIRE 3
136D	Pourquoi, la nuit dernière, personne n'a dormi sous cette moustiquaire ? SI PLUSIEURS RAISONS SONT MENTIONNÉES, DEMANDER ET ENREGISTRER LA PRINCIPALE.	PAS MOUSTIQUES .... 1 CHALEUR .... 2 DECHIRE .... 3 N'EST PLUS EFFICACE 4 AUTRE _____ 6 (PRÉCISEZ) NE SAIT PAS 8	PAS MOUSTIQUES ... 1 CHALEUR .... 2 DECHIRE .... 3 N'EST PLUS EFFICACE 4 AUTRE _____ 6 (PRÉCISEZ) NE SAIT PAS 8	PAS MOUSTIQUES ... 1 CHALEUR .... 2 DECHIRE .... 3 N'EST PLUS EFFICACE 4 AUTRE _____ 6 (PRÉCISEZ) NE SAIT PAS 8
136E	Où cette moustiquaire a t-elle été obtenue ?	STRUCTURE DE SANTE .. 1 PHARMACIE PRIVÉE .... 2 AUTRES COMMERCES .. 3 OCB/ASSOCIAT .... 4 AUTRE NON-COMMER .. 5 POINT DIST. CAMPAGNE 6 AUTRE _____ 7 (PRÉCISEZ) NE SAIT PAS 8	STRUCTURE DE SANTE . 1 PHARMACIE PRIVÉE ... 2 AUTRES COMMERCES . 3 OCB/ASSOCIAT .... 4 AUTRE NON-COMMER . 5 POINT DIST. CAMPAGNE 6 AUTRE _____ 7 (PRÉCISEZ) NE SAIT PAS 8	STRUCTURE DE SANTE . 1 PHARMACIE PRIVÉE .... 2 AUTRES COMMERCES . 3 OCB/ASSOCIAT .... 4 AUTRE NON-COMMER . 5 POINT DIST. CAMPAGNE 6 AUTRE _____ 7 (PRÉCISEZ) NE SAIT PAS 8
136F	Comment cette moustiquaire a t-elle été acquise ?	ACHAT SANS COUPON .. 1 ACHAT AVEC COUPON .. 2 GRATUITEMENT .... 3 (ALLER À 135H) ◄——┐ AUTRE _____ 6 (PRÉCISEZ) NE SAIT PAS 8	ACHAT SANS COUPON . 1 ACHAT AVEC COUPON . 2 GRATUITEMENT .... 3 (ALLER À 135H) ◄——┐ AUTRE _____ 6 (PRÉCISEZ) NE SAIT PAS 8	ACHAT SANS COUPON . 1 ACHAT AVEC COUPON . 2 GRATUITEMENT .... 3 (ALLER À 135H) ◄——┐ AUTRE _____ 6 (PRÉCISEZ) NE SAIT PAS 8
136G	Combien d'argent avez-vous effectivement payé pour acquérir la moustiquaire ? NOTER EN FRANCS CFA.	PRIX . ☐☐☐☐ NE SAIT PAS 9998	PRIX ..... ☐☐☐☐ NE SAIT PAS 9998	PRIX .... ☐☐☐☐ NE SAIT PAS 9998
136H	VÉRIFIEZ 130 ET 132: MIILDA OU AUTRES TYPES DE MOUSTIQUAIRES.	Q130 : MILDA : (ALLER À 136I a-)◄——┐ Q132 : CODE 1 : (ALLER À 136I b-)◄——┐ Q132 : CODES 2 OU 8 : (ALLER À 136I a-)◄——┐	Q130 : MILDA : (ALLER À 136I a-)◄——┐ Q132 : CODE 1 : (ALLER À 136I b-)◄——┐ Q132 : CODES 2 OU 8 : (ALLER À 136I a-)◄——┐	Q130 : MILDA : (ALLER À 136I a-)◄——┐ Q132 : CODE 1 : (ALLER À 136I b-)◄——┐ Q132 : CODES 2 OU 8 : (ALLER À 136I a-)◄——┐
136I	a- Cette moustiquaire a t-elle été lavée depuis que vous l'avez acquise ? b- Cette moustiquaire a t-elle été lavée depuis qu'elle a été trempée la dernière fois ?	OUI .... 1 NON .... 2 (ALLER À 136) ◄——┐ PAS SÛR/NSP 8	OUI .... 1 NON .... 2 (ALLER À 136) ◄——┐ PAS SÛR/NSP 8	OUI .... 1 NON .... 2 (ALLER À 136) ◄——┐ PAS SÛR/NSP 8
136J	Combien de fois cette moustiquaire a t-elle été lavée au cours des 12 derniers mois ?	N. LAVAGES ... ☐☐ NSP/PAS SÛR 98	N. LAVAGES ... ☐☐ NSP/PAS SÛR 98	N. LAVAGES ... ☐☐ NSP/PAS SÛR 98
136K	A combien de mois remonte le dernier lavage de la moustiquaire? SI 12 MOIS OU PLUS, ENREGISTRER "12".	NBRE MOIS ... ☐☐ NSP/PAS SÛR 98	NBRE MOIS ... ☐☐ NSP/PAS SÛR 98	NBRE MOIS ... ☐☐ NSP/PAS SÛR 98

128	DEMANDER À L'ENQUÊTÉ DE VOUS MONTRER LES	MOUSTIQUAIRE 1	MOUSTIQUAIRE 2	MOUSTIQUAIRE 3
136		RETOURNER À 128 POUR LA MOUSTIQUAIRE SUIVANTE ; OU, SI PLUS DE MOUSTIQUAIRE DANS LE MÉNAGE: **PASSER À 137**	RETOURNER À 128 POUR LA MOUSTIQUAIRE SUIVANTE ; OU, SI PLUS DE MOUSTIQUAIRE DANS LE MÉNAGE: **PASSER À 137**	RETOURNER À 128 DANS PREMIÈRE COLONNE DU NOUVEAU QUESTIONNAIRE ; OU, SI PLUS DE MOUSTIQUAIRE DANS DANS LE MÉNAGE: **PASSER À 137**

137	Montrez-moi, s'il vous plait, où les membres du ménage se lavent le plus souvent les mains.	OBSERVÉ 1
		 NON OBSERVÉ,
		     PAS DANS LOGEMENT/COUR/PARCELLE 2
		 NON OBSERVÉ,
		     PAS DE PERMISSION POUR VÉRIFIER 3
		 NON OBSERVÉ, AUTRE RAISON 4
		 (PASSER À 140)

138	OBSERVATION SEULEMENT : OBSERVEZ LA DISPONIBILITÉ D'EAU À L'ENDROIT OÙ LES MEMBRES DU MÉNAGE SE LAVENT LES MAINS.	EAU DISPONIBLE . . . . 1 EAU NON DISPONIBLE 2
139	OBSERVATION SEULEMENT : OBSERVEZ LA PRÉSENCE DE SAVON. DÉTERGENT OU AUTRE PRODUIT POUR SE LAVER.	SAVON OU DÉTERGENT (EN MORCEAU, LIQUIDE, POUDRE, PÂTE) . . . . A CENDRE, BOUE, SABLE . . . . B AUCUN C
140	DEMANDER À L'ENQUÊTÉ UNE PETITE CUILLÈRE DE SEL POUR LA CUISINE. TEST DU SEL POUR LA TENEUR EN IODE ENREGISTRER LES PPM (PARTS PAR MILLION).	0 PPM (PAS D'IODE) . . . . 1 MOINS DE 15 PPM . . . . 2 15 PPM OU PLUS . . . . 3 PAS DE SEL DANS LE MÉNAGE . . . . 4 SEL NON TESTÉ _____ 6 (PRÉCISEZ LA RAISON)
140A	Au cours des trois dernières années, est-il survenu dans votre ménage un quelconque choc ?	OUI . . . . 1 NON . . . . 2 (PASSEZ À 201)
140B	Quel a été le principal choc subi par votre ménage ?	MALADIE . . . . 01 DÉCÈS . . . . 02 PERTE D'EMPLOI/CHÔMAGE . . . . 03 BAISSE DE REVENU/TRANSFERTS REÇUS . . . . 04 INONDATIONS/SÉCHERESSE/PERTE DE RÉCOLTE . . . . 05 CONFLIT/INSÉCURITÉ/VOL OU PERTE DE BÉTAIL . . . . 06 INCENDIE . . . . 07 PERTE D'ARGENT . . . . 08 AUTRE _____ 96 (PRÉCISEZ)

	POIDS ET TAILLE, TESTS D'ANÉMIE ET DE PARASITÉMIE CHEZ LES ENFANTS DE 0-5 ANS			
201	VÉRIFIEZ LA COLONNE 11 DU TABLEAU MÉNAGE. INSCRIVEZ LE NUMÉRO DE LIGNE ET LE NOM DE TOUS LES ENFANTS ÉLIGIBLES DE 0- 5 ANS À Q.202. S'IL Y A PLUS DE 6 ENFANTS, UTILISEZ UN/DES QUESTIONNAIRES SUPPLÉMENTAIRES.			
		ENFANT 1	ENFANT 2	ENFANT 3
202	NUMÉRO DE LIGNE À LA COLONNE 10 NOM À LA COLONNE 2	NUMÉRO DE LIGNE ...... [ ][ ] NOM _____	NUMÉRO DE LIGNE ...... [ ][ ] NOM _____	NUMÉRO DE LIGNE .... [ ][ ] NOM _____
203	SI MÈRE ENQUÊTÉE, COPIER MOIS ET ANNÉE DE NAISSANCE DE L'HISTORIQUE DES NAISSANCE ET DEMANDER LE JOUR; SI MÈRE NON ENQUÊTÉE, DEMANDER: Quelle est la date de naissance de (NOM)?	JOUR ...... [ ][ ] MOIS ...... [ ][ ] AN ... [ ][ ][ ][ ]	JOUR ...... [ ][ ] MOIS ...... [ ][ ] AN .. [ ][ ][ ][ ]	JOUR .... [ ][ ] MOIS ...... [ ][ ] AN . [ ][ ][ ][ ]
204	VÉRIFIER 203: ENFANT NÉ EN JANVIER 2005 OU PLUS TARD ?	OUI .... 1 NON .... 2 (ALLER À 203 ENFANT SUIVANT OU, SI NON ALLER À 214)	OUI .... 1 NON .... 2 (ALLER À 203 ENFANT SUIVANT OU, SI NON ALLER À 214)	OUI .... 1 NON .... 2 (ALLER À 203 ENFANT SUIVANT OU, SI NON ALLER À 214)
205	POIDS EN KILOGRAMMES	KG. [ ][ ].[ ][ ] ABSENT ....99.94 REFUS .... 99.95 AUTRE 99.96	KG. [ ][ ].[ ][ ] ABSENT ....99.94 REFUS .... 99.95 AUTRE 99.96	KG. [ ][ ].[ ][ ] ABSENT ....99.94 REFUS ....99.95 AUTRE 99.96
206	TAILLE EN CENTIMÈTRES	CM. [ ][ ][ ].[ ] ABSENT ..... 999.4 REFUS .... 999.5 AUTRE. 999.6	CM. [ ][ ][ ].[ ] ABSENT ..... 99.94 REFUS .... 99.95 AUT.. .... 99.96	CM. [ ][ ][ ].[ ] ABSENT .... 99.94 REFUS .... 99.95 AUTF. 99.96
207	MESURÉ ALLONGÉ OU DEBOUT ?	ALLONGÉ .... 1 DEBOUT . ... 2 PAS MESURÉ......... 3	ALLONGÉ .... 1 DEBOUT .... 2 PAS MESURÉ 3	ALLONGÉ .... 1 DEBOUT .... 2 PAS MESURÉ 3
208	VÉRIFIEZ 203: EST-CE QUE L'ENFANT A 0-5 MOIS, C'EST-À-DIRE QU'IL EST NÉ AU COURS DU MOIS DE L'ENQUÊTE OU DANS LES 5 MOIS PRÉCÉDENTS ?	0-5 MOIS .... 1 (ALLEZ À 203 POUR ENFANT SUIVANT OU SI PLUS D'ENFANT ALLEZ À 214) PLUS ÂGÉ 2	0-5 MOIS .... 1 (ALLEZ À 203 POUR ENFANT SUIVANT OU SI PLUS D'ENFANT ALLEZ À 214) PLUS ÂGÉ 2	0-5 MOIS .... 1 (ALLEZ À 203 POUR ENFANT SUIVANT OU SI PLUS D'ENFANT ALLEZ À 214) PLUS ÂGÉ 2
209	N° DE LIGNE DU PARENT/AUTRE ADULTE RESPONSABLE DE L'ENFANT (DE LA COLONNE 1 DU TABLEAU MÉNAGE). INSCRIVEZ '00' SI NON LISTÉ.	NUMÉRO DE LIGNE ...... [ ][ ]	NUMÉRO DE LIGNE ..... [ ][ ]	NUMÉRO DE LIGNE .... [ ][ ]
210	DEMANDEZ LE CONSENTEMENT POUR LE TEST D'ANÉMIE AU PARENT/AUTRE ADULTE IDENTIFIÉ À 209 COMME RESPONSABLE DE L'ENFANT.	Dans cette enquête, nous demandons à des gens dans tout le pays de participer au test d'anémie. L'anémie est un problème de santé sérieux qui résulte généralement d'une alimentation pauvre, d'infections ou de maladies chroniques. Les résultats de cette enquête permettront d'aider le gouvernement à développer des programmes pour prévenir et traiter l'anémie. Nous demandons que tous les enfants nés en 2005 ou plus tard participent au test d'anémie inclus dans cette enquête en donnant quelques gouttes de sang d'un doigt ou du talon. Pour ce test, on utilise un équipement propre et sans risque. Il n'a jamais été utilisé auparavant et il sera jeté après chaque test. Le sang sera testé pour l'anémie immédiatement et les résultats vous seront communiqués tout de suite. Les résultats sont strictement confidentiels et ne seront transmis à personne en dehors de l'équipe de l'enquête. Vous pouvez dire 'oui' pour le test ou vous pouvez dire 'non'. C'est votre décision. Autorisez-vous (NOM DE L'ENFANT/NOMS DES ENFANTS) à participer au test d'anémie ?		
211	ENCERCLEZ LE CODE APPROPRIÉ POUR LE CONSENTEMENT AU TEST D'ANEMIE ET APPOSEZ VOTRE SIGNATURE.	ACCORDÉE .... 1 _____ (SIGNATURE) REFUSÉE 2	ACCORDÉE .... 1 _____ (SIGNATURE) REFUSÉE 2	ACCORDÉE .... 1 _____ (SIGNATURE) REFUSÉE 2

211A	DEMANDEZ LE CONSENTEMENT POUR LE TEST DE PARASITEMIE AU PARENT/AUTRE ADULTE IDENTIFIÉ À 209 COMME RESPONSABLE DE L'ENFANT.	Dans cette enquête, nous demandons que les enfants de moins de 6 ans dans tout le pays prennent un test pour voir s'ils ont le paludisme. Le paludisme est une maladie grave causée enquête par un parasite transmis par les piqûres des moustiques. Les résultats de cette enquête permettront d'aider le gouvernement à mettre en place des programmes pour prévenir et traiter le paludisme Nous demandons que tous les enfants nés en 2005 ou après participent au test du paludisme en donnant quelques de sang d'un doigt (ou le talon si l'enfant a moins de 6 mois). Pour prélever ces gouttes, on utilisera des instruments propres et totalement sûrs qui n'ont jamais été utilisés auparavant et qui seront jetés après chaque prélèvement. Le sang sera testé pour le diagnostic du paludisme et le résultat vous sera communiqué immédiatement. Une partie de ces gouttes de sang sera acheminée au Laboratoire pour confirmation. Le résultat sera gardé confidentiel. Avez-vous des questions sur le test du paludisme ? Vous pouvez dire oui au test ou vous pouvez dire non. C'est à vous de décider. Acceptez-vous que (NOM DES ENFANTS) participent au test pour le diagnostic du paludisme ?		
211B	ENCERCLEZ LE CODE APPROPRIÉ POUR LE CONSENTEMENT AU TEST DE PARASITEMIE ET APPOSEZ VOTRE SIGNATURE.	ACCORDÉE .... 1 ___(SIGNATURE)___ ←┐ REFUSÉE 2	ACCORDÉE .... 1 ___(SIGNATURE)___ ←┐ REFUSÉE 2	ACCORDÉE .... 1 ___(SIGNATURE)___ ←┐ REFUSÉE 2

EFFECTUEZ CHAQUE TEST POUR CHAQUE ENFANT POUR LEQUEL LE CONSENTEMENT EST OBTENU A 211 ET 211B.

212	INSCRIVEZ LE NIVEAU D'HÉMO-GLOBINE ICI ET DANS LA BROCHURE ANÉMIE.	G/DL ☐☐.☐ ABSENT ....99.4 REFUS ....99.5 AUTRE 99.6	G/DL ☐☐.☐ ABSENT ....99.4 REFUS ....99.5 AUTRE 99.6	G/DL ☐☐.☐ ABSENT ....99.4 REFUS ....99.5 AUTRE 99.6
212A	ENREGISTREZ SI L'ENFANT A ÉTÉ TESTE A LA PARASITEMIE PALUSTRE (TDR)	TESTE .... 1 PAS PRESENT ...... 2 REFUS .... 3 AUTRE .... 6 (ALLER À 213) ←	TESTE .... 1 PAS PRESENT ..... 2 REFUS .... 3 AUTRE.......... 6 (ALLER À 213) ←	TESTE .... 1 PAS PRESENT .... 2 REFUS .... 3 AUTRE................. 6 (ALLER À 213) ←
212B	ENREGISTREZ LE CODE RÉSULTAT DU TEST DU PALUDISME (TDR)	POSITIF .... 1 NÉGATIF .... 2 (ALLER À 212D) ← AUTRE 6	POSITIF .... 1 NÉGATIF .... 2 (ALLER À 212D) ← AUTRE............ 6	POSITIF .... 1 NÉGATIF .... 2 (ALLER À 212D) ← AUTRE................. 6
212C	LISEZ L'INFORMATION POUR LE TRAITEMENT DU PALUDISME ET LE CONSENTEMENT AU PARENT OU AUTRE ADULTE RESPONSABLE DE L'ENFANT. ENCERCLEZ UN CODE ET SIGNEZ.	ACCORDÉ ..... 1 ___(SIGNER)___ REFUSÉ .... 2 NON ÉLIGIBLE ..... 3 AUTRE 6	ACCORDÉ ..... 1 ___(SIGNER)___ REFUSÉ .... 2 NON ÉLIGIBLE ..... 3 AUTRE............ 6	ACCORDÉ .... 1 ___(SIGNER)___ REFUSÉ .... 2 NON ÉLIGIBLE ...... 3 AUTRE................. 6
212D	**ÉTIQUETTES CODES À BARRES** * COLLEZ LA 1ERE ÉTIQUETTE ICI. * COLLEZ UNE ÉTIQUETTE SUR CHACUNE DES 2 LAMES. * COLLEZ UNE SUR LE TDR. * COLLEZ LA 5EME SUR LA FICHE DE TRANSMISSION DES PRÉLÈVEMENTS.	COLLEZ LA 1ERE ÉTIQUETTE ICI	COLLEZ LA 1ERE ÉTIQUETTE ICI	COLLEZ LA 1ERE ÉTIQUETTE ICI
213		RETOURNEZ A 202 DANS LA COLONNE SUIVANTE DE CE QUESTIONNAIRE OU DANS LA PREMIERE COLONNE DU/DES QUESTIONNAIRE/S ADDITIONNELS; S'IL N'Y A PLUS D'ENFANTS, ALLEZ À 214.		

TRAITEMENT DES ENFANTS AVEC UN TEST DE PARASITÉMIE PALUSTRE POSITIF

SI LE TEST DE PARASITÉMIE PALUSTRE EST POSITIF: Le test pour le diagnostic du paludisme montre que votre enfant a le paludisme.
Nous pouvons vous offrir des médicaments gratuits. Ces médicaments sont appelés ACT.
ACT est très efficace et devra en quelques jours le/la débarrasser de la fièvre et d'autres symptômes.
ACT est également très sûr. Cependant, avec chaque médicament, il y a des effets secondaires, et ce médicament peut en avoir.
Les effets secondaires les plus communs sont le vertige, la fatigue, le manque d'appétit, les palpitations. ACT ne devra pas être pris par
des personnes qui ont un problème de coeur grave ou un paludisme sévère (par ex. cérébral) ou des problèmes régulant les sels du corps
DEMANDER SI L'ENFANT SOUFFRE D'UN DE CES PROBLÈMES, DON'T LA MÈRE EST CONSCIENTE; SI OUI, IL NE FAUT PAS OFFRIR L'ACT.
EXPLIQUER LES RISQUES DU PALUDISME, ET RÉFÉRER L'ENFANT A L'ETABLISSEMENT SANITAIRE LE PUS PROCHE.
Vous n'avez pas à donner le médicament à l'enfant. C'est à vous de décider. Dites-moi SVP si vous acceptez le médicament ou non?

TRAITEMENT AVEC ACT (Falcimon) **Artésunate (comprimé dosé à 50 mg) + Amodiaquine (comprimé dosé à 153 mg base)**			
Poids (en Kg) - Age approximatif	**Dosage ***		
	Jour 1 (en une prise)	**Jour 2 (en une prise)**	**Jour 3 (en une prise)**
Moins de 10 kgs. (moins de 1 an)	1/2 comprimé Artésunate + 1/2 comprimé Amodiaquine	1/2 comprimé Artésunate + 1/2 comprimé Amodiaquine	1/2 comprimé Artésunate + 1/2 comprimé Amodiaquine
10 - 20 kgs. (1 à 7 ans)	1 comprimé Artésunate + 1 comprimé Amodiaquine	1 comprimé Artésunate + 1 comprimé Amodiaquine	1 comprimé Artésunate + 1 comprimé Amodiaquine

IL FAUT ÉGALEMENT DIRE AU PARENT/RESPONSABLE ADULTE DE L'ENFANT :

Si [NOM DE L'ENFANT] a un des symptomes suivants, vous devez le/la prendre immédiatement à un professionnel de la santé pour
recevoir des soins:
    -- Haute fièvre
    -- Convulsions, coma
    -- Respiration rapide ou difficulté de respirer
    -- N'est pas capable de boire ou de têter
    -- Devient plus malade ou ne s'améliore pas dans 2 jours

		ENFANT 4	ENFANT 5	ENFANT 6
202	NUMÉRO DE LIGNE À LA COLONNE 10 NOM À LA COLONNE 2	NUMÉRO DE LIGNE .... ☐☐ NOM _____	NUMÉRO DE LIGNE .... ☐☐ NOM _____	NUMÉRO DE LIGNE .... ☐☐ NOM _____
203	SI MÈRE ENQUÊTÉE, COPIER MOIS ET ANNÉE DE NAISSANCE DE L'HISTORIQUE DES NAISSANCE ET DEMANDER LE JOUR; SI MÈRE NON ENQUÊTÉE, DEMANDER: Quelle est la date de naissance de (NOM)?	JOUR .... ☐☐ MOIS .... ☐☐ AN ... ☐☐☐☐	JOUR .... ☐☐ MOIS .... ☐☐ AN .. ☐☐☐☐	JOUR .... ☐☐ MOIS .... ☐☐ AN . ☐☐☐☐
204	VÉRIFIER 203: ENFANT NÉ EN JANVIER 2005 OU PLUS TARD ?	OUI .... 1 NON .... 2 (ALLER À 203 ENFANT SUIVANT OU, SI NON ALLER À 214)	OUI .... 1 NON .... 2 (ALLER À 203 ENFANT SUIVANT OU, SI NON ALLER À 214)	OUI .... 1 NON .... 2 (ALLER À 203 ENFANT SUIVANT OU, SI NON ALLER À 214)
205	POIDS EN KILOGRAMMES	KG. ☐☐.☐☐ ABSENT .... 99.94 REFUS .... 99.95 AUTRE 99.96	KG. ☐☐.☐☐ ABSENT .... 99.94 REFUS .... 99.95 AUTRE 99.96	KG. ☐☐.☐☐ ABSENT .... 99.94 REFUS .... 99.95 AUTRE 99.96
206	TAILLE EN CENTIMÈTRES	CM. ☐☐☐.☐ ABSENT ..... 999.4 REFUS .... 999.5 AUTRE. 999.6	CM. ☐☐☐.☐ ABSENT ..... 999.4 REFUS .... 999.5 AUT.. .... 999.6	CM. ☐☐☐.☐ ABSENT .... 999.4 REFUS .... 999.5 AUTF. 999.6
207	MESURÉ ALLONGÉ OU DEBOUT ?	ALLONGÉ .... 1 DEBOUT. .... 2 PAS MESURÉ........ 3	ALLONGÉ .... 1 DEBOUT .... 2 PAS MESURÉ 3	ALLONGÉ .... 1 DEBOUT .... 2 PAS MESURÉ 3
208	VÉRIFIEZ 203: EST-CE QUE L'ENFANT A 0-5 MOIS, C'EST-À-DIRE QU'IL EST NÉ AU COURS DU MOIS DE L'ENQUÊTE OU DANS LES 5 MOIS PRÉCÉDENTS ?	0-5 MOIS .... 1 (ALLEZ À 203 POUR ENFANT SUIVANT OU SI PLUS D'ENFANT ALLEZ À 214) PLUS ÂGÉ 2	0-5 MOIS .... 1 (ALLEZ À 203 POUR ENFANT SUIVANT OU SI PLUS D'ENFANT ALLEZ À 214) PLUS ÂGÉ 2	0-5 MOIS .... 1 (ALLEZ À 203 POUR ENFANT SUIVANT OU SI PLUS D'ENFANT ALLEZ À 214) PLUS ÂGÉ 2
209	N° DE LIGNE DU PARENT/AUTRE ADULTE RESPONSABLE DE L'ENFANT (DE LA COLONNE 1 DU TABLEAU MÉNAGE). INSCRIVEZ '00' SI NON LISTÉ.	NUMÉRO DE LIGNE .... ☐☐	NUMÉRO DE LIGNE ..... ☐☐	NUMÉRO DE LIGNE .... ☐☐
210	DEMANDEZ LE CONSENTEMENT POUR LE TEST D'ANÉMIE AU PARENT/AUTRE ADULTE IDENTIFIÉ À 209 COMME RESPONSABLE DE L'ENFANT.	Dans cette enquête, nous demandons à des gens dans tout le pays de participer au test d'anémie. L'anémie est un problème de santé sérieux qui résulte généralement d'une alimentation pauvre, d'infections ou de maladies chroniques. Les résultats de cette enquête permettront d'aider le gouvernement à développer des programmes pour prévenir et traiter l'anémie. Nous demandons que tous les enfants nés en 2005 ou plus tard participent au test d'anémie inclus dans cette enquête en donnant quelques gouttes de sang d'un doigt ou du talon. Pour ce test, on utilise un équipement propre et sans risque. Il n'a jamais été utilisé auparavant et il sera jeté après chaque test. Le sang sera testé pour l'anémie immédiatement et les résultats vous seront communiqués tout de suite. Les résultats sont strictement confidentiels et ne seront transmis à personne en dehors de l'équipe de l'enquête. Vous pouvez dire 'oui' pour le test ou vous pouvez dire 'non'. C'est votre décision. Autorisez-vous (NOM DE L'ENFANT/NOMS DES ENFANTS) à participer au test d'anémie ?		
211	ENCERCLEZ LE CODE APPROPRIÉ POUR LE CONSENTEMENT AU TEST D'ANEMIE ET APPOSEZ VOTRE SIGNATURE.	ACCORDÉE .... 1 _____ (SIGNATURE) REFUSÉE 2	ACCORDÉE .... 1 _____ (SIGNATURE) REFUSÉE 2	ACCORDÉE .... 1 _____ (SIGNATURE) REFUSÉE 2
211A	DEMANDEZ LE CONSENTEMENT POUR LE TEST DE PARASITEMIE AU PARENT/AUTRE ADULTE IDENTIFIÉ À 209 COMME RESPONSABLE DE L'ENFANT.	Dans cette enquête, nous demandons que les enfants de moins de 6 ans dans tout le pays prennent un test pour voir s'ils ont le paludisme. Le paludisme est une maladie grave causée enquête par un parasite transmis par les piqûres des moustiques. Les résultats de cette enquête permettront d'aider le gouvernement à mettre en place des programmes pour prévenir et traiter le paludisme Nous demandons que tous les enfants nés en 2005 ou après participent au test du paludisme en donnant quelques de sang d'un doigt (ou le talon si l'enfant a moins de 6 mois). Pour prélever ces gouttes, on utilisera des instruments propres et totalement sûrs qui n'ont jamais été utilisés auparavant et qui seront jetés après chaque prélèvement. Le sang sera testé pour le diagnostic du paludisme et le résultat vous sera communiqué immédiatement. Une partie de ces gouttes de sang sera acheminée au Laboratoire pour confirmation. Le résultat sera gardé confidentiel. Avez-vous des questions sur le test du paludisme ? Vous pouvez dire oui au test ou vous pouvez dire non. C'est à vous de décider. Acceptez-vous que (NOM DES ENFANTS) participent au test pour le diagnostic du paludisme ?		

211B	ENCERCLEZ LE CODE APPROPRIÉ POUR LE CONSENTEMENT AU TEST DE PARASITEMIE ET APPOSEZ VOTRE SIGNATURE.	ACCORDÉE .... 1 ← (SIGNATURE) REFUSÉE 2	ACCORDÉE .... 1 ← (SIGNATURE) REFUSÉE 2	ACCORDÉE .... 1 ← (SIGNATURE) REFUSÉE 2
	EFFECTUEZ CHAQUE TEST POUR CHAQUE ENFANT POUR LEQUEL LE CONSENTEMENT EST OBTENU A 211 ET 211B.			
212	INSCRIVEZ LE NIVEAU D'HÉMO-GLOBINE ICI ET DANS LA BROCHURE ANÉMIE **(11)**.	G/DL ☐☐.☐ ABSENT ....99.4 REFUS .... .99.5 AUTRE 99.6	G/DL ☐☐.☐ ABSENT ....99.4 REFUS .... .99.5 AUTRE 99.6	G/DL ☐☐.☐ ABSENT ....99.4 REFUS ....99.5 AUTRE 99.6
212A	ENREGISTREZ SI L'ENFANT A ÉTÉ TESTE A LA PARASITEMIE PALUSTRE (TDR)	TESTE .... 1 ⌐ PAS PRESENT .... 2 REFUS .... 3 AUTRE .... 6 ← (ALLER À 212E)	TESTE .... 1 ⌐ PAS PRESENT ..... 2 REFUS .... 3 AUTRE............ 6 ← (ALLER À 212E)	TESTE .... 1 ⌐ PAS PRESENT .... 2 REFUS .... 3 AUTRE.................. 6 ← (ALLER À 212E)
212B	ENREGISTREZ LE CODE RÉSULTAT DU TEST DU PALUDISME (TDR)	POSITIF .... 1 NÉGATIF .... 2 ← (ALLER À 212D) AUTRE 6	POSITIF .... 1 NÉGATIF .... 2 ← (ALLER À 212D) AUTRE............ 6	POSITIF .... 1 NÉGATIF .... 2 ← (ALLER À 212D) AUTRE.................. 6
212C	LISEZ L'INFORMATION POUR LE TRAITEMENT DU PALUDISME ET LE CONSENTEMENT AU PARENT OU AUTRE ADULTE RESPONSABLE DE L'ENFANT. ENCERCLEZ UN CODE ET SIGNEZ.	ACCORDÉ ..... 1 (SIGNER) REFUSÉ .... 2 NON ÉLIGIBLE ..... 3 AUTRE 6	ACCORDÉ ..... 1 (SIGNER) REFUSÉ .... 2 NON ÉLIGIBLE ..... 3 AUTRE............ 6	ACCORDÉ .... 1 (SIGNER) REFUSÉ .... 2 NON ÉLIGIBLE ...... 3 AUTRE.................. 6
212D	**ÉTIQUETTES CODES À BARRES** * COLLEZ LA 1ERE ÉTIQUETTE ICI. * COLLEZ UNE ÉTIQUETTE SUR CHACUNE DES 2 LAMES. * COLLEZ UNE SUR LE TDR. * COLLEZ LA 5EME SUR LA FICHE DE TRANSMISSION DES PRÉLÈVEMENTS.	COLLEZ LA 1ERE ÉTIQUETTE ICI	COLLEZ LA 1ERE ÉTIQUETTE ICI	COLLEZ LA 1ERE ÉTIQUETTE ICI
213		RETOURNEZ A 202 DANS LA COLONNE SUIVANTE DE CE QUESTIONNAIRE OU DANS LA PREMIERE COLONNE DU/DES QUESTIONNAIRE/S ADDITIONNELS; S'IL N'Y A PLUS D'ENFANTS, ALLEZ À 214.		

214	VERIFIER LA COLONNE 9 DU TABLEAU MENAGE. ENREGISTRER LE NUMERO DE LIGNE ET LE NOM DE TOUTES LES FEMMES ELIGIBLES A LA QUESTION 215. (S'IL Y A PLUS DE 3 FEMMES, UTILISEZ UN/DES QUESTIONNAIRES SUPPLEMENTAIRES).		
		FEMME 1	FEMME 2	FEMME 3
215	Nᵒ DE LIGNE DE LA COLONNE 9 NOM DE LA COLONNE 2	Nᵒ LIGNE. . . . . NOM _____	Nᵒ LIGNE. . . . . NOM _____	Nᵒ LIGNE. . . . . NOM _____
216	POIDS EN KILOGRAMMES	KG. ▯▯▯.▯ ABSENTE. . . . . 999.94 REFUS . . . . 999.95 AUTRE 999.96	KG. ▯▯▯.▯ ABSENTE. . . . . 999.94 REFUS . . . . 999.95 AUTRE 999.96	KG. ▯▯▯.▯ ABSENTE. . . . . 999.94 REFUS . . . . 999.95 AUTRE 999.96
217	TAILLE EN CENTIMETRES	CM. ▯▯▯.▯ ABSENTE. . . . . 999.4 REFUS . . . . 999.5 AUTRE 999.6	CM. ▯▯▯.▯ ABSENTE. . . . . 999.4 REFUS . . . . 999.5 AUTRE 999.6	CM. ▯▯▯.▯ ABSENTE. . . . . 999.4 REFUS . . . . 999.5 AUTRE 999.6
218	AGE: VERIFIEZ COLONNE 7.	15-17 ANS . . . . 1 18-49 ANS . . . . 2 (ALLEZ A 223) ↵	15-17 ANS . . . . 1 18-49 ANS . . . . 2 (ALLEZ A 223) ↵	15-17 ANS . . . . 1 18-49 ANS . . . . 2 (ALLEZ A 223) ↵
219	ETAT MATRIMO-NIAL : VERIFIEZ COLONNE 8.	CODE 4 (JAMAIS EN UNION) 1 AUTRE . . . . 2 (ALLEZ A 223) ↵	CODE 4 (JAMAIS EN UNION) 1 AUTRE . . . . 2 (ALLEZ A 223) ↵	CODE 4 (JAMAIS EN UNION) 1 AUTRE . . . . 2 (ALLEZ A 223) ↵
220	INSCRIVEZ LE Nᵒ DE LIGNE DU PARENT/AUTRE ADULTE RESPON-SABLE DE L'ADOLESCENTE. INSCRIVEZ '00' SI NON LISTE.	Nᵒ DE LIGNE DU PARENT OU AUTRE ADULTE RESPONSABLE ▯▯	Nᵒ DE LIGNE DU PARENT OU AUTRE ADULTE RESPONSABLE ▯▯	Nᵒ DE LIGNE DU PARENT OU AUTRE ADULTE RESPONSABLE ▯▯
221	DEMANDEZ LE CONSENTEMENT POUR LE TEST D'ANÉMIE AU PARENT/AUTRE ADULTE IDENTIFIE A Q.220 COMME RESPONSABLE POUR LES FEMMES DE 15-17 ANS QUI N'ONT JAMAIS ETE EN UNION.	Dans cette enquête, nous demandons à des gens dans tout le pays de participer au test d'anémie. L'anémie est un problème de santé sérieux qui résulte généralement d'une alimentation pauvre, d'infections ou de maladies chroniques. Les résultats de cette enquête permettront d'aider le gouvernement à développer des programmes pour prévenir et traiter l'anémie. Pour le test d'anémie, nous avons besoin de gouttes de sang d'un doigt. Pour ce test, on utilise un équipement propre et sans risque. Il n'a jamais été utilisé auparavant et sera jeté après chaque test. Le sang sera testé pour l'anémie immédiatement et les résultats vous seront communiqués, à vous et à (NOM DE L'ADOLESCENTE), tout de suite. Les résultats sont strictement confidentiels et ne seront transmis à personne en dehors de l'équipe de l'enquête. Avez-vous des questions à me poser ? Vous pouvez dire 'Oui' ou vous pouvez dire 'Non' pour le test de (NOM DE L'ADOLESCENTE). C'est votre décision. Autorisez-vous (NOM DE L'ADOLESCENTE) à participer au test d'anémie ?		
222	ENCERCLEZ LE CODE APPROPRIE ET APPOSEZ VOTRE SIGNATURE	ACCORDÉE 1 REFUSEE PAR PARENT/AUTRE ADULTE RESPONSABLE 2 _____ (SIGNATURE) . (SI REFUSEE, ALLEZ A 228)	ACCORDÉE 1 REFUSEE PAR PARENT/AUTRE ADULTE RESPONSABLE 2 _____ (SIGNATURE) (SI REFUSEE, ALLEZ A 228)	ACCORDÉE 1 REFUSEE PAR PARENT/AUTRE ADULTE RESPONSABLE 2 _____ (SIGNATURE) (SI REFUSEE, ALLEZ A 228)

		FEMME 1	FEMME 2	FEMME 3
	Nº DE LIGNE DE LA COLONNE 9 NOM DE LA COLONNE 2	Nº LIGNE. . . . . NOM _____	Nº LIGNE. . . . . NOM _____	Nº LIGNE. . . . . NOM _____
223	DEMANDEZ LE CONSENTEMENT DE L'ENQUETEE POUR LE TEST D'ANEMIE	Dans cette enquête, nous demandons à des gens dans tout le pays de participer au test d'anémie. L'anémie est un problème de santé sérieux qui résulte généralement d'une alimentation pauvre, d'infections ou de maladies chroniques. Les résultats de cette enquête permettront d'aider le gouvernement à développer des programmes pour prévenir et traiter l'anémie. Pour le test d'anémie, nous avons besoin de gouttes de sang d'un doigt. Pour ce test, on utilise un équipement propre et sans risque. Il n'a jamais été utilisé auparavant et sera jeté après chaque test. Le sang sera testé pour l'anémie immédiatement et les résultats vous seront communiqués tout de suite. Les résultats sont strictement confidentiels et ne seront transmis à personne en dehors de l'équipe de l'enquête. Avez-vous des questions à me poser ? Vous pouvez dire 'Oui' ou vous pouvez dire 'Non' pour le test. C'est votre décision. Êtes-vous d'accord pour participer au test d'anémie ?		
224	ENCERCLEZ LE CODE APPROPRIE ET APPOSEZ VOTRE SIGNATURE	ENQUETEE ACCEPTE . . . 1 ENQUETEE REFUSE . . . . 2 _____ (SIGNATURE) (SI REFUS, ALLEZ A 226)	ENQUETEE ACCEPTE . 1 ENQUETEE REFUSE . . . . . 2 _____ (SIGNATURE) (SI REFUS, ALLEZ A 226)	ENQUETEE ACCEPTE . . 1 ENQUETEE REFUSE . . . . . 2 _____ (SIGNATURE) (SI REFUS, ALLEZ A 226)
225	GROSSESSE : VERIFIEZ A 226 DANS QUESTION- NAIRE FEMME OU DEMANDEZ: Êtes-vous enceinte ?	OUI. . . . . 1 NON . . . . 2 NSP 8	OUI. . . . . 1 NON . . . . 2 NSP 8	OUI. . . . . 1 NON . . . . 2 NSP 8
226	AGE: VERIFIEZ COLONNE 7.	15-17 ANS . . . . 1 18-49 ANS . . . . 2 (ALLEZ A 230)	15-17 ANS . . . . 1 18-49 ANS . . . . 2 (ALLEZ A 230)	15-17 ANS . . . . 1 18-49 ANS . . . . 2 (ALLEZ A 230)
227	ETAT MATRIMO- NIAL : VERIFIEZ COLONNE 8.	CODE 4 (JAMAIS EN UNION) 1 AUTRE . . . . 2 (ALLEZ A 230)	CODE 4 (JAMAIS EN UNION) 1 AUTRE . . . . 2 (ALLEZ A 230)	CODE 4 (JAMAIS EN UNION) 1 AUTRE . . . . 2 (ALLEZ A 230)
228	DEMANDEZ LE CONSENTEMENT POUR LA COLLECTE DE DBS AU PARENT/AUTRE ADULTE DENTIFIE A 220 COMME RES- PONSABLE POUR LES FEMMES DE 15-17 ANS QUI N'ONT JAMAIS ETE EN UNION.	Dans cette enquête, nous demandons à des gens dans tout le pays de participer au test du VIH. Le VIH est le virus qui cause le sida. Le sida est une maladie très grave. Le test du VIH est effectué dans cette enquête pour connaître l'importance du problème du sida au Sénégal. Pour le test du VIH, nous avons besoin de gouttes de sang d'un doigt. Pour ce test, on utilise un équipement propre et sans risque. Il n'a jamais été utilisé auparavant et sera jeté après chaque test. Aucun nom ne sera lié au prélèvement de sang et nous ne pourrons donc pas vous donner les résultats du test. Personne d'autre ne pourra, non plus, connaître les résultats de (NOM DE L'ADOLESCENTE). Si (NOM DE L'ADOLESCENTE) voulait savoir si elle a ou non le VIH, je peux lui fournir la liste des centres [les plus proches] qui offrent des services de test et de conseils pour le VIH. Je lui donnerai également un coupon pour bénéficier de services gratuits dans ces centres. Avez-vous des questions à me poser ? Vous pouvez dire 'Oui' ou vous pouvez dire 'Non' pour le test. C'est votre décision. Autorisez-vous (NOM DE L'ADOLESCENTE) à participer au test du VIH ?		
229	ENCERCLEZ LE CODE APPROPRIE ET APPOSEZ VOTRE SIGNATURE	ACCORDEE . . . . 1 REFUSEE PAR PARENT/AUTRE ADULTE RESPONSABLE . . . 2 _____ (SIGNATURE) (SI REFUSEE. ALLEZ A 239)	ACCORDEE . . . . 1 REFUSEE PAR PARENT/AUTRE ADULTE RESPONSABLE . 2 _____ (SIGNATURE) (SI REFUSEE, ALLEZ A 239)	ACCORDEE . . . . 1 REFUSEE PAR PARENT/AUTRE ADULTE RESPONSABLE 2 _____ (SIGNATURE) (SI REFUSEE, ALLEZ A 239)

		FEMME 1	FEMME 2	FEMME 3
	Nº DE LIGNE DE LA COLONNE 9 NOM DE LA COLONNE 2	Nº LIGNE . . . . ☐☐ NOM _____	Nº LIGNE . . . . ☐☐ NOM _____	Nº LIGNE . . . . ☐☐ NOM _____
230	DEMANDEZ LE CONSENTEMENT À L'ENQUÊTÉE POUR LA COLLECTE DE DBS.	Dans cette enquête, nous demandons à des gens dans tout le pays de participer au test du VIH. Le VIH est le virus qui cause le sida. Le sida est une maladie très grave. Le test du VIH est effectué dans cette enquête pour connaître l'importance du problème du sida au (PAYS). Pour le test du VIH, nous avons besoin de gouttes de sang d'un doigt. Pour ce test, on utilise un équipement propre et sans risque. Il n'a jamais été utilisé auparavant et sera jeté après chaque test. Aucun nom ne sera lié au prélèvement de sang et nous ne pourrons donc pas vous donner les résultats du test. Personne d'autre ne pourra, non plus, connaître les résultats. Si vous voulez savoir si vous avez ou non le VIH, je peux vous fournir la liste des centres [les plus proches] qui offrent des services de test et de conseils pour le VIH. Je vous donnerai également un coupon pour bénéficier, vous (et votre partenaire si vous le souhaitez), de services gratuits dans ces centres. Avez-vous des questions à me poser ? Vous pouvez dire 'Oui' ou vous pouvez dire 'Non' pour le test. C'est votre décision. Êtes-vous d'accord pour participer au test du VIH ?		
231	ENCERCLEZ LE CODE APPROPRIE, APPOSEZ VOTRE SIGNATURE ET INSCRIVEZ VOTRE CODE D'ENQUETEUR.	ENQUETEE ACCEPTE . . . 1 ENQUETEE REFUSE . . . . 2 _____ (SIGNATURE) ☐☐☐ (SI REFUS, ALLEZ A 239)	ENQUETEE ACCEPTE . . . . . 1 ENQUETEE REFUSE . . . . . 2 _____ (SIGNATURE) ☐☐☐ (SI REFUS, ALLEZ A 239)	ENQUETEE ACCEPTE . . 1 ENQUETEE REFUSE . . . 2 2 _____ (SIGNATURE) ☐☐☐ (SI REFUS, ALLEZ A 239)
232	AGE: VERIFIEZ COLONNE 7.	15-17 ANS . . . . 1 18-49 ANS . . . . ←2 (ALLEZ A 236)	15-17 ANS . . . . 1 18-49 ANS . . . . ←2 (ALLEZ A 236)	15-17 ANS . . . . 1 18-49 ANS . . . . ←2 (ALLEZ A 236)
233	ETAT MATRIMO-NIAL : VERIFIEZ COLONNE 8.	CODE 4 (JAMAIS EN UN . . . . . . 1 AUTRE . . . . ←2 (ALLEZ A 236)	CODE 4 (JAMAIS EN UNI . . . . . 1 AUTRE . . . . ←2 (ALLEZ A 236)	CODE 4 (JAMAIS EN UN . . . . . 1 AUTRE . . . . ←2 (ALLEZ A 236)
234	DEMANDEZ LE CONSENTEMENT POUR DES TESTS SUPPLEMENTAIRES AU PARENT/AUTRE ADULTE IDENTIFIE A 220 COMME RESPONSABLE POUR LES FEM-MES DE 15-17 ANS JAMAIS EN UNION.	Nous vous demandons d'autoriser [ORGANISME D'EXÉCUTION/MINISTÈRE DE LA SANTÉ] à conserver au laboratoire une partie des échantillons sanguins pour des tests ou recherches supplémentaires. Nous ne savons pas exactement quels test pourront être effectués. L'échantillon de sang ne sera lié à aucun nom ni à aucune autre donnée qui pourrait permettre d'identifier (NOM DE L'ADOLESCENTE). Vous n'êtes pas obligé d'accepter. Si vous ne voulez pas qu'un échantillon de sang soit conservé pour une utilisation future, (NOM DE L'ADOLESCENTE) peut quand même participer au test du VIH dans le cadre de cette enquête. Est-ce que vous nous donnez l'autorisation de conserver un échantillon de sang pour des recherches ou tests supplémentaires ?		

235	ENCERCLEZ LE CODE APPROPRIE, ET APPOSEZ VOTRE SIGNATURE	ACCORDEE 1
		REFUSEE PAR PARENT/AUTRE
		  ADULTE RESPONSABLE . . . 2
		
		_____
		(SIGNATURE)
		
		(SI REFUS, ALLEZ A 238)
			ACCORDEE 1
			REFUSEE PAR PARENT/AUTRE
			  ADULTE RESPONSABLE . 2
			
			_____
			(SIGNATURE)
			
			(SI REFUS, ALLEZ A 238)
				ACCORDEE 1 1
				REFUSEE PAR PARENT/AUTRE
				  ADULTE RESPONSABLE 2
				
				_____
				(SIGNATURE)
				
				(SI REFUS, ALLEZ A 238)

236	DEMANDEZ LE CONSENTEMENT A L'ENQUÊTÉE POUR DES TESTS SUP-PLEMENTAIRES.	Nous vous demandons d'autoriser [ORGANISME D'EXÉCUTION/MINISTÈRE DE LA SANTÉ] à conserver au laboratoire une partie des échantillons sanguins pour des tests ou recherches supplémentaires. Nous ne savons pas exactement quels test pourront être effectués. L'échantillon de sang ne sera lié à aucun nom ni à aucune autre donnée qui pourrait permettre de vous identifier. Vous n'êtes pas obligée d'accepter. Si vous ne voulez pas qu'un échantillon de sang soit conservé pour une utilisation future, vous pouvez quand même participer au test du VIH dans le cadre de cette enquête. Est-ce que vous nous donnez l'autorisation de conserver un échantillon de sang pour des recherches ou tests supplémentaires ?		

		FEMME 1	FEMME 2	FEMME 3
	N° DE LIGNE DE LA COLONNE 9 NOM DE LA COLONNE 2	N° LIGNE............ ☐☐ NOM _____	N° LIGNE............ ☐☐ NOM _____	N° LIGNE............ ☐☐ NOM _____
237	ENCERCLEZ LE CODE APPROPRIE, ET APPOSEZ VOTRE SIGNATURE	ENQUETEE ACCEPTE ... 1 ENQUETEE REFUSE .... 2 _____ (SIGNATURE) (SI ACCEPTE, ALLEZ A 239)	ENQUETEE ACCEPTE . 1 ENQUETEE REFUSE ..... 2 _____ (SIGNATURE) (SI ACCEPTE, ALLEZ A 239)	ENQUETEE ACCEPTE . 1 1 ENQUETEE REFUSE ... 2 2 _____ (SIGNATURE) (SI ACCEPTE, ALLEZ A 239)
238	TESTS SUPPLEMEN-TAIRES	VERIFIEZ 235 ET 237 : SI LE CONSENTEMENT N'A PAS ETE DONNE, INSCRIVEZ "PAS DE TESTS SUPPLEMENTAIRES" SUR LE PAPIER FILTRE.	VERIFIEZ 235 ET 237 : SI LE CONSENTEMENT N'A PAS ETE DONNE, INSCRIVEZ "PAS DE TESTS SUPPLEMENTAIRES" SUR LE PAPIER FILTRE.	VERIFIEZ 235 ET 237 : SI LE CONSENTEMENT N'A PAS ETE DONNE, INSCRIVEZ "PAS DE TESTS SUPPLEMENTAIRES" SUR LE PAPIER FILTRE.
239	PREPAREZ L'EQUIPEMENT ET LES FOURNITURES SEULEMENT POUR LE/LES TEST(S) POUR LEQUELS/LESQUELS LE CONSENTEMENT A ETE OBTENU ET CONTINUEZ AVEC LE/LES TEST(S).			
240	INSCRIVEZ LE NIVEAU D'HEMO-GLOBINE ICI ET DANS LA BROCHU-RE ANEMIE.	G/DL .... ☐☐ . ☐ ABSENTE............... 99.4 REFUS .... 99.5 AUTRE 99.6	G/DL .... ☐☐ . ☐ ABSENTE............... 99.4 REFUS .... 99.5 AUTRE 99.6	G/DL .... ☐☐ . ☐ ABSENTE............. 99.4 REFUS .... 99.5 AUTRE 99.6
241	ETIQUETTE CODE BARRE	COLLEZ LA 1ʳᵉ ETIQUETTE CODE BARRE ICI ABSENTE........... 99994 REFUS .... 99995 AUTRE .... 99996 COLLEZ LA 2ᵉ ETIQUETTE CODE BARRE SUR LE PAPIER FILTRE DE L'ENQUETEE ET LA 3ᵉ SUR LA FICHE DE TRANSMISSION.	COLLEZ LA 1ʳᵉ ETIQUETTE CODE BARRE ICI ABSENTE........... 99994 REFUS .... 99995 AUTRE .... 99996 COLLEZ LA 2ᵉ ETIQUETTE CODE BARRE SUR LE PAPIER FILTRE DE L'ENQUETEE ET LA 3ᵉ SUR LA FICHE DE TRANSMISSION.	COLLEZ LA 1ʳᵉ ETIQUETTE CODE BARRE ICI ABSENTE........... 99994 REFUS .... 99995 AUTRE .... 99996 COLLEZ LA 2ᵉ ETIQUETTE CODE BARRE SUR LE PAPIER FILTRE DE L'ENQUETEE ET LA 3ᵉ SUR LA FICHE DE TRANSMISSION.
242	RETOURNEZ A 216 A LA COLONNE SUIVANTE DE CE QUESTIONNAIRE OU AUX PREMIERES COLONNES DU/DES QESTIONNAIRE(S) SUPPLEMENTAIRES; S'IL N'Y A PLUS DE FEMMES, ALLEZ A 243.			

243	VÉRIFIER LA COLONNE 10 DU TABLEAU MÉNAGE. ENREGISTRER LE NUMÉRO DE LIGNE ET LE NOM DE TOUS LES HOMMES ÉLIGIBLES À Q.244. S'IL Y A PLUS DE TROIS HOMMES, UTILISEZ UN/DES QUESTIONNAIRE(S) SUPPLÉMENTAIRE(S).

		HOMME 1	HOMME 2	HOMME 3
244	N° DE LIGNE DE COLONNE 10 NOM DE LA COLONNE 2	N° LIGNE . . . . ☐☐ NOM _____	N° LIGNE . . . . ☐☐ NOM _____	N° LIGNE . . . . ☐☐ NOM _____
245	POIDS EN KILOGRAMMES	KG. ☐☐☐.☐☐ ABSENT . . . . 999.94 REFUS . . . . 999.95 AUTRE 999.96	KG. ☐☐☐.☐☐ ABSENT . . . . 999.94 REFUS . . . . 999.95 AUTRE 999.96	KG. ☐☐☐.☐☐ ABSENT . . . . 999.94 REFUS . . . . 999.95 AUTRE 999.96
246	TAILLE EN CENTIMÈTRES	CM. . . . . ☐☐☐.☐ ABSENT . . . . 999.4 REFUS . . . . 999.5 AUTRE 999.6	CM. . . . . ☐☐☐.☐ ABSENT . . . . 999.4 REFUS . . . . 999.5 AUTRE 999.6	CM. . . . . ☐☐☐.☐ ABSENT . . . . 999.4 REFUS . . . . 999.5 AUTRE 999.6
247	ÂGE: VÉRIFIEZ COLONNE 7.	15-17 ANS . . . . 1 18-49 ANS . . . . 2 (ALLEZ À 252) ⤶	15-17 ANS . . . . 1 18-49 ANS . . . . 2 (ALLEZ À 252) ⤶	15-17 ANS . . . . 1 18-49 ANS . . . . 2 (ALLEZ À 252) ⤶
248	ÉTAT MATRIMO-NIAL : VÉRIFIEZ COLONNE 8.	CODE 4 (JAMAIS EN UNION) . . . 1 AUTRE . . . . 2 (ALLEZ À 252) ⤶	CODE 4 (JAMAIS EN UNION) . . . 1 AUTRE . . . . 2 (ALLEZ À 252) ⤶	CODE 4 (JAMAIS EN UNION) . . . 1 AUTRE . . . . 2 (ALLEZ À 252) ⤶
249	INSCRIVEZ LE N° DE LIGNE DU PARENT/AUTRE ADULTE RESPON-SABLE POUR L'ADOLESCENT. INSCRIVEZ '00' SI NON LISTÉ.	N° DE LIGNE DU PARENT OU AUTRE ADULTE RESPONSABLE ☐☐	N° DE LIGNE DU PARENT OU AUTRE ADULTE RESPONSABLE ☐☐	N° DE LIGNE DU PARENT OU AUTRE ADULTE RESPONSABLE ☐☐
250	DEMANDEZ LE CONSENTEMENT POUR LE TEST D'ANÉMIE AU PARENT/AUTRE ADULTE IDENTIFIÉ À Q.249 COMME RESPONSABLE POUR LES HOMMES DE 15-17 ANS QUI N'ONT JAMAIS ÉTÉ EN UNION.	Dans cette enquête, nous demandons à des gens dans tout le pays de participer au test d'anémie. L'anémie est un problème de santé sérieux qui résulte généralement d'une alimentation pauvre, d'infections ou de maladies chroniques. Les résultats de cette enquête permettront d'aider le gouvernement à développer des programmes pour prévenir et traiter l'anémie. Pour le test d'anémie, nous avons besoin de gouttes de sang d'un doigt. Pour ce test, on utilise un équipement propre et sans risque. Il n'a jamais été utilisé auparavant et sera jeté après chaque test. Le sang sera testé pour l'anémie immédiatement et les résultats vous seront communiqués, à vous et à (NOM DE L'ADOLESCENT), tout de suite. Les résultats sont strictement confidentiels et ne seront transmis à personne en dehors de l'équipe de l'enquête. Avez-vous des questions à me poser ? Vous pouvez dire 'Oui' ou vous pouvez dire 'Non' pour le test de (NOM DE L'ADOLESCENT). C'est votre décision. Autorisez-vous (NOM DE L'ADOLESCENT) à participer au test d'anémie ?		
251	ENCERCLEZ LE CODE APPROPRIÉ ET APPOSEZ VOTRE SIGNATURE	ACCORDÉE . . . . 1 REFUSÉE PAR PARENT/AUTRE ADULTE RESPONSABLE . . . . . 2 _____ (SIGNATURE) (SI REFUS, ALLEZ À 256)	ACCORDÉE . . . . 1 REFUSÉE PAR PARENT/AUTRE ADULTE RESPONSABLE . . . . . 2 _____ (SIGNATURE) (SI REFUS, ALLEZ À 256)	ACCORDÉE . . . . 1 REFUSÉE PAR PARENT/AUTRE ADULTE RESPONSABLE . . . . . 2 _____ (SIGNATURE) (SI REFUS, ALLEZ À 256)

		HOMME 1	HOMME 2	HOMME 3
	N° DE LIGNE DE LA COLONNE 10 NOM DE LA COLONNE 2	N° LIGNE . . . . ☐☐ NOM _____	N° LIGNE . . . . ☐☐ NOM _____	N° LIGNE . . . . ☐☐ NOM _____
252	DEMANDEZ LE CONSENTEMENT DE L'ENQUÊTÉ POUR LE TEST D'ANÉMIE.	Dans cette enquête, nous demandons à des gens dans tout le pays de participer au test d'anémie. L'anémie est un problème de santé sérieux qui résulte généralement d'une alimentation pauvre, d'infections ou de maladies chroniques. Les résultats de cette enquête permettront d'aider le gouvernement à développer des programmes pour prévenir et traiter l'anémie. Pour le test d'anémie, nous avons besoin de gouttes de sang d'un doigt. Pour ce test, on utilise un équipement propre et sans risque. Il n'a jamais été utilisé auparavant et sera jeté après chaque test. Le sang sera testé pour l'anémie immédiatement et les résultats vous seront communiqués tout de suite. Les résultats sont strictement confidentiels et ne seront transmis à personne en dehors de l'équipe de l'enquête. Avez-vous des questions à me poser ? Vous pouvez dire 'Oui' ou vous pouvez dire 'Non' pour le test. C'est votre décision. Êtes-vous d'accord pour participer au test d'anémie ?		
253	ENCERCLEZ LE CODE APPROPRIÉ ET APPOSEZ VOTRE SIGNATURE	ENQUÊTÉ ACCEPTE . . . . 1 ENQUÊTÉ REFUSE . . . . 2 _____ (SIGNATURE)	ENQUÊTÉ ACCEPTE . . . . 1 ENQUÊTÉ REFUSE . . . . 2 _____ (SIGNATURE)	ENQUÊTÉ ACCEPTE . . . . 1 ENQUÊTÉ REFUSE . . . . 2 _____ (SIGNATURE)
254	ÂGE: VÉRIFIEZ COLONNE 7.	15-17 ANS . . . . 1 18-49 ANS . . . . 2 (ALLEZ À 258) ↵	15-17 ANS . . . . 1 18-49 ANS . . . . 2 (ALLEZ À 258) ↵	15-17 ANS . . . . 1 18-49 ANS . . . . 2 (ALLEZ À 258) ↵
255	ÉTAT MATRIMONIAL : VÉRIFIEZ COLONNE 8.	CODE 4 (JAMAIS EN UNION) . . . 1 AUTRE . . . . 2 (ALLEZ À 258) ↵	CODE 4 (JAMAIS EN UNION) . . . 1 AUTRE . . . . 2 (ALLEZ À 258) ↵	CODE 4 (JAMAIS EN UNION) . . . 1 AUTRE . . . . 2 (ALLEZ À 258) ↵
256	DEMANDEZ LE CONSENTEMENT POUR LA COLLECTE DE DBS AU PARENT/AUTRE ADULTE DENTIFIÉ À 249 COMME RESPONSABLE POUR LES HOMMES DE 15-17 ANS QUI N'ONT JAMAIS ÉTÉ EN UNION.	Dans cette enquête, nous demandons à des gens dans tout le pays de participer au test du VIH. Le VIH est le virus qui cause le sida. Le sida est une maladie très grave. Le test du VIH est effectué dans cette enquête pour connaître l'importance du problème du sida au SENEGAL Pour le test du VIH, nous avons besoin de gouttes de sang d'un doigt. Pour ce test, on utilise un équipement propre et sans risque. Il n'a jamais été utilisé auparavant et sera jeté après chaque test. Aucun nom ne sera lié au prélèvement de sang et nous ne pourrons donc pas vous donner les résultats du test. Personne d'autre ne pourra, non plus, connaître les résultats de (NOM DE L'ADOLESCENT). Si (NOM DE L'ADOLESCENT) voulait savoir s'il a ou non le VIH, je peux lui fournir la liste des centres [les plus proches] qui offrent des services de test et de conseils pour le VIH. Je lui donnerai également un coupon pour bénéficier de services gratuits dans ces centres. Avez-vous des questions à me poser ? Vous pouvez dire 'Oui' ou vous pouvez dire 'Non' pour le test de (NOM DE L'ADOLESCENT). C'est votre décision. Autorisez-vous (NOM DE L'ADOLESCENT) à participer au test du VIH ?		
257	ENCERCLEZ LE CODE APPROPRIÉ ET APPOSEZ VOTRE SIGNATURE	ACCORDÉE . . . . 1 REFUSÉE PAR PARENT/AUTRE ADULTE RESPONSABLE . . . . . 2 _____ (SIGNATURE) (SI REFUS, ALLEZ À 267)	ACCORDÉE . . . . 1 REFUSÉE PAR PARENT/AUTRE ADULTE RESPONSABLE . . . . . 2 _____ (SIGNATURE) (SI REFUS, ALLEZ À 267)	ACCORDÉE . . . . 1 REFUSÉE PAR PARENT/AUTRE ADULTE RESPONSABLE . . . . . 2 _____ (SIGNATURE) (SI REFUS, ALLEZ À 267)

		HOMME 1	HOMME 2	HOMME 3
	N° DE LIGNE DE LA COLONNE 10 NOM DE LA COLONNE 2	N° LIGNE . . . . NOM	N° LIGNE . . . . NOM	N° LIGNE . . . . NOM
258	DEMANDEZ LE CONSENTEMENT À L'ENQUÊTÉ POUR LA COLLECTE DE DBS.	Dans cette enquête, nous demandons à des gens dans tout le pays de participer au test du VIH. Le VIH est le virus qui cause le sida. Le sida est une maladie très grave. Le test du VIH est effectué dans cette enquête pour connaître l'importance du problème du sida au (PAYS). Pour le test du VIH, nous avons besoin de gouttes de sang d'un doigt. Pour ce test, on utilise un équipement propre et sans risque. Il n'a jamais été utilisé auparavant et sera jeté après chaque test. Aucun nom ne sera lié au prélèvement de sang et nous ne pourrons donc pas vous donner les résultats du test. Personne d'autre ne pourra, non plus, connaître les résultats. Si vous voulez savoir si vous avez ou non le VIH, je peux vous fournir la liste des centres [les plus proches] qui offrent des services de test et de conseils pour le VIH. Je vous donnerai également un coupon pour bénéficier, vous (et votre partenaire si vous le souhaitez), de services gratuits dans ces centres. Avez-vous des questions à me poser ? Vous pouvez dire 'Oui' ou vous pouvez dire 'Non' pour le test. C'est votre décision. Êtes-vous d'accord pour participer au test du VIH ?		
259	ENCERCLEZ LE CODE APPROPRIÉ, APPOSEZ VOTRE SIGNATURE ET INSCRIVEZ VOTRE CODE D'ENQUÊTEUR.	ENQUÊTÉ ACCEPTE . . . . 1 ENQUÊTÉ REFUSE . . . . 2 _____ (SIGNATURE) SI REFUS, ALLEZ À 267)	ENQUÊTÉ ACCEPTE . . . . 1 ENQUÊTÉ REFUSE . . . . 2 _____ (SIGNATURE) (SI REFUS, ALLEZ À 267)	ENQUÊTÉ ACCEPTE . . . . 1 ENQUÊTÉ REFUSE . . . . 2 _____ (SIGNATURE) (SI REFUS, ALLEZ À 267)
260	ÂGE: VÉRIFIEZ À 247	15-17 ANS . . . . 1 18-49 ANS . . . . 2 (ALLEZ À 264)	15-17 ANS . . . . 1 18-49 ANS . . . . 2 (ALLEZ À 264)	15-17 ANS . . . . 1 18-49 ANS . . . . 2 (ALLEZ À 264)
261	ÉTAT MATRIMONIAL VÉRIFIEZ LA À 248	CODE 4 (JAMAIS EN UNION) . . . 1 AUTRE . . . . 2 (ALLEZ À 264)	CODE 4 (JAMAIS EN UNION) . . . 1 AUTRE . . . . 2 (ALLEZ À 264)	CODE 4 (JAMAIS EN UNION) . . . 1 AUTRE . . . . 2 (ALLEZ À 264)
262	DEMANDEZ LE CONSENTEMENT POUR DES TESTS SUPPLÉMENTAIRES AU PARENT/AUTRE ADULTE IDENTIFIÉ À 249 COMME RESPONSABLE POUR LES HOMMES 15-17 ANS JAMAIS EN UNION.	Nous vous demandons d'autoriser [ORGANISME D'EXÉCUTION/MINISTÈRE DE LA SANTÉ] à conserver au laboratoire une partie des échantillons sanguins pour des tests ou recherches supplémentaires. Nous ne savons pas exactement quels test pourront être effectués. L'échantillon de sang ne sera lié à aucun nom ni à aucune autre donnée qui pourrait permettre d'identifier (NOM DE L'ADOLESCENT). Vous n'êtes pas obligé d'accepter. Si vous ne voulez pas qu'un échantillon de sang soit conservé pour une utilisation future, (NOM DE L'ADOLESCENT) peut quand même participer au test du VIH dans le cadre de cette enquête. Est-ce que vous nous donnez l'autorisation de conserver un échantillon de sang pour des recherches ou tests supplémentaires ?		
263	ENCERCLEZ LE CODE APPROPRIÉ, ET APPOSEZ VOTRE SIGNATURE	ACCORDÉE . . . . 1 REFUSÉE PAR PARENT/AUTRE ADULTE RESPONSABLE . . . . . 2 _____ (SIGNATURE) (SI REFUS, ALLEZ À 266)	ACCORDÉE . . . . 1 REFUSÉE PAR PARENT/AUTRE ADULTE RESPONSABLE . . . . . 2 _____ (SIGNATURE) (SI REFUS, ALLEZ À 266)	ACCORDÉE . . . . 1 REFUSÉE PAR PARENT/AUTRE ADULTE RESPONSABLE . . . . . 2— _____ (SIGNATURE) (SI REFUS, ALLEZ À 266)

		HOMME 1	HOMME 2	HOMME 3
	N° DE LIGNE DE LA COLONNE 10	N° LIGNE . . . . ☐☐	N° LIGNE . . . . ☐☐	N° LIGNE . . . . ☐☐
	NOM DE LA COLONNE 2	NOM _____	NOM _____	NOM _____
264	DEMANDEZ LE CONSENTEMENT À L'ENQUÊTÉ POUR DES TESTS SUPPLÉMENTAIRES.	Nous vous demandons d'autoriser [ORGANISME D'EXÉCUTION/MINISTÈRE DE LA SANTÉ] à conserver au laboratoire une partie des échantillons sanguins pour des tests ou recherches supplémentaires. Nous ne savons pas exactement quels test pourront être effectués. L'échantillon de sang ne sera lié à aucun nom ni à aucune autre donnée qui pourrait permettre de vous identifier. Vous n'êtes pas obligé d'accepter. Si vous ne voulez pas qu'un échantillon de sang soit conservé pour une utilisation future, vous pouvez quand même participer au test du VIH dans le cadre de cette enquête. Est-ce que vous nous donnez l'autorisation de conserver un échantillon de sang pour des recherches ou tests supplémentaires ?		
265	ENCERCLEZ LE CODE APPROPRIÉ, ET APPOSEZ VOTRE SIGNATURE	ENQUÊTÉ ACCEPTE . . . . 1 ENQUÊTE REFUSE . . . . 2 _____ (SIGNATURE) (SI ACCEPTE, ALLEZ À 267)	ENQUÊTÉ ACCEPTE . . . . 1 ENQUÊTE REFUSE . . . . 2 _____ (SIGNATURE) (SI ACCEPTE, ALLEZ À 267)	ENQUÊTÉ ACCEPTE . . . . 1 ENQUÊTE REFUSE . . . . 2 _____ (SIGNATURE) (SI ACCEPTE, ALLEZ À 267)
266	TESTS SUPPLÉMENTAIRES	VÉRIFIEZ 263 ET 265 : SI LE CONSENTEMENT N'A PAS ÉTÉ DONNÉ, INSCRIVEZ "PAS DE TESTS SUPPLÉMENTAIRES" SUR LE PAPIER FILTRE.	VÉRIFIEZ 263 ET 265 : SI LE CONSENTEMENT N'A PAS ÉTÉ DONNÉ, INSCRIVEZ "PAS DE TESTS SUPPLÉMENTAIRES" SUR LE PAPIER FILTRE.	VÉRIFIEZ 263 ET 265 : SI LE CONSENTEMENT N'A PAS ÉTÉ DONNÉ, INSCRIVEZ "PAS DE TESTS SUPPLÉMENTAIRES" SUR LE PAPIER FILTRE.
267	PRÉPAREZ L'ÉQUIPEMENT ET LES FOURNITURES SEULEMENT POUR LE/LES TEST(S) POUR LEQUELS/LESQUELS LE CONSENTEMENT A ÉTÉ OBTENU ET CONTINUEZ AVEC LE/LES TEST(S).			
268	INSCRIVEZ LE NIVEAU D'HÉMOGLOBINE ICI ET DANS LA BROCHURE ANÉMIE.	G/DL . . . . ☐☐.☐ ABSENT . . . . 99.4 REFUS . . . . 99.5 AUTRE 99.6	G/DL . . . . ☐☐.☐ ABSENT . . . . 99.4 REFUS . . . . 99.5 AUTRE 99.6	G/DL . . . . ☐☐.☐ ABSENT . . . . 99.4 REFUS . . . . 99.5 AUTRE 99.6
269	ÉTIQUETTE CODE BARRE	COLLEZ LA 1ʳᵉ ÉTIQUETTE CODE BARRE ICI ABSENT . . . . 99994 REFUS . . . . 99995 AUTRE . . . . 99996 COLLEZ LA 2ᵉ ÉTIQUETTE CODE BARRE SUR LE PAPIER FILTRE DE L'ENQUÊTÉE ET LA 3ᵉ SUR LA FICHE DE TRANSMISSION.	COLLEZ LA 1ʳᵉ ÉTIQUETTE CODE BARRE ICI ABSENT . . . . .99994 REFUS . . . . .99995 AUTRE . . . . .99996 COLLEZ LA 2ᵉ ÉTIQUETTE CODE BARRE SUR LE PAPIER FILTRE DE L'ENQUÊTÉE ET LA 3ᵉ SUR LA FICHE DE TRANSMISSION.	COLLEZ LA 1ʳᵉ ÉTIQUETTE CODE BARRE ICI ABSENT . . . . .99994 REFUS . . . . .99995 AUTRE . . . . 99996 COLLEZ LA 2ᵉ ÉTIQUETTE CODE BARRE SUR LE PAPIER FILTRE DE L'ENQUÊTÉE ET LA 3ᵉ SUR LA FICHE DE TRANSMISSION.
270	RETOURNEZ À 245 À LA COLONNE SUIVANTE DE CE QUESTIONNAIRE OU AUX PREMIÈRES COLONNES DU/DES QESTIONNAIRE(S) SUPPLÉMENTAIRES; S'IL N'Y A PLUS D'HOMMES, TERMINEZ L'INTERVIEW.			

ENQUÊTE DÉMOGRAPHIQUE ET DE SANTÉ A INDICATEURS MULTIPLES (EDSV-MICS_2010)
QUESTIONNAIRE FEMME

République du Sénégal
Ministère de l'Economie et des Finances
Ministère de la Santé et de la Prévention Médicale

ICF Macro

IDENTIFICATION

NOM DE LA LOCALITÉ _____	
NOM DU CHEF DE MÉNAGE _____ NUMÉRO DU MÉNAGE _____	MÉNAGE . . . . . . ☐☐
NUMÉRO DE CONCESSION	CONCES. . . . ☐☐
NUMÉRO DE GRAPPE	GRAPPE . . ☐☐☐
RÉGION _____	RÉGION . . . . . . ☐☐
DEPARTEMENT _____	DEPARTEMENT . ☐☐
DISTRICT SANITAIRE _____	DISTRICT . . . . ☐☐
URBAIN/RURAL (URBAIN=1, RURAL=2)	MILIEU . . . . ☐
DAKAR/CAPITALE RÉGIONALE/AUTRE VILLE/RURAL . . . . (DAKAR=1, CAPITALE RÉGIONALE=2, AUTRE VILLE=3, RURAL=4)	MILIEU (DÉTAILLÉ) . . . ☐
NOM ET NUMÉRO DE LIGNE DE LA FEMME _____	N° DE LIGNE . . . ☐☐

VISITES D'ENQUÊTRICE

	1	2	3	VISITE FINALE
DATE	_____	_____	_____	JOUR . . . . ☐☐
				MOIS . . . . ☐☐
				ANNÉE . **2** **0** **1** ☐
NOM DE L'ENQUÊTRICE	_____	_____	_____	CODE ENQUÊT. . . ☐☐
RÉSULTAT*	_____	_____	_____	CODE RÉSULTAT . . . . . ☐
PROCHAINE DATE VISITE	_____	_____	▓▓▓▓	NBRE TOTAL DE VISITES . . . . ☐
HEURE	_____	_____	▓▓▓▓	

*CODES RÉSULTAT :
    1   REMPLI   4   REFUSÉ
    2   PAS À LA MAISON   5   REMPLI PARTIELLEMENT   7   AUTRE _____
    3   DIFFÉRÉ   6   INCAPACITÉ   (PRÉCISER)

LANGUE DE QUESTIONNAIRE** _____ **1**	LANGUE DE L'INTERVIEW** _____ ☐	INTERPRÈTE (OUI=1, NON=2) ☐	

**CODES LANGUE :   1   FRANÇAIS   4   SERER   8   AUTRES
                           2   WOLOF   5   MANDINGUE
                           3   POULAR   6   DIOLA

CONTRÔLEUSE	CHEF D'ÉQUIPE	CONTRÔLE BUREAU	SAISI PAR
NOM _____ ☐☐	NOM _____ ☐☐	☐☐	☐☐
DATE _____	DATE _____		

<u>SECTION 1. CARACTÉRISTIQUES SOCIODÉMOGRAPHIQUES DE L'ENQUÊTÉE</u>

PRÉSENTATION ET CONSENTEMENT INFORMÉ

CONSENTEMENT INFORMÉ

Bonjour. Je m'appelle _____ et je travaille pour l'ANSD. Nous effectuons une enquête nationale sur la santé au SENEGAL. Les informations que nous collectons aideront votre gouvernement à améliorer les services de santé. Votre ménage a été sélectionné pour cette enquête. Les questions prennent habituellement entre 30 et 60 minutes. Toutes les informations que vous nous donnerez sont strictement confidentielles et elles ne seront transmises à personne d'autre que les membres de l'équipe d'enquête. Vous n'êtes pas obligée de participer à cette enquête mais nous espérons que vous accepterez d'y participer car votre opinion est très importante. S'il arrivait que je pose une question à laquelle vous ne voulez pas répondre, dites-le moi et je passerai à la question suivante ; vous pouvez également interrompre l'interview à n'importe quel moment.

Si vous souhaitez plus d'informations sur l'enquête, vous pouvez contacter la personne dont le nom figure sur la carte qui a déjà été donnée à votre ménage.
Avez-vous des questions ? Puis-je commencer l'interview maintenant ?

SIGNATURE DE L'ENQUÊTRICE : _____   DATE: _____

L'ENQUÊTÉE ACCEPTE D'ÊTRE INTERVIEWÉE ... 1   L'ENQUÊTÉE REFUSE D'ÊTRE INTERVIEWÉE .... 2 → FIN

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
101	ENREGISTREZ L'HEURE.	HEURE .... MINUTES	
102	En quel mois et en quelle année êtes-vous née ?	MOIS .... NE CONNAÎT PAS LE MOIS......... 98 ANNÉE .... NE CONNAÎT PAS L'ANNÉE 9998	
103	Quel âge aviez-vous à votre dernier anniversaire ? COMPAREZ ET CORRIGEZ 102 ET/OU 103 SI INCOHÉRENT.	ÂGE EN ANNÉES RÉVOLUES	
104	Êtes-vous allée à l'école ?	OUI .... 1 NON 2	→ 108
105	Quel est le plus haut niveau d'études que vous avez atteint : primaire, secondaire ou supérieur ?	ELEMENTAIRE................... 1 MOYEN .... 2 SECONDAIRE .... 3 SUPÉRIEUR.................... 4 AUTRE _____ 6 (PRÉCISER)	
106	Quel est (l'année/classe) la plus élevée que vous avez achevée à ce niveau ? SI MOINS D'UNE ANNÉE A ÉTÉ ACHEVÉE À CE NIVEAU, INSCRIVEZ '00'.	CLASSE/ANNÉE	

107	VÉRIFIEZ 105:		
	ELEMENTAIRE ☐ MOYEN SECONDAIRE ☐ OU SUPÉRIEUR		→ 110

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À

108	Je voudrais maintenant que vous me lisiez cette phrase.
	
	MONTREZ LA CARTE À L'ENQUÊTÉE.
	
	SI L'ENQUÊTÉE NE PEUT LIRE TOUTE LA PHRASE, INSISTEZ:
	Pouvez-vous lire une partie de la phrase ?
		NE PEUT PAS LIRE DU TOUT 1
		PEUT SEULEMENT LIRE DES PARTIES
		   DE LA PHRASE 2
		PEUT LIRE TOUTE LA PHRASE 3
		PAS DE CARTE DANS
		   LA LANGUE DE
		   L'ENQUÊTÉE _____ 4
		     (PRÉCISEZ LA LANGUE)
		AVEUGLE/PROBLÈMES DE VUE..... 5	

108A	Avez-vous déjà participé à un programme d'alphabétisation ou à un autre programme qui comprenait l'apprentissage de la lecture et de l'écriture (non compris l'école primaire) ?	OUI .... 1 NON........................... 2	→ 109
108B	Dans quelles langues étaient donnés les programmes d'alphabétisation auxquels vous avez participé ? INSISTER : Aucun autre ? ENREGISTRER TOUT CE QUI EST MENTIONNÉ.	ARABE/MEDERSA .... A WOLOF .... B POULAR .... C SERER. .... D DIOLA .... E MANDINGUE .... F SONINKE. .... G AUTRE _____ X (PRÉCISER LANGUE)	
109	VÉRIFIEZ 108: CODE '2', '3' CODE '1' OU '5' OU '4' ENCERCLÉ ENCERCLÉ		→ 111
110	Lisez-vous un journal, l'Internet ou un magazine au moins une fois par semaine, moins d'une fois par semaine ou pas du tout ?	AU MOINS UNE FOIS PAR SEMAINE 1 MOINS D'UNE FOIS PAR SEMAINE... 2 PAS DU TOUT 3	
111	Écoutez-vous la radio au moins une fois par semaine, moins d'une fois par semaine ou pas du tout ?	AU MOINS UNE FOIS PAR SEMAINE 1 MOINS D'UNE FOIS PAR SEMAINE... 2 PAS DU TOUT 3	
112	Regardez-vous la télévision au moins une fois par semaine, moins d'une fois par semaine ou pas du tout ?	AU MOINS UNE FOIS PAR SEMAINE 1 MOINS D'UNE FOIS PAR SEMAINE... 2 PAS DU TOUT 3	
113	Quelle est votre religion?	MUSULMAN..................... 1 CHRÉTIEN .... 2 ANIMISTE .... 3 SANS RELIGION .... 4 AUTRE _____ 6 (PRÉCISER)	
114A	Etes-vous sénégalaise ?	OUI .... 1 NON 2	→ 115
114	Quelle est votre ethnie?	WOLOF .... 01 POULAR .... 02 SERER .... 03 MANDINGUE .... 04 DIOLA .... 05 SONINKÉ...................... 06 AUTRE _____ 96 (PRÉCISER)	
115	Au cours des 12 derniers mois, combien de fois avez-vous dormi ailleurs que chez vous pour une ou plusieurs nuits ?	NOMBRE DE FOIS .... □□ AUCUNE 00	→ 201
116	Au cours des 12 derniers mois, avez-vous été absent de chez vous pendant plus d'un mois d'affilée ?	OUI .... 1 NON 2	

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
201	Je voudrais maintenant vous poser des questions sur toutes les naissances que vous avez eues durant votre vie. Avez-vous déjà donné naissance à des enfants ?	OUI .... 1 NON 2	→206
202	Avez-vous des fils ou des filles à qui vous avez donné naissance et qui vivent actuellement avec vous ?	OUI .... 1 NON 2	→204
203	Combien de fils vivent avec vous ? Et combien de filles vivent avec vous ? SI AUCUN, INSCRIVEZ '00'.	FILS À LA MAISON .... ⬜ FILLES À LA MAISON ..... ⬜	
204	Avez-vous des fils ou filles à qui vous avez donné naissance qui sont toujours en vie mais qui ne vivent pas avec vous ?	OUI .... 1 NON 2	→206
205	Combien de fils sont vivants mais qui ne vivent pas avec vous ? Combien de filles sont vivantes mais qui ne vivent pas avec vous ? SI AUCUN, INSCRIVEZ '00'.	FILS AILLEURS .... ⬜ FILLES AILLEURS .... ⬜	
206	Avez-vous déjà donné naissance à un garçon ou à une fille qui est né vivant mais qui est décédé par la suite ? SI NON INSISTEZ : Aucun bébé qui a crié ou montré un signe de vie mais qui n'a pas survécu ?	OUI .... 1 NON 2	→208
207	Combien de garçons sont décédés ? Combien de filles sont décédés ? SI AUCUN, INSCRIVEZ '00'.	GARÇONS DÉCÉDÉS ..... ⬜ FILLES DÉCÉDÉES .... ⬜	
208	FAITES LA SOMME DES RÉPONSES À 203, 205, ET 207, ET INSCRIVEZ LE TOTAL. SI AUCUNE, INSCRIVEZ '00'.	TOTAL DES NAISSANCES .... ⬜	
209	VÉRIFIEZ 208: Je voudrais être sûre d'avoir bien compris : vous avez eu au TOTAL ____ naissances durant votre vie. Est-ce bien exact ? OUI ⬜ NON ⬜ → INSISTEZ ET CORRIGEZ 201 À 208 COMME IL SE DOIT		
210	VÉRIFIEZ 208: UNE NAISSANCE OU PLUS ⬜ AUCUNE ⬜		→226

211 Je voudrais maintenant faire la liste de toutes vos naissances, qu'elles soient encore en vie ou non, en commençant par la 1re.
INSCRIVEZ LE NOM DE TOUTES LES NAISSANCES À 212. INSCRIVEZ LES JUMEAUX/TRIPLÉS SUR DES LIGNES SÉPARÉES.
(S'IL Y A PLUS DE 12 NAISSANCES, UTILISEZ UN QUESTIONNAIRE SUPPLÉMENTAIRE, EN COMMENÇANT À LA SECONDE LIGNE).

212	213	214	215	216	217 SI EN VIE :	218 SI EN VIE:	219 SI EN VIE :	220 SI DÉCÉDÉ :	221
Quel nom a été donné à votre (premier enfant/ enfant suivant) ? INSCRIVEZ LE NOM. N° DE L'HIS-TORIQUE DES NAISS-ANCES	(NOM) est-il un garçon ou une fille ?	Parmi ces nais-sances, y avait- il des jumeaux ?	En quel mois et quelle année (NOM) est-il/elle né ? INSISTEZ : Quelle est sa date de naissance ?	(NOM) est-il/elle encore en vie ?	Quel âge avait (NOM) à son dernier anniversaire ? INSCRIVEZ L'ÂGE EN ANNÉES RÉVOLUES.	(NOM) vit-il/elle avec vous ?	INSCRIVEZ LE N° DE LI-GNE DE L'EN-FANT DU TABLEAU MÉNAGE. (INSCRIVEZ 00' SI L'ENFANT N'EST PAS LISTÉ DANS LE MÉNAGE).	Quel âge avait (NOM) quand il/elle est décédé ? SI '1 AN', INSISTEZ : Combien de mois avait (NOM) ? INSCRIVEZ EN JOURS SI MOINS D'1 MOIS ; EN MOIS SI MOINS DE 2 ANS ; OU EN ANNÉES.	Y a-t-il eu d'autres naissances vivantes entre (NOM DE LA NAISSAN-CE PRÉCÉ-DENTE) et (NOM), y compris des enfants qui sont décédés après la nais-sance ?

01	GAR. 1 FILLE 2	SIMP. 1 MULT. 2	MOIS ☐☐ ANNÉE ☐☐☐☐	OUI 1 NON 2 →220	ÂGE EN ANNÉES ☐☐	OUI .. 1 NON 2	N° LIGNE ☐☐ ↓ (NAISSANCE. SUIVANTE)	JOURS 1 ☐☐ MOIS 2 ANNÉES 3 ☐☐	(gris)
02	GAR. 1 FILLE 2	SIMP. 1 MULT. 2	MOIS ☐☐ ANNÉE ☐☐☐☐	OUI 1 NON 2 →220	ÂGE EN ANNÉES ☐☐	OUI .. 1 NON 2	N° LIGNE DE MÉNAGE ☐☐ ↓ (ALLEZ À 221)	JOURS 1 ☐☐ MOIS 2 ANNÉES 3 ☐☐	OUI .... 1 AJOUTEZ↵ NAISS. NON .... 2 NAISS.↵ SUIVANTE
03	GAR. 1 FILLE 2	SIMP. 1 MULT. 2	MOIS ☐☐ ANNÉE ☐☐☐☐	OUI 1 NON 2 →220	ÂGE EN ANNÉES ☐☐	OUI .. 1 NON 2	N° LIGNE DE MÉNAGE ☐☐ ↓ (ALLEZ À 221)	JOURS 1 ☐☐ MOIS 2 ANNÉES 3 ☐☐	OUI .... 1 AJOUTEZ↵ NAISS. NON .... 2 NAISS.↵ SUIVANTE
04	GAR. 1 FILLE 2	SIMP. 1 MULT. 2	MOIS ☐☐ ANNÉE ☐☐☐☐	OUI 1 NON 2 →220	ÂGE EN ANNÉES ☐☐	OUI .. 1 NON 2	N° LIGNE DE MÉNAGE ☐☐ ↓ (ALLEZ À 221)	JOURS 1 ☐☐ MOIS 2 ANNÉES 3 ☐☐	OUI .... 1 AJOUTEZ↵ NAISS. NON .... 2 NAISS.↵ SUIVANTE
05	GAR. 1 FILLE 2	SIMP. 1 MULT. 2	MOIS ☐☐ ANNÉE ☐☐☐☐	OUI 1 NON 2 →220	ÂGE EN ANNÉES ☐☐	OUI .. 1 NON 2	N° LIGNE DE MÉNAGE ☐☐ ↓ (ALLEZ À 221)	JOURS 1 ☐☐ MOIS 2 ANNÉES 3 ☐☐	OUI .... 1 AJOUTEZ↵ NAISS. NON .... 2 NAISS.↵ SUIVANTE
06	GAR. 1 FILLE 2	SIMP. 1 MULT. 2	MOIS ☐☐ ANNÉE ☐☐☐☐	OUI 1 NON 2 →220	ÂGE EN ANNÉES ☐☐	OUI .. 1 NON 2	N° LIGNE DE MÉNAGE ☐☐ ↓ (ALLEZ À 221)	JOURS 1 ☐☐ MOIS 2 ANNÉES 3 ☐☐	OUI .... 1 AJOUTEZ↵ NAISS. NON .... 2 NAISS.↵ SUIVANTE
07	GAR. 1 FILLE 2	SIMP. 1 MULT. 2	MOIS ☐☐ ANNÉE ☐☐☐☐	OUI 1 NON 2 →220	ÂGE EN ANNÉES ☐☐	OUI .. 1 NON 2	N° LIGNE DE MÉNAGE ☐☐ ↓ (ALLEZ À 221)	JOURS 1 ☐☐ MOIS 2 ANNÉES 3 ☐☐	OUI .... 1 AJOUTEZ↵ NAISS. NON .... 2 NAISS.↵ SUIVANTE

212	213	214	215	216	217 SI EN VIE :	218 SI EN VIE :	219 SI EN VIE :	220 SI DÉCÉDÉ :	221
Quel nom a été donné à votre enfant suivant ? INSCRIVEZ LE NOM. N° DE L'HIS-TORIQUE DES NAISS-ANCES	(NOM) est-il un garçon ou une fille ?	Parmi ces nais-sances, y avait-il des jumeaux ?	En quel mois et quelle année est né (NOM) ? INSISTEZ : Quelle est sa date de naissance ?	(NOM) est-il/elle encore en vie ?	Quel âge avait (NOM) à son dernier anniversaire ? INSCRIVEZ L'ÂGE EN ANNÉES RÉVOLUES.	(NOM) vit-il/elle avec vous ?	INSCRIVEZ LE N° DE LI-GNE DE L'EN-FANT DU TABLEAU MÉNAGE. (INSCRIVEZ 00' SI L'ENFANT N'EST PAS LISTÉ DANS LE MÉNAGE).	Quel âge avait (NOM) quand il/elle est décédé ? SI '1 AN', INSISTEZ : Combien de mois avait (NOM) ? INSCRIVEZ EN JOURS SI MOINS D'1 MOIS ; EN MOIS SI MOINS DE 2 ANS ; OU EN ANNÉES.	Y a-t-il eu d'autres naissances vivantes entre (NOM DE LA NAISSAN-CE PRÉCÉ-DENTE) et (NOM), y compris des enfants qui sont décédés après la nais-sance ?
08	GAR. 1 FILLE 2	SIMP. 1 MULT. 2	MOIS ▯▯ ANNÉE ▯▯▯▯	OUI 1 NON 2 ↓ 220	ÂGE EN ANNÉES ▯▯	OUI .. 1 NON 2	N° LIGNE DE MÉNAGE ▯▯ ↓ (ALLEZ À 221)	JOURS 1 ▯▯ MOIS 2 ▯▯ ANNÉES 3 ▯▯	OUI .... 1 AJOUTEZ ↵ NAISS. NON .... 2 NAISS.↵ SUIVANTE
09	GAR. 1 FILLE 2	SIMP. 1 MULT. 2	MOIS ▯▯ ANNÉE ▯▯▯▯	OUI 1 NON 2 ↓ 220	ÂGE EN ANNÉES ▯▯	OUI .. 1 NON 2	N° LIGNE DE MÉNAGE ▯▯ ↓ (ALLEZ À 221)	JOURS 1 ▯▯ MOIS 2 ▯▯ ANNÉES 3 ▯▯	OUI .... 1 AJOUTEZ ↵ NAISS. NON .... 2 NAISS.↵ SUIVANTE
10	GAR. 1 FILLE 2	SIMP. 1 MULT. 2	MOIS ▯▯ ANNÉE ▯▯▯▯	OUI 1 NON 2 ↓ 220	ÂGE EN ANNÉES ▯▯	OUI .. 1 NON 2	N° LIGNE DE MÉNAGE ▯▯ ↓ (ALLEZ À 221)	JOURS 1 ▯▯ MOIS 2 ▯▯ ANNÉES 3 ▯▯	OUI .... 1 AJOUTEZ ↵ NAISS. NON .... 2 NAISS.↵ SUIVANTE
11	GAR. 1 FILLE 2	SIMP. 1 MULT. 2	MOIS ▯▯ ANNÉE ▯▯▯▯	OUI 1 NON 2 ↓ 220	ÂGE EN ANNÉES ▯▯	OUI .. 1 NON 2	N° LIGNE DE MÉNAGE ▯▯ ↓ (ALLEZ À 221)	JOURS 1 ▯▯ MOIS 2 ▯▯ ANNÉES 3 ▯▯	OUI .... 1 AJOUTEZ ↵ NAISS. NON .... 2 NAISS.↵ SUIVANTE
12	GAR. 1 FILLE 2	SIMP. 1 MULT. 2	MOIS ▯▯ ANNÉE ▯▯▯▯	OUI 1 NON 2 ↓ 220	ÂGE EN ANNÉES ▯▯	OUI .. 1 NON 2	N° LIGNE DE MÉNAGE ▯▯ ↓ (ALLEZ À 221)	JOURS 1 ▯▯ MOIS 2 ▯▯ ANNÉES 3 ▯▯	OUI .... 1 AJOUTEZ ↵ NAISS. NON .... 2 NAISS.↵ SUIVANTE

222	Avez-vous eu d'autres naissances vivantes depuis la naissance de (NOM DE LA DERNIÈRE NAISSANCE) ? SI OUI, INSCRIVEZ LA/LES NAISSANCE DANS LE TABLEAU.	OUI .... 1 NON 2

223 COMPAREZ 208 AVEC LE NOMBRE DE NAISSANCES ENREGISTRÉES DANS LE TABLEAU CI-DESSUS ET COCHEZ :

NOMBRES SONT ÉGAUX ▯↓   NOMBRES SONT DIFFÉRENTS ▯ → (INSISTEZ ET CORRIGEZ)

224 VÉRIFIEZ 215 :

INSCRIVEZ LE NOMBRE DE NAISSANCES EN 2005 OU PLUS TARD.

NOMBRE DE NAISSANCES .... ▯

AUCUNE .... 0 → 225

224A VÉRIFIEZ 217 : AGE ACTUEL

SI AGE ACTUEL DU PLUS JEUNE ENFANT ALLANT DE 3 A 5 ANS : ▯↓   AUTRES CAS: ▯ → 225

IDENTIFIEZ CET ENFANT, INSCRIVEZ SON NOM (A Q212): _____

(SI DES JUMEAUX, PRENEZ CELUI ENREGISTRE EN DERNIER).

224B	Qui participe le plus souvent à l'encadrement de (NOM A 224A) par l'animation d'activités d'éveil ?	PÈRE .... 1 MERE .... 2 AUTRE MEMBRE DU MENAGE .... 3 AUCUN MEMBRE DU MENAGE ... . 4 NE SAIT PAS 8	→225

224C	En quoi consistent ces activités d'éveil ?	LIRE DES LIVRES OU REGARDER
		  DES LIVRES ILLUSTF................. A
		RACONTER DES HISTOIRE .... B
		CHANTER DES CHANSONS
		  Y COMPRIS DES BERCEUSES C
		AMENER EN PROMENADE ...... D
		JOUER AVEC LUI .... E
		PASSER DU TEMPS A COMPTER/
		  DESSINER/NOMMER DES OBJETS ... F
		AUTRE _____ X
		         (PRÉCISEZ)	

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
225	**C** POUR CHAQUE NAISSANCE DEPUIS JANVIER 2005 , INSCRIVEZ 'N' AU MOIS DE NAISSANCE DU CALENDRIER. INSCRIVEZ LE NOM DE L'ENFANT À GAUCHE DU CODE 'N'. POUR CHAQUE NAISSANCE, DEMANDEZ LE NOMBRE DE MOIS QUE LA GROSSESSE A DURÉ ET INSCRIVEZ 'G' À CHACUN DES MOIS PRÉCÉDENTS SELON LA DURÉE DE LA GROSSESSE. (NOTE : LE NOMBRE DE 'G' DOIT ÊTRE INFÉRIEUR DE 1 AU NOMBRE DE MOIS QUE LA GROSSESSE A DURÉ).		
226	Êtes-vous actuellement enceinte ?	OUI .... 1 NON .... 2 PAS SÛRE 8	→ 230
227	Depuis combien de mois êtes-vous enceinte ? ENREGISTREZ LE NOMBRE DE MOIS RÉVOLUS. **C** INSCRIVEZ 'G' DANS LE CALENDRIER, EN COMMENÇANT PAR LE MOIS DE L'ENQUÊTE ET POUR LE NOMBRE TOTAL DE MOIS RÉVOLUS.	MOIS .... ☐☐	
228	Quand vous êtes tombée enceinte, vouliez-vous être enceinte à ce moment-là ?	OUI .... 1 NON 2	→230
229	Est-ce que vous vouliez avoir un enfant plus tard ou est-ce que vous ne vouliez pas/plus d'enfant ?	PLUS TARD .... 1 NE PAS/NE PLUS AVOIR D'ENFANT .. 2	
230	Avez-vous déjà eu une grossesse qui s'est terminée par une fausse-couche, un avortement ou un mort-né ?	OUI .... 1 NON 2	→ 238
231	Quand la dernière grossesse de ce genre s'est-elle terminée ?	MOIS .... ☐☐ ANNÉE............ ☐☐☐☐	
232	VÉRIFIEZ 231 : DERNIÈRE GROSSESSE TERMINÉE EN JAN. 2005 OU PLUS TARD ☐ DERNIÈRE GROSSESSE TERMINÉE AVANT JAN. 2005 ☐		→ 238
233	De combien de mois étiez-vous enceinte quand la dernière grossesse de ce genre s'est terminée ? **C** INSCRIVEZ LE NOMBRE DE MOIS RÉVOLUS. INSCRIVEZ 'F' DANS LE CALENDRIER AU MOIS OÙ LA GROSSESSE S'EST TERMINÉE ET 'G' POUR LE NOMBRE RESTANT DE MOIS RÉVOLUS.	MOIS .... ☐☐	
234	Depuis janvier 2005 , avez-vous eu d'autres grossesses qui n'ont pas abouti à une naissance vivante ?	OUI .... 1 NON 2	→ 236
235	**C** DEMANDEZ LA DATE ET LA DURÉE DE LA GROSSESSE POUR CHAQUE GROSSESSE PRÉCÉDENTE QUI NE S'EST PAS TERMINÉE PAR UNE NAISSANCE VIVANTE, EN REMONTANT JUSQU'À JANVIER 2005. INSCRIVEZ 'F' DANS LE CALENDRIER AU MOIS OÙ CHAQUE GROSSESSE S'EST TERMINÉE ET 'G' POUR LE NOMBRE RESTANT DE MOIS RÉVOLUS.		
236	Avez-vous eu une grossesse qui a pris fin avant 2005 et qui s'est terminée par une fausse-couche, un avortement ou un mort-né ?	OUI .... 1 NON 2	→ 238
237	Quand la dernière grossesse de ce genre s'est-elle terminée avant 2005 ?	MOIS .... ☐☐ ANNÉE............ ☐☐☐☐	

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
238	Quand vos dernières règles ont-elles commencé ? (INSCRIVEZ LA DATE SI ELLE EST DONNÉE)	IL Y A ..... JOURS ...... 1 IL Y A ......SEMAINES ... 2 IL Y A ....MOIS .... 3 IL Y A ....ANNÉES ... 4 EN MÉNOPAUSE/ A EU UNE HYSTÉRECTOMIE ... 994 AVANT LA DERNIÈRE NAISSANCE 995 JAMAIS EU DE RÈGLES 996	
239	Entre la période des règles et les règles suivantes, est-ce qu'il y a une période où les femmes ont plus de chances de tomber enceintes ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	→ 301
240	Est-ce que cette période se situe juste avant que les règles ne commencent, pendant la période des règles, juste après que les règles soient terminées ou bien au milieu de deux périodes de règles ?	JUSTE AVANT QUE LES RÈGLES COMMENCENT .... 1 PENDANT LES RÈGLES .... 2 JUSTE APRÈS LA FIN DES RÈGLES .... 3 AU MILIEU, ENTRE DEUX PÉRIODES .... 4 AUTRE _____ 6 (PRÉCISEZ) NE SAIT PAS 8	

301	Je voudrais maintenant que nous parlions de planification familiale, c'est-à-dire les différents moyens ou méthodes qu'un couple peut utiliser pour retarder ou éviter une grossesse. De quelles MÉTHODES avez-vous déjà entendu parler ?		
01	**Stérilisation féminine.** INSISTEZ : Les femmes peuvent avoir une opération pour ne plus avoir d'enfants.	OUI .... 1 NON 2	
02	**Stérilisation masculine.** INSISTEZ : Les hommes peuvent avoir une opération pour ne plus avoir d'enfants.	OUI .... 1 NON 2	
03	**DIU.** INSISTEZ : Les femmes peuvent avoir un stérilet qu'un médecin, une infirmière ou une sage femme leur place dans l'utérus.	OUI .... 1 NON 2	
04	**Injectables.** INSISTEZ : Les femmes peuvent avoir une injection faite par du personnel de santé qui les empêche de tomber enceinte pendant un mois ou plus.	OUI .... 1 NON 2	
05	**Implants.** INSISTEZ : Les femmes peuvent se faire insérer par un médecin ou une infirmière un batonnet ou plus sous la peau du haut du bras pour les empêcher de tomber enceinte, pendant une année ou plus.	OUI .... 1 NON 2	
06	**Pilule.** INSISTEZ : Les femmes peuvent prendre une pilule chaque jour pour éviter de tomber enceinte.	OUI .... 1 NON 2	
07	**Condom.** INSISTEZ : Les hommes peuvent mettre une capote en caoutchouc sur leur pénis avant les rapports sexuels.	OUI .... 1 NON 2	
08	**Condom féminin.** INSISTEZ : Les femmes peuvent placer un fourreau dans leur vagin avant les rapports sexuels.	OUI .... 1 NON 2	
09	**MÉTHODE DE L'ALLAITEMENT MATERNEL ET DE L'AMÉNORRHÉE (MAMA)** Jusqu'à 6 mois après une naissance, une femme peut utiliser une méthode qui nécessite d'allaiter souvent, jour et nuit, et que ses règles ne soient pas revenues.	OUI .... 1 NON 2	
10	**Méthode du rythme.** INSISTEZ : Les femmes peuvent éviter une grossesse en évitant d'avoir des rapports sexuels les jours du mois où elles ont le plus de chances de tomber enceintes.	OUI .... 1 NON 2	
11	**Retrait.** INSISTEZ : Les hommes peuvent faire attention et se retirer avant l'éjaculation.	OUI .... 1 NON 2	
12	**Pilule du lendemain.** INSISTEZ : Les femmes peuvent prendre pendant trois jours après des rapports sexuels non protégés des pilules spéciales qui les empêchent de tomber enceintes.	OUI .... 1 NON 2	
13	Avez-vous entendu parler d'autres moyens ou méthodes qu'une femme ou un homme peut utiliser pour éviter une grossesse ?	OUI .... 1 _____ (PRÉCISEZ) _____ (PRÉCISEZ) NON 2	
302	VÉRIFIEZ 226 : PAS ENCEINTE □ ENCEINTE □ ─────────────────────► OU PAS SÛRE ↓		311
303	Faites-vous actuellement quelque chose ou utilisez-vous une méthode pour retarder ou éviter une grossesse ?	OUI .... 1 NON 2	► 311

N°.	QUESTIONS ET FILTRES	CODES	PASSEZ À
304	Quelle méthode utilisez-vous ? ENCERCLEZ TOUT CE QUI EST MENTIONNÉ. SI PLUS D'UNE MÉTHODE EST MENTIONNÉE, SUIVEZ LES INSTRUCTION DE PASSAGE DE LA PREMIÈRE MÉTHODE DE LA LISTE.	STÉRILISATION FÉMININE .... A STÉRILISATION MASCULINE ...... B DIU .... C INJECTABLES .... D IMPLANTS .... E PILULE .... F CONDOM .... G CONDOM FÉMININ .... H DIAPHRAGME .... I MOUSSE/GELÉE .... J MAMA .... K MÉTHODE DU RYTHME .... L RETRAIT .... M AUTRE MÉTHODE MODERNE ... X AUTRE MÉTHODE TRADITION. .... Y	→ 307 → 308A 308A
305	Quel est le nom de la marque des pilules que vous utilisez en ce moment ? SI LA MARQUE N'EST PAS CONNUE, DEMANDEZ A VOIR LA BOITE	PLANYL .... 01 PLANOR .... 02 OVRETTE .... 03 LO FEMENAL .... 04 MINIDRIL .... 05 MINIPHASE .... 06 STEDIRIL .... 07 MICROVAL .... 08 ADEPAL .... 09 MICROGYNON .... 10 NÉOGYNON .... 11 DIANE 35 .... 12 TRINORDIOL .... 13 SECURIL .... 14 AUTRE _____ 96 (PRECISER) NSP 98	→ 308A
306	Quelle est la marque de condom que vous utilisez actuellement ? SI LA MARQUE N'EST PAS CONNUE, DEMANDEZ À VOIR LA BOITE.	PROTEC .... 01 FAGAROU .... 02 VISA .... 03 MANIX .... 04 PRESA.............................. 05 KAMA SUTRA .... 06 PROTEX .... 07 INNOTEX .... 08 CASANOVA .... 09 INTIMY.............................. 10 CONTEX .... 11 STAR .... 12 TROJAM .... 13 NSP 98	

307	Dans quel établissement a été effectuée la stérilisation ?
	
	INSISTEZ POUR DÉTERMINEZ LE TYPE D'ENDROIT.
	
	SI VOUS NE POUVEZ PAS DÉTERMINEZ SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT.
	
	_____
	(NOM DE L'ENDROIT)
		SECTEUR PUBLIC
		  HÔPITAL DU GOUVERNEMENT 11
		  CENTRE DE SANTÉ DU GOUV. 12
		  CENTRE DE PF 13
		  STRAT. AVANCÉE/EQU. MOBILE 14
		
		  AUTRE PUBLIC _____ 16
		            (PRÉCISER)
		
		SECTEUR MÉDICAL PRIVÉ
		  HÔPITAL/CLINIQUE/CABINET ...21
		  MÉDECIN PRIVÉ 22
		  AUTRE PRIVÉ
		    MÉDICAL _____ 26
		          (PRÉCISER)
		
		AUTRE _____ 96
		       (PRÉCISER)
		NE SAIT PAS 98	

N⁰.	QUESTIONS ET FILTRES	CODES	PASSEZ À
308	En quel mois et en quelle année la stérilisation a t-elle été effectuée ?		
308A	Depuis quel mois et quelle année utilisez-vous (MÉTHODE ACTUELLE) sans interruption ? INSISTEZ : Depuis combien de temps utilisez-vous (MÉTHODE ACTUELLE) sans interruption ?	MOIS .... ANNÉE	

| 309 | VÉRIFIEZ 308/308A, 215 ET 231 :

AUCUNE NAISSANCE OU GROSSESSE TERMINÉE APRÈS MOIS ET ANNÉE DE DÉBUT D'UTILISATION DE LA CONTRACEPTION À 308/308A

RETOURNEZ À 308/308A, INSISTEZ ET INSCRIVEZ LE MOIS ET L'ANNÉE DE DÉBUT D'UTILISATION CONTINUE DE LA MÉTHODE ACTUELLE (QUI DOIT ÊTRE APRÈS LA DERNIÈRE NAISSANCE OU LA FIN DE LA DERNIÈRE GROSSESSE). | OUI ☐   NON ☐ | |

| 310 | VÉRIFIEZ 308/308A :

L'ANNÉE EST 2005 OU PLUS TARD ☐

C INSCRIVEZ DANS LE CALENDRIER LE CODE DE LA MÉTHODE UTILISÉE LE MOIS DE L'INTERVIEW ET POUR CHAQUE MOIS JUSQU'À LA DATE DE DÉBUT D'UTILISATION.

L'ANNÉE EST 2004 OU AVANT ☐

C INSCRIVEZ DANS LE CALENDRIER LE CODE DE LA MÉTHODE UTILISÉE LE MOIS DE L'INTERVIEW ET POUR CHAQUE MOIS JUSQU'À JANVIER 2005.

PUIS PASSER À ⟶ 322 | | |

| 311 | Je voudrais maintenant vous poser des questions sur les périodes où, durant ces denières années, vous ou votre partenaire, avez utilisé une méthode pour éviter une grossesse.

UTILISEZ LE CALENDRIER POUR VOUS ASSUREZ DES PÉRIODES D'UTILISATION ET DE NON UTILISATION, EN COMMENÇANT PAR L'UTILISATION LA PLUS RÉCENTE, EN REMONTANT À JANVIER 2005 . UTILISEZ LE NOM DES ENFANTS, LES DATES D'ANNIVERSAIRE ET LES PÉRIODES DE GROSSESSE COMME POINT DE RÉFÉRENCE.

C À LA COLONNE 1, INSCRIVEZ LE CODE D'UTILISATION DE LA MÉTHODE OU '0' POUR NON UTILISATION À CHAQUE MOIS EN BLANC.
QUESTIONS ILLUSTRATIVES :
   *   Quand avez-vous utilisé une méthode pour la dernière fois? Quelle était cette méthode ?
   *   Quand avez-vous commencé à utiliser cette méthode? Combien de temps après la naissance de (NOM) ?

   *   Pendant combien de temps avez-vous ensuite utilisé cette méthode ?

À LA COLONNE 2, INSCRIVEZ LES CODES DE DISCONTINUATION À CÔTÉ DU DERNIER MOIS D'UTILISATION. LES NUMÉROS DE CODES À LA COLONNE 2 DOIVENT ÊTRE LES MÊMES QUE CEUX UTILISÉS POUR L'INTERRUPTION DE LA MÉTHODE À LA COLONNE 1.

DEMANDEZ POURQUOI ELLE A ARRÊTÉ D'UTILISER LA MÉTHODE. SI L'INTERRUPTION A ÉTÉ SUIVIE D'UNE GROSSESSE, DEMANDEZ SI ELLE EST TOMBÉE ENCEINTE SANS LE VOULOIR ALORS QU'ELLE UTILISAIT LA MÉTHODE OU SI ELLE A DÉLIBÉRÉMENT ARRÊTÉ POUR ÊTRE ENCEINTE.
QUESTIONS ILLUSTRATIVES :
   *   Pourquoi avez-vous arrêté d'utiliser la (MÉTHODE) ? Êtes-vous tombée enceinte pendant que vous utilisiez la (MÉTHODE), avez-vous interrompu pour être enceinte, ou avez-vous arrêté pour d'autres raisons ?

   *   SI ELLE A DÉLIBÉRÉMENT ARRÊTÉ POUR ÊTRE ENCEINTE, DEMANDEZ : Combien de mois cela a-t-il pris pour que soyez enceinte après avoir arrêté d'utiliser (MÉTHODE) ? ET INSCRIVEZ '0' À CHACUN DE CES MOIS À LA COLONNE 1. | | |

N⁰.	QUESTIONS ET FILTRES	CODES	PASSEZ À

| 312 | VÉRIFIEZ LE CALENDRIER POUR L'UTILISATION D'UNE MÉTHODE À N'IMPORTE QUEL MOIS.

AUCUNE MÉTHODE UTILISÉE ☐   UNE MÉTHODE UTILISÉE ☐ ───────────────→ | | 314 |

| 313 | Avez-vous déjà utilisé quelque chose ou essayé de n'importe quelle manière de retarder ou d'éviter une grossesse ? | OUI 1
NON .... 2 | → 324 |

| 314 | VÉRIFIEZ 304 :

ENCERCLEZ LE CODE DE LA MÉTHODE :

SI PLUS D'UN CODE EST ENCERCLÉ À 304,
ENCERCLEZ LE CODE DE LA PREMIÈRE DES MÉTHODES DE LA LISTE. | AUCUN CODE ENCERCLÉ 00
STÉRILISATION FÉMININE 01
STÉRILISATION MASCULINE 02
DIU 03
INJECTABLES 04
IMPLANTS 05
PILULE 06
CONDOM 07
CONDOM FÉMININ 08
DIAPHRAGME 09
MOUSSE/GELÉE 10
MAMA 11
MÉTHODE DU RYTHME 12
RETRAIT 13
AUTRE MÉTHODE MODERNE 95
AUTRE MÉTHODE TRADITION. ....96 | → 324
→ 317A
→ 326

→ 315A

→ 326 |

| 315 | Vous avez commencé à utiliser (MÉTHODE ACTUELLE) en (DATE de Q.308/308A). Où l'avez-vous obtenue à ce moment-là ? | SECTEUR PUBLIC
    HÔPITAL GOUV. 11
    CENTRE SANTÉ GOUV. 12
    POSTE SANTÉ 13
    CENTRE DE PF GOUV. 14
    MATERNITÉ RURALE 15
    CASE DE SANTÉ 16
    PHARMACIE COMMUNAUTAIRE 17
    STRAT. AVANCÉE/EQU. MOBILE . 18
    AUTRE PUBLIC
    _____ 19
                  (PRÉCISEZ) | |
| 315A | Où avez-vous appris comment utiliser la méthode du rythme/MAMA ?

INSISTEZ POUR DÉTERMINER LE TYPE D'ENDROIT.

SI VOUS NE POUVEZ PAS DÉTERMINEZ SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT.

_____
(NOM DE L'ENDROIT) | SECTEUR MÉDICAL PRIVÉ
    HÔPITAL/CLINIQUE/CABINET
        PRIVÉ 22
    PHARMACIE 23
    MÉDECIN PRIVÉ 24
    DISPENSAIRE RELIG 25

    AUTRE MEDICAL PRIVÉ   26
    _____
                  (PRÉCISEZ)

AUTRE SOURCE
    BOUTIQUE 31
    ÉGLISE 32
    PARENTS/AMIS 33
    BAR 34

AUTRE _____ 96
                  (PRÉCISEZ) | |

N⁰.	QUESTIONS ET FILTRES	CODES	PASSEZ À

| 316 | VÉRIFIEZ 304 :

ENCERCLEZ LE CODE DE LA MÉTHODE :

S'IL Y A PLUS D'UN CODE ENCERCLÉ À 304,
ENCERCLEZ LE CODE DE LA PREMIÈRE DES MÉTHODES
DE LA LISTE. | DIU 03
INJECTABLES 04
IMPLANTS 05
PILULE 06
CONDOM 07
CONDOM FÉMININ 08
DIAPHRAGME 09
MOUSSE/GELÉE 10
MAMA 11
MÉTHODE DU RYTHME .... 12 | → 323

→ 320

→ 326
→ 326 |

| 317 | À ce moment-là, vous a-t-on parlé d'effets secondaires ou de problèmes que vous pourriez avoir en utilisant cette méthode ? | OUI 1
NON .... 2 | → 319 |
| 317A | Quand vous avez été stérilisée, vous a-t-on parlé d'effets secondaires ou de problèmes que vous pourriez avoir à cause de la méthode ? | | |

| 318 | Est-ce qu'un agent de santé ou de planification familiale vous a parlé des effets secondaires ou des problèmes que vous pourriez avoir à cause de l'utilisation de la méthode ? | OUI 1
NON .... 2 | → 320 |

| 319 | Vous a-t-on dit ce qu'il fallait faire si vous aviez ces effets secondaires ou ces problèmes ? | OUI 1
NON .... 2 | |

| 320 | VÉRIFIEZ 317 :

CODE '1'   CODE '1'
ENCERCLÉ   NON
                ENCERCLÉ

À ce moment-là, vous a-t-on   Quand vous avez obtenu (MÉTHODE
parlé d'autres méthodes de   ACTUELLE DE 314) de (ENDROIT DE
planification familiale que vous 307 OU 315), vous a-t-on parlé d'autres
pourriez utiliser ?   méthodes de PF que vous pouviez
                    utiliser ? | OUI 1
NON .... 2 | → 322 |

| 321 | Est-ce qu'un agent de santé ou de planification familiale vous a parlé d'autres méthodes de planification familiale que vous pouviez utiliser ? | OUI 1
NON .... 2 | |

| 322 | VÉRIFIEZ 304 :

ENCERCLEZ LE CODE DE LA MÉTHODE :

S'IL Y A PLUS D'UN CODE ENCERCLÉ À 304,
ENCERCLEZ LE CODE DE LA PREMIÈRE DES
MÉTHODES DE LA LISTE. | STÉRILISATION FÉMININE 01
STÉRILISATION MASCULINE 02
DIU 03
INJECTABLES 04
IMPLANTS 05
PILULE 06
CONDOM 07
CONDOM FÉMININ 08
DIAPHRAGME 09
MOUSSE/GELÉE 10
MAMA 11
MÉTHODE DU RYTHME 12
RETRAIT 13
AUTRE MÉTHODE MODERNE 95
AUTRE MÉTHODE TRADITION. ....96 | → 326

→ 326

→ 326 |

N°.	QUESTIONS ET FILTRES	CODES	PASSEZ À

323	Où avez-vous obtenu (MÉTHODE ACTUELLE) la dernière fois ?
	
	INSISTEZ POUR DÉTERMINER LE TYPE D'ENDROIT.
	
	SI VOUS NE POUVEZ PAS DÉTERMINER SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT.
	
	_____
	(NOM DE L'ENDROIT)
		SECTEUR PUBLIC
		  HÔPITAL GOUV. 11
		  CENTRE SANTÉ GOUV. 12
		  POSTE SANTÉ 13
		  CENTRE DE PF GOUV. 14
		  MATERNITÉ RURALE 15
		  CASE DE SANTÉ 16
		  PHARMACIE COMMUNAUTAIRE 17
		  STRAT. AVANCÉE/EQU. MOBILE . 18
		
		  AUTRE PUBLIC 19
		    _____
		      (PRÉCISER)
		
		SECTEUR MÉDICAL PRIVÉ
		  HÔPITAL/CLINIQUE/CABINET 21
		    PRIVÉ 22
		  PHARMACIE 23
		  MÉDECIN PRIVÉ 24
		  DISPENSAIRE RELIG 25
		
		  AUTRE MEDICAL PRIVÉ 26
		    _____
		      (PRÉCISER)
		
		AUTRE SOURCE
		  BOUTIQUE 31
		  ÉGLISE 32
		  PARENTS/AMIS 33
		  BAR 34
		
		AUTRE _____ 96
		      (PRÉCISER)
			326

324	Connaissez-vous un endroit où vous pouvez vous procurer une méthode de planification familiale ?	OUI .... 1 NON 2	326

325	Où est cet endroit ?
	
	Pas d'autre endroit ?
	
	INSISTEZ POUR DÉTERMINER CHAQUE TYPE D'ENDROIT.
	
	SI VOUS NE POUVEZ DÉTERMINER SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT.
	
	_____
	(NOM DE L'ENDROIT/
	NOM DES ENDROITS)
		SECTEUR PUBLIC
		  HÔPITAL GOUV. .... A
		  CENTRE SANTÉ GOUV. .... B
		  POSTE SANTÉ C
		  CENTRE DE PF GOUV. .... D
		  MATERNITÉ RURALE .... E
		  CASE DE SANTÉ .... F
		  PHARMACIE COMMUNAUTAIRE .... G
		  STRAT. AVANCÉE/EQU. MOBILE . H
		  AUTRE PUBLIC I
		    _____
		      (PRÉCISEZ)
		
		SECTEUR MÉDICAL PRIVÉ
		  HÔPITAL/CLINIQUE/CABINET
		    PRIVÉ .... J
		  PHARMACIE .... K
		  MÉDECIN PRIVÉ L
		  DISPENSAIRE RELIG .... M
		
		  AUTRE MEDICAL PRIVÉ N
		    _____
		      (PRÉCISEZ)
		
		AUTRE SOURCE
		  BOUTIQUE .... O
		  ÉGLISE .... P
		  PARENTS/AMIS .... Q
		  BAR . ... R
		
		AUTRE _____ X
		      (PRÉCISEZ)	

N°.	QUESTIONS ET FILTRES	CODES	PASSEZ À
326	Au cours des12 derniers mois, est-ce que vous avez reçu la visite d'un agent de santé qui vous a parlé de planification familiale ?	OUI .... 1 NON 2	
327	Au cours des 12 derniers mois, êtes-vous allée dans un établissement de santé pour recevoir des soins pour vous-même (ou pour vos enfants) ?	OUI .... 1 NON 2	⟶ 401
328	Est-ce qu'un membre du personnel de l'établissement de santé vous a parlé de méthodes de planification familiale ?	OUI .... 1 NON 2	

401	VÉRIFIEZ 224 :			
	UNE NAISSANCE OU PLUS EN 2005 OU PLUS TARD ☐	AUCUNE NAISSANCE EN 2005 OU PLUS TARD ☐ ────────→ 556		

| 402 | VÉRIFIEZ 215 : INSCRIVEZ DANS LE TABLEAU LE NUMÉRO DE LIGNE DE L'HISTORIQUE DES NAISSANCES, LE NOM ET L'ÉTAT DE SURVIE DE CHAQUE NAISSANCE EN 2005 OU PLUS TARD. POSEZ LES QUESTIONS SUR TOUTES CES NAISSANCES, EN COMMENÇANT PAR LA DERNIÈRE NAISSANCE. (S'IL Y A PLUS DE 3 NAIS-SANCES, UTILISEZ LES 2 DERNIÈRES COLONNES DE QUESTIONNAIRES SUPPLÉMENTAIRES). Je voudrais maintenant vous poser des questions sur vos enfants nés dans les cinq dernières années. (Nous parlerons d'un enfant à la fois). | | | |

403	NUMÉRO DE LIGNE DE 212 DANS L'HISTORIQUE DES NAISSANCES.	DERNIÈRE NAISSANCE NUMÉRO HISTORIQUE NAIS. ☐☐	AVANT-DERNIÈRE NAIS. NUMÉRO HISTORIQUE NAIS. ☐☐	AVANT-AVANT DER. NAIS. NUMÉRO HISTORIQUE NAIS. ☐☐
404	À PARTIR DES QUESTIONS 212 ET 216	NOM _____ VIVANT ☐ DÉCÉDÉ ☐	NOM _____ VIVANT ☐ DÉCÉDÉ ☐	NOM _____ VIVANT ☐ DÉCÉDÉ ☐
405	Quand vous êtes tombée enceinte de (NOM), vouliez-vous être enceinte à ce moment-là ?	OUI . . . . 1 (PASSEZ À 408)◄─┘ NON 2	OUI . . . . 1 (PASSEZ À 430)◄─┘ NON 2	OUI . . . . 1 (PASSEZ À 430)◄─┘ NON 2
406	Est-ce que vous vouliez avoir un enfant plus tard ou est-ce que vous ne vouliez pas (ou plus) d'enfant ?	PLUS TARD . . . . . 1 PLUS D'ENFANT 2 (PASSEZ À 408)◄─┘	PLUS TARD . . . . . 1 PLUS D'ENFANT 2 (PASSEZ À 430)◄─┘	PLUS TARD . . . . . 1 PLUS D'ENFANT 2 (PASSEZ À 430)◄─┘
407	Combien de temps de plus vouliez-vous attendre ?	MOIS . . . 1 ☐☐ ANNÉES . . 2 ☐☐ NE SAIT PAS . . . 998	MOIS . . . 1 ☐☐ ANNÉES . . 2 ☐☐ NE SAIT PAS . . . 998	MOIS . . . 1 ☐☐ ANNÉES . . 2 ☐☐ NE SAIT PAS . . . 998
408	Avez-vous consulté quelqu'un pour des soins prénatals pour cette grossesse ?	OUI . . . . 1 NON . . . . 2 (PASSEZ À 415)◄─┘		
409	Qui avez-vous consulté ? Quelqu'un d'autre ? INSISTEZ POUR DÉTERMINER LE TYPE DE PERSONNE ET ENREGISTREZ TOUT CE QUI EST MENTIONNÉ.	PROF. DE LA SANTÉ MÉDECIN . . . . . A SAGE-FEMME B INFIRMIÈRE/ICP C AUTRE PERSONEL MATRONNE D ACCOUCHEUSE TRADITION . . . E AUTRE _____ X (PRÉCISEZ)		

N°	QUESTIONS ET FILTRES	DERNIÈRE NAISSANCE NOM _____	AVANT-DERNIÈRE NAISSANCE NOM _____	AVANT-AVANT DERNIÈRE NAISSANCE NOM _____

410	Où avez-vous reçu les soins prénatals pour cette naissance ?
	
	Pas d'autre endroit ?
	
	INSISTEZ POUR DÉTERMINER LES TYPES D'ENDROIT.
	
	SI VOUS NE POUVEZ DÉTER-MINER SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT.
	
	_____
	(NOM DE L'ENDROIT/
	NOM DES ENDROITS)
		MAISON
		  VOTRE MAISON A
		  AUTRE MAISON B
		
		SECTEUR PUBLIQUE
		  HÔPITAL GOUVT. C
		  CENTRE DE SANTÉ/
		    MATERNITÉ... D
		  POSTE DE SANTÉ
		    GOUVT. ..... E
		  AUTRE SECTEUR
		    PUBLIC
		              F
		    (PRÉCISEZ)
		
		SECTEUR MÉDICAL
		PRIVÉ
		  HÔPITAL/CLINIQUE
		    PRIVÉ .... G
		  AUTRE SECTEUR
		    MED. PRIVÉ
		              H
		    (PRÉCISEZ)
		
		AUTRE_____ X
		    (PRÉCISEZ)		

411	De combien de mois étiez-vous enceinte quand vous avez eu votre première consultation prénatale pour cette grossesse ?	MOIS ... ☐☐ NE SAIT PAS 98		
412	Durant cette grossesse, combien de fois avez-vous eu de consultation prénatale ?	NOMBRE DE FOIS ☐☐ NE SAIT PAS 98		
413	Est-ce qu'au cours des visites prénatales durant cette grossesse, les examens suivants ont été effectués au moins une fois : Vous a-t-on pris la tension ? Vous a-t-on prélevé de l'urine ? Vous a-t-on prélevé du sang ?	OUI NON TENSION... 1 2 URINE ..... 1 2 SANG ... 1 2		
414	Au cours de l'une de ces visites prénatales, vous a-t-on parlé de choses qui peuvent être le signe de problèmes de la grossesse ?	OUI .... 1 NON .... 2 NE SAIT PAS 8		
415	Durant cette grossesse, vous a-t-on fait une injection dans le bras pour éviter au bébé d'avoir le tétanos, c'est-à-dire des convulsions après la naissance ?	OUI .... 1 NON .... 2 (PASSEZ À 418) ◄─┤ NE SAIT PAS 8		

N°	QUESTIONS ET FILTRES	DERNIÈRE NAISSANCE NOM _____	AVANT-DERNIÈRE NAISSANCE NOM _____	AVANT-AVANT DERNIÈRE NAISSANCE NOM _____
416	Durant cette grossesse,combien de fois vous a-t-on fait une injection contre le tétanos ?	FOIS .... [ ] NE SAIT PAS 8		
417	VÉRIFIEZ 416 :	2 FOIS OU AUTRE PLUS [ ] [ ] ↓ (PASSEZ À 421) ↓		
418	À n'importe quel moment avant cette grossesse, vous a-t-on fait des injections contre le tétanos ?	OUI .... 1 NON .... 2 (PASSEZ À 421) ←┐ NE SAIT PAS ... 8		
419	Avant cette grossesse, combien de fois avez-vous eu des injections contre le tétanos ? SI 7 FOIS OU PLUS, INSCRIVEZ '7'.	FOIS .... [ ] NE SAIT PAS 8		
420	Avant cette grossesse, il y a combien d'années que vous avez reçu la dernière injection contre le tétanos ?	IL Y A ANNÉES ... [ ][ ]		
421	Durant cette grossesse, vous a-t-on donné ou avez-vous acheté des comprimés de fer ou du sirop contenant du fer ? MONTREZ COMP./SIROP.	OUI .... 1 NON .... 2 (PASSEZ À 423) ←┐ NE SAIT PAS 8		
422	Pendant toute la grossesse, pendant combien de jours avez-vous pris des comprimés ou du sirop ? SI LA RÉPONSE N'EST PAS NUMÉRIQUE, INSISTEZ POUR OBTENIR UN NOMBRE APPROXIMATIF DE JOURS.	JOURS [ ][ ][ ] NE SAIT PAS ... 998		
423	Durant cette grossesse, avez-vous pris des médicaments contre les vers intestinaux ?	OUI .... 1 NON .... 2 NE SAIT PAS 8		
424	Durant cette grossesse, avez-vous pris des médicaments pour éviter le paludisme ?	OUI .... 1 NON .... 2 (PASSEZ À 430) ←┐ NE SAIT PAS 8		
425	Quels médicaments avez-vous pris ? ENREGISTREZ TOUT CE QUI EST MENTIONNÉ. SI LE TYPE DE MÉDICAMENT N'EST PAS DÉTERMINÉ, MONTREZ DES ANTIPALUDÉENS COURANTS À L'ENQUÊTÉE.	SP/FANSIDAR ... A ACT ... B AUTRE _____ X (PRÉCISEZ) NE SAIT PAS .... Z		
426	VÉRIFIEZ 425 : SP/FANSIDAR PRIS À TITRE PRÉVENTIF CONTRE LE PALUDISME.	CODE 'A' CODE [ ] ENCERCLÉ A' NON [ ] ENCERCLÉ ↓ (PASSEZ À 430) ←		

N°	QUESTIONS ET FILTRES	DERNIÈRE NAISSANCE NOM _____	AVANT-DERNIÈRE NAISSANCE NOM _____	AVANT-AVANT DERNIÈRE NAISSANCE NOM _____
427	Durant cette grossesse, combien de fois avez-vous pris de la (SP/Fansidar) ?	FOIS ..... ☐☐		
428	VÉRIFIEZ 409 : SOINS PRÉNATALS PAR DU PERSONNEL DE SANTÉ DURANT CETTE GROSSESSE.	CODE 'A', AUTRE ☐ 'B' OU 'C' ENCERCLÉ ☐ ↓ (PASSEZ À 430) ←		
429	Vous a-t-on donné la (SP/Fansidar) durant une visite prénatale, durant une autre visite dans un établissement de santé ou l'avez-vous obtenue d'une autre source ? source ?	VISITE PRÉNATALE 1 AUTRE VISITE MÉDICALE ..... 2 AUTRE ENDROIT 6		

430	Quand (NOM) est né, était-il/elle très gros, plus gros que la moyenne, moyen, plus petit que la moyenne ou très petit ?	TRÈS GROS 1
		PLUS GROS QUE
		  LA MOYENNE ... 2
		MOYEN 3
		PLUS PETIT QUE
		  LA MOYENNE ... 4
		TRÈS PETIT 5
		NE SAIT PAS 8
			TRÈS GROS 1
			PLUS GROS QUE
			  LA MOYENNE ... 2
			MOYEN 3
			PLUS PETIT QUE
			  LA MOYENNE ... 4
			TRÈS PETIT 5
			NE SAIT PAS 8
				TRÈS GROS 1
				PLUS GROS QUE
				  LA MOYENNE ... 2
				MOYEN 3
				PLUS PETIT QUE
				  LA MOYENNE ... 4
				TRÈS PETIT 5
				NE SAIT PAS 8

431	(NOM) a t-il /elle été pesé à la naissance ?	OUI 1
		
		NON 2
		  (PASSEZ À 433) ←
		NE SAIT PAS 8
			OUI 1
			
			NON............. 2
			  (PASSEZ À 433) ←
			NE SAIT PAS 8
				OUI 1
				
				NON 2
				  (PASSEZ À 433) ←
				NE SAIT PAS 8

432	Combien (NOM) pesait-il/elle ? INSCRIVEZ LE POIDS EN KILOGRAMMES À PARTIR DU CARNET DE SANTÉ, SI DISPONIBLE.	KG DU CARNET 1 ☐.☐☐☐ KG DE MÉMOIRE 2 ☐.☐☐☐ NE SAIT PAS 99998	KG DU CARNET 1 ☐.☐☐☐ KG DE MÉMOIRE 2 ☐.☐☐☐ NE SAIT PAS 99998	KG DU CARNET 1 ☐.☐☐☐ KG DE MÉMOIRE 2 ☐.☐☐☐ NE SAIT PAS 99998

N°	QUESTIONS ET FILTRES	DERNIÈRE NAISSANCE NOM _____	AVANT-DERNIÈRE NAISSANCE NOM _____	AVANT-AVANT DERNIÈRE NAISSANCE NOM _____
432A	La naissance de (NOM) a-t-elle été déclarée ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	OUI .... 1 NON .... 2 NE SAIT PAS 8	OUI .... 1 NON .... 2 NE SAIT PAS 8

433	Qui vous a assisté durant l'accouchement de (NOM) ?
	
	Quelqu'un d'autre ?
	
	INSISTEZ POUR LES TYPES DE PERSONNES ET ENREGIS-TREZ TOUT CE QUI EST MEN-TIONNÉ.
	SI L'ENQUÊTÉE DIT QUE PERSONNE NE L'A ASSISTÉE, INSISTEZ POUR DÉTERMINER SI DES ADULTES ÉTAIENT PRÉSENTS À L'ACCOUCHE-MENT.
		PROF. DE LA SANTÉ
		  MÉDECIN ..... A
		  SAGE-FEMME B
		  INFIRMIÈRE/ICP C
		
		AUTRE PERSONEL
		  MATRONNE D
		  ACCOUCHEUSE
		    TRADITION ... E
		
		AUTRE_____X
		    (PRÉCISEZ)
		
		PERSONNE ..... Y
			PROF. DE LA SANTÉ
			  MÉDECIN ..... A
			  SAGE-FEMME B
			  INFIRMIÈRE/ICP C
			
			AUTRE PERSONEL
			  MATRONNE D
			  ACCOUCHEUSE
			    TRADITION ... E
			
			AUTRE_____X
			    (PRÉCISEZ)
			
			PERSONNE ..... Y
				PROF. DE LA SANTÉ
				  MÉDECIN ..... A
				  SAGE-FEMME B
				  INFIRMIÈRE/ICP C
				
				AUTRE PERSONEL
				  MATRONNE D
				  ACCOUCHEUSE
				    TRADITION ... E
				
				AUTRE_____X
				    (PRÉCISEZ)
				
				PERSONNE ..... Y

434	Où avez-vous accouché de (NOM) ?
	
	INSISTEZ POUR DÉTERMINER LE TYPE D'ENDROIT.
	
	SI VOUS NE POUVEZ DÉTER-MINER SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT.
	
	_____
	(NOM DE L'ENDROIT/
	NOM DES ENDROITS)
		MAISON
		  VOTRE MAISON 11
		  (PASSEZ À 438) ◄┐
		  AUTRE MAISON 12
		
		SECTEUR PUBLIC
		  HÔPITAL GOUVT. 21
		  CENTRE DE SANTÉ/
		    MATERNITÉ... 22
		  POSTE DE SANTÉ
		    GOUVT 23
		  AUTRE SECTEUR
		  PUBLIC
		  _____26
		  (PRÉCISEZ)
		
		SECTEUR MED. PRIVÉ
		  HÔPITAL/CLINIQUE
		    PRIVÉ 31
		  AUTRE SECTEUR
		  MED. PRIVÉ
		  _____36
		  (PRÉCISEZ)
		
		AUTRE_____96
		  (PRÉCISEZ) ┐
		(PASSEZ À 438) ◄
			MAISON
			  VOTRE MAISON 11
			  (PASSEZ À 448) ◄┐
			  AUTRE MAISON 12
			
			SECTEUR PUBLIC
			  HÔPITAL GOUVT. 21
			  CENTRE DE SANTÉ/
			    MATERNITÉ... 22
			  POSTE DE SANTÉ
			    GOUVT 23
			  AUTRE SECTEUR
			  PUBLIC
			  _____26
			  (PRÉCISEZ)
			
			SECTEUR MED. PRIVÉ
			  HÔPITAL/CLINIQUE
			    PRIVÉ 31
			  AUTRE SECTEUR
			  MED. PRIVÉ
			  _____36
			  (PRÉCISEZ)
			
			AUTRE_____96
			  (PRÉCISEZ) ┐
			(PASSEZ À 448) ◄
				MAISON
				  VOTRE MAISON 11
				  (PASSEZ À 448) ◄┐
				  AUTRE MAISON 12
				
				SECTEUR PUBLIC
				  HÔPITAL GOUVT. 21
				  CENTRE DE SANTÉ/
				    MATERNITÉ... 22
				  POSTE DE SANTÉ
				    GOUVT 23
				  AUTRE SECTEUR
				  PUBLIC
				  _____26
				  (PRÉCISEZ)
				
				SECTEUR MED. PRIVÉ
				  HÔPITAL/CLINIQUE
				    PRIVÉ 31
				  AUTRE SECTEUR
				  MED. PRIVÉ
				  _____36
				  (PRÉCISEZ)
				
				AUTRE_____96
				  (PRÉCISEZ) ┐
				(PASSEZ À 448) ◄

435	Avez-vous accouché de (NOM) par césarienne, c'est-à-dire que l'on vous a ouvert le ventre pour faire sortir le bébé ?	OUI .... 1 NON 2	OUI .... 1 NON 2	OUI .... 1 NON 2

N°	QUESTIONS ET FILTRES	DERNIÈRE NAISSANCE NOM _____	AVANT-DERNIÈRE NAISSANCE NOM _____	AVANT-AVANT DERNIÈRE NAISSANCE NOM _____
436	Après l'accouchement de (NOM), est-ce que quelqu'un a examiné votre état de santé pendant que vous étiez dans l'établissement ?	OUI . . . . 1 (PASSEZ À 439)◄─┘ NON 2		
437	Est-ce que quelqu'un a examiné votre état de santé après que vous ayez quitté l'établissement ?	OUI . . . . 1 (PASSEZ À 439)◄─┘ NON . . . . 2 (PASSEZ À 446)◄─┘		
438	Après l'accouchement de (NOM), est-ce que quelqu'un a examiné votre état de santé ?	OUI . . . . 1 NON . . . . 2 (PASSEZ À 442)◄─┘		

439	Qui a examiné votre état de santé à ce moment-là ?
	
	INSISTEZ POUR OBTENIR LA PERSONNE LA PLUS QUALIFIÉE.
		PROF. DE LA SANTÉ
		   MÉDECIN 11
		   SAGE-FEMME 12
		   INFIRMIÈRE/ICP 13
		
		AUTRE PERSONEL
		   MATRONNE 21
		   ACCOUCHEUSE 22
		      TRADITION . . .
		
		AUTRE_____96
		      (PRÉCISEZ)		

440	Combien de temps après l'accouchement a eu lieu le premier examen ? SI MOINS D'UN JOUR, ENREGIS-TREZ EN HEURES. SI MOINS D'UNE SEMAINE, ENREGISTREZ EN JOURS.	HEURES 1 ☐☐ JOURS 2 ☐☐ SEMAINES 3 ☐☐ NE SAIT PAS . . . 998		
441	VÉRIFIEZ 437 :	OUI PAS POSÉ ☐ ☐ ↓ ↓ (PASSEZ À 446)		
442	Dans les deux mois qui ont suivi la naissance de (NOM), est-ce qu'un professionnel de la santé ou une accoucheuse traditionnelle a examiné son état de santé ?	OUI . . . . 1 NON . . . . 2 (PASSEZ À 446)◄─┤ NE SAIT PAS 8		
443	Combien d'heures, de jours ou de semaines après la naissance de (NOM), le premier examen a-t-il eu lieu ? SI MOINS D'UN JOUR, ENREGISTREZ EN HEURES. SI MOINS D'UNE SEMAINE, ENREGISTREZ EN JOURS.	HRS APRES NAIS. . . 1 ☐☐ JRS APRÈS NAIS. . . 2 ☐☐ SEM.APRÈS NAIS. . . 3 ☐☐ NE SAIT PAS . . . 998		

444	Qui a examiné l'état de santé de (NOM) à ce moment-là ?
	
	INSISTEZ POUR OBTENIR LA PERSONNE LA PLUS QUALIFIÉE.
		PROF. DE LA SANTÉ
		   MÉDECIN 11
		   SAGE-FEMME 12
		   INFIRMIÈRE/ICP 13
		
		AUTRE PERSONEL
		   MATRONNE 21
		   ACCOUCHEUSE 22
		      TRADITION . . .
		
		AUTRE_____96
		      (PRÉCISEZ)		

N°	QUESTIONS ET FILTRES	DERNIÈRE NAISSANCE NOM _____	AVANT-DERNIÈRE NAISSANCE NOM _____	AVANT-AVANT DERNIÈRE NAISSANCE NOM _____

445	Où ce premier examen de (NOM) a-t-il eu lieu ?
	
	INSISTEZ POUR DÉTERMINER LE TYPE D'ENDROIT ET ENCERCLEZ LE CODE APPROPRIÉ.
	
	SI VOUS NE POUVEZ DÉTERMINER SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT.
	
	_____
	(NOM DE L'ENDROIT/
	NOM DES ENDROITS)
		MAISON
		  VOTRE MAISON 11
		  AUTRE MAISON 12
		
		SECTEUR PUBLIC
		  HÔPITAL GOUVT 21
		  CENTRE DE SANTÉ/
		    MATERNITÉ . . . 22
		  POSTE DE SANTÉ
		    GOUVT. 23
		  AUTRE PUBLIC
		  _____ 26
		    (PRÉCISEZ)
		
		SECTEUR MED. PRIVÉ
		  HÔPITAL/CLINIQUE
		    PRIVÉ 31
		  AUTRE MÉDICAL
		    PRIVÉ _____ 36
		      (PRÉCISEZ)
		
		AUTRE _____ 96
		    (PRÉCISEZ)		

446	Dans les deux premiers mois qui ont suivi l'accouchement, avez-vous reçu une dose de vitamine A comme (celle-ci/l'une de celles-ci) ? MONTREZ DES MODÈLES COURANTS D'AMPOULES/GÉLULES/SIROP.	OUI . . . . 1 NON . . . . 2 NE SAIT PAS 8		
447	Vos règles sont-elles revenues depuis la naissance de (NOM) ?	OUI . . . . 1 (PASSEZ À 449)◄——┘ NON . . . . 2 (PASSEZ À 450)◄——┘		
448	Est-ce que vos règles sont revenues entre la naissance de (NOM) et votre grossesse suivante ?		OUI . . . . 1 NON . . . . 2 (PASSEZ À 452)◄——┘	OUI . . . . 1 NON . . . . 2 (PASSEZ À 452)◄——┘
449	Pendant combien de mois après la naissance de (NOM) n'avez-vous pas eu vos règles ?	MOIS . . . [ ][ ] NE SAIT PAS 98	MOIS . . . [ ][ ] NE SAIT PAS 98	MOIS . . . [ ][ ] NE SAIT PAS 98
450	VÉRIFIEZ 226 : L'ENQUÊTÉE EST-ELLE ENCEINTE ?	PAS ENCEINTE EN- OU CEINTE PAS SÛRE ↓ (PASSEZ À 452)		
451	Avez-vous eu des rapports sexuels depuis la naissance de (NOM) ?	OUI . . . . 1 NON . . . . 2 (PASSEZ À 453)◄——┘		

N°	QUESTIONS ET FILTRES	DERNIÈRE NAISSANCE NOM _____	AVANT-DERNIÈRE NAISSANCE NOM _____	AVANT-AVANT DERNIÈRE NAISSANCE NOM _____
452	Pendant combien de mois après la naissance de (NOM) n'avez-vous pas eu de rapports sexuels ?	MOIS ... ☐☐ NE SAIT PAS 98	MOIS ... ☐☐ NE SAIT PAS 98	MOIS ... ☐☐ NE SAIT PAS 98
453	Avez-vous allaité (NOM) ?	OUI .... 1 (PASSEZ À 455)◄┘ NON 2	OUI .... 1 NON............. 2	OUI .... 1 NON 2
454	VÉRIFIEZ 404 : L'ENFANT EST-IL VIVANT ?	VIVANT ☐ DÉCÉDÉ ☐ (PASSEZ À 460) (RETOURNEZ À 405 À LA COLONNE SUIVANTE; OU SI PLUS DE NAISSANCES, ALLEZ À 501)		
455	Combien de temps après la naissance avez-vous mis (NOM) au sein pour la première fois ? SI MOINS D'UNE HEURE, INSCRIVEZ '00' HEURE. SI MOINS DE 24 HEURES, ENREGISTREZ EN HEURES. SINON, ENREGISTREZ EN JOURS.	IMMÉDIATEMENT 000 HEURES 1 ☐☐ JOURS 2 ☐☐		
456	Dans les trois premiers jours après la naissance est-ce que (NOM) a reçu autre chose à boire que le lait maternel ?	OUI .... 1 NON .... 2 (PASSEZ À 458)◄┘		
457	Qu'a t-on donné a boire à (NOM) ? Rien d'autre ? ENREGISTREZ TOUS LES LIQUIDES MENTIONNÉS.	LAIT (AUTRE QUE LE LAIT MATERNEL) A EAU BÉNITE ..... B EAU....... ..... C EAU SUCRÉE OU EAU GLUCOSÉE D INFUSION CALMANTE POUR COLIQUES E SOLUTION D'EAU SALÉE SUCRÉ F JUS DE FRUIT ... G LAIT EN POUDRE POUR BÉBÉ ... H THÉ/INFUSIONS ... I MIEL .... J AUTRE _____ X (PRÉCISEZ)		
458	VÉRIFIEZ 404 : L'ENFANT EST-IL EN VIE ?	EN VIE ☐ DÉCÉDÉ ☐ (PASSEZ À 459A)	EN VIE ☐ DÉCÉDÉ ☐ (PASSEZ À 459A)	EN VIE ☐ DÉCÉDÉ ☐ (PASSEZ À 459A)

N°	QUESTIONS ET FILTRES	DERNIÈRE NAISSANCE NOM _____	AVANT-DERNIÈRE NAISSANCE NOM _____	AVANT-AVANT DERNIÈRE NAISSANCE NOM _____
459	Allaitez-vous encore (NOM) ?	OUI . . . . 1 (PASSEZ À 460) ◄——┘ NON 2	OUI . . . . 1 (PASSEZ À 460) ◄——┘ NON 2	OUI . . . . 1 (PASSEZ À 460) ◄——┘ NON 2
459A	Pendant combien de mois avez-vous allaité (NOM) ?	MOIS . . . [ ][ ] NE SAIT PAS 98	MOIS . . . [ ][ ] NE SAIT PAS 98	MOIS . . . [ ][ ] NE SAIT PAS 98
459B	VÉRIFIEZ 404 : L'ENFANT EST-IL EN VIE ?	EN VIE DÉCÉDÉ [ ] [ ] (RETOURNEZ À 405 À LA COLONNE SUIVANTE; OU, SI PLUS DE NAISS. ALLEZ À 501)	EN VIE DÉCÉDÉ [ ] [ ] (RETOURNEZ À 405 À LA COLONNE SUIVANTE; OU, SI PLUS DE NAISS. ALLEZ À 501)	EN VIE DÉCÉDÉ [ ] [ ] (RETOURNEZ À 405 À L'AVANT-DERNIÈRE COL. DU NOUVEAU QUEST. OU SI PLUS DE NAIS. ALLEZ À 501)
460	(NOM) a-t-il bu quelque chose au biberon hier ou la nuit dernière ?	OUI . . . . 1 NON . . . . 2 NE SAIT PAS 8	OUI . . . . 1 NON . . . . 2 NE SAIT PAS 8	OUI . . . . 1 NON . . . . 2 NE SAIT PAS 8
461		(RETOURNEZ À 405 À LA COLONNE SUIVANTE ; OU, SI PLUS DE NAISS. ALLEZ À 501)	(RETOURNEZ À 405 À LA COLONNE SUIVANTE ; OU, SI PLUS DE NAISS. ALLEZ À 501)	(RETOURNEZ À 405 À L'AVANT-DER. COLONNE DU NOUVEAU QUEST. OU SI PLUS DE NAIS. ALLEZ À 501)

| 501 | INSCRIVEZ DANS LE TABLEAU LE NUMÉRO DE LIGNE DE L'HISTORIQUE DES NAISSANCES, LE NOM ET L'ÉTAT DE SURVIE DE CHAQUE NAISSANCE SURVENUE EN 2005 (1) OU PLUS TARD. POSEZ LES QUESTIONS SUR TOUTES CES NAISSANCES, EN COMMENÇANT PAR LA DERNIÈRE NAISSANCE. (S'IL Y A PLUS DE 3 NAISSANCES, UTILISEZ LES 2 DERNIÈRES COLONNES DE QUESTIONNAIRES SUPPLÉMENTAIRES). |

| 502 | N° DE LIGNE DE 212 DANS L'HISTORIQUE DES NAISSANCES | DERNIÈRE NAISSANCE

N° HISTORIQUE ☐☐ | AVANT-DERNIÈRE NAISSANCE

N° HISTORIQUE ☐☐ | AVANT-AVANT DERNIÈRE NAISSANCE

N° HISTORIQUE ☐☐ |

| 503 | À PARTIR DE 212 ET 216 | NOM _____
EN VIE ☐   DÉCÉDÉ ☐
(ALLEZ À 503 À LA COL.SUIVANTE OU S'IL N'Y A PLUS DE NAISSANCE, ALLEZ À 553) | NOM _____
EN VIE ☐   DÉCÉDÉ ☐
(ALLEZ À 503 À LA COL.SUIVANTE OU S'IL N'Y A PLUS DE NAISSANCE, ALLEZ À 553) | NOM _____
EN VIE ☐   DÉCÉDÉ ☐
(ALLEZ À 503 À L'AVANT-DER.COL. DU NOUVEAU QUEST. OU S'IL N'Y A PLUS DE NAISS., ALLEZ À 553) |

| 504 | Avez-vous un carnet où les vaccinations de (NOM) sont inscrites ?

SI OUI :
Puis-je le voir ? | OUI, VU 1
(PASSEZ À 506) ←
OUI, PAS VU 2
(PASSEZ À 509) ←
PAS DE CARNET ...... 3 | OUI, VU 1
(PASSEZ À 506) ←
OUI, PAS VU 2
(PASSEZ À 509) ←
PAS DE CARNET .... 3 | OUI, VU 1
(PASSEZ À 506) ←
OUI, PAS VU 2
(PASSEZ À 509) ←
PAS DE CARNET ..... 3 |

| 505 | Avez-vous déjà eu un carnet de vaccination pour (NOM) ? (2) | OUI 1
(PASSEZ À 509) ←
NON .... 2 | OUI 1
(PASSEZ À 509) ←
NON .... 2 | OUI 1
(PASSEZ À 509) ←
NON .... 2 |

| 506 | (1) COPIEZ LES DATES DU CARNET.
(2) INSCRIVEZ '44' À LA COLONNE 'JOUR' SI LE CARNET INDIQUE QU'UNE DOSE A ÉTÉ DONNÉE MAIS QUE LA DATE N'A PAS ÉTÉ ENREGISTRÉE. |

	DERNIÈRE NAISSANCE			AVANT-DERNIÈRE NAISSANCE			AVANT-AVANT-DERNIÈRE NAISSANCE		
	JOUR	MOIS	ANNÉE	JOUR	MOIS	ANNÉE	JOUR	MOIS	ANNÉE
BCG									
POLIO 0 (POLIO À LA NAISSANCE) / P0									
POLIO 1 / P1									
POLIO 2 / P2									
POLIO 3 / P3									
Penta1 / Pe1									
Penta2 / Pe2									
Penta3 / Pe3									
ROUGEOLE / ROU									
Fièvre jaune / F									
VITAMINE A (LA PLUS RÉCENTE) / VIT A									

| 507 | VÉRIFIEZ 506 : | BCG À ROUGEOLE TOUT ENREGISTRÉ(3) ☐   AUTRE ☐
(ALLEZ À 511) | BCG À ROUGEOLE TOUT ENREGISTRÉ(3) ☐   AUTRE ☐
(ALLEZ À 511) | BCG À ROUGEOLE TOUT ENREGISTRÉ(3) ☐   AUTRE ☐
(ALLEZ À 511) |

N°	QUESTIONS ET FILTRES	DERNIÈRE NAISSANCE NOM _____	AVANT-DERNIÈRE NAISSANCE NOM _____	AVANT-AVANT DERNIÈRE NAISSANCE NOM _____
508	(NOM) a-t-il/elle eu des vaccins qui ne sont pas inscrits sur le carnet, y compris des vaccins reçus le jour d'une campagne nationale de vaccination ? ENREGISTREZ 'OUI' SEULE-MENT SI L'ENQUÊTÉE MEN-TIONNE AU MOINS UN DES VACCINS DE 506 QUI N'A PAS ÉTÉ ENREGISTRÉ COMME AYANT ÉTÉ DONNÉ.	OUI .... 1 (INSISTEZ ←┘ POUR LES VACCINS ET INSCRIVEZ '66' À LA COLONNE CORRESPONDANT AU JOUR À 506). (PASSEZ À 511) ← NON .... 2 (PASSEZ À 511) ←┤ NE SAIT PAS 8	OUI .... 1 (INSISTEZ ←┘ POUR LES VACCINS ET INSCRIVEZ '66' À LA COLONNE CORRESPONDANT AU JOUR À 506). (PASSEZ À 511) ← NON .... 2 (PASSEZ À 511) ←┤ NE SAIT PAS 8	OUI .... 1 (INSISTEZ ←┘ POUR LES VACCINS ET INSCRIVEZ '66' À LA COLONNE CORRESPONDANT AU JOUR À 506). (PASSEZ À 511) ← NON .... 2 (PASSEZ À 511) ←┤ NE SAIT PAS 8
509	(NOM) a t-il/elle déjà eu des vaccins pour lui éviter de contracter des maladies, y compris des vaccins reçus le jour d'une campagne nationale de vaccination ?	OUI .... 1 NON .... 2 (PASSEZ À 511) ←┤ NE SAIT PAS 8	OUI .... 1 NON .... 2 (PASSEZ À 511) ←┤ NE SAIT PAS 8	OUI .... 1 NON .... 2 (PASSEZ À 511) ←┤ NE SAIT PAS 8
510	Dites-moi si (NOM) a eu l'un des vaccins suivants :			
510A	Le vaccin du BCG contre la tuberculose, c'est-à-dire une injection dans le bras ou à l'épaule qui laisse habituellement une cicatrice ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	OUI .... 1 NON .... 2 NE SAIT PAS 8	OUI .... 1 NON .... 2 NE SAIT PAS 8
510B	Le vaccin de la polio, c'est-à-dire des gouttes dans la bouche ?	OUI .... 1 NON .... 2 (PASSEZ À 510E) ←┤ NE SAIT PAS 8	OUI .... 1 NON .... 2 (PASSEZ À 510E) ←┤ NE SAIT PAS 8	OUI .... 1 NON .... 2 (PASSEZ À 510E) ←┤ NE SAIT PAS 8
510C	Le premier vaccin de la polio a-t-il été donné dans les 2 premières semaines après la naissance ou plus tard ?	DEUX 1res SEMAINES 1 PLUS TARD 2	DEUX 1res SEMAINES 1 PLUS TARD 2	DEUX 1res SEMAINES 1 PLUS TARD 2
510D	Combien de fois le vaccin de la polio a-t-il été donné ?	NOMBRE DE FOIS ...... [ ]	NOMBRE DE FOIS ...... [ ]	NOMBRE DE FOIS ...... [ ]
510E	Le vaccin du pentavalent, c'est-à-dire une injection faite à la cuisse ou à la fesse, parfois donné en même temps que les gouttes pour la polio ?	OUI .... 1 NON .... 2 (PASSEZ À 510G) ←┤ NE SAIT PAS 8	OUI .... 1 NON .... 2 (PASSEZ À 510G) ←┤ NE SAIT PAS 8	OUI .... 1 NON .... 2 (PASSEZ À 510G) ←┤ NE SAIT PAS 8
510F	Combien de fois le vaccin du pentavalent, a t-il été donné ?	NOMBRE DE FOIS .. [ ]	NOMBRE DE FOIS .. [ ]	NOMBRE DE FOIS .. [ ]
510G	Le vaccin contre la rougeole ou le ROR, c'est-à-dire une injection dans le bras à l'âge de 9 mois ou plus tard, pour lui éviter la rougeole ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	OUI .... 1 NON .... 2 NE SAIT PAS 8	OUI .... 1 NON .... 2 NE SAIT PAS 8
510H	Le vaccin contre la fievre jaune	OUI .... 1 NON .... 2 NE SAIT PAS 8	OUI .... 1 NON .... 2 NE SAIT PAS 8	OUI .... 1 NON .... 2 NE SAIT PAS 8

N°	QUESTIONS ET FILTRES	DERNIÈRE NAISSANCE NOM _____	AVANT-DERNIÈRE NAISSANCE NOM _____	AVANT-AVANT DERNIÈRE NAISSANCE NOM _____
511	Au cours des six derniers mois, a-t-on donné à (NOM) une dose de vitamine A comme (celle-ci/l'une de celles-ci) ? MONTREZ DES MODÈLES COURANTS D'AMPOULES/ GÉLULES/SIROP.	OUI .... 1 NON .... 2 NE SAIT PAS 8	OUI .... 1 NON .... 2 NE SAIT PAS 8	OUI .... 1 NON .... 2 NE SAIT PAS 8
512	Au cours des sept derniers jours, a-t-on donné à (NOM) des comprimés de fer, des granules avec du fer ou du sirop contenant du fer comme (celui-ci/l'un de ceux-ci) ? MONTREZ DES MODÈLES COURANTS DE COMPRIMÉS, GRANULES OU SIROP.	OUI .... 1 NON .... 2 NE SAIT PAS 8	OUI .... 1 NON .... 2 NE SAIT PAS 8	OUI .... 1 NON .... 2 NE SAIT PAS 8
513	Au cours des six derniers mois, a-t-on donné à (NOM) des médicaments contre les vers intestinaux ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	OUI .... 1 NON .... 2 NE SAIT PAS 8	OUI .... 1 NON .... 2 NE SAIT PAS 8
514	(NOM) a-t-il eu la diarrhée au cours des deux dernières semaines ?	OUI .... 1 NON .... 2 (PASSEZ À 525)◄─┤ NE SAIT PAS 8	OUI .... 1 NON .... 2 (PASSEZ À 525)◄─┤ NE SAIT PAS 8	OUI .... 1 NON .... 2 (PASSEZ À 525)◄─┤ NE SAIT PAS 8
515	Y avait-il du sang dans les selles ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	OUI .... 1 NON .... 2 NE SAIT PAS 8	OUI .... 1 NON .... 2 NE SAIT PAS 8

516	Je voudrais maintenant savoir quelle quantité de liquides a été donnée à (NOM) pendant la diarrhée (y compris le lait maternel).
	
	Lui a-t-on donné à boire moins que d'habitude, environ la même quantité ou plus que d'habitude ?
	
	SI MOINS, INSISTEZ : Lui a-t-on donné à boire beaucoup moins que d'habitude ou un peu moins ?
		BEAUCOUP MOINS 1
		UN PEU MOINS ... 2
		ENVIRON LA MÊME
		   QUANTITÉ ... 3
		PLUS 4
		RIEN À BOIRE ... 5
		NE SAIT PAS 8
			BEAUCOUP MOINS 1
			UN PEU MOINS ... 2
			ENVIRON LA MÊME 3
			   QUANTITÉ ...
			PLUS 4
			RIEN À BOIRE ... 5
			NE SAIT PAS 8
				BEAUCOUP MOINS 1
				UN PEU MOINS ... 2
				ENVIRON LA MÊME 3
				   QUANTITÉ ...
				PLUS 4
				RIEN À BOIRE ... 5
				NE SAIT PAS 8

517	Quand (NOM) avait la diarrhée, lui a-t-on donné à manger moins que d'habitude, environ la même quantité, plus que d'habitude ou rien à manger ?
	
	SI MOINS, INSISTEZ: Lui a-t-on donné à manger beaucoup moins que d'habitude ou un peu moins ?
		BEAUCOUP MOINS 1
		UN PEU MOINS ... 2
		ENVIRON LA MÊME
		   QUANTITÉ 3
		PLUS 4
		A STOPPÉ
		   NOURRITURE ... 5
		N'A JAMAIS DONNÉ
		   À MANGER 6
		NE SAIT PAS 8
			BEAUCOUP MOINS 1
			UN PEU MOINS ... 2
			ENVIRON LA MÊME
			   QUANTITÉ 3
			PLUS 4
			A STOPPÉ
			   NOURRITURE ... 5
			N'A JAMAIS DONNÉ
			   À MANGER 6
			NE SAIT PAS 8
				BEAUCOUP MOINS 1
				UN PEU MOINS ... 2
				ENVIRON LA MÊME
				   QUANTITÉ 3
				PLUS 4
				A STOPPÉ
				   NOURRITURE ... 5
				N'A JAMAIS DONNÉ
				   À MANGER 6
				NE SAIT PAS 8

518	Avez-vous recherché des conseils ou un traitement pour la diarrhée ?	OUI .... 1 NON .... 2 (PASSEZ À 522)◄──┘	OUI .... 1 NON .... 2 (PASSEZ À 522)◄──┘	OUI .... 1 NON .... 2 (PASSEZ À 522)◄──┘

N°	QUESTIONS ET FILTRES	DERNIÈRE NAISSANCE NOM _____	AVANT-DERNIÈRE NAISSANCE NOM _____	AVANT-AVANT DERNIÈRE NAISSANCE NOM _____

519	Où êtes-vous allée pour rechercher des conseils ou un traitement ?
	
	Quelque part ailleurs ?
	
	INSISTEZ POUR DÉTERMINEZ LE TYPE D'ENDROIT.
	
	SI VOUS NE POUVEZ DÉTER-MINER SI L'ÉTABLISSEMENT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT.
	
	(NOM DE L'ENDROIT/
	NOM DES ENDROITS)
		SECTEUR PUBLIC
		  HÔPITAL GOUVT. A
		  CENTRE DE SANTÉ
		    GOUVT. ...... B
		  POSTE DE SANTÉ
		    GOUVT. C
		  CLINIQUE MOBILE D
		  AGENT DE SANTÉ E
		  AUTRE SECTEUR
		    PUBLIC
		    _____ F
		    (PRÉCISEZ)
		
		SECTEUR MÉDICAL PRIVÉ
		  HÔPITAL/CLINIQUE
		    PRIVÉ .... G
		  PHARMACIE ... H
		  MÉDECIN PRIVÉ I
		  CLINIQUE MOBILE J
		  AGENT DE SANTÉ K
		  AUTRE SECTEUR
		    MED. PRIVÉ
		    _____ L
		    (PRÉCISEZ)
		
		AUTRE ENDROIT
		  BOUTIQUE ...... M
		  PRATICIEN
		    TRADITIONNEL N
		  MARCHÉ ...... O
		AUTRE _____ X
		    (PRÉCISEZ)
			SECTEUR PUBLIC
			  HÔPITAL GOUVT. A
			  CENTRE DE SANTÉ
			    GOUVT. ...... B
			  POSTE DE SANTÉ
			    GOUVT. C
			  CLINIQUE MOBILE D
			  AGENT DE SANTÉ E
			  AUTRE SECTEUR
			    PUBLIC
			    _____ F
			    (PRÉCISEZ)
			
			SECTEUR MÉDICAL PRIVÉ
			  HÔPITAL/CLINIQUE
			    PRIVÉ .... G
			  PHARMACIE ...... H
			  MÉDECIN PRIVÉ I
			  CLINIQUE MOBILE J
			  AGENT DE SANTÉ K
			  AUTRE SECTEUR
			    MED. PRIVÉ
			    _____ L
			    (PRÉCISEZ)
			
			AUTRE ENDROIT
			  BOUTIQUE ...... M
			  PRATICIEN
			    TRADITIONNEL N
			  MARCHÉ ...... O
			AUTRE _____ X
			    (PRÉCISEZ)
				SECTEUR PUBLIC
				  HÔPITAL GOUVT. A
				  CENTRE DE SANTÉ
				    GOUVT. ...... B
				  POSTE DE SANTÉ
				    GOUVT. C
				  CLINIQUE MOBILE D
				  AGENT DE SANTÉ E
				  AUTRE SECTEUR
				    PUBLIC
				    _____ F
				    (PRÉCISEZ)
				
				SECTEUR MÉDICAL PRIVÉ
				  HÔPITAL/CLINIQUE
				    PRIVÉ .... G
				  PHARMACIE ... H
				  MÉDECIN PRIVÉ I
				  CLINIQUE MOBILE J
				  AGENT DE SANTÉ K
				  AUTRE SECTEUR
				    MED. PRIVÉ
				    _____ L
				    (PRÉCISEZ)
				
				AUTRE ENDROIT
				  BOUTIQUE ...... M
				  PRATICIEN
				    TRADITIONNEL N
				  MARCHÉ ...... O
				AUTRE _____ X
				    (PRÉCISEZ)

520	VÉRIFIEZ 519 :	2 CODES ☐ OU PLUS ENCERCLÉS UN SEUL CODE ☐ ENCER-CLÉ (PASSEZ À 522) ←	2 CODES ☐ OU PLUS ENCERCLÉS UN SEUL CODE ☐ ENCER-CLÉ (PASSEZ À 522) ←	2 CODES ☐ OU PLUS ENCERCLÉS UN SEUL CODE ☐ ENCER-CLÉ (PASSEZ À 522) ←
521	Où êtes-vous allée en premier pour rechercher des conseils ou un traitement ? UTILISEZ LES CODES LETTRES DE 519.	1er ENDROIT ... ☐	1er ENDROIT ... ☐	1er ENDROIT ... ☐
522	Lui avez-vous donné les choses suivantes à boire à n'importe quel moment dès qu'il/elle a commencé à avoir la diarrhée : a) Un liquide préparé à partir d'un sachet spécial appelé [NOM LOCAL POUR LE SACHET SRO] ? b) Un liquide SRO préconditionné ? c) Un liquide maison recommandé par le gouvernement ?	OUI NON NSP SACHET SRO 1 2 8 LIQUIDE SRO 1 2 8 LIQUIDE MAISON 1 2 8	OUI NON NSP SACHET SRO 1 2 8 LIQUIDE SRO 1 2 8 LIQUIDE MAISON 1 2 8	OUI NON NSP SACHET SRO 1 2 8 LIQUIDE SRO 1 2 8 LIQUIDE MAISON 1 2 8

N°	QUESTIONS ET FILTRES	DERNIÈRE NAISSANCE NOM _____	AVANT-DERNIÈRE NAISSANCE NOM _____	AVANT-AVANT DERNIÈRE NAISSANCE NOM _____
523	A-t-on donné quelque chose (d'autre) pour traiter la diarrhée ?	OUI .... 1 NON .... 2 (PASSEZ À 525) ◄─┤ NE SAIT PAS 8	OUI .... 1 NON .... 2 (PASSEZ À 525) ◄─┤ NE SAIT PAS 8	OUI .... 1 NON .... 2 (PASSEZ À 525) ◄─┤ NE SAIT PAS 8

524	Qu'a-t-on donné (d'autre) pour traiter la diarrhée ?
	
	Rien d'autre ?
	
	ENREGISTREZ TOUS LES TRAITEMENTS DONNÉS.
		COMPRIMÉ OU SIROP
		  ANTIBIOTIQUE A
		  ANTIMOTILITÉ B
		  ZINC C
		  AUTRE (PAS ANTI-
		    BIOTIQUE, ANTI-
		    MOTILITÉ OU
		    ZINC) .... D
		  COMPRIMÉ OU
		    SIROP
		    INCONNU ... E
		
		INJECTION
		  ANTIBIOTIQUE F
		  NON ANTIBIOT G
		  INJECTION
		    INCONNUE ... H
		
		(IV) INTRAVEINEUSE I
		
		REMÈDE MAISON/
		  HERBES MEDI-
		  CINALES ...... J
		
		AUTRE _____ X
		  (PRÉCISEZ)
			COMPRIMÉ OU SIROP
			  ANTIBIOTIQUE A
			  ANTIMOTILITÉ B
			  ZINC C
			  AUTRE (PAS ANTI-
			    BIOTIQUE, ANTI-
			    MOTILITÉ OU
			    ZINC) .... D
			  COMPRIMÉ OU
			    SIROP
			    INCONNU ... E
			
			INJECTION
			  ANTIBIOTIQUE F
			  NON ANTIBIOT G
			  INJECTION
			    INCONNUE ... H
			
			(IV) INTRAVEINEUSE I
			
			REMÈDE MAISON/
			  HERBES MEDI-
			  CINALES .... J
			
			AUTRE _____ X
			  (PRÉCISEZ)
				COMPRIMÉ OU SIROP
				  ANTIBIOTIQUE A
				  ANTIMOTILITÉ B
				  ZINC C
				  AUTRE (PAS ANTI-
				    BIOTIQUE, ANTI-
				    MOTILITÉ OU
				    ZINC) .... D
				  COMPRIMÉ OU
				    SIROP
				    INCONNU ... E
				
				INJECTION
				  ANTIBIOTIQUE F
				  NON ANTIBIOT G
				  INJECTION
				    INCONNUE ... H
				
				(IV) INTRAVEINEUSE I
				
				REMÈDE MAISON/
				  HERBES MEDI-
				  CINALES .... J
				
				AUTRE _____ X
				  (PRÉCISEZ)

525	Est-ce que (NOM) a été malade avec de la fièvre à n'importe quel moment au cours des 2 dernières semaines ?	OUI .... 1 NON .... 2 (PASSEZ À 527) ◄─┤ NE SAIT PAS 8	OUI .... 1 NON .... 2 (PASSEZ À 527) ◄─┤ NE SAIT PAS 8	OUI .... 1 NON .... 2 (PASSEZ À 527) ◄─┤ NE SAIT PAS 8
526	À n'importe quel moment au cours de sa maladie, est-ce qu'on a pris à (NOM) du sang de son doigt ou de son talon ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	OUI .... 1 NON .... 2 NE SAIT PAS 8	OUI .... 1 NON .... 2 NE SAIT PAS 8
527	Est-ce que (NOM) a été malade avec de la toux à n'importe quel moment au cours des 2 dernières semaines ?	OUI .... 1 NON .... 2 (PASSEZ À 530) ◄─┤ NE SAIT PAS 8	OUI .... 1 NON .... 2 (PASSEZ À 530) ◄─┤ NE SAIT PAS 8	OUI .... 1 NON .... 2 (PASSEZ À 530) ◄─┤ NE SAIT PAS 8
528	Quand (NOM) a été malade avec la toux, est-ce qu'il/elle respirait plus vite que d'habitude, avec un souffle court et rapide ou avait-il/elle des difficultés pour respirer ?	OUI .... 1 NON .... 2 (PASSEZ À 531) ◄─┤ NE SAIT PAS 8	OUI .... 1 NON .... 2 (PASSEZ À 531) ◄─┤ NE SAIT PAS 8	OUI .... 1 NON .... 2 (PASSEZ À 531) ◄─┤ NE SAIT PAS 8

529	Ces difficultés pour respirer étaient-elles dues à un problème de bronche ou à un nez bouché ou qui coulait ?	BRONCHES SEULES 1 ┐
		NEZ SEUL ...... 2 ┤
		LES DEUX .... 3 ┤
		AUTRE _____ 6 ┤
		  (PRÉCISEZ)
		NE SAIT PAS ...... 8 ┘
		(PASSEZ À 531) ◄
			BRONCHES SEULES 1 ┐
			NEZ SEUL ...... 2 ┤
			LES DEUX .... 3 ┤
			AUTRE _____ 6 ┤
			  (PRÉCISEZ)
			NE SAIT PAS ...... 8 ┘
			(PASSEZ À 531) ◄
				BRONCHES SEULES 1 ┐
				NEZ SEUL ...... 2 ┤
				LES DEUX .... 3 ┤
				AUTRE _____ 6 ┤
				  (PRÉCISEZ)
				NE SAIT PAS ...... 8 ┘
				(PASSEZ À 531) ◄

N°	QUESTIONS ET FILTRES	DERNIÈRE NAISSANCE NOM _____	AVANT-DERNIÈRE NAISSANCE NOM _____	AVANT-AVANT DERNIÈRE NAISSANCE NOM _____
530	VÉRIFIEZ 525 : A-T-IL EU DE LA FIÈVRE ?	OUI ☐　NON OU NSP ☐ (RETOURNEZ À 503 À LA COLONNE SUIVANTE OU, SI PLUS DE NAISSANCE, ALLEZ À 553)	OUI ☐　NON OU NSP ☐ (RETOURNEZ À 503 À LA COLONNE SUIVANTE OU, SI PLUS DE NAISSANCE, ALLEZ À 553)	OUI ☐　NON OU NSP ☐ (ALLEZ À 503 À L'AVANT-DERNIÈRE COL. DU NOUVEAU QUESTIONNAIRE OU, SI PLUS DE NAISSANCE ALLEZ À 553)
531	Je voudrais savoir maintenant quelle quantité de boisson a été donné à (NOM) (y compris le lait maternel) pendant sa maladie avec (de la fièvre et de la toux). Lui a-t-on donné à boire moins que d'habitude, environ la même quantité ou plus que d'habitude ? SI MOINS, INSISTEZ : Lui en a-t-on donné beaucoup moins que d'habitude, ou un peu moins ?	BEAUCOUP MOINS　1 UN PEU MOINS ... 2 ENVIRON LA MÊME 　QUANTITÉ ... 3 PLUS .... 4 RIEN À BOIRE ...... 5 NE SAIT PAS 8	BEAUCOUP MOINS　1 UN PEU MOINS ... 2 ENVIRON LA MÊME 　QUANTITÉ ... 3 PLUS .... 4 RIEN À BOIRE ...... 5 NE SAIT PAS 8	BEAUCOUP MOINS　1 UN PEU MOINS ... 2 ENVIRON LA MÊME 　QUANTITÉ ... 3 PLUS .... 4 RIEN À BOIRE ...... 5 NE SAIT PAS 8
532	Quand (NOM) a eu de la (fièvre/toux), lui a-t-on donné à manger moins que d'habitude, environ la même quantité, plus que d'habitude ou ne lui a-t-on rien donné à manger ? SI MOINS, INSISTEZ : Lui en a-t-on donné beaucoup moins que d'habitude, ou un peu moins ?	BEAUCOUP MOINS　1 UN PEU MOINS ... 2 ENVIRON LA MÊME 　QUANTITÉ ...... 3 PLUS .... 4 A STOPPÉ 　NOURRITURE ... 5 N'A JAMAIS DONNÉ 　À MANGER ...... 6 NE SAIT PAS 8	BEAUCOUP MOINS　1 UN PEU MOINS ... 2 ENVIRON LA MÊME 　QUANTITÉ ...... 3 PLUS .... 4 A STOPPÉ 　NOURRITURE ... 5 N'A JAMAIS DONNÉ 　À MANGER ...... 6 NE SAIT PAS 8	BEAUCOUP MOINS　1 UN PEU MOINS ... 2 ENVIRON LA MÊME 　QUANTITÉ ...... 3 PLUS .... 4 A STOPPÉ 　NOURRITURE ... 5 N'A JAMAIS DONNÉ 　À MANGER ...... 6 NE SAIT PAS 8
533	Avez-vous recherché des conseils ou un traitement pour la maladie ?	OUI .... 1 NON .... 2 (PASSEZ À 537)◄┘	OUI .... 1 NON .... 2 (PASSEZ À 537)◄┘	OUI .... 1 NON .... 2 (PASSEZ À 537)◄┘

N°	QUESTIONS ET FILTRES	DERNIÈRE NAISSANCE NOM _____	AVANT-DERNIÈRE NAISSANCE NOM _____	AVANT-AVANT DERNIÈRE NAISSANCE NOM _____

534	Où êtes-vous allée pour rechercher des conseils ou un traitement ?
	
	Quelque part ailleurs ?
	
	INSISTEZ POUR DÉTERMINER LE TYPE D'ENDROIT.
	
	SI VOUS NE POUVEZ PAS DÉTERMINEZ SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT.
	
	_____
	(NOM DE L'ENDROIT/
	NOM DES ENDROITS)
		SECTEUR PUBLIC
		  HÔPITAL GOUVT. A
		  CENTRE DE SANTÉ
		    GOUVT. ...... B
		  POSTE DE SANTÉ
		    GOUVT. C
		  CLINIQUE MOBILE D
		  AGENT DE SANTÉ E
		  AUTRE SECTEUR
		    PUBLIC
		    _____ F
		    (PRÉCISEZ)
		
		SECTEUR MÉDICAL PRIVÉ
		  HÔPITAL/CLINIQUE
		    PRIVÉ .... G
		  PHARMACIE ... H
		  MÉDECIN PRIVÉ I
		  CLINIQUE MOBILE J
		  AGENT DE SANTÉ K
		  AUTRE SECTEUR
		    MED. PRIVÉ
		    _____ L
		    (PRÉCISEZ)
		
		AUTRE ENDROIT
		  BOUTIQUE ...... M
		  PRATICIEN
		    TRADITIONNEL N
		  MARCHÉ ...... O
		
		AUTRE _____ X
		    (PRÉCISEZ)
			SECTEUR PUBLIC
			  HÔPITAL GOUVT. A
			  CENTRE DE SANTÉ
			    GOUVT. ...... B
			  POSTE DE SANTÉ
			    GOUVT. C
			  CLINIQUE MOBILE D
			  AGENT DE SANTÉ E
			  AUTRE SECTEUR
			    PUBLIC
			    _____ F
			    (PRÉCISEZ)
			
			SECTEUR MÉDICAL PRIVÉ
			  HÔPITAL/CLINIQUE
			    PRIVÉ .... G
			  PHARMACIE ... H
			  MÉDECIN PRIVÉ I
			  CLINIQUE MOBILE J
			  AGENT DE SANTÉ K
			  AUTRE SECTEUR
			    MED. PRIVÉ
			    _____ L
			    (PRÉCISEZ)
			
			AUTRE ENDROIT
			  BOUTIQUE ...... M
			  PRATICIEN
			    TRADITIONNEL N
			  MARCHÉ ...... O
			
			AUTRE _____ X
			    (PRÉCISEZ)
				SECTEUR PUBLIC
				  HÔPITAL GOUVT. A
				  CENTRE DE SANTÉ
				    GOUVT. ...... B
				  POSTE DE SANTÉ
				    GOUVT. C
				  CLINIQUE MOBILE D
				  AGENT DE SANTÉ E
				  AUTRE SECTEUR
				    PUBLIC
				    _____ F
				    (PRÉCISEZ)
				
				SECTEUR MÉDICAL PRIVÉ
				  HÔPITAL/CLINIQUE
				    PRIVÉ .... G
				  PHARMACIE ... H
				  MÉDECIN PRIVÉ I
				  CLINIQUE MOBILE J
				  AGENT DE SANTÉ K
				  AUTRE SECTEUR
				    MED. PRIVÉ
				    _____ L
				    (PRÉCISEZ)
				
				AUTRE ENDROIT
				  BOUTIQUE ...... M
				  PRATICIEN
				    TRADITIONNEL N
				  MARCHÉ ...... O
				
				AUTRE _____ X
				    (PRÉCISEZ)

535	VÉRIFIEZ 534 :	2 CODES 1 SEUL
		  OU CODE ☐
		☐ PLUS EN-
		ENCER- CERCLÉ
		CLÉS
		    (PASSEZ À 537)
			2 CODES 1 SEUL
			  OU CODE ☐
			☐ PLUS EN-
			ENCER- CERCLÉ
			CLÉS
			    (PASSEZ À 537)
				2 CODES 1 SEUL
				  OU CODE ☐
				☐ PLUS EN-
				ENCER- CERCLÉ
				CLÉS
				    (PASSEZ À 537)

536	Où êtes-vous allée en premier pour rechercher des conseils ou un traitement ? UTILISEZ LES CODES DE 534.	1er ENDROIT ... ☐	1er ENDROIT ... ☐	1er ENDROIT ... ☐
537	Est-ce qu'à n'importe quel moment au cours de la maladie, (NOM) a pris des médicaments pour la maladie ?	OUI .... 1 NON .... 2 (RETOURNEZ À 503 À COL.SUIVANTE ; OU,SI PLUS DE NAISSANCE, ALLEZ À 553) NE SAIT PAS 8	OUI .... 1 NON .... 2 (RETOURNEZ À 503 À COL.SUIVANTE ; OU,SI PLUS DE NAISSANCE, ALLEZ À 553) NE SAIT PAS 8	OUI .... 1 NON .... 2 (ALLEZ À 503 À L'AVANT-DERNIÈRE COLONNE DU NOUVEAU QUESTIONNAIRE ; OU, SI PLUS DE NAISSANCE, ALLEZ À 553). NE SAIT PAS 8

N°	QUESTIONS ET FILTRES	DERNIÈRE NAISSANCE NOM _____	AVANT-DERNIÈRE NAISSANCE NOM _____	AVANT-AVANT DERNIÈRE NAISSANCE NOM _____

538	Quels médicaments (NOM) a-t-il/elle pris ?
	
	Aucun autre médicament ?
	
	ENREGISTREZ TOUT CE QUI EST MENTIONNÉ.
		ANTIPALUDÉENS
		  SP/FANSIDAR ... A
		  ACT .... B
		  AMODIAQUINE... C
		  QUININE .... D
		  COMBINAISON
		    AVEC
		    ARTÉMISININE. E
		  AUTRE ANTI-
		    PALUDÉEN
		    _____ F
		    (PRÉCISEZ)
		
		ANTIBIOTIQUES
		  COMPRIMÉS/
		  SIROP .... G
		  INJECTION ... H
		
		AUTRE MÉDICAMENT
		  ASPIRINE I
		  ACETA-
		    MINOPHEN ... J
		  IBUPROFEN ... K
		
		  AUTRE _____ X
		    (PRÉCISEZ)
		NE SAIT PAS ...... Z
			ANTIPALUDÉENS
			  SP/FANSIDAR ... A
			  ACT .... B
			  AMODIAQUINE... C
			  QUININE .... D
			  COMBINAISON
			    AVEC
			    ARTÉMISININE E
			  AUTRE ANTI-
			    PALUDÉEN
			    _____ F
			    (PRÉCISEZ)
			
			ANTIBIOTIQUES
			  COMPRIMÉS/
			  SIROP .... G
			  INJECTION ... H
			
			AUTRE MÉDICAMENT
			  ASPIRINE I
			  ACETA-
			    MINOPHEN ... J
			  IBUPROFEN ... K
			
			  AUTRE _____ X
			    (PRÉCISEZ)
			NE SAIT PAS ...... Z
				ANTIPALUDÉENS
				  SP/FANSIDAR ... A
				  ACT .... B
				  AMODIAQUINE C
				  QUININE .... D
				  COMBINAISON
				    AVEC
				    ARTÉMISININE . E
				  AUTRE ANTI-
				    PALUDÉEN
				    _____ F
				    (PRÉCISEZ)
				
				ANTIBIOTIQUES
				  COMPRIMÉS/
				  SIROP .... G
				  INJECTION ... H
				
				AUTRE MÉDICAMENT
				  ASPIRINE I
				  ACETA-
				    MINOPHEN ... J
				  IBUPROFEN ... K
				
				  AUTRE _____ X
				    (PRÉCISEZ)
				NE SAIT PAS ...... Z

539	VÉRIFIEZ 538 :
	 Y A-T-IL UN CODE A-F ENCERCLÉ ?
		OUI NON
		        (RETOURNEZ À 503 À COL. SUIVANTE OU SI PLUS DE NAISSANCE, ALLEZ À 553).
			OUI NON
			        (RETOURNEZ À 503 À COL. SUIVANTE OU SI PLUS DE NAISSANCE, ALLEZ À 553)
				OUI NON
				        (ALLEZ À 503 À L'AVANT-DERNIÈRE COL. DU NOUVEAU QUESTIONNAIRE; OU SI PLUS DE NAISSANCE ALLEZ À 553)

540	VÉRIFIEZ 538 :
	
	SP/FANSIDAR ('A') DONNÉ
		CODE 'A' CODE 'A'
		ENCERCLÉ NON
		         ENCERCLÉ
		
		(PASSEZ À 542)
			CODE 'A' CODE 'A'
			ENCERCLÉ NON
			         ENCERCLÉ
			
			(PASSEZ À 542)
				CODE 'A' CODE 'A'
				ENCERCLÉ NON
				         ENCERCLÉ
				
				(PASSEZ À 542)

541	Combien de temps après le début de la fièvre, (NOM) a-t-il/elle commencé à prendre de la (SP/Fansidar) ?	JOUR MÊME 0
		JOUR SUIVANT ... 1
		2 JOURS APRÈS LA
		  FIÈVRE 2
		3 JOURS OU PLUS
		  APRÈS LA
		  FIÈVRE 3
		NE SAIT PAS ... 8
			JOUR MÊME 0
			JOUR SUIVANT ... 1
			2 JOURS APRÈS LA
			  FIÈVRE 2
			3 JOURS OU PLUS
			  APRÈS LA
			  FIÈVRE 3
			NE SAIT PAS ... 8
				JOUR MÊME 0
				JOUR SUIVANT ... 1
				2 JOURS APRÈS LA
				  FIÈVRE 2
				3 JOURS OU PLUS
				  APRÈS LA
				  FIÈVRE 3
				NE SAIT PAS ... 8

N°	QUESTIONS ET FILTRES	DERNIÈRE NAISSANCE NOM _____	AVANT-DERNIÈRE NAISSANCE NOM _____	AVANT-AVANT DERNIÈRE NAISSANCE NOM _____
542	VÉRIFIEZ 538 : ACT ('B') DONNÉE	CODE 'B' CODE 'B' ENCERCLÉ NON ☐ ENCERCLÉ ☐ ↓ (PASSEZ À 544) ←	CODE 'B' CODE 'B' ENCERCLÉ NON ☐ ENCERCLÉ ☐ ↓ (PASSEZ À 544) ←	CODE 'B' CODE 'B' ENCERCLÉ NON ☐ ENCERCLÉ ☐ ↓ (PASSEZ À 544) ←
543	Combien de temps après le début de la fièvre, (NOM) a-t-il/elle commencé à prendre les ACT ?	JOUR MÊME ...... 0 JOUR SUIVANT ... 1 2 JOURS APRÈS LA FIÈVRE .... 2 3 JOURS OU PLUS APRÈS LA FIÈVRE .... 3 NE SAIT PAS ... 8	JOUR MÊME ...... 0 JOUR SUIVANT ... 1 2 JOURS APRÈS LA FIÈVRE .... 2 3 JOURS OU PLUS APRÈS LA FIÈVRE .... 3 NE SAIT PAS ... 8	JOUR MÊME ...... 0 JOUR SUIVANT ... 1 2 JOURS APRÈS LA FIÈVRE .... 2 3 JOURS OU PLUS APRÈS LA FIÈVRE .... 3 NE SAIT PAS ... 8
544	VÉRIFIEZ 538 : AMODIAQUINE ('C') DONNÉE	CODE 'C' CODE 'C' ENCERCLÉ NON ☐ ENCERCLÉ ☐ ↓ (PASSEZ À 546) ←	CODE 'C' CODE 'C' ENCERCLÉ NON ☐ ENCERCLÉ ☐ ↓ (PASSEZ À 546) ←	CODE 'C' CODE 'C' ENCERCLÉ NON ☐ ENCERCLÉ ☐ ↓ (PASSEZ À 546) ←
545	Combien de temps après le début de la fièvre, (NOM) a-t-il/elle commencé à prendre de l'amodiaquine ?	JOUR MÊME ...... 0 JOUR SUIVANT ... 1 2 JOURS APRÈS LA FIÈVRE .... 2 3 JOURS OU PLUS APRÈS LA FIÈVRE .... 3 NE SAIT PAS ... 8	JOUR MÊME ...... 0 JOUR SUIVANT ... 1 2 JOURS APRÈS LA FIÈVRE .... 2 3 JOURS OU PLUS APRÈS LA FIÈVRE .... 3 NE SAIT PAS ... 8	JOUR MÊME ...... 0 JOUR SUIVANT ... 1 2 JOURS APRÈS LA FIÈVRE .... 2 3 JOURS OU PLUS APRÈS LA FIÈVRE .... 3 NE SAIT PAS ... 8
546	VÉRIFIEZ 538 : QUININE ('D') DONNÉE	CODE 'D' CODE 'D' ENCERCLÉ NON ☐ ENCERCLÉ ☐ ↓ (PASSEZ À 548) ←	CODE 'D' CODE 'D' ENCERCLÉ NON ☐ ENCERCLÉ ☐ ↓ (PASSEZ À 548) ←	CODE 'D' CODE 'D' ENCERCLÉ NON ☐ ENCERCLÉ ☐ ↓ (PASSEZ À 548) ←
547	Combien de temps après le début de la fièvre, (NOM) a-t-il/elle commencé à prendre de la quinine ?	JOUR MÊME ...... 0 JOUR SUIVANT ... 1 2 JOURS APRÈS LA FIÈVRE .... 2 3 JOURS OU PLUS APRÈS LA FIÈVRE .... 3 NE SAIT PAS ... 8	JOUR MÊME ...... 0 JOUR SUIVANT ... 1 2 JOURS APRÈS LA FIÈVRE .... 2 3 JOURS OU PLUS APRÈS LA FIÈVRE .... 3 NE SAIT PAS ... 8	JOUR MÊME ...... 0 JOUR SUIVANT ... 1 2 JOURS APRÈS LA FIÈVRE .... 2 3 JOURS OU PLUS APRÈS LA FIÈVRE .... 3 NE SAIT PAS ... 8
548	VÉRIFIEZ 538 : COMBINAISON AVEC ARTÉMISININE ('E') DONNÉE	CODE 'E' CODE 'E' ENCERCLÉ NON ☐ ENCERCLÉ ☐ ↓ (PASSEZ À 550) ←	CODE 'E' CODE 'E' ENCERCLÉ NON ☐ ENCERCLÉ ☐ ↓ (PASSEZ À 550) ←	CODE 'E' CODE 'E' ENCERCLÉ NON ☐ ENCERCLÉ ☐ ↓ (PASSEZ À 550) ←

N°	QUESTIONS ET FILTRES	DERNIÈRE NAISSANCE NOM _____	AVANT-DERNIÈRE NAISSANCE NOM _____	AVANT-AVANT DERNIÈRE NAISSANCE NOM _____

549	Combien de temps après le début de la fièvre, (NOM) a-t-il/elle commencé à prendre une (COMBINAISON AVEC DE L'ARTÉMISININE) ?	JOUR MÊME 0
		JOUR SUIVANT ... 1
		2 JOURS APRÈS LA
		  FIÈVRE 2
		3 JOURS OU PLUS
		  APRÈS LA
		  FIÈVRE 3
		NE SAIT PAS ... 8
			JOUR MÊME 0
			JOUR SUIVANT ... 1
			2 JOURS APRÈS LA
			  FIÈVRE 2
			3 JOURS OU PLUS
			  APRÈS LA
			  FIÈVRE 3
			NE SAIT PAS ... 8
				JOUR MÊME 0
				JOUR SUIVANT ... 1
				2 JOURS APRÈS LA
				  FIÈVRE 2
				3 JOURS OU PLUS
				  APRÈS LA
				  FIÈVRE 3
				NE SAIT PAS ... 8

550	VÉRIFIEZ 538 :
	
	AUTRE ANTIPALUDÉEN ('F') DONNÉ
		CODE 'F' CODE 'F'
		ENCERCLÉ NON
		☐ ENCERCLÉ
		        ☐
		
		   (RETOURNEZ À
		  503 À COL.SUIVANTE
		    OU SI PLUS
		  DE NAISSANCE,
		   ALLEZ À 553)
			CODE 'F' CODE 'F'
			ENCERCLÉ NON
			☐ ENCERCLÉ
			        ☐
			
			   (RETOURNEZ À
			  503 À COL.SUIVANTE
			    OU SI PLUS
			  DE NAISSANCE,
			   ALLEZ À 553)
				CODE 'F' CODE 'F'
				ENCERCLÉ NON
				☐ ENCERCLÉ
				        ☐
				
				   (RETOURNEZ À
				  503 À L'AVANT-DER.
				   COL. DU NOUVEAU
				QUEST. OU SI PLUS DE
				NAISSANCE, ALLEZ À
				        553)

551	Combien de temps après le début de la fièvre, (NOM) a-t-il/elle commencé à prendre (AUTRE ANTIPALUDÉEN) ?	JOUR MÊME 0
		JOUR SUIVANT ... 1
		2 JOURS APRÈS LA
		  FIÈVRE 2
		3 JOURS OU PLUS
		  APRÈS LA
		  FIÈVRE 3
		NE SAIT PAS ... 8
			JOUR MÊME 0
			JOUR SUIVANT ... 1
			2 JOURS APRÈS LA
			  FIÈVRE 2
			3 JOURS OU PLUS
			  APRÈS LA
			  FIÈVRE 3
			NE SAIT PAS ... 8
				JOUR MÊME 0
				JOUR SUIVANT ... 1
				2 JOURS APRÈS LA
				  FIÈVRE 2
				3 JOURS OU PLUS
				  APRÈS LA
				  FIÈVRE 3
				NE SAIT PAS ... 8

552		RETOURNEZ À 503 À COL.SUIVANTE OU SI PLUS DE NAISSANCE, ALLEZ À 553.	RETOURNEZ À 503 À COL.SUIVANTE OU SI PLUS DE NAISSANCE, ALLEZ À 553.	ALLEZ À 503 À L'AVANT-DERNIÈRE COL. DU NOUVEAU QUESTION-NAIRE OU SI PLUS DE NAISSANCE, ALLEZ À 553.

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
553	VÉRIFIEZ 215 ET 218, TOUTES LES LIGNES : NOMBRE D'ENFANTS NÉS EN 2005 OU PLUS TARD VIVANT AVEC L'ENQUÊTÉE UN OU PLUS ☐　　　　AUCUN ☐ INSCRIVEZ LE NOM DE L'ENFANT LE PLUS JEUNE VIVANT AVEC ELLE ET CONTINUEZ AVEC 554 _____ (NOM)		→ 556
554	La dernière fois que (NOM DE 553) est allé aux toilettes, qu'avez-vous fait des excréments ?	ENFANT A UTILISÉ TOILETTES 　　OU LATRINES .... 01 A JETÉ/RINSÉ DANS 　　TOILETTES OU LATRINES ...... 02 A JETÉ/RINCÉ DANS 　　ÉGOUT OU CANIVEAU .... 03 JETÉ AUX ORDURES .... 04 ENTERRÉ .... 05 LAISSÉ À L'AIR .... 06 AUTRE _____ 96 　　　　　　(PRÉCISEZ)	
555	VÉRIFIEZ 522(a) ET 522(b), TOUTES LES COLONNES : AUCUN ENFANT　☐　　　UN ENFANT　☐ N'A REÇU DE LIQUIDE　　　A REÇU DU LIQUIDE DE SACHET SRO OU　　　DE SACHET SRO OU DE LIQUIDE SRO　　　　DU LIQUIDE SRO PRÉCONDITIONNÉ　　　PRÉCONDITIONNÉ		→ 557
556	Avez-vous déjà entendu parler d'un produit spécial appelé [NOM LOCAL DES SACHETS SRO OU DU SRO PRÉCONDITIONNÉ] que vous pouvez obtenir pour le traitement de la diarrhée ?	OUI .... 1 NON 2	
557	VÉRIFIEZ 215 ET 218, TOUTES LES LIGNES : NOMBRE D'ENFANTS NÉS EN 2008 OU PLUS TARD VIVANT AVEC L'ENQUÊTÉE UN OU PLUS ☐　　　　AUCUN ☐ INSCRIVEZ LE NOM DE L'ENFANT LE PLUS JEUNE VIVANT AVEC ELLE ET CONTINUEZ AVEC 558 _____ (NOM)		→ 601

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
558	Je voudrais maintenant vous poser des questions sur les liquides et aliments que (NOM DE 557) a consommés hier pendant le jour ou la nuit. J'aimerais, en particulier, savoir si votre enfant a reçu le liquide ou l'aliment que je vais citer, même s'il était mélangé avec d'autres nourritures.		

Est-ce que (NOM DE 557) (a bu ou mangé) : **OUI NON NSP**

a)	De l'eau ?	a)	1 2 8
b)	Des jus ou des boissons à base de jus ?	b)	1 2 8
c)	De la soupe ?	c)	1 2 8
d)	Du lait tel que du lait en boite, en poudre ou du lait frais d'animal ?	d)	1 2 8

SI OUI : Combien de fois (NOM) a -t-il/elle bu du lait ?
          SI 7 FOIS OU PLUS, INSCRIVEZ '7'.   NOMBRE DE FOIS QU'IL/ELLE A BU DU LAIT ☐

e)	Du lait en poudre pour bébé ?	e)	1 2 8

SI OUI : Combien de fois (NOM) a-t-il/elle bu du lait en poudre
          pour bébé ?
          SI 7 FOIS OU PLUS, INSCRIVEZ '7'.   NOMBRE DE FOIS QU'IL/ELLE A BU DU LAIT EN POUDRE ☐

f)	D'autres liquides ?	f)	1 2 8
g)	Du yaourt ?	g)	1 2 8

SI OUI : Combien de fois (NOM) a-t-il/elle mangé du yaourt ?
          SI 7 FOIS OU PLUS, INSCRIVEZ '7'.   NOMBRE DE FOIS QU'IL/ELLE A MANGÉ DU YAOURT ☐

h)	Une préparation [NOM D'UNE MARQUE COMMERCIALE D'ALIMENTS ENRICHIS POUR BÉBÉS COMME Cerelac] ?	h)	1 2 8
i)	Du pain, du riz, des pates, bouillie d'avoine ou autres préparations à base de céréales ?	i)	1 2 8
j)	Des citrouilles, carrottes, courges ou pommes de terre douces qui sont jaunes ou oranges a l'intérieur ?	j)	1 2 8
k)	Des pommes de terre, ignames blanches, manioc, cassava, ou préparations à base de tubercules ?	k)	1 2 8
l)	Des légumes à feuilles vert foncé ?	l)	1 2 8
m)	Des mangues, papayes mûres ou [INSÉREZ D'AUTRES FRUITS LOCAUX RICHES EN VITAMINE A ET QUI SONT DISPONIBLES] ?	m)	1 2 8
n)	D'autres fruits ou légumes ?	n)	1 2 8
o)	Du foie, rognons, coeur ou autres abats ?	o)	1 2 8
p)	De la viande de boeuf, de porc, d'agneau, de chèvre, du poulet ou du canard ?	p)	1 2 8
q)	Des oeufs ?	q)	1 2 8
r)	Du poisson frais ou séché ou des crustacés ?	r)	1 2 8
s)	N'importe quelle préparation à base de haricots, pois, lentilles ou noix ?	s)	1 2 8
t)	Du fromage ou d'autres aliments à base de lait ?	t)	1 2 8
u)	N'importe quelle préparation à base d'aliments solides, semi solides, ou mous ?	u)	1 2 8

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
559	VÉRIFIEZ 558 (CATÉGORIES "g" À "u") : AU MOINS UN 'OUI' PAS UN SEUL ☐ OU TOUT NE SAIT PAS ☐ "OUI"		561
560	Est-ce que hier durant le jour ou la nuit (NOM) a mangé des aliments solides, semi solides ou mous ? SI 'OUI' INSISTEZ : Quel type d'aliments solide, semi solide ou mou (NOM DE 557) a-t-il/elle mangé hier durant le jour ou la nuit ?	OUI .... 1 (RETOURNEZ À 558 POUR ↵ ENREGISTRER LES ALIMENTS CONSOMMÉS HIER.) NON .... 2 → 601	
561	Combien de fois (NOM DE 557) a-t-il mangé des aliments solides, semi solides ou mous hier durant le jour ou la nuit ? SI 7 FOIS OU PLUS, INSCRIVEZ '7'.	NOMBRE DE FOIS .... ☐ NE SAIT PAS 8	

N°	QUESTIONS ET FILTRES	CODES	PASSER À
601	Êtes-vous actuellement mariée ou vivez-vous avec un homme comme si vous étiez mariés ?	OUI, ACTUELLEMENT MARIÉE ...... 1 OUI, VIT AVEC UN HOMME .... 2 NON, PAS EN UNION 3	→ 604
602	Avez-vous déjà été mariée ou avez-vous déjà vécu avec un homme comme si vous étiez mariés ?	OUI, A ÉTÉ MARIÉE .... 1 OUI, A VÉCU AVEC UN HOMME .... 2 NON 3	→ 612
603	Quel est votre état matrimonial actuel : êtes-vous veuve, divorcée ou séparée ?	VEUVE .... 1 DIVORCÉE .... 2 SÉPARÉE 3	→ 609
604	Est-ce que votre (mari/partenaire) vit actuellement avec vous ou vit-il ailleurs ?	VIT AVEC ELLE .... 1 VIT AILLEURS 2	
605	ENREGISTRER LE NOM ET N° DE LIGNE DU MARI/PARTENAIRE DU QUESTIONNAIRE MÉNAGE. S'IL N'EST PAS LISTÉ DANS LE QUESTIONNAIRE MÉNAGE, ENREGISTREZ '00'.	NOM _____ N° LIGNE .... ☐☐	
606	Est-ce que votre (mari/partenaire) a d'autres épouses ou vit-il avec d'autres femmes comme s'il était marié ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	→ 609
607	En tout, y compris vous-même, combien a-t-il d'épouses ou de partenaires avec qui il vit comme s'il était marié ?	NOMBRE TOTAL D'ÉPOUSES ET DE FEMMES AVEC QUI IL ☐☐ VIT COMME MARIÉ NE SAIT PAS 98	
608	Êtes-vous la première, deuxième,........épouse ?	RANG .... ☐☐	
609	Avez-vous été mariée ou avez-vous vécu avec un homme une seule fois ou plus d'une fois ?	SEULEMENT UNE FOIS .... 1 PLUS D'UNE FOIS 2	
610	VÉRIFIEZ 609 : MARIÉE/A VÉCU ☐ MARIÉE/A VÉCU ☐ AVEC UN HOMME AVEC UN HOMME UNE SEULE FOIS↓ PLUS D'UNE FOIS↓ En quel mois et quelle année Je voudrais maintenant vous avez-vous commencé à vivre parler de votre premier avec votre (mari/partenaire). En quel mois et (mari/partenaire) ? quelle année avez-vous commencé à vivre avec lui ?	MOIS .... ☐☐ NE CONNAÎT PAS LE MOIS .... 98 ANNÉE............. ☐☐☐☐ NE CONNAÎT PAS L'ANNÉE 9998	→ 612
611	Quel âge aviez-vous quand vous avez commencé à vivre avec lui pour la première fois ?	ÂGE .... ☐☐	
612	VÉRIFIEZ LA PRÉSENCE D'AUTRES PERSONNES. AVANT DE CONTINUER, FAITES TOUT VOTRE POSSIBLE POUR VOUS TROUVER EN PRIVÉ.		

613	Je voudrais maintenant vous poser des questions sur votre activité sexuelle pour mieux comprendre certains aspects importants de la vie.
	
	Quel âge aviez-vous quand vous avez eu, pour la première fois, des rapports sexuels ?
		N'A JAMAIS EU DE RAPPORTS
		   SEXUELS 00
		
		ÂGE EN ANNÉES .... ☐☐
		
		1ère FOIS EN COMMENÇANT
		  À VIVRE AVEC (PREMIER)
		  MARI/PARTENAIRE 95
			→ 628

613A	Quel âge avait ton partenaire?	ÂGE EN ANNÉES .... ☐☐ NE SAIT PAS 98	
613B	Aviez-vous utilisé un préservatif (masculin ou féminin)?	OUI .... 1 NON .... 2 NE SAIT PAS 8	

N°	QUESTIONS ET FILTRES	CODES	PASSER À
614	Je voudrais maintenant vous poser des questions sur votre activité sexuelle récente. Je voudrais vous assurer de nouveau que toutes vos réponse sont absolument confidentielles et qu'elles ne seront divulguées à personne. S'il arrivait que je pose une question à laquelle vous ne voulez pas répondre, dites-le moi et je passerai à la question suivante.		
615	Quand avez-vous eu des rapports sexuels pour la <u>dernière</u> fois ? S'IL Y A MOINS DE 12 MOIS, LA RÉPONSE DOIT ÊTRE ENREGISTRÉE EN JOURS, SEMAINES OU MOIS. S'IL Y A 12 MOIS (UN AN) OU PLUS, LA RÉPONSE DOIT ÊTRE ENREGISTRÉE EN ANNÉES.	IL Y A .... JOURS ...... 1 IL Y A .... SEMAINES .... 2 IL Y A .... MOIS .... 3 IL Y A .... ANNÉES 4	→ 627

		DERNIER PARTENAIRE SEXUEL	AVANT-DERNIER PARTENAIRE SEXUEL	AVANT AVANT-DERNIER PARTENAIRE SEXUEL
616	Quand avez-vous eu des rapports sexuels avec cette personne pour la dernière fois ?		IL Y A... JOURS 1 IL Y A... SEMAINE 2 IL Y A... MOIS 3	IL Y A... JOURS 1 IL Y A... SEMAINE 2 IL Y A... MOIS 3
617	La dernière fois que vous avez eu des rapports sexuels (avec cette seconde/troisième personne), un condom a-t-il été utilisé ?	OUI . . . . 1 NON. . . . . 2 (PASSEZ À 619)	OUI . . . . 1 NON. . . . . 2 (PASSEZ À 619)	OUI . . . . 1 NON. . . . . 2 (PASSEZ À 619)
618	Un condom a-t-il été utilisé chaque fois que vous avez eu des rap-ports sexuels avec cette personne au cours des 12 derniers mois ?	OUI . . . . 1 NON. 2	OUI . . . . 1 NON. 2	OUI . . . . 1 NON. 2
619	Quelle était votre relation avec cette personne avec qui vous avez eu des rapports sexuels ? SI PETIT AMI : Viviez-vous ensemble comme si vous étiez mariés ? SI OUI, ENCERCLER '2' SI NON, ENCERCLER '3'	MARI . . . . 1 PARTENAIRE VIVANT AVEC L'ENQUÊTÉE . . . 2 PETIT AMI NE VIVANT PAS AVEC L'ENQUÊTÉE . . . 3 RENCONTRE OCCASIONNELLE 4 PROSTITUÉE . . . . 5 AUTRE _____ 6 (PRÉCISEZ) (PASSEZ À 622)	MARI . . . . 1 PARTENAIRE VIVANT AVEC L'ENQUÊTÉE . . . 2 PETIT AMI NE VIVANT PAS AVEC L'ENQUÊTÉE . . . 3 RENCONTRE OCCASIONNELLE 4 PROSTITUÉE . . . . 5 AUTRE _____ 6 (PRÉCISEZ) (PASSEZ À 622)	MARI . . . . 1 PARTENAIRE VIVANT AVEC L'ENQUÊTÉE . . . 2 PETIT AMI NE VIVANT PAS AVEC L'ENQUÊTÉE . . . 3 RENCONTRE OCCASIONNELLE 4 PROSTITUÉE . . . . 5 AUTRE _____ 6 (PRÉCISEZ) (PASSEZ À 622)
620	VÉRIFIEZ 609 :	MARIÉE UNE SEULE FOIS MARIÉE PLUS D'UNE FOIS (PASSEZ) À 622	MARIÉE UNE SEULE FOIS MARIÉE PLUS D'UNE FOIS (PASSEZ) À 622	MARIÉE UNE SEULE FOIS MARIÉE PLUS D'UNE FOIS (PASSEZ) À 622
621	VÉRIFIEZ 613 :	1re FOIS QUAND ELLE A COMMENCÉ À VIVRE AVEC 1er MARI AUTRE (PASSEZ À 623)	1re FOIS QUAND ELLE A COMMENCÉ À VIVRE AVEC 1er MARI AUTRE (PASSEZ À 623)	1re FOIS QUAND ELLE A COMMENCÉ À VIVRE AVEC 1er MARI AUTRE (PASSEZ À 623)
622	Il y a combien de temps que vous avez eu vos premiers rapports sexuels avec cette (seconde/troisième) personne ?	IL Y A... JOURS 1 IL Y A... SEMAINE 2 IL Y A... MOIS 3 IL Y A... ANNÉES 4	IL Y A... JOURS 1 IL Y A... SEMAINE 2 IL Y A... MOIS 3 IL Y A... ANNÉES 4	IL Y A... JOURS 1 IL Y A... SEMAINE 2 IL Y A... MOIS 3 IL Y A... ANNÉES 4
623	Aucours des 12 derniers mois, combien de fois avez-vous eu des rapports sexuels avec cette personne ?	NOMBRE DE FOIS	NOMBRE DE FOIS	NOMBRE DE FOIS
624	Quel âge a cette personne ?	ÂGE DU PARTENAIRE NE SAIT PAS 98	ÂGE DU PARTENAIRE NE SAIT PAS 98	ÂGE DU PARTENAIRE NE SAIT PAS 98
625	À part (cette personne/ces deux personnes), avez-vous eu des rapports sexuels avec une autre personne au cours des 12 derniers mois ?	OUI . . . . 1 (RETOURNEZ À 616 À COL.SUIVANTE) NON. . . . . 2 (PASSEZ À 627)	OUI . . . . 1 (RETOURNEZ À 616 À COL.SUIVANTE) NON. . . . . 2 (PASSEZ À 627)	

		DERNIER PARTENAIRE SEXUEL	AVANT-DERNIER PARTENAIRE SEXUEL	AVANT AVANT-DERNIER PARTENAIRE SEXUEL
626	En tout, avec combien de personnes différentes avez-vous eu des rapports sexuels au cours des 12 derniers mois ? SI LA RÉPONSE N'EST PAS NUMÉRIQUE, INSISTEZ POUR OBTENIR UNE UNE ESTIMATION. SI LE NBRE DE PARTENAIRE EST 95 OU PLUS, INSCRIVEZ '95'.			NOMBRE DE PARTENAIRE AU COURS DES 12 DERNIERS MOIS . . . . . ☐☐ NE SAIT PAS 98

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
627	En tout, durant votre vie, avec combien de personnes différentes avez-vous eu des rapports sexuels ? SI LA RÉPONSE EST NON NUMÉRIQUE, INSISTEZ POUR OBTENIR UNE ESTIMATION. SI LE NOMBRE DE PARTENIARES EST 95 OU PLUS, INSCRIVEZ '95'.	NOMBRE DE PARTENAIRES SUR LA DURÉE DE VIE ...... NE SAIT PAS 98	
628	PRÉSENCE D'AUTRES PERSONNES DANS CETTE SECTION	OUI NON ENFANTS <10 .... 1 2 HOMMES ADULTES .... 1 2 FEMMES ADULTES 1 2	
629	Connaissez-vous un endroit où une personne peut se procurer des condoms masculins?	OUI .... 1 NON 2	→ 632

630	Où est-ce ?
	
	Pas d'autre endroit ?
	
	INSISTEZ POUR DÉTERMINER CHAQUE TYPE D'ENDROIT.
	
	SI VOUS NE POUVEZ PAS DÉTERMINER SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT.
	
	_____
	(NOM DE L'ENDROIT/
	NOM DES ENDROITS)
		SECTEUR PUBLIC
		   HÔPITAL GOUV. .... A
		   CENTRE SANTÉ GOUV. .... B
		   POSTE SANTÉ C
		   CENTRE DE PF GOUV. .... D
		   MATERNITÉ RURALE .... E
		   CASE DE SANTÉ .... F
		   PHARMACIE COMMUNAUTAIRE . G
		   STRAT. AVANCÉE/EQU. MOBILE H
		   AUTRE PUBLIC I
		
		        _____
		        (PRÉCISEZ)
		
		SECTEUR MÉDICAL PRIVÉ
		   HÔPITAL/CLINIQUE/CABINET
		     PRIVÉ .... J
		   PHARMACIE .... K
		   MÉDECIN PRIVÉ L
		   DISPENSAIRE RELIG .... M
		
		   AUTRE MEDICAL PRIVÉ N
		
		        _____
		        (PRÉCISEZ)
		
		AUTRE SOURCE
		   BOUTIQUE .... O
		   ÉGLISE .... P
		   PARENTS/AMIS .... Q
		   BAR . ... R
		
		AUTRE _____ X
		        (PRÉCISEZ)	

631	Est-ce que vous pouvez vous procurer des condoms masculins si vous le souhaitez ?	OUI .... 1 NON .... 2 NE SAIT PAS/PAS SÛRE 8	
632	Connaissez-vous un endroit où une personne peut se procurer des condoms féminins ?	OUI .... 1 NON 2	→ 701

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À

633	Où est-ce ?
	
	Pas d'autre endroit ?
	
	INSISTEZ POUR DÉTERMINER CHAQUE TYPE D'ENDROIT.
	
	SI VOUS NE POUVEZ PAS DÉTERMINER SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT.
	
	 _____
	(NOM DE L'ENDROIT/
	NOM DES ENDROITS)
		SECTEUR PUBLIC
		  HÔPITAL GOUV. .... A
		  CENTRE SANTÉ GOUV. .... B
		  POSTE SANTÉ C
		  CENTRE DE PF GOUV. .... D
		  MATERNITÉ RURALE .... E
		  CASE DE SANTÉ .... F
		  PHARMACIE COMMUNAUTAIRE . G
		  STRAT. AVANCÉE/EQU. MOBILE H
		  AUTRE PUBLIC I
		
		 _____
		(PRÉCISEZ)
		SECTEUR MÉDICAL PRIVÉ
		  HÔPITAL/CLINIQUE/CABINET
		    PRIVÉ .... J
		  PHARMACIE .... K
		  MÉDECIN PRIVÉ L
		  DISPENSAIRE RELIG .... M
		
		  AUTRE MEDICAL PRIVÉ N
		 _____
		(PRÉCISEZ)
		AUTRE SOURCE
		  BOUTIQUE .... O
		  ÉGLISE .... P
		  PARENTS/AMIS .... Q
		  BAR . ... R
		
		  AUTRE _____ X
		 (PRÉCISEZ)	

634	Est-ce que vous pouvez vous procurer des condoms féminins si vous le souhaitez ?	OUI .... 1 NON............................. 2 NE SAIT PAS/PAS SÛRE 8	

SECTION 7. PRÉFÉRENCES EN MATIÈRE DE FÉCONDITÉ

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
701	VÉRIFIEZ 304 : NI LUI, NI ELLE IL OU ELLE STÉRILISÉ STÉRILISÉ		→ 712
702	VÉRIFIEZ 226 : ENCEINTE PAS ENCEINTE OU PAS SÛRE		→ 704
703	Je voudrais maintenant vous poser des questions sur l'avenir. Après l'enfant que vous attendez maintenant, souhaiteriez-vous un autre enfant ou préféreriez-vous ne plus avoir d'enfants ?	AVOIR UN AUTRE ENFANT .... 1 PAS D'AUTRE .... 2 INDÉCISE/NE SAIT PAS 8	→ 705 → 709 → 711
704	Je voudrais maintenant vous poser des questions sur l'avenir. Voudriez-vous avoir (un/un autre) enfant ou préféreriez-vous ne pas (plus) avoir d'enfant ?	AVOIR (UN/UN AUTRE) ENFANT ... 1 PAS D'AUTRE/AUCUN .... 2 DIT QU'ELLE NE PEUT PAS TOMBER ENCEINTE .... 3 INDÉCISE/NE SAIT PAS 8	 → 707 → 712 → 710

705	VÉRIFIEZ 226 :
	
	PAS ENCEINTE ENCEINTE
	OU PAS SÛRE
	
	Combien de temps voudriez-vous attendre à partir de maintenant avant la naissance (d'un/un autre) enfant ? Après la naissance de l'enfant que vous attendez, combien de temps voudriez-vous attendre avant la naissance d'un autre enfant ?
		MOIS 1
		
		ANNÉE 2
		
		BIENTÔT/MAINTENANT 993
		DIT QU'ELLE NE PEUT PAS TOMBER
		   ENCEINTE 994
		APRÈS LE MARIAGE 995
		
		AUTRE _____ 996
		        (PRÉCISEZ)
		NE SAIT PAS 998
			→ 710
			
			→ 712
			
			→ 710

706	VÉRIFIEZ 226 : PAS ENCEINTE ENCEINTE OU PAS SÛRE		→ 711
707	VÉRIFIEZ 303 : UTILISE UNE MÉTHODE CONTRACEPTIVE ? N'UTILISE UTILISE PAS ACTUELLEMENT ACTUELLEMENT		→ 712
708	VÉRIFIEZ 705 : PAS 24 MOIS OU PLUS 00-23 MOIS POSÉE OU 02 ANS OU PLUS OU 00-01 AN		→ 711

Nᵒ	QUESTIONS ET FILTRES	CODES	PASSEZ À

709 VÉRIFIEZ 703 ET 704 :

VEUT UN/UN AUTRE ENFANT	NE VEUT PLUS D'ENFANT/AUCUN
Vous avez dit que dans l'immédiat, vous ne souhaitiez pas (un/un autre) enfant. Pouvez-vous me dire pourquoi vous n'utilisez pas une méthode pour éviter une grossesse ?	Vous avez dit que vous ne vouliez pas (plus) d'enfant. Pouvez-vous me dire pourquoi vous n'utilisez pas une méthode pour éviter une grossesse ?
Y a-t-il une autre raison ?	Y a-t-il une autre raison ?

ENREGISTREZ TOUTES LES RAISONS MENTIONNÉES.

CODES pour 709 :

PAS MARIÉE .... A

RAISONS RELATIVES À LA FÉCONDITÉ
PAS DE RAPPORTS SEXUELS ... B
RAP. SEXUELS PEU FRÉQUENTS C
MÉNOPAUSEL/HYSTÉRECTOMIE D
NE PEUT PAS TOMBER ENCEINTE E
PAS DE RÉGLES DEPUIS
DERNIÈRE NAISSANCE .... F
ALLAITE .... G
FATALISTE .... H

OPPOSITION À L'UTILISATION
ENQUÊTÉE OPPOSÉE I
MARI/PARTENAIRE OPPOSÉ ... J
AUTRES OPPOSÉS .... K
INTERDITS RELIGIEUX L

MANQUE DE CONNAISSANCE
NE CONNAîT AUCUNE MÉTHODE M
NE CONNAîT AUCUNE SOURCE N

RAISONS LIÉES AUX MÉTHODES
EFFETS SECONDAIRES/PROBLÈMES
DE SANTÉ .... O
PAS ACCESSIBLE /TROP LOIN ... P
TROP CHÈRE .... Q
MÉTHODE PRÉFÉRÉE
NON DISPONIBLE .... R
AUCUNE MÉTHODE DISPONIBLE S
PAS PRATIQUE À UTILISER ... T
INTERFÈRE AVEC LES FONCTIONS
NORMALES DU CORPS .... U

AUTRE _____ X
(PRÉCISEZ)
NE SAIT PAS .... Z

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710 VÉRIFIEZ 303 : UTILISE UNE MÉTHODE CONTRACEPTIVE ?

PAS POSÉE	NON, N'UTILISE PAS ACTUELLEMENT	OUI, UTILISE ACTUELLEMENT	→ 712

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711 Pensez-vous que vous utiliserez, à un certain moment dans le futur, une méthode contraceptive pour retarder ou éviter une grossesse ?

OUI 1
NON 2
NE SAIT PAS 8

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712 VÉRIFIEZ 216 :

A DES ENFANTS VIVANTS	PAS D'ENFANTS VIVANTS
Si vous pouviez revenir à l'époque où vous n'aviez pas d'enfant et que vous pouviez choisir exactement le nombre d'enfants à avoir dans votre vie, combien auriez-vous voulu en avoir ?	Si vous pouviez choisir exactement le nombre d'enfants à avoir dans votre vie, combien en voudriez-vous ?

INSISTEZ POUR OBTENIR UNE RÉPONSE NUMÉRIQUE.

AUCUN .... 00 → 714

NOMBRE .... ☐☐

AUTRE _____ 96 → 714
(PRÉCISEZ)

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
713	Parmi ces enfants, combien souhaiteriez-vous de garçons, combien souhaiteriez-vous de filles et pour combien d'entre eux, le sexe n'aurait-il pas d'importance ?	GARÇONS FILLES N'IMPORTE NOMBRE [ ][ ] [ ][ ] [ ][ ] AUTRE _____ 96 (PRÉCISEZ)	
714	Au cours des derniers mois, avez-vous : Entendu parler de la planification familiale à la radio ? Vu quelque chose sur la planification familiale à la télévision ? Lu quelque chose sur la planification familiale dans les journaux ou magazines ?	OUI NON RADIO .... 1 2 TÉLÉVISION .... 1 2 JOURNAUX OU MAGAZINES ... 1 2	
715	QUESTIONS SPÉCIFIQUES AU PAYS SUR LES MESSAGES SUR LA PLANIFICATION FAMILIALE DANS LES MÉDIA		
716	VÉRIFIEZ 601 : OUI, OUI, NON, ACTUELLEMENT VIT AVEC PAS EN MARIÉE UN HOMME UNION		→ 801

717	VÉRIFIEZ 303 : UTILISE UNE MÉTHODE CONTRACEPTIVE ?
	                     N'UTILISE PAS
	UTILISE ACTUELLEMENT
	ACTUELLEMENT OU
	           PAS POSÉE
			→ 720

718	Diriez-vous que l'utilisation de la contraception est principalement votre décision, principalement celle de votre (mari/partenaire) ou est-ce une décision commune que vous avez prise ensemble ?	DÉCISION DE L'ENQUÊTÉE .... 1 DÉCISION DU MARI/PARTENAIRE ... 2 DÉCISION COMMUNE .... 3 AUTRE _____ 6 (PRÉCISEZ)	
719	VÉRIFIEZ 304 : NI LUI, NI ELLE LUI OU ELLE STÉRILISÉ STÉRILISÉ		→ 801
720	Est-ce que votre (mari/partenaire) veut le même nombre d'enfants que vous ou en veut-il plus ou moins que vous ?	MÊME NOMBRE .... 1 PLUS D'ENFANTS .... 2 MOINS D'ENFANTS .... 3 NE SAIT PAS 8	

SECTION 8. CARACTÉRISTIQUES DU MARI ET TRAVAIL DE LA FEMME

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
801	VÉRIFIEZ 601 ET 602 : ACTUELLEMENT MARIÉE/ VIVANT AVEC UN HOMME □ A ÉTÉ MARIÉE/ A VÉCU AVEC UN HOMME □ JAMAIS MARIÉE ET N'A JAMAIS VÉCU AVEC UN HOMME □		803 807
802	Quel âge avait votre (mari/partenaire) à son dernier anniversaire ?	☐☐	
803	Est-ce que votre (dernier) (mari/partenaire) a fréquenté l'école ?	OUI .... 1 NON 2	→ 806
804	Quel est le plus haut niveau d'étude qu'il a atteint: élémentaire, secondaire ou supérieur ?	ELEMENTAIRE .... 1 MOYEN .... 2 SECONDAIRE .... 3 SUPÉRIEUR .... 4 NE SAIT PAS 8	→ 806
805	Quelle est la (classe/année) la plus élevée qu'il a achevée à ce niveau ? SI MOINS D'1 CLASSE/ANNÉE A ÉTÉ ACHEVÉE À CE NIVEAU, INSCRIVEZ '00'.	CLASSE .... ☐☐ NE SAIT PAS 98	
806	VÉRIFIEZ 801 : ACTUELLEMENT MARIÉE/VIT AVEC UN HOMME □ A ÉTÉ MARIÉE/ A VÉCU AVEC UN HOMME □ Quelle est l'occupation de votre(mari/ partenaire) ? C'est-à-dire quel genre de travail fait-il principalement ? Quelle était l'occupation de votre (dernier) (mari/ partenaire) ? C'est-à-dire quel genre de travail faisait-il principalement ?	_____ ☐☐ _____ _____	
807	En dehors de votre travail domestique, avez-vous travaillé au cours des sept derniers jours ?	OUI .... 1 NON 2	→ 811
808	Comme vous le savez, certaines femmes font un travail pour lequel elles sont payées en argent ou en nature. Certaines ont un petit commerce ou une petite affaire ou travaillent sur les terres ou dans l'affaire de la famille. Au cours des sept derniers jours, avez-vous fait quelque chose de ce genre ou un autre travail ?	OUI .... 1 NON 2	→ 811
809	Bien que vous n'ayez pas travaillé au cours des sept derniers jours, est-ce que vous avez un travail ou une affaire dont vous avez dû vous absenter pour vacances, maladie, maternité ou pour une autre raison ?	OUI .... 1 NON 2	→ 811
810	Avez-vous fait un travail quelconque au cours des 12 derniers mois ?	OUI .... 1 NON 2	→ 815
811	Quelle est votre occupation, c'est-à-dire quel genre de travail faites-vous principalement ?	_____ ☐☐ _____ _____	
812	Faites-vous ce travail pour un membre de votre famille, pour quelqu'un d'autre ou êtes-vous à votre compte ?	MEMBRE DE LA FAMILLE .... 1 QUELQU'UN D'AUTRE .... 2 A SON COMPTE 3	

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
813	Travaillez-vous habituellement toute l'année, ou de manière saisonnière ou travaillez-vous seulement de temps en temps ?	TOUTE L'ANNÉE .... 1 SAISONNIER/PARTIE DE L'ANNÉE .... 2 DE TEMPS EN TEMPS 3	
814	Êtes-vous payée en argent ou en nature pour ce travail ou n'êtes-vous pas payée du tout ?	ARGENT SEULEMENT .... 1 ARGENT ET NATURE .... 2 NATURE SEULEMENT .... 3 PAS PAYÉE 4	
815	VÉRIFIEZ 601 : ACTUELLEMENT MARIÉE/VIVANT ☐ PAS EN UNION ☐————————————→ AVEC UN HOMME ↓		823
816	VÉRIFIEZ 814 : CODE 1 OU 2 ☐ AUTRE ☐————————————→ ENCERCLÉ ↓		819

817	Habituellement, qui décide comment l'argent que vous gagnez va être utilisé : c'est vous, votre (mari/partenaire), ou conjointement vous et votre (mari/partenaire) ?	ENQUÊTÉE 1
		MARI/PARTENAIRE 2
		CONJOINTEMENT ENQUÊTÉE
		    ET MARI/PARTENAIRE 3
		AUTRE _____ 6
		            (PRÉCISEZ)	

818	Diriez-vous que vous gagnez plus que votre (mari/partenaire), moins ou à peu prés la même chose ?	PLUS QUE LUI .... 1 MOINS QUE LUI .... 2 À PEU PRÉS LA MÊME CHOSE ...... 3 MARI/PARTENAIRE NE RAPPORTE PAS D'ARGENT .... 4 NE SAIT PAS 8	→ 820

819	Habituellement, qui décide comment l'argent que votre (mari/partenaire) gagne va être utilisé: vous, votre (mari/partenaire), ou conjointement vous et votre (mari/partenaire) ?	ENQUÊTÉE 1
		MARI/PARTENAIRE 2
		CONJOINTEMENT ENQUÊTÉE
		    ET MARI/PARTENAIRE 3
		MARI/PARTENAIRE NE RAPPORTE
		        PAS D'ARGENT 4
		AUTRE _____ 6
		            (PRÉCISEZ)	

820	Habituellement, qui prend les décisions en ce qui concerne vos propres soins de santé: vous, votre (mari/partenaire), conjointement vous et votre (mari/partenaire) ou quelqu'un d'autre ?	ENQUÊTÉE .... 1 MARI/PARTENAIRE .... 2 CONJOINTEMENT ENQUÊTÉE ET MARI/PARTENAIRE .... 3 QUELQU'UN D'AUTRE .... 4 AUTRE 6	
821	Qui prend habituellement les décisions concernant les achats importants pour le ménage ?	ENQUÊTÉE .... 1 MARI/PARTENAIRE .... 2 CONJOINTEMENT ENQUÊTÉE ET MARI/PARTENAIRE .... 3 QUELQU'UN D'AUTRE .... 4 AUTRE 6	
822	Qui prend habituellement les décisions concernant les visites à votre famille ou parents ?	ENQUÊTÉE .... 1 MARI/PARTENAIRE .... 2 CONJOINTEMENT QUELQU'UN D'AUTRE ET MARI/PARTENAIRE ... 3 QUELQU'UN D'AUTRE .... 4 AUTRE 6	

Nº	QUESTIONS ET FILTRES	CODES	PASSEZ À
823	Est-ce que vous possédez cette maison ou une autre maison seule ou conjointement avec quelqu'un d'autre ?	SEULE .... 1 CONJOINTEMENT .... 2 SEULE ET CONJOINTEMENT .... 3 N'EN POSSÈDE PAS 4	
824	Est-ce que vous possédez de la terre, seule ou conjointement avec quelqu'un d'autre ?	SEULE .... 1 CONJOINTEMENT .... 2 SEULE ET CONJOINTEMENT ...... 3 N'EN POSSÈDE PAS 4	

825	PRÉSENCE D'AUTRES PERSONNES À CE POINT DE L'INTERVIEW (PERSONNES PRÉSENTES ET QUI ÉCOUTENT, PERSONNES PRÉSENTES MAIS QUI N'ÉCOUTENT PAS OU PAS PRÉSENTES).		PRES./ ÉCOUTE	PRES./ ÉCOUTE PAS	PAS PRES.	
		ENFANTS < 10	1	2	3	
		MARI	1	2	3	
		AUTRES HOMMES ...	1	2	3	
		AUTRES FEMMES ...	1	2	3	

826	Selon vous, est-il justifié qu'un mari frappe ou batte sa femme dans les situations suivantes :		OUI	NON	NSP	
	Si elle sort sans le lui dire ?	SORT SANS LUI DIRE	1	2	8	
	Si elle néglige les enfants ?	NÉGLIGE ENFANTS	1	2	8	
	Si elle argumente avec lui ?	ARGUMENTE	1	2	8	
	Si elle refuse d'avoir des rapports sexuels avec lui ?	REFUSES RAPP. SEX	1	2	8	
	Si elle brûle la nourriture ?	BRÛLE NOURRITURE	1	2	8	

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
901	Je voudrais maintenant que nous parlions d'un autre sujet. Avez-vous déjà entendu parler d'une maladie appelée sida ?	OUI .... 1 NON 2	⟶ 937
902	Est-ce qu'on peut réduire le risque de contracter le virus du sida en ayant juste un seul partenaire sexuel qui n'est pas infecté et qui n'a aucun autre partenaire sexuel ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	
903	Est-ce qu'on peut contracter le virus du sida par les piqûres de moustiques ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	
904	Est-ce qu'on peut réduire le risque de contracter le virus du sida en utilisant des condoms au cours de chaque rapport sexuel ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	
905	Est-ce qu'on peut contracter le virus du sida en partageant la nourriture avec une personne qui a le sida ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	
906	Est-ce qu'on peut contracter le virus du sida par sorcellerie ou par des moyens surnaturels ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	
907	Est-il possible qu'une personne paraissant en bonne santé ait, en fait, le virus du sida ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	

908	Est-ce que le virus qui cause le sida peut être transmis de la mère à son enfant :		OUI	NON	NSP	
	Pendant la grossesse ?	GROSSESSE.	1	2	8	
	Au cours de l'accouchement ?	ACCOUCHEMENT ...	1	2	8	
	Pendant l'allaitement ?	ALLAITEMENT	1	2	8	

909	VÉRIFIEZ 908 : AU MOINS ☐ AUTRE ☐ UN 'OUI' ↓		⟶ 911
910	Y a-t-il des médicaments spéciaux qu'un médecin ou une infirmière peut donner à une femme infectée par le virus du sida pour réduire le risque de transmission à son enfant ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	

911	VÉRIFIEZ 208 AND 215 : AUCUNE NAISSANCE ☐ DERNIÈRE NAISSANCE ☐ DERNIÈRE NAISSANCE ☐ DEPUIS JANVIER 2008 AVANT JANVIER 2008		⟶ 926 ⟶ 926
912	VÉRIFIEZ 408 POUR DERNIÈRE NAISSANCE : A EU DES AUCUN SOINS ☐ SOIN ☐ PRÉNATALS ↓ PRÉNATAL		⟶ 920
913	VÉRIFIER S'IL Y A D'AUTRE PERSONNES. AVANT DE CONTINUER, FAITES TOUT VOTRE POSSIBLE POUR ÊTRE EN PRIVÉ.		

914	Au cours de l'une de ces visites prénatales pour votre dernière naissance, est-ce que l'on a parlé des sujets suivants ?		OUI	NON	NSP	
	Des bébés qui contractent le virus du sida de leur mère ?	SIDA DE LA MÈRE	1	2	8	
	Des choses qu'on peut faire pour ne pas contracter le sida ?	CHOSES À FAIRE	1	2	8	
	Effectuer un test du virus du sida ?	TEST	1	2	8	

Nᵛ	QUESTIONS ET FILTRES	CODES	PASSEZ À
915	Dans le cadre des visites prénatales, est-ce que l'on vous a proposé d'effectuer un test du virus du sida ?	OUI .... 1 NON 2	
916	Avez-vous effectué un test du virus du sida dans le cadre de vos soins prénatals ?	OUI .... 1 NON 2	→ 920
917	Où le test a t-il été fait ? INSISTEZ POUR DÉTERMINER LE TYPE D'ENDROIT. SI VOUS NE POUVEZ PAS DÉTERMINER SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT. _____ (NOM DE L'ENDROIT)	SECTEUR PUBLIC 　HÔPITAL GOUV. .... 11 　CENTRE SANTÉ GOUV. .... 12 　POSTE SANTÉ .... 13 　CENTRE DE PF GOUV. .... 14 　MATERNITÉ RURALE .... 15 　CASE DE SANTÉ .... 16 　PHARMACIE COMMUNAUTAIRE 17 　STRAT. AVANCÉE/EQU. MOBILE . 18 　AUTRE PUBLIC　　　　 19 　　_____ 　　　　(PRÉCISER) SECTEUR MÉDICAL PRIVÉ 　HÔPITAL/CLINIQUE/CABINET 21 　　PRIVÉ .... 22 　PHARMACIE .... 23 　MÉDECIN PRIVÉ .... 24 　DISPENSAIRE RELIG .... 25 　AUTRE MEDICAL PRIVÉ　　 26 　　_____ 　　　　(PRÉCISER) AUTRE SOURCE 　BOUTIQUE .... 31 　ÉGLISE .... 32 　PARENTS/AMIS .... 33 　BAR . ... 34 AUTRE _____ 96 　　　　(PRÉCISER)	
918	Avez-vous reçu les résultats du test ?	OUI .... 1 NON 2	→ 924
919	Toutes les femmes sont censées recevoir des conseils après avoir effectué le test. Après avoir effectué votre test, avez-vous reçu des conseils ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	→ 924
920	VÉRIFIEZ 434 POUR DERNIÈRE NAISSANCE : N'IMPORTE QUEL CODE ☐　　　AUTRE ☐ _____ 21-36 ENCERCLÉ		→ 926
921	Entre le moment où vous arrivée pour accoucher et le moment où l'enfant est né, vous a-t-on proposé de faire un test du virus du sida ?	OUI .... 1 NON 2	
922	Je ne veux pas connaître les résultats mais vous a-t-on fait un test du virus du sida à ce moment-là ?	OUI .... 1 NON 2	→ 926
923	Je ne veux pas connaître les résultats mais avez-vous reçu les résultats du test ?	OUI .... 1 NON 2	
924	Avez-vous effectué un test du virus du sida depuis ce moment où vous avez fait un test durant votre grossesse ?	OUI .... 1 NON 2	→ 927
925	Il y a combien de mois que vous avez effectué votre test du VIH le plus récent ?	IL Y A .... MOIS ☐☐ DEUX ANNÉES OU PLUS 95	→ 932

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926	Je ne veux pas connaître les résultats mais avez-vous déjà fait un test pour savoir si vous avez le virus du sida ?	OUI .... 1 NON 2	→ 930
927	Il y a combien de mois que vous avez effectué votre test du VIH le plus récent ?	IL Y A .... MOIS ☐☐ DEUX ANNÉES OU PLUS 95	
928	Je ne veux pas connaître les résultats mais avez-vous reçu les résultats du test ?	OUI .... 1 NON 2	
929	Où le test a-t-il été fait ? INSISTEZ POUR DÉTERMINER LE TYPE D'ENDROIT. SI VOUS NE POUVEZ PAS DÉTERMINER SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT. _____ (NOM DE L'ENDROIT)	SECTEUR PUBLIC HÔPITAL GOUV. .... A CENTRE SANTÉ GOUV. .... B POSTE SANTÉ .... C CENTRE DE PF GOUV. .... D MATERNITÉ RURALE .... E CASE DE SANTÉ .... F PHARMACIE COMMUNAUTAIRE . G STRAT. AVANCÉE/EQU. MOBILE H AUTRE PUBLIC I _____ (PRÉCISEZ) SECTEUR MÉDICAL PRIVÉ HÔPITAL/CLINIQUE/CABINET PRIVÉ .... J PHARMACIE .... K MÉDECIN PRIVÉ .... L DISPENSAIRE RELIG .... M AUTRE MEDICAL PRIVÉ N _____ (PRÉCISEZ) AUTRE SOURCE BOUTIQUE .... O ÉGLISE .... P PARENTS/AMIS .... Q BAR . ... R AUTRE _____ X (PRÉCISEZ)	932 →
930	Connaissez-vous un endroit où l'on peut se rendre pour faire un test du virus du sida ?	OUI .... 1 NON 2	→ 932

Nº	QUESTIONS ET FILTRES	CODES	PASSEZ À

931	Où est-ce ?
	
	Pas d'autre endroit ?
	
	INSISTEZ POUR DÉTERMINER LE TYPE D'ENDROIT.
	
	SI VOUS NE POUVEZ PAS DÉTERMINER SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT.
	
	_____
	(NOM DE L'ENDROIT/NOM DES ENDROITS)
		SECTEUR PUBLIC
		  HÔPITAL GOUV. . . . . A
		  CENTRE SANTÉ GOUV. . . . . B
		  POSTE SANTÉ C
		  CENTRE DE PF GOUV. . . . . D
		  MATERNITÉ RURALE . . . . E
		  CASE DE SANTÉ . . . . F
		  PHARMACIE COMMUNAUTAIRE . G
		  STRAT. AVANCÉE/EQU. MOBILE H
		  AUTRE PUBLIC I
		           _____
		           (PRÉCISEZ)
		
		SECTEUR MÉDICAL PRIVÉ
		  HÔPITAL/CLINIQUE/CABINET
		    PRIVÉ . . . . J
		  PHARMACIE . . . . K
		  MÉDECIN PRIVÉ L
		  DISPENSAIRE RELIG . . . . M
		
		  AUTRE MEDICAL PRIVÉ N
		           _____
		           (PRÉCISEZ)
		
		AUTRE SOURCE
		  BOUTIQUE . . . . O
		  ÉGLISE . . . . P
		  PARENTS/AMIS . . . . Q
		  BAR . . . . R
		
		AUTRE _____ X
		         (PRÉCISEZ)	

932	Est-ce que vous achèteriez des légumes frais à un marchand ou à un vendeur si vous saviez que cette personne a le virus du sida ?	OUI . . . . 1 NON . . . . 2 NE SAIT PAS 8	
933	Si un membre de votre famille contractait le virus du sida, souhaiteriez-vous que son état reste secret ou non ?	OUI, RESTE SECRET . . . . 1 NON . . . . 2 NSP/PAS SÛRE/CELA DÉPEND 8	
934	Si un membre de votre famille tombait malade avec le sida, seriez-vous prête à prendre soin de lui/elle dans votre propre ménage ?	OUI . . . . 1 NON . . . . 2 NSP/PAS SÛRE/CELA DÉPEND 8	
935	Si une enseignante a le virus du sida mais qu'elle n'est pas malade, est-ce que, à votre avis, elle devrait être autorisée à continuer à enseigner à l'école ?	DEVRAIT ÊTRE AUTORISÉE . . . . 1 NE DEVRAIT PAS ÊTRE AUTORISÉE 2 NSP/PAS SÛRE/CELA DÉPEND 8	
936	Est-ce qu'on devrait éduquer les enfants de 12-14 ans sur l'utilisation de condoms pour éviter de contracter le sida ?	OUI . . . . 1 NON . . . . 2 NSP/PAS SÛRE/CELA DÉPEND 8	
937	VÉRIFIEZ 901 : A ENTENDU ☐ N'A PAS ENTENDU ☐ PARLER DU SIDA PARLER DU SIDA Mis à part le sida, avez-vous entendu parler d'autres infections qui peuvent se transmettre par contact sexuel ? Avez-vous entendu parler d'infections qui peuvent se transmettre par contact sexuel ?	OUI . . . . 1 NON 2	
938	VÉRIFIEZ 613 : A EU DES RAPPORTS ☐ N'A JAMAIS EU DE ☐ SEXUELS RAPPORTS SEXUELS		→ 946

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À

939 — VÉRIFIEZ 937 : A ENTENDU PARLER D'AUTRES INFECTIONS SEXUELLEMENT TRANSMISSIBLES ?

OUI ☐   NON ☐ → 941

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940 — J'aimerais maintenant vous poser quelques questions sur votre santé au cours des 12 derniers mois. Durant les 12 derniers mois, avez-vous eu une maladie que vous avez contractée par contact sexuel ?

OUI 1
NON 2
NE SAIT PAS 8

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941 — Il arrive parfois que les femmes aient des pertes vaginales, anormales et malodorantes.
Au cours des 12 derniers mois, avez-vous eu des pertes vaginales anormales et malodorantes ?

OUI 1
NON 2
NE SAIT PAS 8

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942 — Il arrive parfois que les femmes aient une plaie ou un ulcère génital. Au cours des 12 derniers mois, avez-vous eu une plaie ou un ulcère génital ?

OUI 1
NON 2
NE SAIT PAS 8

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943 — VÉRIFIEZ 940, 941, ET 942 :

A EU UNE INFECTION (AU MOINS UN 'OUI') ☐   N'A PAS EU D'INFECTION OU NE SAIT PAS ☐ → 946

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944 — La dernière fois que vous avez eu (PROBLEME DÉCLARÉ À 940/941/942), avez-vous recherché des conseils ou un traitement ?

OUI 1
NON .... 2 → 946

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945 — Où êtes-vous allée ?

Pas d'autre endroit ?

INSISTER POUR DÉTERMINER LE TYPE D'ENDROIT.

SI VOUS NE POUVEZ DÉTERMINER SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT.

_____
(NOM DE L'ENDROIT/
NOM DES ENDROITS)

SECTEUR PUBLIC
  HÔPITAL GOUV. .... A
  CENTRE SANTÉ GOUV. .... B
  POSTE SANTÉ C
  CENTRE DE PF GOUV. .... D
  MATERNITÉ RURALE .... E
  CASE DE SANTÉ .... F
  PHARMACIE COMMUNAUTAIRE . G
  STRAT. AVANCÉE/EQU. MOBILE H
  AUTRE PUBLIC   I

    _____
    (PRÉCISEZ)

SECTEUR MÉDICAL PRIVÉ
  HÔPITAL/CLINIQUE/CABINET
    PRIVÉ .... J
  PHARMACIE .... K
  MÉDECIN PRIVÉ L
  DISPENSAIRE RELIG .... M

  AUTRE MEDICAL PRIVÉ   N

    _____
    (PRÉCISEZ)

AUTRE SOURCE
  BOUTIQUE .... O
  ÉGLISE .... P
  PARENTS/AMIS .... Q
  BAR . ... R

AUTRE _____ X
    (PRÉCISEZ)

Nᵛ	QUESTIONS ET FILTRES	CODES	PASSEZ À
946	Si une femme sait que son mari est atteint d'une maladie qu'elle peut contracter au cours de rapports sexuels, pensez-vous qu'il est justifié qu'elle lui demande qu'ils utilisent des condoms quand ils ont des rapports sexuels ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	
947	Est-ce que vous pensez qu'il est justifié qu'une femme refuse d'avoir des rapports sexuels avec son mari quand elle sait qu'il a des relations sexuelles avec d'autres femmes ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	
948	VÉRIFIEZ 601 : ACTUELLEMENT MARIÉE/ VIVANT AVEC UN HOMME ☐ PAS EN UNION ☐		→ 1001
949	Pouvez-vous refuser d'avoir des rapports sexuels avec votre mari/partenaire quand vous ne souhaitez pas en avoir ?	OUI .... 1 NON .... 2 CELA DÉPEND/PAS SÛRE 8	
950	Pourriez-vous demander à votre mari/partenaire d'utiliser un condom si vous vouliez qu'il en utilise un ?	OUI .... 1 NON .... 2 CELA DÉPEND/PAS SÛRE 8	

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
1001	Je voudrais maintenant vous poser d'autres questions concernant des problèmes de santé. Au cours des 12 derniers mois, vous a-t-on fait une injection pour une raison quelconque ? SI OUI : Combien d'injections avez-vous eu ? SI LE NOMBRE D'INJECTIONS EST 90 OU PLUS, OU SI LES INJECTIONS ÉTAIENT QUOTIDIENNES PENDANT 3 MOIS OU PLUS, ENREGISTREZ '90'. SI LA RÉPONSE EST NON-NUMÉRIQUE, INSISTEZ POUR OBTENIR UNE ESTIMATION.	NOMBRE D'INJECTIONS ... ☐☐ AUCUNE 00	→ 1004
1002	Parmi ces injections, combien ont été effectuées par un médecin, une infirmière, un pharmacien, un dentiste ou un autre prestataire de santé ? SI LE NOMBRE D'INJECTIONS EST 90 OU PLUS, OU SI LES INJECTIONS ÉTAIENT QUOTIDIENNES PENDANT 3 MOIS OU PLUS, ENREGISTREZ '90'. SI LA RÉPONSE EST NON-NUMÉRIQUE, INSISTEZ POUR OBTENIR UNE ESTIMATION.	NOMBRE D'INJECTIONS ... ☐☐ AUCUNE 00	→ 1004
1003	La dernière fois que vous avez eu une injection effectuée par un prestataire de santé, est-ce qu'il/elle a pris la seringue et l'aiguille d'un emballage neuf qui n'avait pas été ouvert ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	
1004	Fumez-vous actuellement des cigarettes ?	OUI .... 1 NON 2	→1006
1005	Au cours des dernières 24 heures, combien de cigarettes avez-vous fumé ?	NOMBRE DE CIGARETTES .... ☐☐	
1006	Actuellement, est-ce que vous fumez ou utilisez un autre type de tabac ?	OUI .... 1 NON 2	→ 1008
1007	Quel (autre) type de tabac fumez-vous ou utilisez-vous ? ENREGISTREZ TOUT CE QUI EST MENTIONNÉ.	PIPE .... A TABAC À MACHER .... B TABAC À PRISER .... C AUTRE _____ X (PRÉCISEZ)	
1008	Il peut arriver que, pour différentes raisons, les femmes aient des difficultés pour obtenir un avis médical ou se faire soigner. Quand vous êtes malade et que vous voulez un avis médical ou un traitement, est-ce que chacune des raisons suivantes constituent, pour vous, un problème important ou non ?		
			PROBLÈME IMPOR- TANT	PAS PRO- BLÈME IMPOR- TANT
	Obtenir la permission d'aller voir un médecin ?	PERMISSION D'ALLER 1 2	
	Obtenir l'argent nécessaire pour le conseil ou le traitement ?	OBTENIR L'ARGENT ... 1 2	
	La distance pour atteindre l'établissement de santé ?	DISTANCE 1 2	
	Ne pas vouloir y aller seule ?	Y ALLER SEULE 1 2	
1009	Êtes-vous couverte par une assurance médicale ?	OUI .... 1 NON 2	→ 1010A

Nº	QUESTIONS ET FILTRES	CODES	PASSEZ À

1010	Par quels types d'assurances êtes-vous couverte ?
	
	ENREGISTREZ TOUT CE QUI EST MENTIONNÉ.
		ASSURANCE MUTUELLE/
		  ASSURANCE SANTÉ
		    COMMUNAUTAIRE .... A
		ASSURANCE SANTÉ PAR
		  L'EMPLOYEUR .... B
		SÉCURITÉ SOCIALE C
		AUTRE ASSURANCE PRIVÉE
		  COMMERCIALE .... D
		IMPUTATION BUDGETAIRE .... E
		
		AUTRE _____ X
		          (PRÉCISEZ)	

1010A	Souffrez-vous d'une quelconque des maladies suivantes :
	  diabète
	  hypertension artérielle/AVC
	  maladies cardiaques
	  insuffisance rénale
	  cancer
	  paralysie
	  asthme/bronchite chronique
	
	ENREGISTREZ TOUT CE QUI EST MENTIONNÉ.
		AUCUNE .... A
		DIABETE .... B
		HYPERTENSION ARTERIEL C
		MALADIES CARDIAQUES .... D
		INSUFFISANCE RENALE .... E
		CANCER .... F
		PARALYSIE .... G
		ASTHME/BRONCHITE CHRONIQUI ... H
		AUTRE _____ X
		          (PRÉCISEZ)
			→ 1101

1010B	Un diagnostic a-t-il été fait par un personnel médical?	OUI .... 1 NON .... 2 NE SAIT PAS 8	
1010C	A quel(s) type(s) de traitement avez-vous recours pour cette(ces) maladie(s) ? ENREGISTREZ TOUT CE QUI EST MENTIONNÉ.	Traitement médical prescrit..................... A Traitement médical automédication........ B Traitement traditionnel.......................... C Aucun traitement............................. D AUTRE _____ X (PRÉCISEZ)	

Nᵒ.	QUESTIONS ET FILTRES	CODES	PASSEZ À
1101	Avez-vous déjà entendu parler de l'excision ?	OUI .... 1 NON 2	➤ 1103
1102	Dans certains pays, il existe une pratique qui consiste à couper une partie des organes génitaux externes des filles. Avez-vous déjà entendu parler de cette pratique ?	OUI .... 1 NON 2	➤ 1201
1103	Vous-même, avez-vous été excisée ?	OUI .... 1 NON 2	➤ 1109
1104	Je voudrais maintenant vous poser des questions sur ce qui vous a été fait à ce moment-là. Vous a-t-on retiré des chairs de la zone génitale ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	➤ 1106
1105	Vous a-t-on seulement entaillé les parties génitales sans enlever de chairs ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	
1106	Vous a-t-on fermé la zone génitale par une couture ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	
1107	Quel âge aviez-vous quand on vous a excisée ? SI L'ENQUÊTÉE NE CONNAIT PAS L'ÂGE EXACT, ESSAYEZ D'EN OBTENIR UNE ESTIMATION.	ÂGE EN ANNÉES RÉVOLUES ☐☐ EN TANT QUE BÉBÉ/ PENDANT L'ENFANCE .... 95 NE SAIT PAS 98	

1108	Qui a procédé à votre excision ?	EXCISEUSE TRADITIONNELLE ... 11
		 MATRONE/ACCOUCHEUSE TRAD. 12
		 AUTRE
		     TRADITIONNEL _____ 16
		                  (PRÉCISEZ)	

1109	VÉRIFIEZ 213, 215 ET 216 : A AU MOINS N'A AUCUNE UNE FILLE VIVANTE ☐ FILLE VIVANTE ☐ NÉE EN 2000 NÉE EN 2000 OU PLUS TARD ↓ OU PLUS TARD ➤	1116

	VÉRIFIEZ 213, 215 ET 216: INSCRIVEZ DANS LE TABLEAU LE NUMÉRO DE L'HISTORIQUE DES NAISSANCES ET LE NOM DE CHAQUE FILLE VIVANTE NÉE EN 2000 OU PLUS TARD. POSEZ LES QUESTIONS POUR TOUTES CES FILLES . COMMENCEZ PAR LA PLUS JEUNE. (S'IL Y A PLUS DE 6 FILLES, UTILISEZ DES QUESTIONNAIRES SUPPLÉMENTAIRES). Je voudrais maintenant vous poser des questions sur (votre/vos filles) .			
1110	NUMÉRO DE L'HISTORIQUE DES NAISSANCES ET NOM DE CHAQUE FILLE VIVANTE NÉE EN 2000 OU PLUS TARD.	FILLE VIVANTE LA PLUS JEUNE (1ère FILLE LA PLUS JEUNE) NUMÉRO HISTORIQUE NAISSANCES ☐☐ NOM ____	AVANT-DERNIÈRE FILLE VIVANTE LA PLUS JEUNE (2e FILLE LA PLUS JEUNE) NUMÉRO HISTORIQUE NAISSANCES ☐☐ NOM ____	AVANT AVANT-DERNIÈRE FILLE VIVANTE LA PLUS JEUNE (3e FILLE LA PLUS JEUNE) NUMÉRO HISTORIQUE NAISSANCES ☐☐ NOM ____
1111	Est-ce que (NOM DE LA FILLE) est excisée ?	OUI . . . . 1 NON . . . . 2 (ALLEZ À 1111 ←⏋ À LA COLONNE SUIVANTE OU SI PLUS DE FILLES ALLEZ À 1116)	OUI . . . . 1 NON . . . . 2 (ALLEZ À 1111 ←⏋ À LA COLONNE SUIVANTE OU SI PLUS DE FILLES ALLEZ À 1116)	OUI . . . . 1 NON . . . . 2 (ALLEZ À 1111 ←⏋ À LA PREMIÈRE COLONNE DU NOUVEAU QUESTIONNAIRE; OU S'IL N'Y A PLUS DE FILLES ALLEZ À 1116)
1112	Quel âge avait (NOM DE LA FILLE) quand elle a été excisée ? SI L'ENQUÊTÉE NE CONNAÎT PAS L'ÂGE, ESSAYEZ D'EN OBTENIR UNE ESTIMATION.	ÂGE EN ANNÉES RÉVOLUES . . ☐☐ NE SAIT PAS 98	ÂGE EN ANNÉES RÉVOLUES . ☐☐ NE SAIT PAS 98	ÂGE EN ANNÉES RÉVOLUES . ☐☐ NE SAIT PAS 98
1113	Lui a-t-on fermé la zone génitale par une couture ? INSISTEZ : la zone génitale a-t-été fermée ?	OUI . . . . 1 NON . . . . 2 NE SAIT PAS 8	OUI . . . . 1 NON . . . . 2 NE SAIT PAS 8	OUI . . . . 1 NON . . . . 2 NE SAIT PAS 8
1114	Qui a procédé à l'excision de votre fille ?	EXCISEUSE TRADITION. . . 11 MATRONE/ ACCOUCHEUSE TRADITION. . . . . 12 AUTRE TRAD. _____ 16 (PRÉCISEZ) NE SAIT PAS 98	EXCISEUSE TRADITION . . . . 11 MATRONE/ ACCOUCHEUSE TRADITION . . . . 12 AUTRE TRAD. _____ 16 (PRÉCISEZ) NE SAIT PAS 98	EXCISEUSE TRADITION . . . . 11 MATRONE/ ACCOUCHEUSE TRADITION . . . . 12 AUTRE TRAD. _____ 16 (PRÉCISEZ) NE SAIT PAS 98
1115		RETOURNEZ À 1111 À LA COLONNE SUIVANTE OU S'IL N'Y A PLUS DE FILLES, ALLEZ À 1116.	RETOURNEZ À 1111 À LA COLONNE SUIVANTE OU S'IL N'Y A PLUS DE FILLES, ALLEZ À 1116.	RETOURNEZ À 1111 À LA COLONNE SUIVANTE DE LA PAGE SUIVANTE OU S'IL N'Y A PLUS DE FILLES, ALLEZ À 1116.
1110	NUMÉRO DE L'HISTORIQUE DES NAISSANCES ET NOM DE CHAQUE FILLE VIVANTE NÉE EN 2000 OU PLUS TARD.	AVANT AVANT AVANT-DERNIÈRE FILLE VIVANTE LA PLUS JEUNE (4e FILLE LA PLUS JEUNE) NUMÉRO HISTORIQUE NAISSANCES ☐☐ NOM ____	AVANT AVANT AVANT AVANT-DERNIÈRE FILLE VIVANTE LA PLUS JEUNE (5e FILLE LA PLUS JEUNE) NUMÉRO HISTORIQUE NAISSANCES ☐☐ NOM ____	AVANT AVANT AVANT AVANT AVANT-DERNIÈRE FILLE VIVANTE LA PLUS JEUNE (6e FILLE LA PLUS JEUNE) NUMÉRO HISTORIQUE NAISSANCES ☐☐ NOM ____
1111	Est-ce que (NOM DE LA FILLE) est excisée ?	OUI . . . . 1 NON . . . . 2 (ALLEZ À 1111 ←⏋ À LA COLONNE SUIVANTE OU SI PLUS DE FILLES ALLEZ À 1116)	OUI . . . . 1 NON . . . . 2 (ALLEZ À 1111 ←⏋ À LA COLONNE SUIVANTE OU SI PLUS DE FILLES ALLEZ À 1116)	OUI . . . . 1 NON . . . . 2 (ALLEZ À 1111 ←⏋ À LA PREMIÈRE COLONNE DU NOUVEAU QUESTIONNAIRE; OU S'IL N'Y A PLUS DE FILLES ALLEZ À 1116)

1112	Quel âge avait (NOM DE LA FILLE) quand elle a été excisée ? SI L'ENQUÊTÉE NE CONNAÎT PAS L'ÂGE, ESSAYEZ D'EN OBTENIR UNE ESTIMATION.	ÂGE EN ANNÉES RÉVOLUES . . ☐☐ NE SAIT PAS 98	ÂGE EN ANNÉES RÉVOLUES . ☐☐ NE SAIT PAS 98	ÂGE EN ANNÉES RÉVOLUES . ☐☐ NE SAIT PAS 98
1113	Lui a-t-on fermé la zone génitale par une couture ? INSISTEZ : la zone génitale a-t-été fermée ?	OUI . . . . 1 NON . . . . 2 NE SAIT PAS 8	OUI . . . . 1 NON . . . . 2 NE SAIT PAS 8	OUI . . . . 1 NON . . . . 2 NE SAIT PAS 8
1114	Qui a procédé à l'excision de votre fille ?	EXCISEUSE TRADITION. . . 11 MATRONE/ ACCOUCHEUSE TRADITION. . . . 12 AUTRE TRAD. _____ 16 (PRÉCISEZ) NE SAIT PAS 98	EXCISEUSE TRADITION . . . . 11 MATRONE/ ACCOUCHEUSE TRADITION . . . . 12 AUTRE TRAD. _____ 16 (PRÉCISEZ) NE SAIT PAS 98	EXCISEUSE TRADITION . . . . 11 MATRONE/ ACCOUCHEUSE TRADITION . . . . 12 AUTRE TRAD. _____ 16 (PRÉCISEZ) NE SAIT PAS 98
1115		RETOURNEZ À 1111 À LA COLONNE SUIVANTE DE CETTE PAGE OU S'IL N'Y A PLUS DE FILLES, ALLEZ À 1116.	RETOURNEZ À 1111 À LA COLONNE SUIVANTE DE CETTE PAGE OU S'IL N'Y A PLUS DE FILLES, ALLEZ À 1116.	RETOURNEZ À 1111 À LA PREMIÈRE COLONNE DU NOUVEAU QUESTIONNAIRE OU S'IL N'Y A PLUS DE FILLES, ALLEZ À 1116.
1116	Pensez-vous que l'excision est exigée par votre religion ?	OUI . . . . 1 NON . . . . 2 NE SAIT PAS 8		
1117	Pensez-vous que l'excision est une pratique qui doit continuer ou qui doit être abandonnée ?	CONTINUER . . . . 1 ABANDONNER . . . . 2 CELA DÉPEND . . . . 3 NE SAIT PAS 8		

N°.	QUESTIONS ET FILTRES	CODES	PASSEZ À
1201	Les femmes peuvent parfois avoir, en permanence, le jour et la nuit, un problème de pertes urinaires ou fécales par le vagin. Ce problème survient généralement à la suite d'un accouchement difficile, mais il peut aussi se produire après une agression sexuelle ou après une opération du pelvis. Avez-vous déjà eu, en permanence, durant le jour et la nuit, des pertes urinaires ou fécales par le vagin ?	OUI .... 1 NON 2	→ 1203
1202	Avez-vous déjà entendu parler de ce problème ?	OUI .... 1 NON 2	→ 1301
1203	Est-ce que ce problème est arrivé après un accouchement ?	OUI .... 1 NON 2	→ 1205
1204	Selon vous, qu'est-ce qui a causé ce problème ? PRÉCISEZ.	AGRESSION SEXUELLE .... 1 OPÉRATION DU PELVIS .... 2 AUTRE _____ 6 (PRÉCISEZ) NE SAIT PAS 8	→ 1207 → 1208
1205	Est-ce que ce problème est arrivé après un travail et un accouchement normaux ou après un travail et un accouchement très difficiles ?	TRAVAIL/ACCOUCHEM. NORMAL . 1 ACCOUCHEM. TRÈS DIFFICILE ... 2	
1206	Est-ce que ce bébé est né vivant ?	OUI, BÉBÉ EST NÉ VIVANT ...... 1 NON, BÉBÉ N'EST PAS NÉ VIVANT 2	
1207	Combien de jours après [RÉPONSE À 1203 OU 1204] les pertes ont-elles commencé ?	NOMBRE DE JOURS APRÈS ☐☐ ACCOUCH/AUTRE ÉVÈNEM. (INSCRIVEZ 90 SI 90 JOURS OU PLUS)	
1208	Avez-vous recherché un traitement pour ce problème ?	OUI .... 1 NON 2	→ 1210
1209	Pourquoi n'avez-vous pas recherché de traitement ? INSISTEZ ET ENREGISTREZ TOUT CE QUI EST MENTIONNÉ.	NE SAVAIT PAS QU'ON POUVAIT RÉPARER .... A NE SAVAIT PAS OÙ ALLER .... B TROP CHER ... . C TROP ÉLOIGNÉ .... D MAUVAISE QUALITÉ DES SOINS E N'A PAS PU OBTENIR PERMISSION F GÊNÉE .... G PROBLÈME A DISPARU .... H AUTRE _____ X (PRÉCISEZ)	→ 1301

1210	Auprès de qui avez-vous recherché un traitement en dernier ?	PROFESSIONNEL DE SANTÉ
		  MÉDECIN 1
		  INFIRMIÈRE/SAGE-FEMME ... 2
		
		AUTRE PERSONNE
		  AGENT DE SANTÉ
		    COMMUNAUTAIRE/
		    VILLAGEOISE 3
		  AUTRE _____ 6
		(PRÉCISEZ)	

1211	Est-ce que le traitement a stoppé complètement les pertes ?
	
	SI NON : Est-ce que le traitement à réduit les pertes ?
		OUI, PERTES STOPPÉES
		  COMPLÈTEMENT 1
		PERTES NON STOPPÉES MAIS
		  RÉDUITES 2
		PERTES PAS STOPPÉES
		  DU TOUT 3	

SECTION 13. MORTALITÉ MATERNELLE

NO.	QUESTIONS ET FILTRES	CODES	ALLER À
1301A	Maintenant, je voudrais vous poser des questions sur vos frères et sœurs, c'est-à-dire sur tous les enfants nés de votre mère biologique. Est-ce que votre mère a donné naissance à des enfants, en plus de vous-même ?	OUI .... 1 NON 2	→1301H
1301B	Combien votre mère a-t-elle eu de garçons qui sont encore en vie ?	GARÇONS VIVANTS .... ☐☐	
1301C	En dehors de vous, combien votre mère a-t-elle eu de filles qui sont encore en vie ?	FILLES VIVANTES .... ☐☐	
1301D	Combien votre mère a-t-elle eu de garçons qui sont décédés ?	GARÇONS DÉCÉDÉS .... ☐☐	
1301E	Combien votre mère a-t-elle eu de filles qui sont décédées ?	FILLES DÉCÉDÉES .... ☐☐	
1301F	Est-ce que votre mère a donné naissance à d'autres enfants dont vous ne savez pas s'ils sont vivants ou décédés ?	OUI .... 1 NON 2	→1301H
1301G	Combien d'autres enfants votre mère a-t-elle eu dont vous ne savez pas s'ils sont vivants ou décédés ?	AUTRES ENFANTS .... ☐☐	
1301H	ADDITIONNER LES REPONSES À 1301B, C, D, E, ET G, AJOUTER 1 (L'ENQUÊTÉE) ET NOTER LE TOTAL.	TOTAL..................... ☐☐	
1301I	VÉRIFIER 1301H: Juste pour être sûre que j'ai bien compris, y compris vous-même, votre mère a donné naissance à _____ enfants en tout. Est-ce bien exact ? OUI ☐↓ NON ☐→ INSISTER ET CORRIGER 1301A - 1301H COMME IL SE DOIT.		
1302	VÉRIFIER 1301H : DEUX NAISSANCES ☐↓ OU PLUS UNE NAISSANCE SEULEMENT ☐→ (ENQUÊTÉE SEULE)		→ 1314
1303	Combien de ces naissances votre mère a-t-elle eues avant votre propre naissance ?	NOMBRE DE NAISSANCES PRECEDENTES .... ☐☐	

Maintenant je voudrais faire la liste de tous vos frères et soeurs, qu'ils/elles soient encore en vie ou non, en partant du plus âgé.
NOTER LE NOM DE TOUS LES FRÈRES ET SOEURS.

		[1]	[2]	[3]	[4]	[5]	[6]
1304	Quel nom a été donné à votre frère ou sœur le/la plus âgé(e) (ou suivant) ?	_____	_____	_____	_____	_____	_____
1305	(NOM) est-il de sexe masculin ou féminin ?	MASC. 1 FÉM. 2	MASC. 1 FÉM. 2	MASC. 1 FÉM. 2	MASC. 1 FÉM. 2	MASC. 1 FÉM. 2	MASC. 1 FÉM. 2
1306	Est-ce que (NOM) est toujours en vie ?	OUI .... 1 NON .... 2 ALLER À 1308◄ NSP .... 8 ALLER À [2]◄	OUI .... 1 NON .... 2 ALLER À 1308◄ NSP .... 8 ALLER À [3]◄	OUI .... 1 NON .... 2 ALLER À 1308◄ NSP .... 8 ALLER À [4]◄	OUI .... 1 NON .... 2 ALLER À 1308◄ NSP .... 8 ALLER À [5]◄	OUI .... 1 NON .... 2 ALLER À 1308◄ NSP .... 8 ALLER À [6]◄	OUI .... 1 NON .... 2 ALLER À 1308◄ NSP .... 8 ALLER À [7]◄
1307	Quel âge a (NOM) ?	☐☐ ALLER À [2]	☐☐ ALLER À [3]	☐☐ ALLER À [4]	☐☐ ALLER À [5]	☐☐ ALLER À [6]	☐☐ ALLER À [7]
1308	Combien y a-t-il d'années que (NOM) est décédé(e) ?	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐
1309	Quel âge avait (NOM) lorsqu'il/elle est décédé(e) ? SI NE SAIT PAS, INSISTER : Est-ce que [NOM] est est mort(e) avant l'âge de douze ans? SI OUI, NOTER '95'. SI NON, POSER D'AU-TRES QUESTIONS POUR OBTENIR UNE ESTIMATION. PAR EXEMPLE : Est-ce que [NOM] est mort(e) avant de se marier ?	☐☐ SI HOMME, OU SI FEMME DÉCÉDÉE AVANT L'ÂGE DE 12 ANS, ALLER À [2]	☐☐ SI HOMME, OU SI FEMME DÉCÉDÉE AVANT L'ÂGE DE 12 ANS, ALLER À [3]	☐☐ SI HOMME, OU SI FEMME DÉCÉDÉE AVANT L'ÂGE DE 12 ANS, ALLER À [4]	☐☐ SI HOMME, OU SI FEMME DÉCÉDÉE AVANT L'ÂGE DE 12 ANS, ALLER À [5]	☐☐ SI HOMME, OU SI FEMME DÉCÉDÉE AVANT L'ÂGE DE 12 ANS, ALLER À [6]	☐☐ SI HOMME, OU SI FEMME DÉCÉDÉE AVANT L'ÂGE DE 12 ANS, ALLER À [7]
1310	(NOM) était-elle enceinte quand elle est décédée ?	OUI ... 1 ALLER À 1313◄ NON... 2	OUI ... 1 ALLER À 1313◄ NON... 2	OUI .... 1 ALLER À 1313◄ NON.... 2	OUI ... 1 ALLER À 1313◄ NON... 2	OUI ... 1 ALLER À 1313◄ NON... 2	OUI ... 1 ALLER À 1313◄ NON... 2
1311	Est-ce que (NOM) est décédée au cours d'un accouchement ?	OUI ... 1 ALLER À 1313◄ NON... 2	OUI ... 1 ALLER À 1313◄ NON... 2	OUI .... 1 ALLER À 1313◄ NON.... 2	OUI ... 1 ALLER À 1313◄ NON... 2	OUI ... 1 ALLER À 1313◄ NON... 2	OUI ... 1 ALLER À 1313◄ NON... 2
1312	Est-ce que (NOM) est décédée dans les 42 jours suivant la fin d'une grossesse ou d'un accouchement?	OUI ... 1 NON... 2	OUI ... 1 NON... 2	OUI .... 1 NON.... 2	OUI ... 1 NON... 2	OUI ... 1 NON... 2	OUI ... 1 NON... 2
1313	À combien d'enfants vivants (NOM) a-t-elle donné naissance au cours de sa vie ?	☐☐ ALLER À [2]	☐☐ ALLER À [3]	☐☐ ALLER À [4]	☐☐ ALLER À [5]	☐☐ ALLER À [6]	☐☐ ALLER À [7]

SI PLUS AUCUN FRÈRE OU SOEUR, ALLER À 1314

1304	Quel nom a été donné à votre frère ou sœur le plus âgé (ou suivant) ?	[7] _____	[8] _____	[9] _____	[10] _____	[11] _____	[12] _____
1305	(NOM) est-il de sexe masculin ou féminin ?	MASC. 1 FÉM. 2	MASC. 1 FÉM. 2	MASC. 1 FÉM. 2	MASC. 1 FÉM. 2	MASC. 1 FÉM. 2	MASC. 1 FÉM. 2
1306	Est-ce que (NOM) est toujours en vie ?	OUI .... 1 NON .... 2 ALLER À 1308 NSP .... 8 ALLER À [8]	OUI .... 1 NON .... 2 ALLER À 1308 NSP .... 8 ALLER À [8]	OUI .... 1 NON .... 2 ALLER À 1308 NSP .... 8 ALLER À [10]	OUI .... 1 NON .... 2 ALLER À 1308 NSP .... 8 ALLER À [11]	OUI .... 1 NON .... 2 ALLER À 1308 NSP .... 8 ALLER À [12]	OUI .... 1 NON .... 2 ALLER À 1308 NSP .... 8 ALLER À [13]
1307	Quel âge a (NOM) ?	☐☐ ALLER À [8]	☐☐ ALLER À [9]	☐☐ ALLER À [10]	☐☐ ALLER À [11]	☐☐ ALLER À [12]	☐☐ ALLER À [13]
1308	Combien y a-t-il d'années que (NOM) est décédé(e) ?	☐☐	☐☐	☐☐	☐☐	☐☐	☐☐
1309	Quel âge avait (NOM) lorsqu'il/elle est décédé(e) ? SI NE SAIT PAS, INSISTER : Est-ce que [NOM] est est mort(e) avant l'âge de douze ans? SI OUI, NOTER '95'. SI NON, POSER D'AUTRES QUESTIONS POUR OBTENIR UNE ESTIMATION. PAR EXEMPLE : Est-ce que [NOM] est mort(e) avant de se marier ?	☐☐ SI HOMME, OU SI FEMME DÉCÉDÉE AVANT L'ÂGE DE 12 ANS, ALLER À [8]	☐☐ SI HOMME, OU SI FEMME DÉCÉDÉE AVANT L'ÂGE DE 12 ANS, ALLER À [9]	☐☐ SI HOMME, OU SI FEMME DÉCÉDÉE AVANT L'ÂGE DE 12 ANS, ALLER À [10]	☐☐ SI HOMME, OU SI FEMME DÉCÉDÉE AVANT L'ÂGE DE 12 ANS, ALLER À [11]	☐☐ SI HOMME, OU SI FEMME DÉCÉDÉE AVANT L'ÂGE DE 12 ANS, ALLER À [12]	☐☐ SI HOMME, OU SI FEMME DÉCÉDÉE AVANT L'ÂGE DE 12 ANS, ALLER À [13]
1310	(NOM) était-elle enceinte quand elle est décédée ?	OUI ... 1 ALLER À 1313 NON... 2	OUI ... 1 ALLER À 1313 NON... 2	OUI .... 1 ALLER À 1313 NON.... 2	OUI ... 1 ALLER À 1313 NON... 2	OUI ... 1 ALLER À 1313 NON... 2	OUI ... 1 ALLER À 1313 NON... 2
1311	Est-ce que (NOM) est décédée au cours d'un accouchement ?	OUI ... 1 ALLER À 1313 NON... 2	OUI ... 1 ALLER À 1313 NON... 2	OUI .... 1 ALLER À 1313 NON.... 2	OUI ... 1 ALLER À 1313 NON... 2	OUI ... 1 ALLER À 1313 NON... 2	OUI ... 1 ALLER À 1313 NON... 2
1312	Est-ce que (NOM) est décédée dans les deux mois suivant la fin d'une grossesse ou d'un accouchement?	OUI ... 1 NON... 2	OUI ... 1 NON... 2	OUI ... 1 NON.... 2	OUI ... 1 NON... 2	OUI ... 1 NON... 2	OUI ... 1 NON... 2
1313	À combien d'enfants vivants (NOM) a-t-elle donné naissance au cours de sa vie?	☐☐ ALLER À [8]	☐☐ ALLER À [9]	☐☐ ALLER À [10]	☐☐ ALLER À [11]	☐☐ ALLER À [12]	☐☐ ALLER À [13]

SI IL N Y A PLUS AUCUN FRÈRE OU SOEUR, ALLER À 1314

1314	ENREGISTRER L'HEURE	HEURES .... ☐☐ MINUTES .... ☐☐

<u>OBSERVATIONS DE L'ENQUÊTRICE</u>

À REMPLIR UNE FOIS L'INTERVIEW TERMINÉE

COMMENTAIRES CONCERNANT L'ENQUÊTÉE

_____

_____

_____

_____

_____

_____

COMMENTAIRES SUR DES QUESTIONS PARTICULIÈRES

_____

_____

_____

_____

_____

AUTRES COMMENTAIRES

_____

_____

_____

_____

_____

<u>OBSERVATION DU CHEF D'ÉQUIPE</u>

_____

_____

_____

_____

_____

_____

_____

NOM DU CHEF D''EQUIPE : _____   DATE : _____

<u>OBSERVATION DE LA CONTRÔLEUSE</u>

_____

_____

_____

_____

_____

NOM DE LA CONTRÔLEUSE : _____   DATE : _____

W-66

INSTRUCTIONS: **1**   **2**

		02	FEV	11			2 0 1 1
		01	JAN	12			

UN SEUL CODE DOIT FIGURER DANS CHAQUE CASE.
UN CODE DOIT ÊTRE INSCRIT À CHAQUE MOIS À LA COLONNE 1.

CODES À UTILISER POUR CHAQUE COLONNE

COLUMN 1: NAISSANCES, GROSSESSES, UTILIS. CONTRACEP. **
- N NAISSANCES
- G GROSSESSES
- F FIN DE GROSSESSE

- 0 AUCUNE MÉTHODE
- 1 STÉRILISATION FÉMININE
- 2 STÉRILISATION MASCULINE
- 3 DIU
- 4 INJECTABLES
- 5 IMPLANTS
- 6 PILULE
- 7 CONDOM
- 8 CONDOM FÉMININ
- 9 DIAPHRAGME
- J MOUSSE OU GELÉE
- K MAMA
- L MÉTHODE DU RYTHME
- M RETRAIT
- X AUTRE MÉTHODE MODERNE
- Y AUTRE MÉTHODE TRADITIONNELLE

COLUMN 2: DISCONTINUATION OU UTILIS. CONTRACEPTIVE
- 0 RAPPORTS SEX. PEU FRÉQUENTS/MARI ABSENT
- 1 TOMBÉE ENCEINTE ALORS QU'ELLE UTILISAIT
- 2 SOUHAITAIT TOMBER ENCEINTE
- 3 MARI/PARTENAIRE DÉSAPPROUVE
- 4 VOULAIT MÉTHODE PLUS EFFICACE
- 5 PEUR DES EFFETS SECONDAIRES
- 6 MANQUE D'ACCESSIBILITÉ/TROP ÉLOIGNÉ
- 7 COÛTE TROP CHER
- 8 PAS PRATIQUE À UTILISER
- F FATALISTE
- A DIFFICULTÉS POUR TOMBER ENCEINTE/MÉNOPAUSE
- D DISSOLUTION DU MARIAGE/SÉPARATION
- X AUTRE _____
                    (PRÉCISEZ)
- Z NE SAIT PAS

Year-month code columns (Column 1 / Column 2):

Année	Mois-code	Mois	N°	1	2	Année
2	12	DEC	01			
0	11	NOV	02			
1	10	OCT	03			
0	09	SEP	04			
2	08	AOUT	05			2
0	07	JUILLET	06			0
1	06	JUIN	07			1
0	05	MAI	08			0
*	04	AVRIL	09			*
	03	MARS	10			
	02	FEV	11			
	01	JAN	12			
	12	DEC	13			
	11	NOV	14			
	10	OCT	15			
	09	SEP	16			
2	08	AOUT	17			2
0	07	JUILLET	18			0
0	06	JUIN	19			0
9	05	MAI	20			9
*	04	AVRIL	21			*
	03	MARS	22			
	02	FEV	23			
	01	JAN	24			
	12	DEC	25			
	11	NOV	26			
	10	OCT	27			
	09	SEP	28			
2	08	AOUT	29			2
0	07	JUILLET	30			0
0	06	JUIN	31			0
8	05	MAI	32			8
*	04	AVRIL	33			*
	03	MARS	34			
	02	FEV	35			
	01	JAN	36			
	12	DEC	37			
	11	NOV	38			
	10	OCT	39			
	09	SEP	40			
2	08	AOUT	41			2
0	07	JUILLET	42			0
0	06	JUIN	43			0
7	05	MAI	44			7
*	04	AVRIL	45			*
	03	MARS	46			
	02	FEV	47			
	01	JAN	48			
	12	DEC	49			
	11	NOV	50			
	10	OCT	51			
	09	SEP	52			
2	08	AOUT	53			2
0	07	JUILLET	54			0
0	06	JUIN	55			0
6	05	MAI	56			6
*	04	AVRIL	57			*
	03	MARS	58			
	02	FEV	59			
	01	JAN	60			
	12	DEC	61			
	11	NOV	62			
	10	OCT	63			
	09	SEP	64			
2	08	AOUT	65			2
0	07	JUILLET	66			0
0	06	JUIN	67			0
5	05	MAI	68			5
*	04	AVRIL	69			*
	03	MARS	70			
	02	FEV	71			
	01	JAN	72			

* On suppose que l'année de l'enquête sera 2010. Pour le terrain commençant
en 2011 ou 2012, les années devront être adaptées.

** Des codes peuvent être ajoutés pour d'autres méthodes, comme
celles basées sur la connaissance de la fécondité.

ENQUÊTE DÉMOGRAPHIQUE ET DE SANTÉ A INDICATEURS MULTIPLES (EDSV-MICS_2010)
QUESTIONNAIRE HOMME

République du Sénégal   ICF Macro
Ministère de l'Economie et des Finances
Ministère de la Santé et de la Prévention Médicale

IDENTIFICATION	
NOM DE LA LOCALITÉ _____	
NOM DU CHEF DE MÉNAGE _____ NUMÉRO DU MÉNAGE ____	MÉNAGE . . . . . . ☐☐
NUMÉRO DE CONCESSIOI	CONCES. . . . . ☐☐
NUMÉRO DE GRAPPE	GRAPPE . . ☐☐☐
RÉGION _____	RÉGION . . . . . . ☐
DEPARTEMENT _____	DEPARTEMENT . ☐
DISTRICT SANITAIRE _____	DISTRICT. . . . . . . ☐
URBAIN/RURAL (URBAIN=1, RURAL=2)	MILIEU . . . . ☐
DAKAR/CAPITALE RÉGIONALE/AUTRE VILLE/RURAL . . . . (DAKAR=1, CAPITALE RÉGIONALE=2, AUTRE VILLE=3, RURAL=4)	MILIEU (DÉTAILLÉ) . . . . ☐
NOM ET NUMÉRO DE LIGNE DE L'HOMME _____	Nº DE LIGNE . . . . ☐☐

VISITES D'ENQUÊTRICE				
	1	2	3	VISITE FINALE
DATE	_____	_____	_____	JOUR . . . . ☐☐
				MOIS . . . . ☐☐
				ANNÉE . **2 0 1** ☐
NOM DE L'ENQUÊTRICE	_____	_____	_____	CODE ENQUÊ . . . . ☐☐
RÉSULTAT*	_____	_____	_____	CODE RÉSULTAT. . . . . . ☐
PROCHAINE DATE VISITE HEURE	_____ _____	_____ _____	[grisé]	NBRE TOTAL DE VISITES . . . . ☐

*CODES RÉSULTAT :
     1   REMPLI   4   REFUSÉ
     2   PAS À LA MAISON   5   REMPLI PARTIELLEMENT   7   AUTRE _____
     3   DIFFÉRÉ   6   INCAPACITÉ   (PRÉCISER)

LANGUE DE QUESTIONNAIRE** _____	**1**	LANGUE DE L'INTERVIEW** _____	☐	INTERPRÈTE (OUI=1, NON=2)	☐

**CODES LANGUE :   1   FRANÇAIS   4   SERER   8   AUTRES
                       2   WOLOF   5   MANDINGUE
                       3   POULAR   6   DIOLA

CONTRÔLEUSE	CHEF D'ÉQUIPE	CONTRÔLE BUREAU	SAISI PAR
NOM _____	NOM _____	☐☐	☐☐
DATE _____ ☐☐	DATE _____ ☐☐		

<u>SECTION 1. CARACTÉRISTIQUES SOCIODÉMOGRAPHIQUES DE L'ENQUÊTÉ</u>

PRÉSENTATION ET CONSENTEMENT INFORMÉ

CONSENTEMENT INFORMÉ

Bonjour. Je m'appelle _____ et je travaille pour l'ANSD. Nous effectuons une enquête nationale sur la santé uu SENEGAL. Les informations que nous collectons aideront votre gouvernement à améliorer les services de santé. Votre ménage a été sélectionné pour cette enquête. Les questions prennent habituellement entre 30 et 60 minutes. Toutes les informations que vous nous donnerez sont strictement confidentielles et elles ne seront transmises à personne d'autre que les membres de l'équipe d'enquête. Vous n'êtes pas obligée de participer à cette enquête mais nous espérons que vous accepterez d'y participer car votre opinion est très importante. S'il arrivait que je pose une question à laquelle vous ne voulez pas répondre, dites-le moi et je passerai à la question suivante ; vous pouvez également interrompre l'interview à n'importe quel moment.

Si vous souhaitez plus d'informations sur l'enquête, vous pouvez contacter la personne dont le nom figure sur la carte qui a déjà été donnée à votre ménage.
Avez-vous des questions ? Puis-je commencer l'interview maintenant ?

SIGNATURE DE L'ENQUÊTEUR : _____   DATE: _____

L'ENQUÊTÉ ACCEPTE D'ÊTRE INTERVIEWÉ   ... 1   L'ENQUÊTÉ REFUSE D'ÊTRE INTERVIEWÉ   .... 2→ FIN

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
101	ENREGISTREZ L'HEURE.	HEURE .... ☐☐ MINUTES .... ☐☐	
102	En quel mois et en quelle année êtes-vous né ?	MOIS .... ☐☐ NE CONNAÎT PAS LE MOIS .... 98 ANNÉE .... ☐☐☐☐ NE CONNAÎT PAS L'ANNÉE 9998	
103	Quel âge aviez-vous à votre dernier anniversaire ? COMPAREZ ET CORRIGEZ 102 ET/OU 103 SI INCOHÉRENT.	ÂGE EN ANNÉES RÉVOLUES ☐☐	
104	Êtes-vous allée à l'école ?	OUI .... 1 NON 2	→ 108
105	Quel est le plus haut niveau d'études que vous avez atteint : primaire, secondaire ou supérieur ?	ELEMENTAIRE .... 1 MOYEN .... 2 SECONDAIRE .... 3 SUPÉRIEUR .... 4 AUTRE _____ 6 (PRÉCISEZ)	
106	Quel est (l'année/classe) la plus élevée que vous avez achevée à ce niveau ? SI MOINS D'UNE ANNÉE A ÉTÉ ACHEVÉE À CE NIVEAU, INSCRIVEZ '00'.	CLASSE/ANNÉE .... ☐☐	

107	VÉRIFIEZ 105:
	
	ELEMENTAIRE ☐ MOYEN
	          ↓ SECONDAIRE ☐
	                    OU SUPÉRIEUR
			→ 110

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À

108	Je voudrais maintenant que vous me lisiez cette phrase.
	
	MONTREZ LA CARTE À L'ENQUÊTÉ.
	
	SI L'ENQUÊTÉE NE PEUT LIRE TOUTE LA PHRASE,
	INSISTEZ:
	Pouvez-vous lire une partie de la phrase ?
		NE PEUT PAS LIRE DU TOUT 1
		PEUT SEULEMENT LIRE DES PARTIES
		   DE LA PHRASE 2
		PEUT LIRE TOUTE LA PHRASE 3
		PAS DE CARTE DANS
		   LA LANGUE DE
		   L'ENQUÊTÉ _____ 4
		           (PRÉCISEZ LA LANGUE)
		AVEUGLE/PROBLÈMES DE VUE 5	

108A	Avez-vous déjà participé à un programme d'alphabétisation ou à un autre programme qui comprenait l'apprentissage de la lecture et de l'écriture (non compris l'école primaire) ?	OUI .... 1 NON................................ 2	→ 109
108B	Dans quelles langues étaient donnés les programmes d'alphabétisation auxquels vous avez participé ? INSISTER : Aucun autre ? ENREGISTRER TOUT CE QUI EST MENTIONNÉ.	ARABE/MEDERSA .... A WOLOF .... B POULAR .... C SERER. .... D DIOLA .... E MANDINGUE .... F SONINKE ... . G AUTRE _____ X (PRÉCISEZ LANGUE)	

109	VÉRIFIEZ 108:
	
	    CODE '2', '3' ☐ CODE '1' OU '5'
	       OU '4' ENCERCLÉ ☐
	   ENCERCLÉ ↓
			→ 111

110	Lisez-vous un journal,l'internet ou un magazine au moins une fois par semaine, moins d'une fois par semaine ou pas du tout ?	AU MOINS UNE FOIS PAR SEMAINE 1 MOINS D'UNE FOIS PAR SEMAINE ... 2 PAS DU TOUT 3	
111	Écoutez-vous la radio au moins une fois par semaine, moins d'une fois par semaine ou pas du tout ?	AU MOINS UNE FOIS PAR SEMAINE 1 MOINS D'UNE FOIS PAR SEMAINE ... 2 PAS DU TOUT 3	
112	Regardez-vous la télévision au moins une fois par semaine, moins d'une fois par semaine ou pas du tout ?	AU MOINS UNE FOIS PAR SEMAINE 1 MOINS D'UNE FOIS PAR SEMAINE ... 2 PAS DU TOUT 3	
113	Quelle est votre religion?	MUSULMAN .... 1 CHRÉTIEN .... 2 ANIMISTE .... 3 SANS RELIGION .... 4 AUTRE _____ 5 (PRÉCISEZ)	
114A	Etes-vous sénégalais ?	OUI .... 1 NON 2	→ 115
114	Quelle est votre ethnie?	WOLOF .... 01 POULAR .... 02 SERER .... 03 MANDINGUE .... 04 DIOLA .... 05 SONINKÉ.......................... 06 AUTRE _____ 96 (PRÉCISEZ)	
115	Au cours des 12 derniers mois, combien de fois avez-vous dormi ailleurs que chez vous pour une ou plusieurs nuits ?	NOMBRE DE FOIS .... ☐☐ AUCUNE 00	→ 201
116	Au cours des 12 derniers mois, avez-vous été absent de chez vous pendant plus d'un mois d'affilée ?	OUI .... 1 NON 2	

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
201	Je voudrais maintenant vous poser des questions sur tous les enfants que vous avez eus durant votre vie. Je m'intéresse à tous vos enfants biologiques, même s'ils ne sont pas légalement les votres ou s'ils ne portent pas votre nom. Avez-vous ou avez-vous eu des enfants que vous avez engendrés ?	OUI .... 1 NON.............................. 2 NE SAIT PAS 8	→ 206
202	Avez-vous des fils ou des filles dont vous êtes le père et qui vivent actuellement avec vous ?	OUI .... 1 NON.............................. 2	→ 204
203	Combien de fils vivent avec vous ? Et combien de filles vivent avec vous ? SI AUCUN, INSCRIVEZ '00'.	FILS À LA MAISON .... FILLES À LA MAISON	
204	Avez-vous des fils ou filles dont vous êtes le père qui sont toujours en vie mais qui ne vivent pas avec vous ?	OUI .... 1 NON.............................. 2	→ 206
205	Combien de fils sont vivants mais qui ne vivent pas avec vous ? Combien de filles sont vivantes mais qui ne vivent pas avec vous ? SI AUCUN, INSCRIVEZ '00'.	FILS AILLEURS .... FILLES AILLEURS	
206	Avez-vous eu une fille ou un garçon qui est né vivant mais qui est décédé par la suite ? SI NON, INSISTEZ : aucun bébé qui a crié ou montré un signe de vie mais qui n'a pas survécu ?	OUI .... 1 NON.............................. 2 NE SAIT PAS 8	→ 208
207	Combien de garçons sont décédés ? Combien de filles sont décédées ? SI AUCUN, INSCRIVEZ '00'.	GARÇONS DÉCÉDÉS ..... FILLES DÉCÉDÉES	
208	FAITES LA SOMME DES RÉPONSES À 203, 205, ET 207, ET INSCRIVEZ LE TOTAL. SI AUCUN, INSCRIVEZ '00'.	TOTAL DES ENFANTS	
209	VÉRIFIEZ 208 : A EU PLUS D'UN ENFANT □ A EU SEULEMENT UN ENFANT □ N'A EU AUCUN ENFANT □		→ 212 → 301
210	Est-ce que tous les enfants dont vous êtes le père ont tous la même mère biologique ?	OUI .... 1 NON.............................. 2	→ 212
211	En tout, avec combien de femmes avez-vous eu des enfants ?	NOMBRE DE FEMMES	
212	Quel âge aviez-vous quand est né votre (premier) enfant ?	ÂGE EN ANNÉES	
213	VÉRIFIEZ 203 ET 205 : AU MOINS UN ENFANT VIVANT □ AUCUN ENFANT VIVANT □		→ 301
214	Quel âge a votre (plus jeune) enfant ?	ÂGE EN ANNÉES	

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
215	VÉRIFIEZ 214 : (PLUS JEUNE) ☐ AUTRE ☐ ENFANT A 0-2 ANS		→ 301
216	Quel est le nom de votre (plus jeune) enfant ? INSCRIVEZ LE NOM DE L'ENFANT (LE PLUS JEUNE) <u> </u> (NOM DU (PLUS JEUNE) ENFANT)		
217	Quand la mère de (NOM) était enceinte de (NOM), a-t-elle eu des examens prénatals ?	OUI .... 1 NON............................. 2 NE SAIT PAS 8	→ 219
218	Est-ce que vous étiez présent pendant l'un de ces examens prénatals ?	PRÉSENT .... 1 PAS PRÉSENT 2	
219	Est-ce que (NOM) est né dans un hôpital ou un établissement de santé ?	HÔPITAL/ÉTABLISSEMENT SANTÉ ... 1 AUTRE 2	
220	Quand un enfant a la diarrhée, quelle quantité de liquides doit-on lui donné à boire : plus que d'habitude, environ la même quantité que d'habitude, moins que d'habitude ou rien à boire du tout ?	PLUS QUE D'HABITUDE .... 1 MÊME QUANTITÉ .... 2 MOINS QUE D'HABITUDE .... 3 RIEN À BOIRE .... 4 NE SAIT PAS 8	

301	Je voudrais maintenant que nous parlions de planification familiale, c'est-à-dire des différents moyens ou méthodes qu'un couple peut utiliser pour retarder ou éviter une grossesse. De quelle MÉTHODE avez-vous déjà entendu parler ?		
01	**Stérilisation féminine.** INSISTEZ : Les femmes peuvent avoir une opération pour ne plus avoir d'enfants.	OUI . . . . 1 NON 2	
02	**Stérilisation masculine.** INSISTEZ : Les hommes peuvent avoir une opération pour ne plus avoir d'enfants.	OUI . . . . 1 NON 2	
03	**DIU.** INSISTEZ : Les femmes peuvent avoir un stérilet qu'un médecin ou une infirmière leur place dans l'utérus.	OUI . . . . 1 NON 2	
04	**Injectables.** INSISTEZ : Les femmes peuvent avoir une injection faite par du personnel de santé qui les empêche de tomber enceinte pendant un mois ou plus.	OUI . . . . 1 NON 2	
05	**Implants.** INSISTEZ : Les femmes peuvent se faire insérer par un médecin ou une infirmière un batonnet ou plus sous la peau du haut du bras pour les empêcher de tomber enceinte, pendant une année ou plus.	OUI . . . . 1 NON 2	
06	**Pilule.** INSISTEZ : Les femmes peuvent prendre une pilule chaque jour pour éviter de tomber enceinte.	OUI . . . . 1 NON 2	
07	**Condom.** INSISTEZ : Les hommes peuvent mettre une capote en caoutchouc sur leur pénis avant les rapports sexuels.	OUI . . . . 1 NON 2	
08	**Condom féminin.** INSISTEZ : Les femmes peuvent placer un fourreau dans leur vagin avant les rapports sexuels.	OUI . . . . 1 NON 2	
09	**Méthode de l'Allaitement Maternel et de l'Aménorrhée (MAMA)**	OUI . . . . 1 NON 2	
10	**Méthode du rythme.** INSISTEZ : Les femmes peuvent éviter une grossesse en évitant d'avoir des rapports sexuels les jours du mois où elles ont le plus de chances de tomber enceintes.	OUI . . . . 1 NON 2	
11	**Retrait.** INSISTEZ : Les hommes peuvent faire attention et se retirer avant l'éjaculation.	OUI . . . . 1 NON 2	
12	**Pilule du lendemain.** INSISTEZ : Les femmes peuvent prendre pendant trois jours après des rapports sexuels non protégés des pilules spéciales qui les empêchent de tomber enceintes.	OUI . . . . 1 NON 2	
13	Avez-vous entendu parler d'autres moyens ou méthodes qu'une femme ou un homme peut utiliser pour éviter une grossesse ?	OUI . . . . 1 _____ (PRÉCISEZ) _____ (PRÉCISEZ) NON 2	

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À

| 302 | Au cours des derniers mois, avez-vous :

Entendu parler de planification familiale à la radio ?
Vu quelque chose sur la planification familiale à la télévision ?
Lu quelque chose sur la planification familiale dans un journal ou un magazine ? | OUI NON
RADIO 1   2
TÉLÉVISION 1   2
JOURNAL OU MAGAZINE ... 1   2 | |

| 303 | Au cours des derniers mois, avez-vous discuté de planification familiale avec un agent de santé ou un professionnel de la santé ? | OUI 1
NON .... 2 | |

| 304 | Je voudrais maintenant vous poser des questions sur les risques de grossesse.

Entre la période des règles et les règles suivantes, y a-t-il certains jours où les femmes ont plus de chances de tomber enceintes que d'autres quand elles ont des rapports sexuels ? | OUI 1
NON 2
NE SAIT PAS .... 8 | → 306 |

| 305 | Est-ce que cette période se situe juste avant que les règles ne commencent, pendant la période des règles, juste après que les règles soient terminées ou bien au milieu de deux périodes de règles ? | JUSTE AVANT QUE LES RÈGLES
     COMMENCENT 1
PENDANT LES RÈGLES 2
JUSTE APRÈS LA FIN DES
     RÈGLES 3
AU MILIEU, ENTRE
       DEUX PÉRIODES 4
AUTRE _____ 6
          (PRÉCISEZ)
NE SAIT PAS .... 8 | |

| 306 | Je vais maintenant vous lire des déclarations sur la contraception. Dites-moi, s'il vous plaît, si vous êtes d'accord ou pas avec chacune de ces déclarations.

a)   La contraception est l'affaire des femmes à laquelle les hommes ne devraient pas s'intéresser.
b)   Les femmes qui utilisent la contraception peuvent devenir de mœurs légères. | PAS
      D'ACCORD   ACCORD NSP
CONTRACEPTION
  AFFAIRE DES FEMMES 1   2   8
FEMME PEUT DEVENIR
  LÉGÈRE   1   2   8 | |

| 307 | VÉRIFIEZ 301 (07) : CONNAÎT CONDOM MASCULIN

      OUI ☐   NON ☐ | | → 311 |

| 308 | Connaissez-vous un endroit où une personne peut se procurer des condoms ? | OUI 1
NON .... 2 | → 311 |

| 309 | Où est-ce ?

Pas d'autre endroit ?

INSISTEZ POUR DÉTERMINER CHAQUE TYPE D'ENDROIT

SI VOUS NE POUVEZ PAS DÉTERMINER SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT.

      _____
         (NOM DE L'ENDROIT/
         NOM DES ENDROITS) | SECTEUR PUBLIC
  HÔPITAL GOUV. .... A
  CENTRE SANTÉ GOUV. .... B
  POSTE SANTÉ C
  CENTRE DE PF GOUV. .... D
  MATERNITÉ RURALE .... E
  CASE DE SANTÉ .... F
  PHARMACIE COMMUNAUTAIRE . G
  STRAT. AVANCÉE/EQU. MOBILE H
  AUTRE PUBLIC   I
      _____
        (PRÉCISEZ)

SECTEUR MÉDICAL PRIVÉ
  HÔPITAL/CLINIQUE/CABINET
    PRIVÉ .... J
  PHARMACIE .... K
  MÉDECIN PRIVÉ L
  DISPENSAIRE RELIG .... M

  AUTRE MEDICAL PRIVÉ   N
      _____
        (PRÉCISEZ)

AUTRE SOURCE
  BOUTIQUE .... O
  ÉGLISE .... P
  PARENTS/AMIS .... Q
  BAR .... R

AUTRE _____ X
         (PRÉCISEZ) | |

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
310	Est-ce que vous pouvez vous procurer des condoms si vous le souhaitez ?	OUI .... 1 NON 2	
311	VÉRIFIEZ 301 (08) : CONNAÎT CONDOM FÉMININ OUI ☐ NON ☐ —————————————————————▶		401
312	Connaissez-vous un endroit où une personne peut se procurer des condoms féminins ?	OUI .... 1 NON 2	▶ 401

313	Où est-ce ?
	
	Pas d'autre endroit ?
	
	INSISTEZ POUR DÉTERMINER CHAQUE TYPE D'ENDROIT.
	
	SI VOUS NE POUVEZ PAS DÉTERMINER SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT
	
	(NOM DE L'ENDROIT/
	NOM DES ENDROITS)
		SECTEUR PUBLIC
		    HÔPITAL GOUV. .... A
		    CENTRE SANTÉ GOUV. .... B
		    POSTE SANTÉ C
		    CENTRE DE PF GOUV. .... D
		    MATERNITÉ RURALE .... E
		    CASE DE SANTÉ .... F
		    PHARMACIE COMMUNAUTAIRE . G
		    STRAT. AVANCÉE/EQU. MOBILE H
		    AUTRE PUBLIC I
		
		        _____
		            (PRÉCISEZ)
		
		SECTEUR MÉDICAL PRIVÉ
		    HÔPITAL/CLINIQUE/CABINET
		        PRIVÉ .... J
		    PHARMACIE .... K
		    MÉDECIN PRIVÉ L
		    DISPENSAIRE RELIG .... M
		
		    AUTRE MEDICAL PRIVÉ N
		
		        _____
		            (PRÉCISEZ)
		
		AUTRE SOURCE
		    BOUTIQUE .... O
		    ÉGLISE .... P
		    PARENTS/AMIS .... Q
		    BAR . ... R
		
		AUTRE _____ X
		            (PRÉCISEZ)	

314	Est-ce que vous pouvez vous procurer des condoms féminins si vous le souhaitez ?	OUI .... 1 NON 2	

SECTION 4. MARIAGE ET ACTIVITÉ SEXUELLE

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
401	Êtes-vous actuellement mariée ou vivez-vous avec une femme comme si vous êtiez marié ?	OUI, ACTUELLEMENT MARIÉ ...... 1 OUI, VIT AVEC UNE FEMME .... 2 NON, PAS EN UNION 3	→ 404
402	Avez-vous déjà été marié ou avez-vous déjà vécu avec une femme comme si vous étiez marié ?	OUI, A ÉTÉ MARIÉ .... 1 OUI, A VÉCU AVEC UNE FEMME ... 2 NON 3	→ 413
403	Quel est votre état matrimonial actuel : êtes-vous veuf, divorcé ou séparé ?	VEUF .... 1 DIVORCÉ .... 2 SÉPARÉ 3	→ 410
404	Est-ce que votre (épouse/partenaire) vit actuellement avec vous ou vit-elle ailleurs ?	VIT AVEC LUI .... 1 VIT AILLEURS 2	
405	Avez-vous d'autres épouses ou vivez-vous avec d'autres femmes comme si vous êtiez marié ?	OUI (PLUS D'UNE) .... 1 NON (SEULEMENT UNE) 2	→ 407
406	En tout, combien avez-vous d'épouses ou de femmes avec qui vous vivez comme si vous êtiez marié ?	NOMBRE TOTAL D'ÉPOUSES ET DE FEMMES AVEC QUI ... IL VIT COMME MARIE	

407	VÉRIFIEZ 405 : UNE ÉPOUSE/ PARTENAIRE Pouvez-vous me donner le nom de (votre épouse/femme avec qui vous vivez comme si vous êtiez marié) ? PLUS D'UNE ÉPOUSE/ PARTENAIRE Pouvez-vous me donner le nom de chacune de vos épouses ou de chacune des femmes avec qui vous vivez comme si vous êtiez marié ? ENREGISTREZ LE NOM ET LE NUMÉRO DE LIGNE DU QUESTIONNAIRE MÉNAGE POUR CHACUNE DES ÉPOUSES ET FEMMES AVEC QUI IL VIT COMME S'IL ÉTAIT MARIÉ. SI UNE FEMME N'EST PAS LISTÉE DANS LE MÉNAGE, INSCRIVEZ '00'. 408 POSEZ 408 POUR CHAQUE PERSONNE.	NOM N° DE LIGNE	408 Quel âge avait (NOM) à son dernier anniver-saire ? ÂGE

| 409 | VÉRIFIEZ 407 :

UNE ÉPOUSE/ PARTENAIRE   PLUS D'UNE ÉPOUSE/ PARTENAIRE | | → 411A |

| 410 | Avez-vous été marié ou avez-vous vécu avec une femme seulement une fois ou plus d'une fois ? | SEULEMENT UNE FOIS 1
PLUS D'UNE FOIS .... 2 | → 411A |

Nᵒ	QUESTIONS ET FILTRES	CODES	PASSEZ À
411	En quel mois et en quelle année avez-vous commencé à vivre avec votre (épouse/partenaire) ?	MOIS . . . . ☐☐	
411A	Je voudrais maintenant vous poser une question sur votre première (épouse/partenaire). En quel mois et quelle année avez-vous commencé à vivre avec elle ?	NE SAIT PAS MOIS . . . . 98 ANNÉE . . . . ☐☐☐☐ NE SAIT PAS ANNÉE 9998	→ 413
412	Quel âge aviez-vous quand vous avez commencé à vivre avec elle pour la première fois ?	ÂGE . . . . ☐☐	
413	VÉRIFIEZ LA PRÉSENCE D'AUTRES PERSONNES. AVANT DE CONTINUER, FAITES TOUT VOTRE POSSIBLE POUR VOUS TROUVER EN PRIVÉ.		
414	Je voudrais maintenant vous poser des questions sur votre activité sexuelle pour mieux comprendre certains aspects importants de la vie. Quel âge aviez-vous quand vous avez eu, pour la première fois, des rapports sexuels ?	N'A JAMAIS EU DE RAPPORTS SEXUELS . . . . 00 ÂGE EN ANNÉES . . . . ☐☐ 1ᵉʳᵉ FOIS EN COMMENÇANT À VIVRE AVEC (PREMIÈRE) FEMME/PARTENAIRE 95	→ 501
415	Je voudrais maintenant vous poser des questions sur votre activité sexuelle récente. Je voudrais vous assurer de nouveau que toutes vos réponse sont absolument confidentielles et qu'elles ne seront divulguées à personne. S'il arrivait que je pose une question à laquelle vous ne voulez pas répondre, dites-le moi et je passerai à la question suivante.		
416	Quand avez-vous eu des rapports sexuels pour la dernière fois ? S'IL Y A MOINS DE 12 MOIS, LA RÉPONSE DOIT ÊTRE ENREGISTRÉE EN JOURS, SEMAINES OU MOIS. S'IL Y A 12 MOIS (UN AN) OU PLUS, LA RÉPONSE DOIT ÊTRE ENREGISTRÉE EN ANNÉES.	IL Y A . . . . JOURS . . . . . . 1 ☐☐ IL Y A . . . . SEMAINES . . . 2 ☐☐ IL Y A . . . . MOIS . . . . 3 ☐☐ IL Y A . . . . ANNÉES . . . . . . 4 ☐☐	→ 430

		DERNIÈRE PARTENAIRE SEXUELLE	AVANT-DERNIÈRE PART. SEXUELLE	AVANT-AVANT DERNIÈRE PART.SEXUELLE
417	Quand avez-vous eu des rapports sexuels avec cette personne pour la dernière fois ?		IL Y A.... JOURS 1 IL Y A.... SEMAINES 2 IL Y A.... MOIS 3	IL Y A.... JOURS 1 IL Y A.... SEMAINES 2 IL Y A.... MOIS 3
418	La dernière fois que vous avez eu des rapports sexuels avec cette (seconde/troisième) personne, un condom a-t-il été utilisé ?	OUI .... 1 NON .... 2 (PASSEZ À 420)◄	OUI .... 1 NON .... 2 (PASSEZ À 420)◄	OUI .... 1 NON .... 2 (PASSEZ À 420)◄
419	Un condom a-t-il été utilisé chaque fois que vous avez eu des rapports sexuels avec cette personne au cours des 12 derniers mois ?	OUI .... 1 NON 2	OUI .... 1 NON 2	OUI .... 1 NON 2

420	Quelle était votre relation avec cette personne avec qui vous avez eu des rapports sexuels ?
	
	SI PETITE AMIE :
	Viviez-vous ensemble comme si vous étiez marié ?
	
	SI OUI, ENCERCLEZ '2'.
	SI NON, ENCERCLEZ '3'.
		ÉPOUSE 1
		PARTENAIRE VIVANT
		  AVEC ENQUÊTÉ ... 2
		PETITE AMIE VIVANT PAS
		  AVEC ENQUÊTÉ .... 3┐
		RENCONTRE
		  OCCASIONNELLE 4┤
		PROSTITUÉ .... 5┤
		AUTRE _____ 6┤
		    (PRÉCISEZ)
		(PASSEZ À 423) ◄
			ÉPOUSE 1
			PARTENAIRE VIVANT
			  AVEC ENQUÊTÉ ... 2
			PETITE AMIE VIVANT PAS
			  AVEC ENQUÊTÉ .... 3┐
			RENCONTRE
			  OCCASIONNELLE 4┤
			PROSTITUÉ .... 5┤
			AUTRE _____ 6┤
			    (PRÉCISEZ)
			(PASSEZ À 423) ◄
				ÉPOUSE 1
				PARTENAIRE VIVANT
				  AVEC ENQUÊTÉ ... 2
				PETITE AMIE VIVANT PAS
				  AVEC ENQUÊTÉ .... 3┐
				RENCONTRE
				  OCCASIONNELLE 4┤
				PROSTITUÉ .... 5┤
				AUTRE _____ 6┤
				    (PRÉCISEZ)
				(PASSEZ À 423) ◄

421	VÉRIFIEZ 410 :	MARIÉ MARIÉ
		UNE PLUS
		SEULE D'UNE
		FOIS FOIS
		      (PASSEZ
		      À 423)
			MARIÉ MARIÉ
			UNE PLUS
			SEULE D'UNE
			FOIS FOIS
			      (PASSEZ
			      À 423)
				MARIÉ MARIÉ
				UNE PLUS
				SEULE D'UNE
				FOIS FOIS
				      (PASSEZ
				      À 423)

422	VÉRIFIEZ 414 :	1ʳᵉ FOIS QUAND IL A COMMENCÉ À VIVRE AUTRE AVEC 1ʳᵉ FEMME (PASSEZ À 424)	1ʳᵉ FOIS QUAND IL A COMMENCÉ À VIVRE AUTRE AVEC 1ʳᵉ FEMME (PASSEZ À 424)	1ʳᵉ FOIS QUAND IL A COMMENCÉ À VIVRE AUTRE AVEC 1ʳᵉ FEMME (PASSEZ À 424)

423	Il y a combien de temps que vous avez eu vos premiers rapports sexuels avec cette (seconde/troisième) personne ?	IL Y A...
		  JOURS 1
		IL Y A...
		  SEMAINE 2
		IL Y A...
		  MOIS 3
		IL Y A...
		  ANNÉES 4
			IL Y A...
			  JOURS 1
			IL Y A...
			  SEMAINE 2
			IL Y A...
			  MOIS 3
			IL Y A...
			  ANNÉES 4
				IL Y A...
				  JOURS 1
				IL Y A...
				  SEMAINE 2
				IL Y A...
				  MOIS 3
				IL Y A...
				  ANNÉES 4

424	Au cours des 12 derniers mois, combien de fois avez-vous eu des rapports sexuels avec cette personne ?	NOMBRE DE FOIS	NOMBRE DE FOIS	NOMBRE DE FOIS
425	Quel âge a cette personne ?	ÂGE DE LA PERSONNE NE SAIT PAS 98	ÂGE DE LA PERSONNE NE SAIT PAS 98	ÂGE DE LA PERSONNE NE SAIT PAS 98

		DERNIÈRE PARTENAIRE SEXUELLE	AVANT-DERNIÈRE PART. SEXUELLE	AVANT-AVANT DERNIÈRE PART.SEXUELLE
426	À part (cette personne/ces 2 personnes), avez-vous eu des rapports sexuels avec une autre personne au cours des 12 derniers mois ?	OUI .... 1 (RETOURNEZ À 417 ↵ À COL. SUIVANTE) NON.............. 2 (PASSEZ À 428)↵	OUI .... 1 (RETOURNEZ À 417 ↵ À COL.SUIVANTE) NON.............. 2 (PASSEZ À 428)↵	
427	En tout, avec combien de personnes différentes avez-vous eu des rapports sexuels au cours des 12 derniers mois ? SI LA RÉPONSE N'EST PAS NUMÉRIQUE, INSISTEZ POUR OBTENIR UNE ESTIMATION. SI LE NOMBRE DE PARTENAIRES EST 95 OU PLUS, INSCRIVEZ '95'.			NOMBRE DE PARTENAI-RES AU COURS DES 12 DERNIERS MOIS ... ☐☐ NE SAIT PAS ... 98

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À

428 — VÉRIFIEZ 420 (TOUTES LES COLONNES) :

AU MOINS UNE PARTENAIRE EST UNE PROSTITUÉE ☐
AUCUNE PARTENAIRE N'EST UNE PROSTITUÉE ☐ → 430

429 — VÉRIFIEZ 420 ET 418 (TOUTES LES COLONNES) :

CONDOM UTILISÉ AVEC CHAQUE PROSTITUÉE ☐ → 433

AUTRE ☐ → 434

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
430	Au cours des 12 derniers mois, avez-vous payé quelqu'un en échange de rapports sexuels ?	OUI .... 1 NON 2	→ 432
431	Avez-vous déjà payé quelqu'un en échange de rapports sexuels ?	OUI .... 1 NON 2	→ 434
432	La dernière fois que vous avez payé quelqu'un en échange de rapports sexuels, un condom a-t-il été utilisé ?	OUI .... 1 NON 2	→ 434
433	Au cours des 12 derniers mois, est-ce qu'un condom a été utilisé chaque fois que vous avez eu des rapports sexuels avec quelqu'un que vous aviez payé ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	
434	En tout, durant votre vie, avec combien de personnes différentes avez-vous eu des rapports sexuels ? SI LA RÉPONSE EST NON NUMÉRIQUE, INSISTEZ POUR OBTENIR UNE ESTIMATION. SI LE NOMBRE DE PARTENAIRES EST 95 OU PLUS, INSCRIVEZ '95'.	NOMBRE DE PARTENAIRES SUR LA DURÉE DE VIE ..... ☐☐ NE SAIT PAS 98	

435 — VÉRIFIEZ 418, PARTENAIRE LA PLUS RÉCENTE (PREMIÈRE COLONNE) :

CONDOM UTILISÉ ☐
PAS POSÉE ☐ → 438
PAS DE CONDOM UTILISÉ ☐ → 438

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
436	Quelle est la marque de condom que vous utilisez actuellement ? SI LA MARQUE N'EST PAS CONNUE, DEMANDEZ À VOIR LA BOITE.	PROTEC .... 01 FAGAROU .... 02 VISA .... 03 MANIX .... 04 PRESA............................ 05 KAMA SUTRA .... 06 PROTEX .... 07 INNOTEX .... 08 CASANOVA .... 09 INTIMY........................... 10 CONTEX .... 11 STAR .... 12 TROJAM .... 13 NSP 98	

437	Où vous êtes-vous procuré le condom la dernière fois ?
	
	INSISTEZ POUR DÉTERMINER CHAQUE TYPE D'ENDROIT.
	
	SI VOUS NE POUVEZ PAS DÉTERMINER SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT.
	
	_____
	(NOM DE L'ENDROIT)
		SECTEUR PUBLIC
		  HÔPITAL GOUV. .... A
		  CENTRE SANTÉ GOUV. .... B
		  POSTE SANTÉ C
		  CENTRE DE PF GOUV. .... D
		  MATERNITÉ RURALE .... E
		  CASE DE SANTÉ .... F
		  PHARMACIE COMMUNAUTAIRE . G
		  STRAT. AVANCÉE/EQU. MOBILE H
		  AUTRE PUBLIC I
		     _____
		     (PRÉCISEZ)	

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À

		SECTEUR MÉDICAL PRIVÉ
		  HÔPITAL/CLINIQUE/CABINET
		    PRIVÉ .... J
		  PHARMACIE .... K
		  MÉDECIN PRIVÉ L
		  DISPENSAIRE RELIG .... M
		
		  AUTRE MEDICAL PRIVÉ N
		    _____
		        (PRÉCISEZ)
		
		AUTRE SOURCE
		  BOUTIQUE .... O
		  ÉGLISE .... P
		  PARENTS/AMIS .... Q
		  BAR . ... R
		
		AUTRE _____ X
		          (PRÉCISEZ)	

438	La dernière fois que vous avez eu des rapports sexuels, est-ce que vous ou votre partenaire avez utilisé une méthode (autre que le condom) pour éviter une grossesse ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	→ 501
439	Quelle méthode vous, ou votre partenaire, avez utilisé ? INSISTEZ : Est-ce que vous, ou votre partenaire, avez utilisé une autre méthode pour prévenir une grossesse ? ENREGISTREZ TOUT CE QUI EST MENTIONNÉ.	STÉRILISATION FÉMININE .... A STÉRILISATION MASCULINE ..... B DIU .... C INJECTABLES .... D IMPLANTS .... E PILULE .... F CONDOM FÉMININ .... G DIAPHRAGME .... H MOUSSE/GELÉE .... I MAMA .... J MÉTHODE DU RYTHME .... K RETRAIT .... L AUTRE MÉTHODE MODERNE .... X AUTRE MÉTHODE TRADITIONNELLE Y	

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
501	VÉRIFIEZ 401 : ACTUELLEMENT MARIÉ OU VIVANT AVEC UNE PARTENAIRE ☐ NON MARIÉ ACTUELLEMENT ET NE VIVANT PAS AVEC UNE PARTENAIRE ☐		→ 509
502	VÉRIFIEZ 439 : HOMME NON STÉRILISÉ ☐ HOMME STÉRILISÉ ☐		→ 509
503	Est-ce que (votre épouse/partenaire)/(certaines de vos (épouses/partenaires)) sont actuellement enceintes ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	→ 505
504	Je voudrais maintenant vous poser des questions sur l'avenir. Après (l'enfant/les enfants) que vous et (votre (épouse/partenaire)/vos (épouses/partenaires)) attendez maintenant, souhaiteriez-vous un autre enfant ou préféreriez-vous ne plus avoir d'enfants ?	AVOIR UN AUTRE ENFANT .... 1 PAS D'AUTRE/AUCUN .... 2 INDÉCIS/NE SAIT PAS 8	→ 506 → 509
505	Je voudrais maintenant vous poser des questions sur l'avenir. Voudriez-vous avoir (un/un autre) enfant ou préféreriez-vous ne pas (plus) avoir d'enfant ?	AVOIR (UN/UN AUTRE) ENFANT ... 1 PAS D'AUTRE /AUCUN .... 2 DIT QUE LE COUPLE NE PEUT PAS AVOIR D'ENFANT .... 3 ÉPOUSE(S)/PARTENAIRE(S) STÉRILISÉE(S) .... 4 INDÉCIS/NE SAIT PAS 8	→ 509
506	VÉRIFIEZ 407 : UNE FEMME/ PARTENAIRE ☐ PLUS D'UNE FEMME/ PARTENAIRE ☐		→ 508
507	VÉRIFIEZ 503 : FEMME/PARTENAIRE NON ENCEINTE OU NE SAIT PAS ☐ FEMME/PARTENAIRE ENCEINTE ☐ Combien de temps voudriez-vous attendre à partir de maintenant avant la naissance (d'un/d'un autre) enfant ? Après la naissance de l'enfant que vous attendez, combien de temps voudriez-vous attendre avant d'avoir un autre enfant ?	MOIS .... 1 ☐☐ ANNÉE .... 2 ☐☐ BIENTÔT/MAINTENANT .... 993 COUPLE INFÉCOND .... 994 AUTRE _____ 996 (PRÉCISEZ) NE SAIT PAS 998	→ 509
508	Combien de temps voudriez-vous attendre à partir de maintenant avant d'avoir (un/un autre) enfant ?	MOIS .... 1 ☐☐ ANNÉE .... 2 ☐☐ BIENTÔT/MAINTENANT .... 993 LUI/TOUTES SES FEMMES/ PARTENAIRES SONT INFÉCONDS .... 994 AUTRE _____ 996 (PRÉCISEZ) NE SAIT PAS 998	

Nº	QUESTIONS ET FILTRES	CODES	PASSEZ À

509 VÉRIFIEZ 203 ET 205 :

A DES ENFANTS ☐   PAS D'ENFANT ☐
VIVANTS ↓   VIVANT ↓

Si vous pouviez revenir à l'époque où vous n'aviez pas d'enfant et que vous pouviez choisir exactement le nombre d'enfants à avoir dans votre vie, combien auriez-vous voulu en avoir ?

Si vous pouviez choisir exactement le nombre d'enfants à avoir dans toute votre vie, combien en voudriez-vous ?

INSISTEZ POUR OBTENIR UNE RÉPONSE NUMÉRIQUE

AUCUN .... 00 → 601

NOMBRE .... ☐☐

AUTRE _____ 96 → 601
           (PRÉCISEZ)

510 Parmi ces enfants, combien souhaiteriez-vous de garçons, combien souhaiteriez-vous de filles et pour combien d'entre eux, le sexe n'aurait-il pas d'importance ?

GARÇON FILLE N'IMPORTE

NOMBRE ☐☐ ☐☐ ☐☐

AUTRE _____ 96
           (PRÉCISEZ)

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
601	Avez-vous fait un travail quelconque au cours des sept derniers jours ?	OUI .... 1 NON 2	→ 604
602	Bien que vous n'ayez pas travaillé au cours des sept derniers jours, est-ce que vous avez un travail ou une affaire dont vous avez dû vous absenter pour congé, maladie, vacances, ou pour une autre raison ?	OUI .... 1 NON 2	→ 604
603	Avez-vous fait un travail quelconque au cours des 12 derniers mois ?	OUI .... 1 NON 2	→ 610
604	Quelle est votre occupation, c'est-à-dire quel genre de travail faites-vous principalement ?	▯▯	
605	Travaillez-vous habituellement toute l'année, de manière saisonnière ou travaillez-vous seulement de temps en temps ?	TOUTE L'ANNÉE .... 1 SAISONNIER/PARTIE DE L'ANNÉE ... 2 DE TEMPS EN TEMPS 3	
606	Êtes-vous payé en argent ou en nature pour ce travail ou n'êtes-vous pas payé du tout ?	ARGENT SEULEMENT .... 1 ARGENT ET NATURE .... 2 NATURE SEULEMENT .... 3 PAS PAYÉ 4	
607	**VÉRIFIEZ 401 :** ACTUELLEMENT MARIÉ OU ▢ NON MARIÉ ACTUELLEMENT ▢ VIVANT AVEC UNE PARTENAIRE ET NE VIVANT PAS AVEC UNE PARTENAIRE		→ 612
608	**VÉRIFIEZ 606 :** CODE 1 OU 2 ▢ AUTRE ▢ ENCERCLÉ		→ 610

609	Habituellement, qui décide comment l'argent que vous gagnez va être utilisé : c'est vous, votre (épouse/partenaire), ou vous et votre (épouse/partenaire) ensemble ?	ENQUÊTÉ 1
		 ÉPOUSE/PARTENAIRE 2
		 ENQUÊTÉ ET ÉPOUSE/
		    PARTENAIRE ENSEMBLE 3
		 AUTRE _____ 6
		         PRÉCISEZ	

610	Habituellement, qui prend les décisions en ce qui concerne vos propres soins de santé: vous-même, votre (épouse/partenaire), vous et votre (épouse/partenaire) ensemble ou quelqu'un d'autre ?	ENQUÊTÉ 1
		 ÉPOUSE/PARTENAIRE 2
		 ENQUÊTÉ ET ÉPOUSE/
		    PARTENAIRE ENSEMBLE 3
		 QUELQU'UN D'AUTRE.............. 4
		 AUTRE _____ 6
		         PRÉCISEZ	

611	Qui prend habituellement les décisions concernant les achats importants pour le ménage ?	ENQUÊTÉ 1
		 ÉPOUSE/PARTENAIRE 2
		 ENQUÊTÉ ET ÉPOUSE/
		    PARTENAIRE ENSEMBLE 3
		 QUELQU'UN D'AUTRE.............. 4
		 AUTRE _____ 6
		         PRÉCISEZ	

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
612	Est-ce que vous possédez cette maison ou une autre maison seul ou conjointement avec quelqu'un d'autre ?	SEUL .... 1 CONJOINTEMENT .... 2 SEUL ET CONJOINTEMENT .... 3 N'EN POSSÈDE PAS 4	
613	Est-ce que vous possédez de la terre, seul ou conjointement avec quelqu'un d'autre ?	SEUL .... 1 CONJOINTEMENT .... 2 SEUL ET CONJOINTEMENT .... 3 N'EN POSSÈDE PAS 4	
614	Selon vous, est-il justifié qu'un mari frappe ou batte sa femme dans les situations suivantes : Si elle sort sans le lui dire ? Si elle néglige les enfants ? Si elle argumente avec lui ? Si elle refuse d'avoir des rapports sexuels avec lui ? Si elle brûle la nourriture ?	OUI NON NSP SORT SANS LUI DIRE .. 1 2 8 NÉGLIGE ENFANTS .. 1 2 8 ARGUMENTE .... 1 2 8 REFUSES RAPP. SEX 1 2 8 BRÛLE NOURRITURE .. 1 2 8	

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
701	Je voudrais maintenant que nous parlions d'un autre sujet. Avez-vous déjà entendu parler d'une maladie appelée sida ?	OUI .... 1 NON.............................. 2	→ 733
702	Est-ce qu'on peut réduire le risque de contracter le virus du sida en ayant juste un seul partenaire sexuel qui n'est pas infecté et qui n'a aucun autre partenaire sexuel ?	OUI .... 1 NON.............................. 2 NE SAIT PAS 8	
703	Est-ce qu'on peut contracter le virus du sida par les piqûres de moustiques ?	OUI .... 1 NON.............................. 2 NE SAIT PAS 8	
704	Est-ce qu'on peut réduire le risque de contracter le virus du sida en utilisant un condom au cours de chaque rapport sexuel ?	OUI .... 1 NON.............................. 2 NE SAIT PAS 8	
705	Est-ce qu'on peut contracter le virus du sida en partageant la nourriture avec une personne qui a le sida ?	OUI .... 1 NON.............................. 2 NE SAIT PAS 8	
706	Est-ce qu'on peut contracter le virus du sida par sorcellerie ou par des moyens surnaturels ?	OUI .... 1 NON.............................. 2 NE SAIT PAS 8	
707	Est-il possible qu'une personne paraissant en bonne santé ait, en fait, le virus du sida ?	OUI .... 1 NON.............................. 2 NE SAIT PAS 8	
708	Est-ce que le virus qui cause le sida peut être transmis de la mère à son enfant : Pendant la grossesse ? Au cours de l'accouchement ? Pendant l'allaitement ?	OUI NON NSP GROSSESSE. ..... 1 2 8 ACCOUCHEMENT ... 1 2 8 ALLAITEMENT ... 1 2 8	

709	VÉRIFIEZ 708 :
	    AU MOINS ☐ AUTRE ☐
	    UN 'OUI'
			→ 711

710	Y a-t-il des médicaments spéciaux qu'un médecin ou une infirmière peut donner à une femme infectée par le virus pour réduire le risque de transmission à son enfant ?	OUI .... 1 NON .... 2 NE SAIT PAS 8	
711	VÉRIFIER S'IL Y A D'AUTRE PERSONNES. AVANT DE CONTINUER, FAITES TOUT VOTRE POSSIBLE POUR ÊTRE EN PRIVÉ.		
712	Avez-vous déjà fait un test pour savoir si vous avez le virus du sida ?	OUI .... 1 NON 2	→ 716
713	Il y a combien de mois que vous avez effectué votre test du VIH le plus récent ?	IL Y A ....MOIS ☐☐ DEUX ANNÉES OU PLUS 96	
714	Avez-vous reçu les résultats du test ?	OUI .... 1 NON.............................. 2	

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À

715	Où le test a-t-il été fait ?
	
	INSISTEZ POUR DÉTERMINER LE TYPE D'ENDROIT.
	
	SI VOUS NE POUVEZ PAS DÉTERMINER SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT.
	
	_____
	(NOM DE L'ENDROIT)
		SECTEUR PUBLIC
		  HÔPITAL GOUV. ....
		  CENTRE SANTÉ GOUV. 11
		  POSTE SANTÉ 12
		  CENTRE DE PF GOUV. 13
		  MATERNITÉ RURALE 14
		  CASE DE SANTÉ 15
		  PHARMACIE COMMUNAUTAIRE . 16
		  STRAT. AVANCÉE/EQU. MOBILE 17
		    18
		  AUTRE PUBLIC
		    19
		    _____
		    (PRÉCISEZ)
		
		SECTEUR MÉDICAL PRIVÉ
		  HÔPITAL/CLINIQUE/CABINET
		    PRIVÉ 21
		  PHARMACIE 22
		  MÉDECIN PRIVÉ 23
		  DISPENSAIRE RELIG 24
		    25
		  AUTRE MEDICAL PRIVÉ
		    26
		    _____
		    (PRÉCISEZ)
		
		AUTRE SOURCE
		  BOUTIQUE 31
		  ÉGLISE 32
		  PARENTS/AMIS 33
		  BAR 34
		
		AUTRE _____96
		    (PRÉCISEZ)
			→ 718

716	Connaissez-vous un endroit où l'on peut se rendre pour faire un test du virus du sida ?	OUI .... 1 NON 2	→ 718

717	Où est-ce ?
	
	Pas d'autre endroit ?
	
	INSISTEZ POUR DÉTERMINER LE TYPE D'ENDROIT.
	
	SI VOUS NE POUVEZ PAS DÉTERMINER SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT.
	
	(NOM DE L'ENDROIT/
	NOM DES ENDROITS)
		SECTEUR PUBLIC
		  HÔPITAL GOUV. .... A
		  CENTRE SANTÉ GOUV. .... B
		  POSTE SANTÉ C
		  CENTRE DE PF GOUV. .... D
		  MATERNITÉ RURALE .... E
		  CASE DE SANTÉ .... F
		  PHARMACIE COMMUNAUTAIRE . G
		  STRAT. AVANCÉE/EQU. MOBILE H
		  AUTRE PUBLIC I
		    _____
		    (PRÉCISEZ)
		
		SECTEUR MÉDICAL PRIVÉ
		  HÔPITAL/CLINIQUE/CABINET
		    PRIVÉ .... J
		  PHARMACIE .... K
		  MÉDECIN PRIVÉ L
		  DISPENSAIRE RELIG .... M
		
		  AUTRE MEDICAL PRIVÉ N
		    _____
		    (PRÉCISEZ)
		AUTRE SOURCE
		  BOUTIQUE .... O
		  ÉGLISE .... P
		  PARENTS/AMIS .... Q
		  BAR . ... R
		
		AUTRE _____ X
		    (PRÉCISEZ)	

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
718	Est-ce que vous achèteriez des légumes frais à un marchand ou à un vendeur si vous saviez que cette personne a le virus du sida ?	OUI .... 1 NON............................. 2 NE SAIT PAS 8	

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
719	Si un membre de votre famille contractait le virus du sida, souhaiteriez-vous que son état reste secret ou non ?	OUI, RESTE SECRET .... 1 NON............................. 2 NSP/PAS SÛR/CELA DÉPEND 8	
720	Si un membre de votre famille tombait malade avec le sida, seriez-vous prête à prendre soin de lui/elle dans votre propre ménage ?	OUI .... 1 NON............................. 2 NSP/PAS SÛR/CELA DÉPEND 8	
721	Si une enseignante a le virus du sida mais qu'elle n'est pas malade, est-ce que, à votre avis, elle devrait être autorisée à continuer à enseigner à l'école ?	DEVRAIT ÊTRE AUTORISÉE .... 1 NE DEVRAIT PAS ÊTRE AUTORISÉE 2 NSP/PAS SÛR/CELA DÉPEND 8	
722	Est-ce qu'on devrait éduquer les enfants de 12-14 ans sur l'utilisation de condoms pour éviter de contracter le sida ?	OUI .... 1 NON............................. 2 NSP/PAS SÛR/CELA DÉPEND 8	
723	VÉRIFIEZ 701 : A ENTENDU ☐ N'A PAS ENTENDU ☐ PARLER DU SIDA ↓ PARLER DU SIDA ↓ Mis à part le sida, avez-vous entendu parler d'autres infections qui peuvent se transmettre par contact sexuel ? Avez-vous entendu parler d'infections qui peuvent se transmettre par contact sexuel ?	OUI .... 1 NON............................. 2	
724	VÉRIFIEZ 414 : A EU DES RAPPORTS ☐ N'A PAS EU DE ☐ SEXUELS RAPPORTS SEXUELS		→ 732
725	VÉRIFIEZ 723 : A ENTENDU PARLER D'AUTRES INFECTIONS SEXUELLEMENT TRANSMISSIBLES ? OUI ☐ NON ☐		→ 727
726	J'aimerais maintenant vous poser quelques questions sur votre santé au cours des 12 derniers mois. Durant les 12 derniers mois, avez-vous eu une maladie que vous avez contractée par contact sexuel ?	OUI .... 1 NON............................. 2 NE SAIT PAS 8	
727	Il arrive parfois que les hommes aient un écoulement du pénis qui n'est pas normal. Au cours des 12 derniers mois, avez-vous eu un écoulement du pénis ?	OUI .... 1 NON............................. 2 NE SAIT PAS 8	
728	Il arrive parfois que les hommes aient une plaie ou un ulcère dans la zone du pénis. Au cours des 12 derniers mois, avez-vous eu une plaie ou un ulcère dans la zone du pénis ?	OUI .... 1 NON............................. 2 NE SAIT PAS 8	
729	VÉRIFIEZ 726, 727, ET 728 : A EU UNE ☐ N'A PAS EU ☐ INFECTION D'INFECTION OU (AU MOINS UN 'OUI') ↓ NE SAIT PAS		→ 732
730	La dernière fois que vous avez eu (PROBLEME DÉCLARÉ À 726/727/728), avez-vous recherché des conseils ou un traitement ?	OUI .... 1 NON............................. 2	→ 732

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À

731	Où êtes-vous allé ?
	
	Un autre endroit ?
	
	INSISTEZ POUR DÉTERMINER LE TYPE D'ENDROIT.
	
	SI VOUS NE POUVEZ DÉTERMINER SI L'ENDROIT EST DU SECTEUR PUBLIC OU PRIVÉ, INSCRIVEZ LE NOM DE L'ENDROIT.
	
	(NOM DE L'ENDROIT/
	NOM DES ENDROITS)
		SECTEUR PUBLIC
		   HÔPITAL GOUV. . . . . A
		   CENTRE SANTÉ GOUV. . . . . B
		   POSTE SANTÉ C
		   CENTRE DE PF GOUV. . . . . D
		   MATERNITÉ RURALE . . . . E
		   CASE DE SANTÉ . . . . F
		   PHARMACIE COMMUNAUTAIRE . G
		   STRAT. AVANCÉE/EQU. MOBILE H
		   AUTRE PUBLIC I
		
		               (PRÉCISEZ)
		
		SECTEUR MÉDICAL PRIVÉ
		   HÔPITAL/CLINIQUE/CABINET
		      PRIVÉ . . . . J
		   PHARMACIE . . . . K
		   MÉDECIN PRIVÉ L
		   DISPENSAIRE RELIG . . . . M
		
		   AUTRE MEDICAL PRIVÉ N
		
		               (PRÉCISEZ)
		
		AUTRE SOURCE
		   BOUTIQUE . . . . O
		   ÉGLISE . . . . P
		   PARENTS/AMIS . . . . Q
		   BAR . . . . R
		
		AUTRE X
		             (PRÉCISEZ)	

732	Si une femme sait que son mari est atteint d'une maladie qu'elle peut contracter au cours de rapports sexuels, pensez-vous qu'il est justifié qu'elle lui demande qu'ils utilisent des condoms quand ils ont des rapports sexuels ?	OUI . . . . 1 NON . . . . 2 NE SAIT PAS 8	
733	Est-ce que vous pensez qu'il est justifié qu'une femme refuse d'avoir des rapports sexuels avec son mari quand elle sait qu'il a des relations sexuelles avec d'autres femmes ?	OUI . . . . 1 NON . . . . 2 NE SAIT PAS 8	

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
805	Je voudrais maintenant vous poser d'autres questions concernant des problèmes de santé. Au cours des 12 derniers mois, vous a-t-on fait une injection pour une raison quelconque ? SI OUI : Combien d'injections avez-vous eu ? SI LE NOMBRE D'INJECTIONS EST 90 OU PLUS, OU SI LES INJECTIONS ÉTAIENT QUOTIDIENNES PENDANT 3 MOIS OU PLUS, INSCRIVEZ '90'. SI LA RÉPONSE EST NON-NUMÉRIQUE, INSISTEZ POUR OBTENIR UNE ESTIMATION.	NOMBRE D'INJECTIONS ... ▢▢ AUCUNE 00	→ 808
806	Parmi ces injections, combien ont été effectuées par un médecin, une infirmière, un pharmacien, un dentiste ou un autre prestataire de santé ? SI LE NOMBRE D'INJECTIONS EST 90 OU PLUS, OU SI LES INJECTIONS ÉTAIENT QUOTIDIENNES PENDANT 3 MOIS OU PLUS, ENREGISTREZ '90' SI LA RÉPONSE EST NON-NUMÉRQUE, INSISTEZ POUR OBTENIR UNE ESTIMATION.	NOMBRE D'INJECTIONS ... ▢▢ AUCUNE 00	→ 808
807	La dernière fois que vous avez eu une injection effectuée par un prestataire de santé, est-ce qu'il/elle a pris la seringue et l'aiguille d'un emballage neuf qui n'avait pas été ouvert ?	OUI .... 1 NON.............................. 2 NE SAIT PAS 8	
808	Fumez-vous actuellement des cigarettes ?	OUI .... 1 NON.............................. 2	→ 810
809	Au cours des dernières 24 heures, combien de cigarettes avez-vous fumé ?	NOMBRE DE CIGARETTES .... ▢▢	
810	Actuellement, est-ce que vous fumez ou est-ce que vous utilisez un autre type de tabac ?	OUI .... 1 NON.............................. 2	→ 812

N°	QUESTIONS ET FILTRES	CODES	PASSEZ À
811	Quel (autre) type de tabac fumez-vous ou utilisez-vous ? ENREGISTREZ TOUT CE QUI EST MENTIONNÉ	PIPE .... A TABAC À MÂCHER .... B TABAC À PRISER .... C AUTRE _____ X (PRÉCISEZ)	
812	Êtes-vous couvert par une assurance médicale ?	OUI .... 1 NON............................ 2	→ 813A
813	Par quels types d'assurance êtes-vous couverte ? ENREGISTREZ TOUT CE QUI EST MENTIONNÉ	ASSURANCE MUTUELLE/ ASSURANCE SANTÉ COMMUNAUTAIRE .... A ASSURANCE SANTÉ PAR L'EMPLOYEUR .... B SÉCURITÉ SOCIALE .... C AUTRE ASSURANCE PRIVÉE COMMERCIALE .... D IMPUTATION BUDGETAIRE.......... E AUTRE _____ X (PRÉCISEZ)	
813A	Souffrez-vous d'une quelconque des maladies suivantes : diabète hypertension artérielle/AVC maladies cardiaques insuffisance rénale cancer paralysie asthme/bronchite chronique ENREGISTREZ TOUT CE QUI EST MENTIONNÉ	AUCUNE .... A DIABETE .... B HYPERTENSION ARTERIEl.......... C MALADIES CARDIAQUES............ D INSUFFISANCE RENALE............ E CANCER .... F PARALYSIE .... G ASTHME/BRONCHITE CHRONIQUl... H AUTRE _____ X (PRÉCISEZ)	→ 814
813B	Un diagnostic de cette/ces maladie/s a-t-il été fait par un personnel médical?	OUI .... 1 NON .... 2 NE SAIT PAS 8	
813C	A quel(s) type(s) de traitement avez-vous recours pour cette(ces) maladie(s) ? ENREGISTREZ TOUT CE QUI EST MENTIONNÉ.	Traitement médical prescrit..................... A Traitement médical automédication........ B Traitement traditionnel.......................... C Aucun traitement............................... D AUTRE_____ X (PRÉCISEZ)	
814	ENREGISTREZ L'HEURE.	HEURE....................... ☐☐ MINUTES................... ☐☐	

<u>OBSERVATIONS DE L'ENQUÊTEUR</u>

À REMPLIR APRÈS AVOIR TERMINÉ L'INTERVIEW

COMMENTAIRES CONCERNANT L'ENQUÊTÉ:

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COMMENTAIRES SUR DES QUESTIONS PARTICULIÈRES :

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AUTRES COMMENTAIRES :

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<u>OBSERVATION DU CHEF D'ÉQUIPE</u>

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NOM DU CHEF D'ÉQUIPE : _____   DATE: _____

<u>OBSERVATION DU CONTRÔLEUR</u>

_____

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NOM DU CONTRÔLEUR : _____   DATE: _____