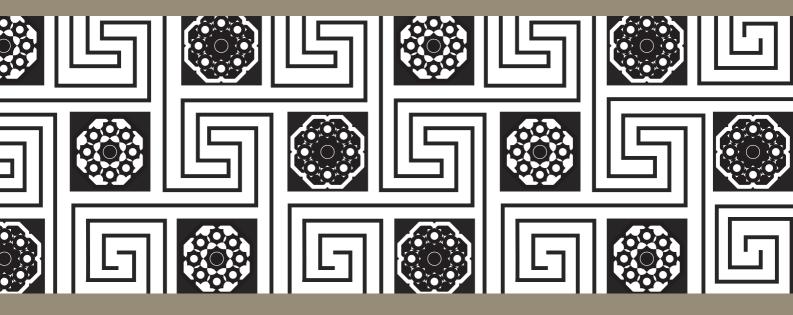
# **Egypt**



Demographic and Health Survey

2005

# Egypt Demographic and Health Survey 2005

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March 2006













Ministry of Health and Population National Population Council Ford Foundation

El-Zanaty Associates

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Additional information about the 2005 EDHS may be obtained from the National Population Council, P.O. Box 1036, Cairo, Egypt; Telephone: 20-2-5240504 or 20-2-5240505 and Fax: 20-2-5240219. Information about DHS surveys may be obtained from the MEASURE DHS Project, ORC Macro, 11785 Beltsville Drive, Calverton, MD 20705 USA; Telephone: 301-572-0200, Fax: 301-572-0999, E-mail: reports@orcmacro.com, Internet: http://www.measuredhs.com.

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# **PREFACE**

Health for all is the main health objective of the Egyptian government. The Ministry of Health and Population (MOHP) has given a high priority to implementing this objective, developing a national system of health facilities that provide services at all levels. As part of this effort, the MOHP is committed to increasing the quality and coverage of the health care system in Egypt, especially in rural areas. The MOHP also is emphasizing the importance of preventive care, particularly, the necessity of ensuring all children are fully immunized against preventable diseases like measles and polio.

To monitor and evaluate the achievement of these objectives, reliable data are needed. These data can be obtained from service administration (service-based data) and collected directly from the community (household-based data). The two types of data complement each other in enhancing the information available to monitor progress in the health sector.

Beginning in 1980, a number of surveys have been carried out in Egypt to obtain data from the community on the current health situation, including a series of Demographic and Health Surveys (DHS) in which 2005 EDHS is the most recent. The results of the 2005 EDHS show that the family planning program in Egypt continues to be successful in helping couples to plan their families. The survey also found that key maternal and child health indicators, including antenatal care coverage, medical assistance at delivery, and infant and child mortality have improved.

The findings of the 2005 EDHS together with the service-based data are very important in measuring the achievements of family planning and health programs. To ensure understanding and use of these data, the results of the 2005 EDHS should be widely disseminated at different levels of health management, in the central offices as well as local governments, and to the community at large.

> **Prof. Dr. Hatem El-Gabaly** Minister of Health and Population

# **FOREWORD**

The Egyptian family planning program has made substantial progress in supporting the efforts of Egyptian families to meet their reproductive goals. A reason for this success has been the considerable body of population research that has been undertaken over the past decades. This research has helped the program to monitor the impact of its effort and identify key areas for further intervention.

The 2005 Egypt Demographic and Health Survey is the fifth full-scale survey implemented in Egypt as part of the worldwide DHS program. The purpose of the survey was to provide the Ministry of Health and Population (MOHP) of Egypt with information on fertility, reproductive practices of women, maternal care, child health and mortality, child nutrition practices, breastfeeding, and anemia. This information is important for understanding the factors that influence the reproductive health of women and the health and survival of infants and young children.

This report summarizes the results of more than one year of continuous work preparing and carrying out different activities of the 2005 EDHS, including fieldwork, data processing, and analysis of the findings presented in this report.

I would like to express my appreciation to all parties who assisted in the implementation of the 2005 EDHS. Their efforts resulted in the successful completion of the 2005 EDHS activities and the rapid issuance of this analysis of the survey results.

Dr. Safaa El-Baz

Assistant Minister of Health and Population for National Population Council Affairs

# **ACKNOWLEDGMENTS**

The 2005 Egypt Demographic and Health Survey represents the continuing commitment and efforts in Egypt to obtain data on fertility and contraceptive practice. The survey also reflects the strong interest in obtaining information on key maternal health and child survival issues. The wealth of demographic and health data that the survey provides will be of great use in charting future directions for the population and health programs.

This important survey could not have been implemented without the active support and dedicated efforts of a large number of institutions and individuals. The interest of H.E. Prof. Dr. Hatem El-Gabaly, Minister of Health and Population, has served to motivate the survey team. The support and approval of the previous Minister H.E. Prof. Dr. Awad Tag El-Din was instrumental in securing the implementation of the survey. Dr. Safaa El-Baz Assistant of Minister of Health and Population for National Population Council Affairs, provided strong continuing support to the project and has shown great interest in the survey results.

I am deeply grateful to the Ministry of Health and Population staff who contributed to the successful completion of this project, especially Dr. Yehia El-Hadidi, Under-Secretary of the Ministry of health and Population and head of the Population Sector, and Dr. Essmat Mansour, Under-Secretary for Primary Health Care and Head of the Maternal and Child Health Project, for their continuous help during the survey implementation.

Funding for the survey was principally provided by USAID/Cairo through its bilateral health and population projects with additional contributions from UNCIEF and Ford foundation. Technical assistance came from the international MEASURE DHS project.

I also gratefully acknowledge the population and health office staff USAID/Cairo, especially Ms. Kathryn Panther, head of Health and Population Division, and Ms. Shadia Attia, Research and Monitoring Advisor, Population and Health Division, for their support and valuable comments throughout the survey activities.

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Dr. Ann Way of ORC Macro, who worked closely with us on all phases of EDHS, deserves special thanks for all her efforts throughout the survey and during the preparation of this report. My thanks also are extended to Dr. Alfredo Aliaga for his advice and guidance in designing the sample. Ms. Jeanne Cushing deserves my deepest thanks for her assistance in data processing and analysis required for this report. Dr. Jasbir Sangha provided invaluable assistance with the organization of the anemia-testing component of the survey

I would like to express my appreciation for all the senior, administrative, and field staff at El-Zanaty & Associates for the dedication and skill in which they performed their tasks.

Finally, I would like to express my appreciation to all households and women who responded in the survey; without their participation this survey would have been impossible.

> Fatma El-Zanaty, Ph.D Technical Director

# **SUMMARY OF FINDINGS**

The 2005 Egypt Demographic and Health Survey (2005 EDHS) interviewed a nationally representative sample of 19,474 ever-married women age 15-49. The survey is the eighth in a series of Demographic and Health Surveys conducted in Egypt. As in previous surveys, the main purpose of the 2005 EDHS was to provide detailed information on fertility, family planning, infant and child mortality, maternal and child health and nutrition. The survey also collected information on the levels of knowledge of infectious diseases including HIV/AIDS and hepatitis

In addition, the 2005 EDHS included anemia testing and special modules on child labor, domestic violence, and female circumcision.

#### FERTILITY BEHAVIOR

Levels, Trends and Differentials. During the past 25 years, fertility in Egypt has decreased by more than two births, from 5.3 births at the time of the 1980 Egypt Fertility Survey to 3.1 births at the time of the 2005 EDHS. In rural areas, the fertility rate is 3.4 births, around 25 percent higher than the rate in urban areas (2.7 births). Fertility levels are highest in Upper Egypt (3.7 births) and in the Frontier Governorates (3.3 births) and lowest in the Urban Governorates (2.5 births). Education is strongly associated with lower fertility as is wealth. The fertility rate decreases from a level of 3.6 births among women in the lowest wealth quintile to 2.6 births among women in the highest quintile.

Age at Marriage. One of the factors influencing the on-going fertility decline in Egypt has been the steady increase in the age at which women marry. Currently, the median age at first marriage among women age 25-29 is 21.3 years. One of the most important effects of the increase in the age at first marriage has been a reduction in adolescent fertility. Adolescent childbearing carries higher risks of morbidity and mortality for the mother and child, particularly when the mother is under age 18. At the time of the 2005 EDHS, nine

percent of women age 15-19 had given birth or were pregnant with their first child.

#### FAMILY PLANNING USE

Family Planning Knowledge and Attitudes. Widespread awareness of family planning methods as well as nearly universal approval of family planning have been crucial elements in the expansion of family planning use. At the time of the 2005 EDHS, the average currently married woman knew about seven methods. Family planning IEC efforts reach large numbers of women; nine in ten 2005 EDHS respondents had heard or seen a family planning message during the six months prior to the survey.

Family planning has broad support among Egyptian couples. Most women (93 percent) consider it appropriate for a couple to begin family planning use after they have their first child. However, very few women who approve of family planning use (2 percent) think that a newly married couple should use contraception to delay the first pregnancy.

Levels and Trends. The Egyptian government's commitment to providing widely accessible family planning services has been a very important factor in the on-going fertility decline. Contraceptive use levels have more than doubled in Egypt between 1980 and 2005, from 24 percent to 59 percent. The IUD continues to be by far the most widely used method; 37 percent of married women were relying on the IUD, 10 percent on the pill, and seven percent on injectables.

**Differentials in Use.** Despite nearly universal family planning knowledge and approval, the 2005 EDHS found significant differentials in use. As expected given the nearly universal disapproval of family planning use before the first birth, less than one percent of currently married women who had not yet had a child were using at the time of the survey. Use rates rise rapidly with family size; 46 percent of women with one child were using and use rates peak at 75 percent among women with 3 children.

Use rates were 60 percent or higher in the Urban Governorates, in both urban and rural areas in Lower Egypt, and in urban areas in Upper Egypt. In contrast, 45 percent of currently married women were using in rural Upper Egypt and 51 percent in the Frontier Governorates. Among women who never attended school, 55 percent were using compared to 62 percent among women who completed secondary school or higher. Use rates rose from 53 percent of women in the lowest wealth quintile to 63 percent among women in the highest quintile.

Discontinuation of Use. A key concern for the family planning program is the rate at which users discontinue use of contraception and their reasons for stopping. Overall, 32 percent of users in Egypt discontinue using a method within 12 months of starting use. The rate of discontinuation during the first year of use is much higher among pill users (50 percent) and injectable users (46 percent) than among IUD users (15 percent). With regard to the reasons for stopping use, users are more likely to discontinue during the first year of use because they wanted a more effective method. Overall, 12 percent of users who discontinued during the first 12 months of use switched to another method within two months of the time they discontinued.

**Provision of Services.** Both government health facilities and private sector providers play an important role in the delivery of family planning services. More than half of all users of modern methods (57 percent) go to Ministry of Health or other governmental providers for their method. This represents an increase from the situation in 2000, when 49 percent of users relied on public sector facilities for their methods. Public sector providers are also the principal source for the IUD and injectables while more than seven in ten pill users obtain their method from a pharmacy.

The 2005 EDHS results suggest that family planning providers are not routinely offering women the information necessary to make an informed choice about the method best suited to their contraceptive needs. In particular, more than four in ten users of modern methods are not provided information about methods other than the one they adopt. Although side effects cause many users to discontinue, providers also are counselling only around half of the users about potential side effects.

#### **NEED FOR FAMILY PLANNING**

Fertility Preferences. Many Egyptian women are having more births than they consider ideal. Overall, seven percent of births in the five years prior to the survey were reported to be mistimed, that is, wanted later, and 12 percent were unwanted. If Egyptian women were to have the number of children they consider ideal, the total fertility rate would fall from 3.1 births to 2.3 births per woman.

Unmet Need for Family Planning. Taking into account both their fertility desire at the time of the survey and their exposure to the risk of pregnancy, 10 percent of currently married women were considered to have an immediate need for family planning. Unmet need is greatest among women in rural Upper Egypt, where 17 percent of women are in need of family planning to achieve their childbearing goals.

#### INFANT AND CHILD MORTALITY

Levels and Trends. At the mortality level prevailing in the five-year period before the 2005 EDHS, one in 24 Egyptian children will die before their fifth birthday. The level of early childhood mortality has fallen substantially since the mid-1960s, when around one in four children died before reaching age five.

During the five-year period before the survey, the infant mortality rate was 33 deaths per 1,000 births, and the neonatal mortality rate was 20 deaths per 1,000 births. This indicates that around 80 percent of early childhood deaths in Egypt are taking place before a child's first birthday, with nearly half occurring during the first month of life.

Socioeconomic Differentials. Mortality is higher in rural than urban areas. The highest level is found in rural Upper Egypt, where the rate of under-five mortality is more than double that in the Urban Governorates, which has the lowest mortality. Differentials are especially large across wealth quintiles; children born to women in the lowest wealth quintile are around three times more likely to die by their fifth birthday than children born to mothers in the highest quintile.

Demographic Differentials. Mortality risks are especially high for births that occur within too short a period after a prior birth. The risk of dying before the

fifth birthday is nearly tripled for births that are closely spaced, i.e., for children born less than two years after an elder sibling, compared to children born four or more years after a prior birth.

During the five years prior to the 2005 EDHS, more than one-fifth of non-first births occurred within 24 months of a previous birth. Breastfeeding practices, especially the early introduction of supplemental foods, reduce the time a woman is amenorrheic following a birth and, thus contribute to short birth intervals. Half of Egyptian mothers become exposed to the risk of another pregnancy within four months of giving birth.

#### MATERNAL HEALTH

Care during Pregnancy. The care that a woman receives during pregnancy reduces the risks of illness and death for both the mother and the child. Overall, women saw a medical provider for at least some type of care during pregnancy in the case of 91 percent of all last births that occurred during the five-year period prior to the 2005 EDHS. Women reported that they had antenatal care, i.e., care sought specifically to monitor the pregnancy, in the case of 70 percent of births. They saw a provider for the recommended minimum number of antenatal care visits (four) in the case of 59 percent of births.

Tetanus toxoid injections are given during pregnancy for the prevention of neonatal tetanus, an important cause of death among newborns. Around 70 percent of last-born children during the five-year period prior to the 2005 EDHS were fully protected against neonatal tetanus.

Content of Pregnancy Care. Women reported that they had been weighed and their blood pressure monitored during pregnancy in the case of more than nine in ten births in which a medical provider was seen for pregnancy care. Urine and blood samples were taken during pregnancy care in more than eight in ten births. Mothers were less likely to have been given advice about potential pregnancy complications; they reported being told about the signs of pregnancy complications in about one-third of the births and about where to seek assistance if they experienced problems in the case of 31 percent of the births.

Delivery Care and Postnatal Care. Trained medical personnel assisted at 74 percent of births during the five-year period prior to the 2005 EDHS. Dayas (traditional birth attendants) assisted with most of the remaining deliveries. Sixty-five percent of deliveries took place in a health facility, with delivery care provided somewhat more often at private than governmental facilities. Around two in ten deliveries were by Caesarean section.

Care following delivery is very important for both the mother and her child, especially if the birth occurs in the home without medical assistance. In Egypt, mothers reported they were seen by a medical provider for postnatal care following 56 percent of all deliveries but in only eight percent of deliveries occurring outside a health facility. Slightly more than one-third of infants born during the five-year period prior to the EDHS were seen for postnatal care. However, a recent campaign to encourage mothers to have a blood sample taken from the child's heel for screening within two weeks following delivery has been effective; six in ten last-born children had a blood sample taken from the heel.

Differentials in Coverage. A woman's residence and education status are strongly associated with the receipt of maternity care. For example, the percentage of births in which the mother received regular antenatal care was 49 percent among rural births compared to 75 percent among urban births. Coverage of maternity care services is especially low in rural Upper Egypt, where regular antenatal care was received for 37 percent of births and 55 percent of deliveries were medically assisted, and among births in the lowest wealth quintile, where regular antenatal care was received for 31 percent of births and 51 percent of deliveries were medically assisted.

Trends in Coverage. Coverage of maternity care services has improved markedly in Egypt. Coverage of antenatal care services grew from 39 percent in 1995 to 70 percent in 2005. Medically assisted deliveries also increased over the period, from a level of 46 percent in 1995 to 74 percent in 2005.

#### CHILD HEALTH

Childhood Vaccination Coverage. One of the primary means for improving survival during childhood is increasing the proportion of children vacci-

nated against the major preventable diseases. The 2005 EDHS results show that 89 percent of children 12-23 months are fully immunized against the six major preventable childhood illnesses (tuberculosis, diphtheria, whooping cough, tetanus, polio and measles). In addition, 80 percent of young children also have the recommended three doses of the hepatitis vaccine.

Prevalence and Treatment of Childhood Illnesses. The 2005 EDHS provided data on the prevalence and treatment of two common childhood illnesses, diarrhea and acute respiratory illness. Eighteen percent of children under five were reported to have had diarrhea in the two weeks preceding the survey. Medical advice was sought in treating somewhat more than half of these cases. Use of ORS packets (34 percent) or a homemade solution of sugar, salt and water (3 percent) to combat the dehydration was common. Altogether 48 percent of children ill with diarrhea were treated with some form of ORT or increased fluids.

A child was considered to have symptoms of an acute respiratory infection if he/she had a cough accompanied by short, rapid breathing that the mother described as related to a chest problem. During the two weeks preceding the survey, nine percent of children had ARI symptoms. A provider was consulted about the illness in the case of 73 percent of children with these symptoms, and mothers reported that antibiotics were given to slightly more than half of the children.

# **NUTRITION INDICATORS FOR CHILDREN** AND WOMEN

**Infant Feeding Practices.** Breastfeeding is nearly universal in Egypt, and the average length of time that a child is breastfed is relatively long (18.6 months). However, breastfeeding practices for very young children are not optimal. More than half of infants receive prelacteal feeds (i.e., they are given some type of liquid until the mother's breast milk flows freely). Less than one in six children are exclusively breastfed throughout the first 6 months of life. Exclusive breastfeeding (i.e., without any food or liquid) is recommended because it provides all the necessary nutrients and avoids exposure to disease agents.

Appropriate infant and young child feeding (IYCF) practices include timely initiation of feeding solid/semi-solid foods from age six months and increasing the amount of foods and frequency of feeding as the child gets older while maintaining frequent breastfeeding. Feeding practices for about one-third of children age 6-23 months met the minimum standard with respect to all three of these feeding practices.

Nutritional Status of Children. The 2005 EDHS found that 18 percent of Egyptian children show evidence of chronic malnutrition or stunting, and four percent are acutely malnourished. The nutritional status of children under age five has improved from the situation prevailing during the first half of the 1990s, when 25-30 percent of children were found to be stunted. Large differentials in children's nutritional status continue to be observed, however, particularly by residence. For example, the percentage stunted among children in rural Upper Egypt is 23 percent compared to a level of 13 percent among children in rural Lower Egypt.

Nutritional Status of Youth and Young **Adults.** Six percent of never-married males age 10-19 and eight percent of never-married females age 10-19 in Egypt are classified overweight, i.e., their BMI values at or above the 95th percentile on age and sexspecific BMI growth charts. The BMI values for an additional 15 percent of males and 23 percent of females fall between the 85th and 95th percentiles, indicating that they are at risk of becoming overweight. At the other end of the scale, three percent of males and two percent of females are considered to be underweight, i.e., their BMI values fall below the 5th percentile on the growth charts.

Nutritional Status of Women. One indicator of the nutritional status of women is the body mass index. Excluding those who are pregnant or less than two months postpartum, the mean BMI of evermarried women age 15-49 is 30.1. The majority of women have a BMI of 25.0 or higher and are considered overweight (33 percent) or obese (47 percent). Less than one percent of women have a BMI below 18.5, the level indicating chronic energy deficiency.

**Anemia Levels.** Anemia, a condition characterized by a decrease in the concentration of hemoglobin in the blood, is associated with increased morbidity and mortality risks. The 2005 EDHS included hemo-

globin testing (the primary method of anemia diagnosis) in a subsample of one-third of all EDHS households for three groups: ever-married women age 15-49, children under age five and nevermarried males and females 10-19 years old.

Around four in ten EDHS respondents have some degree of anemia. Most of these women were found to be mildly anemic, five percent are moderately anemic and only a few women (less than one percent) were found to be severely anemic. Looking at the situation among young children, nearly half were considered to be at least mildly anemic, around one-fifth were moderately anemic, and less than one percent were severely anemic.

The overall levels of anemia among nevermarried males and females age 10-19 years were 26 percent and 35 percent, respectively. Six percent of males and five percent of females were classified as moderately or severely anemic and less than one percent of both sexes were found to be severely anemic.

Vitamin A Supplementation. Vitamin A is a micronutrient found in very small quantities in some foods. It is considered essential for normal sight, growth, and development. Information collected in the survey on the diet of young children and their mothers suggests that less than half of children under age 3 and slightly more than half of their mothers are consuming foods rich in vitamin A on a daily basis.

Egypt has recently introduced a program of vitamin A supplementation for new mothers and for children beginning at age nine months. Mothers reported receiving a vitamin A capsule postpartum in the case of nearly half of all births in the five-year period before the survey. Around three in ten children 9-23 months had received a vitamin A capsule.

**Iodization of Salt.** Iodine is another important micronutrient. Egypt has adopted a program of fortifying salt with iodine to prevent iodine deficiency. Overall, 78 percent of households were found to be using salt containing some iodine.

#### KNOWLEDGE OF INFECTIOUS DISEASES AND **OTHER HEALTH ISSUES**

Awareness of HIV/AIDS and Other Infectious **Diseases.** More than eight in ten ever-married women

in Egypt have heard of AIDS. However, only six percent have comprehensive knowledge about the modes of transmission and prevention, and virtually all women express attitudes suggesting that there is a high degree of stigma associated with AIDS.

Women were almost as likely to know about hepatitis C and tuberculosis as about AIDS. Twothirds of the women knowing about hepatitis C were able to name a way the illness is transmitted, while around half of women knowing about tuberculosis understood that it is transmitted through the air when an infected person coughs or sneezes.

Injection safety. Failure to follow safe injection practices increases the risk of transmission of bloodborne pathogens. The EDHS collected information from all respondents to assess the coverage of recent IEC efforts designed to increase population awareness about safe injection practices. About six in ten EDHS respondents had received information about injection safety.

The EDHS also collected information on the prevalence of injections and on the degree of compliance with injection safety procedures. Around one in four respondents had received at least one injection in the six-month period prior to the survey, with most getting the last injection from a medical provider. Ninety-five percent indicated that the provider had taken the syringe and needle used for the injection from a new, unopened package.

**Smoking.** Less than one percent of ever-married women age 15-49 themselves currently smoke or use any form of tobacco. However, 56 percent of the women report that at least one other household member smokes or uses another form of tobacco. Slightly more than three in four EDHS respondents had received information about the health effects of secondhand smoke during the six months prior to the survey.

Level and Trends. Almost all ever-married women age 15-49 (96 percent) have been circumcised. Among daughters under age 18, 28 percent were circumcised at the time of the survey. Girls age 9-10 are more than twice as likely as girls age 7-8 to have been circumcised (24 percent and 10 percent, respectively). The prevalence of circumcision increases rapidly from age 9 onward to a peak of 77 percent among girls age 15-17.

The percentage already circumcised can be combined with the percentage of girls whose mothers expressed an intention to circumcise their daughter(s) in the future to provide an estimate of the expected prevalence of circumcision at age 18 for each cohort of girls. The results suggest that the prevalence of circumcision will decline over the next 15-20 years, from the current levels of around 80 percent to around 60 percent.

Attitudes and Beliefs. Attitudes about circumcision appear to be changing. A smaller proportion of women supported continuation of the practice at the time of the 2005 EDHS (68 percent) than at the time of the 2000 EDHS (75 percent) or the 1995 survey (82 percent).

Beliefs that support continuation of the practice are shared by the majority of women. For example, six in ten ever-married women age 15-49 believe that circumcision is an important part of religious tradition. A similar proportion feel that the husband prefers the wife to be circumcised, and around half of women think that circumcision prevents adultery. Fewer women believe that the practice has any adverse consequences; for example, only around one-third thinks that a girl may die as a result of being circumcised.

#### **DOMESTIC VIOLENCE**

Violence since Age 15. A subsample of the 2005 EDHS respondents was asked if they had experienced violence since age 15. The data show that almost half of ever-married women in the reproductive ages in Egypt have experienced violence at some point since they were 15 and around one in five reported experiencing violence in the 12 months preceding the survey. The main perpetrators are husbands, and to a lesser extent, mothers, fathers and brothers.

**Marital Violence.** Physical violence is the most common form of violence, with one-third of evermarried women subjected to some form of physical violence at least once by their current or most recent husband. Twenty percent reported that the most recent episodes of violence had taken place within the 12 months prior to the survey.

Seven percent of women indicated that their spouse had ever physically forced them to have sex, and four percent reported that they had recently been forced to have sex by their spouse.

Eighteen percent of ever-married women reported they had ever experienced emotional violence, and 11 percent experienced a recent episode of emotional violence. Virtually all women experiencing emotional violence indicated that their husbands had said or done something intended to humiliate them; however, six percent reported the husband had threatened them or someone close to them with physical harm

Attitudes towards Marital Violence. To gauge the acceptability of domestic violence, women in the 2005 EDHS were asked whether they thought a husband would be justified in hitting or beating his wife in each of the following five situations: if she burns the food; if she argues with him; if she goes out without telling him; if she neglects the children; and if she refuses to have sexual relations with him. Results show that half of the women agreed that at least one of these factors is sufficient justification for wife beating. Around one in six women believed that it is justified for all of the reasons mentioned in the question.

Acceptance of wife beating was higher among rural women than urban women. Women living in rural Upper Egypt were most likely and women in the Urban Governorates were least likely to accept wife beating as justified. The differentials by wealth quintile are especially marked; for example, women in the lowest wealth quintile were more than three times as likely to consider wife beating to be justified for at least one of the reasons as women in the highest wealth quintile (74 percent and 23 percent, respectively).

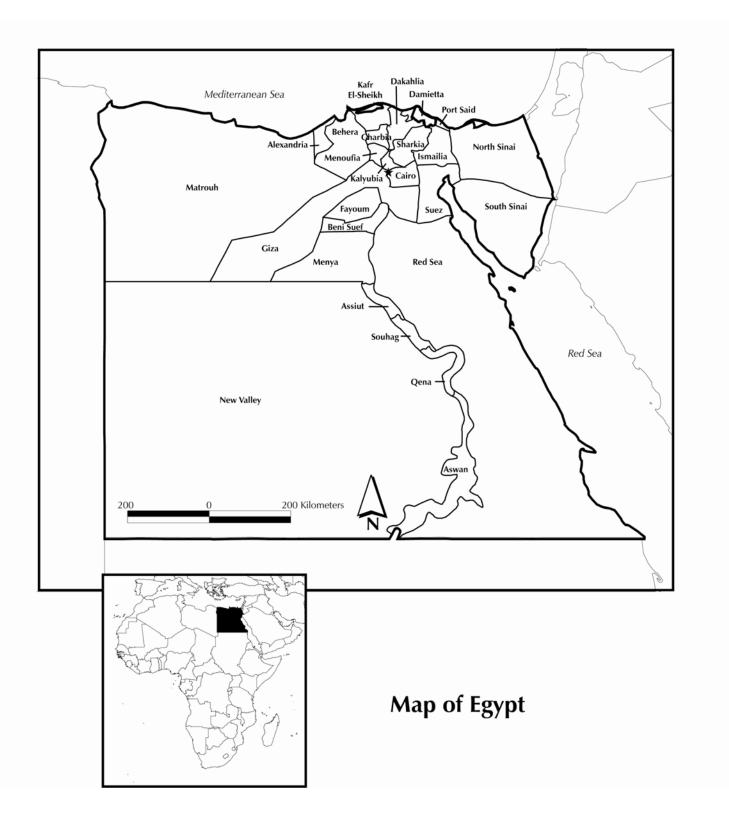
#### **CHILDREN'S WELFARE**

School Attendance. Information contained in the EDHS on children's education is useful in looking at several important aspects of school attendance among Egyptian children. Among children age 6-15, 91 percent were currently attending school. Boys in the age group were slightly more likely than girls to be currently attending school (93 percent and 90 percent, respectively).

Residential differentials in school attendance are generally minor for children age 6-15. However, among the population age 16-24, school attendance is higher among urban than rural residents and in the Urban Governorates and Lower Egypt compared to Upper Egypt and the Frontier Governorates.

Child Labor. Eight percent of children age 6-14 in the households sampled in the 2005 EDHS were engaged in child labor activities. Eleven percent of rural children are engaged in child labor compared to three percent of urban children. The percentage of children engaged in child labor activities ranges from less than one percent among children in the highest wealth quintile to 17 percent among children in the lowest wealth quintile.

Child Disciplinary Activities. Respondents in the 2005 EDHS who had children age 3-17 years were asked about the types of actions they took to teach their children the right behavior or to address behavior problems during the month before the survey. Nine in ten respondents with children age 3-17 years indicated that they had addressed behavior problems by explaining why the behavior was wrong. A similar proportion said that they had at times shouted, yelled or screamed at the child when there was a behavior problem. Around seven in ten women had hit or slapped a child on the body with a hard object, and four in ten had hit a child on the face, head or ear.



# INTRODUCTION

#### 1.1 **GEOGRAPHY**

Egypt is located on the northeast corner of the African continent. It is bordered by Libya to the west, Sudan to the south, the Red Sea to the east, and the Mediterranean Sea to the north.

Egypt has the largest, most densely settled population among the Arab countries. The total area of the country covers approximately one million square kilometers. However, much of the land is desert, and only 6 percent of Egypt's area is inhabited. Recently, the Egyptian government adopted a policy of land reclamation and fostering of new settlements in the desert. Despite these efforts, the majority of Egyptians live either in the Nile Delta located in the north of the country or in the narrow Nile Valley south of Cairo.

Administratively, Egypt is divided into 26 governorates (see map) and Luxor City. The four Urban Governorates (Cairo, Alexandria, Port Said, and Suez) have no rural population. Each of the other 22 governorates is subdivided into urban and rural areas. Nine of these governorates are located in the Nile Delta (Lower Egypt), eight are located in the Nile Valley (Upper Egypt), and the remaining five Frontier Governorates are located on the eastern and western boundaries of Egypt.

#### 1.2 **SOCIOECONOMIC INDICATORS**

Egypt's economy expanded steadily during the 1990s. Reflecting that growth, the gross domestic product (GDP) per capita has achieved a level of US \$1,380 (UNDP 2005). The country's economic growth has been accompanied by improvements in a number of human development indicators, including:

- The proportion of households with sustainable access to improved sanitation which was 87 percent in 1990 reached 98 percent by 2000 (UNDP 2004).
- School enrolment levels have improved over time, and literacy levels have risen. For example, in 1990, the net enrolment ratio at the primary level was 84 and adult literacy was 47 percent; by 2003, the net enrolment ratio at the primary level had increased to 91 and adult literacy had risen to 56 percent (UNDP 2005).

From a social perspective, the advances which have occurred over time in the education of women are of particular note. Female enrolment at the primary level rose from 57 percent in 1970 to 98 percent in 2002. At the secondary level, female enrolment also expanded rapidly, from 23 percent in 1970 to 70 percent in 1997 (UNDP 2004). Although indicators have improved over time, gaps remain evident for a number of subgroups, particularly women. For example, the adult literacy rate among females in 2003 was 44 percent compared to 65 percent for males. The net primary enrollment ratio in 2002/2003 was 90 for females compared to 96 for males (UNDP 2005).

#### 1.3 **POPULATION SIZE AND STRUCTURE**

The latest population census in Egypt was carried out in November 1996. According to the results, Egypt has a de facto population of 59.3 million. This number excluded the roughly 2.2 million Egyptians who were living abroad. By the beginning of 2005, it is estimated that population had increased by more than 10 million to 69.9 million (CAPMAS 2005).

Table 1.1 presents the trend between 1990 and 2004 in the size of Egypt's population and in the distribution of the population by urban-rural residence. The table shows that the total Egypt's population increased during this period by around 30 percent. Despite the sizeable population expansion, the percentage of the Egyptian population living in areas classified as urban remained virtually unchanged during the period.

#### 1.4 **RECENT RATE OF NATURAL INCREASE**

The rate of natural increase represents the difference between the level of births and deaths in a population. It indicates how fast a population will grow, taking into account these two natural events. Figure 1.1 shows that the rate of natural increase has been declining in Egypt since 1991.<sup>1</sup>

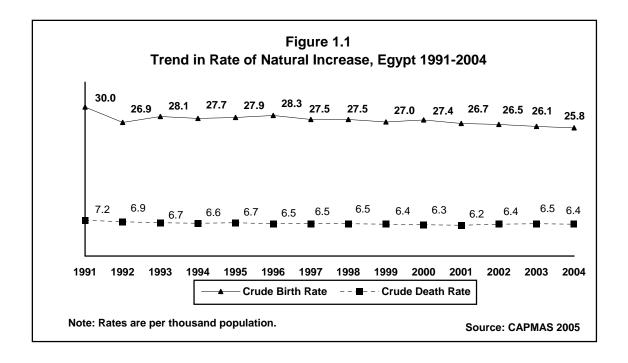
Most of the decline in the rate of natural increase since 1991 has been the result of changes in fertility behavior. The crude birth rate (CBR) dropped from a level

Table 1.1 Population of Egypt, 1990-2004 Total population in Egypt and the percentage living in urban and rural areas, 1990-2004

	Total population	Place of r	esidence
Years	(millions) <sup>1</sup>	Urban	Rural
1990	51,911	43.4	56.6
1991	52,985	43.2	56.8
1992	54,082	43.2	56.8
1993	55,201	43.1	56.9
1994	56,344	43.1	56.9
1995	57,510	42.9	57.1
1996	58,755	42.6	57.4
1997	60,080	42.6	57.4
1998	61,341	42.6	57.4
1999	62,639	42.4	57.6
2000	63,976	42.5	57.9
2001	65,298	43.1	56.9
2002	66,628	42.9	57.1
2003	67,965	42.9	57.1
2004*	69,330	42.5	57.5

<sup>1</sup> Figures exclude Egyptians living abroad Source: CAPMAS 2005, Table 1.4

of 30 per thousand population in 1991 to 28 per thousand by 1994. As Figure 1.1 shows, the decline leveled off in the mid-1990s, with the CBR fluctuating around a level of 27 births per thousand until the end of the decade. At that point, the CBR resumed declining although slowly reaching a level of 25.8 in 2004. The crude death rate (CDR), already at a comparably low level in 1990, also declined further in the period although the pace of decline was slow and erratic.



<sup>&</sup>lt;sup>1</sup> A third factor influencing population growth is migration, which is not taken into account in Figure 1.1.

As Table 1.2 shows, declines in mortality during the period 1960-2004 had a demonstrable effect on increasing the life expectancy of the Egyptian population. The life expectancy at birth represents the average number of years a child born in a specific year may be expected to live during his/her lifetime. Life expectancy increased by 19.0 years for females and 16.8 years for males during the period.

#### 1.5 POPULATION POLICY AND PROGRAMS

The government of Egypt is aware of the challenges that demographic problems pose to the attainment of the nation's development objectives. The country has adopted a national population policy which considers both quantitative and qualitative aspects of the population as important determinants of development.

	Table 1.2	Life e	expecta	ancy,	Egypt
1960-2004			•	,	0,1

Life expectancy at birth by sex, Egypt 1960-2004

Year	Male	Female
1960	51.6	53.8
1976	52.7	57.7
1986	60.5	63.5
1991	62.8	66.4
1996	65.1	69.0
1999	66.3	70.5
2001	67.1	71.5
2002	67.5	71.9
2003	67.9	72.3
2004	68.4	72.8

Source: CAPMAS, 2005, Table 1.7

Slowing the growth rate of population has long been a goal of the Egyptian government policy. In the early 1960s the government made an explicit commitment on the population question when it stated in the National Charter that "high growth rates represent the most dangerous obstacle that hinders efforts to raise the standard of living of the Egyptian people" (Ibrahim 1995). Governmental concern about population issues was further demonstrated when the Supreme Council for Family Planning issued the first National Population Policy in 1973. A main objective of the policy was to reduce the CBR from 34 births per thousand population in 1973 to 24 per thousand in 1982. The policy emphasized that population growth was dependent, in part, on socioeconomic development and that the manipulation of socioeconomic change should itself be an element in a comprehensive population policy.

In 1977, family planning activities became more structured, organized and better managed, and the goals became more quantified at the national and sub-national levels. Information, Education, and Communication (IEC) activities were enhanced and synchronized in the late 1970s, when the Supreme Council for Population and Family Planning established high committees to coordinate IEC activities in support of the family planning activities.

In 1980, a new National Strategic Framework for Population, Human Resource Development and the Family Planning Program was issued. This national strategy and its related documents set a specific timetable and explicit measures for assessing progress toward the achievement of the population and human development goals. Reflecting the continued commitment of the Egyptian government to addressing population issues, a national population conference was held in 1984. The National Population Council (NPC) was established shortly after the conference, replacing a succession of lower-level governmental bodies.

In 1986, the third national population plan was formulated by the NPC, including quantifiable objectives. This plan came as response to the growing concern that previous efforts had failed to achieve real progress in reducing the population growth rate. The plan described the nature of the population problem of Egypt and re-emphasized the interaction between population and development factors.

In October 1995, a modified population strategy was developed, based on the recommendations coming from the 1994 International Conference on Population and Development (ICDP). The program of action articulated a comprehensive approach to issues of population and development and identified a range of demographic and social goals to be achieved over a 20-year period.

In January 1996, the Ministry of Health became the Ministry of Health and Population (MOHP), reflecting the Ministry's increased responsibility for population sector activities. Responding to the concerns of the Cairo conference declaration, the MOHP has merged family planning, maternal health, and child health services into a broad-based women's health program. It has expanded family planning services, particularly to low-income populations and to rural Upper Egypt. As part of these efforts, the MOHP has renovated most of its clinics and added more than 500 mobile family planning clinics to improve access to services.

The most recent documents codifying the National Population Program were issued in 2002. These documents which articulate detailed population strategies are considered a constructive addition to the 1986 national population plan, which constitutes the only official document up to the present.

#### 1.6 **HEALTH POLICIES AND PROGRAMS**

The Egyptian health system faces multiple challenges in improving and ensuring the health and well-being of the Egyptian people. The system faces not only the burden of combating illnesses associated with poverty and lack of education, but it must also respond to emerging diseases and illnesses associated with a modern, urban lifestyle. Emerging access to global communications and commerce is raising the expectations of the population for more and better care and for advanced health care technology. To meet these challenges, the Egyptian health system has a strong infrastructure of physicians, clinics and hospitals, availability of technology and pharmaceuticals, and excellent physical access to care, with 95 percent of the population being within five kilometers of a medical facility.

During the 1990s, the MOHP had the continuing objective of "health for all by the year 2000." Within that broad mandate, the Government of Egypt placed a priority on meeting children's health needs, with President Mubarak declaring that the 1989-1999 period would be a decade focused on the protection and development of the Egyptian child. A National Council for Childhood and Motherhood, co-chaired by the Prime Minister and the First Lady, was formed at that time to coordinate activities between ministries implementing programs affecting children and mothers.

To improve child health, the MOHP has focused on national programs to control diarrhea and acute respiratory infections and an expanded childhood immunization program. Targets were set to eradicate poliomyelitis and to eliminate neonatal tetanus before the year 2000. The MOHP also directed attention to reducing neonatal mortality by improving the quality of care given to newborns at home and in health facilities through postnatal care.

Following the merger of the health and population services described above, the MOHP also has stressed the importance of integrating family planning and maternal and child health. The government of Egypt has articulated as its long-term goal the achievement of universal coverage of basic health services for all of its citizens. It identified the extension of services to reach the most vulnerable population groups as a priority. As part of the policy reform agenda, health insurance is being expanded to cover more beneficiaries and efforts are being focused on enhancing the quality of health services. Attention also is being paid to improving health manpower distribution and the compensation provided to health workers. The importance of strengthening the information system to collect, analyze, and facilitate the use of health information at all levels was recognized, and steps have been taken to address this task. All these health reform plans are expected to have a positive effect on the health of women and children.

#### 1.7 ORGANIZATION OF THE 2005 EDHS

The Egypt Demographic and Health Survey (2005 EDHS) is the latest in a series of a nationally representative population and health surveys conducted in Egypt.<sup>2</sup> The 2005 EDHS was conducted under the auspices of the Ministry of Health and Population (MOHP) and National Population Council (NPC) and implemented by El-Zanaty & Associates. Technical support for the 2005 EDHS was provided by ORC Macro through the MEASURE DHS project. MEASURE DHS is sponsored by the U.S. Agency for International Development (USAID) to assist countries worldwide in conducting surveys to obtain information on key population and health indicators. USAID/Cairo is the main financial contributor to the survey. The United Nations Children's Fund (UNICEF) and Ford Foundation also supported the survey financially.

The 2005 EDHS was undertaken to provide estimates for key indicators such as fertility, contraceptive use, infant and child mortality, immunization levels, coverage of antenatal and delivery care, nutrition, and prevalence of anemia. In addition, the survey was designed to provide information on the prevalence of female circumcision, domestic violence, and children's welfare. The survey results are intended to assist policymakers and planners in assessing the current health and population programs and in designing new strategies for improving reproductive health and health services in Egypt.

#### **2005 EDHS TIMETABLE**

The 2005 EDHS was executed in four stages. The first stage involved preparatory activities, including designing the sample and updating the frame. At the same time, the survey questionnaires were developed, pretested, and finalized. The preparatory stage was initiated in September 2004, and all of the activities were completed by mid-February 2005. The second stage, which took place from March through July 2005, involved training field staff and interviewing eligible households and individual respondents. The third stage encompassed all of the data processing activities necessary to produce a clean data file, including editing, coding, entering and verifying the data as well as checking it for consistency. This stage started soon after the beginning of the fieldwork and lasted until early August 2005. The focus of the final stage of the survey was analyzing the data and preparing the report. This phase began in October 2005 with the publication of the preliminary report, which presented the main findings from the survey.

The activities involved in each of the stages are described in more detail below. The survey timetable is presented in Table 1.3.

<sup>&</sup>lt;sup>2</sup> The 2005 EDHS is the fifth full-scale Demographic and Health Survey to be implemented in Egypt; the earlier surveys were conducted in 1988, 1992, 1995, and 2000. Three additional interim DHS surveys were carried out in 1997 and 1998 and 2003. Other national-level surveys for which results are shown in this report include the 1980 Egyptian Fertility Survey (EFS), the 1984 Egypt Contraceptive Prevalence Survey (ECPS), and the 1991 Egypt Maternal and Child Health Survey (EMCHS).

Table 1.3 Survey timetable, 2005 Egypt DHS		
Activity	Starting date	Duration
Updating the sample frame	September 2004	1 month
Mapping	October 2004	7 weeks
Quick-count operation	October 2004	3 months
Recruitment and training of listing staff	January 2005	1 week
Listing and re-listing	January 2005	5 weeks
Sample selection	February 2005	6 weeks
Questionnaire design	December 2004	3 months
Preparation of training materials	January 2005	2 months
Pretest	January 2005	2 weeks
Finalization of questionnaires	February 2005	1 month
Training of data collection staff	March 2005	5 weeks
Printing survey materials	March 2005	2 weeks
Fieldwork	April 2005	2 months
Reinterviews	July 2005	2 weeks
Office editing and coding	April 2005	3 months
Data entry	May 2005	3 months
Computer editing	June 2005	3 months
Preliminary report	September 2005	1 month
Detailed tabulations	September 2005	2 months
Final report preparation	October 2005	4 months

#### **Sample Design**

The primary objective of the sample design for the 2005 EDHS was to provide estimates of key population and health indicators including fertility and child mortality rates for the country as a whole and for six major administrative regions (the Urban Governorates, urban Lower Egypt, rural Lower Egypt, urban Upper Egypt, rural Upper Egypt, and the Frontier Governorates). In addition, seven governorates targeted for special USAID-sponsored family planning and health initiatives were over sampled, namely: Fayoum, Beni-Suef, Menya, Qena, and Aswan in Upper Egypt, and Cairo and Alexandria.

In the Urban Governorates, Lower Egypt, and Upper Egypt, the 2005 EDHS design allowed for governorate-level estimates of most of the key variables, with the exception of the fertility and mortality rates. In the Frontier Governorates, the sample size was not sufficiently large to provide separate estimates for the individual governorates. To meet the survey objectives, the number of households selected in the 2005 EDHS sample from each governorate was not proportional to the size of the population in the governorate. As a result, the 2005 EDHS sample is not self-weighting at the national level, and weights have to be applied to the data to obtain the national-level estimates presented in this report.

A more detailed description of the 2005 EDHS sample design is included in Appendix B. Sampling errors for selected variables are presented in Appendix C.

#### **Sample Selection**

The sample for the 2005 EDHS was selected in three stages. The first stage included selecting the primary sampling units. The units of selection were shiakhas/towns in urban areas and villages in rural areas. A list of these units which was based on the 1996 census was updated to August 2004 using information obtained from CAPMAS, and this list was used in selecting the primary sampling units (PSUs). Prior to the selection of the PSUs, the frame was further reviewed to identify any administrative changes that had occurred after August 2004. The updating process included both office work and field visits during a one-month period. After it was completed, urban and rural units were separately stratified by geographical location in a serpentine order from the northwest corner to the southeast corner within each governorate. During this process, shiakhas or villages with a population less than 2,500 were grouped with contiguous shiakhas or villages (usually within the same kism or markaz) to form units with a population of at least 5,000. After the frame was ordered, a total of 682 primary sampling units (298 shiakhas/towns and 384 villages) were selected.

The second stage of selection involved several steps. First, detailed maps of the PSUs chosen during the first stage were obtained and divided into parts of roughly equal population size (about 5,000). In shiakhas/towns or villages with a population of 20,000 or more, two parts were selected. In the remaining smaller shiakhas/towns or villages, only one part was selected. Overall, a total of 1,019 parts were selected from the shiakhas/towns and villages in the 2005 EDHS sample.

A quick count was then carried out to provide an estimate of the number of households in each part. This information was needed to divide each part into standard segments of about 200 households. A group of 48 experienced field workers participated in the quick count operation. They were organized into 16 teams, each consisting of 1 supervisor, 1 cartographer and 1 counter. A one-week training course conducted prior to the quick count included both classroom sessions and two field practices in a shiakha/town and a village not covered in the survey. The quick-count operation took place between the end of October 2004 and January 2005.

As a quality control measure, the quick count was repeated in 10 percent of the parts. If the difference between the results of the first and second quick count was less than 2 percent, then the first count was accepted. No major discrepancies were found between the two counts in most of the areas for which the count was repeated.

After the quick count, a total of 1,359 segments were chosen from the parts in each shiakha/town and village in the 2005 EDHS sample (i.e., two segments were selected from each of the 682 PSUs with the exception of 5 PSUs for which only one segment was selected). A household listing operation was then implemented in each of the selected segments. To conduct this operation, 13 supervisors and 26 listers were organized into 13 teams. Generally, each listing team consisted of a supervisor and two listers. A one-week training course for the listing staff was held in mid-January 2005. The training involved classroom lectures and two days of field practice in three urban and rural locations not covered in the survey. The listing operation took place during a five-week period, beginning immediately after the training.

About 10 percent of the segments were relisted. Two criteria were used to select segments for relisting. First, segments were relisted when the number of households in the listing differed markedly from that expected according to the quick count information. Second, a number of segments were randomly selected to be relisted as an additional quality control test. No major discrepancies were found in comparisons of the listings.

The third stage involved selecting the household sample. Using the household listing for each segment, a systematic random sample of households was selected for the 2005 EDHS sample. All evermarried women 15-49 who were usual residents or who were present in the sampled households on the night before the interview were eligible for the EDHS.

# **Questionnaire Development**

The 2005 EDHS involved two questionnaires: a household questionnaire and an individual questionnaire. The questionnaires were based on the model survey instruments developed by MEASURE DHS+ for countries with high contraceptive prevalence. Questions on a number of topics not covered in the DHS model questionnaires were also included in the 2005 EDHS questionnaires. In some cases, those items were drawn from the questionnaires used for earlier rounds of the DHS in Egypt. In other cases, the questions were intended to collect information on new topics.

The household questionnaire consisted of three parts: a household schedule, a series of questions related to the socioeconomic status of the household, height and weight measurement, and anemia testing. The household schedule was used to list all usual household members and visitors and to identify those present in the household during the night before the interviewer's visit. For each of the individuals included in the schedule, information was collected on the relationship to the household head, age, sex, marital status (for those 15 years and older), educational attainment, repetition and dropout (for those 6-24 years), attendance of pre-school programs (for those 3-5 years old), and child labor (for those 6-14 years). The second part of the household questionnaire obtained information on characteristics of the physical and social environment of the household (e.g., type of dwelling, availability of electricity, source of drinking water, household possessions, and the type of salt the household used for cooking). Height and weight measurements were obtained and recorded in the last part of the household questionnaire for ever-married women age 15-49 years, children born since January 2000, and never-married adolescents age 10-19 years. In a subsample of one-third of households, all eligible women, all children born since January 2000, and all adolescents age 10-19 years were eligible for anemia testing.

The individual questionnaire was administered to all ever-married women age 15-49 who were usual residents or who were present in the household during the night before the interviewer's visit. It obtained information on the following topics:

- Respondent's background
- Reproduction
- Contraceptive knowledge and use
- Fertility preferences and attitudes about family planning
- Pregnancy and breastfeeding
- Immunization and child health
- Husband's background and women's work
- Female circumcision
- Health care access and other health concerns
- HIV/AIDS and other sexually transmitted infections
- Mother and child nutrition.

In addition, a domestic violence section was administered to women in the subsample of households selected for the anemia testing. One eligible woman was selected randomly from each of the households in the subsample to be asked the domestic violence section.

The individual questionnaire included a monthly calendar, which was used to record a history of the respondent's marriage status, fertility, contraceptive use including the source where the method was obtained, and the reason for discontinuation for each segment of use during each month of an approximately five-year period beginning in January 2000.

#### **Pretest**

A pretest was conducted during the preparation for the 2005 EDHS. After a two-week training course, the household and individual questionnaires were pretested in February 2005 in a small number of households. Four supervisors, four field editors, and 16 interviewers participated in the first pretest. The pretest was conducted in two Upper Egypt governorates (Giza and Fayoum) and two Lower Egypt governorates (Gharbia and Kalyubia). A sample of 304 households were selected: 76 households in each governorate. The data collection took about four days and a total of 268 household and 261 individual interviews were completed during the pretest.

The questionnaires for the 2005 EDHS were finalized after the pretest. Both comments from interviewers and tabulations of the pretest results were reviewed during the process of finalizing the questionnaires.

English versions of the final Arabic language questionnaires are included in Appendix E.

#### **Data Collection Activities**

Staff recruitment. To recruit interviewers and field editors, a list was obtained from the then Ministry of Social Affairs (now the Ministry of Social Solidarity (MOSS)) of female personnel who were working to fulfill the one-year period of governmental public service that is mandatory for university graduates. All candidates nominated for the field staff positions were interviewed, and only those who were qualified were accepted into the training program.

All candidates for the interviewer and field editor positions were recent university graduates. Another basic qualification was a willingness to work in any of the governorates covered in the survey. With a few exceptions, interviewers who had previous experience in surveys were not accepted into the training program. This decision was made to reduce any bias that might result from previous survey experience and to ensure that all trainees had a similar background. However, previous survey experience was a basic qualification for the candidates for the positions of supervisor.

All of the staff recruited for the anemia testing were required to have a medical background. Some were assigned by the MOHP, and others were recruited from among newly graduated physicians.

Training materials. A variety of materials were developed for use in training personnel involved in the fieldwork. A lengthy interviewer's manual, including general guidelines for conducting an interview as well as specific instructions for asking each of the questions in the EDHS questionnaires, was prepared and given to all field staff. In addition, a chart for converting months from the Islamic calendar to the Gregorian calendar was designed for the 60 months before the 2005 EDHS and distributed to all field staff along with a calendar of well-known worldwide or local events.

Other training materials, including special manuals describing the duties of the team supervisor and the rules for field editing, were prepared. Instructions for anthropometric data collection were included in a manual for the staff trained to collect height and weight data. A special manual covering the procedures to be followed in the anemia testing was also prepared.

Training for supervisors and interviewers. A special training program for supervisors was conducted during a one-day period prior to the main fieldwork training. This training focused specifically on the supervisor's duties, but it also covered the 2005 EDHS questionnaires in order to give supervisors a basic understanding of the content of the survey prior to the main training program.

Training for interviewers for the 2005 EDHS data collection began in mid-March 2005. Fourteen supervisors, 87 interviewers, and 36 anemia-testing and anthropometric-data-collection staff including 13 physicians and 2 nurses participated in the training program. This five-week training program, which was held in Cairo, included the following:

- Lectures related to basic interview techniques and to specific survey topics (e.g., fertility and family planning, maternal and child health, and female circumcision)
- Sessions on how to fill out the questionnaire, using visual aids
- Role playing and mock interviews
- Five days of field practice in areas not covered in the survey
- Four quizzes.

Trainees who failed to show interest in the survey, who did not attend the training program on a regular basis, or who failed the first two quizzes were terminated immediately.

Before the fourth field practice, a list was prepared of the 20 trainees who had performed best during both the classroom and field practices. Following the fourth field practice, 14 of these trainees were chosen to be field editors. A special training session was held for the field editors after their selection. By the end of the training course, 69 of the 87 candidates originally recruited for interviewer training were selected to work as interviewers or field editors in the EDHS fieldwork.

Training for anthropometric-data-collection and anemia-testing staff. Thirty-six personnel were selected for training in anthropometric data collection and anemia testing. The training included both classroom lectures and practice measurement and blood testing in a nursery school, in health facilities, and in households. At the end of the program, the 28 most-qualified trainees (14 males and 14 females) were selected for the anthropometric data collection and anemia testing. As discussed earlier, most of the personnel involved in the anemia testing had a medical background.

Fieldwork. Fieldwork for the 2005 EDHS began on April 21, 2005 and was completed in late June 2005. The field staff was divided into 14 teams; each team had 1 supervisor, 1 field editor, 3 to 4 interviewers, and 2 staff members assigned to height and weight measurement and anemia testing. All supervisors were males, while the field editors and interviewers were females. One male and one female staff member were involved in the anthropometric measurement and the anemia testing. During the fieldwork, the 14 field teams worked in separate governorates; the number of governorates assigned to an individual team varied from one to three, according to the sample size in the governorates. As a quality control measure, field editors regularly conducted reinterviews using a shortened version of the EDHS questionnaire. The results of the reinterview were compared to the responses in the original questionnaire and any mistakes were discussed with the interviewer. The teams also were closely supervised throughout the fieldwork by a fieldwork coordinator, two assistant fieldwork coordinators, and other senior staff.

As soon as the main data collection was completed in the first group of governorates, a random sample of up to 10 percent of the households was selected for reinterview as a quality control measure. Shorter versions of the 2005 EDHS questionnaires were prepared and used for the reinterviews. The visits to PSUs to conduct reinterviews also afforded an opportunity to make callbacks to complete interviews with households or individuals who were not available at the time of the original visit by the 2005 EDHS interviewers. Household or individual questionnaires in which there were significant errors that could not be corrected in the office were also assigned for callbacks. Special teams were organized to handle callbacks and reinterviews. During this phase of the survey, interviewers were not allowed to work in the governorate in which they had worked in the initial fieldwork. Callbacks and reinterviews began in mid-July 2005 and took about two weeks to complete.

#### **Data Processing Activities**

Office editing. Staff from the central office were responsible for collecting questionnaires from the teams as soon as interviewing in a cluster was completed. Office editors reviewed questionnaires for consistency and completeness, and a few questions (e.g., occupation) were coded in the office prior to data entry. To provide feedback for the field teams, the office editors were instructed to report any problems detected while editing the questionnaires, which were reviewed by the senior staff. If serious errors were found in one or more questionnaires from a cluster, the supervisor of the team working in that cluster was notified and advised of the steps to be taken to avoid these problems in the future.

Machine entry and editing. Machine entry and editing began while interviewing teams were still in the field. The data from the questionnaires were entered and edited on microcomputers using the Census and Survey Processing System (CSPro), a software package for entering, editing, tabulating, and disseminating data from censuses and surveys.

Fifteen data entry personnel used twelve microcomputers to process the 2005 EDHS survey data. During the machine entry, 100 percent of each segment was reentered for verification. The data processing staff completed the entry and editing of data by the end of July 2005.

#### 1.8 **SURVEY COVERAGE**

Table 1.4 summarizes the outcome of the fieldwork for the 2005 EDHS by place of residence. The table shows that, during the main fieldwork and callback phases of the survey, out of 22,807 households selected for the 2005 EDHS, 22,211 households were found, and 21,972 households were successfully interviewed which represents a response rate of 99 percent.

A total of 19,565 women were identified as eligible to be interviewed. Out of these women, 19,474 were successfully interviewed, which represents a response rate of 99.5 percent. The household response rate exceeded 98 percent in all residential categories, and the response rate for eligible women exceeded 99 percent in all areas. In general, response rates were slightly higher in rural areas than urban areas.

Table 1.4 Sample results

Percent distribution of households and eligible women by the result of the interviews, and response rates, according to residence, Egypt 2005 Demographic and Health Survey

			Urban Gover-	Lower Egypt			U	pper Egy	pt	Frontier Gover-	
Interview result	Urban	Rural	norates	Total	Urban	Rural	Total	Urban	Rural	norates	Total
Households											
Dwellings sampled	11,164	11,643	5,231	6,656	2,071	4,585	9,998	3,247	6,751	922	22,807
Households found	10,746	11,465	5,024	6,500	1,989	4,511	9,806	3,153	6,653	881	22,211
Households interviewed	10,555	11,417	4,923	6,454	1,965	4,489	9,723	3,094	6,629	872	21,972
Response rate	98.2	99.6	98.0	99.3	98.8	99.5	99.2	98.1	99.6	99.0	98.9
Eligible women											
Eligible women	8,147	11,418	3,568	5,918	1,560	4,358	9,177	2,486	6,691	902	19,565
Eligible women interviewed	8,095	11,379	3,538	5,903	1,553	4,350	9,132	2,471	6,661	901	19,474
Response rate	99.4	99.7	99.2	99.7	99.6	99.8	99.5	99.4	99.6	99.9	99.5

The objective of this chapter is to provide a demographic and socioeconomic profile of the 2005 EDHS sample and a descriptive assessment of the environment in which women and children live. Information is presented on the age, sex, and education of the household population, as well as on housing facilities and household possessions. The profile of the households provided in this chapter will help in understanding the results of the 2005 EDHS in the following chapters. In addition, it may provide useful input for social and economic development planning.

#### 2.1 CHARACTERISTICS OF THE HOUSEHOLD POPULATION

The questionnaire for the 2005 EDHS included two questions distinguishing between the de jure population (persons who usually live in selected household) and the de facto population (persons who spent the night before the interview in the household). The differences between these populations are small, and since past surveys and censuses were based on de facto populations, tabulations for the household data presented in this chapter are based on the de facto definition, unless otherwise stated.

## **Age and Sex Composition**

Table 2.1 presents the percent distribution of the de facto population by age, according to urbanrural residence and sex. The table describes the demographic context in which the behaviors examined in the report occur.

Table 2.1 H	Table 2.1 Household population by age, sex, and residence													
Percent distribution of the de facto household population by five-year age groups, according to sex and urban- rural residence, Egypt 2005														
	Urban Rural Total													
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total					

		Orban			Kurai			rotai	
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	10.7	10.4	10.6	13.9	12.8	13.4	12.6	11.8	12.2
5-9	10.4	10.1	10.3	12.9	11.6	12.3	11.9	11.0	11.4
10-14	10.0	9.3	9.6	11.7	10.9	11.3	11.0	10.2	10.6
15-19	11.7	11.3	11.5	12.4	12.4	12.4	12.1	12.0	12.0
20-24	9.6	10.9	10.3	9.3	10.5	9.9	9.4	10.7	10.1
25-29	7.7	8.4	8.1	7.4	8.3	7.9	7.6	8.3	7.9
30-34	5.9	6.5	6.2	5.8	6.2	6.0	5.9	6.3	6.1
35-39	6.0	6.5	6.3	5.4	5.8	5.6	5.7	6.1	5.9
40-44	6.2	6.1	6.2	5.2	4.7	5.0	5.6	5.3	5.5
45-49	5.5	5.5	5.5	4.0	4.5	4.3	4.7	4.9	4.8
50-54	5.0	5.0	5.0	3.3	3.1	3.2	4.0	3.9	4.0
55-59	3.9	3.4	3.6	2.6	2.8	2.7	3.1	3.0	3.1
60-64	3.0	2.4	2.7	2.1	2.3	2.2	2.5	2.3	2.4
65-69	1.9	1.6	1.7	1.5	1.6	1.5	1.6	1.6	1.6
70-74	1.2	1.3	1.3	1.2	1.3	1.2	1.2	1.3	1.3
75-79	0.7	0.6	0.7	0.7	0.5	0.6	0.7	0.6	0.6
80 +	0.5	0.5	0.5	0.5	0.7	0.6	0.5	0.6	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	22,185	22,708	44,893	30,453	31,290	61,743	52,638	53,998	106,635

The population spending the night before the survey in the households selected for the survey included 106,635 individuals, of which 49 percent were males and 51 percent females. The age structure of the de facto household population reflects the effects of past demographic trends, particularly high fertility. The majority of the household population (56 percent) was less than 25 years old, and around one-third were less 15 years old. The proportion under age 15 was greater in the rural population (37 percent) than in the urban population (31 percent). This difference is an outcome of lower recent fertility in urban areas compared to rural areas.

The population pyramid shown in Figure 2.1 was constructed using the sex and age distribution of the 2005 EDHS household population. The pyramid has a wide base. This pattern is typical of countries that have experienced relatively high fertility in the recent past.

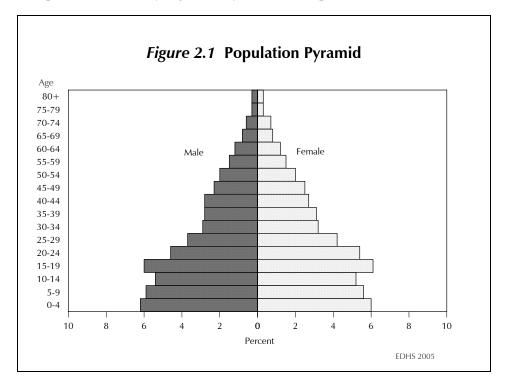


Table 2.2 presents a comparison of the distribution of the household population by broad age groups for the five EDHS surveys carried out between 1988 and 2005. The dependency ratio, defined as the ratio of the nonproductive population (persons under age 15 and age 65 and over) to the population age 15-64, is calculated based on these figures. The ratio declined from a level above 80 at the time of the 1988 survey to 62 at the time of the 2005 EDHS. The decline reflects a substantial lessening in the burden placed on persons in the productive ages to support older and younger household members.

Table 2.2 Trends in population distribution by age, 1988-2005 Percent distribution of the de facto population by age and dependency ratio, Egypt 1988-2005

	1988	1992	1995	2000	2005
Age group	EDHS	EDHS	EDHS	EDHS	EDHS
Less than 15	41.2	41.7	40.0	37.3	34.2
15-64	55.0	54.6	56.3	59.1	61.7
65+	3.8	3.7	3.7	3.6	4.1
Total	100.0	100.0	100.0	100.0	100.0
Median age	na	18.8	19.3	20.3	21.7
Dependency ratio	81.8	83.2	77.6	69.2	62.1

na = not available

Source: El-Zanaty and Way, 2001, Table 2.2

## **Household Composition**

Table 2.3 presents the distribution of households in the 2005 EDHS sample by sex of the head of the household and by the number of de jure household members. These characteristics are important because they are often associated with socioeconomic differences between households. For example, female-headed households frequently are poorer than households headed by males. In addition, the size and composition of the household affects the allocation of financial and other resources among household members, which in turn influences the overall well-being of these individuals. Household size is also associated with crowding in the dwelling, which can lead to unfavorable health conditions.

I	Table 2.3	Household com	position b	y residence
ı				

Percent distribution of households by sex of head of household and by household size, according to residence, Egypt 2005

			Urban Gover-	Lower Egypt			Jpper Egy	pt	Frontier Gover-		
Characteristic	Urban	Rural	norates	Total	Urban	Rural	Total	Urban	Rural	norates	Total
Household headship											
Male	86.1	89.1	84.8	88.8	86.1	90.0	87.9	87.6	88.1	92.9	87.7
Female	13.9	10.9	15.2	11.2	13.9	10.0	12.1	12.4	11.9	7.1	12.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of members											
1	7.2	3.5	8.4	4.4	7.5	3.1	4.4	5.3	3.9	4.0	5.3
2	12.3	9.1	14.0	9.9	11.1	9.4	9.6	10.9	8.8	8.3	10.6
3	15.4	10.9	15.2	13.4	15.9	12.3	11.4	15.2	9.2	11.0	13.1
4	22.7	15.9	23.8	19.4	22.3	18.1	16.2	21.4	13.2	14.8	19.1
5	21.1	18.2	20.9	22.1	23.5	21.5	16.0	19.5	14.0	19.9	19.6
6	12.1	15.0	10.8	14.1	11.7	15.2	14.7	14.4	14.9	13.2	13.6
7	4.8	10.1	3.8	7.4	5.3	8.2	10.0	5.9	12.4	9.1	7.6
8	2.2	5.8	1.7	3.5	1.3	4.5	6.1	3.7	7.4	6.8	4.1
9+	2.2	11.5	1.5	5.7	1.2	7.7	11.5	3.8	16.1	13.0	7.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	10,533	11,439	4,704	9,031	2,724	6,307	8,029	2,968	5,061	208	21,972
Mean size	4.2	5.5	4.0	4.8	4.2	5.1	5.4	4.5	6.0	5.8	4.9

Note: Table is based on de jure members, i.e., usual residents

The household head is female in 12 percent of households. The proportion of households headed by females does not vary greatly across residential categories, except for the Frontier Governorates, where females head seven percent of households.

There are on average 4.9 persons per household. Slightly more than one-quarter of the households have three or fewer members, while around one-fifth of the households have seven or more members. In general, rural households are larger than urban households. For example, two percent of urban households have nine or more members, compared to 12 percent of rural households. Household size varies from an average of 4.0 persons in the Urban Governorates to 6.0 persons in rural Upper Egypt.

#### 2.2 **EDUCATION OF THE HOUSEHOLD POPULATION**

The educational level of household members is among the most important characteristics of the household because it is associated with many phenomena including reproductive behavior, use of contraception, and the health of children. Primary education in Egypt starts at age 6 and has until recently

consisted of five years of schooling.<sup>1</sup> A further three-year period, known as the preparatory stage, is considered basic education and is compulsory. The secondary stage, which includes another three years of schooling, is not compulsory.

During the household interviews, questions were included on the highest level of schooling completed for all household members age six and older and on recent school attendance for household members age 6-24 years. In addition, information was obtained on kindergarten attendance for children age 3-5 years. The information collected on the educational attainment of all household members is presented in Tables 2.4.1 and 2.4.2. Information on school attendance among children and young adults is discussed further in Chapter 18.

A comparison of Tables 2.4.1 and 2.4.2 highlights the gap in educational attainment between males and females. Overall, 84 percent of males in the EDHS households have ever attended school, compared to 70 percent of females. The median number of years of schooling for men is 6.3, which is almost 2 years higher than the median for women (4.4 years).

Table 2.4.1 Educational attainment of male household population by age and residence
Percent distribution of the de facto male household population age six and over by highest level of education attended or completed
and median number of years of schooling, according to background characteristics, Egypt 2005

Background		Some	Com- pleted	Some	Com- pleted	More than	Don't know/			Median
characteristic	None	primary	primary	secondary	secondary	secondary	missing	Total	Number	years
Age										
6-9	15.1	84.3	0.1	0.0	0.0	0.0	0.6	100.0	4,779	0.4
10-14	1.9	36.9	20.9	40.2	0.0	0.0	0.1	100.0	5,772	4.5
15-19	4.4	5.2	3.1	60.3	15.6	11.2	0.1	100.0	6,372	8.6
20-24	6.2	6.7	4.7	12.5	42.0	27.9	0.1	100.0	4,956	10.5
25-29	8.4	7.1	6.9	14.4	41.2	21.8	0.1	100.0	3,977	10.4
30-34	12.0	10.4	4.1	14.8	39.0	19.4	0.2	100.0	3,079	11.3
35-39	17.0	13.4	4.1	9.2	39.6	16.6	0.1	100.0	2,980	11.2
40-44	20.9	13.7	6.4	10.0	29.9	19.1	0.1	100.0	2,969	9.7
45-49	20.0	18.8	7.4	8.7	24.8	20.3	0.1	100.0	2,461	8.1
50-54	32.3	14.7	8.3	9.4	18.3	17.0	0.1	100.0	2,124	5.3
55-59	37.5	14.7	9.2	6.8	15.5	16.2	0.0	100.0	1,638	4.7
60-64	44.5	10.6	10.0	6.7	12.6	15.2	0.4	100.0	1,292	3.8
65+	61.0	12.5	8.1	3.1	7.5	7.4	0.5	100.0	2,149	0.0
Urban-rural residence										
Urban	10.8	19.3	7.0	19.6	22.1	21.0	0.2	100.0	19,289	8.3
Rural	19.2	23.5	7.2	20.9	21.0	8.1	0.2	100.0	25,259	5.3
Place of residence										
Urban Governorates	10.5	17.4	7.7	19.4	21.2	23.5	0.3	100.0	8,391	8.6
Lower Egypt	15.0	22.0	6.9	20.2	22.9	13.0	0.1	100.0	18,451	6.6
Urban	9.3	20.1	6.8	19.3	22.1	22.3	0.1	100.0	4,944	8.6
Rural	17.0	22.7	6.9	20.5	23.2	9.6	0.1	100.0	13,507	5.8
Upper Egypt	18.7	23.5	7.0	20.9	20.0	9.8	0.2	100.0	17,178	5.4
Urban	12.5	21.4	6.1	19.9	23.3	16.7	0.2	100.0	5,630	7.5
Rural	21.7	24.5	7.5	21.4	18.3	6.4	0.2	100.0	11,548	4.7
Frontier Governorates	14.2	18.4	8.7	22.4	24.5	11.1	0.7	100.0	529	6.9
Total	15.6	21.7	7.1	20.3	21.5	13.7	0.2	100.0	44,548	6.3

<sup>&</sup>lt;sup>1</sup> Beginning in 2004, primary education was extended to include six years.

An examination of the education distributions for successive cohorts indicates that there have been changes over time in the educational attainment of both men and women. For example, the median number of years of schooling is 10.5 for males age 20-24 years, nearly double the median for males in the 50-54 age group (5.3 years).

Women have experienced marked improvements in educational attainment as well. As a result of these gains, the gap in the educational attainment between males and females has almost disappeared among younger cohorts. For example, the differential in the median number of years of schooling is 0.2 years between men and women age 20-24.

Urban residents are more likely to have attended school and to have remained in school for a longer period than rural residents. The results in Tables 2.4.1 and 2.4.2 also show that gender differences in educational attainment are less evident in urban than in rural areas. For example, the median number of years of schooling is 5.3 years among rural men, three years greater than the median among rural women (2.3 years). The difference is much smaller in urban areas, where the median number of years of schooling is 8.3 years for men, compared to 7.1 years for women.

By place of residence, gender differences in the likelihood of attending school are most evident in rural Upper Egypt where 78 percent men have ever attended school, compared to 55 percent of women. The gender gap is least apparent in urban Lower Egypt where 84 percent of women have had some education, compared to 91 percent of men.

Table 2.4.2 Educational attainment of female household population by age and residence												
Percent distribution of the									ucation att	ended or		
completed and median nu	umber of	years ot sch		ccording to b			0,,	005				
		_	Com-	_	Com-	More	Don't					
Background		Some	pleted	Some	pleted	than	know/			Median		
characteristic	None	primary	primary	secondary	secondary	secondary	missing	Total	Number	years		
Age												
6-9	17.0	82.3	0.2	0.0	0.0	0.0	0.5	100.0	4,655	0.3		
10-14	6.8	33.9	19.2	39.9	0.0	0.0	0.1	100.0	5,506	4.4		
15-19	12.8	4.2	2.2	52.2	17.0	11.5	0.1	100.0	6,458	8.6		
20-24	19.3	6.3	3.3	9.7	38.5	22.8	0.0	100.0	5,767	10.3		
25-29	22.3	7.2	5.2	10.5	36.3	18.4	0.2	100.0	4,499	10.2		
30-34	30.1	8.7	2.2	12.6	33.6	12.5	0.2	100.0	3,405	8.5		
35-39	39.1	12.2	3.8	7.2	27.8	9.8	0.1	100.0	3,309	4.7		
40-44	43.0	16.0	5.1	5.2	19.6	11.1	0.0	100.0	2,867	2.8		
45-49	47.5	19.0	5.7	3.7	13.8	10.1	0.1	100.0	2,665	1.1		
50-54	54.6	13.9	7.3	4.9	11.2	7.8	0.3	100.0	2,097	0.0		
55-59	64.3	12.7	6.3	3.5	7.1	5.6	0.5	100.0	1,646	0.0		
60-64	71.1	11.6	3.7	2.7	5.9	3.5	1.5	100.0	1,243	0.0		
65+	76.9	11.2	4.4	1.1	2.8	1.2	2.4	100.0	2,210	0.0		
Urban-rural residence												
Urban	19.0	18.1	5.8	17.7	22.2	16.9	0.3	100.0	19,850	7.1		
Rural	37.6	21.2	5.2	15.9	15.2	4.5	0.4	100.0	26,480	2.3		
Place of residence												
Urban Governorates	18.2	17.4	6.2	17.1	21.8	19.0	0.4	100.0	8,588	7.5		
Lower Egypt	27.0	20.0	5.4	1 <i>7</i> .1	21.0	9.2	0.3	100.0	19,083	4.8		
Urban	16.4	17.8	5.6	17.5	24.8	17.7	0.2	100.0	5,149	7.9		
Rural	30.9	20.8	5.3	17.0	19.6	6.1	0.3	100.0	13,934	4.0		
Upper Egypt	37.7	21.0	5.1	16.0	13.6	6.2	0.3	100.0	18,142	2.3		
Urban	22.2	19.5	5.2	18.7	20.6	13.7	0.2	100.0	5,800	5.8		
Rural	45.0	21.7	5.1	14.8	10.3	2.7	0.4	100.0	12,341	0.3		
Frontier Governorates	31.2	16.8	8.3	17.5	18.1	7.2	1.0	100.0	518	4.3		
Total	29.6	19.9	5.5	16.7	18.2	9.8	0.3	100.0	46,331	4.4		

#### 2.3 HOUSING CHARACTERISTICS

The 2005 EDHS survey collected information on a range of housing characteristics. These data are presented for households and for the total de jure household population. The results for households are further disaggregated by residence.

## **Water Supply**

Increasing access to improved drinking water is one of the Millennium Development Goals that Egypt along with other nations worldwide has adopted (United Nations General Assembly 2001). The 2005 EDHS collected information that can be used to explore the status of Egyptian households in relation to this goal.

Table 2.5 presents a number of characteristics relating to a household's access to improved drinking water. The first of these characteristics is the source from which the water that household members drink is obtained. Improved sources are defined as those sources which are likely to provide safe drinking water (WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation 2004). Improved sources include water obtained a piped source within the dwelling, a public tap, a tubehole or borehole, or a protected well or spring.<sup>2</sup>

The results in Table 2.5 show that 98 percent of households in Egypt have access to water from an improved source. In most cases, the source is a piped connection in the dwelling itself or the plot (90 percent).

Almost all households get water from a source on premises (94 percent). The majority of households fetching water from a source outside the dwelling or plot are within 30 minutes of this source. Women age 15 and older are generally responsible for fetching water for households in which the water source is not on the premises.

Around one-third of households report that they have experienced interruptions in their water supply; 11 percent say the supply is interrupted on a daily or almost daily basis, 15 percent report interruptions at least a few times per week while 8 percent experience less frequent interruptions.

Households generally do not treat the water they drink. Among households reporting that the water is treated (6 percent), the most common practices are to filter the water or to let it stand and settle.

Looking at the variations in drinking water indicators by residence, households in the Frontier Governorates and rural Upper Egypt are the least likely to obtain water from an improved source (89 percent and 94 percent, respectively). Interruptions in the water supply are more common in Upper Egypt (41 percent) than in other areas within Egypt.

<sup>&</sup>lt;sup>2</sup> A well or spring which is covered or otherwise 'protected' from contamination from surface water or animals.

Table 2.5 Household drinking water access and treatment by residence

Percent distribution of households by source of drinking water, time to collect water (if not within residence or plot), person fetching the water, and interruption of water supply during two week period prior to the survey and percentage of households using various modes for treating drinking water, according to urban-rural residence and place of residence and percent distribution of the de jure population by household drinking water arrangements and percentage of the de jure population living in households using various modes to treat drinking water, Egypt 2005

		· ·	Urban		· · · · · · · · · ·	-1		Upper Egy	unt.	Frontier	Total	Total
D. H		nl	Gover-		Lower Egy		_			Gover-	house-	de jure
Drinking water	Urban	Rural	norates	Total	Urban	Rural	Total	Urban	Rural	norates	holds	population
Source of drinking water <sup>1</sup>												
Improved source	99.2	96.9	99.6	99.6	99.3	99.8	95.5	98.9	93.5	89.3	98.0	97.9
Piped into house/plot	98.0	82.2	98.3	91.3	98.7	88.1	83.3	97.5	75.0	74.6	89.7	88.3
Public tap	0.9	6.2	0.8	3.2	0.5	4.4	5.8	1.2	8.4	0.2	3.6	3.8
Tubewell/borehole	0.1	6.7	0.0	3.9	0.1	5.6	5.1	0.1	8.1	3.8	3.5	4.2
Protected well/spring	0.1	1.9	0.0	1.2	0.0	1.7	1.3	0.1	2.0	9.6	1.0	1.5
Unimproved source	0.8	3.0	0.4	0.3	0.6	0.2	4.4	1.1	6.4	10.7	1.9	2.1
Tanker truck/cart	0.7	2.9	0.4	0.3	0.6	0.2	4.3	1.0	6.2	9.8	1.9	2.0
Surface water	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.1
Time to water source												
On premises	98.8	90.1	98.9	95.2	99.1	93.4	90.6	98.2	86.1	90.9	94.3	93.8
Within 15 minutes	0.5	4.4	0.5	1.9	0.4	2.6	4.4	0.6	6.7	3.2	2.5	2.6
15-29 minutes	0.2	2.2	0.2	1.0	0.1	1.4	2.0	0.2	3.1	2.6	1.2	1.4
30 + minutes	0.3	1.6	0.2	1.2	0.2	1.7	1.1	0.5	1.4	1.7	0.9	1.2
Don't know/missing	0.3	1.7	0.2	0.7	0.2	0.9	1.9	0.5	2.8	1.5	1.1	1.0
Person obtaining water												
for household												
Adult man 15+	0.3	0.8	0.2	0.6	0.4	0.6	0.6	0.1	0.9	1.9	0.5	0.5
Adult woman 15+	0.6	7.0	0.5	3.5	0.3	4.8	6.5	1.1	9.7	5.0	4.0	4.3
Male child <15 years	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.1	0.1	0.1
Female child <15 years	0.0	0.2	0.0	0.1	0.0	0.2	0.3	0.1	0.4	0.1	0.1	0.2
Water on premises/other/missing	99.1	91.9	99.3	95.8	99.3	94.3	92.6	98.7	88.8	92.8	95.3	94.9
Water supply interrupted												
Not interrupted	70.2	64.8	74.7	70.9	73.3	69.8	59.2	60.5	58.4	67.1	67.4	66.3
Daily/almost daily	9.8	11.2	10.3	8.7	6.3	9.7	12.5	11.5	13.2	17.9	10.5	10.8
Few times per week	13.4	15.1	10.8	12.9	12.7	13.0	17.9	18.3	17.8	9.2	14.3	14.7
Less frequently	6.4	8.7	3.9	7.2	7.3	7.2	10.2	9.5	10.6	5.6	7.6	7.9
Don't know/missing	0.3	0.2	0.3	0.3	0.4	0.3	0.1	0.2	0.1	0.2	0.2	0.2
, 8												
Total percent	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	10,533	11,439	4,704	9,031	2,724	6,307	8,029	2,968	5,061	208	21,972	107,300
Water treated prior to drinking												
Not treated	91.6	96.3	89.4	94.7	92.4	95.7	96.1	94.3	97.1	93.8	94.0	94.6
Boiled	0.6	0.2	1.0	0.3	0.5	0.2	0.2	0.2	0.2	0.3	0.4	0.4
Bleach/chlorine added	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Strained	0.4	0.1	0.4	0.3	0.6	0.2	0.2	0.3	0.0	0.2	0.3	0.2
Water filter used	5.5	0.7	7.1	2.2	5.2	0.9	1.5	3.3	0.4	2.4	3.0	2.5
Solar disinfection	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stand and settle	2.0	2.5	2.4	2.5	1.5	2.9	2.0	1.9	2.1	3.5	2.3	2.3
Number	10,533	11,439	4,704	9,031	2,724	6,307	8,029	2,968	5,061	208	21,972	107,300

<sup>&</sup>lt;sup>1</sup> Because the quality of bottled water is not known, households using bottled water are classified according to the source of water used for cooking and washing.

# **Sanitation Facilities and Waste Disposal**

Ensuring adequate sanitation facilities is another Millennium Development Goal. Table 2.6 shows that most Egyptian households have access to a toilet, with 43 percent reporting they have modern flush toilets, and 55 percent traditional flush toilets. Only one percent of households have no toilet facility. Most households (97 percent) report that the toilet is connected to a sewer, bayara (vault), or septic system. Ten percent of households report problems with the drainage system. Five percent report they share the toilet facility with at least one other household.

Table 2.6 Sanitation facilities by residence

Percent distribution of households by type of toilet facility, drainage system, problems experienced with drainage system, number of households using the toilet facility, type of sanitation facilities, and method of disposal of kitchen waste and trash (according to urban-rural residence and place of residence and percent distribution of de jure population by sanitation facilities, Egypt 2005

			Urban Gover-	l	_ower Egy	pt		Upper Eg	ypt	Frontier Gover-	Total house-	Total de jure popu-
Sanitation facility	Urban	Rural	norates	Total	Urban	Rural	Total	Urban	Rural	norates	holds	lation
Toilet facility												
Modern flush toilet	71.2	17.1	81.2	39.7	73.9	24.9	24.4	53.2	7.5	42.4	43.0	36.2
Traditional (tank flush)	1.5	2.3	0.8	2.6	1.7	3.0	1.8	2.4	1.5	0.9	1.9	1.9
Traditional (bucket flush)	27.0	76.7	17.8	57.2	24.2	71.5	68.5	43.6	83.0	55.5	52.9	59.5
Pit latrine/bucket toilet	0.1	1.8	0.0	0.0	0.0	0.1	2.7	0.5	4.0	1.1	1.0	1.1
Other/missing	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.0	0.1	0.0	0.1	0.1
No facility	0.1	2.0	0.1	0.3	0.0	0.4	2.6	0.3	3.9	0.1	1.1	1.1
Drainage system	00.0	22.4	07.0	62.0	040	<b>5</b> 0.0	24.0	60 <b>5</b>	0.6	42.2	<b>5</b> 0.0	<b>5</b> 0.0
Public sewer	88.0	32.4	97.0	63.9	94.0	50.9	31.8	69.5	9.6	43.3	59.0	52.8
Vault (Bayara)	5.9	22.3	1.6	3.7	0.4	5.1	33.6	16.7	43.5	33.1	14.4	17.5
Septic system	5.5	40.0	0.9	30.4	5.6	41.1	28.9	12.4	38.6	22.9	23.5	26.2
Pipe to canal	0.2 0.1	1.4 0.1	0.3 0.1	1.3 0.1	0.0	1.9 0.2	0.5 0.1	0.0 0.3	0.8 0.1	0.0 0.0	0.8 0.1	1.0 0.1
Pipe to groundwater	0.1	1.6	0.1	0.1	0.0	0.2	2.2	0.5	3.1	0.0	0.1	1.0
Emptied (no connection) Other	0.2	0.3	0.0	0.3	0.1	0.4	0.3	0.0	0.5	0.4	0.9	0.2
No toilet facility	0.0	2.0	0.1	0.1	0.0	0.1	2.6	0.1	3.9	0.1	1.1	1.1
Problems with drainage system	0.1	2.0	0.1	0.5	0.0	0.1	2.0	0.5	3.5	0.1		
No problems	91.8	88.8	91.2	92.9	97.1	91.2	86.7	88.1	85.9	88.2	90.2	89.7
Pooling around dwelling(s)	6.5	5.1	7.6	4.3	2.4	5.1	6.4	8.5	5.2	7.4	5.8	6.1
Cost of evacuation	1.8	3.8	1.5	2.4	0.4	3.3	4.0	3.4	4.4	4.6	2.8	3.2
Insects	3.4	3.2	4.0	2.0	1.0	2.4	4.2	4.5	4.0	8.9	3.3	3.5
Other	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.2	0.0	0.1	0.1
Don't know/missing	0.2	0.1	0.3	0.1	0.1	0.1	0.2	0.2	0.1	0.4	0.2	0.1
No facility/no connection	0.1	2.0	0.1	0.3	0.0	0.4	2.6	0.3	3.9	0.1	1.1	1.1
Number of households using												
toilet												
No facility	0.1	2.0	0.1	0.3	0.0	0.4	2.6	0.3	3.9	0.1	1.1	1.1
One	97.5	90.6	97.0	95.8	99.1	94.4	89.9	96.7	85.8	96.5	93.9	92.4
1-2	1.2	3.9	1.2	2.3	0.6	3.0	3.8	1.7	5.0	1.7	2.6	3.1
3+ households	1.0	3.4	1.4	1.5	0.2	2.1	3.6	1.0	5.0	1.7	2.2	3.2
Not sure/missing	0.2	0.2	0.4	0.1	0.0	0.1	0.3	0.2	0.3	0.0	0.2	0.2
Sanitation facilities												
Improved <sup>1</sup>	96.5	86.5	96.1	93.9	98.9	91.7	85.5	95.2	79.8	95.0	91.3	89.5
Not improved	3.5	13.5	3.9	6.1	1.1	8.3	14.5	4.8	20.2	5.0	8.7	10.5
Disposal of kitchen waste/trash												
Collected from home	53.6	26.4	49.6	42.0	62.2	33.3	31.2	53.6	18.1	20.1	39.5	35.2
Collected from street container	32.8	4.4	44.8	11.2	24.1	5.7	9.5	21.2	2.7	31.6	18.0	15.6
Dumped into street/empty plot	9.9	25.9	4.8	19.7	11.3	23.3	24.3	16.1	29.0	27.6	18.3	20.2
Dumped into canal/drainage	1.3	18.3	0.4	14.5	1.3	20.3	11.1	2.7	16.0	0.8	10.1	11.6
Burned	1.9	18.9	0.1	9.1	0.8	12.7	18.7	5.6	26.5	16.1	10.8	13.2
Fed to animals	0.3	5.9	0.0	3.3	0.3	4.7	4.9	0.6	7.4	3.6	3.2	4.0
Other	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.2	0.0	0.1	0.1
Don't know/missing	0.1	0.0	0.2	0.0	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.1
Total percent	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 households	10,533	11,439	4,704	9,031	2,724	6,307	8,029	2,968	5,061	208	21,972	107,300

<sup>&</sup>lt;sup>1</sup> The household is considered to have improved sanitation facilities if the household has sole use of a modern or traditional flush toilet that empties into a public sewer, Bayara (vault) or septic system.

A household is classified as having an improved toilet if the toilet is used only by members of one household (i.e., it is not shared) and if the facility used by the household separates the waste from human contact (WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation 2004). The facilities meeting the latter criteria include toilets that flushed or pour flushed into a sewer, bayara, or septic system. Overall, Table 2.6 shows that 91 percent of Egyptian households have access to an improved toilet facility. The proportion of households using an improved facility is lowest in rural Upper Egypt (80 percent).

Table 2.6 also presents information on waste disposal practices. The majority of households (58 percent) report that kitchen waste or trash was collected, either at the dwelling or from a container in the street (i.e., a container shared with others). Slightly more than one-quarter of households say that they dump waste or trash into the street, an empty plot or a canal or drainage ditch, 11 percent burn waste or trash, and 3 percent feed it to animals. Dumping or burning waste or trash is much more common in rural than in urban areas (63 percent and 13 percent, respectively). More than 7 in 10 households in rural Upper Egypt dispose of trash by dumping (45 percent) or burning (27 percent).

## **Cooking Arrangements**

Indoor pollution from solid fuels (biomass fuels and coal) is a major killer, particularly of children under age five. The 2005 EDHS included questions on the type of fuel, type of stove, and cooking location to help assess the proportion of the population relying on solid fuels, another Millennium Development goal indicator (United Nations General Assembly 2001).

Table 2.7 shows that virtually all Egyptian households use fossil fuels (LPG, natural gas, or kerosene) for cooking. Among households using other types of fuel, most cook on an open stove without a chimney or hood (94 percent) in a kitchen area within the dwelling unit. In the majority of dwellings (81 percent), the kitchen is separated from other rooms in the dwelling.

Table 2.7 Cooking arrangements by residence

Percent distribution of households by type of cooking fuel, type of fire/stove, and location of cooking area according to urban-rural residence and place of residence and percent distribution of the de jure population by cooking arrangements, Egypt 2005

			Urban Gover-	L	ower Egyp	ot		Upper Egy	pt	Frontier Gover-	Total house-	Total de jure popu-
Cooking arrangements	Urban	Rural	norates	Total	Urban	Rural	Total	Urban	Rural	norates	holds	lation
Type of cooking fuel												
Electricity	0.2	0.1	0.0	0.2	0.5	0.1	0.1	0.1	0.2	0.0	0.2	0.2
LPG <sup>'</sup>	76.2	93.5	67.0	93.1	80.9	98.4	86.6	85.3	87.3	95.6	85.2	87.3
Natural gas	22.4	0.1	31.9	5.6	18.2	0.1	4.5	12.0	0.1	1.6	10.8	8.7
Biogas	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
Kerosene	1.0	5.5	0.7	0.9	0.3	1.1	7.8	2.3	11.0	1.8	3.4	3.3
Charcoal/coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wood/straw/shrubs/grass/crops	0.0	0.4	0.0	0.1	0.0	0.1	0.5	0.1	0.8	0.2	0.2	0.3
Dung/other	0.0	0.2	0.0	0.0	0.0	0.0	0.3	0.0	0.5	0.1	0.1	0.2
Missing	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.5	0.1	0.0
Total percent	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 households	10,533	11,439	4,704	9,031	2,724	6,307	8,029	2,968	5,061	208	21,972	107,300
Type of fire/stove <sup>1</sup>												
Open without chimney/hood	92.7	93.7	(94.6)	83.6	*	84.2	94.7	93.3	94.9	*	93.5	93.3
Open with chimney/hood	4.4	5.1	(0.0)	14.4	*	13.7	4.1	4.7	4.1	*	5.0	5.6
Closed with chimney	0.2	0.2	(0.0)	2.0	*	2.1	0.0	0.3	0.0	*	0.2	0.1
Missing	2.7	1.0	(5.4)	0.0	*	0.0	1.1	1.8	1.1	*	1.2	0.9
Total percent	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 households	118	704	35	87	7	79	693	72	621	4	817	4,084
Location of cooking area												
Within dwelling	99.5	98.6	99.6	98.4	99.2	98.0	99.6	99.8	99.4	98.3	99.1	99.2
In separate room	91.0	71.0	93.3	86.9	93.9	83.9	66.0	84.6	55.0	84.2	80.6	78.3
Not separated	8.6	27.6	6.3	11.5	5.3	14.1	33.6	15.1	44.4	14.0	18.5	20.8
In separate building	0.3	1.0	0.2	1.4	0.7	1.7	0.2	0.1	0.3	0.8	0.7	0.7
Outdoors	0.0	0.2	0.0	0.1	0.0	0.2	0.1	0.0	0.1	0.2	0.1	0.1
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Don't know/missing	0.2	0.2	0.3	0.1	0.1	0.2	0.1	0.1	0.1	0.5	0.2	0.1
Total percent	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 households	10,533	11,439	4,704	9,031	2,724	6,307	8,029	2,968	5,061	208	21,972	107,300

Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

### **Other Housing Characteristics**

Table 2.8 shows the distribution of households according to other dwelling characteristics for which information was obtained in the 2005 EDHS. The results indicate that the majority of urban households (85 percent) live in apartments, whereas the majority of rural households (64 percent) occupy free-standing houses. Eighty-five percent of rural households own their dwelling. Ownership is less common in urban areas, particularly in the Urban Governorates, where slightly less than half of households own their dwelling.

Virtually all households in Egypt have electricity, with households in the Frontier Governorates more likely to report that they do not have it than households in other areas.

<sup>&</sup>lt;sup>1</sup> Refers to households reporting use of biomass fuels

Table 2.8 Dwelling characteristics by residence

Percent distribution of households by type and tenure of dwelling, availability of electricity, type of flooring and windows, and number of rooms and mean number of rooms and persons per room according to urban-rural residence and percentage of de jure population by dwelling characteristics, Egypt

Dwelling characteristic  Type of dwelling Apartment Free standing house Other	84.5 13.2 2.3	Rural 33.1	Gover- norates	Total	Urban	Rural	Total	1.1.1.	ь .	Gover-	house-	popu-
Apartment Free standing house	13.2	33.1					rotai	Urban	Rural	norates	holds	lation
Apartment Free standing house	13.2	33.1										
			93.3	53.6	83.6	40.6	42.0	72.6	24.1	39.7	57.7	49.3
	2.2	64.4	3.7	45.2	15.8	57.9	54.6	24.7	72.2	59.2	39.9	48.7
	2.3	2.4	3.0	1.2	0.6	1.5	3.3	2.8	3.6	1.1	2.4	2.0
Tenure												
Owned/Owned jointly	52.0	85.4	46.0	73.5	52.6	82.5	78.1	59.8	88.8	81.0	69.4	74.4
Rented	42.4	5.7	50.2	16.4	38.8	6.7	15.4	34.2	4.4	16.9	23.3	19.2
Other/missing	5.6	8.9	3.8	10.1	8.5	10.8	6.5	6.0	6.8	2.1	7.3	6.4
Electricity												
Yes	99.8	99.1	99.8	99.7	100.0	99.6	99.1	99.8	98.6	94.6	99.4	99.4
No	0.2	0.9	0.2	0.3	0.0	0.4	0.9	0.2	1.4	5.4	0.6	0.6
Flooring												
Ceramic/marble tiles	18.3	4.1	22.6	8.7	16.3	5.5	6.5	13.6	2.3	10.7	10.9	9.0
Cement tiles	69.7	40.5	67.0	57.0	73.2	50.0	44.3	71.0	28.7	54.0	54.5	50.4
Cement	6.2	35.3	4.4	27.0	5.7	36.3	24.7	9.0	33.8	28.5	21.3	24.9
Carpet/vinyl/polished wood	3.9	0.8	5.5	2.1	4.2	1.2	0.6	1.3	0.2	1.2	2.3	1.9
Wood/planks	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Earth/sand	1.6	19.3	0.3	5.0	0.5	7.0	23.8	4.9	34.8	5.4	10.8	13.6
Other/missing	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.1
Windows												
All glass	89.2	56.6	94.9	79.4	90.7	74.5	50.8	78.9	34.3	77.3	72.2	67.3
With and without glass	4.8	15.5	2.5	12.2	6.9	14.5	12.8	6.4	16.6	10.0	10.3	12.9
All without glass	4.6	25.4	1.3	7.5	1.7	10.0	32.6	12.3	44.6	12.3	15.4	17.9
No window openings	1.2	2.4	0.9	0.7	0.4	0.8	3.6	2.3	4.4	0.2	1.8	1.6
Other/missing	0.3	0.1	0.3	0.2	0.3	0.1	0.2	0.2	0.2	0.1	0.2	0.2
Number of rooms <sup>1</sup>												
1-2	11.4	14.3	11.5	9.6	8.9	9.9	17.7	13.8	20.0	6.1	12.9	10.9
3-4	77.9	63.5	80.0	71.6	77.3	69.1	63.5	75.5	56.5	66.0	70.4	66.2
5+	10.5	22.0	8.3	18.6	13.7	20.8	18.5	10.5	23.2	27.6	16.5	22.6
Don't know/missing	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
•	10,533	11,439	4,704	9,031	2,724	6,307	8,029	2,968	5,061	208	21,972	107,300
Moan rooms now househald	3.5	3.8	3.4	3.8	3.7	3.9	3.6	3.4	3.7	4.0	3.7	3.9
Mean rooms per household Mean persons per room	3.5 1.3	3.8 1.6	3.4 1.3	3.8 1.3	3./ 1.2	3.9 1.4	3.6 1.7	3. <del>4</del> 1.5	3./ 1.8	4.0 1.5	3./ 1.5	3.9 1.8

<sup>1</sup> Number of rooms does not include kitchens, hallways and bathrooms.

With regard to flooring, more than eight in ten households live in dwellings with a tile (ceramic or cement) or cement floor. About 10 percent have a dirt (earth/sand) floor in their dwelling. Rural households are more likely than urban households to live in dwellings with a dirt floor (19 percent and 2 percent, respectively). Dirt floors are around five times more common in rural Upper Egypt than in rural Lower Egypt (35 percent and 7 percent, respectively).

Almost all dwellings had some type of window opening. Except in rural Upper Egypt, seven in ten or more households have glass windows throughout their dwelling. In rural Upper Egypt, 45 percent of the households lived in dwellings without any glass windows, and four percent lived in dwellings without a window opening.

Table 2.8 also shows that 13 percent of households live in dwellings with one or two rooms, 70 percent have three or four rooms, and 17 percent have five rooms or more. The mean number of rooms per household is 3.7, and there is an average of 1.5 persons per room. Rural households are more crowded than urban households. The mean number of persons per room is 1.3 in urban areas, compared to 1.6 persons in rural areas.

#### 2.4 **HOUSEHOLD POSSESSIONS**

Table 2.9 provides information on household ownership of durable goods and other possessions. More than nine in ten EDHS households own a television (color or black and white), and more than eight in ten households own a radio. Fifteen percent of households have a satellite dish, and 12 percent a video or DVD player. At least half of households have a telephone, with one-quarter having a mobile phone. Eleven percent of households own a computer.

A majority of Egyptian households own most basic appliances. More than nine in ten have a stove (gas/electric) and a washing machine (automatic/other). More than eight in ten households own an electric fan and a refrigerator, and more than one-third have a water heater. Fewer households possess the other appliances and electric goods shown in Table 2.9; less than 10 percent have a sewing machine or freezer and less than five percent have an air conditioner or dishwasher.

Considering household furnishings, 90 percent or more of households own a bed, sofa and hanging lamp, and 85 percent or more have a chair and table. Six in ten household own a tablia, and around a third have a kolla/zeer. At least one household member owns a watch in 90 percent of the households.

Urban households are more likely to have most of these items than rural households. For example, 73 percent of households in urban areas have a telephone (landline or cell) compared to 40 percent of households in rural areas. Rates of ownership of various household possessions also differ by place of residence, with higher rates of ownership for most items reported among households in the Urban Governorates, Lower Egypt, and the Frontier Governorates than in Upper Egypt. For most items, households in rural Upper Egypt have the lowest rates of ownership.

Table 2.9 also includes information on household ownership of a means of transportation. Animal carts are owned more often by rural than urban households (8 percent and 1 percent). Relatively few households have a motorcycle, and rates of ownership of bicycles vary from five percent in the Urban Governorates to 20 percent in rural Upper Egypt. Overall, seven percent of households own a car, van, or truck, with the highest rate of ownership in the Urban Governorates (14 percent) and the lowest rate in rural Upper Egypt (3 percent).

As expected, households in rural areas are significantly more likely than urban households to own a farm or other land. Twenty-eight percent of rural households own a farm or other land, compared to only 3 percent of urban households. There is also considerable variation in the proportion reporting that they own farm animals, from 54 percent of households in rural Upper Egypt to four percent of households in the Urban Governorates.

Table 2.9 also shows that comparatively few households have bank/savings accounts (11 percent). Urban households, especially households living in the Urban Governorates, are more than three times as likely as rural households to have an account.

Table 2.9 Household possessions by residence

Percentage of households possessing various household effects/possessions, means of transportation, property, farm animals, and bank/savings account according to urban-rural residence and place of residence, and percentage of de jure population by household possessions, Egypt 2005

Household			Urban Gover-		Lower Egyp	ot		Upper Eg	ypt	Frontier Gover-	Total house-	Total de jure popu-
effect/possession	Urban	Rural	norates	Total	Urban	Rural	Total	Urban	Rural	norates	holds	lation
Household effects												
Radio	90.2	79.8	90.6	87.8	92.4	85.9	77.9	87.5	72.3	83.5	84.8	84.5
Television	95.8	90.1	96.8	93.2	96.0	91.9	90.2	94.4	87.8	91.2	92.8	94.0
Black and white TV	10.5	27.5	6.5	19.2	12.3	22.1	27.3	15.4	34.3	9.2	19.3	21.4
Color TV	89.3	67.9	92.8	79.4	89.8	74.9	68.0	83.4	59.1	83.7	78.2	78.2
Video/DVD	20.9	4.1	25.5	8.0	17.3	4.0	8.9	17.0	4.1	15.9	12.2	10.8
Telephone	73.4	39.9	78.9	51.2	70.8	42.7	47.8	67.1	36.5	62.6	56.0	54.6
Landline telephone	70.0	37.7	75.1	48.2	67.4	39.9	45.8	64.3	35.0	56.1	53.2	52.0
Mobile telephone	40.0	11.2	47.3	20.3	36.7	13.3	17.1	31.6	8.5	31.6	25.0	23.1
Satellite dish	24.2	7.0	27.6	12.2	22.3	7.9	11.3	20.5	5.9	22.6	15.3	13.9
Computer	19.0	2.6	24.2	7.1	16.0	3.2	6.3	13.9	1.8	6.9	10.5	9.4
Sewing machine	9.8	6.0	10.9	7.5	9.2	6.8	6.4	8.9	4.9	6.5	7.8	8.1
Electric fan	91.9	83.0	92.1	85.4	91.6	82.7	86.7	92.2	83.4	81.5	87.3	87.6
Air conditioner	6.7	0.7	8.8	1.7	4.0	0.7	2.6	6.1	0.6	1.8	3.6	2.9
Refrigerator	94.4	77.7	95.6	89.2	95.7	86.4	75.9	91.3	66.9	86.4	85.7	85.3
Freezer	10.6	1.9	14.0	4.8	9.7	2.6	2.7	5.7	0.9	9.7	6.0	5.1
Water heater	59.2	15.5	67.5	31.6	58.4	20.0	23.6	46.7	10.0	41.5	36.4	31.6
Dishwasher	2.6	0.2	3.7	0.8	2.2	0.2	0.5	1.4	0.1	0.3	1.3	1.1
Washing machine	96.4	88.1	96.7	95.2	97.9	94.1	85.9	95.0	80.6	88.0	92.1	92.5
Automatic	37.7	5.5	45.2	15.1	34.4	6.8	13.3	29.2	4.0	20.7	20.9	1 <i>7.7</i>
Other	73.2	85.5	66.9	87.6	79.5	91.1	78.2	77.5	78.7	75.4	79.6	82.6
Gas/electric stove	98.8	93.7	99.1	98.9	99.7	98.6	91.2	97.4	87.6	97.4	96.1	96.1
Bed	99.3	96.9	99.4	99.2	99.7	99.0	96.0	99.0	94.2	98.0	98.1	98.2
Sofa	97.2	93.8	97.7	95.8	97.6	95.0	94.0	96.7	92.4	83.2	95.4	95.5
Hanging lamp	85.2	94.3	83.5	90.9	83.8	94.0	92.6	89.4	94.6	87.0	89.9	91.3
Table	94.3	82.9	96.1	86.4	93.4	83.4	86.3	92.9	82.5	79.4	88.4	87.9
Tablia	47.6	75.2	40.3	64.1	48.1	70.9	72.6	59.3	80.4	47.8	61.9	67.3
Chair	92.0	78.4	93.5	86.0	93.5	82.7	79.0	89.0	73.2	73.6	84.9	83.5
Kolla/zeer	11.4	48.9	7.0	32.1	13.1	40.2	43.7	16.6	59.5	30.6	30.9	36.1
Watch	96.0	84.7	96.5	93.4	97.8	91.5	82.5	93.4	76.1	92.0	90.1	90.2
Means of transportation												
Animal-drawn cart	0.8	7.9	0.5	5.9	0.9	8.0	5.4	1.2	7.8	6.7	4.5	6.9
Bicycle	9.4	19.2	5.1	16.8	11.8	19.0	17.7	14.2	19.7	6.0	14.5	17.1
Motorcycle/scooter	1.4	1.7	1.9	1.6	0.6	2.1	1.3	1.4	1.3	0.7	1.6	1.8
Car/van/truck	10.9	3.0	14.1	5.1	9.6	3.2	4.2	6.8	2.6	11.6	6.7	6.4
Farm animals	7.8	46.9	3.5	31.4	9.1	41.0	38.9	13.1	54.1	28.3	28.2	35.8
Agricultural land	3.3	27.6	2.0	20.6	4.0	27.7	19.0	4.7	27.4	15.7	16.0	20.9
Bank/savings account	16.6	5.4	20.3	8.4	14.7	5.7	7.7	12.4	5.0	12.1	10.8	9.6
None of the above	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Number of households	10,533	11,439	4,704	9,031	2,724	6,307	8,029	2,968	5,061	208	21,972	107,300

#### 2.5 **HOUSEHOLD WEALTH**

Information on household assets was used to create an index representing the wealth of the households interviewed in the EDHS. The wealth index is a proxy for long-term standard of living of the household. It is based on data collected in the EDHS household questionnaire the household's ownership of consumer items such as a fan to a television and car; dwelling characteristics such as flooring material; type of drinking water source; toilet facilities; and other characteristics that are related to wealth status. Each household asset for which information is collected is assigned a weight or factor score generated through principal components analysis. The resulting asset scores are standardized in relation to a standard normal distribution with a mean of zero and a standard deviation of one.

These standardized scores are then used to create the break points that define wealth quintiles. Each household is assigned a standardized score for each asset, where the score differs depending on whether or not the household owned that asset (or, in the case of sleeping arrangements, the number of people per room). These scores are summed by household, and individuals are ranked according to the total score of the household in which they reside. The sample is then divided into population quintiles, i.e., five groups with the same number of individuals in each. At the national level, approximately 20 percent of the household population is in each wealth quintile.

A single asset index is developed on the basis of data from the entire country sample and used in all the tabulations presented. Separate asset indices are not prepared for rural and urban population groups on the basis of rural or urban data, respectively.

Wealth quintiles are expressed in terms of quintiles of individuals in the population, rather than quintiles of individuals at risk for any one health or population indicator. (Thus, for example, the quintile rates for infant mortality refer to the infant mortality rates per 1,000 live births among all people in the population quintile concerned, as distinct from quintiles of live births or newly born infants, who constitute the only members of the population at risk of mortality during infancy.)

The wealth index has been compared against both poverty rates and gross domestic product per capita for India, and against expenditure data from household surveys in Nepal, Pakistan and Indonesia (Filmer and Pritchett, 1998) and Guatemala (Rutstein 1999). The evidence from those studies suggests that the assets index is highly comparable to conventionally measured consumption expenditures.

Table 2.10 shows the distribution of the *de jure* household population into five wealth levels (quintiles) based on the wealth index by residence. These distributions indicate the degree to which wealth is evenly (or unevenly) distributed by geographic areas. A much larger proportion of the Egyptian population in urban areas than in rural areas falls in the highest wealth index group (42 percent and 5 percent, respectively). In turn, more of the rural than urban population is found in the lowest wealth index group (31 percent and 5 percent, respectively). Considering place of residence, slightly over half of the population in the Urban Governorates is in the highest wealth quintile compared to 12 percent of the population in Upper Egypt and 15 percent in Lower Egypt. The population in rural Upper Egypt is especially concentrated at the lower end of the wealth index with 73 percent of the population in the two lowest wealth quintiles.

Table 2.10 We	ealth quin	tiles by re	esidence								
Percent distribution of the de jure household population by wealth quintiles, according to urban-rural residence and place of residence, Egypt 2005											
			Urban		-				_	Frontier	
Wealth			Gover-	L	.ower Egyp	t		Jpper Egy	pt	Gover-	
quintiles	Urban	Rural	norates	Total	Urban	Rural	Total	Urban	Rural	norates	Total
Lowest	4.5	30.9	2.8	15.0	1.6	19.7	32.2	8.6	42.7	30.0	20.0
Second	7.5	28.8	5.0	22.0	6.0	27.5	24.6	12.2	30.1	16.6	20.0
Middle	15.2	23.3	11.0	25.0	16.0	28.2	18.9	20.6	18.2	16.2	20.0
Fourth	30.8	12.5	30.1	23.1	36.4	18.5	12.7	27.4	6.1	16.4	20.0
Highest	41.9	4.5	51.1	14.9	40.0	6.1	11.6	31.2	2.9	20.7	20.0
Total percent Number	100.0 44,360	100.0 62,940	100.0 18,890	100.0 43,644	100.0 11,317	100.0 32,327	100.0 43,554	100.0 13,420	100.0 30,134	100.0 1,212	100.0 107,300

This chapter provides a profile of the ever-married women who were interviewed in the 2005 Egypt DHS. First, information is presented on a number of basic characteristics of the EDHS respondents including age, residence, education, and work status. Then the chapter explores in more depth the women's educational and employment status, their participation in household decision-making, and control over earnings.

## 3.1 BACKGROUND CHARACTERISTICS

Table 3.1 presents the distribution of eligible women by age, marital status, urbanrural residence, place of residence, educational level, and wealth quintile. As noted in Chapter 1, ever-married women age 15-49 who were usual residents or present in the household on the night before the interviewer's visit were eligible to be interviewed in the 2005 EDHS.

Among the ever-married women in the sample, 93 percent are currently married, four percent widowed, and three percent divorced or separated. Looking at the age distribution in Table 3.1, around two-fifths of 2005 EDHS respondents are under age 30, and more than one-quarter are age 40 and over. There are fewer women in the 15-19 and 20-24 age groups than in the 25-29 cohort. This somewhat older age pattern is the result of the inclusion of only ever-married women in the sample and the increasing tendency to delay marriage until older ages in Egypt. The changes in marriage patterns are described in more detail in Chapter 8.

The majority of the women (59 percent) are living in rural areas. Considering

<u>Table 3.1 Background characteristics of respondents</u>

Percent distribution of ever-married women 15-49 by background characteristics, Egypt 2005

Background	Weighted	Number	of women
characteristic	percent	Weighted	Unweighted
Marital status			
Married	93.4	18,187	18,134
Widowed	3.9	765	792
Divorced	2.0	394	413
Separated	0.7	128	135
Age			
15-19	4.1	803	858
20-24	15.2	2,968	3,008
25-29	19.4	3,785	3,780
30-34	16.5	3,209	3,189
35-39	16.4	3,191	3,186
40-44	14.7	2,859	2,827
45-49	13.7	2,659	2,626
Urban-rural residence			
Urban	41.3	8,033	8,095
Rural	58.7	11,441	11,379
Place of residence			
Urban Governorates	16.9	3,293	3,538
Lower Egypt	43.2	8,410	5,903
Urban	11.3	2,199	1,553
Rural	31.9	6,211	4,350
Upper Egypt	38.8	7,552	9,132
Urban	12.4	2,411	2,471
Rural	26.4	5,141	6,661
Frontier Governorates	1.1	218	901
Education			
No education	34.6	6,740	6,934
Some primary	11.3	2,197	2,214
Primary complete/some			
secondary	14.0	2,719	2,756
Secondary complete/higher	40.1	7,818	7,570
Wealth quintile			
Lowest	18.3	3,565	4,227
Second	19.4	3,778	3,882
Middle	20.2	3,931	3,669
Fourth	21.2	4,137	3,791
Highest	20.9	4,063	3,905
Total	100.0	19,474	19,474

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

place of residence, 17 percent of the women are from the Urban Governorates, 43 percent from Lower Egypt, 39 percent from Upper Egypt, and one percent from the Frontier Governorates.

The educational level of the 2005 EDHS respondents varies considerably. Around one-third of the women never attended school, while 40 percent have completed at least the secondary level.

Looking at the wealth quintiles, 18 percent of women fall in the lowest quintile, and around twothirds of women are distributed almost equally across the middle, fourth and highest wealth quintiles.

#### 3.2 EDUCATIONAL ATTAINMENT BY BACKGROUND CHARACTERISTICS

An overview of the relationship between women's educational level and other background characteristics is provided in Table 3.2. As expected, the level of education decreases with increasing age among respondents age 25 and over. However, women age 25-29 have a higher level of education than the younger women in the sample. This pattern is somewhat unexpected because, as described in Chapter 2, participation in schooling has been steadily rising among Egyptian women. The explanation lies in the fact that the EDHS sample included only ever-married women. Women who marry early typically leave school at a younger age than women who marry later. Thus, EDHS respondents in the 15-19 and 20-24 age groups include a disproportionate number of less-educated women in comparison with older cohorts.

			Highest lev	el of schooli	ng				
Background characteristic	No education	Some primary	Com- pleted primary <sup>1</sup>	Some secondary	Completed secondary <sup>2</sup>	More than secondary	Total	Number of women	Median years of schooling
Age									
15-19	31.9	7.1	5.0	21.9	32.6	1.6	100.0	803	6.5
20-24	26.9	7.7	4.5	12.8	40.0	8.1	100.0	2,968	7.9
25-29	24.2	7.5	5.4	11.5	37.7	13.8	100.0	3,785	10.1
30-34	30.2	9.2	2.1	12.5	34.4	11.6	100.0	3,209	8.4
35-39	40.0	12.1	3.6	7.0	28.4	9.0	100.0	3,191	4.5
40-44	43.1	15.8	5.3	5.3	19.4	11.0	100.0	2,859	2.7
45-49	48.6	18.5	5.5	3.8	13.6	10.1	100.0	2,659	0.7
Urban-rural residence									
Urban	19.7	9.9	4.5	10.9	36.0	19.0	100.0	8,033	10.5
Rural	45.1	12.3	4.3	8.6	25.4	4.3	100.0	11,441	2.3
Place of residence									
Urban Governorates	18.0	8.5	5.1	12.4	33.6	22.4	100.0	3,293	10.7
Lower Egypt	30.2	12.0	4.6	8.6	35.4	9.1	100.0	8,410	7.1
Urban	15.4	10.9	4.5	8.7	41.5	18.9	100.0	2,199	10.8
Rural	35.4	12.4	4.7	8.6	33.2	5.7	100.0	6,211	5.0
Upper Egypt	46.7	11.8	3.8	9.3	21.9	6.5	100.0	7,552	1.7
Urban	25.5	10.9	3.7	10.7	34.5	14.7	100.0	2,411	9.3
Rural	56.6	12.2	3.8	8.7	16.0	2.7	100.0	5,141	0.0
Frontier Governorates	37.8	6.8	7.0	11.0	29.2	8.2	100.0	218	5.5
Wealth quintile									
Lowest	70.7	12.7	3.2	5.9	7.2	0.3	100.0	3,565	0.0
Second	50.6	15.5	4.8	9.3	18.6	1.1	100.0	3,778	0.0
Middle	35.1	12.8	5.3	12.1	31.5	3.2	100.0	3,931	4.9
Fourth	17.5	11.2	5.6	12.1	44.0	9.6	100.0	4,137	10.2
Highest	5.0	4.7	3.0	8.0	43.9	35.4	100.0	4,063	11.8

<sup>&</sup>lt;sup>1</sup> Completed 5 grades at the primary level

<sup>&</sup>lt;sup>2</sup> Completed 3 grades at the secondary level

Urban women are more highly educated than those from rural areas. Among urban women, 55 percent have completed at least a secondary education, compared to 30 percent of rural women. Educational levels are lowest in rural Upper Egypt, where 57 percent of the women have never gone to school. The highest educational levels are found in Urban Lower Egypt and the Urban Governorates, where only 15 percent and 18 percent, respectively, of women have never attended school.

Educational attainment rises with the wealth quintile. Eight in ten women in the highest wealth quintile have completed secondary school or higher, while around seven in ten women in the lowest quintile have never attended school.

#### 3.3 LITERACY ASSESSMENT

The 2005 EDHS assessed literacy levels among women who had never been to school or who had attended only the primary level by asking them to read a couple of simple sentences from a card. To avoid possible bias in households where more than one eligible woman was interviewed, the EDHS teams used two cards, each with a different set of sentences. The sentences on the cards were selected from primary school Arabic textbooks. In addition to assessing literacy, information was collected from women with a primary education or less on whether they had ever attended any literacy program, i.e., any program (outside of primary school) that involved learning to read or write.

Table 3.3 shows that the majority of respondents asked to read simple sentences during the EDHS interview could not read at all or could read only part of the sentences. This is not surprising in view of the relatively large proportion of EDHS respondents who never attended school (35 percent) or have less than a primary education (11 percent).

The proportion that is illiterate is somewhat higher among respondents age 15-19 than among those in the 20-24 and 25-29 age groups. Again this pattern is related to the fact that the EDHS sample included only ever-married women. Women in their teens who are married are more likely to have never attended school or to have left school early than other women.

The strong association between residence and literacy observed in Table 3.3 is clearly a reflection of residential differences in educational levels. Rural women are more than twice as likely as urban women to be unable to read at all. Illiteracy levels are markedly higher among women from Upper Egypt, especially those living in rural areas, than among other women.

Table 3.3 also shows that the level of illiteracy decreases with increasing wealth. Seven percent of women in the highest wealth quintile are illiterate compared to around 77 percent of women in the lowest quintile.

Literacy programs are one means of increasing the proportion of women who are able to read or write. Table 3.3 shows that 13 percent of women with a primary education or less have ever attended a literacy program. Younger women and women living in urban areas are somewhat more likely than other women to have taken part in a literacy program. Even among these groups, however, only a relatively small proportion participated in a literacy program.

Table 3.3 Literacy by background characteristics

Percent distribution of ever-married women by level of schooling and literacy and percentage literate and percentage attending literacy programs, according to background characteristics, Egypt 2005

Attended No schooling/attended primary										
	preparatory	Can read	Can read	Cannot	Blind/			Number	Percent-	age who attended
Background	school or	a whole	part of a	read	visually			of	age	literacy
characteristic	higher	sentence	sentence	at all	impaired	Missing	Total	women	literate <sup>1</sup>	program <sup>2</sup>
Age					·	<u> </u>				
15-19	56.1	3.2	4.4	36.3	0.0	0.0	100.0	803	63.7	20.0
20-24	60.9	2.4	6.1	30.3	0.1	0.2	100.0	2,968	69.3	22.1
25-29	62.9	2.5	5.4	28.9	0.0	0.3	100.0	3,785	70.8	16.9
30-34	58.5	2.2	4.6	34.5	0.0	0.2	100.0	3,209	65.3	12.6
35-39	44.4	2.6	6.5	46.3	0.1	0.1	100.0	3,191	53.5	11.9
40-44	35.7	4.1	7.7	52.2	0.2	0.1	100.0	2,859	47.5	10.2
45-49	27.4	5.9	8.1	58.1	0.2	0.3	100.0	2,659	41.4	7.1
Urban-rural residence										
Urban	65.9	3.2	6.6	24.0	0.1	0.2	100.0	8,033	75.8	17.5
Rural	38.3	3.2	5.9	52.2	0.1	0.2	100.0	11,441	47.4	11.2
Place of residence										
Urban Governorates	68.4	3.1	6.7	21.5	0.1	0.2	100.0	3,293	78.2	21.3
Lower Egypt	53.2	2.9	5.7	38.0	0.1	0.2	100.0	8,410	61.7	10.2
Urban	69.2	3.9	5.7	21.1	0.0	0.1	100.0	2,199	78.8	13.0
Rural	47.5	2.5	5.7	44.0	0.1	0.2	100.0	6,211	55.7	9.6
Upper Egypt	37.8	3.5	6.5	51.8	0.2	0.2	100.0	7,552	47.8	13.6
Urban	59.9	2.7	7.2	29.9	0.1	0.1	100.0	2,411	69.8	17.0
Rural	27.4	3.9	6.2	62.1	0.2	0.2	100.0	5,141	37.5	12.7
Frontier Governorates	48.4	3.2	8.8	39.3	0.2	0.0	100.0	218	60.5	6.9
Wealth quintile										
Lowest	13.4	2.3	6.3	77.4	0.2	0.4	100.0	3,565	22.0	11.4
Second	29.1	3.9	7.0	59.8	0.2	0.0	100.0	3,778	40.0	12.1
Middle	46.8	3.5	7.6	41.8	0.2	0.1	100.0	3,931	57.9	14.6
Fourth	65.8	3.8	7.2	23.0	0.0	0.2	100.0	4,137	76.8	14.5
Highest	87.3	2.4	2.9	7.2	0.0	0.2	100.0	4,063	92.6	15.8
Total	49.7	3.2	6.2	40.6	0.1	0.2	100.0	19,474	59.1	13.0

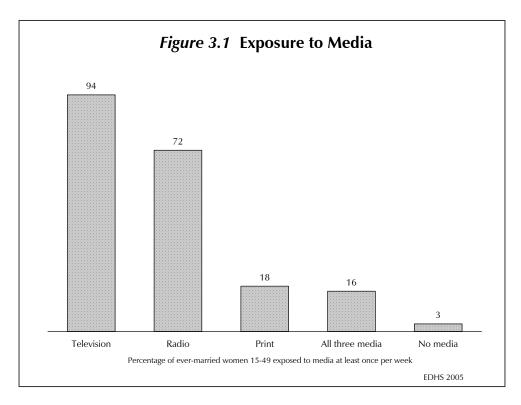
<sup>&</sup>lt;sup>1</sup> Refers to women who attended preparatory school or higher and women who can read a whole sentence or part of a sentence. The base population for the rate excludes blind/visually impaired women and other women whose literacy was not assessed.

#### 3.4 **EXPOSURE TO MASS MEDIA**

The 2005 EDHS collected information on the exposure of women to both broadcast and print media. These data are important because they provide some indication of the extent to which Egyptian women are regularly exposed to the mass media, which are extensively used in Egypt to convey family planning and health messages to the population.

The level of regular exposure of EDHS respondents to broadcast and print is shown in Figure 3.1. More than 90 percent of respondents watch television at least once a week, about three-quarters listen to radio at least once a week, and slightly less than one in five women read a newspaper or magazine at least once a week. Only 16 percent of women report regular exposure to all three media, and three percent have no exposure to print or broadcast media.

<sup>&</sup>lt;sup>2</sup>The base population for the percentage excludes women attending secondary school or higher.



According to the results presented in Table 3.4, women living in urban areas are somewhat more likely to be exposed to the mass media channels, particularly newspapers or magazines, than rural women. Overall, one-quarter of urban women are exposed to all three media at least once a week, compared to less than 10 percent of rural women.

Considering place of residence, the majority of women in every residential category watches television and listens to the radio at least once a week. The percentage that reads a newspaper or magazine at least once a week varies considerably, from 6 percent in rural Upper Egypt to 34 percent in the Urban Governorates. Lack of exposure to any of the three media varies from around two percent of women in the Urban Governorates and urban Lower Egypt to nine percent of women in the Frontier Governorates.

The percentages reporting exposure to each of the three mass media rise with the woman's education level, with the increase being especially marked for print media. There is a strong association between wealth and exposure to mass media. Considering exposure to all three media, more than two-fifths of women in the highest wealth quintile report they watch television, listen to the radio and read a newspaper or magazine at least once per week while only one percent of women in the lowest quintile report regular exposure to all three media.

Table 3.4 Exposure to mass media by background characteristics Percentage of ever-married women 15-49 who are exposed to specific media weekly by selected background characteristics, Egypt 2005

			Reads a			
	Watches	Listens to	magazine/	All three	No media	
	television at	the radio at	newspaper	media at	at least	
Background	least once	least once a	at least once	least once	once	Number
characteristic	a week	week	a week	a week	a week	of women
Age						
15-19	93.9	67.0	8.7	7.7	3.8	803
20-24	94.4	70.2	14.7	12.4	3.0	2,968
25-29	95.7	71.5	19.0	16.3	2.5	3,785
30-34	94.7	72.4	19.7	16.3	2.6	3,209
35-39	94.4	72.2	19.4	16.6	3.4	3,191
40-44	93.4	72.6	21.2	17.7	3.7	2,859
45-49	93.6	72.7	17.9	15.4	3.9	2,659
Urban-rural residence						
Urban	96.4	75.2	30.1	25.1	1.6	8,033
Rural	93.0	69.2	10.0	8.8	4.2	11,441
Place of residence						
Urban Governorates	96.5	73.3	34.0	27.1	1.5	3,293
Lower Egypt	94.8	79.5	18.4	16.5	2.7	8,410
Urban	96.7	81.5	32.4	28.8	1.6	2,199
Rural	94.2	78.8	13.5	12.2	3.0	6,211
Upper Egypt	93.3	62.8	11.2	9.3	4.3	7,552
Urban	96.5	72.6	22.8	19.1	1.4	2,411
Rural	91.8	58.1	5.8	4.6	5.6	5,141
Frontier Governorates	87.9	57.2	20.3	18.3	9.0	218
Education						
No education	91.1	61.4	0.4	0.3	6.2	6,740
Some primary Primary complete/some	93.2	69.1	3.9	3.1	3.4	2,197
secondary	95.8	73.9	14.0	11.3	1.8	2,719
Secondary complete/ higher	97.2	80.6	39.3	33.6	0.9	7,818
Wealth quintile						
Lowest	85.5	52.3	1.9	1.4	10.3	3,565
Second	94.4	67.2	5.0	4.1	3.0	3,778
Middle	95.9	76.0	10.5	9.3	1.7	3,931
Fourth	97.2	79.3	21.5	18.9	1.0	4,137
Highest	98.0	81.0	49.2	41.2	0.6	4,063
Total	94.4	71.7	18.3	15.5	3.2	19,474

### 3.5 **EMPLOYMENT STATUS**

In the 2005 EDHS, respondents were asked a number of questions in order to identify women who were working at the time of the survey and those who had been employed in the 12 months prior to the survey if they were not working at the time of the survey. Women who were working at the time they were interviewed were asked additional questions about the kind of work they were doing and whether they were paid in cash.

### **Current Employment**

Table 3.5 shows the percent distribution of 2005 EDHS respondents according to current and recent employment. Overall, 22 percent of women are currently engaged in some economic activity. Most of the women who are not working do not report recent work experience; only one percent of the respondents who were not working at the time of EDHS interview had had a job during the 12-month period before the survey.

Table 3.5 shows that women in the 40-44 age group are more likely to be currently employed than older or younger women. The comparatively small proportion working among women under age 30 and especially women under age 25 may be related to the greater childcare responsibilities. With regard to the other employment differentials presented in Table 3.5, women living in urban Lower Egypt, women who completed secondary school or higher, and women in the highest wealth quintile were much more likely to be employed at the time of the survey than other women.

Table 3.5 Employment status by	background c	haracteristics			
Percent distribution of ever-ma	arried women	n by employme	ent status, acco	ording to	background
characteristics, Egypt 2005				-	
	Employe	d in the 12	Not		
		r to the survey	employed in the 12		Number
Background	Currently	Not currently	months prior		of
characteristic	employed <sup>1</sup>	employed <sup>′</sup>	to the survey	Total	women
Age					
15-19	6.9	1.3	91.6	100.0	803
20-24	9.0	1.0	89.9	100.0	2,968
25-29	16.2	0.5	83.2	100.0	3,785
30-34	23.3	0.7	76.0	100.0	3,209
35-39	26.7	0.8	72.6	100.0	3,191
40-44	31.6	0.4	68.0	100.0	2,859
45-49	28.3	0.5	71.2	100.0	2,659
Marital status					
Married	20.9	0.7	78.4	100.0	18,187
Divorced/separated/widowed	31.0	0.6	68.5	100.0	1,287
Number of living children					
0	15.9	1.8	82.2	100.0	1,936
1-2	19.3	0.5	80.1	100.0	7,208
3-4	26.0	0.6	73.5	100.0	7,053
5+	20.1	0.6	79.3	100.0	3,277
Urban-rural residence	~~ 0	2.6	4		- 000
Urban	23.8	0.6	75.6	100.0	8,033
Rural	20.0	0.7	79.3	100.0	11,441
Place of residence					
Urban Governorates	23.7	0.7	75.5	100.0	3,293
Lower Egypt	25.3	0.8	73.9	100.0	8,410
Urban	28.6	0.7	70.7	100.0	2,199
Rural	24.1	0.9	75.0	100.0	6,211
Upper Egypt	16.5	0.5	83.0	100.0	7,552
Urban	19.4	0.3	80.4	100.0	2,411
Rural	15.1	0.6	84.2	100.0	5,141
Frontier Governorates	18.9	0.0	81.1	100.0	218
Education					
No education	18.0	0.7	81.3	100.0	6,740
Some primary	14.1	0.7	85.1	100.0	2,197
Primary complete/some secondary	8.9	0.5	90.6	100.0	2,719
Secondary complete/higher	31.0	0.7	68.3	100.0	7,818
, .	31.0	0.7	00.5	100.0	7,010
Wealth quintile Lowest	22.2	1.2	76.6	100.0	3,565
Second	16.6	0.8	82.6	100.0	3,778
Middle	16.3	0.5	83.2	100.0	3,931
Fourth	20.0	0.6	79.4	100.0	4,137
Highest	32.1	0.4	67.5	100.0	4,063
Total	21.5	0.7	77.8	100.0	19,474
Total	21.3	0.7	//.0	100.0	13,4/4

<sup>&</sup>lt;sup>1</sup> "Currently employed" is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

## **Occupation**

In the EDHS 2005, women who indicated that were working or had worked within the year before the survey were asked about the kind of work that they did. Their response was recorded exactly as they gave it and was the basis for the coding of occupation that occurred after the survey in the central office.

As Figure 3.2 shows, the majority of women who are currently working are employed in nonagricultural occupations. About half of working women are in professional, technical, and managerial positions or in clerical occupations. An additional 17 percent are in sales and services, and five percent work in jobs categorized as skilled manual labor. Slightly more than one-fourth of working women are involved in some type of agricultural activity.

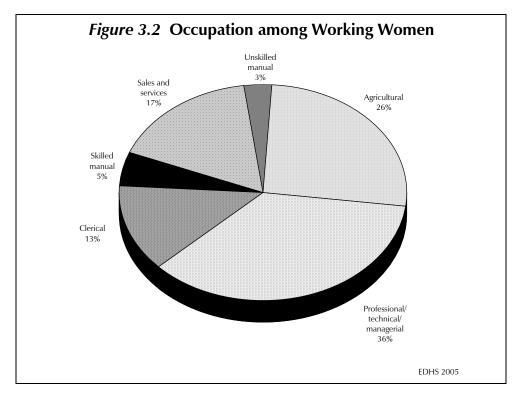


Table 3.6 looks at the differences in the occupational profile of working women according to selected background characteristics. As expected, the proportions involved in professional, technical and managerial occupations and in clerical positions are much greater among urban women than rural women. These proportions also rise rapidly with both education and wealth. Overall, more than eight in ten working women who have attained a secondary or higher education or fall in the highest wealth quintile are employed in professional, technical, managerial or clerical occupations.

Table 3.6 Occupation by background characteristics

Percent distribution of ever-married women employed in the 12 months preceding the survey by occupation, according to background characteristics, Egypt 2005

Background characteristic	Professional/ technical/ managerial	Clerical	Sales and services	Skilled manual	Un- skilled manual	Agricul- ture	Missing	Total	Number of women
Age							6		
15-19	11.5	2.9	11.9	2.5	9.2	62.1	0.0	100.0	66
20-24	24.1	7.0	15.7	8.1	4.3	40.8	0.0	100.0	298
25-29	40.8	6.9	18.5	5.2	3.6	25.0	0.0	100.0	635
30-34	43.2	9.2	13.9	5.6	2.1	25.8	0.2	100.0	769
35-39	34.3	11.8	17.7	5.4	2.7	27.9	0.2	100.0	875
40-44	32.3	20.3	19.1	3.7	4.0	20.2	0.4	100.0	916
45-49	37.7	15.9	18.0	4.4	3.4	20.3	0.2	100.0	764
Marital status									
Married	37.1	12.9	15.7	4.8	3.2	26.1	0.2	100.0	3,917
Divorced/separated/widowed	25.2	10.0	32.5	7.6	4.7	20.0	0.0	100.0	406
Number of living children									
0	39.9	14.5	14.3	7.3	0.6	23.3	0.0	100.0	344
1-2	47.0	11.9	17.9	7.3 4.8	2.9	15.3	0.0	100.0	1,432
3-4	35.3	15.2	16.4	4.9	2.6	25.5	0.3	100.0	1,432 1,869
5+	12.5	6.3	19.8	4.8	7.8	48.5	0.1	100.0	677
Urban-rural residence	12.5	0.5	19.0	4.0	7.0	40.5	0.5	100.0	0//
Urban	52.7	17.7	19.3	5.1	3.7	1.3	0.3	100.0	1,954
Rural	22.2	8.5	15.6	5.0	3.0	45.5	0.2	100.0	2,369
	22.2	0.5	13.0	3.0	5.0	13.3	0.2	100.0	2,303
Place of residence Urban Governorates	F1 1	155	20.7	6.7	4.9	0.5	0.6	100.0	804
	51.1	15.5					0.6		
Lower Egypt	33.9	12.4	16.0	4.8	2.7	30.0	0.1	100.0	2,195
Urban Rural	57.7	17.5 10.3	16.6 15.8	4.7 4.9	2.5	0.9	0.0	100.0 100.0	643
	24.0 29.6	10.3	17.2	4.9	2.8 3.6	42.1 34.2	0.1 0.2	100.0	1,551 1,283
Upper Egypt Urban	48.2	21.1	20.6	4.3 2.9	3.7	3.3	0.2	100.0	474
Rural	18.7	5.1	15.2	5.1	3.6	52.3	0.1	100.0	809
Frontier Governorates	52.2	19.9	16.2	4.3	0.5	6.9	0.2	100.0	41
	32.2	19.9	10.2	7.5	0.5	0.9	0.0	100.0	71
Education	4.5	0.0	24.2	6.5	0.5	62.1	0.0	100.0	1 262
No education	1.5	0.0	21.3	6.5	8.5	62.1	0.0	100.0	1,263
Some primary	4.0	0.0	29.2	10.9	6.9	48.6	0.5	100.0	325
Prim. complete/some secondary	5.3	2.4	36.0	20.6	3.8	31.9	0.0	100.0	255
Secondary complete/higher	60.9	21.8	11.7	1.9	0.2	3.2	0.3	100.0	2,480
Wealth quintile									
Lowest	2.8	1.2	15.0	4.7	6.7	69.6	0.0	100.0	707
Second	11.2	4.4	22.4	6.5	5.3	50.1	0.0	100.0	655
Middle	26.3	13.2	23.6	6.5	5.3	24.5	0.5	100.0	705
Fourth	48.4	20.2	18.2	7.3	1.9	3.9	0.2	100.0	898
Highest	66.1	18.9	12.3	2.2	0.2	0.0	0.3	100.0	1,358
Total	36.0	12.7	17.3	5.0	3.3	25.5	0.2	100.0	4,323

# **Type of Employment**

Table 3.7 shows that, among women who work, 78 percent earn cash for the work they do. Among working women, the majority (66 percent) work for someone other than a relative, around one in five women work for a family member while 14 percent are self-employed. The majority of women who work are working on a full-year basis (87 percent), 10 percent work seasonally, and three percent work occasionally.

Women working agricultural occupations are much less likely than other working women to be paid for the work they do (67 percent and 3 percent, respectively). This can be explained by the fact that most women who work in an agricultural occupation are assisting their husbands or another family member; around two in three women who are employed in agricultural occupations are working for a family member compared to four percent of working women who are involved in nonagricultural occupations.

Finally, the results in Table 3.7 show that the majority of working women report that they work year-round. However, as expected, seasonal work is more common among women working in agricultural occupations than among women employed in nonagricultural occupations (32 percent and 3 percent, respectively).

### Table 3.7 Type of employment

Percent distribution of ever-married women 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), Egypt 2005

Employment		Non-	
characteristics	Agricultural	agricultural	Total
Type of earnings			
Cash only	16.0	94.5	74.4
Cash and in-kind	10.5	1.8	4.0
In-kind only	6.8	0.3	2.0
Not paid	66.7	3.4	19.5
Type of employer			
Employed by family member	68.1	4.0	20.4
Employed by nonfamily member	22.2	80.7	65.8
Self-employed	9.8	15.2	13.8
Continuity of employment			
All year	64.8	94.5	86.9
Seasonal	31.5	2.7	10.1
Occasional	3.6	2.7	2.9
Missing	0.1	0.1	0.1
Total	100.0	100.0	100.0
Number of women	1,104	3,210	4,323

#### 3.6 **DISPOSAL OF EARNINGS**

The EDHS included a number of questions that were intended to assess the magnitude of women's earnings relative to those of their husbands, women's control over the use of their earnings, and women's participation in decisions on how their husband's earnings are used. This information has implications for the empowerment of women. Employment and earnings are more likely to empower women if their earnings are perceived as significant relative to those of their husband and if women themselves control their own earnings. Women also are clearly empowered if they have a voice in how their husbands' earnings are spent.

Tables 3.8 and 3.9 present information on the measures related to women's earnings for currently married women who worked and received cash earnings during the 12-month period prior to the survey. With regard to the magnitude of woman's earnings, Table 3.8 shows that the majority of women earn less than their husband regardless of the subgroup to which they belong.

Table 3.8 Relative magnitude of woman's earnings by background characteristics

Percent distribution of currently married women employed in the 12 months preceding the survey and receiving cash earnings by women's earnings relative to husband's earnings, according to background characteristics, Egypt 2005

			Woman			
			earns more/	Don't		
Background	Woman	Woman	husband no	know/		Number of
characteristic	earns less	earns same	earnings	missing	Total	women
Age						
15-19	52.9	9.3	0.0	37.8	100.0	26
20-24	58.4	15.4	8.6	17.5	100.0	176
25-29	71.5	15.8	4.9	7.7	100.0	451
30-34	64.1	20.8	8.5	6.6	100.0	574
35-39	62.2	22.3	10.3	5.1	100.0	601
40-44	58.5	23.9	10.6	6.9	100.0	666
45-49	59.5	21.8	10.9	7.8	100.0	522
Number of living children						
0	64.0	16.8	5.3	13.9	100.0	249
1-2	63.7	21.4	7.9	7.0	100.0	1,084
3-4	62.1	22.6	9.8	5.5	100.0	1,344
5+	58.0	14.9	13.4	13.6	100.0	339
Urban-rural residence						
Urban	62.2	22.1	8.8	6.8	100.0	1,676
Rural	62.6	19.2	9.5	8.7	100.0	1,339
Place of residence						
Urban Governorates	58.1	24.6	10.8	6.5	100.0	685
Lower Egypt	66.1	22.1	7.1	4.7	100.0	1,492
Urban	67.6	22.4	6.9	3.1	100.0	553
Rural	65.2	22.0	7.2	5.7	100.0	939
Upper Egypt	59.4	14.5	11.8	14.3	100.0	804
Urban	62.1	16.5	8.7	12.8	100.0	409
Rural	56.6	12.5	15.1	15.9	100.0	395
Frontier Governorates	56.5	34.3	3.4	5.8	100.0	35
Education						
No education	54.3	18.7	14.9	12.1	100.0	525
Some primary	53.1	15.7	11.3	20.0	100.0	155
Prim. complete/some secondary	56.3	20.6	15.3	7.7	100.0	142
Secondary complete/higher	65.4	21.7	7.2	5.8	100.0	2,193
Wealth quintile						
Lowest	51.4	15.7	16.1	16.7	100.0	278
Second	58.1	20.7	9.0	12.2	100.0	290
Middle	61.1	17.6	12.3	9.0	100.0	449
Fourth	64.9	22.1	8.4	4.5	100.0	761
Highest	65.4	22.6	6.6	5.4	100.0	1,238
Total	62.4	20.8	9.1	7.7	100.0	3,016

With regard to who decides how a woman's earnings are used, Table 3.9 shows that most currently married women who have cash earnings either make decisions about how their earnings are used themselves (25 percent) or jointly with the husband (65 percent). Only a small minority of women report that these decisions are made mainly by the husband or someone else. Women are most likely to say that the husband or someone else mainly makes decisions about how the woman's earnings are used if they have less than a primary education or fall within the lowest wealth quintile; however, even among women in these groups, more than eight in ten women are involved in decisions on how their earnings are spent.

Table 3.9 Control over woman Percent distribution of current receiving cash earnings by per background characteristics, Eg	ly married r	women emplo	oyed in the 1	2 months p		
Background characteristic	Woman	Jointly with husband	Husband	Other/ missing	Total	Number of women
Age						
15-19	49.4	34.7	3.4	12.5	100.0	26
20-24	24.8	53.6	16.7	4.9	100.0	176
25-29	27.2	64.1	5.0	3.6	100.0	451
30-34	23.1	67.9	4.9	4.2	100.0	574
35-39	22.4	67.5	6.1	3.9	100.0	601
40-44	24.3	66.7	4.7	4.3	100.0	666
45-49	28.1	63.6	3.5	4.9	100.0	522
Number of living children						
0	24.5	61.7	10.3	3.5	100.0	249
1-2	26.5	63.4	5.4	4.7	100.0	1,084
3-4	24.3	67.9	4.2	3.6	100.0	1,344
5+	23.7	62.1	7.6	6.6	100.0	339
Urban-rural residence						
Urban	26.7	64.0	4.4	4.8	100.0	1,676
Rural	22.9	66.5	7.0	3.7	100.0	1,339
Place of residence						
Urban Governorates	32.4	57.5	6.0	4.1	100.0	685
Lower Egypt	20.4	71.4	6.2	2.0	100.0	1,492
Urban	21.3	72.4	4.4	1.9	100.0	553
Rural	19.9	70.9	7.2	2.0	100.0	939
Upper Egypt	27.2	60.0	4.0	8.8	100.0	804
Urban	24.6	63.4	1.8	10.2	100.0	409
Rural	29.9	56.5	6.2	7.4	100.0	395
Frontier Governorates	28.8	62.6	2.8	5.8	100.0	35
Education						
No education	25.2	57.0	10.7	7.1	100.0	525
Some primary	23.7	61.9	10.3	4.1	100.0	155
Primary complete/some						
secondary	28.1	63.5	5.8	2.6	100.0	142
Secondary complete/higher	24.9	67.4	3.9	3.8	100.0	2,193
Wealth quintile						
Lowest	26.2	55.9	10.0	7.9	100.0	328
Second	21.3	63.8	6.4	8.5	100.0	312
Middle	25.6	61.5	7.2	5.7	100.0	442
Fourth	22.1	72.0	2.6	3.4	100.0	729
Highest	27.2	65.2	2.9	4.7	100.0	1,205
Total	25.0	65.1	5.5	4.3	100.0	3,016

Table 3.10 focuses on decisions about how the husband's earnings will be spent. The results indicate that, as was true with regard to the woman's earnings, the majority of women (66 percent) say that these decisions are made jointly by the couple. Around a quarter of the women say the husband decides by himself how to spend his earnings. Women living in rural areas, particularly in Upper Egypt and women from the Frontier Governorates were the most likely to report that the husband made these decisions alone. Even among these groups, however, joint decision-making is the norm.

Percent distribution of curren according to background chara			person mainly	deciding hov	v the husba	ınd's earni	ngs are used,
Background characteristic	Woman	Jointly	Husband	Husband no earnings	Other/ missing	Total	Number of women
Age							
15-19	1.7	58.7	29.7	2.3	7.5	100.0	792
20-24	2.8	62.1	28.8	1.5	4.7	100.0	2,898
25-29	3.0	66.2	26.8	0.9	3.1	100.0	3,653
30-34	3.5	68.4	25.2	0.4	2.4	100.0	3,077
35-39	4.0	66.8	26.6	0.7	1.9	100.0	3,010
40-44	5.1	68.8	24.0	0.7	1.5	100.0	2,525
45-49	5.2	65.3	27.0	1.5	1.1	100.0	2,233
Number of living children							
0	3.0	64.8	25.9	1.8	4.6	100.0	1,782
1-2	3.3	68.1	24.5	1.1	3.1	100.0	6,712
3-4	3.9	67.8	25.5	0.7	2.1	100.0	6,677
5+	4.8	57.8	34.1	1.0	2.3	100.0	3,016
Urban-rural residence							
Urban	4.3	73.9	20.0	0.6	1.2	100.0	7,490
Rural	3.3	60.4	31.1	1.3	3.8	100.0	10,697
Place of residence							
Urban Governorates	5.1	76.4	17.0	0.4	1.1	100.0	3,078
Lower Egypt	2.1	71.6	23.0	0.8	2.4	100.0	7,884
Urban	1.7	77.4	19.5	0.4	1.0	100.0	2,057
Rural	2.2	69.6	24.2	1.0	2.9	100.0	5,826
Upper Egypt	5.1	55.3	34.3	1.4	3.9	100.0	7,019
Urban	5.7	67.9	23.9	0.9	1.6	100.0	2,230
Rural	4.8	49.4	39.2	1.7	4.9	100.0	4,789
Frontier Governorates	1.0	54.3	41.6	1.0	2.1	100.0	206
Education							
No education	4.1	55.9	34.9	1.2	3.8	100.0	6,116
Some primary Primary complete/some	4.5	60.8	30.3	1.7	2.7	100.0	2,019
secondary	4.1	65.0	27.3	0.8	2.7	100.0	2,564
Secondary complete/higher	3.1	75.8	18.5	0.7	2.0	100.0	7,488
Work status							
Works for cash	3.7	78.3	15.1	0.2	2.7	100.0	2,920
Not working for cash	3.7	63.6	28.8	1.2	2.8	100.0	15,267
Wealth quintile							,
Lowest	4.0	54.1	35.2	1.7	5.0	100.0	3,266
Second	3.1	57.8	33.3	1.4	4.3	100.0	3,509
Middle	3.7	62.6	29.5	1.1	3.1	100.0	3,675
Fourth	3.2	73.3	21.7	0.6	1.2	100.0	3,897
Highest	4.7	79.2	15.2	0.3	0.6	100.0	3,840
Total	3.7	65.9	26.6	1.0	2.8	100.0	18,187

Table 3.11 looks at how a woman's control over decisions about how her and her husband's earnings are spent relates to the magnitude of the woman's earnings relative to that of her husband. As expected, women earning more than the husband have the highest level of autonomy in making decisions about spending decisions. Women who earn less than the husband have a slightly greater degree of personal autonomy in making decisions about how their own earnings will be spent than women earning about the same amount as the husband.

Table 3.11 Relative magnitude of earnings and control over woman's and husband's earnings

Percent distribution of currently married women by person who decides how a woman's cash earnings are used and the percent distribution by who decides how a woman's husband/partner's earnings are used, according to the relation between woman's and husband's earnings in last 12 months, Egypt 2005

Control over earnings	Woman earns less	Woman earns same	Woman earns more/ husband no earnings	Woman does not know what husband earns	Woman no cash earnings/ not working	Currently married women <sup>1</sup>
Control over woman's earnings						
Woman	25.7	18.2	42.2	17.4	na	25.0
Jointly with husband	68.4	77.6	53.6	17.9	na	65.1
Husband	5.4	4.1	3.4	0.8	na	4.6
Other	0.4	0.1	0.8	63.9	na	5.3
Total percent	100.0	100.0	100.0	100.0	na	100.0
Number of women	1,881	628	276	231	na	3,016
Control over husband's earnings						
Woman	2.8	4.0	11.5	7.3	3.8	3.8
Jointly with husband	78.7	89.1	70.6	73.2	64.3	66.9
Husband	18.1	6.2	17.1	18.2	29.2	26.9
Other/missing	0.4	0.6	0.9	1.3	2.8	2.4
Husband doesn't bring in any money	na	na	na	na	na	na
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,881	628	204	229	14,995	17,937

na = Not applicable

#### 3.7 HOUSEHOLD DECISION-MAKING

To assess women's roles in household decision-making, EDHS respondents were asked questions about who in the household (respondent, husband, both, other) has the final say in making decisions relating to four areas: the woman's own health care, major household purchases, daily household purchases, and visits to friends or relatives. Table 3.12 shows that women indicate that they themselves have the final say only with respect to daily household purchases. Other types of decisions are typically made jointly with the husband. Husbands are seen as having the final say most often with regard to major household purchases.

Table 3.12	Women's	partici	pation	in c	lecision-makir	ıg

Percent distribution of currently married women by person who has the final say in making specific decisions, according to type of decision, Egypt 2005

Decision	Woman	Jointly with husband	Husband	Someone else	Other/ missing	Total
Own health care	26.3	52.7	19.5	1.2	0.2	100.0
Large household purchases	7.3	47.1	39.9	5.5	0.2	100.0
Daily household purchases	60.3	19.7	11.8	7.8	0.3	100.0
Visits to family or relatives	13.8	58.7	25.5	1.6	0.4	100.0

<sup>&</sup>lt;sup>1</sup> Excludes cases where the woman or her husband had no earnings and includes cases where the woman does not know whether she earns more or less than the husband.

Table 3.13 presents differentials in the proportions of women who report that they alone or jointly have the final say with respect to various decisions. The table shows that seven percent of women have no involvement in making any of the decisions.

The results in Table 3.13 indicate that women's involvement in household decision-making generally increases with the age of the woman and with parity up to four children. Rural women, especially those living in Upper Egypt, and women from the Frontier Governorates are generally less likely than other women to report that they make decisions alone or jointly. Education and wealth are directly related to involvement in making the various household decisions. Women working for cash are also more likely than other women to report having a say in the various decisions.

<u>Table 3.13 Women's participa</u> Percentage of currently marrie background characteristics, Eg	ed women wh		-		say in specific	decisions, by
	7.1	Alone o	or jointly have fi	nal say in:		
Background characteristic	Own health care	Making large purchases		Visits to family or relatives	None of the specified decisions	Number of women
Age						
15-19	67.2	38.4	56.0	61.6	14.5	792
20-24	75.0	49.9	72.2	69.4	9.6	2,898
25-29	79.8	53.3	78.1	71.4	7.4	3,653
30-34	80.9	56.6	83.4	74.3	5.6	3,077
35-39	81.1	57.8	84.9	74.7	6.3	3,010
40-44	81.3	58.0	84.6	75.2	6.3	2,525
45-49	79.2	55.7	85.3	73.7	6.0	2,233
Number of living children						
0	75.1	51.7	67.4	69.9	10.6	1,782
1-2	79.7	55.4	79.1	72.1	6.9	6,712
3-4	80.7	56.7	83.9	74.7	5.8	6,677
5+	76.0	48.4	81.1	69.9	9.3	3,016
Urban-rural residence						
Urban	84.3	61.4	86.9	76.0	4.0	7,490
Rural	75.3	49.5	75.2	70.1	9.5	10,697
Place of residence						
Urban Governorates	86.5	61.4	89.1	74.7	2.6	3,078
Lower Egypt	80.4	59.6	81.5	76.6	5.0	7,884
Urban	83.5	66.2	87.2	80.5	3.2	2,057
Rural	79.3	57.3	79.4	75.3	5.7	5,826
Upper Egypt	74.4	45.9	75.0	67.5	11.4	7,019
Urban	82.4	58.0	84.9	74.8	6.2	2,230
Rural	70.6	40.3	70.4	64.1	13.9	4,789
Frontier Governorates	72.6	35.7	59.4	51.9	20.0	206
Education						
No education	73.3	44.2	74.8	65.3	11.4	6,116
Some primary	74.7	51.4	80.4	70.3	8.1	2,019
Primary complete/some						
secondary	78.2	52.3	80.2	71.9	6.5	2,564
Secondary complete/higher	85.1	64.2	84.1	79.2	3.9	7,488
Work status						
Working for cash	87.2	69.3	89.1	82.5	2.8	2,920
Not working for cash	77.5	51.5	78.3	70.6	8.1	15,267
Wealth quintile						
Lowest	72.6	42.4	73.2	65.5	11.2	3,266
Second	72.2	46.4	72.6	67.7	11.8	3,509
Middle	77.2	52.9	78.1	72.5	8.0	3,675
Fourth	83.5	60.3	86.1	74.8	4.3	3,897
Highest	87.9	67.2	88.3	80.6	2.0	3,840
Total	79.0	54.4	80.0	72.5	7.3	18,187

This chapter looks at a number of fertility indicators including levels, patterns, and trends in both current and cumulative fertility; the length of birth intervals; and the age at which women initiate childbearing. Information on current and cumulative fertility is essential in monitoring the progress and evaluating the impact of the population program in Egypt. The data on birth intervals are important since short intervals are strongly associated with childhood mortality. The age at which childbearing begins can also have a major impact on the health and well-being of both the child and the mother.

Data on childbearing patterns were collected in the 2005 EDHS in several ways. First, each woman was asked a series of questions on the number of her sons and daughters living with her, the number living elsewhere, and the number who may have died. Next, a complete history of all of the woman's births was obtained, including the name, sex, month and year of birth, age, and survival status for each of the births. For living children, a question was asked about whether the child was living in the household or away. For dead children, the age at death was recorded. Finally, information was collected on whether currently married women were pregnant at the time of the survey.

#### 4.1 **CURRENT FERTILITY LEVELS AND DIFFERENTIALS**

The level of current fertility is one of the most important topics in this report because of its direct relevance to population policies and programs. Measures of current fertility presented in this chapter include age-specific fertility rates, the total fertility rate, the general fertility rate, and the crude birth rate. These rates are generally presented for the three-year period preceding the survey, a period covering portions of the calendar years 2002 through 2005. The three-year period was chosen for calculating these rates (rather than a longer or a shorter period) to provide the most current information, to reduce sampling error, and to avoid problems of the displacement of births.

Age-specific fertility rates are useful in understanding the age pattern of fertility. Numerators of age-specific fertility rates are calculated by identifying live births that occurred in the period 1-36 months prior to the survey (determined from the date of interview and date of birth of the child), and classifying them by the age (in five-year age groups) of the mother at the time of the child's birth. The denominators of these rates are the number of woman-years lived in each of the specified five-year age groups in the period 1-36 months prior to the survey. Although information on fertility was obtained only for evermarried women, the age-specific rates are presented for all women regardless of marital status. Data from the household questionnaire on the age structure of the population of never-married women were used to calculate the all-women rates. This procedure assumes that women who have never been married have had no children.

The total fertility rate (TFR) is a useful measure for examining the overall level of fertility. It can be interpreted as the number of children a woman would have by the end of her childbearing years if she were to pass through those years bearing children at the currently observed rates. The TFR is calculated by summing the age-specific fertility rates. It is presented for women age 15-44 and women 15-49 to facilitate comparisons with other surveys in which the age range of interviewed women may differ from that in the 2005 EDHS.

The general fertility rate (GFR) represents the annual number of births in a population per 1,000 women age 15-44. The crude birth rate (CBR) is the annual number of births in a population per 1,000 persons. Both measures are based on the birth history data for the three-year period before the survey and the age-sex distribution of the household population.

Current estimates of fertility levels are presented in Table 4.1 by residence. The total fertility rate indicates that, if fertility rates were to remain constant at the level prevailing during the three-year period before the 2005 EDHS (approximately April 2002 to March 2005), an Egyptian woman would bear 3.1 children during her lifetime. In rural areas, the TFR is 3.4 births per woman, around 25 percent higher than the rate in urban areas (2.7 births).

Table 4.1 Current fertility by residence

Age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the three years preceding the survey, by urban-rural residence and place of residence, Egypt 2005

			Urban Gover-	Lower Egypt				Upper Egypt			Frontier Gover-	
Age	Urban	Rural	norates	Total	Urban	Rural	Total	Urban	Rural	norates	Total	
15-19	27	62	19	41	18	47	67	40	78	26	48	
20-24	143	199	118	177	154	185	202	171	217	164	175	
25-29	178	206	172	190	174	195	210	188	221	179	194	
30-34	120	128	112	112	123	109	145	126	155	156	125	
35-39	63	63	60	48	48	47	80	76	83	114	63	
40-44	18	21	17	17	16	17	24	21	26	29	19	
45-49	1	3	1	1	1	1	4	3	5	0	2	
TFR	2.7	3.4	2.5	2.9	2.7	3.0	3.7	3.1	3.9	3.3	3.1	
GFR	91	121	81	103	86	107	127	103	138	111	108	
CBR	23.6	29.6	21.3	26.1	23.4	26.9	30.7	26.6	32.7	28.1	27.1	

Note: Age-specific fertility rates are per 1,000 women. Rates for age group 45-49 may be slightly biased due to truncation.

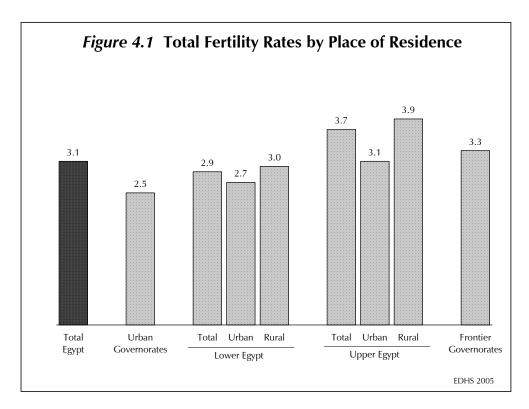
TFR: Total fertility rate for ages 15-49, expressed per woman

GFR: General fertility rate (births divided by the number of women age 15-44), expressed per 1,000 women

CBR: Crude birth rate, expressed per 1,000 population

Considering the variation by place of residence, the TFR for rural Lower Egypt (3.0 births per woman) is almost similar to the rate for urban Upper Egypt (3.1 births per woman) and around one birth lower than the TFR for rural Upper Egypt (3.9 births). The TFR for the Frontier Governorates is 3.3 births, a rate that is higher than any other area except rural Upper Egypt (Figure 4.1). The lowest TFR is 2.5 births per woman in the Urban Governorates, almost 1.5 children lower than the rate in rural Upper Egypt.

Egyptian women are having children early in the childbearing period. According to the cumulative age-specific fertility rates shown in Table 4.1, the average Egyptian woman will give birth to 1.1 children by age 25 and 2.1 children by age 30. The age pattern of fertility is similar in urban and rural areas. Fertility peaks in the age group 25-29 among rural women (206 births per thousand) and urban women (178 births per thousand). Looking at the variation in age-specific fertility by place of residence, rates are generally higher in rural Upper Egypt than in the other areas except in the 35-44 age groups where the highest rates are observed in the Frontier Governorates.



Estimates of the crude birth rate and the general fertility rate also are presented in Table 4.1. For the period 2002-2005, the crude birth rate was 27 births per thousand population, and the general fertility rate was 108 births per thousand women. There are substantial differences by residence in both the CBR and the GFR. The lowest rates are found in the Urban Governorates, where the CBR was 21 births per thousand population and the GFR was 81 births per thousand women. In contrast, in rural Upper Egypt where the rates are highest, the CBR was 33 births per thousand population, and the GFR was 138 births per thousand women.

#### 4.2 **FERTILITY TRENDS**

Using the 2005 EDHS data, the trend in fertility in Egypt can be assessed in several ways.

### **Comparison of Current and Cumulative Fertility Levels**

One approach to assessing the long term trend in fertility is to compare the total fertility rate at the time of the survey with the mean number of children ever born (CEB) among women 40-49. The latter indicator takes into account the fertility behavior of older women who are nearing the end of their reproductive period and thus serves as a measure of cumulative fertility. If fertility is stable over time in a population, the TFR and the mean CEB for women 40-49 will be similar. If fertility levels have been falling, the TFR will be lower than the mean CEB among women age 40-49.

The comparison of the current TFR to the mean CEB among older women presented in Table 4.2 indicates that fertility has fallen sharply in Egypt over the past several decades. Women age 40-49 had an average of 4.5 births during their lifetime, about one and a half births more than women bearing children at the current fertility rates will have. The decline in fertility implied by a comparison of the TFR with completed fertility has been greater in rural than in urban areas. The largest implied decline in fertility by place of residence is observed in rural Upper Egypt, where the TFR was 2.2 births lower than the mean number of children ever born to women 40-49.

Table 4.2 highlights marked differences in fertility levels and trends by education. The TFR decreases rapidly with increasing educational level, from 3.8 births among women with no education to 3.0 births among women who had completed the secondary level or higher. The differentials in completed fertility across educational groups are even more striking. The mean number of children ever born is 5.2 among women age 40-49 with no education, compared to 3.0 among women who have completed secondary school. With regard to the trend in fertility, the decline in fertility implied by a comparison of the TFR with the mean CEB is substantial for women with less than a secondary education. However, the TFR for women with a secondary or higher education is the same as the mean number of children ever born among women age 40-49 who have completed at least the secondary level. This pattern suggests that fertility among highly educated women has remained relatively stable for several decades.

Fertility levels and trends vary substantially by wealth quintile. The TFR deceases from a level of 3.6 births among women in the lowest wealth quintile to 2.6 births among women in the highest wealth quintile. The differentials in completed fertility across different wealth quintiles also are striking. The mean number of children ever born among women 40-49 is 5.9 in the lowest wealth quintile compared to 3.2 among women in

Table 4.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage of women 15-49 currently pregnant, and mean number of children ever born to women age 40-49 years, by background characteristics, Egypt 2005

			Mean number of
	<b>+</b>		children
Dedouced	Total	Percentage	ever born
Background characteristic	fertility	currently pregnant <sup>1</sup>	to women age 40-49
-	rate	pregnant	age 40-49
Urban-rural residence			
Urban	2.7	5.2	3.7
Rural	3.4	6.9	5.2
Place of residence			
Urban Governorates	2.5	4.8	3.3
Lower Egypt	2.9	6.0	4.3
Urban	2.7	5.1	3.6
Rural	3.0	6.4	4.6
Upper Egypt	3.7	6.9	5.4
Urban	3.1	5.7	4.2
Rural	3.9	7.4	6.1
Frontier Governorates	3.3	7.3	4.5
Education			
No education	3.8	5.7	5.2
Some primary	3.4	4.5	5.0
Primary complete/some			
secondary	2.9	4.8	4.2
Secondary complete/higher	3.0	7.4	3.0
Wealth quintile			
Lowest	3.6	6.2	5.9
Second	3.3	6.4	5.5
Middle	3.3	6.3	4.6
Fourth	3.0	6.9	3.9
Highest	2.6	4.9	3.2
Total	3.1	6.1	4.5
<sup>1</sup> Women age 15-49 years			

the highest wealth quintile. Comparisons of the mean CEB among older women with the TFR suggest that fertility has declined within each of the wealth quintiles between the 1970s when women currently in the 40-49 age cohort began their childbearing years and the current period.

Finally, Table 4.2 includes another indicator of current fertility, the percentage of women who are currently pregnant. Overall, 6 percent of the 2005 EDHS respondents were pregnant at the time of the survey. Looking at residential differentials, women in rural Upper Egypt and the Frontier Governorates have the highest percentage currently pregnant (7 percent), while the percentage is lowest in the Urban Governorates and urban Lower Egypt (5 percent).

Surprisingly, the percentage of women who were pregnant is higher for women with a secondary or higher education than for other women. This is due at least in part to the fact that, on average, highly educated women were married at older age than women in the other education categories and, thus, are more likely to currently be in the family-building stage than other women.

### **Retrospective Data**

Table 4.3 uses information from the retrospective birth histories obtained from EDHS respondents to examine trends in age-specific fertility rates for successive five-year periods before the survey. To calculate these rates, births were classified according to the period of time in which the birth occurred and the mother's age at the time of birth. Because women 50 years and over were not interviewed in the 2005 EDHS, the rates for older age groups become progressively more truncated for periods more distant from the survey date. For example, rates cannot be calculated for women age 45-49 for the period 5-9 years and more prior to the survey, because women in that age group would have been 50 years or older at the time of the survey.

Table 4.3 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, Egypt 2005

Mother's age	Number of years preceding survey								
at birth	0-4	5-9	10-14	15-19					
15-19	48	60	73	103					
20-24	182	204	220	251					
25-29	195	217	224	279					
30-34	129	147	158	[235]					
35-39	65	79	[101]	-					
40-44	20	[35]	-	-					
45-49	[3]	-	-	-					

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated.

The results in Table 4.3 confirm that fertility has fallen substantially among all age groups, with the most rapid relative decline occurring in the 15-19 age group. Overall, the cumulative fertility rate for women age 15-29 decreased by around one birth, from 3.2 births per woman during the period 15-19 years before the survey to 2.1 births per woman in the five-year period preceding the survey.

## **Comparison with Previous Surveys**

Table 4.4 shows the TFR estimates from a series of surveys conducted in Egypt during the period 1979 through 2005. The surveys vary in the timeframes for which the TFR estimates are available. For example, the rates from the EFS, ECPS and the EMCHS are based on births in a one-year period before the survey, while the rates for the DHS surveys are based on a three-year period before the interview date. In general, three-year rates are subject to less sampling variability than one-year rates. The size of the sample covered in a specific survey is another factor related to sampling variability. In general, rates from surveys with comparatively large samples are subject to less sampling variability than rates from surveys with smaller samples. Thus, the rates for the 1997, 1998, and 2003 Interim DHS surveys have somewhat greater margins of error than the full scale DHS surveys (i.e., the surveys conducted in 1988, 1992, 1995, 2000, and 2005). Sampling errors for the TFRs derived from the 2005 EDHS are presented in Appendix C.

As Table 4.4 shows, fertility levels have declined almost continuously in Egypt over the past two decades, from 5.3 births per woman at the time of the 1980 EFS to 3.1 births per woman at the time of the 2005 EDHS. The decline in fertility was especially rapid during the period between the mid-1980s and the mid-1990s. During the ten-year period between the 1995 and 2005 EDHS surveys, the downward trend in the TFR continued although at a slower pace and with some fluctuation.

The results in Table 4.4 indicate that all age groups have shared in the decline in fertility rates. However, the decline has been more rapid among older women than among younger women. Agespecific fertility rates among women age 30 and over fell by around 50 percent or more between the 1980 EFS and the 2005 EDHS. In contrast, fertility rates among women under age 30 declined by around onethird during this period. As a result of the differences in the pace of fertility change across various age groups, childbearing has become somewhat more concentrated among women under age 30. Currently, a woman will have an average of 2.1 births by her 30<sup>th</sup> birthday, roughly two-thirds of her lifetime births. This pattern is typical of countries like Egypt in which fertility levels are declining.

Table 4.4	Trends	in	fertility
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Age-specific fertility rates (per 1,000 women) and total fertility rates, Egypt 1979-2005

							1997	1998		2003	
	EFS	ECPS	1988 EDHS	1991 EMCHS	1992 EDHS	1995 EDHS	Interim EDHS	Interim EDHS	2000 EDHS	Interim EDHS	2005 EDHS
Age	1979- 1980¹	1983- 1984 <sup>1</sup>	1986- 1988 <sup>2</sup>	1990- 1991¹	1990- 1992²	1993- 1995 <sup>2</sup>	1995- 1997 <sup>2</sup>	1996- 1998²	1997- 2000²	2000- 2003 <sup>2</sup>	2002- 2005 <sup>2</sup>
15-19	78	73	72	73	63	61	52	64	51	47	48
20-24	256	205	220	207	208	200	186	192	196	185	175
25-29	280	265	243	235	222	210	189	194	208	190	194
30-34	239	223	182	158	155	140	135	135	147	128	125
35-39	139	151	118	97	89	81	65	73	75	62	63
40-44	53	42	41	41	43	27	18	22	24	19	19
45-49	12	13	6	14	6	7	5	1	4	6	2
TFR	5.3	4.9	4.4	4.1	3.9	3.6	3.3	3.4	3.5	3.2	3.1

<sup>&</sup>lt;sup>1</sup> Rates are for the 12-month period preceding the survey.

Note: Rates for the age group 45-49 may be slightly biased due to truncation.

Source: El-Zanaty and Way, 2004, Table 2.2

The trend in fertility by residence is presented in Table 4.5 for the period between the 1988 EDHS and the 2005 EDHS. Urban fertility declined between the 1988 and 1992 surveys, from 3.5 to 2.9 births. The decline leveled off early in the 1990s, with the urban TFR fluctuating around three births throughout the rest of the 1990s, before falling to a level of 2.7 births in 2005. In rural areas, fertility levels declined continuously, from 5.4 births per woman at the time of the 1988 EDHS to 3.4 births per woman at the time of the 2005 EDHS.

Table 4.5	Trends i	n fertility	/ by	residence
Table 4.5	Henus i	n ierunty	' Dy	residence

Total fertility rates by urban-rural residence and place of residence, Egypt 1986-2005

		'			0/1				
	1988 EDHS	1991 EMCHS	1992 EDHS	1995 EDHS	1997 Interim EDHS	1998 Interim EDHS	2000 EDHS	2003 Interim EDHS	2005 EDHS
Residence	1986- 1988²	1990- 1991 <sup>1</sup>	1990- 1992 <sup>2</sup>	1993- 1995 <sup>2</sup>	1995- 1997 <sup>2</sup>	1996- 1998²	1997- 2000²	2000- 2003 <sup>2</sup>	2002- 2005 <sup>2</sup>
Urban-rural residence									
Urban	3.5	3.3	2.9	3.0	2.7	2.8	3.1	2.6	2.7
Rural	5.4	5.6	4.9	4.2	3.7	3.9	3.9	3.6	3.4
Place of residence									
Urban Governorates	3.0	2.9	2.7	2.8	2.5	2.7	2.9	2.3	2.5
Lower Egypt	4.5	na	3.7	3.2	3.0	3.1	3.2	3.1	2.9
Urban	3.8	3.5	2.8	2.7	2.6	2.4	3.1	2.8	2.7
Rural	4.7	4.9	4.1	3.5	3.2	3.2	3.3	3.2	3.0
Upper Egypt	5.4	na	5.2	4.7	4.2	4.3	4.2	3.8	3.7
Urban	4.2	3.9	3.6	3.8	3.3	3.3	3.4	2.9	3.1
Rural	6.2	6.7	6.0	5.2	4.6	4.5	4.7	4.2	3.9
Frontier Governorates	na	na	na	4.0	na	na	3.8	na	3.3
TFR 15-49	4.4	4.1	3.9	3.6	3.3	3.4	3.5	3.2	3.1

Note: Rates for the age group 45-49 may be slightly biased due to truncation.

na = Not available

Source: El-Zanaty and Way, 2004, Table 2.3

<sup>&</sup>lt;sup>2</sup> Rates are for the 36-month period preceding the survey.

<sup>&</sup>lt;sup>1</sup> Rates are for the 12-month period preceding the survey.

<sup>&</sup>lt;sup>2</sup> Rates are for the 36-month period preceding the survey.

<sup>&</sup>lt;sup>1</sup> Residential differentials in the TFR are not available for the 1980 EFS and the 1984 ECPS surveys.

Considering the place of residence, declines in fertility were observed in all areas between the 1988 and 2005 surveys. Women in rural Upper Egypt experienced the greatest absolute change in fertility levels, with the TFR dropping from 6.2 births at the time of the 1988 survey to 3.9 births per woman at the 2005 EDHS. The TFR in rural Lower Egypt, which was 4.7 births at the time of the 1988 survey (the level reached in 2000 in rural Upper Egypt), dropped to 3.0 births at the time of the 2005 EDHS.

### 4.3 **CHILDREN EVER BORN AND LIVING**

Table 4.6 presents the distributions of all women and currently married women by the total number of children ever born. These distributions reflect the accumulation of births among EDHS respondents over the past 30 years and, therefore, their relevance to the current situation is limited. However, the information is useful in looking at how average family size varies across age groups and for looking at the level of primary infertility.

	Number of children ever born													Mean number of children	Mean number of living
Age	0	1	2	3	4	5	6	7	8	9	10+	Total	of women	ever born	0
							All V	OMEN							
15-19	94.1	5.2	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	6,446	0.07	0.07
20-24	59.8	20.1	14.9	4.2	0.7	0.2	0.0	0.0	0.0	0.0	0.0	100.0	5,807	0.66	0.64
25-29	25.9	15.7	28.4	19.2	7.2	2.8	0.6	0.2	0.0	0.0	0.0	100.0	4,655	1.78	1.69
30-34	10.1	7.8	23.1	28.3	14.8	8.6	4.5	1.8	0.9	0.2	0.0	100.0	3,413	2.89	2.73
35-39	7.1	4.2	14.3	24.3	20.6	12.7	7.8	4.7	2.3	1.4	0.6	100.0	3,310	3.68	3.40
40-44	6.1	2.7	11.6	20.6	20.8	14.9	8.5	5.9	4.3	2.4	2.2	100.0	2,933	4.17	3.74
45-49	5.6	2.9	8.5	16.2	16.2	14.2	12.0	9.1	6.4	3.8	5.1	100.0	2,705	4.81	4.17
Total	39.8	9.5	13.9	13.5	8.9	5.7	3.5	2.2	1.4	0.8	0.8	100.0	29,270	2.05	1.87
						CURRE	ENTLY N	ARRIED	WOME	N					
15-19	52.9	41.3	5.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	792	0.53	0.52
20-24	21.2	38.9	29.7	8.5	1.4	0.3	0.1	0.0	0.0	0.0	0.0	100.0	2,898	1.31	1.26
25-29	8.3	18.5	35.4	24.2	9.0	3.5	0.8	0.3	0.0	0.0	0.0	100.0	3,653	2.22	2.11
30-34	3.8	7.3	25.0	30.5	16.1	9.4	4.9	1.9	0.9	0.2	0.0	100.0	3,077	3.12	2.95
35-39	3.3	3.7	14.3	25.4	22.1	13.4	8.4	5.1	2.4	1.4	0.6	100.0	3,010	3.88	3.59
40-44	3.1	2.1	11.4	21.2	21.6	15.7	8.9	6.0	4.7	2.7	2.4	100.0	2,525	4.37	3.92
45-49	3.6	2.5	7.7	16.0	17.2	14.2	12.1	10.1	6.5	4.1	5.9	100.0	2,233	5.03	4.36
Total	9.4	14.2	21.2	20.5	13.5	8.5	5.1	3.3	2.0	1.1	1.2	100.0	18,187	3.07	2.82

Since only ever-married women were interviewed in the 2005 EDHS, information on the reproductive histories of never-married women is not available. However, virtually all births in Egypt occur within marriage; thus, in calculating these fertility measures for all women, never-married women were assumed to have had no births. The marked differences between the results for currently married women and for all women under age 30 are due to the comparatively large numbers of never-married women in those age groups who, as noted, are assumed to have had no births.

Table 4.6 shows that the average Egyptian woman has given birth to 2.1 children. Out of that number, 1.9 children are still alive, indicating that about 10 percent of the children ever born to EDHS respondents have died.

Reflecting the natural family-building process, the number of children that women have born increases directly with age from an average of less than one child among women age 15-19 to an average of 4.8 births among women 45-49. As expected, the likelihood that at least one of a woman's children will have died also increases with the woman's age. Out of the average of 4.8 children born to women 45-49, an average of 0.6 children or 13 percent are no longer alive.

#### 4.4 **BIRTH INTERVALS**

### **Intervals between Births**

A birth interval is the period between two successive live births. Research has shown that children born soon after a previous birth (i.e., within 24 months) are at greater risk of illness and death than those born after a longer interval. In addition, short birth intervals may have consequences for other children in the family. The occurrence of closely spaced births gives the mother insufficient time to restore her health, which may limit her ability to take care of her children. The duration of breastfeeding for the older child may also be shortened if the mother becomes pregnant.

Table 4.7 shows the percent distribution of second order and higher (non-first) births in the five years preceding the survey by length of the previous birth interval. Birth intervals are relatively long, with eight in ten non-first births occurring at least two years after the previous birth. Around half of births took place at least three years after a prior birth. The median interval is 35.4 months, which is slightly longer than the median interval at the 2000 EDHS (34.3 months). Although the majority of non-first births are appropriately spaced, 21 percent were born too soon after a prior birth, i.e., within 24 months of a previous birth.

Younger women have shorter birth intervals than older women. The median interval varies from 24.5 months among the small number of births to women age 15-19 to 64.6 months among births to women age 40-49. Birth intervals do not vary as much with the child sex of the prior birth. However, birth intervals are markedly different depending on the survival status of the prior birth; the average interval is 10 months longer in cases where the prior birth is alive than when that child has died (35.8 months and 25.9 months, respectively).

As Table 4.7 shows, the median birth interval in urban areas is 38 months, compared to 34 months in rural areas. Birth intervals are longer in Urban Governorates and urban Lower Egypt (39.9 months and 39.1 months, respectively) than in urban Upper Egypt (36.5 months). In rural areas, the median birth interval is much longer in Lower Egypt (37.0 months) than in Upper Egypt (31.4 months).

No clear association is observed between the woman's educational level and the average birth interval. However, intervals are substantially longer for births to women who are working for cash than for births to other women (39.7 months and 34.8 months, respectively). The average birth interval among women in the highest quintile wealth is around 6 months longer than that observed among women in the lowest quintile.

Table 4.7 Birth intervals by background characteristics

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, according to background characteristics, Egypt 2005

		Months si	nce preced	ling birth			Number of	Median number of months since
Background characteristic	7-17	18-23	24-35	36-47	48+	Total	non-first births	preceding birth
Sex of preceding birth								
Male	8.3	11.9	29.0	19.8	31.0	100.0	4,681	36.2
Female	8.9	13.2	31.3	20.2	26.3	100.0	4,722	34.5
Survival of preceding birth								
Living	7.6	12.4	30.4	20.2	29.3	100.0	8,946	35.8
Dead	27.8	16.4	25.1	15.3	15.5	100.0	458	25.9
Birth order								
2-3	9.6	13.8	32.9	21.2	22.5	100.0	6,055	33.6
4-5	6.8	10.6	24.5	16.4	41.7	100.0	2,233	41.2
6+	7.0	10.0	26.6	20.5	35.8	100.0	1,116	39.1
Age								
15-19	15.8	29.8	47.4	6.9	0.0	100.0	48	24.5
20-29	11.8	17.0	37.3	21.0	12.9	100.0	4,637	30.5
30-39	5.8	8.6	24.5	20.2	40.8	100.0	3,981	42.2
40-49	3.1	5.2	14.6	13.1	64.0	100.0	737	64.6
Urban-rural residence								
Urban	7.7	9.8	27.9	19.7	34.9	100.0	3,258	38.0
Rural	9.1	14.0	31.4	20.2	25.3	100.0	6,145	34.0
Place of residence								
Urban Governorates	7.6	9.7	24.8	21.3	36.6	100.0	1,209	39.9
Lower Egypt	7.6	10.1	28.6	20.9	32.8	100.0	3,554	37.3
Urban Rural	7.5	8.1	29.6 28.3	16.9	37.8 31.3	100.0	827	39.1
Upper Egypt	7.6 9.7	10.6 15.3	32.9	22.1 18.9	23.2	100.0 100.0	2,727 4,516	37.0 32.6
Urban	9.7 7.7	11.0	29.9	19.9	31.5	100.0	1,146	36.5
Rural	10.4	16.7	33.8	18.6	20.4	100.0	3,370	31.4
Frontier Governorates	7.3	13.5	29.9	20.1	29.3	100.0	125	35.7
Education								
No education	8.8	14.2	30.4	19.1	27.6	100.0	3,359	34.2
Some primary	7.3	11.1	28.2	20.1	33.3	100.0	949	36.9
Primary complete/some								
secondary	9.7	13.6	28.8	18.4	29.6	100.0	1,397	35.3
Secondary complete/higher	8.4	11.1	31.0	21.4	28.0	100.0	3,698	35.8
Work status								
Working for cash	6.3	8.7	27.7	20.0	37.2	100.0	1,180	39.7
Not working for cash	8.9	13.1	30.5	20.0	27.4	100.0	8,224	34.8
Wealth quintile								
Lowest	9.9	14.2	33.9	19.4	22.5	100.0	2,135	32.5
Second	9.3	16.0	29.3	19.6	25.7	100.0	2,045	34.0
Middle	8.1	12.0	29.6	21.8	28.5	100.0	1,990	36.1
Fourth	8.3	10.4	28.9	19.1	33.3	100.0	1,821	37.0
Highest	6.7	8.7	28.3	20.1	36.3	100.0	1,413	38.7
Total	8.6	12.6	30.2	20.0	28.6	100.0	9,403	35.4

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.

### Attitudes about the Ideal Birth Interval

Ever-married women were asked about the ideal length of time that a woman should wait between births. The responses for this question are presented in Table 4.8. Around six in ten women believe a woman should wait three or more years between births, and almost one-quarter think that ideally a woman should wait at least four years before having another child. Although these attitudes are encouraging, it also must be noted that around one-third of the women think that the ideal spacing between births should be less than three years. Women in urban areas, particularly in the Urban Governorates, are much less likely than rural women to think births should be spaced less than three years apart.

Table 4.8 Ideal birth interval by residence

Percent distribution of ever-married women 15-49 by the ideal length of time that a woman should wait between births and median ideal birth interval, Egypt 2005

Ideal interval between			Urban Gover-	L	ower Egy	pt		Jpper Egy	Frontier Gover-		
births (months)	Urban	Rural	norates	Total	Urban	Rural	Total	Urban	Rural	norates	Total
<24 months	1.3	2.4	1.2	1.5	1.0	1.6	2.7	1.7	3.2	4.2	1.9
24-35 months	27.2	38.6	22.0	37.2	33.3	38.6	35.4	28.7	38.6	36.2	33.9
36-47 months	39.6	38.3	38.7	41.2	42.0	40.9	36.2	38.5	35.1	39.0	38.8
48-59 months	21.5	12.0	26.3	12.5	15.1	11.5	15.4	21.0	12.7	14.1	16.0
60+ months	9.6	7.0	11.3	6.7	7.9	6.4	8.2	9.0	7.9	5.8	8.1
Don't know/missing	0.7	1.7	0.4	0.9	0.8	1.0	2.1	1.2	2.5	0.6	1.3
Total percent	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	8,033	11,441	3,293	8,410	2,199	6,211	7,552	2,411	5,141	218	19,474
Median number											
of months <sup>1</sup>	36.5	36.2	36.7	36.3	36.4	36.2	36.3	36.5	36.2	36.2	36.3

<sup>&</sup>lt;sup>1</sup> Women falling into the "don't know/missing" categories are excluded from calculation of the median.

#### 4.5 AGE AT FIRST BIRTH

The age at which childbearing begins has important demographic consequences for society as a whole as well as for the health and welfare of mother and child. In many countries, postponement of first births has contributed greatly to overall fertility decline. Table 4.9 presents the distribution of women by age at first birth, according to their current age. For women under age 25, the median age at first birth is not shown because less than 50 percent of women in those ages had given birth at the time of the survey.

The results in Table 4.9 suggest that there has been a slightly rise in the age at first birth among Egyptian women. Women in younger cohorts are much less likely than older women to have given birth to their first child while they were in their teens. For example, among women age 45-49, 31 percent were mothers before age 20, while only 24 percent of women age 25-29 had given birth to their first child before age 20. Overall, Table 4.9 shows that the median age at first birth ranges from a low of 22.3 years among women age 45-49 to 22.8 years among women age 25-29. These cohort changes parallel increases in the median age at first marriage that took place during the same period (see Chapter 8).

Table 4.9 Age at first birth

Percentage of all women who gave birth by exact ages, and median age at first birth, by current age, Egypt 2005

	Pero	centage w	ho gave b	irth by exa	act age	Percentage who have never given	Number of	Median age at first
Current age	15	18	20	22	25	birth	women	birth
15-19	0.2	na	na	na	na	94.1	6,446	a
20-24	0.7	7.5	20.8	na	na	59.8	5,807	a
25-29	1.2	10.7	24.3	43.0	64.9	25.9	4,655	22.8
30-34	2.2	14.7	28.6	46.7	69.2	10.1	3,413	22.4
35-39	2.0	16.3	34.1	50.1	70.4	7.1	3,310	22.0
40-44	1.8	16.0	33.4	50.4	70.8	6.1	2,933	22.0
45-49	2.8	15.7	31.4	48.1	70.0	5.6	2,705	22.3

na = Not applicable

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

Table 4.10 presents trends in the median age at first birth across age cohorts for key subgroups. The measures are presented for women age 25-49 years to ensure that half of the women have already had a birth. Overall, the median age at first birth is 22.4 years for women 25-49. However, there are wide differences in the age at which women first gave birth among the various subgroups. Urban women started childbearing nearly three years later than their rural counterparts. On average, women in rural Upper Egypt had their first birth around one and half years earlier than women in rural Lower Egypt and about four years earlier than women in the Urban Governorates. Women who have a secondary or higher education had their first birth an average of more than four years later than women with no education. There is a 4.5 year difference in the median age at first birth between women in the highest wealth quintile and women in the first wealth quintile.

Table 4.10 Median age at first birth by background characteristics

Median age at first birth among women age 25-49 years, by current age and background characteristics, Egypt 2005

		(	Current ag	je		Women
Background characteristic	25-29	30-34	35-39	40-44	45-49	age 25-49
Urban-rural residence						
Urban	24.2	23.9	23.4	23.3	23.6	23.7
Rural	21.9	21.3	20.8	20.7	21.1	21.3
Place of residence						
Urban Governorates	a	24.4	23.8	23.8	24.1	24.3
Lower Egypt	22.9	22.3	22.2	21.8	22.2	22.3
Urban	24.0	23.4	23.6	23.4	23.4	23.6
Rural	22.5	22.1	21.5	21.2	21.6	21.9
Upper Egypt	21.8	21.1	20.8	20.8	21.3	21.3
Urban	23.1	23.6	22.8	22.7	23.4	23.2
Rural	21.2	19.8	19.9	19.8	20.3	20.4
Frontier Governorates	23.8	22.3	22.4	23.4	22.5	23.0
Education						
No education	20.8	19.9	19.9	20.2	20.8	20.3
Some primary	20.9	20.2	19.8	20.4	21.1	20.5
Primary complete/some						
secondary	21.6	21.0	20.6	21.6	22.0	21.3
Secondary complete/higher	24.2	24.4	24.6	25.1	25.9	24.6
Wealth quintile						
Lowest	21.0	19.9	19.8	19.7	20.8	20.3
Second	21.7	21.1	20.4	20.3	20.9	21.0
Middle	22.2	22.0	21.2	21.2	21.1	21.7
Fourth	23.2	23.4	23.0	22.4	22.6	22.9
Highest	a	24.5	24.7	24.5	24.7	24.8
Total	22.8	22.4	22.0	22.0	22.3	22.4

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

### 4.6 TEENAGE PREGNANCY AND MOTHERHOOD

Teenage fertility is a major health concern because teenage mothers and their children are at high risk of illness and death. Childbearing during the teenage years also frequently has adverse social consequences, particularly on female educational attainment since women who become mothers in their teens are more likely to curtail education.

Using information from the 2005 EDHS, Table 4.11 shows the percentage of women age 15-19 who are mothers or who are pregnant with their first child. The overall level of teenage childbearing is nine percent. This percentage is virtually the same as that recorded in the 2000 EDHS.

Table 4.11 shows that the proportion of women who have begun childbearing rises rapidly throughout the teenage years, from less than one percent among 15-year-olds to seven percent among 17-year-olds, 15 percent among 18-yearolds, and 23 percent among 19-year-olds. There are significant residential differences in the level of teenage childbearing. In rural areas, the level of teenage fertility (12 percent) is almost twice the level in urban areas (6 percent). Upper Egypt has the highest level of teenage childbearing, especially in the rural areas (14 percent), while the lowest level is observed in urban Lower Egypt (4 percent).

Table 4.11 Teenage pregnancy and motherhood by background charac-

Percentage of women age 15-19 who are mothers or pregnant with their first child, by background characteristics, Egypt 2005

		entage o are:	Percentage	
		Pregnant	who have	Number
Background		with first	begun	of
characteristic	Mothers	child	childbearing	women
Age				
15	0.0	0.4	0.5	1,211
16	0.5	1.8	2.2	1,230
17	3.4	3.1	6.5	1,455
18	9.6	5.4	15.0	1,270
19	15.8	6.9	22.7	1,280
Urban-rural residence				
Urban	4.3	1.6	6.0	2,644
Rural	6.9	4.8	11.7	3,850
Place of residence				
Urban Governorates	3.7	1.0	4.8	1,081
Lower Egypt	5.4	4.4	9.8	2,334
Urban	2.8	1.6	4.4	690
Rural	5.5	4.6	10.1	1,959
Upper Egypt	9.3	5.1	14.4	2,249
Urban	6.4	2.4	8.8	835
Rural	8.4	5.1	13.5	1,859
Frontier Governorates	3.8	1.7	5.5	79
Education				
No education	15.7	7.3	23.0	831
Some primary	11.3	3.9	15.2	265
Primary complete/some				
secondary	3.1	1.8	4.9	3,386
Secondary complete/higher	5.8	5.0	10.8	1,978
Wealth quintile				
Lowest	6.9	3.2	10.0	1,373
Second	7.5	4.6	12.1	1,349
Middle	7.2	4.6	11.8	1,308
Fourth	5.3	4.1	9.4	1,226
Highest	2.1	1.0	3.1	1,209
Total	5.9	3.6	9.4	6,446

The level of teenage fertility is strongly associated with a woman's educational level. The proportion of women age 15-19 who are pregnant or who have already given birth is highesst among women with no education (23 percent). Teenagers in the lower wealth quintile are three to four times as likely as women in the highest wealth quintile to have begun bearing children.

The Egyptian family planning program has a strong education and communication program spearheaded by the State Information Service. The communication efforts are aimed at improving family planning awareness nationwide. The program employs a variety of channels to promote family planning, including extensive use of mass media channels with an emphasis on television.

This chapter presents results from the 2005 EDHS that can be used in assessing the coverage of current education and communication campaigns and for planning future interventions. EDHS results relating to knowledge of methods and the channels through which Egyptian women receive information about family planning methods are presented first in the chapter. Then the chapter looks at the information obtained in the survey on attitudes toward adoption of family planning for the first time, and the level of ever use of family planning.

## 5.1 KNOWLEDGE OF FAMILY PLANNING METHODS

Awareness of family planning methods is crucial in decisions on whether to use a contraceptive method and which method to use. One of the main objectives of the 2005 EDHS was to determine the level of knowledge of contraceptive methods. To assess contraceptive knowledge, respondents were first asked an open-ended question about the contraceptive methods about which they had heard. All methods named in response to this question were recorded as recognized.

When a respondent failed to mention any of the methods listed in the questionnaire, the interviewer would describe the method and ask whether the respondent had heard about it. Methods

recognized by the respondent after the description was read were also recorded as known.

Information on knowledge of specific methods was collected in the 2005 EDHS for nine modern methods (pill, IUD, injectable, implant, vaginal methods (diaphragm and contraceptive foam or jelly), condom, female sterilization, male sterilization, and emergency contraception) and three traditional methods (periodic abstinence, withdrawal, and prolonged breast-feeding). In addition, provision was made in the questionnaire to record other methods that respondents mentioned spontaneously.

No questions were asked to elicit information on depth of knowledge of these methods (e.g., on the respondent's understanding of how to use a specific method). Therefore, in the analysis that follows, knowledge of a family planning method is defined simply as having heard of a method.

## **Level of Knowledge**

The results in Table 5.1 show that knowledge of family planning methods is universal among currently married women in Egypt. Almost all currently married women know about the pill, IUD, and injectable, and more than 90 percent know about

Table 5.1	Family	planning	<u>knowledge</u>
	,		

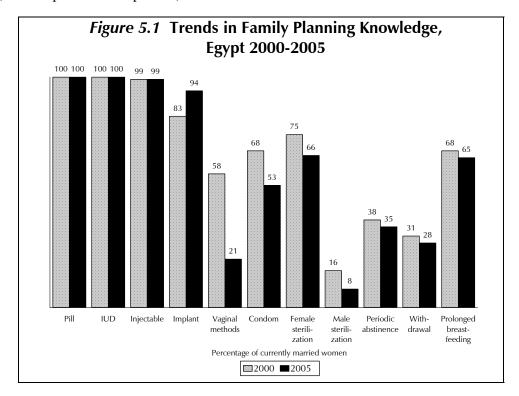
Percentage of currently married women 15-49 who know about specific family planning methods by method and the mean number of family planning methods known, Egypt 2005

Method	Knows method
Any method	99.9
Any modern method	99.9
Pill	99.6
IUD	99.7
Injectable	99.4
Implant	93.5
Diaphragm/foam/jelly	20.7
Condom	52.6
Female sterilization	66.0
Male sterilization	8.2
Emergency contraception	6.6
Any traditional method	70.5
Periodic abstinence	35.4
Withdrawal	27.9
Prolonged breastfeeding	64.8
Folk method	0.5
Mean number known	6.7
Number of women	18,187

implant. Two in three women know about female sterilization, and half of women know about condom. Other methods are less widely recognized. One-fifth know about vaginal methods, eight percent know about male sterilization, and emergency contraception is recognized by around seven percent. Prolonged breastfeeding is the most commonly recognized traditional method (65 percent).

The mean number of methods known by women is 6.7.

Figure 5.1 compares the levels of knowledge of specific methods found in the 2005 EDHS with levels observed in the 2000 EDHS survey. Almost all women in both surveys knew about the pill, IUD and injectable, and there was a notable increase in recognition of the implant between 2000 and 2005, from 83 percent to 94 percent. For all of the other methods, however, knowledge levels decreased over the period. The declines were greatest in the case of vaginal methods (from 58 percent to 21 percent) and the condom (from 68 percent to 53 percent).



### **5.2 EXPOSURE TO FAMILY PLANNING MESSAGES**

A strong mass media public information and education program conducted by the State Information Service has been one of the main components of the Egyptian family planning program since the mid-1980s. After focusing initially on general "population awareness" messages, the education and communication effort has increasingly moved to providing more specific advice and information on family planning. The 2005 EDHS obtained information on the types of media through which women received any family planning information. This information may be useful in guiding future information and education efforts in Egypt's family planning program.

<sup>&</sup>lt;sup>1</sup> Information on knowledge of emergency contraception was not collected in the 2000 survey; thus, this method is not included in Figure 5.1.

Table 5.2 presents the percentage of currently-married women who heard messages about family planning on broadcast media (television or radio) and through printed materials, community meetings and religious leaders. The 2005 EDHS collected these data by asking respondents whether they had heard a family planning message through these channels during the 6 months prior to the interview.

Table 5.2 Exposure to family planning messages by background characteristics

Percentage of currently married women by whether they have heard a family planning message in the 6 months prior to the interview according to background characteristics, Egypt 2005

Background characteristic	Radio	Television	Newspaper/ magazine	Poster/ billboard/ sign	Community meeting	Religious leader	No exposure to family planning messages	Number of women
Age				••	•			
15-19	58.0	88.6	15.2	26.3	3.3	2.1	9.1	792
20-24	62.8	89.6	19.1	28.7	3.0	2.0	7.7	2,898
25-29	62.9	89.8	24.0	30.5	4.0	3.1	8.0	3,653
30-34	63.7	90.0	23.4	30.8	4.5	3.9	7.6	3,077
35-39	63.6	89.2	20.5	27.3	3.4	3.2	8.7	3,010
40-44	61.5	86.3	20.8	25.8	4.0	3.2	11.3	2,525
45-49	60.9	84.4	18.4	23.2	4.2	3.0	13.5	2,233
Urban-rural residence								
Urban	60.0	87.6	30.0	36.9	5.3	3.9	9.7	7,490
Rural	64.3	89.1	14.7	21.8	2.8	2.4	8.8	10,697
Place of residence								
Urban Governorates	49.6	80.9	28.7	40.6	5.1	3.2	15.5	3,078
Lower Egypt	73.0	89.7	25.4	23.6	2.8	2.4	8.3	7,884
Urban	74.1	91.9	38.4	31.8	3.9	2.6	5.9	2,057
Rural	72.6	88.9	20.9	20.7	2.4	2.4	9.1	5,826
Upper Egypt	56.9	90.9	12.8	27.4	4.4	3.6	7.1	7,019
Urban	61.9	93.4	24.3	36.3	7.0	6.2	4.8	2,230
Rural	54.6	89.7	7.4	23.2	3.2	2.5	8.2	4,789
Frontier Governorates	44.3	76.8	17.5	31.9	2.5	0.9	19.6	206
Education								
No education	56.1	85.1	2.0	12.9	1.3	1.4	12.4	6,116
Some primary	59.5	87.6	5.7	19.0	1.5	2.1	9.9	2,019
Primary complete/ some								,
secondary	60.4	86.1	14.7	25.7	2.2	2.1	11.2	2,564
Secondary complete/higher	69.3	92.4	42.8	43.6	7.0	4.9	5.6	7,488
Work status								
Working for cash	69.3	89.2	42.9	42.7	11.3	6.6	7.8	2,920
Not working for cash	61.2	88.4	16.8	25.2	2.4	2.3	9.4	15,267
Wealth quintile								
Lowest	49.2	82.2	2.8	17.1	2.1	1.9	14.6	3,266
Second	62.0	88.6	8.9	17.6	1.8	1.9	9.2	3,509
Middle	68.5	90.7	15.6	23.0	2.7	2.6	7.6	3,675
Fourth	66.9	91.1	28.5	33.0	3.6	3.1	7.0	3,897
Highest	64.0	89.1	45.1	46.6	8.3	5.4	8.3	3,840
Total	62.5	88.5	21.0	28.0	3.8	3.0	9.2	18,187

As expected, Table 5.2 confirms that television is the principal source of family planning information. Around 90 percent of women have seen a recent family planning message on television, compared to 63 percent who have listened to a message on the radio. Other communication channels reach far fewer women than messages broadcast on television or the radio. Twenty-eight percent of EDHS respondents had seen a family planning poster, billboard, or signboard, and 21 percent had read about family planning in a newspaper or magazine. Community meetings and religious leaders were named by four percent and three percent, respectively of women as a source from which they had received information about family planning.

Considering the differentials in Table 5.2, the proportions of currently-married women who have heard a family planning message on either television or radio vary markedly by residence, with women in the Urban Governorates and the Frontier Governorates being least likely to have been reached by these channels. As expected, exposure to family planning information through print media increases with

educational level. Differences in the proportions who had heard about family planning at a community meeting or from religious leader are minor. For example, the percentage of respondents who had received family planning information at a community meeting ranged from two percent in rural Lower Egypt to seven percent in urban Upper Egypt.

### **ATTITUDE ABOUT TIMING OF 5.3 ADOPTION OF CONTRACEPTION**

The EDHS included questions about the appropriateness of a couple's use of family planning before the first pregnancy and after the first birth. Most ever-married women (93 percent) in Egypt consider it appropriate for a couple to begin using family planning after the first birth. In sharp contrast, only two percent regard use before the first pregnancy as appropriate.

Although few women in any subgroup consider it appropriate to adopt family planning before the first birth, the results in Table 5.3 indicate there is some variability across subgroups in the attitude toward family planning use after the first birth. The groups with the highest proportions considering use after the first birth as appropriate include women from the Urban Governorates (98 percent), women from Lower Egypt (97 percent), and women with a secondary or higher education (97 percent). The groups with the lowest proportions considering use after the first birth as appropriate are women from rural Upper Egypt and women with no education (85 percent, and 88 percent respectively).

#### 5.4 **KNOWLEDGE OF FERTILE PERIOD**

An elementary understanding of reproductive physiology, particularly knowledge of when in the ovulatory cycle a woman is most likely to become pregnant, may be useful in ensuring success in the use of coitus-related methods such

Table 5.3 Timing of use of family planning among newly married couples by background characteristics

Percentage of ever-married women by attitude about appropriateness of a couple's using family planning before the first pregnancy and after the first birth, according to background characteristics, Egypt 2005

	Family plai approp		
Background	Before first	After first	Number
characteristic	pregnancy	birth	of women
Age			
15-19	2.5	91.9	803
20-24	2.5	94.5	2,968
25-29	3.1	94.9	3,785
30-34	2.4	93.9	3,209
35-39	2.2	93.2	3,191
40-44	2.0	92.9	2,859
45-49	2.0	89.8	2,659
Urban-rural residence			
Urban	2.6	96.1	8,033
Rural	2.3	91.3	11,441
Place of residence			
Urban Governorates	3.1	97.6	3,293
Lower Egypt	2.9	96.9	8,410
Urban	2.7	96.9	2,199
Rural	2.9	97.0	6,211
Upper Egypt	1.6	87.4	7,552
Urban	1.7	93.3	2,411
Rural	1.6	84.6	5,141
Frontier Governorates	1.1	90.9	218
Education			
No education	1.8	88.3	6,740
Some primary	1.7	93.0	2,197
Primary complete/some			
secondary	2.1	95.1	2,719
Secondary complete/higher	3.2	97.0	7,818
Work status			
Working for cash	3.5	96.1	3,288
Not working for cash	2.2	92.7	16,186
Wealth quintile			
Lowest	2.4	87.3	3,565
Second	2.1	89.7	3,778
Middle	2.0	94.4	3,931
Fourth	2.3	96.6	4,137
Highest	3.2	97.4	4,063
			,
Total 2005 EDHS	2.4	93.3	19,474
Total 2003 EDHS	4.9	90.1	8,958
Total 2000 EDHS	4.7	84.7	15, 024

as the condom, vaginal methods and withdrawal. Such knowledge is especially critical for the practice of periodic abstinence.

To investigate women's knowledge about their fertile period, 2005 EDHS respondents were asked whether there are certain days a woman is more likely to become pregnant if she has sexual intercourse. Those who responded affirmatively to that question were asked whether this time is just before the period begins, during the period, right after the period ends, or halfway between two periods.

Table 5.4 shows that understanding of the ovulatory cycle is limited among Egyptian women. Around one-fourth of EDHS respondents knew that a woman has a greater probability of becoming pregnant if she has sexual intercourse halfway between two periods. Around half of respondents either were unable to say when a woman is most at risk of pregnancy or believed that a woman's risk does not vary.

Table 5.4 Knowledge of fertile period												
Percent distribution of ever-married women 15-49 by knowledge of the fertile period during the ovulatory cycle, Egypt 2005												
Perceived fertile period												
Just before her period begins 1.8												
During her period 0.4												
Right after her period has ended 26.1												
Halfway between two periods 23.1												
Other	0.0											
No specific time	20.6											
Don't know	27.5											
Missing	0.6											
Total	100.0											
Number of women	19,474											

## 5.5 EVER USE OF FAMILY PLANNING

The 2005 EDHS collected data on the level of ever use of family planning methods. These data were obtained by asking respondents separately about whether they had ever used each of the family planning methods that they knew. The following sections explore the level of ever use of family planning methods among Egyptian women.

## **Levels of Ever Use**

Table 5.5 shows the percentage of ever-married women and currently married women who have ever used a family planning method according to the woman's current age. Overall, the results indicate that eight in ten married women have used a family planning method at some time. Across age groups, the highest level of ever use of any family planning method among currently-married women is observed in the 35-39 age group (90 percent), while the lowest level is found among women age 15-19 (34 percent).

About eight in ten women who have ever used a method have experience with modern methods. The most commonly used modern method is the IUD, followed by the pill and the injectable. Much smaller proportions of women report that they have used condoms or implant. Slightly more than one in ten women has had experience using any traditional method. The most widely used traditional method is prolonged breastfeeding, followed by periodic abstinence.

Table 5.5 Ever use of family planning methods by age

Percentage of ever-married women and currently married women who have ever used a family planning method, by specific method and age, Egypt

						٨	∕lodern m	ethod					Т	raditiona	l method			
Age	Any method	Any modern method	Pill	IUD	Inject- ables	lm- plants	Dia- phragm/ foam/ jelly	Con- dom	Female sterili- zation	sterili- zation	Emer- gency contra- cep- tion	Any tradi- tional method	Peri- odic absti- nence	With- drawal	Pro- longed breast- feeding	Other	Never used	Number of women
EVER-MARRIED WOMEN																		
15-19 20-24 25-29 30-34 35-39 40-44 45-49	33.7 63.9 81.2 87.9 88.3 86.0 81.4	30.9 60.6 78.8 86.3 87.0 84.8 79.8	39.8 45.6 48.4 47.8	61.6 69.5 70.1 68.4	3.6 11.8 20.1 25.4 28.2 23.8 18.5	0.0 1.2 1.2 2.0 1.8 1.6 0.9	0.0 0.1 0.2 0.4 0.5 1.3 0.9	0.0 1.0 3.1 4.3 4.1 6.3 5.5	0.0 0.0 0.1 0.6 1.7 2.5 3.4	0.0 0.0 0.0 0.1 0.1 0.0 0.0	0.0 0.0 0.1 0.2 0.2 0.2 0.1	3.6 9.9 13.0 14.7 13.5 15.0 13.8	0.0 0.3 1.5 2.4 2.1 3.2 3.1	0.0 0.7 1.2 2.2 1.6 1.8 2.1	3.6 9.2 10.9 11.7 11.0 11.6 10.2	0.0 0.0 0.1 0.0 0.1 0.3 0.4	66.3 36.1 18.8 12.1 11.7 14.0 18.6	803 2,968 3,785 3,209 3,191 2,859 2,659
							CL	JRREN	TLY MAF	RRIED V	VOMEN							
15-19 20-24 25-29 30-34 35-39 40-44 45-49	33.9 64.6 82.6 89.4 90.2 89.1 84.6	31.1 61.3 80.2 87.7 89.0 88.2 83.1	36.8 40.8 46.8 50.3 50.1	45.5 62.8 70.6	3.6 11.8 20.4 26.2 29.2 25.7 20.5	0.0 1.3 1.2 2.1 1.8 1.9 0.9	0.0 0.1 0.2 0.4 0.5 1.5 1.1	0.0 1.0 3.2 4.2 4.3 6.6 6.0	0.0 0.0 0.1 0.7 1.8 2.6 3.9	0.0 0.0 0.0 0.1 0.1 0.0 0.0	0.0 0.0 0.1 0.2 0.2 0.2 0.1	3.7 10.1 13.3 15.2 13.9 15.8 14.6	0.0 0.3 1.5 2.5 2.2 3.5 3.2	0.0 0.7 1.2 2.2 1.7 1.9 2.4	3.7 9.4 11.1 12.2 11.3 12.2 10.8	0.0 0.0 0.1 0.0 0.1 0.3 0.4	66.1 35.4 17.4 10.6 9.8 10.9 15.4	792 2,898 3,653 3,077 3,010 2,525 2,233

## **Trends in Ever Use**

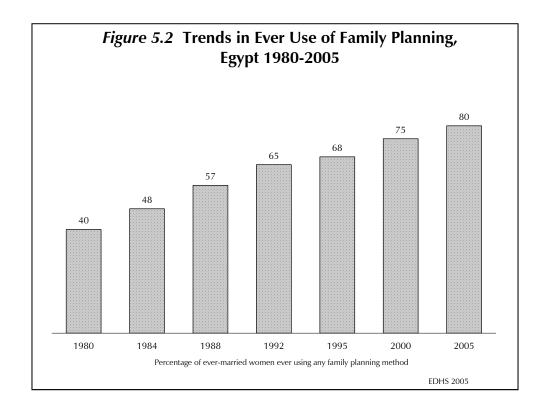
Table 5.6 presents trends in the level of ever use of family planning among ever-married women during the period 1980-2005. The level of ever-use of any method among ever-married women doubled between 1980 and 2005 (Figure 5.2).

With regard to the trends in use of specific methods, the most significant change has been the continuing rise in IUD use. The level of ever use of the IUD was 62 percent at the time of the 2005 EDHS, almost seven times the level reported in 1980 (9 percent). In the case of the pill, the level of ever use peaked at 46 percent in 1988, before dropping to 40 percent in 2005. Ever use of the injectable was rare before the mid 1990s when use of this method began to steadily increase, reaching a level of 22 percent in 2005.

	1980	1984	1988	1991	1992	1995	2000	2005
Method	EFS	ECPS	EDHS	EMCHS	EDHS	EDHS	EDHS	EDHS
Any method	39.8	48.2	57.4	63.2	64.6	68.4	75.1	79.6
Any modern method	38.9	46.7	55.9	59.8	62.9	66.7	73.4	77.7
Pill	35.8	41.0	46.0	44.7	44.0	44.2	39.8	38.9
IUD	8.7	14.8	24.6	32.3	39.7	46.1	55.9	60.7
Injectables	0.5	1.1	2.3	na	2.9	6.2	14.1	20.7
Implants	na	na	na	na	na	na	0.3	1.4
Vaginal methods	1.2	3.9	5.3	na	3.6	2.2	1.5	0.5
Condom	5.0	3.4	8.6	na	7.5	7.7	3.7	3.8
Female sterilization	0.7	1.4	1.5	na	1.1	1.1	1.4	1.2
Male sterilization	0.1	0.0	0.0	na	0.0	0.0	0.0	0.0
Emergency contraception	na	na	na	na	na	na	U	0.1
Any traditional method	na	5.3	11.4	na	9.5	10.8	8. 3	12.9
Periodic abstinence	2.7	1.4	3.7	na	3.4	3.3	1.5	2.0
Withdrawal	2.3	1.0	2.4	na	2.6	2.5	0.8	1.5
Prolonged breastfeeding	NA	3.1	6.5	na	4.9	6.6	6.3	10.5
Other methods	NA	0.5	0.8	na	0.4	0.4	0.3	0.1

na = Information on the method was not collected or was not reported.

Source: El-Zanaty and Way, 2001, Table 5.12



## **Differentials in Ever Use**

Table 5.7 presents differences in the overall proportions of ever-married women who have ever used family planning and in the number of methods with which ever users have had experience. About half (48 percent) of the ever users have had experience with only one method, while 33 percent have used two methods, and 19 percent have tried three or more methods.

Table 5.7 Ever use of family planning methods by background characteristics

Percentage of ever-married women who have ever used a family planning method, and, among ever users, percent distribution by number of methods ever used, according to background characteristics, Egypt 2005

Background	Percentage ever used	Number of ever- married _	N	lumber o ever		ls	Mean number of methods	Number of women ever used family
characteristic	any method	women	1	2	3+	Total	ever used	planning <sup>'</sup>
Age								
15-19	33.7	803	83.4	14.6	2.0	100.0	1.2	271
20-24	63.9	2,968	63.2	28.0	8.8	100.0	1.5	1,896
25-29	81.2	3,785	52.8	30.5	16.7	100.0	1.7	3,072
30-34	87.9	3,209	46.6	33.7	19.8	100.0	1.8	2,822
35-39	88.3	3,191	40.9	36.0	23.1	100.0	1.9	2,817
40-44	86.0	2,859	38.9	35.7	25.4	100.0	2.0	2,459
45-49	81.4	2,659	42.6	35.8	21.6	100.0	1.9	2,164
Urban-rural residence								
Urban	83.6	8,033	49.0	32.8	18.2	100.0	1.8	6,717
Rural	76.8	11,441	46.7	33.3	20.1	100.0	1.8	8,784
Place of residence								
Urban Governorates	85.0	3,293	48.9	32.4	18.7	100.0	1.8	2,800
Lower Egypt	84.2	8,410	48.6	32.9	18.5	100.0	1.8	7,084
Urban	84.8	2,199	50.2	32.8	16.9	100.0	1.7	1,865
Rural	84.0	6,211	48.0	33.0	19.0	100.0	1.8	5,219
Upper Egypt	72.2	7,552	45.9	33.5	20.6	100.0	1.8	5,456
Urban	80.9	2,411	48.1	33.2	18.8	100.0	1.8	1,951
Rural	68.2	5,141	44.7	33.7	21.6	100.0	1.8	3,505
Frontier Governorates	73.3	218	48.4	35.2	16.3	100.0	1.7	160
Education								
No education	75.9	6,740	44.5	35.3	20.2	100.0	1.8	5,118
Some primary	85.3	2,197	38.2	34.9	26.9	100.0	2.0	1,874
Primary complete/some								
secondary	81.1	2,719	46.5	33.9	19.7	100.0	1.8	2,207
Secondary complete/higher	80.6	7,818	53.5	30.4	16.1	100.0	1.7	6,302
Work status								
Working for cash	83.8	3,288	46.6	32.8	20.6	100.0	1.8	2,756
Not working for cash	78.7	16,186	47.9	33.1	19.0	100.0	1.8	12,745
Wealth quintile								
Lowest	73.1	3,565	43.1	35.1	21.9	100.0	1.8	2,608
Second	76.5	3,778	45.3	34.5	20.2	100.0	1.8	2,892
Middle	80.4	3,931	46.8	33.5	19.7	100.0	1.8	3,161
Fourth	82.7	4,137	49.6	32.5	17.9	100.0	1.7	3,421
Highest	84.1	4,063	52.2	30.4	17.3	100.0	1.7	3,418
Total	79.6	19,474	47.7	33.1	19.3	100.0	1.8	15,500

Older women are not only more likely to have ever used family planning but also, if they have used it, to have experience with a greater number of methods than younger women. For example, less than 10 percent of women age 15-24 have used three or more methods, compared to more than 20 percent of women age 40-49.

Looking at the other subgroups for which information is presented in Table 5.7, women from urban areas, women with at least some primary education, women who are working for cash, and women in higher wealth quintiles are more likely than other women to have ever used a family planning method. Women from rural Upper Egypt have the least experience with family planning (68 percent), followed by women from the Frontier Governorates (73 percent), while women from Urban Governorates have the most experience with family planning (85 percent). There is comparatively little variation by residence among ever users in the number of methods that ever users have tried.

#### 5.6 FIRST USE OF FAMILY PLANNING

Women who reported that they had used family planning methods at some time were asked about the number of children they had when they first used family planning. These data are useful in identifying the stage in the family-building process when women begin using family planning as well as their motivation for adopting family planning.

Table 5.8 presents the percent distribution of ever-married women by the number of living children at the time of the first use of family planning. Almost none of the women started using family planning immediately after marriage while they were still childless. Overall, half of women began use of family planning after they had had their first child, 14 percent started after they had had two children, and 15 percent had three or more children before using family planning.

Looking at the age patterns, there appears to have been a shift in the timing of the adoption of the first contraceptive method, with younger women initiating use of family planning methods at lower parities than older women. For example, 60 percent of women age 25-29 started family planning use after their first child compared to 34 percent of women 45-49.

Table 5.8 N	lumber of livin	g childre	n at time (	of first use	of family	/ planning	2					
	Percent distribution of ever-married women by number of living children at the time of first use of family planning and age, Egypt 2005											
Number of living children at time of Never first use of contraceptive												
Age	used	0	1	2	3	4+	Missing	women				
15-19	66.3	0.1	31.7	1.7	0.2	0.0	0.0	803				
20-24	36.1	0.4	54.3	7.6	1.3	0.3	0.0	2,968				
25-29	18.8	0.4	60.4	14.2	4.3	1.9	0.0	3,785				
30-34	12.1	0.3	58.7	16.4	6.1	6.4	0.0	3,209				
35-39	11.7	0.1	48.7	17.2	9.0	13.3	0.0	3,191				
40-44	14.0	0.3	42.9	15.4	10.3	17.1	0.1	2,859				
45-49	18.6	0.3	34.4	16.4	10.1	20.1	0.1	2,659				
Total	20.4	0.3	50.0	14.0	6.4	8.9	0.0	19,474				

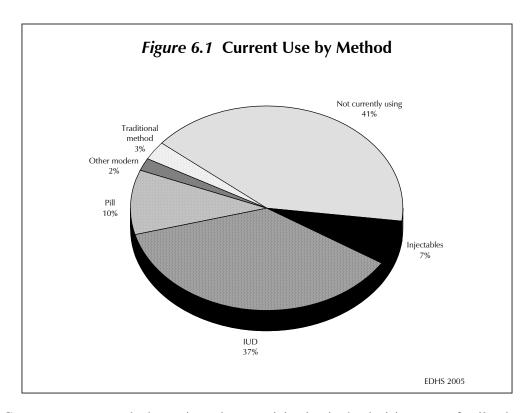
The data on the current use of family planning is among the most important information collected in the 2005 EDHS since it provides insight into one of the principal determinants of fertility and serves as a key measure for assessing the success of the national family planning program. This chapter focuses on data from the 2005 EDHS on levels, differentials, and trends in current use. Information on the service providers from which users obtain their methods and on the willingness to pay for the widely used methods is also presented.

### 6.1 **CURRENT USE OF FAMILY PLANNING**

Overall, 59 percent of currently married women in Egypt are using contraception (Table 6.1 and Figure 6.1). The IUD, pill, and injectables are the most widely used methods: 37 percent of currently married women are using the IUD, 10 percent are relying on the pill, and seven percent are employing injectables. Relatively small proportions of women are using other modern methods; e.g., one percent report currently using the condom. Three percent of women report use of traditional methods.

Table 6.1 Current use of family planning methods by residence
Percent distribution of currently married women 15-49 by family planning method currently used according to urban-rural residence
and place of residence, Egypt 2005

			Urban Gover-	L	ower Egy	/pt	U	pper Egy	pt	Frontier Gover-	
Method	Urban	Rural	norates	Total	Urban	Rural	Total	Urban	Rural	norates	Total
Any method	62.6	56.8	63.9	65.9	64.1	66.5	49.9	60.0	45.2	50.7	59.2
Any modern method	59.8	54.2	61.2	64.2	62.3	64.8	46.1	56.1	41.4	47.2	56.5
Pill	11.0	9.1	8.2	10.0	12.3	9.2	10.3	13.5	8.8	14.4	9.9
IUD	40.5	33.6	43.9	44.0	42.3	44.5	25.2	35.0	20.6	21.9	36.5
Injectables	4.5	8.8	4.4	7.1	4.3	8.0	8.2	4.8	9.8	7.1	7.0
Implants	0.7	0.9	0.9	0.7	0.6	0.7	0.9	0.5	1.2	1.4	0.8
Diaphragm/foam/jelly	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Condom	1.7	0.5	2.5	0.8	1.0	0.7	0.5	1.0	0.3	1.5	1.0
Female sterilization	1.3	1.2	1.1	1.7	1.7	1.7	0.8	1.2	0.7	0.9	1.3
Any traditional method	2.8	2.7	2.6	1.7	1.8	1.7	3.8	3.9	3.8	3.5	2.7
Periodic abstinence	1.4	0.3	1.5	0.5	1.0	0.3	0.6	1.5	0.3	0.4	0.7
Withdrawal	0.6	0.1	0.8	0.2	0.5	0.1	0.2	0.4	0.1	0.6	0.3
Prolonged breastfeeding	0.8	2.2	0.4	1.0	0.3	1.2	2.9	1.9	3.4	2.3	1.6
Other	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Not currently using	37.4	43.2	36.1	34.1	35.9	33.5	50.1	40.0	54.8	49.3	40.8
Total	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	7,490	10,697	3,078	7,884	2,057	5,826	7,019	2,230	4,789	206	18,187



Current users were asked questions about participation in the decision to use family planning. The results indicate that virtually all women felt that they had a main role in the decision to use a family planning method. The majority of users made the decision to use jointly with their husband (81 percent), 14 percent saw the decision as one they made mainly on their own, and five percent indicated that the husband or someone else were mainly responsible for the decision to adopt a method (not shown in table). Virtually all users indicated that their husband was aware that they were using contraception; less than one percent reported that the husband did not know that they were using a method (not shown in table).

#### 6.2 DIFFERENTIALS IN CURRENT USE OF FAMILY PLANNING

# **Differentials by Residence**

There are marked differences in the level of current use of family planning methods by residence (Table 6.1). Urban women are more likely to be using than rural women (63 percent and 57 percent, respectively). Use rates are higher in the Urban Governorates (64 percent) and Lower Egypt (66 percent) than in Upper Egypt (50 percent) and the Frontier Governorates (51 percent).

Within Upper Egypt, the use rate among urban women (60 percent) is markedly higher than the rate among rural women (45 percent). Within Lower Egypt, the urban-rural differential is much narrower and, somewhat surprisingly, favors rural women; 64 percent of married women living in urban areas in Lower Egypt are using a family planning method compared to 67 percent of rural women.

The IUD is the most frequently used method in every residential category, followed by the pill and injectables. The extent to which the IUD dominates the method mix, however, varies across residential subgroups. For example, women in the Urban Governorates and in rural Lower Egypt are around five times as likely to be using the IUD as the pill. In all other residential areas except the Frontier Governorates, there are two to four times as many IUD users as pill users. The pill is the second most widely used method in all areas except rural Upper Egypt, where the proportion of women using injectables is slightly higher than the proportion relying on the pill.

# **Differentials by Selected Background Characteristics**

Differentials in the levels of current use by background characteristics other than residence are presented in Table 6.2. Current use rises rapidly with age, from a level of 26 percent among currently married women 15-19 to a peak of 73 percent among women 35-39. The IUD is the most popular method among women in all age groups, with the highest levels of IUD use found among women age 30-39 (45 percent).

Percent distribution of of Egypt 2005	currently r	married w	omen/	15-49	by fami	ly plan	ning meth	ıod cur	rently us	ed acc	ording t	o selecte	ed demo	graphic	and so	cial chara	cteristics
Background characteristics	Any method	Any modern method		IUD	Inject- ables	Im- plant	Dia- phragm/ foam/ jelly	Con- dom	Female sterili- zation	tradi-	Peri- odic absti- nence	With- drawal	Pro- longed breast- feeding	Other	Not using	Total percent	Numbe of women
Age																-	
15-19	26.3	24.1	6.3	15.9	1.9	0.0	0.0	0.0	0.0	2.2	0.0	0.0	2.2	0.0	73.7	100.0	792
20-24	44.7	41.3	8.0	27.8		0.5	0.0	0.4	0.0	3.4	0.2	0.0	3.2	0.0	55.3	100.0	2,898
25-29	57.4	54.4	11.3	34.5	7.4	0.7	0.0	0.4	0.1	3.1	0.2	0.3	2.6	0.0	42.6	100.0	3,653
30-34	69.0	66.4	11.0	44.5		1.0	0.1	0.8	0.7	2.6	0.7	0.3	1.6	0.0	31.0	100.0	3,077
35-39	73.3	71.2	11.4			1.2	0.0	1.2	1.8	2.2	0.7	0.4	1.1	0.0	26.7	100.0	3,010
40-44	70.1	67.6	11.0	43.0		1.3	0.2	2.0	2.6	2.5	1.7	0.4	0.4	0.1	29.9	100.0	2,525
45-49	47.8	45.3	6.6			0.5	0.0	1.9	3.9	2.5	1.6	0.5	0.1	0.3	52.2	100.0	2,233
Number of living children																	•
0	0.5	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	99.5	100.0	1,782
1	46.0	42.4	9.4		1.9	0.3	0.0	0.7	0.0	3.6	0.4	0.3	3.0	0.0	54.0	100.0	2,676
2	66.7	64.2	11.3	44.5	5.9	1.0	0.2	1.2	0.3	2.5	0.9	0.3	1.2	0.0	33.3	100.0	4,036
3	74.8	71.4	11.9	48.2	8.2	0.8	0.0	1.1	1.2	3.4	1.2	0.4	1.8	0.1	25.2	100.0	4,041
4+	67.5	64.7	10.7	36.8	11.7	1.2	0.0	1.2	3.0	2.8	0.6	0.3	1.8	0.1	32.5	100.0	5,652
Education																	
No education	54.8	52.2	8.7	30.2	10.1	1.1	0.0	0.4	1.7	2.5	0.0	0.1	2.4	0.0	45.2	100.0	6,116
Some primary Primary complete/	62.8	60.5			9.4	1.1	0.1	1.2	2.0	2.3	0.3	0.3	1.5	0.3	37.2	100.0	2,019
some secondary Secondary complete/	60.2	57.9		37.8	7.3	8.0	0.0	0.8	0.7	2.2	0.1	0.4	1.7	0.0	39.8	100.0	2,564
higher	61.5	58.4	10.8	40.8	3.8	0.6	0.1	1.5	0.9	3.1	1.6	0.4	1.1	0.0	38.5	100.0	7,488
Work status																	
Working for cash	66.2	62.5	9.7	42.2	6.1	0.9	0.1	1.6	1.5	3.9	2.3	0.6	8.0	0.1	34.0	100.0	2,920
Not working for cash	57.4	54.9	9.9	35.3	7.2	0.8	0.0	0.9	1.2	2.5	0.4	0.2	1.8	0.0	42.1	100.0	15,267
Wealth quintile																	
Lowest	53.4	50.0	7.7	27.0	12.9	1.0	0.0	0.2	1.1	3.3	0.0	0.1	3.2	0.1	46.6	100.0	3,266
Second	56.7	54.4	9.0	33.3	9.5	1.1	0.0	0.3	1.3	2.2	0.2	0.1	1.9	0.1	43.3	100.0	3,509
Middle	59.5	57.2	10.1	37.0	7.1	1.1	0.0	0.9	1.1	2.3	0.2	0.2	1.9	0.0	40.5	100.0	3,67
Fourth	62.5	60.0	11.6	40.6	4.8	0.5	0.1	1.0	1.5	2.5	8.0	0.5	1.2	0.0	37.5	100.0	3,89
Highest	62.9	59.6	10.6	42.6	2.0	0.6	0.1	2.5	1.3	3.3	2.3	0.5	0.4	0.1	37.1	100.0	3,84
Total	59.2	56.5	9.9	36.5	7.0	0.8	0.0	1.0	1.3	2.7	0.7	0.3	1.6	0.1	40.8	100.0	18,18

Use rates also are related to family size. Few women use contraception before having the first birth; less than one percent of childless women are currently using a method. After the first child, contraceptive use increases sharply with the number of living children, peaking at 75 percent among women with 3 children.

Considering education status, the main differential is between women who never attended school and those who had at least some schooling. Among the latter group, there are only minor variations in use rates by the level of schooling. IUD and pill use levels increase directly with a woman's educational level. In contrast, injectable use declines with the woman's educational level.

Women employed in a job for which they are paid in cash are more likely to use family planning methods than other women (66 percent and 57 percent, respectively). This is largely due to the higher rate of IUD use among women working for cash than among other women.

As expected, contraceptive use increases with the wealth quintile, from 53 percent among women in the lowest quintile to 63 percent of women in the highest quintile. There is strong direct relationship between wealth and the level of IUD use. Among women in the highest quintile, the level of IUD use is 43 percent, 16 percentage points higher than that among women in the lowest quintile. Pill use also generally rises with the wealth quintile, peaking at 12 percent among women in the fourth quintile. On the other hand, injectable use decreases with the wealth quintile, from 13 percent among women in the lowest quintile to two percent among women in the highest quintile.

# **Differentials by Governorate**

Current use levels are presented in Table 6.3 for the Urban Governorates and the governorates in Lower Egypt and Upper Egypt. They are not shown for the five Frontier Governorates because the samples from the individual governorates in this region were not sufficiently large to allow separate estimation of the use rates.

Table 6.3 Current use of family planning by governorate

Governorate	Any method	Any modern method	Pill	IUD	Inject- ables	Number o women
Urban Governorates	63.9	61.2	8.2	43.9	4.4	3,078
Cairo	63.8	61.0	8.3	44.1	4.6	1,899
Alexandria	64.5	61.8	6.8	45.5	3.8	888
Port Said	61.6	59.1	11.5	35.8	4.4	168
Suez	64.0	62.5	13.2	41.1	4.7	123
Lower Egypt	65.9	64.2	10.0	44.0	7.1	7,884
Damietta	63.9	62.9	11.8	43.1	4.3	238
Dakahlia	64.4	63.4	9.1	42.5	7.5	1,341
Sharkia	61.2	60.1	17.2	32.1	8.3	1,273
Kalyubia	69.4	66.2	9.4	47.1	6.8	1,126
Kafr El-Sheikh	65.8	64.9	8.9	43.0	8.7	652
Gharbia	69.7	68.2	8.6	53.3	4.4	1,254
Menoufia	64.2	61.4	7.1	44.6	6.3	824
Behera	68.7	67.2	6.2	49.9	8.6	957
Ismailia	59.6	56.3	14.1	28.4	7.9	219
Upper Egypt	49.9	46.1	10.3	25.2	8.2	7,019
Giza	62.1	58.5	10.5	41.0	4.4	1,837
Beni Suef	56.0	54.2	8.5	31.0	11.4	533
Fayoum	55.9	53.9	10.1	27.5	14.3	604
Menya	51.4	44.5	10.1	18.8	12.1	1,109
Assuit	37.9	32.7	6.1	18.2	8.1	748
Souhag	32.7	28.9	7.6	12.8	6.7	1,136
Qena	47.2	44.5	16.9	17.3	7.8	805
Aswan	49.0	48.1	18.3	21.0	6.4	246
Total	59.2	56.5	9.9	36.5	7.0	18,187

There is considerable variability in the levels of current use in the governorates for which results are presented in Table 6.3. At the time of the 2005 EDHS, use rates were 60 percent or higher in all of the Urban Governorates and in the nine governorates in Lower Egypt. Within the Urban Governorates, Alexandria had the highest use rate (65 percent) and Port Said (62 percent) the lowest rate. Within Lower Egypt, use rates varied from 60 percent in Ismailia to 70 percent in Gharbia.

In Upper Egypt, only Giza governorate, of which a large part is included in the Cairo Metropolitan area, had a use rate over 60 percent. Among the other governorates in Upper Egypt, use rates ranged from 33 percent in Souhag to 56 percent in Beni-Suef and Fayoum.

Table 6.3 also shows the rates of current use of the pill, the IUD, and injectables for each governorate. The IUD is the most popular method among users in all governorates. The highest level of IUD use is observed in Gharbia (53 percent), followed by Behera (50 percent), and the lowest level is in Souhag (13 percent). Aswan has the highest level of pill use (18 percent), while the lowest levels are found in Assuit and Behera (6 percent each). Use of injectables is highest in Fayoum (14 percent), Menya (12 percent), and Beni Suef (11 percent).

### 6.3 TRENDS IN CURRENT USE OF FAMILY PLANNING

# **Trends by Method**

The results from the 2005 EDHS, as well as those from earlier surveys, can be used to examine the changes that have taken place in the level and pattern of contraceptive use in Egypt over the past 25 years. Figure 6.2 highlights the trend in family planning use at the national level between 1980 and 2005. Contraceptive use levels rose rapidly in the 1980s, and by 1992, the overall use rate was 47 percent, almost twice the rate reported in the 1980 Egypt Fertility Survey (24 percent). The use rate continued to rise after 1992—although at a more moderate rate—reaching 56 percent by the time of the 2000 EDHS. After 2000, the use rate increased but at much a slower rate than in the latter half of the 1990s.

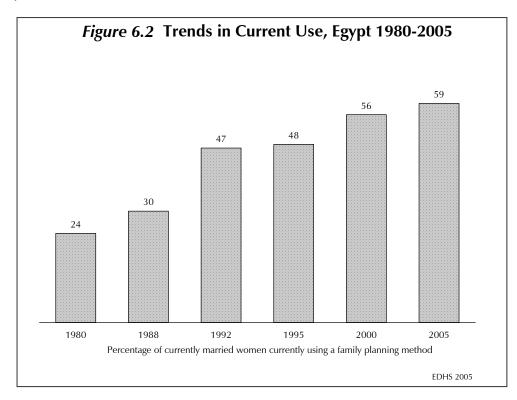


Table 6.4 presents the trends in use by method. IUD use rose from four percent in 1980 to 36 percent in 2000, where it remained essentially unchanged through 2005. Pill use declined steadily during the period 1980-1995 and then stabilized at a rate of around 10 percent beginning in 2000. Injectables first became available in the 1990s, and use of this method increased to 7-8 percent in the first half of the current decade.

Method	1980 EFS	1984 ECPS	1988 EDHS	1991 EMCHS	1992 EDHS	1995 EDHS	1997 EIDHS	1998 EIDHS	2000 EDHS	2003 EIDHS	2005 EDHS
Any method	24.2	30.3	37.8	47.6	47.1	47.9	54.5	51.8	56.1	60.0	59.2
Any modern method	22.8	28.7	35.4	44.3	44.8	45.5	51.8	49.5	53.9	56.6	56.5
Pill	16.6	16.5	15.3	15.9	12.9	10.4	10.2	8.7	9.5	9.3	9.9
IUD	4.1	8.4	15.7	24.2	27.9	30.0	34.6	34.3	35.5	36.7	36.5
Injectables	na	0.3	0.1	na	0.5	2.4	3.9	3.9	6.1	7.9	7.0
Implants	na	na	na	na	0.0	0.0	0.1	0.0	0.2	0.9	0.0
Diaphragm/foam/jelly	0.3	0.7	0.4	na	0.4	0.1	0.2	0.1	0.2	0.1	0.0
Condom	1.1	1.3	2.4	na	2.0	1.4	1.5	1.1	1.0	0.9	1.0
Female sterilization	0.7	1.5	1.5	na	1.1	1.1	1.4	1.3	1.4	0.9	1.3
Any traditional method	1.4	1.6	2.4	3.3	2.3	2.4	2.7	2.3	2.2	3.4	2.7
Periodic abstinence	0.5	0.6	0.6	na	0.7	0.8	0.6	0.8	0.6	0.8	0.7
Withdrawal	0.4	0.3	0.5	na	0.7	0.5	0.4	0.3	0.2	0.4	0.3
Prolonged breastfeeding	na	0.6	1.1	na	0.9	1.0	1.5	1.1	1.2	2.1	1.6
Other	0.3	0.1	0.2	na	0.1	0.1	0.1	0.1	0.1	0.1	0.
Not using	75.8	69.7	62.2	62.2	52.9	52.1	45.5	48.2	43.9	40.0	40.8
Total percent	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	8,012	9,158	8,221	8,406	9,153	13,710	5,157	5,971	14,382	8,445	18,183

Trends over time in the method mix among users, that is, the distribution of users according to the method used are presented in Table 6.5. The dramatic shift from pill to IUD use that occurred during the past two decades is clear in the table. In 1980, almost 70 percent of current users relied on the pill, more than four times the percentage of users who relied on the IUD. By 2005, more than 60 percent of current users relied on the IUD compared to 17 percent who employed the pill. The relatively rapid expansion of the use of injectables is also evident. Twelve percent of current users relied on injectables in 2005, compared to five percent in 1995 and only one percent in 1992.

Table 6.5 Trends in family	Table 6.5 Trends in family planning method mix										
Percent distribution of currently married women 15-49 who are currently using any family planning method by the method used, Egypt 1980-2005											
	1980	1984	1988	1992	1995	2000	2005				
Method	EFS	ECPS	EDHS	EDHS	EDHS	EDHS	EDHS				
Pill	68.6	54.4	40.5	27.4	21.7	16.9	16.7				
IUD	15.9	27.7	41.6	59.2	62.6	63.4	61.5				
Injectables	0.0	1.0	0.3	1.1	5.0	10.9	11.9				
Condom	4.5	4.3	6.3	4.2	2.9	1.7	1.7				
Female sterilization	2.9	5.0	4.0	2.3	2.3	2.5	2.2				
Other modern methods	1.3	2.3	1.0	0.9	0.5	0.7	1.5				
Traditional methods	5.8	5.3	6.3	4.9	5.0	3.9	4.6				
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0				
Number of women	1,939	2,775	3,108	4,311	6,567	8,063	10,779				
Source: El- Zanaty and W	'ay, 2001, <sup>-</sup>	Table 6.2									

## Trends by Urban-Rural Residence and Place of Residence

Table 6.6 presents trends in the rate of current use of family planning methods between 1984 and 2005 by residence. Urban prevalence rose steadily during the 1980s, before appearing to plateau in the early 1990s. After 1995, the survey results document a pattern of slow and somewhat erratic increases in urban use levels, with the rate peaking at 66 percent in 2003 before falling off slightly to 63 percent at the time of the 2005 EDHS. Although all urban areas experienced substantial increases in contraceptive use during the period between 1984 and 2005, the pace of change was more rapid and consistently upward in urban Upper Egypt compared to the pattern in the Urban Governorates and in urban Lower Egypt.

Table 6.6 Trends in family planning use by residence
Percentage of currently married women 15-49 currently using any family planning method by urban-rural residence and
place of residence, Egypt 1984-2005

	1984	1988	1992	1995	1997	1998	2000	2003	2005
Residence	ECPS	EDHS	EDHS	EDHS	EIDHS	EIDHS	EDHS	EIDHS	EDHS
Urban-rural residence									
Urban	45.1	51.8	57.0	56.4	63.1	59.3	61.2	65.5	62.6
Rural	19.2	24.5	38.4	40.5	47.1	45.6	52.0	55.9	56.8
Place of residence									
Urban Governorates	49.6	56.0	59.1	58.1	67.0	62.1	62.7	68.5	63.9
Lower Egypt	34.1	41.2	53.5	55.4	61.6	59.2	62.4	65.2	65.9
Urban	47.6	54.5	60.5	59.1	65.9	62.2	64.9	66.3	64.1
Rural	28.5	35.6	50.5	53.8	59.9	58.1	61.4	64.8	66.5
Upper Egypt	17.3	22.1	31.4	32.1	37.4	36.5	45.1	49.4	49.9
Urban	36.8	41.5	48.1	49.9	52.1	50.8	55.4	59.8	60.0
Rural	7.9	11.5	24.3	24.0	30.3	29.9	40.2	44.7	45.2
Frontier Governorates	na	na	na	44.0	na	na	43.0	na	49.3
Total	30.3	37.8	47.1	47.9	54.5	51.8	56.1	60.0	59.2

na = Information on the method was not collected or was not reported

Source: El-Zanaty and Way, 2004, Table 3.5

In rural areas, the decade of the eighties was also a period of substantial growth in contraceptive use. The rural use rate recorded a moderate increase during the period from 1984 to 1988 (from 19 percent to 25 percent), followed by a period of very rapid growth between 1988 and 1992 when the use rate increased to 38 percent. At that point, the pace of change in rural areas slowed. During the period between 1992 and 2005, the increase in the rural use level averaged about 1.5 percentage points per year, about half the annual increase observed between 1988 and 1992. Rural areas in both Lower Egypt and Upper Egypt showed similar absolute gains in use between 1984 and 2005. However, the timing of major changes in the levels of contraceptive use differed in the two areas. Much of the increase in rural Lower Egypt took place in the first 20 years of the period while, in rural Lower Egypt, the absolute increase in use was greatest in the last decade.

## **Trends by Governorate**

Table 6.7 presents the trend in current use rates at the governorate level between 1988 and 2000. Some caution should be used in interpreting the changes in use levels for individual governorates. The comparatively small sample sizes on which the governorate-level estimates are based increases the sampling variability and, thus, reduces the likelihood that small changes are significant.

All governorates experienced increases in use levels over the roughly 17-year period between the 1988 and 2005 EDHS surveys. In absolute terms, the governorates in Upper Egypt, where use levels were lowest in 1988 (i.e., rates of 20 percent or less), had the largest increases during the period. Within Upper Egypt, the greatest absolute increase took place in Beni Suef, where use more than tripled, from 15 percent in 1988 to 56 percent in 2005. Giza governorate, where use levels were moderately high in 1988, had the lowest absolute gain in use during the period between 1988 and 2005 (16 percent). Souhag, where the prevalence level is currently the lowest among all Upper Egypt governorates, also experienced a comparatively modest growth in use levels between 1988 and 2005 (17 percentage points).

Looking at the pattern of change within Lower Egypt governorates, Behera, where the use rate was lowest in 1988, experienced the greatest absolute growth in use levels between the 1988 and 2005 surveys (36 percentage points). Damietta, which had the highest level of use in 1988, registered the lowest absolute change in use levels (10 percentage points).

Considering the Urban Governorates, Suez had a somewhat larger overall increase in its use rate (14 percentage points) between 1988 and 2005 than was observed in either Port Said or Alexandria (13 percentage points each). The overall increase in use levels was, however, much greater in all of these governorates than that experienced in Cairo, where the use rate grew by five percentage points over the 17-year period.

## Table 6.7 Trends in current use of family planning methods by governorate

Percentage of currently married women 15-49 who are currently using any family planning method by governorate, Egypt 1988-2005

	1988	1992	1995	2000	2005
Governorate	EDHS	EDHS	EDHS	EDHS	EDHS
Urban Governorates	56.0	59.1	58.1	62.7	63.9
Cairo	58.9	58.1	56.9	62.3	63.8
Alexandria	51.6	62.1	59.8	64.7	64.5
Port Said	48.2	60.5	59.7	57.7	61.6
Suez	50.3	57.3	62.4	58.0	64.0
Lower Egypt	41.2	53.5	55.4	62.4	65.9
Damietta	54.1	53.4	57.4	58.8	63.9
Dakhalia	41.3	52.8	54.9	62.8	64.4
Sharkia	35.2	49.2	53.1	61.4	61.2
Kalyubia	42.3	57.9	55.6	64.0	69.4
Kafr-El-Sheikh	41.7	47.2	54.4	64.2	65.8
Gharbia	50.1	55.9	55.9	65.7	69.7
Menoufia	43.9	55.7	54.3	61.3	64.2
Behera	32.5	54.7	58.7	59.8	68.7
Ismailia	41.0	50.2	58.5	58.9	59.6
Upper Egypt	22.1	31.4	32.1	45.1	49.9
Giza	45.7	49.9	50.9	60.5	62.1
Beni-Suef	15.3	29.2	30.4	53.0	56.0
Fayoum	20.2	33.3	34.0	50.4	55.9
Menya	16.6	21.9	24.3	46.7	51.4
Assuit	12.7	28.2	22.1	32.9	37.9
Souhag	16.2	19.8	21.7	27.5	32.7
Qena	12.2	24.7	26.3	34.6	47.2
Aswan	18.6	31.9	36.0	44.9	49.0
Total	37.8	47.1	47.9	56.1	59.2
Source: El-Zanaty and	Way, 200	04, Table	6.7		

# **Trends by Other Background Characteristics**

Table 6.8 presents trends in contraceptive use during the period between 1988 and 2005 by selected background characteristics of women for all methods and for the pill, IUD, and the injectable. Looking at the entire period, the use rate increased markedly across all age groups. Similarly, the use level increased substantially in each family size category through the period, except among childless women, where a negligible percentage were using at any time during the period.

Considering education, the change in use over the period was greatest among women who never attended school; the use rate in 2005 among these women was 55 percent, nearly double the rate in 1988. Smaller increases were observed during the period among educated women. As a result the gap in use according to educational level narrowed substantially during the period.

During the period, all groups experienced increases in the use of the IUD and injectable and a drop in the use of the pill.

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Table 6.8 Trends in current use of family	/ I	planning	ξb	y socio-demo	9	ra	phic characteristics

Percentage of currently married women 15-49 currently using any method, the pill, IUD and injectables by selected socio-demographic characteristics, Egypt 1988-2005

Background			Any n	nethod					Р	ill					IL	D					Injecta	ables		
characteristic	1988	1992	1995	2000	2003	2005	1988	1992	1995	2000	2003	2005	1988	1992	1995	2000	2003	2005	1988	1992	1995	2000	2003	3 2005
Age																								
15-19	5.5	13.3	16.1	23.4	25.4	26.3	3.5	4.1	3.2	4.3	5.7	6.3	1.7	8.4	11.3	15.0	14.3	15.9	0.0	0.0	1.1	2.4	2.7	1.9
20-24	24.3	29.7	33.2	42.7	48.0	44.7	10.8	6.8	6.6	6.6	8.7	8.0	10.7	21.2	21.7	29.6	29.1	27.8	0.0	0.2	2.1	3.9	5.6	4.5
25-29	37.1	46.0	47.6	57.0	57.2	57.4	14.9	13.3	9.8	9.2	8.8	11.3	17.7	29.3	33.1	38.3	35.8	34.5	0.0	0.2	2.2	5.8	7.3	7.4
30-34	46.8	58.8	58.1	67.2	69.2	69.0	19.2	16.2	13.3	11.3	9.8	11.0	20.2	36.7	37.3	42.9	43.5	44.5	0.2	0.5	3.2	7.8	9.7	8.5
35-39	52.8	59.6	60.7	68.0	73.3	73.3	23.2	18.2	13.8	12.4	10.8	11.4	21.2	34.0	37.2	42.8	45.5	45.3	0.1	0.8	3.2	7.8	10.3	10.3
40-44	47.5	55.5	58.8	63.4	71.9	70.1	15.5	14.0	12.5	11.3	11.6	11.0	18.5	28.9	34.4	37.4	43.6	43.0	0.3	1.1	2.5	7.0	8.8	7.5
45-49	23.4	34.5	33.3	42.0	46.9	47.8	8.6	7.9	7.6	6.4	6.8	6.6	6.6	14.9	16.2	23.3	25.7	27.8	0.0	0.5	1.2	4.7	7.0	4.7
Number of living children																								
0	0.7	0.5	1.2	0.2	0.2	0.5	0.1	0.3	0.5	0.3	0.0	0.2	0.4	0.2	0.5	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
1	23.1	31.6	31.6	42.3	45.1	46.0	7.6	6.7	4.7	7.3	9.7	9.4	11.4	22.4	23.3	30.8	29.3	30.1	0.0	0.0	0.9	1.9	2.2	1.9
2	43.4	52.5	53.9	66.0	70.1	66.7	14.7	12.7	8.9	9.2	10.9	11.3	20.5	34.3	38.9	46.9	47.6	44.5	0.0	0.0	1.6	4.9	4.9	5.9
3	47.8	59.3	65.4	69.3	74.3	74.8	19.9	17.1	13.7	11.2	11.2	11.9	19.6	34.8	40.3	47.1	46.0	48.2	0.0	0.5	3.8	5.6	9.6	8.2
4+	44.4	54.3	53.9	62,2	68.1	67.5	17.1	15.8	13.9	11.7	9.6	10.7	17.1	30.0	30.6	33.8	37.4	36.8	0.2	1.0	3.2	9.9	13.6	11.7
Education																								
No education	27.5	37.5	40.6	51.5	57.4	54.8	13.4	12.0	11.0	8.9	7.8	8.7	10.0	20.7	23.8	29.6	32.0	30.2	0.1	0.5	2.3	8.3	11.9	10.1
Some primary Prim. complete/	42.5	53.5	50.5	57.5	59.0	62.8	20.3	17.6	12.2	10.3	8.6	9.3	16.3	29.4	30.2	33.7	35.8	37.4	0.1	0.5	3.1	7.9	8.4	9.4
some secondary Sec. complete/	52.3	56.1	51.2	57.2	59.2	60.2	15.6	13.7	10.1	11.9	11.8	10.6	23.9	34.0	32.8	36.3	35.5	37.8	0.0	0.6	2.3	4.4	7.5	7.3
higher	53.2	58.0	56.5	61.2	63.2	61.5	13.8	9.8	8.3	8.9	10.1	10.8	27.1	40.0	39.0	43.9	42.0	40.8	0.1	0.4	2.0	3.2	4.1	3.8
Total	37.8	47.1	47.9	56.1	60.0	59.2	15.3	12.9	10.4	9.5	9.3	9.9	15.7	27.9	30.0	35.5	36.7	36.5	0.1	0.5	2.4	6.1	7.9	7.0

Source: El- Zanaty and Way, 2004, Table 3.6

### 6.4 Sources for Modern Family Planning Methods

# **Sources by Method**

In the 2005 EDHS detailed information was collected on sources from which family planning methods were obtained. To obtain these data, current users of modern methods were asked for the name and location of the source where they had gotten their method at the beginning of the current segment of use. A code identifying the type of source was then recorded in the questionnaire and in the calendar in the month at the beginning of the period of use. Users relying on supply methods like the pill and the injectable were also asked about the source where they had most recently obtained the method.

Table 6.9 shows the distribution of current users by source. Overall, current family planning users are more likely to obtain their method from a governmental source as from a private sector source (57 percent and 43 percent, respectively). The source for family planning method, however, varies markedly by method. The majority of current users of the IUD (62 percent) have the method inserted at a public sector source. In general, those users relying on a government source for the IUD get the device inserted at a static facility; however, four percent obtain the method from mobile clinics. One-third of IUD users go to private physicians, hospitals, or clinics for the method, while five percent obtain the method at clinics operated by private voluntary organizations, including those of the Egyptian Family Planning Association and the Clinical Services Improvement Project.

The public sector is the main source for injectables, with more than eight in ten users obtaining the method from a governmental source. As was the case with the IUD, most injectable users obtain their method at a static facility, especially rural health units (43 percent). Five percent get injectables from a mobile clinic.

Regarding the sources for other methods, pill users mainly get their method from a pharmacy (74 percent), as do couples using the condom (75 percent). Sterilizations are more frequently performed at private hospitals or clinics than at governmental facilities.

Table 6.9 Source for modern family planning methods

Percent distribution of current users of modern family planning methods by most recent source, according to specific methods, Egypt 2005

Source	Pill	IUD	Injectable	Condom	Female sterilization	Total <sup>1</sup>
Public sector	19.4	61.8	86.6	16.7	39.1	56.6
Urban hospital(general/district)	19.4	61.8 7.8	6.1	2.3	39.1 21.1	7.0
Urban health unit	3.8	16.3	15.4	4.7	0.2	13.4
Health office	0.9	6.7	4.6	4.3	0.0	5.2
Rural hospital(complementary)	1.8	4.0	6.9	0.1	1.0	3.8
Rural health unit	8.1	14.1	42.8	2.7	0.7	16.1
MCH centre	1.5	6.7	4.0	1.6	0.0	5.3
Mobile unit	1.5	3.7	5.4	0.9	0.0	3.4
University/teaching hospital	0.0	1.0	0.2	0.0	7.6	1.0
Health Insurance Organization	0.1	0.5	0.5	0.0	2.9	0.5
Curative Care Organization	0.0	0.1	0.1	0.0	0.0	0.1
Other governmental	0.0	1.0	0.6	0.1	5.6	0.9
Private sector	79.6	38.1	12.2	77.4	59.6	42.9
Nongovernmental/private voluntary						
organization (NGO/PVO)	0.3	4.5	1.0	0.6	0.1	3.1
Egypt Family Planning Association	0.0	1.3	0.2	0.5	0.0	0.9
Clinical Services Improvement	0.1	2.4	0.6	0.1	0.0	1.6
Other NGO/PVOs	0.1	0.8	0.2	0.0	0.1	0.6
Private medical	79.3	33.7	11.2	76.8	59.5	39.9
Private hospital/clinic	0.8	2.7	0.2	0.3	11.1	2.2
Private doctor	4.0	29.0	4.9	1.3	45.8	21.2
Nurse	0.0	0.0	2.6	0.0	0.0	0.3
Pharmacy	74.1	0.0	3.3	75.2	0.0	14.7
Mosque health unit	0.3	1.7	0.1	0.0	1.9	1.2
Church health unit	0.0	0.3	0.1	0.0	0.7	0.2
Other non-medical	0.8	0.0	1.2	5.1	0.0	0.4
Shop/other vendor	0.1	0.0	0.0	0.0	0.0	0.0
Friends/relative	0.8	0.0	0.9	5.1	0.0	0.3
Other	0.0	0.0	0.4	0.0	0.0	0.0
Don't know	0.2	0.0	0.0	0.8	1.3	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	1,798	6,629	1,281	180	239	10,285

<sup>1</sup>Includes users of the implant and vaginal method users for whom the source distribution is not shown separately

# **Sources by Method and Residence**

Residential variations in the type of source are presented in Table 6.10 for all modern methods and for the pill and the IUD. In general, rural women are more likely to go to a public sector source to obtain their method than urban women (63 percent and 48 percent, respectively). The proportion of users obtaining their method from a public health facility ranges from 42 percent of users in urban Lower Egypt to 64 percent of users in rural Upper Egypt.

In all areas, the pharmacy is the principal source for pill users, with only a minority getting their method from public sector facilities. However, the size of this minority varies by residence; only eight percent of pill users in urban Lower Egypt get their method from a public sector facility, compared to 39 percent in the Frontier Governorates.

Table 6.10 Sources of family planning methods by residence

Percent distribution of current users of modern family planning methods by method and most recent source, according to residence, Egypt 2005

			Urban Gover-		Lower Egy	pt		Upper Eg	ypt	Frontier Gover-	
Method and source	Urban	Rural	norates	Total	Urban	Rural	Total	Urban	Rural	norates	Total
PILL											
Public sector	11.9	25.8	11.4	18.0	7.7	22.9	22.9	14.1	29.2	38.8	19.4
Private sector	86.4	73.8	85.5	81.3	90.9	76.7	76.4	84.8	70.5	61.2	79.6
NGO/PVOs	0.5	0.0	1.0	0.1	0.2	0.0	0.2	0.5	0.0	0.0	0.3
Private hospital/doctor	6.7	3.2	1.7	3.0	6.2	1.5	8.0	11.6	5.4	2.5	4.8
Mosque/church clinic	0.5	0.2	0.6	0.0	0.0	0.0	0.6	8.0	0.6	0.0	0.3
Pharmacy	78.6	70.3	82.2	78.2	84.5	75.2	67.6	71.9	64.5	58.7	74.1
Other/don't know/missing	1.7	0.4	3.1	0.7	1.4	0.4	0.7	1.1	0.4	0.0	1.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	827	971	254	790	252	538	725	301	424	30	1,798
IUD											
Public sector	54.8	67.7	60.5	62.8	48.8	67.5	60.9	51.8	68.1	61.4	61.8
Private sector	45.1	32.3	39.3	37.2	51.2	32.5	39.1	48.2	31.9	38.6	38.1
NGO/PVOs	5.5	3.5	4.0	4.0	6.9	3.1	5.7	6.8	4.8	2.0	4.5
Private hospital/ doctor	36.6	27.7	31.4	32.0	41.8	28.7	31.4	39.5	25.0	35.2	31.8
Mosque/church clinic	3.0	1.0	3.9	1.1	2.5	0.6	2.0	1.9	2.1	1.4	1.9
Pharmacy	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	3,032	3,597	1,352	3,466	871	2,595	1,766	781	985	45	6,629
			ALL	. MODER	RN METHC	DDS <sup>1</sup>					
Public sector	48.0	63.2	54.2	57.2	41.5	62.6	56.8	44.9	64.3	59.6	56.6
Private sector	51.4	36.4	44.7	42.4	58.1	37.0	42.9	54.7	35.4	40.4	42.9
NGO/PVOs	4.0	2.3	3.1	2.9	4.8	2.2	3.4	4.8	2.5	0.9	3.1
Private hospital/doctor	27.8	20.6	23.9	25.1	32.5	22.6	21.7	29.4	16.8	18.7	23.8
Mosque/church clinic	2.3	0.7	3.1	0.9	2.0	0.5	1.3	1.4	1.2	0.6	1.4
Pharmacy	17.2	12.8	14.7	13.5	18.8	11.7	16.5	19.1	14.8	20.2	14.7
Other/DK/Missing	0.6	0.4	1.0	0.4	0.4	0.4	0.3	0.3	0.4	0.0	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of users	4,485	5,799	1,890	5,063	1,282	3,781	3,234	1,251	1,983	97	10,285

NGO = Nongovernmental organization

PVO = Private voluntary organization

<sup>1</sup>Includes users of the implant and vaginal methods for whom the source distribution is not shown separately.

A majority of IUD users rely on public sector sources for the method, except urban Lower Egypt. Reliance on public sector sources for the IUD is most frequent in rural areas; slightly more than twothirds of IUD users in rural Upper Egypt and rural Lower Egypt obtained the method from a public health facility.

## **Trends in Sources of Modern Methods**

Table 6.11 present trends in the source of family planning methods during the period between the 1995 EDHS and the 2005 EDHS for IUD users and for users of all modern methods. Overall, the percentage of modern method users relying on the public sector for services rose from 36 percent in 1995 to 57 percent at the time of the 2005 EDHS. Much of that change is due to increased reliance on the public sector for the IUD. Table 6.11 shows that the percentage of users who obtained the IUD at a public sector provider increased from 45 percent in 1995 to 62 percent in 2005.

Considering the variation by residence, the trend toward an increased reliance on public sector providers was observed among users in all areas. However, the magnitude of the increase was much greater for rural users than for urban users.

Table 6.11 Trends in reliance on public sector source for contraceptive method by residence							
Percentage of current us method at a public sect Egypt 1995-2005							
		IUD		Мо	dern meth	ods	
	1995	2000	2005	1995	2000	2005	
Residence	EDHS	EDHS	EDHS	EDHS	EDHS	EDHS	
Urban-rural residence							
Urban	42.8	48.7	54.8	34.0	42.0	48.0	
Rural	46.7	59.4	67.7	37.7	54.8	63.2	
Place of residence							
Urban Governorates	46.5	48.8	60.5	39.7	43.5	54.2	
Lower Egypt	44.4	54.9	62.8	35.2	50.2	57.2	
Urban	37.4	47.5	48.8	27.5	40.9	41.5	
Rural	47.3	58.0	67.5	38.6	54.1	62.6	
Upper Egypt	42.1	57.3	60.9	32.3	50.0	56.8	
Urban	39.9	50.1	51.8	29.6	40.8	44.9	
Rural	44.5	63.5	68.1	34.8	56.3	64.3	
Frontier Governorates	31.3	44.9	61.4	25.2	41.0	59.6	
Total	44.5	54.0	61.8	35.7	48.6	56.6	
Source: El-Zanaty and Way, 2001, Table 6.10							

### 6.5 PILL BRANDS

A number of questions were included in the 2005 EDHS relating to the brand of pills women were using and that they had heard about. Information about the brands pill users had adopted was collected by asking pill users to show the packet of pills. If the packet was available, interviewers recorded the name of the brand. If a user was unable to show the EDHS interviewer the packet, she was asked to name the brand she was using. Table 6.12 shows that about a fifth of pill users were not able to show a packet or identify the brand they were using.

Combined pills or pills containing both estrogen and progestin may interfere with the production of milk among breastfeeding mothers and also may affect breastmilk composition (Blackburn et al. 2000). Breastfeeding mothers are advised to take progestin-only pills in order to avoid these

Table 6.12 Brand of pill
Percent distribution of current users by the brand of pill used and breastfeeding status, Egypt 2005

	Currently	Non-	
	breast-	breast-	
	feeding	feeding	
Pill brand	users	users	All users
Suitable for breastfeeding			
users	44.7	4.9	15.2
Microlut	29.6	3.9	10.6
Exluton	7.3	0.8	2.5
Levonor	7.8	0.2	2.1
Other brands	35.1	74.5	64.3
Nordette	0.9	2.1	1.8
Microvlar	0.2	1.9	1.5
Marvelon	0.1	2.4	1.8
Microcept	18.4	36.2	31.5
Microgynon	3.2	9.2	7.7
Triocept	8.1	12.9	11.7
Gynera .	3.2	6.6	5.7
Cilest	0.9	1.4	1.3
Other	0.2	1.5	1.5
Don't know	20.2	20.6	20.5
Total	100.0	100.0	100.0
Number of pill users	467	1,331	1,798

adverse effects. In order to look at the extent to which breastfeeding mothers are following this recommendation, Table 6.12 identifies pill brands according to their hormonal composition and classifies pill users according to their breastfeeding status. Among the breastfeeding mothers for whom information on pill brands was obtained, slightly less than half were using progestin-pills.

An additional question was included in the 2005 EDHS to ascertain the extent to which women in Egypt are aware of the availability of pill brands that are suitable for use by breastfeeding mothers. Overall, Table 6.13 shows that around three in five evermarried women reported they had heard about a contraceptive pill which was suitable for breastfeeding women. However, most of these women were not able to identify a brand of pills appropriate for use by breastfeeding mothers.

### Table 6.13 Knowledge of pill brand suitable for breastfeeding women

Percent distribution of ever-married women by knowledge of pill brand suitable for breastfeeding women, Egypt

Pill brand	Percent
Knows about pill suitable for	
breastfeeding women	58.9
Names correct brand	2.7
Names incorrect brand	8.0
Cannot name brand	55.4
Doesn't know about pill for	
breastfeeding women	40.6
Missing	0.5
Total	100.0
Number of women	19,474

### 6.6 COST AND WILLINGNESS TO PAY

Table 6.14	Cost of method for	pill
users		

Percent distribution of current users of the pill by cost of a cycle of pills (in piastres) and trends in the median and mean amounts paid for the pill,

Egypt 2000-2005	
Cost of pill cycle	Percent
Free	1.3
1-50 piastres	0.4
51-75 piastres	35.7
76-100 piastres	11.2
101-200 piastres	6.5
201-300 piastres	13.5
301-999 piastres	9.9
1000-1300 piastres	8.1
More than 1300 piastres	10.6
Don't know/missing	2.7
Total	100.0
Number of pill users	1,798
2005 EDHS	
Median	101.0
Mean	426.8
2000 EDHS	
Median	95.2
Mean	204.8

In the 2005 EDHS, users of the pill, the IUD and injectables were asked about the actual amounts they had paid for their method. In addition, questions were included on the willingness of users to pay various amounts for their methods.

One of the challenges that the Egyptian family planning program faces is sustaining the delivery of quality services. Questions on the amount users are willing to pay for their contraceptive method represent an effort to gauge the extent to which users might accept increases in contraceptive prices as part of an effort to achieve sustainable family planning services. Some caution should be exercised in interpreting the response to these questions; the questions are hypothetical and, thus, may not provide an accurate measure of the user's actual ability to pay higher amounts for their method. In order to look at trends, similar information on actual costs and willingness to pay obtained in the 2000 EDHS are presented along with the 2005 results.

## **Pill Users**

According to the results in Table 6.14, virtually all pill users are paying more than 50 piastres for a cycle of pills, and 49 percent pay more than one pound (100 piastres). The median cost of a cycle is just over 1 pound (101 piastres), which is only marginally higher than the median cost reported at the time of the 2000 EDHS (95 piastres).

Table 6.15 looks at the willingness of pill users who were interviewed in the 2000 and 2005 EDHS surveys to pay various amounts for the method. In both surveys, almost all pill users reported they were willing to at least one pound. Pill users were somewhat more likely to indicate a willingness to pay higher amounts for a pill cycle in the 2005 survey than in the 2000 survey. For example, in the 2005 EDHS, 82 percent of users expressed a willingness to pay 2 pounds for a cycle compared to 69 percent in the 2000 survey.

## **Injectable Users**

Table 6.16 presents information on the cost of injectables at the time of the 2005 EDHS. Eight percent of injectable users paid nothing for their method, and 63 percent paid less than two pounds.

Table 6.15 Amount users are willing to pay for the pill

Percentage of current users of pill willing to pay various amounts to obtain the method, Egypt 2000 and 2005

Amount pill users are willing to pay	2000 EDHS	2005 EDHS
50 piasters	99.8	99.4
75 piasters	98.7	98.1
1 pound	92.7	94.6
2 pounds	69.4	81.6
5 pounds	35.8	56.0
More than 5 pounds	24.5	41.8
Number of pill users	1,362	1,798

The median cost was 1.7 pounds, which is lower than the median amount paid for injectables at the time of 2000 EDHS (2.3 pounds). The drop in the median cost between 2000 and 2005 reflects the effect of a reduction in the price charged for the injectable at public health facilities between the two surveys.

### Table 6.16 Cost of method for injectable users

Percent distribution of current users of injectables by the cost of the method (in pounds) and trends in the median and mean amounts paid for the injectable, Egypt 2000-2005

Cost of injectable	Total
Free	7.7
< 1 pounds	0.2
1-1.9 pounds	63.2
2-2.9 pounds	11.6
3-4.9 pounds	4.9
5-6.9 pounds	3.9
7-8.9 pounds	3.0
9-9.9 pounds	0.4
10+ pounds	4.2
Don't know/missing	0.8
Total Number of injectable	100.0
users	1,281
Median	1.7
2005 FDHS	
Median	1.7
Mean	3.7
2000 EDHS	
Median	2.3
Mean	3.7

Table 6.17 looks at the proportions of users reporting that they were willing to pay various amounts for the injectable in the 2000 and 2005 surveys. In general, users interviewed in the 2000 survey were more willing to pay higher amounts for the injectable than users in the 2005 survey. For example, 80 percent of injectable users in the 2000 EDHS were willing to pay at least 5 pounds for the survey compared to 68 percent of injectable users in the 2005 EDHS.

Table 6.17 Amount users are willing to pay for injectables						
Percentage of current users of injectables willing to pay various amounts to obtain the method, Egypt 2000 and 2005						
Amount injectable users	2000	2005				
are willing to pay	EDHS	EDHS				
2 pounds	97.5	96.0				
5 pounds	79.8	68.1				
10 pounds	46.6	32.8				
15 pounds	22.9	15.5				
20 pounds	14.2	9.2				
More than 20 pounds	10.1	5.3				
Number of injectable users	876	1,281				

### **IUD** Users

Table 6.18 presents the actual amount that IUD users paid for services. The table shows that, while relatively few IUD users (6 percent) get the method for free, more than one-quarter of users pay less than 3 pounds for IUD. At the other extreme, 27 percent of IUD users pay 20 pounds or more to obtain the method.

The amount that a user pays to obtain an IUD varies with the type of provider. The lowest median cost is observed among those users who obtained the method from a public sector source (2.9 pounds). The median cost at a NGO/PVO clinic is 15.2 pounds, almost five times the cost that an average user pays at a public sector facility, but roughly half the amount users who have the IUD inserted by a private doctor or at a private hospital or clinic pay (30.4 pounds).

Table 6.18 Cost of method Percent distribution of cuto the type of provider, E IUD, Egypt 2000-2005	ırrent users of	IUD by co			
	Public	Private		Mosque/	
	health	doctor/	NGO/	church	
Cost of IUD	facility	clinic	PVO clinic	clinic	Total
Free	8.7	2.7	1.2	4.2	6.4
< 3 pounds	44.2	0.6	5.6	7.4	27.9
3-4.9 pounds	23.3	0.5	4.7	5.5	14.9
5-9.9 pounds	15.1	3.2	15.1	9.4	11.2
10-14.9 pounds	3.8	6.0	19.1	13.9	5.4
15-19.9 pounds	1.5	7.7	15.1	13.1	4.3
20-29.9 pounds	1.0	24.1	18.2	26.7	9.6
30-49.9 pounds	0.4	25.4	9.8	12.3	9.0
50 pounds or more	0.4	25.3	7.1	4.2	8.7
Don't know/missing	1.6	4.4	4.1	3.4	2.7
Total	100.0	100.0	100.0	100.0	100.0
Number of IUD users	4,098	2,105	296	130	6,629
2005 EDHS					
Median	2.9	30.4	15.2	15.8	4.7
Mean	4.0	39.7	19.0	17.9	14.1
2000 EDHS					
Median	3.1	25.7	11.8	15.6	5.8
Mean	4.4	34.1	11.5	18.2	15.7
NGO = Nongovernmenta PVO = Private voluntary o		l			

A comparison of the median cost for an IUD at the time of the 2005 EDHS with the cost paid by IUD users at the time of the 2000 EDHS indicates that the amount the average user paid for having an IUD inserted at a governmental facility declined slightly between the surveys. At all other types of sources, however, the median amount a user paid for the IUD rose between the two surveys. The increasing gap between the costs of the IUD in public and private sector facilities may be one factor explaining the rise in the proportion of users obtaining the IUD at governmental facilities between the 2000 and 2005 surveys.

The results in Table 6.19 indicate that IUD users would be willing to pay considerably more for the method than they currently pay. Almost all IUD users (97 percent) would be willing to pay 5 pounds, and 82 percent say they are willing to pay 10 pounds. Somewhat more than half of users would be willing to pay 25 pounds, and 31 percent express a willingness to pay at least 50 pounds. Relatively few women would be willing to pay more than 100 pounds, with only four percent of IUD users saying they would pay more than 200 pounds for an IUD. Comparing the 2000 and 2005 results, there appear to have been only very modest declines in the proportions willing to pay various amounts for the IUD.

#### 6.7 INFORMED CHOICE

Informed choice is a necessary part of family planning programs. Users should be informed of the choices they have with respect to other methods. Family planning providers should also inform Table 6.19 Amount users are willing to pay for IUD insertion

Percentage of current users of the IUD willing to pay various amounts for the method, Egypt 2005

Amount IUD users are willing to pay	2000 EDHS	2005 EDHS
5 pounds	97.8	96.6
10 pounds	88.5	82.2
25 pounds	64.8	57.0
50 pounds	33.1	31.2
100 pounds	12.8	12.3
150 pounds	7.2	6.7
200 pounds	4.8	4.7
More than 200 pounds	4.1	3.6
Number of IUD users	5,112	6,629

all method users of the potential side effects and what they should do if they encounter any of the effects. This information both assists the user in coping with side effects and decreases unnecessary discontinuation of temporary methods.

The 2005 EDHS included a number of questions designed to assess whether women who were currently using family planning at the time of the survey had received sufficient information to make informed choices. Current users were asked whether they had been told about other methods, told about side effects, or given advice about what to do about side effects by the provider from whom they obtained their method. If they were not told about other methods or about side effects during that consultation, they were asked if they had ever received information from a provider about these topics. Caution must be exercised in interpreting the responses to these questions since they are subjective. In addition, they also suffer from an unknown degree of recall error, i.e., many users had gone to the provider months or even years before the EDHS interview and may not have remembered accurately everything that took place during the encounter. Nevertheless, the results of these questions provide at least some insight into the nature of the counseling that family planning users are receiving from their providers.

Table 6.20 presents information on the informed choice for current users adopted the method in January 2000 or later. In general, the information exchange between many current users and their provider is fairly limited. Somewhat more than one in two users report that the provider discussed methods other than the one the user received. A similar but slightly smaller proportion was told about side effects. Two in five users were told what to do if they experienced side effects. In those cases where the users received information needed to make an informed choice, they generally reported that they received the information from the provider whom they consulted at the beginning of the current segment of use.

Table 6.20 also shows that the proportion of users receiving the information needed to make an informed choice does not vary markedly with the type of clinical providers. The largest differentials are observed in the percentages receiving information about method side effects. However, users obtaining the method from a pharmacy are much less likely than other users to have received information, especially about side effects, necessary to make an informed choice.

Table 6.20 Informed choice

Percentage of current users who began the current segment of use since January 2000 who reported they were advised about various aspects of the method they obtained according to type of source and method Egypt 2005

	Public	NGO/	Private						
Information provided	sector	PVO clinic	clinical <sup>1</sup>	Pharmacy	Total				
PILL									
Told about other methods	60.1	*	62.9	39.5	54.8				
At start of current segment of use	54.2	*	54.6	23.7	45.0				
Ever but not during current segment	5.9	*	8.2	15.7	9.9				
Told about side effects	44.1	*	55.6	28.1	43.5				
At start of current segment of use	41.9	*	52.1	21.9	39.6				
Ever but not during current segment	2.2	*	3.6	6.2	3.9				
Told what to do about side effects	33.8	*	43.2	16.1	31.8				
Number of users	450	11	549	447	1,461				
INJECTABLES									
Told about other methods	62.5	*	59.9	*	62.1				
At start of current segment of use	56.3	*	55.5	*	55.8				
Ever but not during current segment	6.2	*	4.3	*	6.3				
Told about side effects	55.6	*	55.1	*	55.8				
At start of current segment of use	50.8	*	52.6	*	50.9				
Ever but not during current segment	4.8	*	2.5	*	4.9				
Told what to do about side effects	37.7	*	43.3	*	38.6				
Number of users	909	13	118	26	1,068				
	IU	JD							
Told about other methods	54.9	59.6	57.8	na	56.1				
At start of current segment of use	48.2	54.4	49.2	na	48.8				
Ever but not during current segment	6.8	5.2	8.6	na	7.3				
Told about side effects	51.6	53.9	57.2	na	53.5				
At start of current segment of use	45.8	47.5	52.1	na	47.9				
Ever but not during current segment	5.8	6.4	5.1	na	5.6				
Told what to do about side effects	40.3	38.5	47.4	na	42.5				
Number of users	2,887	215	1,454	na	4,556				
ALL MODERN METHODS <sup>2</sup>									
Told about other methods	57.0	61.2	59.5	40.3	56.6				
At start of current segment of use	50.4	55.7	51.1	24.8	48.9				
Ever but not during current segment	6.6	5.6	8.4	15.4	7.7				
Told about side effects	51.6	55.3	56.8	28.3	51.5				
At start of current segment of use	46.3	49.4	52.3	21.9	46.4				
Ever but not during current segment	5.3	5.9	4.4	6.4	5.1				
Told what to do about side effects	38.9	39.2	45.6	16.6	39.3				
Number of users	4,437	240	2,230	539	7,454				
-									

Note: Table excludes users who obtained method from friends/relatives. An asterisk indicates figure is based on fewer than 25 cases and has been suppressed.

NGO=Nongovernmental organization

na = Not applicable

PVO=Private voluntary organization

<sup>&</sup>lt;sup>1</sup> Includes private hospital/clinic, private doctor/nurse, mosque/church clinic

<sup>&</sup>lt;sup>2</sup> Includes current users of modern methods who began current segment of use since January 2000

One of the primary objectives of the 2005 EDHS is to provide information on reasons for nonuse and on the intention to use family planning in the future. Such information is considered to be of particular interest to policymakers and program managers as they seek to address the contraceptive needs of nonusers who are concerned about spacing or limiting their fertility. Thus, this chapter focuses on women who are not using family planning. It presents information on the following topics: levels of family planning discontinuation, reasons for discontinuation, reasons for nonuse, intention to use in the future, timing of future use, and the methods preferred among women who are not currently using a family planning method.

#### 7.1 CONTRACEPTIVE DISCONTINUATION RATES

A key concern for family planning programs is the rate at which users discontinue use of contraception and the reasons for such discontinuation. Reasons for discontinuation may vary among couples but usually include factors such as contraceptive failure, dissatisfaction with the method, and health concerns as well as the lack of availability or the cost of contraceptive methods. If the rates of discontinuation are high, greater attention should be focused on counseling and follow-up, to help users to deal with the various obstacles to continued use.

The data used to analyze discontinuation were collected in the 2005 EDHS by asking respondents for information on all episodes of contraceptive use between January 2000 and the date of the interview. For each interval of use, the woman was asked the contraceptive method used and the date of use (year and month) and, if applicable, the date she stopped using and the reason for discontinuation. If a woman reported that she was using a method in January 2000, she was also asked for the date when that segment of use began.

Life-table techniques were used to calculate discontinuation rates from the 2005 EDHS calendar data. Specifically, the rates are based on episodes of use that began during the period 3 to 59 months prior to the 2005 EDHS. The rates are one-year discontinuation rates; i.e., they represent the proportion of users discontinuing within the first 12 months after beginning to use the method. The rates are calculated separately for the following five methods: pills, injectables, IUDs, condoms, and prolonged breastfeeding. To ensure a sufficient number of segments of use to allow calculation of the rates, the reasons for discontinuation were grouped into seven specific categories: method failure, desire for pregnancy, other fertility-related reasons, side effects/health concerns, wanted a more effective method, other methodrelated reasons, and other reasons.

In calculating the rates, the month of interview and the two preceding months were dropped to avoid any bias that might be introduced by unrecognized pregnancy. The rates are cumulative, i.e., they are obtained by dividing the number of discontinuations at each duration of use (in single months) by the number of months of exposure at that duration. The single-month rates were then cumulated to produce a one-year rate. In deriving these rates, the reasons for discontinuation are treated as competing risks; thus, the rates are additive across the reasons for discontinuation.

Overall, Table 7.1 shows that around one-third of users in Egypt stop using a method within 12 months of starting use. The desire for a more effective method motivated 12 percent of the users to stop using. Three percent of users stop using due to method failure (i.e., they became pregnant while

using the method), four percent stop using because they want to become pregnant, four percent stop using as a result of other fertility-related reasons including marital dissolution, infrequent sex, and the onset of menopause, six percent stop because of health concerns or side effects, and two percent stop using for other reasons. Regarding individual methods, the highest rate is observed for the pill (50 percent), followed by the injectable (46 percent) and prolonged breastfeeding (44 percent). The IUD has the lowest discontinuation rate; 15 percent of IUD users stopping use during the first 12 months of use.

The reasons for discontinuation vary by method. Women using prolonged breastfeeding are the most likely to discontinue because of the desire for a more effective method. This is a frequent motivation for discontinuation among users of the pill, injectable, and condom, who are between three and four times as likely as IUD users to stop using because of a desire for a more effective method. The proportion of users who stop use because of method failure is very low for the IUD and injectables (about 1 percent) and highest for the pill and condom (7 percent). Pill users are more likely than users of other methods to discontinue use because they want to become pregnant or for other fertility-related reasons. The rate of discontinuation due to side effects or health concerns is greatest among injectable users.

The impact of discontinuation clearly depends on whether or not the user is left exposed to the risk of unintended pregnancy. Table 7.1 also examines the extent to which users who discontinue adopt another method within two months of the time they discontinue. Overall, 12 percent of users who discontinue use switch to another method within two months after discontinuing use. Thus, around four in ten users who discontinue use within 12 months of adopting a method are protected from an unintended pregnancy within a short period after they stop use.

Table 7.1 Contraceptive discontinuation rates

Percentage of contraceptive users who discontinued a method within 12 months after beginning its use, by reason for discontinuation and percentage who switched to another method, Egypt 2005

	Reason for discontinuation								
	Method	Desire to become	Other fertility related	Side effects/ health	Wanted more effective	Other method related	Other	Any	Switched to another
Method	failure	pregnant	reasons <sup>2</sup>	reasons	method	reasons <sup>3</sup>	reasons	reason	method <sup>4</sup>
Pill	6.7	7.1	9.6	8.3	16.6	0.2	1.6	50.0	16.8
IUD	1.3	3.3	1.0	3.8	5.4	0.3	0.3	15.3	5.4
Injectables	1.1	4.6	6.5	13.5	17.3	0.4	2.0	45.5	17.3
Male condom	7.2	4.4	3.6	0.5	20.2	0.4	1.4	37.7	20.4
Prolonged breastfeeding	5.2	1.2	0.0	0.3	26.3	9.8	1.1	44.0	26.5
All methods <sup>1</sup>	3.2	4.3	4.1	6.1	12.1	1.0	1.0	31.8	12.2

Note: Figures are based on lifetable calculations using information on episodes of use that began 3-59 months prior to the

### 7.2 REASONS FOR DISCONTINUATION OF CONTRACEPTIVE USE

Table 7.2 looks in greater detail at the reasons the 2005 EDHS respondents gave for discontinuing use. The table shows the percent distribution of all discontinuations in the five-year period prior to the survey by the main reason for discontinuing according to the specific method.

<sup>&</sup>lt;sup>1</sup>Includes methods for which rates are not shown separately in table

<sup>&</sup>lt;sup>2</sup>Includes infrequent sex/husband away, difficult to get pregnant/menopausal, and marital dissolution/separation

<sup>&</sup>lt;sup>3</sup>Includes lack of access/too far, costs too much, and inconvenient to use

<sup>&</sup>lt;sup>4</sup>Used a different method in the month following discontinuation or said they wanted a more effective method and started another method within two months of discontinuation

Table 7.2 Reasons for discontinuation

Percent distribution of discontinuations of methods in the five years preceding the survey by main reason for discontinuation, according to method, Egypt 2005

Reason	Pill	IUD	Injectables	Condom	Prolonged breast- feeding	All methods <sup>1</sup>
Became pregnant while using	14.7	4.5	2.8	23.3	14.6	8.7
Wanted to become pregnant	24.4	43.8	13.0	23.4	6.0	29.1
Husband disapproved	0.5	0.3	0.6	6.4	0.0	0.4
Side effects	30.1	36.7	58.5	4.7	0.4	34.7
Health concerns	2.8	2.2	3.4	0.0	0.4	2.3
Access/availability	0.5	0.1	0.8	0.4	0.0	0.3
Wanted a more effective method	7.2	0.4	1.0	23.2	15.6	4.3
Inconvenient to use	1.1	0.8	0.9	3.4	58.4	5.8
Infrequent sex/husband away	12.4	2.9	9.1	6.2	0.2	6.6
Cost too much	0.3	0.0	0.1	0.0	0.0	0.1
Fatalistic	0.2	0.0	0.2	0.0	0.4	0.1
Difficult to get pregnant/menopausal	1.5	1.2	2.2	1.1	0.0	1.4
Marital dissolution/separation	1.4	3.5	1.4	3.3	0.0	2.2
Doctor's opinion	0.2	1.0	0.4	1.0	0.0	0.6
IUD expelled	0.0	0.8	0.0	0.0	0.0	0.4
Other	1.6	0.5	4.0	0.3	0.3	1.4
Don't know	0.0	0.0	0.0	0.0	0.0	0.0
Missing	1.2	1.1	1.8	3.4	3.8	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of discontinuations	3,606	5,438	2,071	166	1,060	12,616

<sup>&</sup>lt;sup>1</sup> Includes methods for which the distributions are not shown separately in the table.

Side effects (35 percent) were the most common reason for discontinuation of all modern methods. Health concerns were cited as the reason for another two percent of discontinuations. The desire to become pregnant was also a frequently mentioned reason for discontinuing use. Overall, nearly three in ten discontinuations during the five-year period before the 2005 EDHS occurred because the user wanted to have a child. This reason was the most frequently mentioned factor in discontinuations among IUD users. For other women, an unintended pregnancy was the reason for discontinuation; nine percent of discontinuations were the result of method failure; i.e., the woman became pregnant while using a method. Women using periodic abstinence were most likely to report method failure as the reason they stopped using the method.

Side effects were the most common reason for discontinuations of the pill and injectable and they were the second most common cause of discontinuation among IUD users. Dissatisfaction with the method was a major factor in discontinuations for some methods. In the case of prolonged breastfeeding, for example, 58 percent of discontinuations were because the woman found the method inconvenient to use. Concern about method effectiveness was a factor in more than two in ten discontinuations of periodic abstinence and the condom.

Table 7.2 also shows that program-related factors such as cost or access were almost never cited as reasons for discontinuation. Except for the condom, the husband's disapproval was also rarely cited as a main factor affecting the decision to discontinue use. Six percent of discontinuations of the condom were due to the husband's unwillingness to use the method. Factors that reduced or eliminated the risk of pregnancy (e.g., infrequent sex/husband away, difficulty in getting pregnant/menopause, and marital dissolution) accounted for 10 percent of discontinuations.

### 7.3 INTENTION TO USE CONTRACEPTION IN THE FUTURE

To obtain information about potential demand for family planning services, all currently married women who were not using contraception at the time of the survey were asked about their intention to adopt family planning methods in the future. Table 7.3 shows the percent distribution of nonusers by their intention to use in the future, according to number of living children.

Table 7.3 Future use of fam	ily planning					
Percent distribution of curre intention to use in the future	,			0		method by
		Numbe	r of living c	hildren <sup>1</sup>		
Intention	0	1	2	3	4+	Total
Intends to use	69.0	80.0	74.6	62.2	42.2	64.2
Unsure	6.1	4.6	3.9	3.8	3.4	4.2
Does not intend to use	24.9	14.7	20.4	32.7	53.4	30.8
Missing	0.0	0.6	1.1	1.3	1.0	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,135	1,602	1,458	1,231	1,992	7,418
<sup>1</sup> Includes current pregnancy						

Among all currently married nonusers, 64 percent intend to use family planning at some time in the future, 31 percent do not plan to use in the future, and the remaining nonusers are unsure about their intentions. The intention to use varies with the number of living children the nonuser has. Overall, the proportion saying they plan to use in the future decreases from a high of 80 percent among women with one child to 42 percent of women with four or more children. Among childless women, more than half (69 percent) say they intend to use in the future. This represents a substantial increase over the proportion of childless women at the time of the 2000 EDHS who said they intended to adopt contraception in the future (57 percent).

#### 7.4 **REASONS FOR NONUSE**

Table 7.4 presents the distribution of currently married non-users who do not intend to use in the future by the main reason for not using. The reasons for nonuse given by women who do not intend to use family planning are of interest to the family planning program since they help to identify areas for potential interventions to support the adoption of contraception by nonusers. More than 70 percent of nonusers have various fertility-related reasons for not planning to adopt contraception. These reasons include a perceived lack of need for contraception because the woman is subfecund or infecund (40 percent), is menopausal or has had a hysterectomy (18 percent), or is not sexually active or has sex infrequently (8 percent). In addition, seven percent of the nonusers want more children.

Method-related reasons are cited by 18 percent of nonusers; nine percent mention fear of side effects and eight percent other health concerns. Opposition to use—either the woman's own attitude or that of her husband or others—is a factor for 8 percent of the nonusers.

Table 7.4 classifies women into two age groups (under age 30 and age 30 and over) in order to consider how the reasons for nonuse are related to a woman's age. Nonusers under age 30 are more likely to mention the desire to have more children than those age 30 or over (26 percent and 4 percent, respectively), while, as might be expected, lack of need for contraception because of menopause or hysterectomy is a reason given almost exclusively by older nonusers. Opposition to use, especially on the part of the husband, is cited more often by younger than older nonusers (23 percent and 5 percent, respectively). Fear of side effects is reported around twice as often among younger women as among older women (15 percent and 8 percent, respectively).

Table 7.4 Reason for not intending to	use contra	ception				
Percent distribution of currently married women who are not using a contraceptive method and who do not intend to use in the future by main reason for not intending to use, according to age, Egypt 2005						
Reason	15-29	30-49	Total			
Fertility-related reasons Not having sex Infrequent sex/no sex Menopausal/had hysterectomy Subfecund/infecund Wants as many children as possible	53.2	75.5	72.8			
	0.0	3.4	3.0			
	2.8	5.0	4.8			
	1.8	19.9	17.7			
	22.4	42.7	40.3			
	26.2	4.4	7.1			
Opposition to use Respondent opposed Husband/partner opposed Others opposed Religious prohibition	23.4	5.4	7.6			
	6.9	2.3	2.8			
	12.9	2.0	3.3			
	1.5	0.0	0.2			
	2.2	1.0	1.2			
Lack of knowledge	0.0	0.1	0.1			
Knows no source	0.0	0.1	0.1			
Method-related reasons Health concerns Fear of side effects Lack of access/too far Costs too much Inconvenient to use Interfere with body's normal processes	22.0	17.6	18.1			
	5.9	8.7	8.4			
	14.7	7.6	8.5			
	0.3	0.0	0.1			
	0.8	0.1	0.1			
	0.0	0.2	0.1			
Other	0.0	0.4	0.4			
Don't know	0.8	0.6	0.7			
Missing	0.5	0.4	0.4			
Total	100.0	100.0	100.0			
Number of women	277	2,006	2,283			

### 7.5 **PREFERRED METHOD**

Nonusers who planned to use family planning in the future were asked about the method they would prefer to use. Table 7.5 shows 40 percent of all nonusers who plan to use prefer the IUD. The remaining nonusers are divided between those who prefer the pill (15 percent) and those who prefer injectables (9 percent). Around one-third of the nonusers intending to use a method in the future indicate that either they are unsure which method they prefer (17 percent) or they will rely on the doctor's advice (17 percent).

Table 7.5 Preferred fami	ly planning				
Percent distribution of currently married women who are not using a family planning method but who intend to use in the future by preferred method, Egypt 2005					
Method	Total				
Pill IUD Injectables Diaphragm/foam/jelly Condom Female sterilization Male sterilization Implants (Norplant) Periodic abstinence Withdrawal Prolonged breastfeeding Other As doctor recommends Unsure	14.7 39.5 8.6 0.1 0.1 0.8 0.0 1.8 0.2 0.0 0.0 0.0 16.8 17.3				
Total Number of women	100.0 4,758				

### 7.6 CONTACT OF NONUSERS WITH OUTREACH WORKERS/HEALTH CARE PROVIDERS

The 2005 EDHS collected information on whether nonusers had any recent contact with community workers or health care providers. Such contacts provide an opportunity to counsel the nonuser about the need for family planning. To obtain this information, nonusers were asked whether they had been visited at home at anytime during the 6 months preceding the survey by an outreach worker (e.g., a raiyda refia) or anyone else who had talked with them about family planning. They were also asked about any visits they had made to governmental health facilities or private doctors or clinics during the six months preceding the survey and, if they had visited any of these providers, whether anyone had spoken to them about family planning during their visit(s).

Table 7.6 presents the data on both the proportion of currently married nonusers who had any contact with an outreach worker or health facility and the proportion who discussed family planning with an outreach worker or other health care provider during the 6 months prior to the EDHS interview. Relatively few women had been reached through community outreach efforts, with only four percent of nonusers reporting that they had been visited at home by a fieldworker. The proportion reporting outreach visits was similar to the level at the time of the 2000 EDHS (4 percent) and lower than at the time of the 1995 EDHS when 11 percent of nonusers had reported a home visit during the six-month period before the survey. The decrease in outreach contacts was particularly striking in rural Upper Egypt: in 1995, 17 percent of nonusers in rural Upper Egypt reported being visited at home by a fieldworker while six percent of nonusers reported being contacted at home in the 2005 EDHS, a level slightly above that reported in 2000 (5 percent).

Table 7.6 also looks at the extent to which nonusers had an opportunity to discuss family planning during visits they made to health facilities. Around three in ten nonusers made at least one visit to a government health facility during the six-month period before the survey, and a similar proportion had gone to a private doctor or private health facility at least once. Looking at whether family planning was discussed during those contacts, women who visited private sector health facilities were somewhat less likely than those visiting public facilities to report that family planning was discussed during a visit (5 percent and 8 percent, respectively).

Table 7.6 Discussion of family planning in contacts with fieldworkers or health providers by background characteristics

Percentage of nonusers of family planning who were visited at home by a family planning worker, who visited a health facility, and who discussed family planning at a health facility, during the 6 months preceding the survey, according to selected background characteristics, Egypt 2005

Background characteristic	Visted at home by FP worker	Visted public health facility (PHF)	Visited PHF, discussed FP	Visited private health facility (PrHF)	Visited PrHF, discussed FP	Had some contact with FP worker or health facility	Discussed FP with FP worker or staff at health facility	Number of women
Age								
15-19	4.4	38.6	9.4	41.8	5.7	58.6	12.3	584
20-24	5.2	40.3	11.9	41.7	7.4	60.1	15.6	1,601
25-29	5.7	39.6	11.1	36.1	7.6	55.5	15.0	1,556
30-34	4.9	35.9	11.1	32.9	5.6	51.8	14.0	954
35-39	3.4	26.1	5.3	26.1	4.4	39.2	8.3	802
40-44	2.3	19.5	4.5	20.8	2.0	31.6	5.6	756
45-49	1.9	17.4	1.7	18.3	1.2	27.9	2.6	1,165
Urban-rural residence								
Urban	1.5	30.6	6.6	37.0	5.9	47.5	9.9	2,800
Rural	5.8	33.2	9.4	28.8	4.9	47.9	11.9	4,617
Place of residence								
Urban Governorates	0.2	29.3	5.1	37.2	4.9	45.7	8.0	1,112
Lower Egypt	4.9	32.2	6.0	36.5	5.1	49.9	9.2	2,688
Urban	2.0	31.7	6.9	39.3	6.8	49.7	10.9	738
Rural	5.9	32.4	5.7	35.4	4.5	50.0	8.6	1,949
Upper Egypt	4.6	33.0	11.1	26.9	5.4	46.6	13.7	3,516
Urban	1.7	30.7	7.9	35.3	6.4	47.5	11.5	892
Rural	5.6	33.7	12.2	24.0	5.1	46.3	14.4	2,624
Frontier Governorates	15.3	37.4	10.6	27.1	5.0	49.5	12.2	101
Education								
No education	4.1	29.0	9.4	20.3	3.4	39.5	10.7	2,766
Some primary	3.9	32.8	6.0	30.3	3.1	47.7	7.6	751
Primary complete/some								
secondary	4.6	32.4	7.4	31.1	6.0	47.8	11.3	1,021
Secondary complete/higher	4.2	35.1	8.3	43.7	7.3	55.6	12.5	2,880
Work status								
Working for cash	4.4	29.3	7.0	34.0	4.0	46.6	9.2	993
Not working for cash	4.2	32.7	8.6	31.6	5.4	47.9	11.5	6,425
Wealth quintile								
Lowest	5.6	33.4	10.5	22.1	3.4	45.0	12.1	1,524
Second	4.6	32.2	9.0	24.7	4.3	43.8	10.6	1,520
Middle	5.7	33.7	10.1	31.0	5.8	48.7	13.3	1,489
Fourth	3.3	35.3	7.3	41.4	7.5	54.1	11.9	1,462
Highest	1.4	26.2	4.6	41.4	5.3	47.3	7.8	1,423
Total	4.2	32.2	8.4	31.9	5.2	47.7	11.2	7,418

Taking into account both contacts with fieldworkers and contacts with health facilities, one in ten nonusers reported a contact in which family planning was discussed during the six months prior to the survey. This proportion was slightly higher than the level reported in the 2000 EDHS (7 percent).

Although the results in Table 7.6 suggest that there are many "missed" opportunities for informing and motivating nonusers about family planning, some caution must be exercised in drawing such conclusions. Not all visits to health providers present appropriate opportunities for offering family planning information or services, and not all nonusers are interested in or in need of family planning when they visit a facility. Nevertheless, the results in Table 7.6 suggest that there is potential for taking more advantage of visits to facilities to offer family planning information and counseling to nonusers.

This chapter considers a number of factors other than contraception that influence fertility. Marriage is among the most important of these proximate determinants since it is a primary indicator of women's exposure to the risk of pregnancy. Early age at first marriage in a population is usually associated with a longer period of exposure to the risk of pregnancy and thus higher fertility levels. The early initiation of childbearing associated with early marriage may also adversely affect women's and children's health.

Besides marriage, this chapter explores several other factors that influence fertility, including postpartum amenorrhea, postpartum abstinence, and menopause. Postpartum amenorrhea and postpartum abstinence determine the length of time a woman is insusceptible to pregnancy after childbirth, affecting birth intervals and thus fertility levels. Menopause is important since it marks the end of a woman's period of exposure to the risk of pregnancy.

In the 2005 EDHS, questions about the proximate determinants of fertility were included in the individual questionnaire, which was administered only to ever-married women. However, a number of the tables, which examine the proximate determinants in this chapter, are based on all women, i.e., on evermarried women and never-married women. In constructing these tables, the denominators have been expanded to represent all women by multiplying the number of ever-married women by an inflation factor equal to the ratio of all women to ever-married women reported in the household questionnaire. The inflation factors are calculated by single years of age, either for the population as a whole or, in cases where the results are presented by background characteristics, separately for each category of the characteristic in question.

### 8.1 **MARITAL STATUS**

Table 8.1 shows the distribution of all women age 15-49 by current marital status. Overall, 62 percent of women are currently married, three percent are widowed, two percent are divorced or separated (not living together), and 34 percent have never married. The proportion never married decreases rapidly with age, from 88 percent among women age 15-19 to 49 percent among women age 20-24. The virtual universality of marriage among women is further evidenced from the fact that among women age 30 and over, 94 percent or more are or have been married.

Table 8.1 Cu	urrent marital status	<u>s</u>					
Percent distri	bution of women l	oy current mari	tal status, accor	ding to age, Egy	pt 2005		
Age	Never married	Married	Divorced	Separated	Widowed	Total	Number of women
15-19	87.5	12.3	0.1	0.1	0.0	100.0	6,446
20-24	48.9	49.9	0.7	0.4	0.1	100.0	5,807
25-29	18.7	78.5	1.7	0.5	0.6	100.0	4,655
30-34	6.0	90.2	1.9	0.5	1.5	100.0	3,413
35-39	3.6	90.9	2.0	0.5	3.0	100.0	3,310
40-44	2.5	86.1	2.6	0.9	7.9	100.0	2,933
45-49	1.7	82.5	2.2	0.6	12.9	100.0	2,705
Total	33.5	62.1	1.3	0.4	2.6	100.0	29,270

Most disruption of marital unions appears to be due to the death of the husband. As expected, the proportion widowed increases steadily with age, from less than one percent among women under age 30 to 13 percent among women age 45-49. The proportion divorced and separated does not exceed four percent of women in any age group.

### 8.2 **CONSANGUINITY**

Marriages between relatives (consanguineous marriages) are common in Egypt. According to the 2005 EDHS data presented in Table 8.2, around one-third of ever-married women report that their current or, in the case of widowed or divorced women, their most recent husband was a relative. Slightly more than half of consanguineous marriages involve first cousins. In such marriages, the husband is somewhat more likely to be a relative from the father's side than the mother's side.

2005	First	cousin	Second	Second cousin		Relative by			
Background characteristic	Father's side	Mother's side	Father's side	Mother's side	Other blood relative	marriage/ not related	Missing	Total	Number of women
Current age									
15-19	12.6	11.0	5.4	2.1	9.2	59.5	0.1	100.0	803
20-24	11.7	7.4	4.6	2.3	8.3	65.5	0.2	100.0	2,968
25-29	10.6	5.4	4.8	3.1	7.2	68.7	0.1	100.0	3,785
30-34	10.2	6.0	4.4	3.1	7.2	69.0	0.1	100.0	3,209
35-39	10.8	6.1	4.5	2.8	7.8	67.9	0.0	100.0	3,191
40-44	11.1	6.8	3.9	3.3	7.5	67.3	0.1	100.0	2,859
45-49	11.1	6.6	3.7	2.8	5.7	70.0	0.1	100.0	2,659
Urban-rural residence		0.0	3.,	2.0	<i>311</i>	, 0.0	0		<b>-</b> /003
Urban	7.9	5.1	3.2	2.8	5.0	75.9	0.1	100.0	8,033
Rural	13.1	7.5	5.3	3.0	9.0	62.0	0.1	100.0	11,441
Place of residence									
Urban Governorates	7.0	5.2	2.8	3.2	4.3	77.3	0.2	100.0	3,293
Lower Egypt	8.5	5.7	3.1	2.4	6.8	73.4	0.1	100.0	8,410
Urban	6.3	4.4	2.1	1.7	4.9	80.4	0.2	100.0	2,199
Rural	9.2	6.2	3.4	2.7	7.5	70.9	0.1	100.0	6,211
Upper Egypt	15.4	8.0	6.5	3.3	9.3	57.5	0.0	100.0	7,552
Urban	10.3	5.4	4.6	3.3	5.8	70.5	0.1	100.0	2,411
Rural	17.7	9.1	7.4	3.3	11.0	51.4	0.0	100.0	5,141
Frontier Governorates	15.6	5.1	8.1	2.7	9.9	58.6	0.1	100.0	218
Education									
No education	14.8	7.9	6.0	3.5	8.1	59.4	0.1	100.0	6,740
Some primary Primary complete/some	12.0	6.4	4.9	3.3	8.5	65.0	0.0	100.0	2,197
secondary	10.5	6.8	4.5	3.3	8.4	66.4	0.2	100.0	2,719
Secondary complete/higher	7.5	5.2	2.8	2.1	6.1	76.1	0.1	100.0	7,818
Work status									
Working for cash	7.2	4.2	2.5	2.2	6.0	77.6	0.3	100.0	3,288
Not working for cash	11.7	7.0	4.8	3.0	7.7	65.7	0.1	100.0	16,186
Wealth quintile									
Lowest	15.8	7.4	6.7	3.1	10.2	56.7	0.1	100.0	3,565
Second	13.7	7.7	5.5	3.5	9.1	60.5	0.0	100.0	3,778
Middle	11.8	7.9	4.8	2.6	7.6	65.2	0.1	100.0	3,931
Fourth	8.1	5.8	3.3	3.0	5.7	73.8	0.1	100.0	4,137
Highest	6.3	3.9	2.1	2.3	4.8	80.4	0.2	100.0	4,063
Total	11.0	6.5	4.4	2.9	7.4	67.7	0.1	100.0	19,474

As expected, consanguineous marriages are more common in rural than in urban areas; more than one-third of the marriages in rural areas involve relatives. Even in urban areas, however, around onequarter of women marry a blood relative. Considering place of residence, the highest rate of consanguineous marriages is found in rural Upper Egypt, where around half of marriages are between relatives. The rate of consanguineous marriage is lowest in urban Lower Egypt (20 percent) and the Urban Governorates (23 percent). A woman's chance of marrying a relative decreases from 41 percent among women with no education to 24 percent among women with a secondary education or higher. The likelihood of consanguineous marriage is higher among women who are not working for cash than among women who are working for cash. It decreases by wealth quintile, from a level of 43 percent among women in the lowest wealth quintile to 20 percent of women in the highest quintile.

### 8.3 AGE AT FIRST MARRIAGE

The duration of exposure to the risk of pregnancy in a society is closely associated with the age at which women first marry. Thus, trends in age at first marriage can help explain changes in fertility levels in Egypt.

Table 8.3 shows both the percentage of women who have ever married by selected exact ages and the median age at first marriage, according to current age. The results document a substantial increase in the age at first marriage among younger cohorts. Accompanying the overall trend to later marriage is an especially marked decline in the proportion of women marrying at very young ages. The percentage of women married by exact age 15 has dropped from 13 percent among women age 45-49 to three percent among women age 20-24. The percentage of women married by exact age 18 has fallen from 36 percent among women 45-49 to 17 percent among women 20-24.

first marriage, accord			irst married	I by exact a	age:	Percentage		Median
Current age	15	18	20	22	25	never married	Number	age at first marriage
15-19	1.0	na	na	na	na	87.5	6,446	a
20-24	2.5	16.6	34.1	na	na	48.9	5,807	a
25-29	5.3	21.8	38.7	56.2	75.0	18.7	4,655	21.3
30-34	8.0	27.0	43.4	59.8	78.5	6.0	3,413	20.7
35-39	9.5	34.3	50.6	64.6	80.6	3.6	3,310	19.9
40-44	11.0	34.7	51.9	66.8	81.9	2.5	2,933	19.8
45-49	12.8	35.8	51.5	67.0	83.2	1.7	2,705	19.8
Women age 25-49	8.8	29.7	46.3	62.1	79.3	7.7	17,017	20.4

Differentials in the median age at first marriage by selected background characteristics are presented in Table 8.4. The table shows early marriage is much more common in rural than in urban areas. The median age at first marriage among urban women age 25-49 is 22 years, around three years higher than the median age at first marriage among rural women (19.2 years).

There are marked differentials in the age of first marriage among women 25-49 by place of residence. On average, Table 8.4 shows that women marry about two years earlier on average in rural Upper Egypt (18 years) than in rural Lower Egypt (20 years). The median age at first marriage is also around one year earlier in urban Upper Egypt (21.1 years) than in urban Lower Egypt (22 years). In turn, the median age at first marriage in the Urban Governorates (22.7 years) is higher than in either urban Lower Egypt or urban Upper Egypt. An examination of the trend across age cohorts suggests that there have been substantial increases over time in the median age at marriage within all areas, with the changes in rural Upper Egypt being especially marked.

Background			Wome age			
characteristic	25-29	30-34	35-39	40-44	45-49	25-49
Urban-rural residence						
Urban	22.7	22.3	21.7	21.4	21.7	22.0
Rural	20.3	19.7	18.6	18.3	18.3	19.2
Place of residence						
Urban Governorates	23.4	22.9	22.2	22.0	22.5	22.7
Lower Egypt	21.3	20.8	20.4	19.7	20.0	20.6
Urban	22.6	21.8	22.2	21.6	21.6	22.0
Rural	20.9	20.6	19.6	19.0	19.3	20.0
Upper Egypt	20.2	19.2	18.3	18.0	18.2	19.0
Urban	21.8	21.8	20.4	20.0	20.8	21.1
Rural	19.5	17.8	17.4	17.1	17.2	18.0
Frontier Governorates	22.2	20.9	20.6	20.9	19.0	21.0
Education						
No education	18.8	17.8	17.6	17.8	18.0	17.9
Some primary	19.1	18.2	17.7	18.0	18.6	18.3
Primary complete/some	20.0	19.6	18.9	19.7	20.2	19.7
Secondary complete/higher	22.7	22.9	23.0	23.4	24.2	23.0
Wealth quintile						
Lowest	19.0	18.0	17.3	16.9	17.4	17.8
Second	20.2	19.4	18.1	17.7	18.3	18.9
Middle	20.7	20.4	19.3	19.2	18.7	19.9
Fourth	21.7	21.7	21.3	20.4	20.4	21.3
Highest	23.9	23.0	23.0	22.8	22.9	23.1
Total	21.3	20.7	19.9	19.8	19.8	20.4

Note: Medians are not shown for women 15-19 and 20-24 because less than 50 percent have married by age 15 and age 20, respectively for most subgroups shown in

Table 8.4 also shows large differences in age at first marriage by educational level. The median age at first marriage among women with a secondary education is 23 years, more than three years higher than the median age among women who have completed the primary but not the secondary level (19.7 years) and about five years higher than among women who never attended school (17.9 years). The magnitude of the educational differential in the age at marriage does not vary greatly across age cohorts, which suggests that much of the upward trend in the age at marriage over the past several decades in Egypt has been due to increases in educational attainment among women.

The median age at first marriage also rises with the wealth quintile. The median age at first marriage among women in the lowest wealth quintile is 17.8 years compared to 23.1 years among women in the highest quintile.

### 8.4 POSTPARTUM AMENORRHEA, ABSTINENCE, AND INSUSCEPTIBILITY

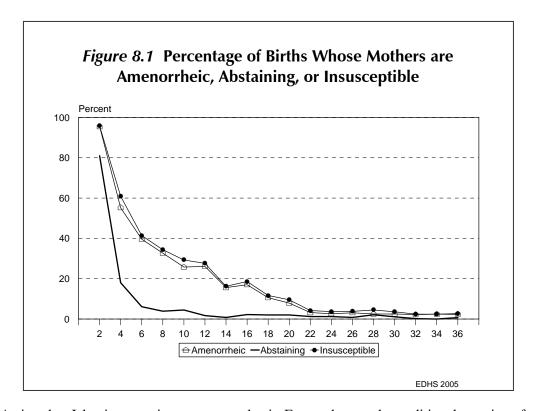
Among women who are not using contraception, exposure to the risk of pregnancy in the period after a birth is influenced primarily by two factors: breastfeeding and sexual abstinence. Breastfeeding prolongs postpartum protection from conception through its effect on the length of the period of amenorrhea (the period prior to the return of menses) after a birth. More frequent breastfeeding for longer durations as well as delays in the age at which supplementary foods are introduced are associated with longer periods of postpartum amenorrhea. Delaying the resumption of sexual relations after a birth also prolongs the period of postpartum protection. For the purposes of the following discussion, women are considered insusceptible to pregnancy if they are not at risk of conception, either because they are amenorrheic or abstaining after a birth.

The percentage of births occurring during the three years preceding the survey for which mothers are postpartum amenorrheic, postpartum abstaining, and postpartum insusceptible is shown in Table 8.5, according to the number of months since the birth. These distributions are based on current status information, i.e., on the proportion of births occurring x months before the survey for which mothers were still amenorrheic, abstaining, or insusceptible at the time of the survey. Thus, the results presented in the table are based on cross-sectional data, representing the experience of mothers of all births at a single point in time rather than showing the experience of a cohort of mothers over time. The data are grouped in two-month intervals to minimize the fluctuations in the estimates. The median and mean estimates shown at the bottom of Table 8.5 are calculated from the current status distributions presented in the table. The prevalence/incidence mean, which is also shown in Table 8.5, is obtained by dividing the number of mothers who are amenorrheic, abstaining, or insusceptible by the average number of births per month over the 36-month period.

Table 8.5 Postpartum amenorrhea, abstinence, and insusceptibility

Percentage of births in the th postpartum amenorrheic, abs median and mean durations,	ree years precedir staining, and insus	ng the survey for	which mothers a	
Months since	Percentage of	Number of		
birth	Amenorrheic	Abstaining	Insusceptible	births
< 2	95.5	81.0	95.8	352
2-3	55.2	18.0	60.9	419
4-5	39.6	6.1	41.4	486
6-7	32.7	3.9	34.4	483
8-9	25.8	4.5	29.3	481
10-11	26.1	1.7	27.6	413
12-13	15.6	0.8	16.2	461
14-15	17.0	2.2	18.6	413
16-17	10.6	2.0	11.7	503
18-19	7.9	2.0	9.5	422
20-21	3.2	1.2	4.2	507
22-23	2.6	1.2	3.7	408
24-25	3.1	0.8	3.8	369
26-27	2.5	2.1	4.5	478
28-29	2.5	1.1	3.6	477
30-31	2.2	0.2	2.4	454
32-33	2.4	0.0	2.4	490
34-35	2.3	0.7	2.7	441
Total	18.3	6.2	19.7	8,057
Median	3.6	1.8	3.9	-
Mean	7.2	2.9	7.7	-
Prevalence/incidence mean	6.5	2.2	7.0	-

Overall, the period of amenorrhea after birth is not long for the average Egyptian woman. As Figure 8.1 shows, the percentage of babies whose mothers are amenorrheic declines from over 90 percent in the two months immediately after a birth to 55 percent during the period two to three months after birth. By the period 4 to 5 months after a birth, mothers of 40 percent of births are still amenorrheic, and by 12 to 13 months after a birth, mothers have not resumed menstruation in the case of only 16 percent of births. The median duration of postpartum amenorrhea is 3.6 months, and the mean duration is 7.2 months. The relatively short average duration of postpartum amenorrhea is related to breastfeeding patterns, especially the early introduction of supplemental foods (see Chapter 13).



As in other Islamic countries, many couples in Egypt observe the traditional practice of abstaining from sexual relations for a period of 40 days after a birth. Reflecting this tradition, the percentage of births for which the mother is still abstaining decreases rapidly, from 81 percent in the 2-month period immediately after a birth to 18 percent at 2 to 3 months after a birth.

The combined effects of postpartum amenorrhea and postpartum abstinence are reflected in the period of postpartum insusceptibility after a birth. Overall, about 60 percent of Egyptian women are susceptible to the risk of pregnancy by 4 months after a birth. The median duration of the period of postpartum insusceptibility is 3.9 months.

The median durations of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility according to selected background characteristics are presented in Table 8.6. In general, the periods of insusceptibility to the risk of conception are longer for older women, rural women, women in Upper Egypt, women with no education and women in the lowest wealth quintile than for women in other groups. The median duration of postpartum insusceptibility is longest for women with no education (5.7 months). Differentials in the durations of insusceptibility are owed primarily to differences in the length of the periods of postpartum amenorrhea, since the average duration of postpartum abstinence does not vary greatly among the population subgroups.

Table 8.6 Median duration of postpartum amenorrhea, abstinence, and insusceptibility by background characteristics

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility following births in the three years preceding the survey, by background characteristics, Egypt 2005

Background	Percentage of	births for whic	h the mother is:	Number of
characteristic	Amenorrheic	Abstaining	Insusceptible	births
Age				
15-29	3.6	1.9	3.9	5,426
30-49	3.8	1.8	4.3	2,631
Urban-rural residence				
Urban	3.4	1.9	3.8	2,927
Rural	3.8	1.8	4.1	5,130
Place of residence				
Urban Governorates	3.4	1.8	3.5	1,132
Lower Egypt	2.9	1.9	3.1	3,184
Urban	2.5	2.0	2.7	743
Rural	3.0	1.8	3.2	2,441
Upper Egypt	4.6	1.8	5.3	3,642
Urban	4.4	2.0	5.1	990
Rural	4.8	1.7	5.5	2,652
Frontier Governorates	(3.7)	(2.1)	(3.8)	99
Education				
No education	5.2	1.7	5.7	2,446
Some primary	4.6	1.7	5.3	681
Primary complete/some				
secondary	3.3	1.8	3.4	1,193
Secondary complete/higher	3.1	1.9	3.4	3,737
Wealth quintile				
Lowest	5.0	1.5	5.3	1,650
Second	3.3	1.9	3.6	1,673
Middle	3.4	1.8	3.8	1,769
Fourth	3.1	2.0	3.4	1,633
Highest	3.8	2.0	4.0	1,331
Total	3.6	1.8	3.9	8,057

Note: Medians are based on current status and figures in parentheses are based on 25-49 unweighted cases.

#### 8.5 **TERMINATION OF EXPOSURE TO PREGNANCY**

Another factor influencing the risk of pregnancy among women is menopause among older women. Table 8.7 presents data on the proportion menopausal among women age 30 and over who are currently married, non-pregnant and non-amenorrheic. For the purposes of the table, an EDHS respondent is considered menopausal if she met one of the two following conditions: 1) she declared herself menopausal at the time of the interview, or 2) she had not had a period for six months or more before the survey and was neither pregnant nor amenorrheic.

Based on this definition, Table 8.7 shows that few respondents under age 40 are considered menopausal. However, the proportion menopausal rises rapidly with age, from eight percent of women age 40-41 to 44 percent of women in the oldest age group (48-49 years).

Table 8.7 Menopause

Percentage of women age 30-49 who are menopausal, by age, Egypt 2005

Age	Percentage menopausal <sup>1</sup>	Number of women
30-34	2.6	3,209
35-39	4.8	3,191
40-41	7.6	1,313
42-43	10.5	1,111
44-45	18.1	1,208
46-47	25.2	874
48-49	44.2	1,012
Total	11.2	11,917

<sup>&</sup>lt;sup>1</sup> Includes women who are not pregnant and not postpartum amenorrheic whose last menstrual period occurred six or more months preceding the survey and women who declare themselves to be menopausal

Insight into the fertility desires in a population is important, both for estimating the potential unmet need for family planning and for predicting future fertility. This chapter presents data from the 2005 EDHS on the fertility intentions of Egyptian women, the need for family planning services, and desired family size. It also considers the potential effect on fertility if unwanted pregnancies were prevented.

### 9.1 DESIRE FOR MORE CHILDREN

To obtain information on fertility preferences, non-sterilized currently married women were asked the question: "Would you like to have (a/another) child or would you prefer not to have any (more) children?" For pregnant women, the question was prefaced by the wording, "After the child you are expecting. . . ." Women who wanted more children were then asked how long they would like to wait before the birth of their next child. Sterilized women were considered to want no more children for the purposes of the fertility preference tabulations presented in this chapter.

Table 9.1 and Figure 9.1 show the reproductive intentions of currently married women in Egypt. The majority of married women do not want any more children (63 percent) or are sterilized (1 percent). Almost all of the remaining women (30 percent) want another child. Among those wanting another child, the majority—17 percent of all currently married women—either want to wait two years or more to have the next birth or are unsure of when they want another child. Less than half of the women who want another child—13 percent of all currently married women—want a child soon (within two years).

Table 9.1 Fertility preferences by number of living children
Percent distribution of currently married women by desire for children, according to number of living children Egypt 2005

		Number of living children <sup>1</sup>							
Desire for children	0	1	2	3	4	5	6+	Total	
Wants soon <sup>2</sup>	91.6	26.6	9.2	3.1	1.7	0.9	0.8	13.1	
Wants later <sup>3</sup>	0.2	62.1	21.8	5.0	1.6	0.9	0.3	16.2	
Wants, unsure timing	0.4	1.8	1.1	0.4	0.3	0.3	0.1	0.7	
Undecided	0.6	2.0	5.6	2.5	1.3	0.9	0.6	2.5	
Wants no more	0.9	5.6	60.5	85.7	89.4	88.3	89.7	63.3	
Sterilized	0.0	0.0	0.3	1.2	2.5	3.1	3.2	1.3	
Declared infecund	6.2	1.8	1.4	2.1	3.2	5.4	5.3	2.9	
Missing	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Number of women	1,143	2,834	4,148	4,254	2,726	1,508	1,574	18,187	

Note: Women who have been sterilized are considered to want no more children.

<sup>&</sup>lt;sup>1</sup> Includes current pregnancy

<sup>&</sup>lt;sup>2</sup> Wants next birth within 2 years

<sup>&</sup>lt;sup>3</sup> Wants to delay next birth for 2 or more years

The desire for a child is strongly related to the number of living children the woman has. There is very little interest in spacing the first birth. More than nine in ten women who had not yet begun childbearing at the time of the survey want a birth soon. More than eight in ten women who have one child also express a desire to have another; however, the majority (62 percent) of women who have one child want to wait two years or more to have the next birth. Among women with more than one child, the desire to cease childbearing rises rapidly with the number of children, from 61 percent among women with two children to 90 percent among women with six or more children.

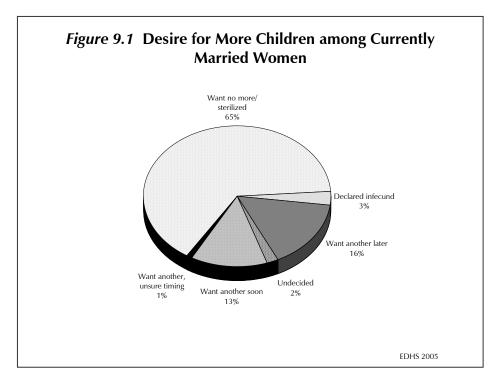


Table 9.2 shows the distribution of currently married women by the desire for children, according to age. As expected, older women are much more likely to want no more children than younger women. The proportion of women who want no more children or who are sterilized is only five percent in the youngest age group, increases to 26 percent among those age 20-24, and peaks at 89 percent among women age 40-44.

Table 9.2 Fertility preferen Percent distribution of curre	, ,	women by	desire for a	children, ac	ccording to	age, Egypt	2005	
Desire for children	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Wants soon <sup>1</sup>	33.6	23.6	17.6	10.9	8.1	5.4	3.5	13.1
Wants later <sup>2</sup>	57.9	45.6	23.1	8.0	1.9	0.3	0.1	16.2
Wants, unsure timing	1.4	1.2	0.9	1.0	0.6	0.2	0.0	0.7
Undecided	1.9	3.9	4.4	3.1	1.7	0.9	0.1	2.5
Wants no more	5.1	25.6	53.4	75.9	84.3	86.1	77.4	63.3
Sterilized	0.0	0.0	0.1	0.7	1.8	2.6	3.9	1.3
Declared infecund	0.0	0.1	0.4	0.4	1.5	4.5	14.9	2.9
Missing	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	792	2.898	3,653	3.077	3.010	2,525	2,233	18.187

Note: Women who have been sterilized are considered to want no more children.

<sup>&</sup>lt;sup>1</sup> Wants next birth within 2 years

<sup>&</sup>lt;sup>2</sup> Wants to delay next birth for 2 or more years

The desire to space children is concentrated among younger women. Fifty-eight percent of women age 15-19 and 46 percent of the women age 20-24 want to delay having a child for at least two years, compared to eight percent of those age 30-34.

Table 9.3 shows the variation in the percentage of currently married women who wanted no more children or who are sterilized with the number of living children (including any current pregnancy) for various subgroups. The results indicate that urban women express a desire to limit family size at lower parities than rural women. For example, 68 percent of urban women with two children want to stop childbearing, compared to 54 percent of rural women with two children. The urban-rural differential in the desire for children narrows among women with four or more children.

Background	ypt 2005  Number of living children <sup>1</sup>									
characteristic	0	1	2	3	4	5	6+	Tota		
Urban-rural residence										
Urban	1.5	8.0	68.0	88.8	92.8	92.1	93.9	65.8		
Rural	0.5	3.9	53.9	85.3	91.4	91.2	92.6	63.6		
Place of residence										
Urban Governorates	0.8	11.1	73.8	90.5	94.4	91.8	92.4	67.4		
Lower Egypt	0.7	5.3	63.5	93.0	94.6	92.1	95.0	66.9		
Urban	0.0	6.9	66.1	91.8	92.0	91.9	92.4	65.5		
Rural	0.9	4.7	62.4	93.5	95.4	92.1	95.5	67.4		
Upper Egypt	1.3	3.5	48.6	75.6	88.3	91.0	92.2	60.8		
Urban	4.1	4.8	60.2	83.5	92.1	93.2	95.0	64.1		
Rural	0.2	2.8	41.3	70.3	86.5	90.4	91.6	59.2		
Frontier Governorates	0.0	4.8	52.8	79.4	83.9	83.4	90.0	59.2		
Education										
No education	1.9	6.4	56.5	82.8	89.6	89.8	92.9	71.0		
Some primary	0.0	7.2	62.8	90.1	95.0	94.1	93.4	76.6		
Primary complete/some										
secondary	0.0	7.0	57.7	85.2	95.0	91.4	92.8	61.7		
Secondary complete/higher	0.8	4.9	63.0	89.0	92.8	94.4	90.9	57.0		
Work status										
Working for cash	1.4	8.9	67.1	91.1	94.0	95.0	94.2	71.6		
Not working for cash	8.0	5.2	59.4	85.8	91.6	90.9	92.8	63.2		
Wealth quintile										
Lowest	0.9	4.9	53.1	80.5	88.5	93.2	92.4	66.8		
Second	1.1	6.1	51.1	84.2	91.6	87.7	92.9	64.4		
Middle	1.0	3.8	55.9	87.5	92.3	92.4	94.5	63.0		
Fourth	0.9	4.8	64.6	89.1	93.8	95.0	94.6	63.9		
Highest	0.6	8.5	70.6	89.7	93.9	88.4	86.4	64.9		
Total	0.9	5.7	60.8	86.9	92.0	91.4	92.9	64.5		

<sup>1</sup> Includes current pregnancy

Looking at the differentials by place of residence, married women living in the Frontier Governorates and rural Upper Egypt are generally the least likely to want to limit childbearing. For example, 60 percent or more of married women with two children in the Urban Governorates, in urban areas in Upper and Lower Egypt, and in rural Lower Egypt want no more children (or are sterilized). In contrast, 41 percent of married women with two children in rural Upper Egypt and 53 percent in the Frontier Governorates want to limit childbearing.

Table 9.3 also shows that overall the proportion wanting no more children generally declines as the woman's educational level increases. To some extent, this pattern reflects the interrelationships between a woman's age, education level and her fertility preferences; educational levels are higher among younger women than older women and younger women are more likely to want another child than older women. Interestingly, the relationship between the woman's educational status and the desire for children is not uniformly positive within parity groups.

Women who are working for cash are consistently slightly more likely to want to limit childbearing than other women, regardless of the number of children the woman has. On the other hand, the desire to limit childbearing is not consistently related to wealth.

### 9.2 **NEED FOR FAMILY PLANNING**

One of the major concerns of family planning programs is to define the size of the potential demand for contraception and to identify women who are the most in need of contraceptive services. Table 9.4 presents estimates of unmet need and of met need for family planning services, and of the total demand for family planning in Egypt as a whole and for various subgroups.

Women with an *unmet need for family planning* (shown in columns 1-3 of Table 9.4) include the following:

- Currently married women who are in need of family planning for spacing purposes. This group includes (a) pregnant women whose pregnancy is mistimed (i.e., wanted later); (b) amenorrheic women whose last birth was mistimed; and (c) nonusers who are neither pregnant nor amenorrheic and who either want to delay the next birth at least two or more years, are unsure whether they want another child, or want another child but are unsure when to have the birth.
- Currently married women who are in need of family planning for limiting purposes. This group includes: (a) pregnant women whose pregnancy is unwanted; (b) amenorrheic women whose last child was unwanted; and (c) nonusers who are neither pregnant nor amenorrheic and who want no more children.

Menopausal and infecund women are excluded from the unmet need category as are pregnant or amenorrheic women who became pregnant while using a contraceptive method. These women are considered to be in need of better contraception.

Women with a met need for family planning (shown in columns 4-6 of Table 9.4) include women who are currently using contraception. The total demand for family planning (shown in columns 10-12 of Table 9.4) represents the sum of unmet need and met need. The total demand also includes pregnant and amenorrheic women who became pregnant while using a family planning method. The percentage of the total demand that is satisfied is shown in the column 13 in Table 9.4.

Table 9.4 Need for family planning by background characteristics

Percentage of currently married women with unmet need and met need for family planning, and the total demand for family planning, by background characteristics, Egypt 2005

					Met need	1							Percent-	
	U	nmet need	$d^1$	(cu	rrently usi		Contra	aceptive fa	ailure³	To	tal deman	d <sup>4</sup>	age of	Number
Background	For	For		For	For		For	For		For	For		demand	of
characteristic	spacing	limiting	Total	spacing		Total	spacing		Total	spacing	limiting	Total	satisfied	women
Age														
15-19	8.2	8.0	9.0	24.2	2.1	26.3	1.1	0.0	1.1	33.5	2.9	36.5	75.3	792
20-24	8.0	2.6	10.6	30.5	14.3	44.7	1.0	0.1	1.0	39.5	17.0	56.4	81.1	2,898
25-29	6.5	5.1	11.6	20.6	36.8	57.4	1.0	0.7	1.6	28.1	42.5	70.6	83.6	3,653
30-34	2.7	8.5	11.3	9.4	59.6	69.0	0.6	0.8	1.3	12.7	68.9	81.6	86.2	3,077
35-39	8.0	10.0	10.8	3.5	69.8	73.3	0.2	0.5	0.6	4.5	80.2	84.7	87.3	3,010
40-44	0.3	9.1	9.4	1.0	69.1	70.1	0.1	0.4	0.5	1.4	78.5	79.9	88.3	2,525
45-49	0.0	7.1	7.1	0.1	47.8	47.8	0.0	0.1	0.1	0.1	54.9	55.0	87.1	2,233
Urban-rural residence														
Urban	2.9	5.6	8.5	13.1	49.6	62.6	0.6	0.3	0.9	16.5	55.5	72.0	88.3	7,490
Rural	4.1	7.4	11.5	11.9	44.9	56.8	0.5	0.5	1.0	16.5	52.9	69.3	83.4	10,697
Place of residence														
Urban Governorates	2.5	6.1	8.5	12.9	51.0	63.9	0.8	0.4	1.2	16.2	57.4	73.6	88.4	3,078
Lower Egypt	2.6	4.6	7.1	13.2	52.7	65.9	0.4	0.5	0.9	16.2	57.7	74.0	90.4	7,884
Urban	2.8	4.4	7.3	13.0	51.1	64.1	0.2	0.5	0.6	16.0	56.0	72.0	89.9	2,057
Rural	2.5	4.6	7.1	13.3	53.3	66.5	0.5	0.5	1.0	16.3	58.3	74.6	90.5	5,826
Upper Egypt	5.2	9.3	14.6	11.2	38.7	49.9	0.5	0.3	0.8	16.9	48.4	65.3	77.7	7,019
Urban	3.5	6.0	9.5	13.3	46.7	60.0	0.6	0.2	8.0	17.5	52.8	70.3	86.5	2,230
Rural	6.0	10.9	17.0	10.2	35.0	45.2	0.4	0.4	0.9	16.7	46.3	63.0	73.1	4,789
Frontier Governorates	2.2	6.8	9.1	12.3	38.4	50.7	0.9	0.5	1.4	15.4	45.7	61.1	85.2	206
Education														
No education	3.3	9.6	12.9	7.2	47.6	54.8	0.3	0.5	8.0	10.8	57.7	68.5	81.1	6,116
Some primary	1.6	8.3	9.9	7.5	55.3	62.8	0.7	0.6	1.2	9.8	64.2	73.9	86.6	2,019
Primary complete/some														
secondary	4.1	6.0	10.1	14.1	46.1	60.2	0.4	0.2	0.6	18.5	52.3	70.8	85.8	2,564
Secondary complete/	4 1	4.1	0.2	172	44.2	C1 F	0.0	0.4	4.0	22.2	40.7	70.0	00.4	7 400
higher	4.1	4.1	8.2	17.3	44.2	61.5	8.0	0.4	1.2	22.3	48.7	70.9	88.4	7,488
Work status														
Working for cash	1.9	5.7	7.7	9.5	56.5	66.0	0.4	0.3	0.7	11.8	62.6	74.3	89.7	2,920
Not working for cash	3.9	6.9	10.8	12.9	45.0	57.9	0.6	0.4	1.0	17.4	52.3	69.7	84.6	15,267
Wealth quintile														
Lowest	5.1	9.0	14.2	9.1	44.3	53.4	0.5	0.4	8.0	14.7	53.7	68.3	79.3	3,266
Second	3.7	7.8	11.5	11.4	45.3	56.7	0.4	0.7	1.1	15.5	53.7	69.3	83.4	3,509
Middle	4.0	6.6	10.6	13.9	45.6	59.5	0.5	0.2	0.7	18.4	52.4	70.8	85.0	3,675
Fourth	3.2	5.1	8.4	13.8	48.7	62.5	0.6	0.4	1.0	17.6	54.3	71.9	88.4	3,897
Highest	2.1	5.3	7.5	13.2	49.7	62.9	0.7	0.4	1.0	16.0	55.4	71.4	89.6	3,840
Total	3.6	6.7	10.3	12.4	46.8	59.2	0.5	0.4	1.0	16.5	53.9	70.4	85.4	18,187

<sup>&</sup>lt;sup>1</sup> Unmet need for spacing includes pregnant women whose pregnancy was mistimed, amenorrheic women whose last birth was mistimed, and women who are neither pregnant nor amenorrheic and 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 women who 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 whose last child was unwanted, and women who are neither pregnant nor amenorrheic and who are not using any method of family planning and who want no more children. Excluded from the unmet need category are pregnant and amenorrheic women who became pregnant while using a method (these women are in need of a better method of contraception). Also excluded are menopausal or infecund women.

<sup>&</sup>lt;sup>2</sup> 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.

<sup>&</sup>lt;sup>3</sup> Contraceptive failure includes pregnant or amenorrheic women who became pregnant while using a contraceptive method. These women are considered in need for better contraception.

<sup>&</sup>lt;sup>4</sup> Total demand includes pregnant or amenorrheic women who became pregnant while using a method (contraceptive failure) in addition to the unmet and met need for family planning.

According to Table 9.4, the total unmet need in Egypt is 10 percent; about a third of this need represents a desire to space the next birth, and the remainder represents an interest in limiting births. The total met need for family planning (i.e., the proportion of women currently using contraception) is 59 percent. Most users are limiters, with only about one in eight users reporting a desire to delay the next birth for two or more years.

Overall, the total demand for family planning comprises 70 percent of married women in Egypt. Eighty-five percent of that demand is satisfied. Looking at variations in the proportion of the total demand for family planning that is satisfied, the most striking finding in Table 9.4 is the fact that 80 percent or more of the demand for services is satisfied in almost all subgroups. The level of satisfied demand is highest among women living in rural Lower Egypt (91 percent) and lowest among women living in rural Upper Egypt (73 percent).

Table 9.5 considers the reasons women who want to delay or avoid another method give in response to the question of why they are not using contraception. Almost two-thirds of these women gave fertility-related reasons in response to this question; 35 percent mentioned that they were not exposed to pregnancy because they were menopausal or had had a hysterectomy, had difficulty becoming pregnant. or were still amenorrheic following their last birth. Around one in four said they were not having sexual intercourse or had sex infrequently. Health concerns, side effects, and lack of knowledge were each cited by between 10 and 15 percent of the women.

### 9.3 **IDEAL NUMBER OF CHILDREN**

The discussion of fertility preferences earlier in this chapter focused on the respondent's wishes for the future. A woman's preferences obviously are influenced by the number of children she already has. The 2005 EDHS attempted to obtain a measure of fertility preferences that is less dependent on the woman's current family size by asking about the respondent's ideal number of children. The question about ideal family size required a woman to perform the difficult task of considering the number of

Table 9.5 Reason for not intending to use contraception Percentage of currently married women who are not using a contraceptive method and who want to delay or avoid having a birth by the reasons they are not using a method, according to the fertility intention, Egypt 2005

Reason	Wants later	Does not want	Total
Fertility-related Not having sex Infrequent sex/no sex	66.6	65.7	65.9
	1.9	4.4	3.9
	23.3	21.5	21.9
Menopausal/had hysterectomy	0.1	17.1	13.9
Subfecund/infecund	3.8	11.7	10.2
Postpartum/amenorrheic	26.2	7.5	11.0
Breastfeeding	11.3	3.5	5.0
Opposition to use Respondent opposed Husband/partner opposed Others opposed Religious prohibition	11.8	6.8	7.8
	1.7	2.0	2.0
	8.1	3.7	4.5
	1.8	0.4	0.7
	0.2	0.7	0.6
Lack of knowledge	6.4	11.7	10.7
Knows no source	6.4	11.7	10.7
Method-related Health concerns Fear of side effects Lack of access/too far Costs too much Inconvenient to use Interfere with body's normal processes	20.2	28.9	27.1
	6.4	11.7	10.7
	12.9	14.6	14.2
	0.4	0.2	0.2
	0.2	0.2	0.2
	0.3	0.6	0.5
Other Fatalistic Waiting for period to return Other	7.9	7.7	7.7
	0.8	3.5	3.0
	6.4	3.6	4.1
	0.7	0.6	0.6
Number of women	556	2,408	2,964

children she would choose to have in her whole life regardless of the number (if any) that she had already borne. Eight percent of women gave a nonnumeric response to the question about ideal family size, reflecting the difficulty that these respondents had with the abstract nature of the question.

Table 9.6 shows the distribution of ever-married women by their ideal number of children, according to number of living children. In considering the results in Table 9.6, it is important to remember that for several reasons, the ideal number of children tends to be fairly closely associated with the actual number of children a woman has. First, women who want a large family tend to have more children than other women. Second, women may rationalize their ideal family size so that as the actual number of children increases, their preferred family size also increases. Furthermore, women with a larger family being on average older than women with small families—may prefer a larger ideal family size because of attitudes that they acquired 20 to 30 years ago.

Overall, Table 9.6 shows that ever-married women who expressed a numeric preference wanted an average of 2.9 children. Forty percent of ever-married women who expressed a numeric preference want a two-child family, while 27 percent consider a three-child family ideal. Relatively few want five or more children. As expected, higher parity women show a preference for more children; the mean ideal number of children ranges from 2.5 children among women with one child to 4.0 children among women with six or more children.

Table 9.6 Ideal number of children

Percent distribution of ever-married women by ideal number of children, and mean ideal number of children for evermarried women and for currently married women, according to number of living children, Egypt 2005

			Numbe	r of living o	children <sup>1</sup>			
Desire for children	0	1	2	3	4	5	6+	Total
0	1.1	0.2	0.4	0.2	0.3	0.5	0.7	0.4
1	9.5	3.3	2.2	1.9	1.2	0.7	0.3	2.3
2	52.4	58.2	56.2	32.6	28.7	21.8	16.7	40.4
3	16.7	25.2	24.8	42.9	21.3	24.6	17.0	27.3
4	8.7	6.9	9.0	12.4	32.0	24.3	30.0	16.0
5	2.3	0.9	1.3	1.8	2.7	10.2	8.0	2.9
6+	2.4	1.1	1.2	1.6	3.1	3.9	11.9	2.8
Non-numeric responses	6.9	4.1	4.9	6.7	10.8	14.0	15.3	7.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	1,297	3,073	4,406	4,488	2,867	1,639	1,704	19,474
Mean ideal number children								
Ever-married women	2.5	2.5	2.5	2.9	3.2	3.5	4.0	2.9
Number of women	1,208	2,946	4,191	4,187	2,557	1,409	1,442	17,940
Currently married women	2.5	2.5	2.5	2.9	3.2	3.4	3.9	2.9
Number	1,072	2,738	3,949	3,978	2,432	1,292	1,337	16,798

Note: The mean excludes women giving non-numeric answers.

The results in Table 9.6 also clearly show that many women in Egypt have had more children than they would now prefer. For example, more than half of the women with four children say that they would prefer to have three or fewer children. More than 70 percent of the women with five children consider a smaller family ideal.

Table 9.7 presents the mean ideal number of children for ever-married women among various subgroups. On average, women who live in the Urban Governorates, in Lower Egypt (either in urban or rural areas) and in urban Upper Egypt, women have completed at least a primary education, and women in the middle through highest wealth quintiles want fewer than three children. The mean ideal family size is highest (3.3 children) in the Frontier Governorates and in rural Upper Egypt.

<sup>&</sup>lt;sup>1</sup> Includes current pregnancy

Table 9.7 Mean ideal number Mean ideal number of child		,				backgrou	nd charao	cteristics,
Egypt 2005				, ,	O	O		,
Background								
characteristic	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Total
Urban-rural residence								
Urban	2.6	2.4	2.6	2.7	2.7	2.9	3.0	2.7
Rural	2.6	2.6	2.8	2.9	3.1	3.4	3.6	3.0
Place of residence								
Urban Governorates	2.6	2.4	2.5	2.6	2.6	2.7	2.8	2.6
Lower Egypt	2.4	2.4	2.5	2.7	2.8	3.1	3.2	2.7
Urban	2.3	2.4	2.5	2.7	2.8	3.0	3.0	2.7
Rural	2.4	2.4	2.5	2.7	2.8	3.1	3.3	2.7
Upper Egypt	2.8	2.8	2.9	3.1	3.3	3.6	3.9	3.2
Urban	2.7	2.5	2.7	2.9	2.9	3.1	3.4	2.9
Rural	2.8	2.9	3.0	3.2	3.5	3.8	4.1	3.3
Frontier Governorates	2.8	3.3	3.3	3.3	3.4	3.4	3.6	3.3
Education								
No education	2.6	2.8	2.9	3.1	3.2	3.4	3.6	3.2
Some primary	2.8	2.5	2.7	2.9	3.0	3.1	3.5	3.0
Primary complete/some								
secondary	2.8	2.6	2.7	2.8	2.9	3.1	3.3	2.8
Secondary complete/higher	2.4	2.5	2.6	2.7	2.7	2.8	2.8	2.6
Work status								
Working for cash	2.3	2.4	2.6	2.7	2.7	3.0	2.9	2.8
Not working for cash	2.6	2.6	2.7	2.8	3.0	3.2	3.5	2.9
Wealth quintile								
Lowest	2.6	2.8	2.9	3.1	3.3	3.7	3.9	3.2
Second	2.8	2.6	2.8	3.0	3.2	3.3	3.6	3.0
Middle	2.5	2.6	2.7	2.8	3.0	3.2	3.5	2.9
Fourth	2.5	2.5	2.7	2.8	2.8	3.0	3.2	2.8
Highest	2.9	2.4	2.5	2.7	2.7	2.9	2.9	2.7
Total	2.6	2.6	2.7	2.8	3.0	3.1	3.3	2.9

The results in Table 9.8 indicate that 64 percent of currently married women believe that they and their husband agree about the number of children they want. Among the remaining women, the majority believe that their husband would like to have more children than they themselves want. Women whose ideal family size is between two and four children are more likely to say that their husband shares the same family size goal than women who want less than two children or more than five children.

Table 9.8 Husband's f	ertility prefe	erence by v	wife's ideal	number of	children				
Percent distribution of of children, Egypt 2005	,	narried wo	men by hu	sband's fert	ility prefer	ence, acco	rding to th	e woman's id	eal number
Husband's fertility			Woman's i	deal umbei	of childre	n <sup>1</sup>		Non- numeric	
preference	0	1	2	3	4	5	6+	responses	Total
Wants same	10.7	48.1	69.5	70.6	62.9	50.1	40.1	37.0	64.3
Wants more	38.7	39.2	22.9	18.2	23.1	25.8	34.6	16.5	22.0
Wants fewer	6.7	1.0	2.5	4.4	5.9	7.9	13.8	3.0	4.1
Sterilized	8.0	1.4	0.9	1.3	1.3	1.6	2.1	2.5	1.3
Don't know	43.1	10.4	4.1	5.6	6.8	14.6	9.4	40.9	8.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	51	401	7,360	5,055	2,910	531	489	1,390	18,187
<sup>1</sup> Includes current preg	nancy								

### 9.4 UNPLANNED AND UNWANTED FERTILITY

Several indicators of the level of unwanted fertility can be derived from the 2005 EDHS data. First, responses to a question about the planning status of prior births, i.e., whether a birth was planned (wanted then), unplanned (wanted later), or not wanted at all, provide some indication of the extent of unwanted childbearing. In interpreting these data, however, it is important to remember that women may rationalize mistimed or unwanted pregnancies, declaring them as wanted after the children are born.

Table 9.9 shows the percent distribution of births in the five years preceding the 2005 EDHS by planning status of the birth. Overall, 19 percent of births in the five-year period were not wanted at the time of conception, with seven percent wanted but at a later time and 12 percent not wanted at all. The proportion of births that were not wanted at the time of conception increases directly with birth order. Somewhat more than two-fifths of all fourth and higher order births were unplanned, compared to only about 15 percent of second order births. The planning status of births is also affected by the age of the mother. In general, the older the mother, the larger the percentage of children that are unwanted at conception; for example, more than half of the births to women age 40-44 are unwanted.

Percent distributi pregnancies), by t Egypt 2005						
Birth order and		Planning s	tatus of birth			
mother's age	Wanted	Wanted	Wanted no			Number of
at birth	then	later	more	Missing	Total	births
Birth order						
1	97.6	1.5	0.1	0.9	100.0	4,731
2	83.7	14.2	1.1	0.9	100.0	4,057
3	78.2	8.9	11.8	1.1	100.0	2,915
4+	55.1	5.8	38.3	0.7	100.0	3,693
Age at birth						
<20	93.2	4.8	0.5	1.4	100.0	1,750
20-24	87.7	8.8	2.7	8.0	100.0	5,447
25-29	80.8	8.7	9.4	1.0	100.0	4,331
30-34	68.5	5.7	25.3	0.5	100.0	2,420
35-39	55.7	2.8	40.9	0.6	100.0	1,125
40-44	43.3	2.5	52.6	1.6	100.0	303
45-49	*	*	*	*	100.0	19
Total	80.1	7.3	11.7	0.9	100.0	15,394

A second approach to measuring unwanted fertility is to calculate what the fertility rate would be if all unwanted births were avoided. This wanted fertility rate is calculated in the same manner as the total fertility rate, but unwanted births are excluded from the numerator. For this purpose, unwanted births are defined as those that exceed the number considered ideal by the respondent. Women who did not report a numeric ideal family size are assumed to have wanted all their births. To the extent that women are unwilling to report an ideal family size that is lower than their actual family size, the wanted fertility rate may be overestimated.

Table 9.10 presents total wanted fertility rates and total fertility rates for the three-year period before the survey for various subgroups. Overall, the wanted fertility rate is 2.3 births per woman. Thus, if unwanted births could be eliminated, the total fertility rate in Egypt would decline by around 25 percent. The gap between the wanted and actual fertility rates is greatest among rural women (especially those living in Upper Egypt), women in the Frontier Governorates, women who never attended school or have less than a primary education, and women in the lowest wealth quintile.

Table 9.10 Wanted fertility ra	ates by background cl	naracteristics
Total wanted fertility rates ar years preceding the survey, by 2005	,	
		Total
Background	Total wanted	fertility
characteristic	fertility rates	rate
Urban-rural residence	21	2.7
Olbaii	2.1	4.7

Rural 2.5 3.4 Place of residence 1.9 Urban Governorates 2.5 Lower Egypt 2.3 2.9 2.1 2.7 Urban Rural 2.3 3.0 Upper Egypt 2.5 3.7 Urban 2.4 3.1 Rural 2.6 3.9 2.3 Frontier Governorates 3.3 **Education** 2.6 No education 3.8 Some primary 2.4 3.4 Primary complete/some secondary 2.0 2.9 Secondary complete/higher 2.4 3.0 Wealth quintile 2.4 3.6 Lowest Second 2.3 3.3 Middle 2.4 3.3 2.3 Fourth 3.0 Highest 2.1 2.6 Total 2.3 3.1

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 4.2.

**INFANT AND CHILD MORTALITY** 

This chapter deals with information on the levels and trends in mortality among children under five years of age in Egypt. The chapter also looks at the variation in mortality levels according to demographic and socioeconomic characteristics that have been shown to influence infant and childhood mortality (e.g., residence, young maternal age at birth, and short birth intervals). The mortality levels from the 2005 EDHS are central to the assessment of the current demographic situation in Egypt. Mortality levels are also one of the main indicators of the standard of living or development of a population. Thus, identifying segments of the child population that are at greater risk of dying contributes to efforts to improve child survival and lower the exposure of young children to risk.

# **10.1** Assessment of Data Quality

The 2005 EDHS mortality estimates are calculated from information that was collected in the birth history section of the woman's questionnaire. The birth history section includes a set of initial questions about the number of sons and daughters living with the mother, the number who live elsewhere, and the number who have died. These questions are followed by a retrospective birth history in which a listing of all of the respondent's births is obtained, starting with the first birth. For each birth, information is collected on the sex, month and year of birth, survivorship status, and current age, or age at death, of each of the respondent's live births. This information is used to directly estimate the mortality rates.

In this chapter, the following rates are used to assess and measure infant and child mortality:

**Neonatal mortality:** the probability of dying within the first month of life; **Postneonatal mortality:** the difference between infant and neonatal mortality;

**Infant mortality:** the probability of dying during the first year of life;

**Child mortality:** the probability of dying between the first and fifth birthday;

**Under-five mortality:** the probability of dying before the fifth birthday.

The reliability of mortality estimates derived from birth history data is affected by a number of factors. These factors include the completeness with which deaths of children are reported, and the extent to which birth dates and ages at death are accurately reported. Omissions of either births or deaths are a more serious problem since they affect the level of the mortality estimates. Errors in reporting of birth dates may cause a distortion of trends over time, while errors in reporting of age at death can distort the age pattern of mortality.

Omissions can be detected by examining the proportion of neonatal deaths that occur during the first week of life and the proportion of infant deaths that take place during the first month of life. If there is substantial underreporting of deaths, the result would be an abnormally low ratio of deaths under seven days to all neonatal deaths. Since underreporting of deaths is likely to be more common for births that occurred a long time before the survey, it is important to explore whether these ratios change markedly over time.

Inspection of the ratio of deaths in the first six days of life to all neonatal deaths (shown in Appendix Table D.5) shows that the proportion of neonatal deaths that took place in the first week of life ranges from 68 percent for deaths during the period 0-4 years before the survey to 54 percent for deaths during the period 10-14 years before the survey. There is less variation over time in the proportion of neonatal to all infant deaths (shown in Appendix Table D.6), which ranges from 63 percent in the period 0-4 years before the survey to 49 percent during the period 15-19 years before the survey. These ratios are within acceptable limits for the levels of mortality observed during these time periods.

Errors in the reporting of birth dates also affect the accuracy of period mortality estimates. An examination of the distribution of dead children according to their birth date indicates that there is an excess of deaths in calendar year 1999 (shown in Appendix Table D.4). The transference occurred in the case of both living and dead children. A similar pattern is evident in the data from Demographic and Health Surveys in other countries as well as Egypt; it is thought to result, at least partially, from interviewer transference of births out of the period for which health data were collected (January 2000 through the date of the survey) in order to reduce the workload. The effect of the transference is a slight underestimate of mortality in the period 0-4 years prior to the survey and an overestimate of mortality in the period 5-9 years prior to the survey. Results from a simulation study conducted with a number of DHS countries suggests the error introduced in the mortality estimates is typically less than five percent (Macro International Inc., 1993).

Another problem common to the collection of birth history data is heaping of age at death, especially at age 12 months. Errors in the reporting of the age at death will bias estimates of the age pattern of mortality if the errors result in transference of deaths between the age segments for which the rates are calculated. For example, an overestimate of child mortality relative to infant mortality may result if children who died during the first year of life are reported to have died at age one year (12 months) or older. In an effort to avoid this problem, EDHS interviewers were instructed to record the age at death in months for deaths under age two years. In addition, they were asked to probe whenever the mother reported an age at death of "1 year" or "12 months." Despite these procedures, the data on age at death from the 2005 EDHS exhibits considerable heaping at age 12 months (shown in Appendix Table D.6). However, the heaping is much less evident for deaths occurring in the period 0-4 years before the survey than for deaths taking place further in the past. Moreover, the effect of heaping on the 2005 EDHS mortality estimates is not large.

## 10.2 LEVELS AND TRENDS IN EARLY CHILDHOOD MORTALITY

Neonatal, postneonatal, infant, child, and under-five mortality rates are shown in Table 10.1 for a fifteen-year period preceding the 2005 EDHS. These results describe the current level of mortality in Egypt and allow an assessment of recent trends in mortality among young children.

### Levels

Under-five mortality for the period 0-4 years before the survey was 41 deaths per 1,000 births. At this level, about one in twenty-four Egyptian children will die before the fifth birthday. The infant mortality rate was 33 deaths per 1,000 births, and the neonatal mortality rate was 20 deaths per 1,000 births. This indicates that around 80 percent of early childhood deaths in Egypt are taking place before a child's first birthday, with nearly half occurring during the first month of life.

# **Trends Based on Retrospective Data**

The mortality estimates shown in Table 10.1 may be used to examine the trends in early childhood mortality in Egypt over the past 15 years. The results suggest that early childhood mortality levels have declined steadily over the period. Infant mortality decreased by around 45 percent, from a level of 60 deaths per 1,000 births during the period 10-14 years before the survey (circa 1991-1995) to a level of 33 deaths per 1,000 in the five-year period preceding the EDHS (circa 2001-2005). Under-five

mortality declined from 81 deaths per 1,000 births during the period 10-14 years before the survey to 41 deaths in the five-year period before the survey.

Table 10.1 E	arly childhood	mortality rates			
′ '	stneonatal, infeding the surve	ant, child, and ι ey, Egypt 2005	ınder-five m	ortality rates	for five-year
Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality (PNN) <sup>1</sup>	Infant mortality (1q <sub>0</sub> )	Child mortality (4q1)	Under-five mortality (₅q₀)
0-4	19.7	13.5	33.2	8.1	41.0
5-9	26.0	21.8	47.8	12.2	59.4
	32.2	28.1	60.3	22.1	81.0

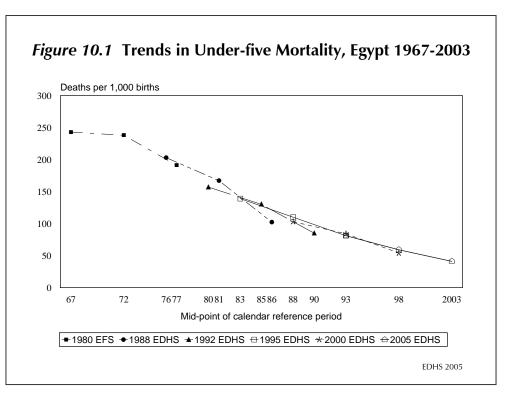
# **Trends Based on Data from Multiple Surveys**

Another approach to looking at trends in mortality levels involves the comparison of estimates from surveys conducted at different points in time. Table 10.2 and Figure 10.1 present the trend in early childhood mortality rates for successive five-year periods before the four rounds of the Egypt DHS surveys and the 1980 Egypt Fertility Survey. Together the estimates span the forty-year period between the 1980 EFS and the 2005 EDHS.

Preference period	Approximate midpoint	Survey	Neonatal mortality	Infant mortality	Under-five mortality
2001-2005	2003	2005 EDHS	20	33	41
1996-2000	1998	2005 EDHS	26	48	59
1996-2000	1998	EDHS-00	24	44	54
1991-1995	1993	2005 EDHS	32	60	81
1991-1995	1993	EDHS-00	34	66	84
1991-1995	1993	EDHS-95	30	63	81
1988-1992	1990	EDHS-92	33	62	85
1986-1990	1988	EDHS-00	37	74	103
1986-1990	1988	EDHS-95	44	82	110
1984-1988	1986	EDHS-88	39	73	102
1983-1987	1985	EDHS-92	51	97	130
1981-1985	1983	EDHS-95	45	97	139
1979-1983	1981	EDHS-88	58	120	167
1978-1982	1980	EDHS-92	48	108	15 <i>7</i>
1975-1979	1977	EFS-80	59	132	191
1974-1978	1976	EDHS-88	53	124	203
1970-1974	1972	EFS-80	67	146	238
1965-1969	1967	EFS-80	63	141	243

Source: EFS-80: Abdel-Azeem et al., 1993, Table 10.4 EDHS-88: Sayed et al., 1989, Table 8.3 and 8.4 EDHS-92: El-Zanaty et al., 1993, Table 10.1

EDHS-95: El-Zanaty et al., 1995, Table 9.1 EDHS-00: El-Zanaty and Way., 2001, Table 10.1



In examining the estimates, it is important to remember that the reporting of mortality events is generally better for the five-year period immediately before a survey since mothers are more likely to forget or fail to mention deaths further back in time. Thus, the estimate for the five-year period immediately prior to each of the surveys shown in Table 10.2 is likely to be the most accurate. Sampling error also must be taken into account in interpreting the trends in the table. Sampling errors are typically fairly large for mortality rates. For these reasons, the differences between mortality estimates for roughly the same time periods from the various surveys in Table 10.2 should be interpreted with caution, particularly where they are small.

The estimates presented in Table 10.2 confirm that early childhood mortality has fallen significantly in Egypt during the past three decades. An Egyptian child was almost six times as likely to die before the fifth birthday in the mid-1960s as in the late 1990s (Figure 10.1). The trends in Table 10.2 also document the changing age pattern of deaths among young children. As the overall rates decreased, mortality is increasingly concentrated in the earliest months of life. In the mid-1960s, around 40 percent of deaths occurred after the child's first birthday; by the time of the 2005 EDHS, only 20 percent of all deaths under age five took place after the first 12 months of life.

#### 10.3 **DIFFERENTIALS IN MORTALITY**

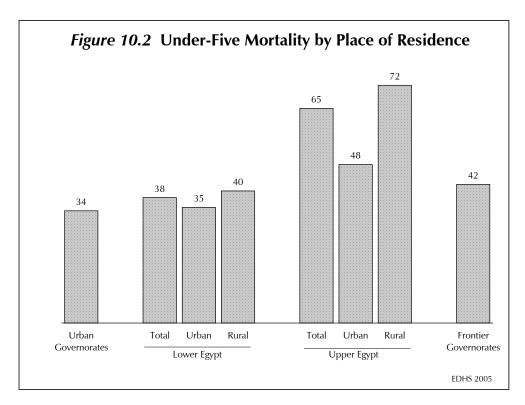
Selected demographic and socio-economic differentials in early childhood mortality are presented in Tables 10.3 and 10.4, respectively. For most variables, the mortality estimates are calculated for a tenyear period before the survey so that the rates are based on a sufficient number of cases in each category to ensure statistical significance. However, because the information on birth-size was collected only for births occurring between January 2000 and the date of the survey interview, the mortality rates for this variable relate to only the five-year period before the EDHS.

### **Socioeconomic Differentials**

Table 10.3 shows that urban-rural differences in early childhood mortality favor urban children, i.e., urban children have a lower probability of dying at any stage of early childhood than rural children. For example, under-five mortality in urban areas is 39 per 1,000 births, 30 percent lower than under-five mortality in rural areas (56 per 1,000). Considering place of residence, the lowest mortality rates are found in the Urban Governorates and urban Lower Egypt, while the highest rates are found in rural Upper Egypt (see Figure 10.2). Under-five mortality in rural Upper Egypt is 72 deaths per 1,000 births, around 80 percent higher than under-five mortality in rural Lower Egypt (40 deaths per 1,000 births). Although mortality in rural Upper Egypt is higher at all ages than mortality in rural Lower Egypt, the large differential in postneonatal mortality is particularly noteworthy. The postneonatal mortality rate in rural Upper Egypt is 31 deaths per 1,000 births, almost three times the rate in rural Lower Egypt (11 deaths per 1,000 births). The child mortality rate in rural Upper Egypt (16 per 1,000) is more than twice as high as the rate in rural Lower Egypt (6 per 1,000).

Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by socioeconomic characteristics, Egypt 2005								
Socioeconomic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN) <sup>1</sup>	Infant mortality (₁q₀)	Child mortality (4q1)	Under-five mortality ( <sub>5</sub> q <sub>0</sub> )			
Urban-rural residence								
Urban	21.4	10.3	31.7	7.6	39.1			
Rural	23.5	21.7	45.2	11.4	56.1			
Place of residence								
Urban Governorates	16.5	9.6	26.0	8.2	34.0			
Lower Egypt	22.6	10.1	32.7	5.8	38.4			
Urban	24.1	5.8	30.0	4.6	34.5			
Rural	22.1	11.4	33.6	6.2	39.6			
Upper Egypt	24.8	26.7	51.6	14.4	65.2			
Urban	24.7	14.6	39.3	9.5	48.4			
Rural	24.9	31.3	56.2	16.3	71.5			
Frontier Governorates	24.5	8.7	33.3	9.1	42.1			
Education								
No education	24.2	27.9	52.1	16.5	67.7			
Some primary Primary complete/some	30.8	24.8	55.6	12.7	67.5			
secondary	23.0	14.2	37.1	5.9	42.8			
Secondary complete/higher	19.5	7.3	26.8	4.0	30.7			
Wealth quintile								
Lowest	27.8	31.4	59.2	16.4	74.6			
Second	23.4	19.7	43.0	12.6	55.1			
Middle	22.5	16.3	38.8	8.3	46.8			
Fourth	20.9	11.7	32.7	8.7	41.1			
Highest	18.0	5.0	23.0	2.1	25.1			

Mortality levels among urban children are also higher in Upper Egypt than in either Lower Egypt or the Urban Governorates, primarily because of higher infant mortality. The urban infant mortality rate is 39 deaths per 1,000 births in Upper Egypt compared to 30 deaths per 1,000 in Lower Egypt and 26 deaths per 1,000 in the Urban Governorates. Mortality levels among children age 1-4 years range from a low of 5 per 1,000 in urban Lower Egypt to 10 per 1,000 in urban Upper Egypt.



Overall, mortality is generally inversely related to mother's education, with children born to women who never attended school being more than twice as likely to die by the fifth birthday as children born to mothers with a secondary or higher education. Births to mothers in the highest wealth quintile are nearly three times as likely to survive to their fifth birthday as children born to mothers in the lowest quintile.

# **Demographic Differentials**

Table 10.4 shows the relationship between early childhood mortality and selected demographic variables including the sex of the child, mother's age at birth, birth order, length of the previous birth intervals, and mother's perception concerning the size of the child at birth. As expected, neonatal mortality is higher among boys than girls (27 deaths per 1,000 and 19 deaths per 1,000, respectively). Sex differentials in postneonatal and child mortality rates are quite small.

The effect of young maternal age at birth on mortality is evident in Table 10.4. Children born to mothers who were under age 20 at the time of the birth are significantly more likely to die at all ages than children born to older mothers. Mortality levels are lowest for births to mothers age 20-29. Considering birth order, seventh order and higher births have the highest mortality. For example, the infant mortality rate for births of order seven or higher is 74 compared to 52 deaths per 1000 or lower among other births.

The length of the previous birth interval is also associated with mortality levels. Overall, the under-five mortality rate among children born less than two years after a previous birth is 92 deaths per 1,000 births, almost three times the level among children born four or more years after a previous birth. Coupled with the finding in Chapter 4 that about one quarter of all non-first births occur within 24 months of the previous birth, these results indicate the importance of continuing efforts to promote the use of family planning for birth spacing.

Table 10.4 Early childhood mortality rates by demographic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by demographic characteristics, Egypt 2005

Demographic	Neonatal mortality	Postneonatal mortality	Infant	Child mortality	Under-five mortality
characteristic	(NN)	(PNN) <sup>1</sup>	mortality (1q0)	( <sub>4</sub> q <sub>1</sub> )	(₅q₀)
Child's sex					
Male	26.5	16.8	43.3	9.6	52.5
Female	18.9	18.2	37.1	10.4	47.1
Mother's age at birth					
<20	27.7	22.9	50.5	12.4	62.4
20-29	20.4	16.2	36.6	8.6	44.9
30-39	26.2	18.0	44.2	12.4	56.1
40-49	23.7	19.8	43.5	5.0	48.2
Birth order					
1	22.0	12.5	34.5	6.2	40.5
2-3	19.5	14.2	33.7	8.7	42.1
4-6	26.6	25.1	51.7	14.4	65.3
7+	37.0	36.7	73.7	18.9	91.3
Previous birth interval					
<2 years	35.1	40.8	75.9	16.9	91.6
2 years	18.2	15.8	34.0	10.9	44.5
3 years	21.0	11.8	32.8	8.5	41.0
4+ years	16.6	9.3	25.9	8.9	34.6
Birth size <sup>2</sup>					
Small/very small	54.6	26.4	81.0	-	-
Average or larger	13.4	10.7	24.2	-	-

<sup>&</sup>lt;sup>1</sup> Computed as the difference between the infant and neonatal mortality rates

Research has shown that a child's size at birth is an important predictor of the risk of dying during early infancy. For all births in the five-year period before the 2005 EDHS, mothers were asked if the child was small or very small, average or large. Table 10.4 shows that the children who were considered by their mothers to be small or very small at birth were at greater risk of dying than children who were described as average or larger. For example, infant mortality for children who were considered by their mothers to be small or very small is 81 deaths per 1,000 compared to 24 deaths per 1,000 for children regarded as average or larger.

### 10.4 **PERINATAL MORTALITY**

Perinatal deaths include deaths to live births within the first seven days of life (early neonatal deaths) and pregnancy losses occurring after seven months of gestation (stillbirths). In the 2005 EDHS, information on stillbirths was obtained for the five years preceding the survey and recorded in the calendar. The distinction between a stillbirth and an early neonatal death is often a fine one, depending on observing and then recalling sometimes-faint signs of life following delivery. The causes of stillbirths and early neonatal deaths are closely linked, thus, it is important to consider both in order to understand the true level of mortality around delivery.

Table 10.5 presents the number of still births and early neonatal deaths and the perinatal mortality rate for the five-year period prior to the 2005 EDHS by selected background characteristics. Overall, the perinatal mortality rate is 23 per 1,000 pregnancies.

<sup>&</sup>lt;sup>2</sup> Rates for the five-year period before the survey

Table 10.5 Perinatal mortality by background characteristics

Number of stillbirths and early neonatal deaths, and the perinatal mortality rate for the five-year period preceding the survey, by background characteristics, Egypt 2005

		Number of		
		early		pregnancies
Background	Number of	neonatal	Perinatal	of 7+ months
characteristic	stillbirths <sup>1</sup>	deaths <sup>2</sup>	mortality rate <sup>3</sup>	duration
Mother's age at birth				
<20	15	19	22.0	1,536
20-29	64	110	20.1	8,689
30-39	42	51	29.0	3,206
40-49	8	6	46.9	298
Previous pregnancy interval in months				
First pregnancy	34	44	20.5	3,829
<15	17	30	39.6	1,191
15-26	29	27	21.1	2,621
27-38	17	39	22.2	2,539
39+	32	45	21.9	3,549
Urban-rural residence				,
Urban	32	78	22.0	4.090
Rural	32 97	7 o 108	23.5	4,980
	97	106	23.3	8,749
Place of residence				
Urban Governorates	10	27	19.6	1,889
Lower Egypt	44	72	21.3	5,443
Urban	5	23	22.0	1,303
Rural	38	49	21.1	4,140
Upper Egypt	75	83	25.3	6,228
Urban	16	25	24.3	1,685
Rural	59	58	25.7	4,543
Frontier Governorates	1	4	25.3	169
Mother's education				
No education	50	56	24.6	4,331
Some primary	11	31	34.5	1,230
Primary complete/some		٥.	55	.,255
secondary	15	28	21.0	2,055
Secondary complete/higher	52	71	20.1	6,113
Wealth quintile				
Lowest	31	47	27.6	2,849
Second	25	30	19.2	2,854
Middle	38	38	25.2	2,977
Fourth	28	50	27.7	2,813
Highest	7	22	12.9	2,236
i iighest	,		14.5	2,230
Total	129	186	22.9	13,729

<sup>&</sup>lt;sup>1</sup> Stillbirths are fetal deaths in pregnancies lasting seven or more months.

<sup>2</sup> Early neonatal deaths are deaths at age 0-6 days among live-born children.

<sup>3</sup> The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration.

#### 10.5 HIGH-RISK FERTILITY BEHAVIOR

Research has indicated there is a strong relationship between maternal fertility patterns and children's survival risks. Typically, the risk of early childhood death increases among children born to mothers who are too young or too old, children born after a too short birth interval, and children that are high birth order. For the purpose of this analysis, a mother is classified as "too young" if she is less than 18 years of age, and "too old" if she is over 34 years at the time of the birth. A "short birth interval" is defined by the birth occurring less than 24 months after a previous birth; and a child is of "high birth order," if the mother had previously given birth to three or more children (i.e., the child is of birth order four or higher).

Table 10.6 shows the percent distributions of births in the five-year period of currently married women according to these elevated risk factors. The table also examines the relative risk of dying for children by comparing the proportion dead in each specified high-risk category with the proportion dead among children not in any high-risk category. First births, although often at increased risk, are included in the not in any high-risk category in this analysis because they are not considered an avoidable risk.

Forty percent of births in the five-year period before the survey were in at least one of the specified high-risk categories, and 11 percent were associated with two or more high-risk factors. A short birth interval and high birth order were the most common high-risk factors.

As the second column of Table 10.6 shows, the risk of dying for a child who falls into any of the high-risk categories is 1.7 times that for a child not in any high-risk category. Considering the risk categories separately, children are at highest risk of dying if the mother is 35 years and older at the time of the birth or if the child is born within than two years of a previous birth. Generally, risk ratios were higher for children in multiple high-risk categories than for children in any single high-risk category.

The final column in Table 10.6 examines the potential for high-risk births among currently married women. A woman's current age, time elapsed since the last birth, and parity are used to determine the risk categories in which any birth she conceived at the time of the survey would fall. For example, if a respondent who is age 40, has had four births and had her last birth 12 months ago were to become pregnant, she would fall in the multiple high-risk category of being too old, too high parity (four or more births), and giving birth too soon (less than 24 months) after a previous birth.

Overall, the majority of currently married women (73 percent) have the potential of giving birth to a child at elevated risk of mortality. About one in three women has the potential for having a birth in a single high-risk category (mainly high birth order), while about 40 percent have the potential for having a birth in a multiple high-risk category (mainly older maternal age and high birth order).

## Table 10.6 High-risk fertility behavior

Among children born in the five years preceding the survey, percent distribution 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,

Egypt 2005

	Births in the 5 the s	Percentage of currently		
Risk category	Percentage of births	Risk ratio	married women <sup>1</sup>	
Not in any high risk category	32.7	1.00	$19.9^{2}$	
<b>Unavoidable risk category</b> First order births between ages 18 and 34 years	27.4	1.02	7.5	
Single high-risk category				
Mother's age <18	2.9	1.17	0.4	
Mother's age >34	2.1	1.59	7.8	
Birth interval <24 months	10.0	1.58	10.0	
Birth order >3	13.6	1.28	12.8	
Subtotal	28.6	1.39	31.0	
Multiple high-risk category Age <18 and birth interval				
<24 months <sup>a</sup> Age >34 and birth interval	0.2	5.30	0.1	
<24 months	0.2	0.00	0.2	
Age >34 and birth order >3 Age >34 and birth interval	6.7	2.00	33.9	
<24 months and birth order >3 Birth interval <24 months and birth	0.6	2.22	1.8	
order >3	3.6	3.40	5.6	
Subtotal	11.4	2.50	41.6	
In any avoidable high-risk category	40.0	1.71	72.6	
Total	100.0	na	100.0	
Number of births	13,600	na	18,187	

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

<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> Includes the category age <18 and birth order >3

<sup>&</sup>lt;sup>a</sup> Includes sterilized women

# MATERNAL HEALTH CARE

Using data from the 2005 EDHS, this chapter looks at the extent to which women are obtaining medical care during pregnancy and at the time of delivery. The chapter also looks at the care that women and newborns received in the postpartum period. Finally, the chapter employs results from the 2005 EDHS and earlier surveys to look at trends across time in key maternal care indicators.

### **PREGNANCY CARE** 11.1

The 2005 EDHS collected a range of information on the type of care that Egyptian women received during pregnancy, including information on antenatal care and tetanus toxoid vaccinations. The survey also obtained information on whether women had sought medical care during pregnancy for reasons not directly related to the pregnancy. Finally, women were also asked a number of questions about the nature of the care they received.

# **Antenatal Care Coverage**

Early and regular checkups by trained medical providers are very important in assessing the physical status of women during pregnancy. Table 11.1 presents data from the 2005 EDHS on the coverage of antenatal care services for births taking place during the five-year period before the survey. A birth is considered to have received regular care if the mother said that she had made at least four antenatal care visits, i.e., visits to a trained medical provider for care for the pregnancy.

The results in Table 11.1 indicate that Egyptian women received antenatal care from a medical provider for 70 percent of the births during the five-year period before the survey. Most women saw a doctor for care, with less than one percent reporting that they had received care only from a trained nurse or midwife. Antenatal care was obtained more than twice as often from a private sector provider as from a public sector provider (48 percent and 21 percent, respectively).

Women received regular antenatal care (i.e., they made four or more visits to a provider) for around 60 percent of births during the five years before the survey. Considering only those births for which care was received, the median number of antenatal visits was 6.8.

### Table 11.1 Antenatal care

Percent distribution of births during the fiveyear period before the survey by type of provider for antenatal care, the type of facility where antenatal (ANC) care was sought, and the number of antenatal care visits, and percent distribution of last births in the fiveyear period prior to the survey by the stage of pregnancy at the time of the first and last visits, Egypt 2005

Antenatal care indicator	Total
ANC provider	
Doctor	69.5
Trained nurse/midwife	0.1
Birth attendant	0.0
Missing	0.2
No care	30.2
Source for ANC	
Public sector	21.4
Urban hospital	1.7
Urban health unit	5.1
Health office	1.1
Rural hospital	1.6
Rural health unit	8.2
MCH center	2.3
Other government	1.4
Private sector	48.3
Nongovernmental	1.3
Private medical	47.0
Other nonmedical	0.1
Don't know/missing	0.1
No care	30.2
Number of ANC visits	
None	30.2
1	0.9
2	3.9
3	5.2
4+	58.5
Don't know/missing	1.3
, 0	
Total	100.0
Number of births	13,600
Median number of ANC visits	6.8
North and a continuous of the	
Number of months pregnant at first ANC visit	
No antenatal care	28.5
<4	54.9
4-5	12.3
6-7	3.1
8+	0.8
Don't know/missing	0.5
· ·	2.0
Months pregnant at last ANC visit No antenatal care	28.5
< 6 months	1.6
6-7 months	4.5
8+ months	65.2
DK/missing	0.3
DiAunsung	0.5
Total	100.0
Number of last births	9,845
	,

Table 11.1 shows that most Egyptian mothers who received antenatal care began seeing a provider within the first six months of pregnancy. Mothers saw a provider for care for the first time before the sixth month of pregnancy for 94 percent of last births for which antenatal care was reported (i.e., for 67 percent of all births). To detect problems that might affect the delivery, women should also see a provider late in the pregnancy. Table 11.1 shows that, if a woman received antenatal care, she generally saw a provider within the last two months of pregnancy; the mother saw a provider in the eighth month of pregnancy or later for 91 percent of last births in which the mother had any antenatal care (i.e., for 65 percent of all births).

### **Tetanus Toxoid Vaccinations**

Tetanus toxoid injections are given to women during pregnancy to prevent deaths from neonatal tetanus. Neonatal tetanus can result when sterile procedures are not followed in cutting the umbilical cord after delivery. In the 2005 EDHS, information was collected on the number of doses of tetanus toxoid vaccine the mother received and on the source from which the tetanus toxoid vaccination was received for all births during the five-year period prior to the survey. In addition, questions were included to ascertain whether mothers who received tetanus injections prior to the last birth were advised to seek antenatal care and to determine if the last birth was fully protected from neonatal tetanus.

Table 11.2 shows that women received one dose of tetanus toxoid vaccine in the case of 37 percent of the births during the five-year period before the 2005 EDHS, and two or more doses in the case of 41 percent of the births. Mothers reported obtaining the injection from a public sector provider for nine in ten births in which a tetanus toxoid vaccination was received.

The MOHP has a program to promote antenatal care during the visits that women make to medical providers for tetanus toxoid vaccinations. To assess the impact of these efforts, the 2005 EDHS collected information from women who received a tetanus toxoid vaccination before their last birth on whether anyone had encouraged them to seek antenatal care at the time that they received the tetanus injection(s). Table 11.2 shows that 22 percent of the women who received a tetanus toxoid injection but reported they did not have any antenatal care were advised to obtain antenatal care at the time they received the tetanus injection.

Table 11.3 considers whether the last birth was fully protected against neonatal tetanus. An infant is considered to be fully protected if any of the following criteria are met: (1) the mother had two tetanus toxoid injections during the pregnancy; (2) the mother had a tetanus toxoid injection during the pregnancy plus

Table 11.2 Tetanus toxoid coverage during pregnancy

Percent distribution of births during the five-year period before the survey by the number of tetanus toxoid (TT) injections and source for injections and percent distribution of last births in the five-year period by whether mothers receiving a TT injection but no ANC were advised during a TT visit to go for antenatal care, Egypt 2005

Tetanus toxoid indicator	Total
Number of doses	
None	20.5
One dose	37.1
Two doses or more	41.4
Don't know/missing	0.9
Source for TT injection	
Public sector	71.6
Urban hospital	3.2
Urban health unit	15.5
Health office	5.3
Rural hospital	6.4
Rural health unit	35.5
MCH center	5.0
Other government	0.7
Private sector	6.7
Nongovernmental	1.4
Private medical	4.6
Other nonmedical	0.7
Don't know/missing	1.2
No injection	20.5
Total	100.0
Number of births	13,600
Advised to get antenatal care	
Had ANC and TT	71.4
Had TT but no ANC	20.3
Advised to seek ANC	4.5
Not advised about ANC	14.5
Don't know/missing	1.3
No ANC or TT	8.1
Missing	0.2
Total	100.0
Number of last births	9,845

an additional injection in the 10 years prior to the pregnancy; or (3) the mother did not have a tetanus toxoid injection during pregnancy but had at least five injections prior to the pregnancy. According to the EDHS results, slightly more than 70 percent of last-born children during the five-year period before the survey were fully protected against neonatal tetanus.

Table 11.3 Last birth protected against neonatal tetanus  Percent distribution of last births during the five-year period before the survey by protection against neonatal tetanus, Egypt 2005				
	Total			
Protected	71.5			
Two doses during pregnancy	37.5			
One dose during pregnancy and one dose in				
10-year period before pregnancy	32.6			
None but 5 or more lifetime doses	1.4			
Unprotected	26.8			
One dose during pregnancy but no other dose i	n			
10-year period before pregnancy	6.6			
None and less than five lifetime doses	20.2			
Don't know/missing	1.7			
<u>-</u>				
Total	100.0			
Number of last births	9,845			

# **Any Medical Care during Pregnancy**

The 2005 EDHS collected information about other medical consultations women may have had in addition to visits they made to a provider for pregnancy-related care. Women reported seeing a medical provider for care unrelated to their pregnancy in the case of nine percent of last births that occurred during the five-year period prior to the EDHS.

The information on antenatal visits, tetanus toxoid immunizations, and medical consultations unrelated to the woman's pregnancy is combined in Table 11.4 in order to assess the extent of the contacts women have with medical providers during pregnancy. The table shows that all but seven percent of women saw a medical provider for some type of care when they were pregnant with their last born child. Women saw a provider for both an antenatal checkup and a tetanus toxoid injection in the case of 57 percent

Table 11.4 Medical care other than visit for antenatal care or tetanus toxoid injection during pregnancy

Percent distribution of last births during the five-year period before the survey by mother's report of seeing doctor or other health worker at any time during the pregnancy for care other than an antenatal care (ANC) checkup or tetanus toxoid (TT) injection, according to mother's ANC and TT status, Egypt 2005

Other medical	ANC	ANC and TT	IT	Neither ANC nor TT	
care	only	injection	injection only	injection	Total
Had other care	0.9	4.2	2.8	1.3	9.1
No other care	13.5	52.8	17.5	7.1	90.9
Total	14.4	57.0	20.3	8.3	100.0

of last births. Fourteen percent of the women had antenatal care but did not receive a tetanus toxoid injection, and 20 percent of mothers received a tetanus toxoid injection(s) without going for an antenatal checkup.

# **Differentials in Pregnancy Care Indicators**

Table 11.5 presents the differentials in pregnancy care indicators by selected background characteristics. Three of the indicators are presented for all births during the five-year period prior to the survey: the percentage for receiving any antenatal care, the percentage receiving regular antenatal care, and the percentage whose mother was given at least one tetanus toxoid injection. The table also presents differentials for three indicators for which information was collected only for the last birth: the percentage whose mother reported a medical consultation unrelated to the pregnancy, the percentage whose mother

consulted a medical provider for any reason (i.e., for ANC, for a TT injection, and/or for care unrelated to the pregnancy), and the percentage considered to be fully protected against neonatal tetanus.

In general, mothers age 35 and over are less likely to report receiving care than younger mothers. Although not uniform, the child's birth order is negatively related to most of the pregnancy care indicators. Birth order differentials are especially large in the case of regular antenatal care, with mothers of first-order births being more than twice as likely as mothers of sixth-order or higher births to have regular care.

Table 11.5 Care during pregnancy by background characteristics

Percentage of all births in the five-year period before the survey whose mother received any antenatal care, regular antenatal care from a trained medical provider, and one or more tetanus toxoid injections, and percentage of last births during the five-year period before the survey whose mothers received other medical care unrelated to the pregnancy, whose mothers received any medical care during pregnancy and who were protected against neonatal tetanus, by selected background characteristics, Egypt

Background characteristic	Any ANC	ANC Regular	One or more TT injection(s)	Number of births during five- year period before survey	Medical care unrelated to the pregnancy	Any medical care	Protected against neonatal tetanus	Number of last births
Age at birth								
<20	68.3	54.3	88.0	1,521	10.3	95.6	81.9	875
20-34	70.9	59.7	79.0	10,776	8.9	93.9	72.8	7,814
35-49	60.7	52.1	63.1	1,303	9.5	84.8	54.9	1,156
Birth order								
1	81.2	71.7	87.2	4,112	9.4	98.2	78.2	2,346
2-3	71.4	58.5	78.4	6,138	8.3	94.9	72.3	4,796
4-5	56.9	46.1	69.9	2,233	10.0	88.6	64.8	1,785
6+	42.5	32.9	64.2	1,116	11.1	77.7	62.8	917
Urban-rural residence								
Urban	82.4	74.7	70.3	4,948	7.9	93.9	61.8	3,753
Rural	62.3	49.1	83.2	8,651	9.9	92.3	77.4	6,092
Place of residence								
Urban Governorates	84.4	78.9	65.2	1,879	7.1	92.7	57.8	1,460
Lower Egypt	78.0	66.5	81.9	5,399	8.1	95.1	73.9	4,066
Urban	88.4	80.6	73.4	1,297	9.5	96.5	63.9	987
Rural	74.7	62.0	84.5	4,101	7.6	94.7	77.1	3,079
Upper Egypt	57.8	45.0	79.9	6,153	11.0	91.2	74.0	4,200
Ürban	76.0	65.7	73.4	1,669	7.9	93.8	64.4	1,235
Rural	51.0	37.2	82.3	4,484	12.3	90.2	78.0	2,965
Frontier Governorates	68.2	58.8	69.6	169	2.9	83.1	69.0	119
Education								
No education	48.2	35.6	78.9	4,280	10.4	86.8	72.2	2,983
Some primary Primary completed/some	64.2	51.2	76.9	1,218	9.9	90.8	72.2	878
secondary	70.3	57.1	80.0	2,040	7.5	94.4	73.6	1,491
Secondary complete/ higher	85.6	76.3	78.0	6,061	8.7	97.0	70.2	4,494
Work status								
Working for cash	80.3	70.0	74.4	1,614	8.9	94.6	64.3	1,261
Not working for cash	68.2	56.8	79.1	11,986	9.2	92.7	72.5	8,584
Wealth quintile								
Lowest	46.7	30.7	78.6	2,818	11.0	87.1	73.0	1,929
Second	59.0	45.3	83.3	2,829	9.9	91.6	77.4	1,981
Middle	71.0	59.1	83.6	2,939	8.2	93.7	77.4	2,114
Fourth	84.2	76.1	79.2	2,785	8.3	95.9	72.2	2,078
Highest	92.1	86.9	64.7	2,229	8.3	96.6	55.1	1,742
Total	69.6	58.4	78.5	13,600	9.1	92.9	71.5	9,845

Urban mothers see medical providers for antenatal care during pregnancy more often than rural mothers. For example, mothers received regular antenatal care for 75 percent of urban births compared to 49 percent of rural births. On the other hand, rural mothers are more likely than urban mothers to receive tetanus toxoid injections during pregnancy and also are slightly more likely to see a medical provider for care unrelated to the pregnancy. Births in rural Upper Egypt rank lowest on all of the pregnancy care indicators, except the measures of tetanus toxoid coverage.

There is a generally positive association between the women's education and wealth status and the various pregnancy care indicators. The relationships are particularly marked in the case of regular antenatal care. Women who have a secondary or higher education are more than twice as likely as women who have never attended school to have received regular antenatal care and mothers in the highest wealth quintile are almost three times as likely as mothers in the lowest wealth quintile to have received regular care.

### 11.2 CONTENT OF PREGNANCY CARE

In the 2005 EDHS, women who reported that they received antenatal care, tetanus toxoid injections, or other medical care unrelated to the pregnancy were asked whether they were weighed, their blood pressure measured, and urine and blood samples taken during any of the visits they made to a medical provider during their pregnancy. These women were also asked whether they had been told about the signs of pregnancy complications, and, if they were told, whether they received any information about where to go if they experienced any complications. Finally, women were also asked whether they were given or had bought iron tablets or syrup. Iron supplementation during pregnancy is recommended to prevent iron deficiency anemia, which is a common problem among pregnant women.

Some caution must be exercised in considering the information in Table 11.6 since it depends on the mother's understanding of the questions, e.g., her understanding of what blood pressure measurement involves. It also depends on the mother's recall of events during visits to the provider that may have taken place a number of years before the 2005 EDHS interview. Nonetheless, the results are useful in providing insight into the content of the care Egyptian women receive during pregnancy.

Table 11.6 shows that, for more than eight in ten last births for which mothers saw a medical provider during pregnancy, the women reported that they had been weighed or their blood pressure had been monitored during the visit to the provider. Mothers reported that urine and blood samples were taken in the case of more than seven in ten births and 57 percent received or bought iron tablets or syrup. Mothers were advised about the complications that they might experience in 32 percent of the births and were told to seek assistance if they actually had problems in 28 percent of the births.

The quality of the medical care that a woman received was better for mothers who saw a medical provider for antenatal care than for other mothers. Mothers who saw a provider for regular antenatal were the most likely to report that routine screening procedures were performed; for example, more than nine in ten mothers who had regular antenatal care were weighed and had their blood pressure monitored and around eight in ten had urine or blood samples taken. The proportions who reported receiving or being given iron supplement and who were advised about pregnancy complications were also higher for mothers who saw a provider for regular antenatal care than for other mothers.

Table 11.6 Content of pregnancy care by background characteristics

Percentage of last births in the five-year period before the survey whose mothers received any medical care during the pregnancy, by content of the care and selected background characteristics, Egypt 2005

Background characteristic	Weighed	Blood pressure measured	Urine sample	Blood sample taken	Received/ bought iron tablets/ syrup	Told about signs of compli- cations	Told where to go for any compli- cations	Number of last births
Medical care during pregnancy					, <u>I</u>			
Had ANC	92.5	92.6	81.2	80.7	64.1	36.3	31.4	7,027
Four or more visits	93.4	93.9	83.9	82.9	66.6	38.2	33.1	5,969
1-3 visits	87.6	85.2	65.8	68.3	49.8	25.9	21.4	1,058
No ANC	72.5	62.5	45.2	48.6	31.6	18.7	15.1	2,123
Had TT injection	74.3	63.1	46.3	50.0	31.4	18.6	15.4	1,999
No TT/DK/missing	43.7	53.5	28.1	25.9	34.4	19.7	10.1	124
Type of ANC provider								
Public sector	96.2	94.7	85.8	85.5	63.1	34.7	28.7	2,159
Private sector	90.9	91.7	79.6	79.0	64.6	37.2	32.5	5,024
Both	92.7	94.3	89.9	91.5	67.4	43.1	32.7	149
No ANC/missing	72.6	62.4	45.0	48.5	31.5	18.7	15.1	2,117
Age at birth								
<20	91.2	85.5	74.3	76.7	54.4	31.2	25.2	837
20-34	88.0	85.9	73.4	74.0	57.5	32.7	28.0	7,334
35-49	84.1	83.0	68.0	65.0	51.3	29.6	26.2	980
Birth order								
1	93.3	91.5	83.5	84.7	65.0	37.1	31.6	2,304
2-3	88.4	86.5	72.8	73.2	57.4	32.5	27.7	4,552
4-5	84.0	79.6	64.6	64.6	50.2	30.0	26.3	1,581
6+	75.5	73.8	57.4	55.8	37.8	20.2	16.5	713
Urban-rural residence								
Urban	91.1	91.0	81.4	78.3	66.0	38.5	32.7	3,525
Rural	85.9	82.2	67.5	70.1	50.6	28.3	24.4	5,625
Place of residence								
Urban Governorates	93.9	93.3	84.7	80.8	74.1	39.6	32.9	1,354
Lower Egypt	91.0	89.4	76.3	78.7	59.7	31.0	27.5	3,867
Urban	93.8	93.7	83.8	81.8	65.5	34.8	30.6	952
Rural	90.1	88.0	73.8	77.6	57.8	29.8	26.4	2,915
Upper Egypt	82.5	78.9	65.0	65.1	47.0	30.7	25.8	3,831
Urban	85.3	86.2	75.2	72.5	56.7	40.1	33.8	1,158
Rural	81.3	75.7	60.5	61.8	42.7	26.7	22.3	2,673
Frontier Governorates	93.5	91.6	84.6	76.9	60.2	37.7	31.0	99
Education								
No education	82.4	77.0	61.6	63.5	43.2	24.0	19.5	2,590
Some primary	81.8	80.1	62.3	65.3	45.7	29.7	24.8	797
Primary complete/some								
secondary	86.2	82.2	69.9	70.3	54.1	30.0	25.0	1,407
Secondary complete/higher	92.8	92.8	82.5	81.4	67.2	38.3	33.8	4,357
Work status								
Working for cash	90.3	90.1	79.5	77.6	64.6	37.9	34.5	1,192
Not working for cash	87.5	84.9	71.9	72.6	55.3	31.4	26.6	7,958
Wealth quintile								
Lowest	80.2	74.6	60.1	64.3	38.9	19.8	16.3	1,680
Second	85.1	0.08	63.6	66.4	47.1	27.3	23.0	1,815
Middle	88.3	86.6	73.4	72.9	57.0	32.4	27.6	1,980
Fourth	90.4	90.5	78.0	76.5	64.8	34.8	29.2	1,993
Highest	95.1	95.5	88.9	86.2	73.9	46.8	41.9	1,683
Total	87.9	85.6	72.9	73.3	56.5	32.2	27.6	9,150

The content of the care women received varies according to the other demographic and socioeconomic characteristics shown in Table 11.6. For example, there is a negative association between the proportions reporting routine antenatal care procedures and the child's birth order. In general, the procedures were more likely to have been performed for urban than for rural births, with particularly low levels found for births in rural Upper Egypt. The likelihood that the routine antenatal care procedures shown in Table 11.6 were carried out increases with both education and wealth. The procedures are also more common among births to women who worked for cash than for births to other women.

#### 11.3 **DELIVERY CARE**

Hygienic conditions and proper medical assistance at the time of delivery can reduce the risk of complications and infection for both the mother and the child. For all births in the five-year period before the survey, the 2005 EDHS collected information on where the delivery occurred and on whether the mother was assisted by trained medical personnel.

# **Place of Delivery**

Around two in three births in the five-year period before the survey occurred in a health facility (Table 11.7). The majority of women delivering in a facility (50 percent) spent less than 24 hours in the facility after giving birth, and 40 percent reported they spent less than 6 hours at the facility after the birth (Figure 11.1).

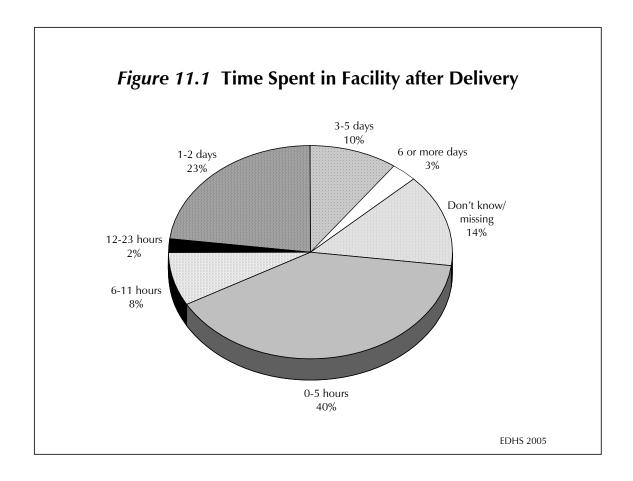
Table 11.7 shows that, as expected, births to women who had antenatal care were much more likely to take place in a health facility than other births. Among births in which the mother had received antenatal care, deliveries were much more likely to occur at home if the mother had three or fewer antenatal visits prior to the birth (44 percent) than if the mother reported going for antenatal care checkups four or more times (22 percent). Table 11.7 also shows that the likelihood of the delivery outside a facility is greatest for births of order six or higher, rural births, especially births in rural Upper Egypt, births to women with no education, and births to women in the lowest wealth quintile. Around six in ten births in those groups took place at home.

Regarding the type of health facility, the majority of facility deliveries (40 percent of all births) occurred in private health facilities. Births to mothers living in Lower Egypt, mothers with a secondary or higher education, and mothers in the highest wealth quintile were most likely to be delivered in a private facility.

Table 11.7 Place of delivery by background characteristics

Percent distribution of births in the five-year period before the survey by place where the mother gave birth, according to selected background characteristics, Egypt 2005

		Health facili	ty	At own/				
Background characteristic	Any	Public	Private	other home	Other/ missing	Total	Number of births	
	Ally	rublic	rnvate	Home	IIII33IIIg	Total	OI DII III	
Antenatal care during pregnancy Had ANC	74.7	26.5	40.2	25.2	0.0	100.0	0.402	
Four or more visits	74.7 78.4	26.5 26.9	48.3 51.5	25.2 21.5	0.0	100.0 100.0	9,493	
1-3 visits	76. <del>4</del> 55.5	26.9	31.3	44.4	0.0	100.0	7,967 1,527	
No ANC/DK/missing	41.3	22.1	19.2	58.4	0.3	100.0	4,106	
Age at birth							,	
<20	59.3	23.8	35.5	40.3	0.4	100.0	1,521	
20-34	65.5	24.8	40.7	34.4	0.1	100.0	10,776	
35-49	63.8	29.4	34.4	36.1	0.1	100.0	1,303	
Birth order								
1	75.9	29.4	46.5	23.9	0.2	100.0	4,112	
2-3	65.1	23.7	41.4	34.8	0.1	100.0	6,138	
4-5	53.8	23.4	30.5	46.1	0.1	100.0	2,233	
6+	42.2	21.2	21.0	57.8	0.0	100.0	1,116	
Urban-rural residence								
Urban	82.9	33.5	49.4	17.0	0.1	100.0	4,948	
Rural	54.2	20.4	33.8	45.7	0.1	100.0	8,651	
Place of residence								
Urban Governorates	87.6	43.3	44.3	12.3	0.1	100.0	1,879	
Lower Egypt	73.2	22.6	50.6	26.8	0.0	100.0	5,399	
Urban	87.7	25.4	62.2	12.3	0.0	100.0	1,297	
Rural	68.6	21.8	46.9	31.3	0.1	100.0	4,101	
Upper Egypt	50.2	21.5	28.8	49.6	0.2	100.0	6,153	
Urban Rural	74.7 41.1	28.3 19.0	46.5 22.2	25.2 58.6	0.1 0.2	100.0 100.0	1,669	
Frontier Governorates	61.1	36.7	24.3	38.8	0.2	100.0	4,484 169	
Education	01.1	30.7	24.5	30.0	0.2	100.0	103	
No education	45.0	22.7	22.3	54.8	0.2	100.0	4,280	
Some primary	58.5	26.8	31.7	41.3	0.2	100.0	1,218	
Primary complete/some secondary	64.0	30.7	33.3	35.8	0.2	100.0	2,040	
Secondary complete/higher	80.0	24.7	55.3	20.0	0.0	100.0	6,061	
Work status								
Working for cash	75.8	29.0	46.8	24.2	0.0	100.0	1,614	
Not working for cash	63.2	24.6	38.5	36.7	0.1	100.0	11,986	
Wealth quintile								
Lowest	40.9	21.6	19.3	58.8	0.3	100.0	2,818	
Second	51.5	22.0	29.5	48.4	0.1	100.0	2,829	
Middle	66.2	27.4	38.8	33.7	0.1	100.0	2,939	
Fourth	78.4	28.2	50.2	21.6	0.0	100.0	2,785	
Highest	92.0	26.8	65.3	7.8	0.1	100.0	2,229	
Total	64.6	25.1	39.5	35.2	0.1	100.0	13,600	



Women who did not deliver the last birth in a health facility were asked about the reason(s) for not going to a facility for the delivery. Table 11.8 shows that the majority (63 percent) reported that they had not considered it "necessary" to deliver in a facility, suggesting that they see facility deliveries as taking place only when there are problems. An additional 22 percent gave as a reason that facility deliveries were not the custom, 15 percent cited the cost of a facility delivery, and nine percent mentioned poor quality of services at facilities.

### **Assistance at Delivery**

Table 11.9 presents information on the person assisting with the delivery for all births during the five years before the survey. If the mother was assisted at delivery by more than one individual, only the most qualified is shown in the table. Doctors (69 percent) or trained nurses or midwives (6 percent) assisted at delivery for three in four births in the five-year period before the

Reason for not delivering last Table 11.8 birth in health facility

Percentage of last births in the five-year period before the survey whose mothers did not deliver in a health facility according to the reason for not giving birth in a facility, Egypt 2005

Reason	Number of births
Costs too much	14.9
Facility not open	2.4
Too far/no transport	2.2
Poor quality service	8.7
No female provider	1.1
Husband/family did not allow	2.2
Not necessary	62.5
Not customary	21.5
Other	6.2
Total	3,309

survey. Most of the remaining births were assisted by dayas (traditional birth attendants). Just under 30 percent of births occurring outside of a health facility were assisted by trained medical personnel.

Table 11.9 Assistance during delivery by background characteristics

Percent distribution of live births in the five years preceding the survey by type of assistance during delivery, according to selected background characteristics, Egypt 2005

	Assisted	l by medica	l provider					
		-	Trained					
Background characteristic	Any	Doctor	nurse/ midwife	Daya	Relative/ other	No one	Total	Number of births
Antenatal care during pregnancy	,			•				
Had ANC	83.4	78.4	5.0	14.8	1.3	0.5	100.0	9,493
Four or more visits	86.1	81.7	4.4	12.2	1.2	0.5	100.0	7,967
1-3 visits	69.4	61.4	8.0	28.2	1.7	0.6	100.0	1,527
No ANC/don't know/missing	52.7	45.7	7.0	41.5	3.6	2.2	100.0	4,106
Place of delivery								
Health facility	99.3	99.1	0.2	0.0	0.6	0.1	100.0	8,792
Not in health facility	28.2	12.8	15.5	64.7	4.4	2.7	100.0	4,808
Age at birth								
<20	68.9	64.0	4.9	28.4	1.9	0.8	100.0	1,521
20-34	74.9	69.4	5.5	22.1	2.0	1.0	100.0	10,776
35-49	74.5	67.3	7.2	22.3	2.0	1.1	100.0	1,303
Birth order								
1	83.6	79.1	4.5	14.3	1.6	0.6	100.0	4,112
2-3	74.7	68.9	5.8	22.8	1.7	0.8	100.0	6,138
4-5	65.8	59.1	6.6	30.1	2.3	1.8	100.0	2,233
6+	53.2	46.9	6.3	40.3	4.2	2.3	100.0	1,116
Urban-rural residence								
Urban	88.7	84.5	4.2	9.5	1.4	0.4	100.0	4,948
Rural	65.8	59.4	6.4	30.5	2.3	1.4	100.0	8,651
Place of residence								
Urban Governorates	90.7	87.9	2.9	7.2	2.1	0.0	100.0	1,879
Lower Egypt	81.6	76.4	5.2	17.2	0.8	0.4	100.0	5,399
Urban	92.9	89.0	3.9	6.7	0.2	0.3	100.0	1,297
Rural	78.0	72.4	5.6	20.6	0.9	0.5	100.0	4,101
Upper Egypt	62.6	55.9	6.7	32.7	2.8	1.8	100.0	6,153
Urban	83.8	78.0	5.7	14.0	1.5	0.8	100.0	1,669
Rural	54.8	47.7	7.1	39.7	3.3	2.2	100.0	4,484
Frontier Governorates	71.8	63.6	8.2	17.2	9.5	1.5	100.0	169
Education								
No education	54.3	49.1	5.2	40.4	3.6	1.8	100.0	4,280
Some primary	67.9	61.7	6.2	27.9	2.3	1.9	100.0	1,218
Primary completed/some	0						100.0	2.240
secondary	75.3	69.8	5.5	22.7	1.1	1.0	100.0	2,040
Secondary complete/higher	89.1	83.3	5.8	9.6	1.1	0.3	100.0	6,061
Work status								
Working for cash	85.0	79.8	5.2	13.2	1.1	0.7	100.0	1,614
Not working for cash	72.7	67.0	5.6	24.2	2.1	1.0	100.0	11,986
Wealth quintile								
Lowest	50.5	44.6	5.8	43.7	3.6	2.2	100.0	2,818
Second	63.5	57.4	6.1	32.3	2.4	1.7	100.0	2,829
Middle	78.2	71.1	7.1	19.9	1.4	0.5	100.0	2,939
Fourth	87.4	81.6	5.8	11.3	0.9	0.4	100.0	2,785
Highest	95.7	93.2	2.6	2.8	1.3	0.1	100.0	2,229
Total	74.2	68.6	5.6	22.9	2.0	1.0	100.0	13,600

Antenatal care, particularly regular antenatal care, is strongly associated with the likelihood that births will be medically assisted. Considering other characteristics, medically-assisted deliveries were most common for urban births, particularly those in the Urban Governorates and in urban Lower Egypt, births to highly educated mothers, and births to mothers in the highest wealth quintile. Dayas were most likely to assist at delivery when the mother lived in rural Upper Egypt, the birth was of order six or higher, and the mother never attended school.

### **Caesarean Deliveries**

The 2005 EDHS obtained information on the frequency of caesarean sections. Table 11.10 shows that one-fifth of deliveries in the five-year period before the 2005 EDHS survey were by caesarean section. Women delivering in a private health facility were slightly more likely than women delivering in a government facility to have a caesarean delivery. The likelihood of a caesarean delivery increased with the age of the mother and decreased with the child's birth order. Caesarean deliveries were twice as common in urban areas as in rural areas. Around one-third of births in urban Lower Egypt and the Urban Governorates were caesarean deliveries. The likelihood of a caesarean delivery increased with both the mother's educational status and with the wealth quintile and was greater among women working for cash than among other women.

# **Birth Weight**

The majority of babies were not weighed at birth (45 percent) or the mother was unable to report a birth weight (18 percent) (not shown in table). Among those births for which the mother was able to report the baby's weight, Table 11.11 shows that 12 percent were classified as low birth weight; i.e., they weighed less than 2.5 kilograms at birth. Births to women in the highest wealth quintile were least likely to weigh less than 2.5 kilograms (10 percent). Low-weight births were most common among children whose birth order was seven or higher (16 percent)

Table 11.11 also includes information on the mother's assessment of the baby's size at birth. It is important to remember that this assessment may vary among respondents since it is based on the mother's own perception of what is a small, average, or large baby and not on a uniform definition. Only four percent of mothers considered their babies as very small while an additional 10 percent reported that their babies were smaller than average. Again there are only relatively minor variations by background characteristics in the proportion of births regarded as small or smaller than average.

### Table 11.10 Caesarean deliveries by background characteristics

Percentage of births in the five-year period before the survey by whether the birth was a caesarean delivery or not, according to selected background characteristics, Egypt 2005

Background
characteristic

Place of delivery	
Public health facility	28.3
Private health facility	32.4
At home/don't know/missing	na
Age at birth	
<20	13.4
20-34	20.4
35-49	23.2
Birth order	
1	24.9
2-3	20.2
4-5	14.6
6+	10.2
Urban-rural residence	
Urban	29.2
Rural	14.6
Place of residence	
Urban Governorates	22.0
	33.8 24.5
Lower Egypt Urban	34.9
Rural	21.2
	11.8
Upper Egypt Urban	20.4
Rural	8.6
Frontier Governorates	14.3
	14.5
Education	
No education	9.8
Some primary Primary complete/some	17.3
secondary	19.0
Secondary complete/higher	27.9
Work status	
Working for cash	29.5
Not working for cash	18.6
ŭ .	10.0
Wealth quintile	
Lowest	8.7
Second	12.7
Middle	19.1
Fourth	25.9
Highest	36.9
Total	19.9

Table 11.11 Child's size at birth by background characteristics

Among births in the five years preceding the survey with a reported birth weight, the percent distribution by the birth weight and, among births in the five-years preceding the survey, the percent distribution by the mother's estimate of the baby's size at birth, according to background characteristics, Egypt 2005

	В	irth weight with repor				Child's siz	e among all	l live births		
Background characteristic	Less than 2.5 kg	2.5 kg or more	Total percent	Number of births	Very small	Smaller than average	Average or larger	Don't know/ missing	Total percent	Number of births
Age at birth										
<20	13.3	86.7	100.0	495	4.1	9.4	86.1	0.5	100.0	1,521
20-34	11.5	88.5	100.0	4,127	3.8	9.6	86.1	0.6	100.0	10,776
35-49	13.3	86.7	100.0	464	3.6	9.2	86.4	0.8	100.0	1,303
Birth order										
1	11.8	88.2	100.0	1,802	4.1	9.8	85.5	0.6	100.0	4,112
2-3	10.8	89.2	100.0	2,379	3.6	9.2	86.8	0.5	100.0	6,138
4-6	14.2	85.8	100.0	691	3.8	10.0	85.5	0.8	100.0	2,233
7+	15.9	84.1	100.0	215	4.1	9.3	85.9	0.8	100.0	1,116
Urban-rural residence										
Urban	12.0	88.0	100.0	2,569	3.7	11.1	84.8	0.5	100.0	4,948
Rural	11.7	88.3	100.0	2,517	3.9	8.6	86.9	0.6	100.0	8,651
Place of residence										
Urban Governorates	11.3	88.7	100.0	1,219	2.6	10.9	85.9	0.6	100.0	1,879
Lower Egypt	11.3	88.7	100.0	2,384	4.5	8.0	87.1	0.4	100.0	5,399
Urban	11.0	89.0	100.0	681	5.5	8.8	85.4	0.3	100.0	1,297
Rural	11.4	88.6	100.0	1,702	4.2	7.8	87.6	0.4	100.0	4,101
Upper Egypt	13.1	86.9	100.0	1,419	3.7	10.4	85.2	0.7	100.0	6,153
Urban	14.1	85.9	100.0	620	3.4	13.3	82.9	0.4	100.0	1,669
Rural	12.3	87.7	100.0	799	3.8	9.3	86.1	0.8	100.0	4,484
Frontier Governorates	13.0	87.0	100.0	64	1.5	9.4	88.2	0.9	100.0	169
Education										
No education	13.9	86.1	100.0	882	3.7	9.7	85.6	0.9	100.0	4,280
Some primary	13.7	86.3	100.0	396	4.6	10.5	84.4	0.5	100.0	1,218
Primary completed/some										,
secondary	12.1	87.9	100.0	768	4.7	10.5	84.3	0.5	100.0	2,040
Secondary complete/higher	10.9	89.1	100.0	3,041	3.4	8.8	87.4	0.4	100.0	6,061
Work status										
Working for cash	11.9	88.1	100.0	794	3.3	9.1	87.2	0.3	100.0	1,614
Not working for cash	11.8	88.2	100.0	4,292	3.9	9.6	85.9	0.6	100.0	11,986
Wealth quintile										
Lowest	13.9	86.1	100.0	528	4.5	9.4	85.3	0.9	100.0	2,818
Second	14.1	85.9	100.0	752	4.0	9.4	86.1	0.6	100.0	2,829
Middle	13.4	86.6	100.0	1,044	4.1	9.8	85.5	0.7	100.0	2,939
Fourth	10.9	89.1	100.0	1,349	3.5	9.9	86.2	0.4	100.0	2,785
Highest	9.6	90.4	100.0	1,414	2.9	9.0	87.8	0.3	100.0	2,229
Total	11.8	88.2	100.0	5,086	3.8	9.5	86.1	0.6	100.0	13,600

#### 11.4 TRENDS IN ANTENATAL AND DELIVERY CARE INDICATORS

Table 11.12 presents the trends in antenatal and delivery care indicators by residence for the period between the 1988 and 2005 EDHS surveys. The table documents upward trends in all of the indicators, with the trend in tetanus toxoid coverage being particularly notable. Overall, there was a more than sixfold increase in the percentage of births for which the mother received at least one tetanus toxoid injection, from 11 percent at the time of the 1988 EDHS to the current level of 79 percent.

Table 11.12 Trends in maternal health indicators by residence

Percentage of births in the five years preceding the survey whose mothers had at least one tetanus toxoid injection, antenatal care from a doctor or trained nurse-midwife, four or more antenatal care visits, were assisted at delivery by a medical provider, and were delivered by caesarean section by urban-rural residence and place of residence, Egypt, 1988-2005

Maternal		Urban	L	ower Egyp	ot	l	Jpper Egy <sub>l</sub>	ot	Frontier		
health indicator	Urban	Rural	Gover- norates	Total	Urban	Rural	Total	Urban	Rural	Gover- norates	Total
Any antenata	ıl care										
1988	na	na	na	na	na	na	na	na	na	na	na
1992	na	na	na	na	na	na	na	na	na	na	na
1995	58.3	27.2	59.2	41.9	65.2	34.5	28.6	51.2	20.8	41.4	39.1
2000	70.4	41.9	74.1	53.5	71.2	47.2	44.3	65.1	36.9	44.6	52.9
2005	82.2	62.1	84.0	78.0	88.4	74.7	57.5	75.8	50.6	68.1	69.6
Regular ante	natal care <sup>1</sup>										
1988	na	na	na	na	na	na	na	na	na	na	na
1992	na	na	na	na	na	na	na	na	na	na	na
1995	50.0	14.9	55.1	27.9	52	20.2	17.9	40.6	10.1	na	28.3
2000	53.9	25.9	56.0	38.9	56.2	32.8	27.2	49.8	19.2	28.5	36.7
2005	74.8	49.2	78.9	66.7	80.8	62.2	45.0	65.8	37.3	59.1	58.5
Tetanus toxo	id injectio	ns									
1988	12.6	10.6	8.8	13.1	14.8	12.5	11.1	17.3	8.6	na	11.4
1992	56.9	57.5	52	64	67.8	62.7	53.3	55.3	52.8	na	57.8
1995	66.7	71.2	64.2	75.6	70.2	77.4	66.3	67.6	65.9	59.8	69.5
2000	70.1	73.9	62.4	79.1	75.3	80.4	70.0	75.4	68.1	64.2	72.4
2005	70.3	83.2	65.2	81.9	73.4	84.5	79.9	73.4	82.3	69.6	78.5
Medically-as	sisted deli	veries									
1988	57.0	19.1	64.9	31.1	54.4	23.3	23.9	46.9	14.4	na	34.6
1992	62.5	27.5	68.3	39.7	62.9	32.5	29.7	51.8	23.0	na	40.7
1995	67.9	32.8	69.2	51.4	75.1	43.9	32.2	59.6	22.9	59.3	46.3
2000	81.4	48.0	83.7	65.1	84.7	58.1	47.8	74.7	38.2	60.4	60.9
2005	88.7	65.8	90.7	81.6	92.9	78.0	62.6	83.8	54.8	71.8	74.2
Caesarean de	eliveries										
1988	na	na	na	na	na	na	na	na	na	na	na
1992	na	na	na	na	na	na	na	na	na	na	na
1995	10.7	4.2	12.3	7.3	11.3	6.1	3.8	7.9	2.4	3.4	6.6
2000	16.7	6.3	19.3	11.2	17.7	8.9	6.1	12.6	3.8	5.3	10.3
2005	29.2	14.6	33.8	24.5	34.9	21.2	11.8	20.4	8.6	14.3	19.9

na = Not available

<sup>1</sup> A woman is considered to have had regular antenatal care if she had 4 or more visits during the pregnancy.

Source: El-Zanaty and Way, 2004, Table 5.14

During the period between the 1988 and 2005 surveys, there were also substantial gains in antenatal care coverage and in the proportion of medically assisted deliveries. Regarding the latter indicator, Table 11.12 shows that only about a third of births were medically assisted at the time of the 1988 survey. By the time of the 2005 survey, this proportion had climbed to slightly more than 70 percent.

All residential categories shared in the improvements in maternal health indicators. Rural areas, however, continued to lag behind urban areas in both antenatal care coverage and in medically assisted deliveries. Within rural Egypt, the gains in both antenatal care coverage and the proportion of medically assisted deliveries have been somewhat greater in Lower Egypt than in Upper Egypt. As a result, the gap in both antenatal care and medically assisted deliveries between rural Lower Egypt and rural Upper Egypt increased during the time between the 1988 and 2000 surveys.

As the proportion of medically-assisted deliveries increased, Table 11.12 also shows that there has been a substantial rise in the proportions of births reported by the mother to have been delivered by caesarean section. Caesarean deliveries were almost three times as common in 2005 as in 1995. Although increases in the proportions of caesarean deliveries were observed in all residential categories between 1995 and 2005, caesarean deliveries continued to be much more common in urban than in rural areas.

#### 11.5 **POSTNATAL CARE**

Care after delivery is very important for both the mother and her child. Proper care after delivery is especially important for births occurring in the home. The Ministry of Health and Population recommends several visits for postnatal care. The first visit should occur within two day of delivery, and the last at 40 days. In addition there should be at least two other visits, one at seven days after delivery and another at 15 days.

# **Postnatal Checkup for the Mother**

Both women delivering in health facilities and those delivering outside of facilities were asked questions about the receipt of postnatal care. The results may be subject to some degree of error, especially for women delivering in facilities. Women giving birth in a health facility were asked if a provider checked on their health after they delivered before they were discharged and, if not, whether they had seen someone for a postnatal checkup after they were discharged from the facility. It is possible that women delivering in a facility may not have remembered or recognized that a postnatal checkup was conducted during their stay in the facility. However, it is felt that most women could accurately report on whether they were seen by a provider for a checkup before discharge and that this approach to collecting the information is preferable to an assumption that all women delivering in a health facility had a postnatal checkup.<sup>2</sup>

Table 11.13 presents the percent distribution of all births during the five-year period before the survey by whether or not the mother received postnatal care and, if so, the type of provider. The table also shows the source of postnatal care and timing of the first postnatal checkup. Overall, women report they had a postnatal checkup in the case of 58 percent of all births during the five-year period before the survey. Postpartum care is largely confined to births assisted by a medical provider; postnatal checkups were reported by mothers of 74 percent of the births assisted at delivery by a health provider (largely a doctor) during the five-year period prior to the survey. Mothers rarely reported receiving postnatal care when the birth was assisted by a daya or other person (11 percent).

Table 11.13 also shows that most mothers who had a postnatal checkup saw a medical provider for the care. Among last births during the five-year period prior to the survey, postnatal checkups took place more often in private facilities than in facilities operated by the government. With regard to the timing of postnatal checkups, mothers saw a provider for the checkup within two days of the delivery for almost all last births for which any postnatal care was reported.

<sup>&</sup>lt;sup>1</sup> The same question was used in all of the EDHS surveys to collect information on the prevalence of caesarean deliveries. However, it is possible that as the proportion of all births occurring in health facilities increased over the period covered by the surveys, a somewhat greater number of women may have misunderstood the reference to caesarean birth.

The latter assumption was made in the 2000 EDHS and 2003 EIDHS surveys and, thus, the results of the current

survey are not comparable to the findings published in the reports for those surveys.

Table 11.13 Postnatal care for mother

Percent distribution of births during the five-year period before the survey by type of provider and percent distribution of last births during the fiveyear period before the survey by source of the first postnatal checkup for mother and timing of first postnatal care checkup, according to the type of assistance at delivery, Egypt 2005

	Medically- assisted births	Births assisted by daya/other	Total
Provider of postnatal care			
Doctor	72.5	7.6	55.8
Trained nurse/ midwife	0.7	0.2	0.6
Traditional birth attendant	0.5	3.3	1.2
No postnatal care	26.2	88.9	42.4
Total	100.0	100.0	100.0
Number of births	10,084	3,515	13,600
Place of first checkup			
Health facility	73.2	7.0	57.3
Public sector	28.0	3.1	22.0
Private sector	45.2	4.0	35.3
At own/other home	0.9	0.9	0.9
Don't know/missing	0.1	0.0	0.1
No postnatal care	25.8	92.1	41.7
Total	100.0	100.0	100.0
Number of last births	7,489	2,356	9,845
Timing of first checkup			
Within 2 days of delivery	71.9	5.6	56.1
Less than 4 hours	53.2	2.6	41.2
4-23 hours	11.5	2.1	9.1
24-48 hours	7.2	1.2	5.8
3-7 days after delivery	1.6	1.8	1.7
8-27 days after delivery	0.1	0.1	0.1
28 or more days after delivery	0.1	0.0	0.1
Don't know/ missing	0.5	0.1	0.4
No postnatal care	25.8	92.1	41.7
Total	100.0	100.0	100.0
Number of last births	7,489	2,356	9,845

Table 11.14 presents differentials in postnatal care indicators for the last birth during the five-year period before the survey. The table shows that the likelihood of receiving postnatal care was higher for urban than rural women. Women living in rural Upper Egypt were least likely to report receiving postnatal care. The percentages of women who had postnatal care increased with both the mother's education level and with the wealth quintile.

Table 11.14 Postnatal care for mother by background characteristics

Percentage of last births during the five-year period before the survey whose mother had any postnatal checkup and whose mother had a postnatal checkup within two days of the delivery, according to the type of assistance at delivery, Egypt 2005

	Medically assisted births				ssisted by s/others		All I	births	
Background characteristic	Had any postnatal care	Had postnatal checkup within 2 days after delivery	Number of last births assisted by health providers	Had any postnatal care	Had postnatal checkup within 2 days after delivery	Number of last births assisted by dayas/ others	Had any postnatal care	Had postnatal checkup within 2 days after delivery	Number of last births
Age at birth									
<20	70.0	68.1	631	11.8	8.4	245	53.7	51.4	875
20-34	74.9	72.5	5,986	7.5	5.8	1,828	59.1	56.9	7,814
35-49	72.6	70.5	872	7.0	4.0	283	56.5	54.2	1,156
Birth order									
1	78.2	75.0	2,027	9.6	8.1	319	68.9	65.9	2,346
2-3	74.9	73.1	3,732	8.5	6.5	1,065	60.2	58.3	4,796
4-6	70.9	68.4	1,225	7.4	4.9	560	51.0	48.4	1,785
7+	60.6	58.6	505	5.7	3.7	413	35.9	33.9	917
Urban-rural residence									
Urban	82.5	80.4	3,371	9.5	6.4	382	75.1	72.9	3,753
Rural	67.4	64.9	4,118	7.6	5.8	1,974	48.0	45.7	6,092
Place of residence									
Urban Governorates	89.6	88.7	1,346	18.6	16.2	114	84.0	83.1	1,460
Lower Egypt	77.6	75.0	3,322	9.2	7.3	743	65.1	62.7	4,066
Urban	84.1	80.9	911	3.0	0.0	75	77.9	74.7	987
Rural	75.2	72.8	2,411	9.9	8.1	668	61.0	58.8	3,079
Upper Egypt	62.5	59.7	2,734	6.5	4.3	1,466	43.0	40.4	4,200
Urban	72.4	69.7	1,057	7.0	3.1	179	63.0	60.0	1,235
Rural	56.3	53.5	1,677	6.4	4.5	1,287	34.6	32.2	2,965
Frontier Governorates	72.2	71.6	86	5.5	5.5	33	53.9	53.4	119
Education									
No education	62.4	60.0	1,708	4.7	3.5	1,275	37.7	35.9	2,983
Some primary	70.1	67.9	612	11.8	9.6	266	52.4	50.3	878
Primary complete/some				9.4			57.1		
secondary	72.0	70.0	1,136		6.2	355		54.8	1,491
Secondary complete/ higher	80.4	78.0	4,033	13.4	9.9	461	73.5	71.0	4,494
Work status									
Working for cash	80.0	77.7	1,081	9.4	5.0	179	70.0	67.4	1,261
Not working for cash	73.2	70.9	6,408	7.8	5.9	2,177	56.6	54.4	8,584
Wealth quintile									
Lowest	61.5	58.9	1,009	5.2	3.9	921	34.7	32.7	1,929
Second	60.4	57.6	1,301	7.2	5.6	680	42.1	39.7	1,981
Middle	71.1	69.0	1,679	9.1	6.2	434	58.4	56.1	2,114
Fourth	81.3	78.6	1,822	12.3	9.5	256	72.8	70.1	2,078
Highest	87.9	86.3	1,678	27.4	19.4	65	85.6	83.8	1,742
Total	74.2	71.9	7,489	7.9	5.9	2,356	58.3	56.1	9,845

# **Postnatal Checkup for the Baby**

Women were asked whether or not the child had had a postnatal checkup for each birth they had during the five-year period before the survey. In addition, information was collected for the last birth the woman had during the period on the source where the postnatal checkup occurred and the timing of the first checkup following delivery. A question was also included for all last-born children about whether or not a blood sample had been taken from the child's heel. The MOHP has established a program to promote the collection of blood samples in the twoweek period following a child's birth to screen for genetic problems.

Table 11.15 presents the percent distribution of all births during the five-year period before the survey by whether or not the child received postnatal care and, if so, the type of provider. For the last birth during this period, the table also shows the source of postnatal care and timing of the first postnatal checkup. Overall, women report their infants had a postnatal checkup in the case of 36 percent of all births during the five-year period before the survey. Postnatal checkups were reported by mothers of 40 percent of the births assisted at delivery by a health provider (largely a doctor) during the five-year period prior to the survey compared to 22 percent of births assisted by a daya or other person.

### Table 11.15 Postnatal care for child

Percent distribution of births during the five-year period before the survey by provider for first postnatal checkup for child and percent distribution of last births during the five-year period before the survey by the source for first postnatal care checkup for the child, timing of the first checkup, and mother's report as to whether sample of blood was taken from baby's heel during the first 2 weeks following delivery, according to the type of assistance at delivery, Egypt 2005

	Medically	Births	
Postnatal care	assisted <sup>'</sup>	assisted by	
for child	births	daya/other	All births
Provider of postnatal care			
Doctor	40.2	21.1	35.3
Trained nurse/ midwife	0.1	0.7	0.3
Traditional birth attendant	0.0	0.2	0.1
No postnatal care	59.7	77.9	64.4
Total	100.0	100.0	100.0
Number of births	10,084	3,515	13,600
Source for first checkup			
Health facility	40.4	22.7	36.2
Public sector	11.6	9.0	11.0
Private sector	28.8	13.7	25.2
At own/other home	0.7	0.6	0.6
Don't know/missing	0.1	0.0	0.1
No postnatal care	58.9	76.7	63.1
Timing of first checkup			
Within 2 days of delivery	10.5	2.8	8.7
Less than 4 hours	4.6	0.4	3.6
4-23 hours	1.1	0.5	1.0
24-48 hours	4.7	1.9	4.1
3-7 days after delivery	16.6	10.0	15.0
8-27 days after delivery	4.9	3.9	4.7
4+ weeks after delivery	8.2	6.0	7.7
Don't know/ missing	0.9	0.5	8.0
No postnatal care	58.9	76.7	63.1
Blood sample from heel			
Sample taken	62.5	52.3	60.1
Sample not taken	33.4	43.4	35.8
Don't know/missing	4.1	4.3	4.1
Total	100.0	100.0	100.0
Number of last births	7,489	2,356	9,845

Table 11.15 shows that almost all infants who had a postnatal checkup were seen by a doctor. Infants were more than twice as likely to have been taken to a private provider for the postnatal checkup as to a public health facility (25 percent and 11 percent, respectively). Since many of the children who die in infancy die in the early neonatal period, it is important for the postnatal checkup to take place soon after delivery in order to screen for conditions that may threaten an infant's survival. The results in Table 11.15 indicate that most infants are seen for the first checkup within a week following delivery but that only about one-quarter of the infants receiving a postnatal checkup (9 percent of all last births) were seen for the first checkup within two days of their birth.

Table 11.5 also shows that a blood sample was taken from the child's heel within two weeks of birth in the case of 60 percent of last-born children.

Postnatal checkups were more prevalent among urban infants than rural infants (Table 11.16). The likelihood that an infant would have a checkup was lowest in the Frontier Governorates (14 percent), and it increased with both the mother's education and the wealth quintile. However, even among infants born to mothers with a secondary or higher education and among infants in the highest wealth quintile, less than half were seen for a checkup.

Table 11.16 Postnatal care for child by background characteristics

Percentage of last births in the five-year period before the survey for which the child received any postnatal checkup, percentage receiving a postnatal checkup within two days of the delivery, and percentate of babies from whom a blood sample was taken from the heel by type of delivery assistance, according to selected background characteristics, Egypt 2005

	Medically assisted births				В	irths assiste daya/othe						
Background characteristic	Had any post- natal care	Had postnatal checkup within 2 days after delivery	Had heel sample taken within 2 weeks of delivery	Number of births assisted by health providers	Had any post- natal care	Had postnatal checkup within 2 days after delivery	Had heel sample taken within 2 weeks of delivery	Number of last births assisted by dayas/ others	Had any post- natal care	Had postnatal checkup within 2 days after delivery	taken within	Number of last births
Age at birth												
<20 20-34 35-49	41.8 42.0 35.1	7.1 10.9 10.2	70.1 63.0 53.5	631 5,986 872	25.0 23.8 18.9	2.3 3.0 2.3	61.2 53.3 38.5	245 1,828 283	37.1 37.7 31.1	5.8 9.1 8.3	67.6 60.7 49.8	875 7,814 1,156
Birth order												
1 2-3 4-5 6+	47.5 41.1 36.3 27.6	11.1 10.9 10.0 6.5	73.7 61.5 54.0 46.4	2,027 3,732 1,225 505	32.3 23.6 23.4 15.7	4.2 2.6 3.7 1.1	67.2 55.8 44.5 42.4	319 1,065 560 413	45.4 37.2 32.3 22.2	10.1 9.1 8.1 4.1	72.8 60.2 51.0 44.6	2,346 4,796 1,785 917
Urban-rural residence												
Urban Rural	44.7 38.2	12.7 8.7	64.4 61.0	3,371 4,118	27.2 22.6	3.1 2.8	54.2 51.9	382 1,974	42.9 33.1	11.7 6.8	63.4 58.0	3,753 6,092
Place of residence												
Urban Governorates Lower Egypt	43.3 44.7	12.5 10.0	75.0 64.8	1,346 3,322	25.2 30.5	2.6 4.0	54.6 50.6	114 743	41.9 42.1	11.8 8.9	73.4 62.2	1,460 4,066
Urban Rural	48.6 43.2	11.3 9.6	66.1 64.4	911 2,411	41.2 29.3	1.8 4.2	67.8 48.6	75 668	48.0 40.2	10.5 8.4	66.2 61.0	987 3,079
Upper Egypt Urban	36.5 44.7	10.1 14.3	53.5 49.6	2,734 1,057	20.0 24.3	2.3 4.2	53.0 48.4	1,466 179	30.7 41.8	7.4 12.8	53.4 49.4	4,200 1,235
Rural Frontier Governorates	31.3 16.9	7.5 8.7	56.0 63.6	1,677 86	19.4 (5.5)	2.1 (0.0)	53.7 (49.5)	1,287 33	26.1 13.8	5.1 6.3	55.0 59.8	2,965 119
Education	10.5	0.7	03.0	00	(3.3)	(0.0)	(13.3)	33	13.0	0.5	33.0	113
No education Some primary Primary complete/some	29.9 39.9	6.6 10.6	56.7 60.5	1,708 612	18.7 24.5	1.8 2.1	48.9 49.6	1,275 266	25.1 35.2	4.5 8.0	53.4 57.2	2,983 878
secondary Secondary complete/	39.2	8.5	63.5	1,136	26.6	4.1	52.1	355	36.2	7.4	60.8	1,491
higher	46.6	12.7	65.0	4,033	32.9	5.2	63.3	461	45.2	12.0	64.8	4,494
Work status												
Working for cash Not working for cash	45.6 40.4	14.2 9.9	60.0 62.9	1,081 6,408	24.2 23.3	7.1 2.5	53.1 52.2	179 2,177	42.5 36.0	13.1 8.0	59.1 60.2	1,261 8,584
Wealth quintile												
Lowest Second	32.4 35.7	6.7 8.2	56.9 59.7	1,009 1,301	22.1 19.7	2.2 2.5	52.9 46.8	921 680	27.5 30.2	4.5 6.2	55.0 55.2	1,929 1,981
Middle	35./ 37.9	9.3	63.9	1,301	24.9	4.0	55.1	434	35.3	8.2	62.1	2,114
Fourth	45.1	10.7	63.5	1,822	31.2	3.5	60.5	256	43.4	9.8	63.1	2,078
Highest	49.5	15.7	65.6	1,678	36.9	5.0	50.4	65	49.0	15.3	65.1	1,742
Total	41.1	10.5	62.5	7,489	23.3	2.8	52.3	2,356	36.9	8.7	60.1	9,845
Note: Figures in parenthes	es are b	ased on 25	-49 unwei	ghted cases.								

Table 11.16 also shows that blood samples were taken from 63 percent of children whose mothers were assisted at delivery by medical personnel compared to 52 percent of children whose mothers were assisted by dayas or others. Children born to mothers age 35-49 were least likely (50 percent) while first births and children from the Urban Governorates (73 percent) were most likely to have had a blood sample collected.

#### 11.6 FAMILY PLANNING AND BREASTFEEDING ADVICE

The 2005 EDHS collected information from women who delivered their last birth within the five-year period before the EDHS on whether or not they had received any advice about family planning and breastfeeding during the time they were pregnant, at the time they delivered or during the two months following delivery. Table 11.17 shows that around a quarter of these mothers said that they were given advice. With regard to the source of the advice, health providers were the most frequently mentioned source for both family planning and breastfeeding advice. The results also suggest that women were more likely to seek advice from relatives about breastfeeding than about family planning.

#### 11.7 **EXPOSURE TO SAFE PREGNANCY MESSAGES**

Media messages designed to make women more aware of the danger signs during pregnancy are part of an information, education and communication campaign to promote safe pregnancy. The 2005 EDHS included questions to assess the coverage of these messages and to identify the media through which women had heard or seen the messages most recently. Table 11.18 shows that 29 percent of ever-married women had heard about the danger signs to watch for during pregnancy. Women age 45-49, women with no education and those living in households ranked in the lowest quintile on the wealth index were least likely to have heard a message (19 percent, 23 percent, and 22 percent, respectively). Women age 15-19 and women with a secondary or higher education were the most likely to have heard or seen a message (41 percent and 40 percent, respectively).

Table 11.17 Exposure to family planning and breastfeeding information

Percentage of last births in the fiveyear period before the survey whose mothers received information about family planning and breastfeeding from various sources, Egypt 2005

Source of information								
Family planning								
Health provider	17.8							
Social worker	1.0							
Daya	0.2							
Neighbors/friends	0.8							
Household member	1.9							
Other relative	4.4							
Other	0.1							
Any source	24.9							
Breastfeeding								
Health provider	15.3							
Social worker	0.7							
Daya	0.5							
Neighbors/friends	1.1							
Household member	3.9							
Other relative	11.2							
Other	0.1							
Any source	27.8							
Number of births	9,845							
	·							

With regard to the most recent information source, 57 percent last received the information through television while 31 percent cited medical providers as the most recent source of information. Five percent or less of women mentioned other mass media sources (radio or print media). Six percent or less mentioned receiving information from relatives (including the husband), friends or neighbors, or other sources. Television was cited most frequently by women living in urban Upper Egypt (72 percent). The largest proportions mentioning medical providers were found among women under age 25, especially women 15-19, and women from Lower Egypt.

Table 11.18 Coverage of safe pregnancy messages by background characteristics

Percentage of ever-married women 15-49 reporting they had received information about danger signs women must be aware of to have a safe pregnancy during the six months prior to the survey and, among women receiving information, the percent distribution by the last source from which they received information, according to background characteristics, Egypt 2005

	Percentage receiving				Source	of informa	tion			Number of women
	information	Number					Husband/	Friends/		knowing
Background	about	of			Print	Service	other	neighbors/	Total	danger
characteristic	danger signs	women	TV	Radio	media <sup>1</sup>	provider	relatives	other	percent	signs
Antenatal care										
Had birth	30.2	9,845	57.1	0.5	1.1	32.8	5.1	3.5	100.0	2,977
Antenatal care	31.0	6,975	54.9	0.3	1.3	36.0	4.8	2.7	100.0	2,164
No antenatal care	28.3	2,870	62.8	0.9	0.6	24.0	5.9	5.6	100.0	813
No birth	26.9	9,629	57.8	0.7	1.4	29.1	6.5	4.4	100.0	2,591
Age										
15-19	41.1	803	40.3	0.5	0.3	47.5	7.1	4.2	100.0	330
20-24	38.1	2,968	45.9	0.9	0.5	42.2	7.5	2.8	100.0	1,132
25-29	33.4	3,785	57.2	0.6	1.8	32.9	4.5	3.1	100.0	1,263
30-34	28.1	3,209	60.4	0.2	1.0	30.5	4.1	3.9	100.0	903
35-39	24.0	3,191	65.2	8.0	1.0	23.7	4.6	4.7	100.0	767
40-44	23.8	2,859	66.5	0.3	2.4	19.8	5.5	5.5	100.0	681
45-49	18.5	2,659	65.9	0.4	1.1	17.9	9.8	4.9	100.0	493
Urban-rural residence										
Urban	32.0	8,033	60.6	0.4	2.0	29.6	4.8	2.5	100.0	2,568
Rural	26.2	11,441	54.7	0.7	0.6	32.3	6.6	5.1	100.0	3,000
Place of residence										
Urban Governorates	34.9	3,293	60.4	0.5	2.2	29.8	4.9	2.2	100.0	1 <i>,</i> 150
Lower Egypt	20.4	8,410	44.9	0.7	1.2	43.2	5.8	4.1	100.0	1,713
Urban	23.3	2,199	44.0	0.9	2.7	45.6	4.1	2.8	100.0	513
Rural	19.3	6,211	45.3	0.6	0.7	42.1	6.5	4.7	100.0	1,201
Upper Egypt	34.8	7,552	64.6	0.5	0.8	23.5	6.2	4.4	100.0	2,632
Urban	35.5	2,411	71.7	0.0	1.1	19.3	5.2	2.7	100.0	856
Rural	34.5	5,141	61.2	0.8	0.6	25.6	6.7	5.2	100.0	1,776
Frontier Governorates	33.5	218	46.1	0.8	0.8	38.8	7.3	6.4	100.0	73
Education										
No education	22.5	6,740	59.6	0.5	0.0	25.1	8.0	6.9	100.0	1,514
Some primary	24.9	3,053	60.5	0.8	0.1	25.3	6.5	3.7	100.0	759
Primary complete/some	22.5		0	o <b>-</b>	4.0	22.0			400.0	
secondary Secondary complete/higher	32.6 39.5	7,666 2,016	55.0 58.0	0.7 0.0	1.3 4.3	32.8 35.0	5.1 3.3	2.8 1.8	100.0 100.0	2,499 797
Work status	33.3	2,010	30.0	0.0	1.5	33.0	3.3	1.0	100.0	7 37
Working for cash	30.5	3,288	55.9	0.6	3.9	33.0	3.0	3.6	100.0	1,002
Not working for cash	28.2	3,200 16,186	55.9 57.8	0.6	0.6	30.6	6.4	3.6 4.0	100.0	4,567
ű.	20.2	10,100	37.0	0.0	0.0	30.0	0.4	4.0	100.0	4,507
Wealth quintile Lowest	22.4	2,964	52.4	0.8	0.2	28.3	8.7	9.7	100.0	664
Second	27.2	2,96 <del>4</del> 3,581	60.2	0.8	0.2	26.8	7.2	9.7 4.5	100.0	973
Middle	26.2	4,217	56.7	0.7	0.6	32.5	7.2 5.4	4.5 4.1	100.0	1,104
Fourth	30.7	4,425	54.1	0.9	1.0	35.5	6.1	3.1	100.0	1,104
Highest	34.2	4,423	61.4	0.2	2.9	30.0	3.6	3.1 1.6	100.0	1,339
Ŭ										,
Total	28.6	19,474	57.4	0.6	1.2	31.1	5.8	3.9	100.0	5,568

<sup>&</sup>lt;sup>1</sup> Includes newspaper, magazine, pamphlet, brochure, or poster

CHILD HEALTH

Many of the deaths in early childhood can be prevented by immunizing children against preventable diseases and by ensuring that children receive prompt and appropriate treatment when they become ill. This chapter presents information from the 2005 EDHS on the level of immunization among young children. The chapter also considers information from the EDHS on the prevalence and treatment of a number of common childhood illnesses including diarrhea, acute respiratory infections and fever.

#### 12.1 **IMMUNIZATION OF CHILDREN**

World Health Organization guidelines for childhood immunizations call for all children to receive a BCG vaccination against tuberculosis; three doses of the DPT vaccine to prevent diphtheria, pertussis, and tetanus; three doses of polio vaccine; and a measles vaccination during the first year of life. In addition to these standard immunizations, Egypt's childhood immunization program recommends that children receive three doses of the hepatitis vaccine.

### **Collection of Data**

In Egypt, routine immunizations are recorded on a child's birth record (certificate) or on a special health card. In collecting data on immunization coverage in the 2005 EDHS, mothers were asked to show the interviewer the birth record and/or health card for each child born since January 2000. When the mother was able to show the birth record and/or health card, the dates of vaccinations were copied from the document(s) to the questionnaire. If neither a birth record nor a health card was available (or a vaccination was not recorded), mothers were asked a series of questions to determine whether the child had ever received specific vaccines and, if so, the number of doses.

In addition to the program of routine immunizations, Egypt has recently conducted a number of special national immunization days (NID) in the effort to eradicate polio. Children's vaccination records are generally not updated to reflect the immunizations received in these campaigns. Therefore the EDHS asked several questions on whether the child had participated in any of the NID campaigns and, if so, during how many of the campaigns the child had received a polio immunization.

# **Routine Immunization Against Common Childhood Illnesses**

Table 12.1 shows information on vaccination coverage according to the source of the information, i.e., the child's birth record and/or health card or the mother's report. The table is restricted to children 12-23 months of age in order to focus on recent coverage levels.

The first three columns of the table provide information on the proportions of children who were immunized at any age up to the time of the survey. The fourth column presents the proportion of children who were vaccinated by age 12 months, the age at which children should have received all of the recommended vaccinations. For children with vaccination records, the percentage of children immunized by age 12 months was calculated based on the child's birth date and the dates on which specific vaccines were given as reported on the vaccination record. For children whose information was based on mother's recall, the proportion of vaccinations given during the first year of life was assumed to be the same as that for children with a written vaccination record.

Table 12.1 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, Egypt 2005

	Vaccinated	at any time be	efore survey	Vaccinated	
	Vaccination	Mother's	Either	by 12 months	Valid
Vaccination	card	report	source	of age <sup>3</sup>	dates
BCG	71.7	26.3	98.0	98.0	89.4
DPT 1	72.7	26.4	99.1	99.0	90.7
DPT 2	71.7	25.9	97.5	97.2	84.8
DPT 3+	70.2	23.4	93.5	93.2	77.2
Polio 0 <sup>1</sup>	22.1	21.2	43.3	43.3	28.2
Polio 1	73.1	26.5	99.6	99.5	97.7
Polio 2	72.5	26.3	98.8	98.6	94.8
Polio 3+	71.4	25.7	97.0	96.7	87.1
Hepatitis 1	67.0	24.2	91.2	91.1	72.2
Hepatitis 2	64.1	22.3	86.4	86.4	63.4
Hepatitis 3	60.0	19.8	79.8	79.6	53.4
Measles	70.5	26.1	96.6	94.5	85.5
MMR	11.2	11.4	22.6	1.5	12.0
Fully immunized <sup>2</sup>	66.2	22.6	88.7	86.2	63.5
Fully immunized plus 3 doses of					
the hepatitis vaccine	57.0	18.9	75.9	74.2	44.1
No vaccinations	0.1	0.2	0.2	0.3	0.6
Number of children	1,965	715	2,680	2,680	1,965

<sup>&</sup>lt;sup>1</sup> Polio 0 is the polio vaccination given at birth.

Table 12.1 shows that birth records and/or health cards were available in the case of 1,965 out of 2,680 of the children age 12-23 months (73 percent). For the remaining children, the information on vaccinations was based on the mother's report.

The results in Table 12.1 indicate that the childhood immunization program in Egypt has wide coverage. Among children 12-23 months, less than one percent has never been immunized against any of the vaccine preventable diseases. Coverage levels for BCG are virtually universal, and 97 percent of children 12-23 months have received a measles vaccination. The proportions receiving three doses of the DPT and polio vaccines are 94 percent and 97 percent, respectively. Overall, 89 percent of children are considered immunized against all of these preventable diseases, i.e., they have received a BCG and measles vaccination and three doses of the DPT and polio vaccines.

Hepatitis vaccinations were introduced into Egypt's childhood immunization program in the mid-1990s. Table 12.1 shows that coverage levels are high for the hepatitis vaccine, with 80 percent of children reported as having received the third dose of this vaccine. Overall, 76 percent of children 12-23 months are fully immunized against hepatitis as well as the other six preventable illnesses.

Finally, the percentages in the third column of Table 12.1 can be compared to those in the fourth column to assess the proportion of vaccinated children who, as recommended, had received the vaccinations before the child's first birthday. Overall, 86 percent of the children 12-23 months had received all of the required vaccinations (excluding hepatitis) by their first birthday. This proportion

<sup>&</sup>lt;sup>2</sup> A child is considered to be fully immunized if the child has received BCG, a measles or MMR vaccination, three DPT vaccinations, and three polio vaccinations

<sup>&</sup>lt;sup>3</sup> For children whose information was based on the mother's report, the proportion of vaccinations given during the first year of life was assumed to be the same as for children with a written record of vaccinations.

represents 97 percent of all children who were fully immunized against the six primary preventable childhood illnesses at the time of the survey.

# **Trends and Differentials in Vaccination Coverage**

As Table 12.2 shows, the levels of vaccination coverage increased substantially during the period between the 1992 and 2005 EDHS surveys. Overall, the proportion fully immunized at the time of the 2005 survey (89 percent), i.e., the proportion receiving BCG and measles vaccinations and three doses of DPT and polio, was one-third higher than the level recorded at the time of the 1992 EDHS (67 percent).

Table 12.2 also presents differentials in vaccination coverage among children 12-23 months according to selected background characteristics. There is little variation in coverage levels, with 85 percent or more of the children in all subgroups fully vaccinated.

# **Participation in National Immunization Days**

During the two-year period before the survey, a series of national immunization day campaigns were held in an effort to ensure that all young children in Egypt are fully immunized against polio. The 2005 EDHS collected information on children's participation in the NID campaigns. Table 12.3 shows that the NID campaigns have achieved wide coverage; almost all children under age five have received an immunization during one of the NIDs.

If both NIDs participation and vaccinations received during routine care are taken into account, it is estimated that 99 percent of all children age 12-23 months can be considered fully immunized against polio, i.e., they have received at least three doses of polio vaccine.

Table 12.2 Differentials and trends in vaccination coverage by background characteristics

Among children 12-23 months, percentage who had a vaccination record seen and percentage who received each vaccine (according to the vaccination cards or the mother's report), by selected background characteristics, Egypt 2005, and trends in percentage receiving various vaccines, Egypt 1992-2005

Background characteristic	Record seen	BCG	DPT 1	DPT 2	DPT 3+	Polio 0	Polio 1	Polio 2	Polio 3+	Hepa- titis 1	Hepa- titis 2	Hepa- titis 3	Measles	MMR	Fully immu- nized	Fully immu- nized plus 3 doses hepatitis	None	Number of children
Sex																		
Male	73.6	97.8	99.1	97.4	93.6	26.6	99.7	98.8	96.7	91.1	85.6	79.2	96.8	23.0	88.9	75.3	0.2	1,375
Female	73.0	98.3	99.2	97.6	93.5	28.9	99.4	98.9	96.4	91.2	87.3	80.5	96.3	22.2	88.5	76.6	0.3	1,305
Birth order																		,
1	71.2	97.9	98.9	96.8	91.9	27.7	99.7	99.2	96.8	92.3	88.0	80.3	97.4	25.4	87.0	<i>7</i> 5. <i>7</i>	0.0	829
2-3	72.1	98.6	99.3	98.2	94.8	28.1	99.4	98.7	96.8	90.9	86.5	81.0	97.1	21.5	91.2	78.4	0.3	1,247
4-5	77.2	97.3	99.0	96.9	92.7	27.4	99.6	99.1	95.8	89.7	85.0	77.8	94.1	22.4	85.5	72.5	0.4	<sup>′</sup> 415
6+	81.6	96.5	99.6	97.7	94.2	25.8	99.6	97.8	96.4	91.4	82.2	74.7	94.7	17.6	86.9	68.2	0.4	190
Urban-rural																		
Urban	71.4	98.8	99.1	97.1	93.5	23.3	99.2	98.7	96.7	93.4	89.4	83.6	96.8	24.5	89.1	80.1	0.2	972
Rural	74.4	97.6	99.2	97.8	93.5	30.2	99.8	98.9	96.5	89.9	84.8	77.7	96.5	21.5	88.5	73.6	0.2	1,708
Place of residence																		,
Urban Governorates	72.0	99.0	99.0	97.6	94.6	17.0	98.9	98.7	96.1	95.0	91.4	85.6	97.0	24.0	90.3	83.3	0.4	402
Lower Egypt	71.3	98.4	99.3	98.1	94.4	36.8	99.7	99.4	98.1	92.9	88.8	83.0	97.6	25.5	90.9	79.6	0.2	1,071
Urban	60.9	100.0	99.2	96.1	92.3	40.1	99.3	98.6	95.7	93.6	88.4	84.3	97.1	33.3	89.5	80.3	0.0	235
Rural	74.3	98.0	99.3	98.6	95.0	35.8	99.8	99.6	98.7	92.8	88.9	82.6	97.7	23.3	91.2	79.4	0.2	836
Upper Egypt	75.4	97.3	99.1	97.1	92.5	23.5	99.6	98.4	95.4	88.1	82.4	74.7	95.7	19.7	86.3	69.8	0.2	1,169
Ürban	78.3	97.7	99.1	97.2	93.1	19.4	99.4	98.7	98.2	90.7	87.2	79.9	96.6	19.2	87.5	75.5	0.0	312
Rural	74.4	97.1	99.1	97.0	92.2	25.0	99.7	98.3	94.4	87.1	80.7	72.8	95.3	19.9	85.9	67.8	0.3	857
Frontier Governorates	77.7	98.9	98.2	95.3	90.9	13.2	100.0	99.2	95.5	96.6	92.4	88.4	92.7	14.4	85.6	81.6	0.0	37
Education																		
No education	75.8	97.9	99.4	97.1	92.3	27.4	99.9	99.0	95.6	87.5	81.9	75.8	96.0	20.0	86.2	70.9	0.1	801
Some primary	72.3	96.5	98.4	95.7	94.0	23.2	99.4	97.5	96.1	87.9	83.3	77.3	94.3	19.6	88.5	73.8	0.2	212
Primary completed/some																		
secondary	75.8	97.4	98.9	97.4	92.2	27.2	99.0	98.0	97.0	90.9	87.8	79.4	95.8	21.8	88.7	76.3	8.0	420
Secondary completed/higher	71.0	98.5	99.2	98.2	94.7	28.8	99.5	99.3	97.2	94.2	89.4	83.0	97.6	25.0	90.4	79.5	0.1	1,247
Work status																		,
Working for cash	65.9	96.0	99.4	97.2	93.4	29.7	98.8	98.5	97.0	95.3	91.6	81.6	97.5	26.4	86.8	66.1	0.6	276
Not working for cash	74.2	98.2	99.1	97.6	93.5	27.5	99.6	98.9	96.5	90.7	85.9	79.6	96.5	22.1	88.9	73.6	0.2	2,404
Wealth quintile																		,
Lowest	74.6	97.4	99.0	96.8	91.6	29.2	99.8	98.9	94.4	88.2	81.4	72.5	95.1	20.9	85.0	68.6	0.2	529
Second	74.2	97.3	98.8	96.8	93.1	25.0	99.3	98.5	96.0	89.8	85.1	78.3	95.4	17.1	87.5	73.2	0.7	557
Middle	75.1	98.1	99.6	98.3	94.1	32.7	99.9	99.0	97.2	90.4	85.2	79.5	97.8	24.8	90.1	75.8	0.1	610
Fourth	71.3	98.7	98.9	97.8	93.6	26.3	99.2	98.6	96.7	92.2	88.0	82.9	97.4	22.9	90.0	80.0	0.2	551
Highest	70.6	98.8	99.4	98.0	95.5	24.0	99.4	99.4	99.0	96.3	94.2	87.3	97.2	28.3	91.3	83.6	0.0	433
Total EDHS 2005	73.3	98.0	99.1	97.5	93.5	27.7	99.6	98.8	96.6	91.2	86.4	79.8	96.6	22.6	88.7	75.9	0.2	2,680
Total EDHS 2000	72.5	99.3	99.2	97.1	94.0	na	99.6	97.7	94.9	98.7	96.3	93.0	96.9	na	92.2	91.1	0.2	2,170
Total EDHS 1995	50.1	94.7	96.2	92.8	83.0	na	97.0	93.9	84.2	75.4	71.0	56.9	89.2	na	79.1	na	2.5	2,085
Total EDHS 1992	55.2	89.5	92.8	87.8	76.4	na	94.5	90.1	78.9	81.5	na	na	na	na	67.4	na	3.8	1,594

Note: A child is considered to be fully immunized if the child has received BCG, a measles or MMR vaccination, three DPT vaccinations, and three polio vaccinations. na = not available

Polio 0 is the polio vaccination given at birth; MMR - Measles, mumps, and rubella

Table 12.3 Number of times vaccinated in national immunization day campaigns by residence

Percent distribution of children under five years by the number of times the child received a polio immunization during a national immunization day (NID) campaign within a two-year period before the survey, Egypt 2005

Number of times vaccinated in NID			Urban Gover-		ower Eg	ypt		Jpper Eg	ypt	Frontier Gover-	
campaigns	Urban	Rural	norates	Total	Urban	Rural	Total	Urban	Rural	norates	Total
None	6.3	2.4	5.7	1.1	0.8	1.2	5.7	11.6	3.5	2.3	3.8
1-4	20.2	24.2	18.2	26.5	25.1	27.0	20.9	19.1	21.6	16.6	22.7
5-9	37.6	40.2	35.4	40.9	41.9	40.6	39.0	36.6	39.8	39.1	39.2
10 or more	34.7	32.1	39.7	30.6	30.8	30.5	33.0	31.6	33.5	40.4	33.1
Don't know/missing	1.2	1.2	0.9	0.9	1.5	0.7	1.5	1.2	1.6	1.6	1.2
Total percent Number of children	100.0 4,778	100.0 8,342	100.0 1,826	100.0 5,235	100.0 1,248	100.0 3,987	100.0 5,897	100.0 1,604	100.0 4,292	100.0 162	100.0 13,120

### 12.2 ACUTE RESPIRATORY INFECTION

Acute respiratory infection (ARI), particularly pneumonia, is a common cause of death among infants and young children. Early diagnosis and treatment with antibiotics can prevent a large proportion of the deaths due to pneumonia.

### Prevalence of ARI

The prevalence of ARI was estimated by asking mothers of all children under five years of age three questions. The first question was used to identify children who had been ill with a cough in the two weeks before the survey. One-fifth of all children under age five had had a cough during the two-week period before the survey (Table 12.4). For the children who had had a cough, a second question was asked to determine if the child had breathed faster than usual during the illness with short rapid breaths or had had difficulty breathing. If the mother indicated that the child had experienced fast or difficult breathing, they were asked whether it was the result of a problem in the chest or to a blocked or runny nose. Mothers reported that 11 percent of the children with a cough experienced fast or difficult breathing. Table 12.4 shows that mothers attributed the breathing problems in most of these children—9 percent of all children under age five—to a problem in the chest.

Table 12.4 Prevalence of ARI symptoms

Percent distribution of children under five years with cough by presence of ARI symptoms during the two weeks before the survey, Egypt 2005

Type of illness	Total
Cough with short, rapid,	
or difficult breathing	11.1
Chest-related only	3.9
Blocked/runny nose only	2.0
Both	5.1
Don't know/missing	0.1
Cough, no ARI symptoms	8.2
No cough	80.7
Total	100.0
Number of children	13,120

Note: Symptoms of ARI (cough accompanied by short, rapid breathing that was chest-related) is considered proxy for pneumonia.

In considering the ARI findings, several points should be noted. First, the prevalence of ARI varies seasonally, and the EDHS results represent the situation at the time of the interview (circa April-June 2005) and not the situation at other times of the year in Egypt. The data also are subject to reporting error although the short reference period (two weeks) reduces the likelihood of such error. The symptoms for which information is collected in the EDHS—cough with fast or difficult breathing involving a chest problem—are signs of pneumonia but are less appropriate for assessing the presence of other ARI-related conditions (coughs and colds, wheezing, ear infection, and streptococcal sore throat). Thus, the EDHS results do not provide information on the prevalence and treatment of the full range of ARI problems children experience. Finally, the 2005 EDHS findings are not strictly comparable to earlier DHS surveys since those surveys did not directly ascertain whether the mother considered the child's cough and rapid or difficult breathing to be chest-related.

# **Consultation, Treatment and Feeding Practices**

Women whose children had chest-related ARI symptoms were asked whether they had sought advice or treatment for the illness. Table 12.5 indicates that, according to the mother's report, advice or treatment was sought from a health provider for 73 percent of the children who were ill. Most of the families sought advice from only one provider when a child was ill with ARI symptoms. Private health care providers were the first source consulted in two-thirds of the cases. For the majority of children ill with ARI symptoms, the first consultation took place the day they became ill.

Table 12.6 considers the actions taken to treat the illness. Eighty-five percent of children with chest-related ARI symptoms were given some type of medicine. Antipyretics and cough medicine were the most frequently given medicines. Just over half of the ill children received an antibiotic, with most receiving the drug orally.

Questions were also asked about feeding practices during the illness. It is recommended that children receive increased liquids when they are ill and that food not be reduced. The results in Table 12.6 indicate the actions taken when the child had ARI symptoms were often counter to this advice. Children ill with chest-related ARI symptoms were most often given either less fluids than normal (45 percent) or nothing to drink (6 percent). There also was a clear tendency for children to receive less food than normal; just under one-fifth of the children were given the same or more food than normal.

### Table 12.5 Consultation for children ill with ARI symptoms

Among children under age 5 ill with chestrelated ARI symptoms, percent distribution by number of sources consulted during illness and, among ill children for whom a source was consulted, the percent distribution by the first source consulted during the illness and the timing of the first consultation, Egypt 2005

Consultation	
Number of sources consulted	
None	26.5
1 source	71.3
2 or more sources	2.0
Don't know/missing	0.2
Total percent	100.0
Number of ill children	1,186
Source consulted first	
Public sector	32.2
Urban Hospital	9.3
Urban health unit	2.4
Health office	1.2
Rural hospital	1.4
Rural health unit	8.5
MCH center	1.2
Other government	8.2
Private sector	66.9
Nongovernmental	5.1
Private medical	61.8
Private hospital/clinic	4.2
Private doctor	50.0
Pharmacy	7.6
Other nonmedical	0.1
Don't know/missing	0.8
Timing of first consultation	
First day child ill	68.3
2-3 days after child ill	26.3
4-5 days after child ill	2.5
6 or more days after child ill	2.3
Don't know/missing	0.7
Total percent Number of children having	100.0
consultation(s)	869

Note: Symptoms of ARI (cough accompanied by short, rapid breathing that was chestrelated) is considered proxy for pneumonia.

Table 12.6 Treatment and feeding practices
for children ill with ARI symptoms
Among children under age 5 ill with ARI
symptoms, percentage giving various drugs to
treat the illness and percent distribution by

feeding practices during illness, Egypt 2005

Treatment practices								
Drugs given to treat illness								
Given any drug(s) 85.2								
Any antibiotic	52.0							
Pill/syrup	43.4							
Had antibiotic at home	3.1							
Got antibiotic elsewhere	40.2							
Injection	14.2							
Antipyretic	55.6							
Cough medicine	56.4							
Other/unknown drug/missing	3.5							
No drug given/missing	14.8							
Number of ill children	1,186							
Amount of liquids offered								
Same as usual	33.0							
More	15.9							
Somewhat less	30.9							
Much less	14.0							
Nothing to drink	5.8							
Don't know	0.0							
Missing	0.3							
Amount of food offered								
Same as usual	18.1							
More	0.3							
Somewhat less	30.2							
Much less	24.9							
Stopped food	13.9							
Never gave food	12.4							
Missing	0.2							
Total	100.0							
Number of ill children	1,186							
Note: Percentages given various	drugs will							

# **Differentials in ARI Prevalence and Responses to the Illness**

Table 12.7 presents differences in the prevalence of chest-related ARI symptoms and in consultation and treatment practices by background characteristics. The proportion of children ill with chest-related ARI symptoms does not vary greatly with the background characteristics shown in the table. It peaks at 13 percent among children age 6-11 months and children living in urban areas in Upper Egypt. Children in the Frontier Governorates and children age 48-59 months were the least likely to have symptoms (5 percent and 6 percent, respectively).

not add to the total percentage given any drug(s) because more than response regarding

the drugs given was possible.

Table 12.7 shows that the majority of families take some action when a child is ill with chestrelated ARI symptoms; mothers report that there was no consultation or treatment given in the case of only 10 percent of children ill with chest-related ARI symptoms. Families are least likely to have taken any action if a child is under 12 months of age, of birth order 4 or higher, female, or living in a rural area.

Table 12.7 Prevalence and treatment of ARI symptoms by background characteristics

Percentage of children under five ill with ARI symptoms in the two weeks before the survey and, among ill children, percentage receiving medical care, given antibiotic, and receiving no treatment/consultation by selected background characteristics, Egypt 2005

			Among children with ARI symptoms, percentage:							
		Number		7 1111011	8 ciliaren	Wien / dien sy	inproms, pe	reentage.	Offered	
	Percentage	of					No		increased/	
	ill with	children					consul-	Offered	same	Number
Background	ARI	under	Medical	provider o	consulted	Given	tation/		amount of	of ill
characteristic	symptoms	age 5	Any	Public	Private		treatment	fluids	food	children
Child's age	/ 1									
Under 6 months	7.2	1,242	68.8	17.1	50.7	26.7	18.6	3.4	4.9	90
6-11 months	13.4	1,349	74.5	13.7	59.0	49.6	15.3	9.2	8.6	180
12-23 months	11.6	2,680	73.5	26.8	46.2	56.4	9.4	19.4	18.5	312
24-35 months	9.9	2,671	69.9	20.3	49.5	52.3	10.4	15.0	24.1	263
36-47 months	7.1	2,682	79.8	35.4	44.0	60.0	6.1	23.4	18.7	189
48-59 months	6.1	2,497	71.4	23.3	47.2	50.2	6.6	16.4	27.3	152
Sex										
Male	9.6	6,688	76.4	25.4	50.8	53.8	8.0	16.9	17.9	642
Female	8.5	6,432	69.5	21.5	46.9	49.9	13.0	14.7	18.9	544
Birth order		,								
1	9.2	3,994	74.7	24.1	50.2	49.9	9.8	15.9	14.4	367
2-3	9.2	5,943	73.4	20.8	51.8	55.8	7.9	16.5	21.1	546
4-5	8.6	2,123	70.9	27.6	43.3	47.5	15.3	11.5	17.1	183
6+	8.4	1,059	71.1	30.2	39.1	46.7	16.8	21.5	20.7	89
	0.4	1,033	7 1.1	30.2	33.1	40.7	10.0	21.5	20.7	0,5
Urban-rural residence	10.7	4 770	70.0	21.0	E7 1	F0 0	7.0	145	17.0	E11
Urban	10.7	4,778	79.8	21.9	57.1	58.9	7.0	14.5	17.2	511
Rural	8.1	8,342	68.2	24.9	42.8	46.8	12.9	17.0	19.2	674
Place of residence										
Urban Governorates	10.3	1,826	77.4	20.5	56.0	56.0	7.5	13.9	16.6	189
Lower Egypt	6.8	5,235	72.7	20.9	51.3	59.1	11.2	13.5	21.6	357
Urban	8.6	1,248	74.3	19.7	54.7	64.8	12.0	16.4	24.6	107
Rural	6.3	3,987	72.0	21.5	49.9	56.7	10.9	12.3	20.3	250
Upper Egypt	10.7	5,897	72.6	25.8	46.0	46.9	10.5	18.1	17.0	632
Urban	13.1	1,604	85.1	23.9	60.1	58.8	3.7	14.5	13.6	211
_Rural	9.8	4,292	66.3	26.8	38.9	40.9	13.9	19.9	18.6	421
Frontier Governorates	4.9	162	(56.6)	(34.6)	(21.9)	(44.9)	(23.1)	(0.0)	(29.8)	8
Education										
No education	8.4	4,087	75.7	28.6	46.0	50.1	12.6	12.5	20.9	344
Some primary	12.4	1,149	67.4	29.9	37.4	46.9	13.5	8.2	17.9	143
Primary complete/some										
secondary	10.2	1,973	74.0	20.0	53.1	41.5	5.4	19.0	15.0	201
Secondary complete/higher	8.4	5,911	72.9	19.7	52.7	59.0	9.8	19.3	18.1	498
Work status										
Working for cash	7.1	1,561	72.5	21.3	51.3	59.0	8.6	20.3	19.5	110
Not working for cash	9.3	11,559	73.3	23.8	48.8	51.3	10.5	15.5	18.3	1,076
Wealth quintile										
Lowest	9.5	2,684	66.2	25.7	39.9	42.5	17.1	16.5	18.6	254
Second	8.6	2,731	70.6	30.8	39.4	45.6	9.8	16.3	18.1	234
Middle	9.2	2,848	73.2	21.9	50.8	58.0	11.6	12.2	18. <i>7</i>	262
Fourth	9.6	2,671	78.4	23.5	53.5	56.6	5.2	14.5	19.0	257
Highest	8.2	2,187	79.4	13.7	65.6	58.6	7.0	22.2	17.1	179
Total	9.0	13,120	73.2	23.6	49.0	52.0	10.3	15.9	18.4	1,186

Note: Figures in parentheses are based on 25-49 unweighted cases.

With regard to feeding practices, younger children, especially those under 6 months of age, were less likely to have been offered increased liquids or given increased or the same amount of food than older children.

<sup>&</sup>lt;sup>1</sup> Percentages consulting public and private sources may not add to percentage consulting any provider because respondents were able to name more than one provider.

#### 12.3 DIARRHEA

Dehydration caused by severe diarrhea is a major cause of death among young children. A simple and effective response to dehydration is a prompt increase in the child's fluid intake through some form of oral rehydration therapy (ORT). ORT may include the use of a solution prepared from commercially produced packets of oral rehydration salts (ORS) or a homemade mixture usually prepared from sugar, salt, and water. Increasing the amount of any other liquids given to a child during a diarrheal episode is another means of preventing dehydration.

In the 2005 EDHS, mothers were asked whether any of their children under five years of age had had diarrhea during the two-weeks preceding the survey. If the child had had diarrhea, the mother was asked about what actions were taken to treat the diarrhea and about feeding practices during the diarrheal episode.

### Prevalence of Diarrhea

Table 12.8 shows the percentages of children under five years of age who had any diarrhea and who had diarrhea with blood in the feces, at some time during the two-week period before the survey. Blood in the stools is a symptom of dysentery. In considering the information in Table 12.8, it is important to note that the prevalence figures may involve some reporting error since they are based on the mothers' subjective assessment of the child's illness. Since there are seasonal variations in the pattern of diarrheal illnesses, it also should be remembered that the percentages in Table 12.8 represent the prevalence of diarrhea at the time of the 2000 EDHS (circa April-June 2005) and not the situation at other times of the year in Egypt.

Among children under age five, 18 percent were reported to have been ill with diarrhea during the two-week period before the EDHS interview, and one percent had diarrhea with bloody stools. Diarrheal episodes were most common among the small number of children living in households in which the drinking water source were classified as "not improved." Children under age 3 were much more likely to have suffered from diarrhea than older children. Diarrheal prevalence decreased markedly with both mother's education and the wealth quintile and was somewhat higher in Upper Egypt than in other areas.

Table 12.8 Prevalence of diarrhea by background character-

Percentage of children under five years with diarrhea in the two weeks preceding the survey, by background characteristics, Egypt 2005

		Diarrhea	Number
Background	All	with	of
characteristic	diarrhea	blood	children
Age in months			
<6	22.0	0.6	1,242
6-11	33.6	1.5	1,349
12-23	28.8	1.7	2,680
24-35	17.9	1.9	2,671
36-47	9.1	0.8	2,682
48-59	7.7	0.4	2,497
Sex			
Male	18.5	1.3	6,688
Female	18.3	1.1	6,432
Source of drinking water			
Improved <sup>1</sup>	18.2	1.2	12,010
Not improved	24.7	0.8	310
Not de jure resident/missing	18.5	1.6	800
Toilet facility	10.5	1.0	000
Improved <sup>2</sup>	18.2	1.2	10,802
•	19.3	1.1	,
Not improved	18.6	1.6	1,520 797
Not de jure resident/missing	10.0	1.0	/9/
Urban-rural residence	171	1.2	4.770
Urban	17.1	1.3	4,778
Rural	19.1	1.1	8,342
Place of residence			
Urban Governorates	15.3	0.8	1,826
Lower Egypt	16.6	0.8	5,235
Urban	15.2	1.1	1,248
Rural	17.0	0.7	3,987
Upper Egypt	21.0	1.7	5,897
Urban	20.8	2.1	1,604
Rural	21.1	1.5	4,292
Frontier Governorates	14.8	0.4	162
Education			
No education	19.5	1.4	4,087
Some primary	20.9	1.0	1,149
Primary complete/some			
secondary	19.6	1.4	1,973
Secondary complete/higher	16.7	1.0	5,911
Work status			
Working for cash	13.5	0.9	1,561
Not working for cash	19.0	1.2	11,559
Wealth quintile			
Lowest	22.9	2.1	2,684
Second	19.4	1.1	2,731
Middle	17.3	0.8	2,848
Fourth	17.5	1.4	2,671
Highest	14.0	0.5	2,187
Total	18.4	1.2	13,120
			,

<sup>&</sup>lt;sup>1</sup> Improved sources are defined as those sources which are likely to provide safe drinking water and include water obtained from a piped source within the dwelling, a public tap, a borehole, or a protected well or spring.

<sup>&</sup>lt;sup>2</sup> The household is considered to have improved sanitation facilities if the household has sole use of a modern or traditional flush toilet that empties into a public sewer, Bayara (vault) or septic system.

# **Consultation, Treatment and Feeding Practices**

Information was obtained in the 2005 EDHS on the actions that were taken when a child was ill with diarrhea during the two-week period prior to the survey. Table 12.9 considers the extent to which medical advice was sought during the diarrheal episode. Mothers report advice or treatment was sought at a health facility in just over half of all recent diarrheal episodes. Among those seeking medical advice, almost all consulted only one provider. Private health care providers were consulted nearly twice as often as providers at public sector facilities. Around two-thirds of the consultations were reported to have occurred on the first day the child was ill, and parents waited 4 or more days to seek advice in a small minority of cases (3 percent).

Table 12.10 presents information on the drugs or other treatments employed when a child was ill with diarrhea. Slightly more than one-fifth of children were not given anything to treat the diarrhea. Virtually all mothers (95 percent) are aware of the availability of packets of oral rehydration salts that can be used to prevent dehydration (not shown in table). However, only a third of the mothers report that the child was given a solution prepared using a packet of oral rehydration salts. In three percent of the cases, the child was given a solution of sugar and salt (i.e., a recommended home fluid (RHF)). Antibiotics and other antidiarrheal medications are generally not recommended to treat diarrhea in young children. However, Table 12.10 shows that antibiotics were given to 26 percent of the children with diarrhea, 14 percent received antimotility drugs, and around 45 percent were given other drugs, e.g., antipyretics to treat the fever accompanying the diarrhea.

The results in Table 12.10 suggest that feeding practices during diarrheal episodes are not optimal. To prevent dehydration, the amount of liquids given to the

Table 12.9 Consultation about diarrheal episode

Among children with diarrhea, percent distribution by number of sources consulted during illness and, among ill children for whom a source was consulted, the first source consulted during the illness and the timing of the first consultation, Egypt 2005

Consultation	All diarrhea	Diarrhea with blood
Number of sources consulted		
None	45.2	33.9
One	53.5	65.0
2 or more	1.2	1.1
Don't know/missing	0.0	0.0
· ·		
Total percent	100.0	100.0
Number of ill children	2,411	157
Source consulted first		
Public sector	34.2	39.8
Urban Hospital	6.4	11.2
Urban health unit	4.5	1.6
Health office	0.7	0.0
Rural hospital	1.9	0.6
Rural health unit	13.9	16.4
MCH center	0.8	0.2
Other government	6.1	9.8
Private sector	65.4	59.8
Nongovernmental	3.0	3.5
Private medical	62.3	56.3
Private hospital/clinic	3.5	3.9
Private doctor	46.5	40.5
Pharmacy	12.3	11.8
Other nonmedical	0.0	0.4
Don't know/missing	0.4	0.0
Timing of first consultation		
First day child ill	68.3	65.8
2-3 days after child ill	28.5	28.5
4-5 days after child ill	2.2	4.5
6 or more days after child ill	0.7	8.0
Don't know/missing	0.4	0.4
Total percent Number of children having	100.0	100.0
consultation(s)	1,320	104

child should be increased during the diarrheal episode. As Table 12.10 shows, fluids were increased for only 20 percent of the children ill with diarrhea. In 15 percent of the cases, the mother said that the child was either given nothing to drink (6 percent) or much less fluid than normal (8 percent), while about a quarter of the children received somewhat less than the normal amount of liquids.

It also is important that children who have diarrhea receive adequate nutrients, and thus it is recommended that the solids given to a child be increased or at least stay the same during diarrheal episodes. The child was given more than normal to eat in only two percent of the cases while 27 percent of children were fed normally during the diarrheal episode. In about one-quarter of the diarrheal episodes, the mother either completely stopped feeding the child (12 percent) or gave the child much less than normal to eat (16 percent).

# Differentials in Consultation, Treatment, and **Feeding Practices**

The majority of children in all of the subgroups received some care or treatment for the diarrhea (Table 12.11). With some exceptions, care and treatment practices do not vary markedly across subgroups. Medical advice was most frequently sought for children in the highest wealth quintile and least often in the case of children living in the Frontier Governorates. With regard to ORT use, children under 6 months of age were considerably less likely than other children to have been given some form of ORT or increased fluids. Children in the highest wealth quintile and children living in urban areas, particularly the Urban Governorates and urban Upper Egypt, were more likely than other children to have been given antibiotics.

Medical consultations and ORT use

were more frequent among the small number of children who had experienced bloody stools compared to other children ill with diarrhea; however,

**DISPOSAL OF CHILDREN'S STOOLS** 12.4

preventing the spread of disease.

If feces are left uncontained, disease may be spread by direct contact or through animal contact. Children's feces are often a cause of fecal contamination in the household environment since they are frequently not disposed of properly. Thus, the proper disposal of children's feces is important in

medical advice was not sought in the case of one-third of children with this symptom of dysentery, and

more than 40 percent were not treated with some form of ORT or given increased fluids.

To obtain information on this issue, mothers who had at least one child born since January 2000 were asked about what was done to dispose of the stools the last time their youngest child had passed stools. Almost all mothers reported that the child either used a toilet or latrine when defecating (42 percent) or the child's stools were thrown into the toilet or latrine (51 percent) (not shown in table). Mothers reporting other means of stool disposal generally said the stools were thrown outside.

Table 12.10 Treatment and feeding practices during diarrhea

Percent distribution of children under five years who had diarrhea in the two weeks preceding the survey by ORS packet and drugs or other remedies used to treat diarrhea and by amount of liquids and food offered compared to normal practice, Egypt 2005

	All	Diarrhea
	diarrhea	with blood
Drugs/other treatment		
Any drug/other treatment	77.9	82.8
ÓRT	35.7	45.1
ORS packet	33.5	44.6
RHS	2.7	1.6
Antibiotic pill/syrup/injection	25.7	30.0
Antimotility	14.4	13.0
IV	0.1	0.5
Zinc	8.0	1.3
Other/unknown pill/syrup/injection	44.5	45.7
Home remedy	1.3	0.6
No medication	22.1	17.2
Amount of liquids offered		
Same as usual	40.1	25.3
More	19.9	26.3
Somewhat less	25.1	23.2
Much less	8.4	19.7
None	6.2	5.5
Don't know/missing	0.4	0.0
Amount of food offered		
Same as usual	26.8	21.3
More	1.5	1.1
Somewhat less	27.3	22.5
Much less	15.8	26.5
None	11.9	20.6
Never gave food	16.6	8.0
Don't know/missing	0.1	0.0
Total	100.0	100.0
Number of children	2,411	157

Note: Percentages given various drugs will not add to the total percentage given drug(s) because more than response regarding the drugs given was possible

Table 12.11 Prevalence and treatment of diarrhea by background characteristics

Among children ill with diarrhea, percentage receiving medical care, oral rehydration therapy (ORT), other treatment and no treatment, according to background characteristics, Egypt 2005

	Medical care from:			Oral rehydration therapy (ORT)			Given	Increased/		Other				
	Any health	Public	Private	ORS	RHS at	Either ORS or		ORT/ Increased	same amount	injection/	injection/ pill/syrup/	, .	No care/	Number of ill
Background characteristic	provider	provider	provider	packet	home	RHS	fluids	fluids	of food	pill/syrup	zinc/IV	other	treatment	children
Type of diarrhea														
Non-bloody	54.0	18.2	35.5	32.7	2.8	35.0	19.4	46.9	25.4	45.0	2.1	19.2	28.7	2,254
Bloody	66.1	26.3	39.8	44.6	1.6	45.1	26.3	57.4	30.0	46.9	1.7	12.7	22.4	157
Age in months														
<6	56.0	16.7	39.3	19.8	1.9	21.4	10.3	27.2	21.3	47.2	4.8	26.6	4.1	273
6-11	62.9	18.1	44.5	35.3	2.0	36.6	18.0	46.3	27.8	43.5	8.0	18.7	19.6	454
12-23	52.8	18.8	33.7	38.6	2.9	41.0	21.7	53.3	27.5	47.7	2.2	16.0	30.2	771
24-35	49.7	16.1	33.4	32.8	2.7	35.1	25.0	52.8	26.1	40.5	8.0	19.5	36.9	477
36-47	49.3	20.1	29.2	36.3	3.1	39.0	17.9	48.3	21.0	47.6	2.3	17.5	41.0	245
48-59	61.1	27.3	33.4	26.7	4.1	29.8	20.4	42.5	24.3	43.7	3.5	18.4	38.4	192
Sex														
Male	55.7	18.7	36.8	33.6	3.1	36.0	19.7	48.1	25.8	44.7	2.3	18.3	27.2	1,234
Female	53.8	18.8	34.8	33.5	2.3	35.3	20.0	47.0	25.5	45.4	1.8	19.2	29.5	1,177
Urban-rural residence														
Urban	59.4	16.2	42.9	28.3	2.5	30.3	19.6	41.9	30.3	51.4	2.2	14.5	23.4	818
Rural	52.4	20.0	32.2	36.2	2.8	38.4	20.0	50.4	23.3	41.9	2.0	20.9	30.8	1,593
Place of residence														
Urban Governorates	58.0	20.0	38.0	21.6	2.2	23.7	14.3	34.8	27.6	54.2	1.3	18.7	23.9	280
Lower Egypt	56.2	17.5	38.4	33.9	5.0	37.7	18.5	49.0	24.4	43.2	2.0	16.6	29.6	869
Urban	67.7	16.1	50.8	39.3	5.2	42.6	24.8	52.8	25.6	51.5	3.5	6.9	20.6	190
Rural	53.0	17.9	34.9	32.3	4.9	36.3	16.8	47.9	24.0	40.9	1.5	19.4	32.1	678
Upper Egypt	53.2	19.1	33.9	36.2	1.2	37.2	21.9	49.4	26.2	44.7	2.2	19.9	28.1	1,239
Urban	56.3	12.5	43.8	28.0	1.1	29.0	20.8	41.4	35.5	49.6	2.0	14.5	23.7	333
Rural	52.1	21.5	30.3	39.2	1.2	40.2	22.3	52.3	22.8	42.9	2.3	21.9	29.7	906
Frontier Governorates	42.2	29.2	13.0	21.7	3.7	24.1	31.3	50.5	21.2	29.1	7.1	36.2	44.5	24
Education														
No education	51.5	21.2	30.1	37.7	2.3	39.7	19.0	50.6	23.4	39.1	1.7	24.1	31.7	796
Some primary	54.6	21.8	32.8	29.5	3.5	32.4	17.6	42.8	32.9	36.5	0.5	21.5	27.6	241
Primary complete/some														
secondary	57.0	18.9	37.3	29.6	1.9	31.4	19.1	42.0	27.9	47.5	3.2	16.0	30.9	387
Secondary complete/higher	56.5	15.9	40.6	32.7	3.1	34.9	21.4	48.4	24.9	51.0	2.3	14.9	24.7	987
Work status														
Working for cash	50.3	16.7	33.6	33.9	4.0	36.4	26.8	53.3	21.6	47.2	2.1	17.9	27.9	210
Not working for cash	55.2	18.9	36.0	33.5	2.6	35.6	19.2	47.0	26.0	44.9	2.1	18.8	28.3	2,201
Wealth quintile		• •												-,
Lowest	55.0	21.3	33.3	40.5	1.8	42.0	23.6	54.2	25.2	42.6	1.6	21.7	30.0	616
Second	48.3	18.2	29.9	34.4	2.0	36.0	16.0	46.7	19.9	40.7	2.2	25.3	31.3	529
Middle	53.2	19.4	33.5	33.7	3.7	37.4	17.2	48.2	25.2	41.8	2.3	15.3	29.6	493
Fourth	56.4	19.6	36.8	28.9	2.9	30.6	19.7	41.3	27.2	50.2	1.8	16.3	24.2	466
Highest	65.2	12.0	53.3	24.5	3.6	27.5	23.6	44.1	34.9	55.2	2.6	10.7	24.0	306
i ngnese	03.2	12.0	55.5	47.5	5.0	27.5	23.0	77.1	54.5	33.2	2.0	10.7	27.0	300
Total	54.8	18.7	35.8	33.5	2.7	35.7	19.9	47.5	25.7	45.1	2.1	18.7	28.3	2,411

# FEEDING PRACTICES AND MICRONUTRIENT **SUPPLEMENTATION**

Adequate nutrition is critical to child development. The period from birth to two years of age is important to optimal growth, health, and development. This period is one marked for growth faltering, micronutrient deficiencies, and common childhood illnesses, such as diarrhea, that affect a child's nutritional status.

This chapter assesses a number of aspects of feeding practices that are important in ensuring adequate nutrition for infants and young children including early initiation of breastfeeding, exclusive breastfeeding during the first six months of life, continued breastfeeding for up to two years of age and beyond, timely introduction of complementary feeding at six months of age, frequency of feeding solid/semi-solid foods, and diet diversity. In addition, the chapter discusses the diversity of food groups consumed by mothers who gave birth in the last three years, providing important information on maternal eating patterns (e.g., foods rich in vitamin A). The chapter also considers consumption of foods rich in vitamin A and iron-rich foods, micronutrient supplementation for iron and vitamin A, and micronutrient fortification (iodized or iodated household cooking salt) for both women and children.

#### 13.1 **Breastfeeding and Supplementation**

The pattern of infant feeding has an important influence on the health of children. Feeding practices are the principal determinant of a young child's nutritional status, and poor nutritional status has been shown to increase the risk of illness and death among children. Breastfeeding practices also have an effect on the mother's fertility. Frequent breastfeeding for long durations is associated with longer periods of postpartum amenorrhea and thus longer birth intervals and lower fertility.

# **Initiation of Breastfeeding**

Early initiation of breastfeeding is important for both the mother and the child. Early suckling stimulates the release of hormones that help in the production of milk. It also stimulates the contraction of the uterus after childbirth. Colostrum, the first liquid to come from the breast after delivery, provides natural immunity to the infant. Prelacteal feeding is the practice of giving other liquids to a child during the period after birth before the mother's milk is flowing freely. It is discouraged because it limits the frequency of suckling by the infant and exposes the baby to the risk of infection.

The results in Table 13.1 indicate that almost all Egyptian children are breastfed for some period of time. Differentials in the proportion of children ever breastfed are small, with 94 percent or more of children in every subgroup reported as ever breastfed.

Among Egyptian children who were ever breastfed, Table 13.1 shows that the majority began breastfeeding soon after birth; 83 percent of the children were put to the breast within the first day after delivery, and 43 percent within the first hour. Although breastfeeding is initiated early for the majority of children, prelacteal feeding is common; slightly more than half of all children born in the five years preceding the survey received prelacteal feeds during the first three days after birth. Children who received prelacteal feeds were most often given sugar or glucose water (65 percent) or tea and other infusions (41 percent); a relatively small proportion were given milk other than breast milk (7 percent) (not shown in table).

Table 13.1 Initial breastfeeding by background characteristics

Percentage of children born in the five-year period before the survey who were ever breastfed, and, among ever breastfed last-born children, percentage who began breastfeeding within one hour and within one day of birth and percentage who received a prelacteal feed, by background characteristics, Egypt 2005

			Percentage breastf	who started eeding:	Davasantasa	Number of
	Percentage		Within	Within	Percentage who received	
Background	ever	Number of	1 hour	1 day	a prelacteal	children ever
characteristic	breastfed	children	of birth	of birth <sup>1</sup>	feed <sup>2</sup>	breastfed
Assistance at delivery						
Doctor or nurse/midwife	94.7	10,084	38.5	81.8	52.7	7,175
Daya	96.6	3,110	56.7	86.9	47.8	2,057
Other/none	96.8	323	58.4	90.1	37.8	195
Place of delivery						
Public health facility	93.7	3,420	39.8	82.9	53.6	2,427
Private health facility/NGO	94.8	5,372	32.7	79.2	54.2	3,822
Home/other	96.7	4,797	57.5	88.0	46.1	3,216
Sex						
Male	95.1	6,954	42.5	83.2	50.9	4,967
Female	95.3	6,646	43.4	83.0	51.7	4,502
Urban-rural residence						
Urban	94.3	4,948	37.5	84.4	53.6	3,576
Rural	95.7	8,651	46.2	82.3	49.9	5,893
Place of residence						
Urban Governorates	94.2	1,879	38.1	85.2	53.9	1,391
Lower Egypt	95.0	5,399	40.7	79.2	47.4	3,913
Urban	93.2	1,297	36.2	80.1	48.4	942
Rural	95.6	4,101	42.1	78.9	47.1	2,970
Upper Egypt	95.7	6,153	46.3	85.9	54.1	4,051
Urban	95.3	1,669	36.9	86.3	57.2	1,176
Rural	95.9	4,484	50.1	85.7	52.8	2,876
Frontier Governorates	94.8	169	57.3	95.5	51.1	114
Mother's education						
No education	95.3	4,280	49.4	84.7	50.0	2,868
Some primary	94.0	1,218	46.2	80.3	53.3	836
Primary complete/some secondary	95.0	2,040	43.9	84.7	50.3	1,424
Secondary complete/higher	95.5	6,061	37.7	82.1	52.0	4,341
Work status						
Working for cash	95.0	1,614	36.9	81.7	52.5	1,211
Not working for cash	95.2	11,986	43.8	83.3	51.1	8,258
Wealth quintile						
Lowest	95.7	2,818	49.2	80.8	53.6	1,863
Second	96.0	2,829	50.9	85.1	48.8	1,927
Middle	94.9	2,939	43.5	84.2	48.3	2,022
Fourth	94.1	2,785	37.7	81.7	53.0	1,977
Highest	95.4	2,229	32.2	83.6	53.1	1,679
Total	95.2	13,600	42.9	83.1	51.3	9,469

Note: Total includes 42 children for whom information on assistance at delivery was missing and 4 children for whom information on place of delivery was missing.

Both medical assistance at delivery and delivery at a health facility are associated with somewhat lower proportions of children for whom breastfeeding was initiated within the first day of birth and with somewhat higher proportions of prelacteal feeding. Urban residence, higher educational levels, and increased wealth are also associated with a lower probability of breastfeeding within one hour of birth.

<sup>&</sup>lt;sup>1</sup> Includes children who started breastfeeding within one hour of birth

<sup>&</sup>lt;sup>2</sup> Children given something other than breast milk during the first three days of life before the mother started to breastfeed regularly

# **Introduction of Complementary Feeding**

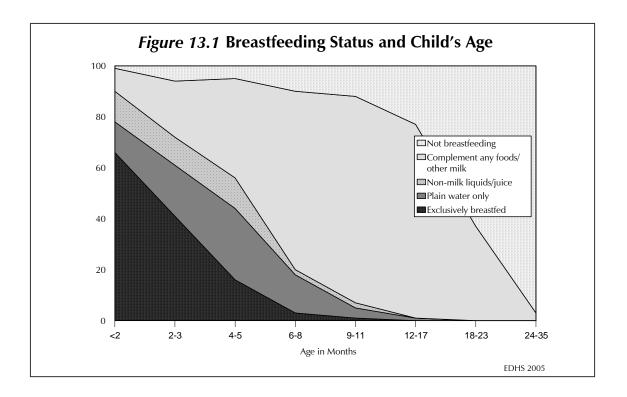
The Ministry of Health and Population has adopted the UNICEF recommendation that during the first six months of life, children should be exclusively breastfed; that is, they should be given only breast milk and not receive other complementary liquids (including plain water) or solids. Early complementary feeding is discouraged for a number of reasons. The early introduction of other liquids or foods increases the exposure of an infant to pathogens that may cause diarrheal disease. Malnutrition is another risk. The complementary foods given to a child may not provide all of the calories that the infant needs, particularly if they are watered down. Since the production of breast milk is influenced by the intensity and frequency of suckling, early complementary feeding may reduce breast milk output, again increasing the risk of malnutrition.

Information was obtained in the 2005 EDHS on the current breastfeeding status of surviving children under the age three who were living with the mother and on what other (if any) liquids or solids had been given to the child during the 24-hour period preceding the survey. These data are used to derive the information on the age patterns of breastfeeding and supplementation presented in Table 13.2 and Figure 13.1. The results indicate that breastfeeding continues for the majority of Egyptian children well beyond the first year of life. At age 12-17 months, around 80 percent of children are still being breastfed, and four in ten children 18-23 months continue to be breastfed.

Table 13.2 Breastfeeding status by age	
Percent distribution of children under age three by breastfeeding status and age. Egypt 2005	

		U	,	C	<b>'</b>	0 / 0/1		
			Bre	eastfeeding a				
Months since birth	Not breast- feeding	Exclusively breastfed	Plain water only	Non-milk liquids/ juice	Other milk	Comple- mentary foods	Total percent	Number of children
<2	2.5	65.6	11.5	11.8	7.9	0.7	100.0	348
2-3	6.2	41.3	19.8	11.1	9.8	11.8	100.0	418
4-5	5.0	15.7	28.2	12.4	6.9	31.8	100.0	475
6-8	10.5	3.2	14.5	2.4	5.6	63.9	100.0	698
9-11	12.6	0.7	4.3	1.8	1.9	78.8	100.0	651
12-17	21.8	0.0	1.3	0.4	0.1	76.3	100.0	1,367
18-23	63.0	0.0	0.1	0.0	0.0	37.0	100.0	1,313
24-35	96.9	0.0	0.0	0.0	0.0	3.1	100.0	2,671
0-3	4.5	52.4	16.0	11.4	9.0	6.7	100.0	766
0-5	4.7	38.3	20.7	11.8	8.2	16.3	100.0	1,242
6-9	10.9	2.5	12.2	2.4	4.8	67.3	100.0	941
10-11	13.1	0.8	3.5	1.3	1.7	79.6	100.0	409
12-23	42.0	0.0	0.7	0.2	0.1	57.0	100.0	2,680
Total	49.4	6.3	5.1	2.3	1.9	34.9	100.0	7,941

Note: Breastfeeding status refers to a 24-hour period (yesterday and last night). Children classified as breastfeeding and consuming plain water only consume no supplements. The categories of not breastfeeding, exclusively breastfeed, breastfeeding and consuming plain water, non-milk liquids/juice, 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 water-based liquids and who do not receive complementary foods are classified in the water-based 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. There are 30 children who are not the last born, but are the youngest child living with the mother.



Exclusive breastfeeding is common but not universal in very early infancy in Egypt. Table 13.2 shows that, among infants under two months of age, 66 percent received only breast milk. However, the proportion exclusively breastfed drops off rapidly among older infants. By age 4-5 months, around eight in ten babies are receiving some form of supplementation, with somewhat more than three in ten given complementary foods.

In addition to information on the prevalence of exclusive breastfeeding, the results in Table 13.2 allow an assessment of whether or not complementary feeding is being introduced on a timely basis for older babies. WHO and UNICEF recommend that all children begin to receive complementary food by age six months because at that age the mother's breast milk no longer provides adequate nutrition for the child. Table 13.2 shows that the majority of Egyptian children age 6 months and older are receiving other foods or milk in addition to breast milk. At 6-8 months, however, about one in four babies were not being given solid or semi-solid food and, at age 9-11 months, nine percent of children were not yet eating solid or semi-solid food.

# Median Durations and Frequency of Breastfeeding and Prevalence of Bottle-Feeding

Table 13.3 presents information on the median duration of breastfeeding among births in the three-year period before the survey, the frequency of breastfeeding among children under six months of age, and the prevalence of bottle-feeding among children under age three.

The median duration of breastfeeding is 18.6 months. On average, children are exclusively breastfed or predominantly breastfed for less than the recommended six months; the median duration for which children are exclusively breastfed is 1.7 months and the median duration of predominant breastfeeding, i.e., when children receive only nonmilk liquids in addition to breast milk, is 4.3 months.

Table 13.3 Median duration and frequency of breastfeeding and prevalence of bottlefeeding by background characteristics

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among births in the three years preceding the survey, percentage of last-born children under six months of age breastfed six or more times in the 24 hours preceding the interview and the mean number of feeds (day/night) among last-born breastfed children under age 6 months, and percentage bottlefed among children under age 3, by background characteristics, Egypt 2005

	Median breastfeeding duration (months) <sup>1</sup>				Bre	eastfeedin	Bottle-feeding			
Background characteristic	Any breast- feeding	Exclusive breast- feeding	Pre- dominant breast- feeding <sup>3</sup>	Number of births	Percentage breastfed 6+ times in past 24 hours	Mean	Mean number of night feeds	Number of children under age 6 months	Percentage who are bottlefed	Number of children under age 3
Assistance at delivery										
Medically trained provider Daya Other/none	18.5 19.2 19.8	1.6 2.1 0.7	4.1 5.1 5.2	6,266 1,750 178	95.9 96.8 97.8	6.2 6.9 6.6	5.4 5.7 6.9	897 242 33	10. <i>7</i> 5. <i>7</i> 5.1	6,045 1,691 165
Place of delivery										
Public health facility Private health facility/NGO Home/other	18.4 18.1 19.3	1.5 1.5 1.9	4.1 4.0 5.0	2,084 3,428 2,722	94.7 95.9 97.6	6.0 6.2 6.8	5.3 5.4 5.8	297 513 367	11.9 10.7 6.3	1,981 3,333 2,625
Sex										
Male Female	19.2 18.0	1.6 1.7	4.4 4.2	4,233 4,008	96.3 95.9	6.3 6.3	5.6 5.4	629 549	10.4 8.7	4,063 3,879
Urban-rural residence										
Urban Rural	17.5 19.3	1.4 1.8	3.7 4.7	2,999 5,241	94.9 96.8	6.0 6.5	5.3 5.6	397 781	11.6 8.4	2,884 5,058
Place of residence										
Urban Governorates Lower Egypt	16.8 18.3	0.6 1.9	3.3 4.1	1,156 3,270	94.2 95.9	6.2 5.7	5.6 5.0	135 481	12.9 10.3	1,120 3,158
Urban	16.9	1.9	3.7	768	96.9	5.5	4.9	128	11.6	731
Rural	18.7	1.9	4.2	2,502	95.5	5.8	5.0	353	9.9	2,428
Upper Egypt	19.5	1.7	4.9	3,715	96.8	6.9	5.9	547	7.9	3,567
Urban Rural	18.2 20.1	1. <i>7</i> 1. <i>7</i>	4.0 5.3	1,013 2,702	93.5 97.8	6.0 7.1	5.3 6.0	125 423	10.2 7.0	973 2,594
Frontier Governorates	19.4	2.0	3.8	101	96.4	8.4	7.0	14	7.0	2,394 96
Mother's education										
No education	20.1	1.7	5.3	2,508	97.6	7.0	6.0	352	6.5	2,398
Some primary Primary complete/some	19.3	2.3	4.7	695	100.0	6.5	5.5	100	7.7	655
secondary	18.2	1.3	4.1	1,218	95.9	5.8	5.2	150	10.1	1,178
Secondary complete/higher	17.9	1.6	3.9	3,819	94.6	6.1	5.3	575	11.6	3,710
Work status										
Working for cash Not working for cash	18.6 18.6	1.3 1.7	3.5 4.4	911 7,330	93.8 96.4	6.0 6.4	4.8 5.6	135 1,043	11.9 9.2	875 7,066
Wealth quintile				. ,				.,		.,
Lowest	20.3	1.9	5.5	1,687	98.1	7.0	5.7	261	6.2	1,608
Second	19.3	1.7	4.4	1,705	94.5	6.1	5.6	245	7.8	1,659
Middle	18.6	1.9	4.3	1,815	95.8	6.3	5.4	274	10.8	1,751
Fourth Highest	17.4 16.9	1.1 1.3	3.5 3.9	1,677 1,357	95.8 96.4	6.3 6.0	5.4 5.4	211 187	10.6 12.8	1,599 1,324
Total	18.6	1.7	4.3	8,241	96.1	6.3	5.5	1,178	9.5	7,941
Mean duration	18.0	3.0	5.4	na	na	na	na	na	na	na

Note: Median durations are based on current status. Includes children living and deceased at the time of the survey. Totals include 47 children for whom information on assistance at delivery is missing and 7 children for whom information on place of delivery is missing. na = Not applicable

<sup>&</sup>lt;sup>1</sup> It is assumed that non-last-born children and last-born children not currently living with the mother are not currently breastfed. <sup>2</sup> Excludes children who do not have a valid answer on the number of times breastfed

<sup>&</sup>lt;sup>3</sup> Either exclusively breastfed or received breast milk and plain water, and non-milk liquids. Children receiving milk other than breast milk or infant formula should be excluded.

The median amount of time that a child is breastfed is slightly shorter among children whose mothers were attended at delivery by a doctor or other health professionals and among children delivered in a health facility. Males are breastfed on average around one month longer than females. Residence clearly is related to breastfeeding durations. The median breastfeeding duration is just under two months longer for rural children than urban children, and it ranges from a low of 16.8 months in the Urban Governorates to 20.1 months in rural Upper Egypt. Children born to mothers who never attended school are breastfed around two months longer on average than children born to mothers who completed secondary school or higher. The median duration of breastfeeding among children in the highest wealth quintile is more than 3 months shorter than the duration for children in the lowest quintile.

Variations in the median durations of exclusive breastfeeding and predominant breastfeeding, which are also shown in Table 13.3, are generally similar to the variations observed in the median durations of any breastfeeding although the size of the differentials are much smaller.

The frequency of breastfeeding during a 24-hour period before the survey is also examined in Table 13.3. It is important for an infant to breastfeed frequently as this improves milk production. The duration of postpartum amenorrhea for a mother is also related to the frequency of breastfeeding.

Among last-born children under age six months, 96 percent were breastfed at least six times during the 24-hour period before the survey. Mothers reported a mean number of 6.3 daytime feeds and 5.5 nighttime feeds. The largest differentials in the measures of breastfeeding frequency are by place of residence, with the highest mean feeding frequencies, particularly during the daytime, observed in the Frontier Governorates.

Table 13.3 also provides information on the differentials in the percentage of children under age three who are being bottle-fed. A bottle with a nipple was used in feeding only 10 percent of the children less than three years of age during the 24 hours before the survey. Bottle-feeding is most common in the Urban Governorates and in the highest wealth quintile; 13 percent of children in these groups are bottlefed.

#### **DIETARY DIVERSITY AMONG CHILDREN AND WOMEN** 13.2

In the 2005 EDHS, women who had at least one child under the age of three living with them were asked questions about the types of foods and liquids they and their youngest child had consumed during a 24-hour period preceding the survey. Mothers were also asked about the number of times the child had eaten solid or semi-solid food during the period.

The results of these questions are subject to a number of limitations. First, the results do not apply to the full universe of young children. Approximately 10 percent of all children under age three are excluded from consideration because they were not the youngest child under age three or because they were not living with the mother. The data also represent only a minority of women. Women who have a child under age three living with them constitute only a little more than one-third of all EDHS respondents and about a quarter of all women in the reproductive ages 15-49. In addition, The dietary data for both women and children are subject to recall errors. Finally, the mother may not be able to report fully on the child's intake of foods and liquids if the child was fed by other individuals during the period. Despite these problems, the information collected in the 2005 EDHS on the types of foods and liquids mothers and young children are consuming is useful in assessing the dietary diversity for these key subpopulations.

# Foods and Liquids Consumed by Infants and Young Children

Appropriate nutrition includes feeding children a variety of foods to ensure that nutrient requirements are met. Fruits and vegetables rich in vitamin A should be consumed daily. Although eating a range of fruits and vegetables, especially those rich in vitamin A is important, studies have shown that plant-based complementary foods by themselves are insufficient to meet the needs for certain micronutrients (WHO/UNICEF 1998). Therefore, it has been advised that meat, poultry, fish, or eggs should be eaten daily, or as often as possible. Fat is also important in the diets of infants and young children because it provides essential fatty acids, facilitates absorption of fat-soluble vitamins (such as vitamin A), and enhances dietary energy density and palatability. Tea and coffee contain compounds that inhibit iron absorption and are not recommended for children. Sugary drinks and excessive juice consumption should be avoided because other than energy, they contribute little to the diet and as a result decrease the child's appetite for more nutritious foods (PAHO/WHO 2003).

Table 13.4 is based on information from women about the foods and liquids consumed by their youngest child during the 24-hour period preceding the survey. As expected, the proportions of children who consumed foods or liquids included in the various groups shown in the table rises with the age of the child. Children who are still breastfed are less likely to consume the various types of foods than children who are not being breastfed. For example, 92 percent of nonbreastfeeding children age 6-23 months consumed foods made from grains in the 24-hour period before the survey compared to 79 percent of breastfeeding children in the age group. Of particular concern is the fact that the majority of children age 6-23 months, whether breastfeeding or not, did not consume any foods rich in vitamin A during the 24hour period before the survey. Substantial minorities of children in the age group also did not consume meat, poultry or fish or food made with oil, fat or butter.

Table 13.4 Foods and liquids consumed by children in the day or night preceding the interview

Percentage of youngest children under three years of age living with the mother who consumed specific types of food groups in the day or night preceding the interview, by breastfeeding status and age, Egypt 2005

Age in months	Infant formula	Other milk <sup>1</sup>	Cheese/ yogurt/ other milk products	Other liquids <sup>2,3</sup>	Food made from grains <sup>4</sup>	Fruits and vege- tables rich in vitamin A <sup>5</sup> ASTFEEDIN	Other fruits/ vege- tables		Food made from legumes and nuts	Meat/ fish/ shellfish/ poultry/ eggs	Food made with oil/fat/ butter	Sugary foods	Any solid or semi- solid food	Number of children
- 2	4.0	<b>.</b>	0.7	45.4					0.0	0.0	0.0	0.2	0.7	2.40
<2	4.2	5.2	0.7	15.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7	340
2-3 4-5	4.3 3.0	11.0 18.9	6.8 21.7	23.8 30.4	4.9 20.2	1.7 3.5	1.8 5.8	1.1 6.1	0.9 4.2	1.5 6.9	0.8 6.5	1.0 6.0	12.0 33.1	392 451
6-8	4.2	41.6	45.2	30. <del>4</del> 44.9	52.7	3.3 16.4	24.2	28.4	18.0	32.1	33.6	14.4	33.1 71.1	625
9-11	4.1	44.1	61.1	60.6	75.7	32.0	46.2	47.2	29.4	52.5	56.7	24.7	90.0	569
12-17	4.0	52.4	66.6	71.2	89.4	45.7	59.8	57.0	44.5	72.2	75.6	30.3	97.5	1,069
18-23	2.7	59.9	70.1	76.1	95.4	50.3	66.8	61.4	54.3	76.9	84.7	35.6	99.6	486
24-35	3.4	49.2	63.3	66.4	91.9	57.2	65.1	67.4	56.4	79.5	80.0		100.0	82
6-23 months	3.9	49.5	61.2	63.9	79.3	37.0	50.1	49.3	37.1	59.8	63.8	26.5	90.3	2,749
Total	3.8	38.6	46.4	52.2	58.9	27.1	36.5	35.9	27.1	43.5	46.1	19.7	68.9	4,015
					NONE	REASTFEED	ING CHI	LDREN						
6-8	44.6	76.3	56.2	59.4	70.7	26.1	29.9	42.8	24.1	48.4	43.4	24.8	82.2	61
9-11	29.7	74.0	57.0	53.4	78.2	32.1	42.2	34.3	19.4	51.7	51.6	23.0	90.5	70
12-17	10.8	72.9	74.1	76.4	91.8	48.3	68.2	57.5	45.1	80.5	80.5	32.4	98.0	236
18-23	3.3	65.5	72.1	75.1	95.5	52.1	66.0	61.1	57.2	81.3	84.8	45.1	99.2	687
24-35	1.7	60.6	71.2	79.5	95.6	53.8	69.8	61.5	60.7	84.0	85.0	44.1	98.9	1,986
6-23 months	9.2	68.3	70.6	73.0	92.1	48.4	62.8	57.5	50.0	77.2	79.2	39.6	97.4	1,055
Total	4.9	63.1	70.3	76.8	93.4	51.3	66.6	59.4	56.4	80.7	82.0	42.1	97.6	3,078

Note: Breastfeeding status and food consumed refer to a 24-hour period (yesterday and last night). There are 30 children who are not the last born, but are the youngest surviving child living with the mother. In addition, 38 nonbreastfeeding children under age 6 months are included in the totals but not shown separately.

# **Infant and Young Child Feeding (IYCF) Practices**

Appropriate Infant and Young Child Feeding (IYCF) practices include breastfeeding through the age of two years, the introduction of solid and semisolid foods at age 6 months, and a gradual increase in the amount of food given and the frequency of feeding as the child gets older. The average, healthy breastfed child should receive solid and semisolid foods 2-3 times per day at age 6-8 months and 3-4 times per day at age 9-23 months, with an additional snack 1-2 times per day. The minimum frequencies for feeding children in developing countries are based on the energy output of complementary foods. The energy needs of children are based on age-specific total daily energy requirements, plus 2 SD (to cover almost all children), minus the average energy intake from breast milk. Infants with low breast-milk intake need to be fed more frequently than those with high breast-milk intake. However, care should be

<sup>&</sup>lt;sup>1</sup>Other milk includes fresh, tinned, and powdered milk from cows or other animals.

<sup>&</sup>lt;sup>2</sup> Does not include plain water

<sup>&</sup>lt;sup>3</sup> Includes sugary drinks

<sup>&</sup>lt;sup>4</sup> Includes fortified baby food and porridge or gruel

<sup>&</sup>lt;sup>5</sup> Includes pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, mangoes, canteloupe, dark green leafy vegetables, and other locally grown fruits and vegetables that are rich in vitamin A

taken that feeding frequencies do not exceed recommended input from complementary foods because excessive feeding can result in displacement of breast milk (PAHO/WHO, 2003).

Although the World Health Organization recommends that infants be breastfed up to the age of two years, some infants are not breastfed at all, or stopped breastfeeding before their second birthday. Guidelines have been developed for these children, who may not have been breastfed because their mother was HIV-positive, or because their mother had died, or for other reasons (WHO, 2005). It is recommended that the **nonbreastfed child** be given solid and semisolid foods 4-5 times per day at age 6-23 months, with an additional snack 1-2 times per day.

Appropriate nutrition includes feeding children a variety of foods to ensure that nutrient requirements are met. Studies have shown that plant-based complementary foods by themselves are not sufficient to meet the needs of some children for certain micronutrients (WHO/UNICEF, 1998). Therefore, it is advised that children eat meat, poultry, fish, or eggs daily, or as often as possible. Vegetarian diets may not meet children's nutrient requirements unless supplements or fortified foods are also provided. Vitamin A-rich fruits and vegetables should be consumed daily, and the diets of children should include an adequate amount of fat. Fat is important in the diets of infants and young children because it provides essential fatty acids, facilitates absorption of fat-soluble vitamins (such as vitamin A), and enhances dietary energy density and palatability. Tea and coffee are not recommended for children because they contain compounds that inhibit iron absorption. Sugary drinks and excessive juice consumption should be avoided because other than energy they contribute little to the diet and decrease the child's appetite for more nutritious foods (PAHO/WHO, 2003).

### In summary,

- Breastfed children age 6-23 months should receive animal-source foods and vitamin A-rich fruits and vegetables daily (PAHO/WHO, 2003). Because first foods almost always include a grain- or tuber-based staple, it is unlikely that young children who eat less than three food groups will receive both an animal-source food and a vitamin A-rich fruit or vegetable. Therefore, three food groups are considered the minimum number appropriate for breastfed children (Arimond and Ruel, 2004).
- Breastfed infants age 6-8 months should receive complementary foods 2-3 times per day, with 1-2 snacks; breastfed children age 9-23 months should be receive meals 3-4 times per day, with 1-2 snacks (PAHO/WHO, 2003). Table 13.5 shows the percentage of breastfed children who were fed at least the minimum number of times per day for their age (i.e., twice for infants age 6-8 months and three times for children age 9-23 months).
- Nonbreastfed children age 6-23 months should receive milk or milk products to ensure that their calcium needs are met. In addition, they need animal-source foods and vitamin A-rich fruits and vegetables. Four food groups are considered the minimum number appropriate for nonbreastfed young children.
- Nonbreastfed children age 12-23 months should be fed meals 4-5 times per day, with 1-2 snacks (WHO, 2005). The table shows the percentage of nonbreastfed children age 6-23 who were fed at least the minimum number of times per day (i.e., four times).

<sup>&</sup>lt;sup>1</sup> Food groups used in the assessment of appropriate feeding practices included: milk other than breast milk, cheese, yogurt; foods made from grains, roots, and tubers; fruits and vegetables rich in vitamin A; other fruits and vegetables; eggs; meat, poultry, fish, and shellfish (and organ meats); legumes and nuts; and foods made with oil, fat, or butter.

According to the results presented in the table below, 97 percent of (youngest) children age 6-23 months living with the mother received breast milk or breast milk substitutes during the 24-hour period before the survey, 78 percent had an adequately diverse diet—i.e. they had been fed foods from the appropriate number of food groups depending on their age and breastfeeding status—and 42 percent of the children were fed the minimum standard number of times appropriate for their age. Feeding practices for only 38 percent of children age 6-23 months met the minimum standard with respect to all three of these feeding practices (see Figure 13.2).

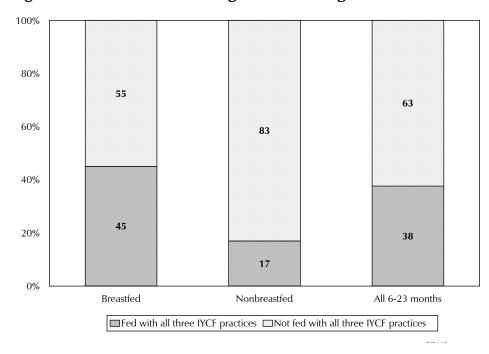


Figure 13.2 Infant and Young Child Feeding (IYCF) Practices

Breastfed children were 50 percent more likely to be fed the minimum number of times but a lot less likely to receive foods from the minimum number of groups recommended than nonbreastfeeding children. Children in the age group of 12-17 years were most likely to comply with the recommended practice when looked at various age groups. Variations in feeding practices with the other characteristics shown in the table below are generally minor without any pattern.

Table 13.5 Infant and young child feeding (IYCF) practices in Egypt

Percentage of youngest children age 6-23 months living with their mother who are fed according to three IYCF feeding practices based upon number of food groups and times they are fed during the day or night preceding the survey by breastfeeding status and background characteristics, Egypt 2005

	1 3+ food groups 1 times or more 2 times or mo			entage fed:	Among nonbreastfed children 6-23 months, percentage fed:					Among all children 6-23 months, percentage fed:				
Background characteristic		times or	groups and minimum	Number of children (weighted)	Milk or milk products <sup>3</sup>	4+ food groups	4+ times or more	With 3 IYCF practices <sup>4</sup>	Number of children (weighted)	Breast milk or milk products	3+ or 4+ food groups <sup>5</sup>	Minimum times or more <sup>6</sup>	With all 3 IYCF practices	Number of children (weighted)
Age 6-8 9-11 12-17 18-23	72.2 87.4	32.4 52.4	30.7 50.5	625 569 1,069 486	93.5 92.1 91.5 86.3	44.9 58.4 86.3 89.2	16.8 18.3 18.2 22.4	16.5 10.0 16.4 17.9	61 70 236 687	99.4 99.1 98.5 92.0	43.0 70.7 87.2 91.5	46.5 30.9 46.2 41.0	33.0 28.4 44.4 37.5	686 639 1,305 1,174
Sex Male Female				1,434 1,315	89.7 86.8	84.7 83.1	22.6 19.3	18.3 15.6	518 537	97.3 96.2	78.3 77.2	42.9 41.2	38.2 36.8	1,952 1,852
<b>Residence</b> Urban Rural				908 1,841	92.0 85.1	85.1 82.9	22.5 19.5	19.5 14.8	482 573	97.2 96.5	79.1 77.1	41.4 42.4	36.8 38.0	1,390 2,414
Region Urban governorates Urban LE Rural LE Urban UE Rural UE Frontier governorates	80.2 79.8 73.8 71.2	46.4 42.2 54.5 56.1	41.4 38.6 49.2 51.1	342 186 854 358 972 37	93.9 92.2 89.9 88.3 78.8 94.3	87.2 84.9 87.8 82.0 76.5 83.8	22.2 15.7 15.9 30.0 23.9 26.7	19.4 14.9 12.1 24.3 17.9 26.7	207 134 321 131 247 14	97.7 96.7 97.2 96.9 95.7 98.5	79.5 82.2 82.0 76.0 72.3 84.2	40.0 33.6 35.0 47.9 49.5 44.4	35.0 30.3 31.3 42.5 44.3 43.8	549 320 1,176 489 1,219 50
Mother's education No education Primary Secondary More than secondary				868 328 1,272 282	83.7 86.5 89.3 93.4	76.1 79.0 87.5 86.7	21.4 22.8 19.2 25.5	17.6 15.7 15.9 21.2	236 119 568 132	96.5 96.4 96.7 97.9	74.4 73.6 80.1 81.0	45.3 38.2 39.8 47.7	41.6 34.4 35.5 39.2	1,103 447 1,839 414
Wealth quintile Lowest Second Middle Fourth Highest	68.8 76.9 77.7 76.1 79.0	48.1 51.1 48.7 52.1 51.6	43.7 46.3 45.2 48.1 43.6	606 618 607 516 402	74.0 87.5 87.3 92.6 93.0	76.1 83.7 80.7 87.4 88.1	22.0 20.4 22.7 18.0 22.0	15.9 17.9 16.5 16.0 18.4	134 169 255 267 230	95.3 97.3 96.2 97.5 97.5	70.1 78.4 78.6 79.9 82.3	43.3 44.5 41.0 40.5 40.9	38.7 40.2 36.7 37.2 34.5	740 787 862 783 632
Total	75.5	50.2	45.4	2,749	88.2	83.9	20.9	16.9	1,055	96.7	77.8	42.1	37.5	3,804

<sup>&</sup>lt;sup>1</sup> 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; h) foods made with oil, fat, butter.

<sup>2</sup> At least twice a day for breastfed infants age 6-8 months and at least three times a day for breastfed children age 9-23 months

<sup>3</sup> Includes commercial infant formula, fresh, tinned and powdered animal milk, and cheese, yogurt and other milk products

<sup>4</sup> Nonbreastfed children age 6-23 months are considered to be fed with three IYCF practices if they receive other milk or milk products and are fed at least the minimum number of food groups, at least the minimum number of times per day.

<sup>&</sup>lt;sup>5</sup> 3+ food groups for breastfed children and 4+ food groups for nonbreastfed children

<sup>&</sup>lt;sup>6</sup> Fed solid or semisolid food at least twice a day for infants age 6-8 months, 3+ times a day for other breastfed children, and 4+ times a day for nonbreastfed children

### **Foods and Liquids Consumed by Women**

Adequate maternal nutrition is important for the health and reproductive outcomes of women, and child survival and development. Table 13.6 presents the data obtained from mothers of young children on the foods and liquids they consumed during a 24-hour period before the survey. The information on maternal eating patterns serves as a useful if imperfect proxy for assessing the quality of maternal diet.

The results in Table 13.6 show that around nine in ten mothers consumed foods made from grains during the 24-hour period preceding the survey and more than eight in ten ate meat, fish, shellfish, poultry, or eggs, and foods made with oil, fat, or butter during the 24-hour period. The consumption of meat, fish, poultry, and eggs is important because these foods are important sources of protein and iron. Less encouraging is the finding that around one-third of mothers of young children did not consume milk or milk products (important sources of calcium) and that 45 percent did not have any fruits and vegetables rich in vitamin A during the 24-hour period preceding the survey.

Considering the differentials in Table 13.6, there are only modest variations in the proportions of women consuming a number of the food groups including grains, roots, or tubers, legumes and nuts, oil, fat, or butter, and tea or coffee. These items are staples in the Egyptian diet. More marked variations are observed, particularly by wealth quintile, in the percentages consuming other food groups including milk and milk products, fruits and vegetables, particularly those rich in vitamin A, and meat, fish, shellfish, poultry, and eggs. Consumption of sugary foods and drinks also varies markedly with the wealth quintile, with women in the highest quintile being more than twice as likely as women in the lowest quintile to consume both sugary drinks and foods.

Table 13.6 Foods and liquids consumed by mothers in the day or night preceding the interview by background characteristics

Percentage of mothers whose youngest child is under three years of age and living with them, who consumed specific types of food groups in the day or night preceding the interview, by background characteristics, Egypt 2005

Background characteristic	Milk	Coffee/ tea	Sugary drinks	Other liquids	Cheese/ yogurt/ other milk products	Sugary foods	Food made from grains	Fruits and vege- tables rich in vitamin A	Other fruits/ vege- tables	Food made from roots/ tubers	Food made from legumes and nuts	Meat/ fish/ shellfish/ poultry/ eggs	Food made with oil/ fat/ butter	Number of mothers
Age														
15-19	42.5	66.2	25.0	28.9	61.2	14.3	91.6	52.7	61.8	60.6	60.3	85.2	82.9	371
20-24	50.5	70.0	31.2	30.4	66.8	16.1	91.2	54.3	68.2	58.9	61.0	83.5	85.8	2,016
25-29	56.4	72.8	35.5	32.2	67.7	17.2	92.4	54.9	69.7	58.5	62.6	83.9	86.0	2,331
30-34	53.2	77.1	35.3	28.8	69.7	17.0	91.8	56.0	70.5	60.8	62.4	83.9	87.0	1,361
35-39	51.9	78.1	32.7	30.8	64.0	17.0	91.5	56.5	71.8	61.4	65.6	82.2	85.3	716
40-44	57.3	75.9	29.9	32.1	69.3	14.7	88.7	54.7	73.4	65.0	64.1	84.0	80.4	261
45-49	(46.7)	(76.1)	(40.7)	(46.7)	(60.4)	(17.0)	(79.7)	(65.5)	(53.0)	(68.4)	(60.4)	(74.9)	(76.8)	36
Urban-rural residence														
Urban	56.8	71.6	39.3	29.2	69.7	21.0	91.0	55.7	73.2	57.4	63.2	86.7	83.4	2,622
Rural	50.6	74.1	29.7	31.7	65.6	14.0	92.0	54.6	66.9	61.1	61.8	81.8	87.0	4,471
Place of residence														
Urban Governorates	63.7	72.3	44.2	30.4	73.9	24.2	90.5	57.6	76.0	62.9	69.9	86.5	84.0	1,025
Lower Egypt	56.9	69.8	39.0	27.7	69.5	13.7	90.8	59.9	68.7	64.9	55.2	85.7	88.4	2,856
Urban	55.4	68.6	43.0	26.8	69.5	17.8	88.6	62.3	71.2	57.3	50.9	87.7	88.5	662
Rural	57.4	70.1	37.8	28.0	69.5	12.5	91.4	59.2	67.9	67.2	56.5	85.1	88.4	2,194
Upper Egypt	45.0	76.5	24.4	33.6	62.4	16.6	92.9	49.5	67.5	54.0	66.6	80.5	83.7	3,124
Urban	48.3	72.6	30.7	29.5	64.2	19.5	93.6	48.1	71.6	50.8	65.1	86.0	78.8	881
Rural	43.6	78.0	21.9	35.1	61.8	15.5	92.6	50.1	65.9	55.2	67.1	78.4	85.6	2,244
Frontier Governorates	80.8	76.0	34.5	37.4	78.9	21.2	86.8	62.7	72.3	56.0	53.7	91.3	86.9	87
Education														
No education	46.7	76.7	24.7	35.4	62.3	12.7	91.7	50.0	66.2	58.9	64.7	78.7	84.6	2,113
Some primary	43.7	74.9	25.0	25.6	63.1	11.7	92.5	49.6	62.9	61.9	62.0	77.4	87.4	589
Primary complete/some	13.7	/ 1.5	23.0	23.0	05.1	1 1.7	34.3	15.0	02.5	01.5	02.0	//	07.1	305
secondary	51.2	72.2	32.3	29.2	65.0	15.8	90.6	52.8	71.4	61.2	63.7	82.3	82.2	1,069
Secondary complete/														.,
higher	59.1	70.9	40.5	29.3	71.6	20.2	91.7	59.9	71.6	59.4	60.4	88.3	87.2	3,322
Work status														,
Working for cash	60.0	70.9	41.9	34.3	72.2	23.2	89.7	58.7	71.8	61.1	61.1	86.0	84.3	793
Not working for cash	52.0	73.4	32.2	30.3	66.5	15.8	91.9	54.5	68.9	59.5	62.5	83.3	85.8	6,300
Ŭ .	32.0	7 3.1	34.4	50.5	00.5	15.0	51.5	51.5	00.5	33.3	02.5	05.5	05.0	0,500
Wealth quintile	20.5	76.5	477	24.0	60.6	10.0	22.2	47.6	62.0	<b>5</b> 0.0	60.4	740	0.4.0	1 111
Lowest	38.5	76.5	17.7	31.8	60.6	12.2	92.2	47.6	63.0	59.9	60.4	74.2	84.2	1,411
Second	49.5	73.6	27.9	32.6	62.3	12.5	92.0	50.7	67.3	58.1	64.1	80.5	87.0	1,464
Middle	55.1	70.4	33.9	30.5	67.1	14.5	90.5	55.0	68.4	62.6	63.8	84.7	86.5	1,565
Fourth	57.1	72.8	39.0	29.6	71.5	17.4	91.4	58.7	72.5	58.8	62.9	87.7	84.6	1,433
Highest	66.1	72.6	50.0	29.2	75.4	28.3	92.1	64.5	76.1	58.9	59.9	92.0	86.0	1,220
Total	52.9	73.2	33.2	30.8	67.1	16.6	91.6	55.0	69.2	59.7	62.3	83.6	85.7	7,093

Note: There are 30 children who are not the last born, but are the youngest surviving child living with the mother. Figures in parentheses are based on 25-49 unweighted cases.

#### 13.3 MICRONUTRIENT SUPPLEMENTATION

Micronutrient deficiencies are a major contributor to childhood morbidity and mortality. Micronutrient deficiencies result from inadequate intake of micronutrient-rich foods and inadequate utilization of available micronutrients because of infections, parasitic infestations, or other factors in the diet such as phytates and tannins. Measures of micronutrient fortification (iodized household cooking salt) and micronutrient supplementation (vitamin A for children and women and iron for women) were obtained in the 2005 EDHS survey.

### **Use of Iodized Salt**

Iodine is an important micronutrient. Dietary deficiency of iodine constitutes a major, global public health concern. A lack of sufficient iodine is known to cause goiter, cretinism (a severe form of neurological defect), spontaneous abortion, premature birth, infertility, stillbirth, and increased child mortality. Iodine deficiency disorder (IDD) is the single most common cause of preventable mental retardation and brain damage in the world. Egypt has adopted a program of fortifying salt with iodine to prevent iodine deficiency.

In the 2005 EDHS, a rapid test was used to measure iodine content of the salt used for cooking in the household. The test kit consisted of ampoules of a stabilized starch solution and a weak acid-based solution. A drop of the starch solution was squeezed onto a salt sample obtained in the household, causing the salt to change color. The EDHS interviewer conducting the test matched the color of the salt to a color chart included with the test kit to determine the level of iodization.

Table 13.7 shows the percentage of households using iodized salt. Overall, 78 percent of households which had salt were using adequately iodized salt, i.e., the iodine content of the salt exceeded 15 parts per million (ppm). Fifteen percent of the households cooked with salt that the test indicated lacked iodine. This is considerably lower than the level found in the 2000 EDHS, when 44 percent of households cooked with salt that was not iodized.

of households tested, and					evel of iodine to backgroun			
		Level of iodir	ne		Number of	Percent house		Number
Background characteristic	None (0 ppm)	Inadequate (<15 ppm)	Adequate (15+ ppm)	Total	households with salt	With salt tested	With no salt	of households
Urban-rural residence								
Urban	5.1	3.3	91.7	100.0	10,182	96.7	1.9	10,533
Rural	23.9	10.7	65.4	100.0	10,928	95.5	3.5	11,439
Place of residence								
Urban Governorates	2.3	1.5	96.2	100.0	4,557	96.9	1.5	4,704
Lower Egypt	18.3	7.1	74.6	100.0	8,708	96.4	2.6	9,031
Urban	3.7	3.1	93.2	100.0	2,621	96.2	2.3	2,724
Rural	24.6	8.8	66.6	100.0	6,087	96.5	2.8	6,307
Upper Egypt	18.4	10.5	71.1	100.0	7,640	95.2	3.6	8,029
Urban	10.6	6.3	83.1	100.0	2,870	96.7	2.1	2,968
Rural	23.1	13.1	63.8	100.0	4,770	94.3	4.5	5,061
Frontier Governorates	7.7	7.1	85.2	100.0	206	98.7	1.1	208
Wealth quintile								
Lowest	34.0	13.0	52.9	100.0	3,525	92.5	6.2	3,811
Second	24.4	11.8	63.8	100.0	3,527	96.6	2.6	3,650
Middle	15.9	8.7	75.4	100.0	4,100	96.2	2.9	4,263
Fourth	6.5	4.0	89.4	100.0	4,849	96.5	1.9	5,024
Highest	1.8	1.5	96.7	100.0	5,109	97.8	0.9	5,224
Total	14.8	7.1	78.1	100.0	21,110	96.1	2.7	21,972

Urban households were much more likely than rural households to be using salt considered to be adequately iodized (92 percent and 65 percent, respectively). By place of residence, the proportion of households using adequately iodized salt ranged from 64 percent in rural Upper Egypt to 96 percent in the Urban Governorates. The percentage of households using adequately iodized salt also increased directly

with household wealth, from 53 percent among households in the lowest wealth quintile to 97 percent of households in the highest quintile.

# Micronutrient Intake among Young Children

Data from the 2005 EDHS can be used to assess the extent to which young children are likely to be consuming adequate amounts of two important micronutrients, iodine and vitamin A. As discussed above, adequate levels of iodine are important to prevent mental retardation and to reduce child mortality. Vitamin A is another micronutrient considered essential for normal sight, growth, and development. Vitamin A protects the body against some infectious illnesses such as measles and diarrheal disease. Severe vitamin A deficiency (VAD) is associated with total loss of vision or with other vision impairments including night blindness.

Ensuring that children have an adequate diet is one means of preventing vitamin A deficiency. Vitamin A is found naturally in breast milk, other milks, liver, eggs, fish, butter, mangoes, papayas, carrots, pumpkins, and dark green leafy vegetables. Because vitamin A is a fat-soluble vitamin, consumption of oils or fats is necessary for its absorption into the body. Vitamin A supplementation programs are another important tool in addressing VAD. Egypt has a program of vitamin A supplementation for young children. Beginning at age nine months (typically at the time the child receives the measles vaccination), young children are given one vitamin A capsule (100,000 international units). Two additional capsules (200,000 units) are given to children at age 18 months with the activated polio dose.

Table 13.8 presents several indicators that are useful for assessing the likelihood that young children are receiving an adequate intake of vitamin A and iodine. They include the percentage of youngest children less than three years of age living with their mother who consumed fruits and vegetables rich in vitamin A, the percentage of children 6-59 months who received vitamin A supplementation in the six-month period before the survey, and the percentage of children under age five who live in households that use adequately iodized salt.

The results suggest that less than half of children age 6-35 months are consuming foods rich in vitamin A on a daily basis. Consumption of foods rich in vitamin A rises with the age of the child and is greater among nonbreastfeeding than breastfeeding children, reflecting the increasing diversity of children's diets as they are weaned. Urban-rural residence is not related to children's consumption of foods rich in vitamin A but consumption levels do vary somewhat by place of residence, with Upper Egypt having the lowest level and the Frontier Governorates the highest level. The likelihood that a child will consume foods rich in vitamin A rises with the mother's education and the wealth quintile, indicating that economic factors have a role in shaping children's diets.

The information on vitamin A supplementation are shown in Table 13.8. The figures were derived from children's vaccination records or from the mothers' recall when records were not available (see Chapter 12 for a discussion of vaccination record coverage). Overall, a comparatively small proportion of children age 6-59 months received a vitamin A capsule during the six-month period preceding the EDHS. The likelihood of supplementation is, however, strongly related with the child's age. Approximately three in ten children age 9-23 months had received a capsule in the six-month period before the survey, double the rate among younger children and more than triple the rate among children age 24-59 months. The higher rates among children in the 9-23 month age group clearly reflect the effect of Egypt's vitamin A supplementation program, which as noted above targets children in that age range.

Table 13.8 also shows that 71 percent of children age 6-59 months live in households in which salt was tested and found to be adequately iodized. As noted above, availability of iodized salt is strongly related to urban residence and increases with both the mother's education status and household wealth.

Table 13.8 Micronutrient intake among children by background characteristics

Percentage of youngest children age 6-35 months living with the mother who consumed foods rich in vitamin A in the 24 hours preceding the survey, percentage of children age 6-59 months who were given vitamin A supplements in the six months preceding the survey, and percentage of children age 6-59 months living in households with salt tested using adequately iodized salt, by background characteristics, Egypt 2005

	Youngest chi 6-35 month with the r	hs living	Childre 6-59 m		Children a living in how with salt	useholds
Background characteristic	Percentage consumed foods rich in vitamin A in last 24 hours <sup>1</sup>	Number of children	Percentage given vitamin A		Percentage in households with adequately iodized salt <sup>2</sup>	Number of children
Child's age						
6-8 months	17.2	686	16.0	698	69.5	698
9-11 months	32.0	639	30.3	651	71.1	651
12-17 months	46.2	1,305	29.5	1,367	69.6	1,367
18-23 months	51.3 53.9	1,174 2,069	34.5 9.5	1,313	71.1 71.1	1,313
24-35 months 36-47 months	53.9 na	2,069 na	9.5 5.0	2,671 2,682	71.1 70.8	2,671 2,682
48-59 months	na na	na na	3.3	2,662	70.8 70.8	2,662 2,497
Sex	116	116	5.5	4,15,	70.0	4,-13,
Male	45.4	3,030	13.8	6,022	71.2	6,022
Female	44.7	2,842	13.7	5,856	70.2	5,856
Breastfeeding status	* ***	<del>-</del> /	•=	۵,	, <del>-</del>	5,0
Breastfeeding	37.6	2,832	27.2	2,902	69.0	2,902
Not breastfeeding	52.0	3,031	9.5	8,912	71.3	8,912
Missing	*	9	5.3	64	71.0	64
Urban-rural residence						
Urban	45.5	2,206	13.8	4,355	87.5	4,355
Rural	44.8	3,666	13.8	7,523	61.0	7,523
Place of residence						
Urban Governorates	44.0	882	13.8	1,681	90.9	1,681
Lower Egypt	50.5	2,361	15.8	4,724	68.2	4,724
Urban	52.9	529	16.9	1,111	90.7	1,111
Rural	49.8	1,832	15.4	3,613	61.3	3,613
Upper Egypt	40.1 41.6	2,556	12.1	5,326	66.5 81.6	5,326
Urban Rural	41.6 39.5	750 1,806	11.8 12.3	1,473	81.6 60.7	1,473 3,852
Frontier Governorates	39.5 50.8	73	12.3 8.8	3,852 147	60./ 73.5	3,852 147
Mother's education	50.0	15	0.0	17,	1 3.3	17/
No education	39.9	1,746	11.5	3,717	58.3	3,717
Some primary	38.5	488	14.0	1,048	64.3	3,/1/ 1,048
Primary complete/some	35.2	• = :	• • • •	1,0	O	1,010
secondary	43.3	907	15.4	1,805	69.6	1,805
Secondary complete/higher	50.1	2,732	14.7	5,309	81.0	5,309
Work status						
Working for cash	48.2	653	13.6	1,417	78.0	1,417
Not working for cash	44.6	5,220	13.8	10,461	69.7	10,461
Wealth quintile						
Lowest	36.4	1,139	14.2	2,408	49.8	2,408
Second	43.1	1,212	12.4	2,478	59.3	2,478
Middle	45.3	1,282	12.7	2,559	70.0	2,559
Fourth Highest	46.5 54.7	1,213 1,027	14.5 15.4	2,445	84.8 93.8	2,445
Highest	34./	1,027	15.4	1,988	33.0	1,988
Total	45.0	5,872	13.8	11,878	70.7	11,878
1044				,		,

Note: Information on vitamin A supplements is based on health card and mother's recall. There are 30 children who are not the last born, but are the youngest surviving child living with the mother. An asterisk indicates a figure is based on less than 25 cases and has been suppressed. na = Not applicable

<sup>&</sup>lt;sup>1</sup> Includes pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, green leafy vegetables, mango, cantaloupe, and other locally grown fruits and vegetables that are rich in vitamin A

<sup>&</sup>lt;sup>2</sup> Salt containing 15 ppm of iodine or more. Excludes children in households in which salt was not tested

# **Micronutrient Intake among Women**

Adequate micronutrient intake by women has important benefits for both women and their children. Breastfeeding children benefit from micronutrient supplementation that mothers receive, especially vitamin A. Iron supplementation of women during pregnancy protects mother and infant against anemia. It is estimated that one-fifth of perinatal mortality and one-tenth of maternal mortality are attributable to iron deficiency anemia. Anemia also results in an increased risk of premature delivery and low birth weight. Finally, as noted above, iodine deficiency is related to a number of adverse pregnancy outcomes.

Table 13.9 includes a number of measures that are useful in assessing the extent to which women are receiving adequate intake of vitamin A, iron during pregnancy, and iodine. The first indicators focused on the percentages of women with children under age three who reported that they consumed foods rich in vitamin A and iron during the 24-hour period prior to the DHS. The results indicate that eight in ten mothers of young children consumed iron-rich foods (i.e., meat, poultry, fish and eggs) in the 24 hours preceding the survey, and 55 percent consumed vitamin A-rich fruits and vegetables. As was the case with children, consumption of vitamin A-rich foods is influenced by the place of residence, the woman's education status, and household wealth. Consumption of iron-rich foods also is related to these factors. Overall, the highest rate of consumption of iron-rich foods is observed among mothers in the highest wealth quintile (92 percent) and the lowest rate is found among women in the lowest wealth quintile (74 percent).

Table 13.9 also looks at the extent to which women receive vitamin A supplements following delivery. Just under half of women reported that they had received a capsule in the two-month period following the delivery of their last-born child. Older women and women living in the Urban Governorates were the least likely to report receiving a supplement.

With regard to iron supplementation during pregnancy, just under half of women who gave birth during the five-year period before the 2005 EDHS reported that they had taken iron tablets or syrup during the pregnancy preceding their last live birth. Among women reporting that they took supplements, the majority said that they took the supplements for less than 60 days. Urban residents, particularly those living in the Urban Governorates, women with a secondary or higher education, and women in the highest wealth quintile were considerably more likely to have taken iron tablets or syrup during pregnancy than other women.

As was the case among young children, more than seven in ten women who gave birth during the five-year period preceding the survey live in households in which the salt used in cooking was tested and found to be adequately iodized.

Table 13.9 Micronutrient intake among mothers by background characteristics

Among women with a surviving child under the age of 3 living with them, the percentage who consumed foods rich in vitamin A and iron-rich foods in the 24 hours preceding the survey, and among women who gave birth in the 5-year period preceding the survey, the percentage who received a vitamin A dose in the first two months after the delivery of their last birth, the percentage who took iron tablets or syrup for specific numbers of days during the pregnancy preceding the last birth, and the percentage who live in households using adequately iodized salt, by background characteristics, Egypt 2005

	Percent womer child t age 3 in hous	n with under living	Number							Number of		Number of women with birth in
	Con- sumed foods	Con- sumed	of women with child	Received vitamin			of days ir en during			women with birth in 5-year	5-year period before the survey living	5-year period before the survey living
Background	rich in vitamin	iron- rich	under age 3 living in	A dose post-				00.	Don't know/	period before the	in households with adequately	in households where salt
characteristic	A <sup>1</sup>	foods <sup>2</sup>	household	partum <sup>3</sup>	None	<60	60-89	90+	missing	survey	iodized salt <sup>4</sup>	was tested
<b>Age</b> 15-19	52.7	85.2	371	49.9	47.3	32.9	5.2	10.3	4.3	380	68.1	358
20-24	54.3	83.5	2,016	49.9 50.6	47.3	32.9	6.5	10.3	4.3 4.8	2,290	70.0	2,212
25-29	54.5 54.9	83.9	2,331	50.5	43.3	29.4	7.3	15.1	4.0	3,089	74.5	2,993
30-34	56.0	83.9	1,361	47.7	44.7	26.9	6.5	16.2	5. <i>7</i>	2,109	77.2	2,031
35-39	56.5	82.2	716	43.9	51.3	23.5	5.7	12.7	6.9	1,321	77.8	1,273
40-44	54.7	84.0	261	42.8	53.4	23.5	6.4	12.1	4.6	540	73.6	526
45-49	(65.5)	(74.9)	36	35.7	59.1	20.8	2.9	11.5	5.7	116	80.0	112
Urban-rural residence												
Urban	55.7	86.7	2,622	44.9	36.4	26.0	9.4	22.6	5.7	3,753	90.3	3,638
Rural	54.6	81.8	4,471	50.6	51.1	30.2	4.8	8.8	5.0	6,092	64.3	5,867
Place of residence			,							,		,
Urban Governorates	57.6	86.5	1,025	38.2	29.7	22.8	10.7	34.0	2.8	1,460	94.0	1,418
Lower Egypt	59.9	85.7	2,856	56.4	41.8	32.5	6.7	14.2	4.8	4,066	72.1	3,947
Urban	62.3	87.7	662	56.5	35.6	29.8	8.5	20.3	5.8	987	93.2	958
Rural	59.2	85.1	2,194	56.4	43.8	33.4	6.2	12.2	4.4	3,079	65.3	2,989
Upper Egypt	49.5	80.5	3,124	44.3	54.5	27.1	4.9	6.7	6.7	4,200	69.4	4,022
Urban	48.1	86.0	881	43.5	44.7	27.1	8.5	10.5	9.2	1,235	84.1	1,191
Rural	50.1	78.4	2,244	44.7	58.6	27.1	3.4	5.2	5.7	2,965	63.2	2,831
Frontier Governorates	62.7	91.3	87	43.1	47.8	18.9	5.8	24.7	2.7	119	76.0	118
Education												
No education	50.0	78.7	2,113	44.0	60.1	25.7	3.7	5.9	4.6	2,983	62.0	2,854
Some primary Primary complete/	49.6	77.4	589	44.9	55.5	25.9	4.9	8.7	4.9	878	66.1	850
some secondary Secondary complete/	52.8	82.3	1,069	46.2	47.4	31.1	6.5	11.3	3.7	1,491	73.6	1,437
higher	59.9	88.3	3,322	52.8	33.2	30.3	8.7	21.4	6.3	4,494	84.1	4,363
Work status												
Working for cash	58.7	86.0	793	51.1	36.8	28.0	8.1	20.9	6.2	1,261	82.0	1,223
Not working for cash	54.5	83.3	6,300	48.0	46.8	28.7	6.3	13.1	5.2	8,584	73.1	8,282
Wealth quintile												
Lowest	47.6	74.2	1,411	44.1	63.6	25.2	2.9	4.0	4.3	1,929	53.1	1,819
Second	50.7	80.5	1,464	47.7	54.6	29.1	4.1	7.1	5.1	1,981	62.2	1,917
Middle	55.0	84.7	1,565	51.0	44.8	31.7	6.6	11.3	5.6	2,114	73.2	2,044
Fourth	58.7	87.7	1,433	50.6	36.7	31.1	8.1	17.7	6.4	2,078	87.6	2,017
Highest	64.5	92.0	1,220	48.3	26.5	25.1	11.3	32.1	4.9	1,742	95.8	1,708
Total	55.0	83.6	7,093	48.4	45.5	28.6	6.5	14.1	5.3	9,845	74.3	9,505

Note: Figures in parentheses are based on 25-49 unweighted cases.

<sup>1</sup> Includes pumpkin, red or yellow yams or squash, carrots, red sweet potatoes, mango, cantaloupe, and other locally grown fruits and vegetables that are rich in vitamin A <sup>2</sup> Includes meat, (including organ meat), fish, poultry, and eggs

<sup>&</sup>lt;sup>3</sup> In the first two months after delivery

<sup>&</sup>lt;sup>4</sup> Salt containing 15 ppm of iodine or more. Excludes women in households in which salt was not tested

# **NUTRITIONAL STATUS AND ANEMIA LEVELS**

This chapter looks at several important aspects of the nutritional status of Egyptian children and their mothers. Anthropometric data (height and weight) was collected in the survey for all EDHS respondents, children under age 6, and never-married youth and young adults age 10-19. These data are used to assess the current nutritional status of these populations. The chapter then considers information collected on the prevalence of anemia in these groups.

# COLLECTION OF ANTHROPOMETRIC AND ANEMIA DATA

Height and weight measures were collected in all households included in the EDHS survey for ever-married women age 15-49, children under age six, and never-married youth and young adults age 10-19. The measuring boards used for the collection of the height data are specially produced by Shorr Productions for use in survey settings. Children younger than 24 months were measured lying on a measuring board, while standing height was measured for older children, adolescents, and women. Weight data were obtained using lightweight, bathroom-type scales with a digital screen designed and manufactured under the authority of the United Nations Children's Fund (UNICEF).

The 2005 EDHS included direct measurement of hemoglobin levels in a subsample of one-third of all EDHS households for three groups: ever-married women age 15-49, children age 6-71 months, and never-married young adults and young adults age 10-19. Prior to the testing, ever-married women and never-married youth age 18-19 were asked to consent to the testing. In the case of young children or youth age 10-17, the consent of an adult or other caretaker also was obtained for the test. During the fieldwork, each respondent or parent/caretaker was given the results of the test immediately. In cases in which the hemoglobin reading was below 9.0 g/dl (grams per deciliter), the respondent or parent/caretaker was asked to visit the nearest Ministry of Health and Population facility for follow-up.

The HemoCue system was used for hemoglobin testing. This system consists of a batteryoperated photometer and a disposable microcuvette, 1 coated with a dried reagent that serves as the bloodcollection device. For the test, a drop of capillary blood taken from a person's fingertip or heel was drawn into a microcuvette. The blood in the microcuvette was analyzed using the photometer, which displayed the hemoglobin concentration. As described in Chapter 1, medically trained personnel, primarily doctors, assigned to each of the EDHS teams conducted the testing. The personnel responsible for the testing received extensive classroom training and field practice prior to the survey.

#### 14.2 **NUTRITIONAL STATUS OF CHILDREN**

Nutritional status is a primary determinant of a child's health and well-being. Both inadequate or unbalanced diets and chronic illness are associated with poor nutritional status among children. The anthropometric data collected in the 2005 EDHS permit an assessment of the nutritional status of young children in Egypt.

### Measurement of Nutritional Status among Young Children

The anthropometric measurements as well as information on the ages of the children are used to construct the following three standard indices of physical growth:

<sup>&</sup>lt;sup>1</sup> A *microcuvette* is a small, transparent laboratory vessel.

- height-for-age
- weight-for-height
- weight-for-age

As recommended by the World Health Organization (WHO), evaluation of nutritional status in this report is based on the comparison of these three indices for the population of children in the survey with those reported for a reference population of well-nourished children. The use of a reference population to identify malnourished children is based on the finding that well-nourished children in all population groups follow similar growth patterns and thus exhibit similar distributions of height and weight at given ages (Martorell and Habicht, 1986). One of the most commonly used reference populations, and the one used in this report, is the international reference population defined by the U.S. National Center for Health Statistics (NCHS) and accepted by WHO and the U.S. Centers for Disease Control.

Each of the three nutritional indicators is expressed in standard deviations (Z-scores) from the mean of the reference population.<sup>2</sup> The indices measure somewhat different aspects of nutritional status. The height-for-age index provides an indicator of linear growth retardation. Children whose height-forage is below minus two standard deviations (-2 SD) from the median of the reference population are considered short for their age, or *stunted*. Children who are below minus three standard deviations (-3 SD) from the reference population are considered severely stunted. Stunting of a child's growth may be the result of a failure to receive adequate nutrition over a long period of time or of the effects of recurrent or chronic illness. Height-for-age therefore represents a measure of the outcome of malnutrition in a population over a long period and does not vary appreciably with the season of data collection.

The weight-for-height index measures body mass in relation to body length. Children whose weight-for-height measures are below minus two standard deviations (-2 SD) from the median of the reference population are too thin for their height, or wasted, while those whose measures are below minus three standard deviations (-3 SD) from the reference population median are severely wasted. Wasting represents the failure to receive adequate nutrition during the period immediately before the survey. It may be the result of recent episodes of illness or acute food shortages.

Weight-for-age is a composite index of height-for-age and weight-for-height. Children whose weight-for-age measures are below minus two standard deviations (-2 SD) from the median of the reference population are underweight for their age, while those whose measures are below minus three standard deviations (-3 SD) from the reference population median are severely underweight. A child can be underweight for his age, because he is stunted, because he is wasted, or because he is both stunted and wasted.

<sup>&</sup>lt;sup>2</sup> The distribution of the standard reference population has been normalized and hence the mean and median coincide.

### **Results of Data Collection**

Measurements of height and weight were obtained for all children under age 6 living in the households selected for the EDHS sample. The results include children who were not biological offspring of the women interviewed in the survey.

Although data were collected for all children under age six, for purposes of comparability with prior EDHS surveys, the analysis is limited to children under age five. Height and weight measurements were obtained for 99 percent of the 13,030 children in that age range present in EDHS households at the time of the survey. Of these children, six percent were considered to have implausibly high or low values for the height or weight measures or lacked data on the child's age in months (not shown in table). The following analysis focuses on the 12,131 children for whom complete and plausible anthropometric and age data were collected.

### **Levels of Child Malnutrition**

An examination of the data on height-for-age in Table 14.1 indicates that there is considerable chronic malnutrition among Egyptian children. Overall, 18 percent of children under age five are stunted, and six percent are severely stunted. A child's age is associated with the likelihood of stunting. Stunting increases rapidly with age, from only 13 percent among children less than six months of age to 24 percent among children 18-23 months, before falling to 14 percent among children age four and older. Levels of stunting are slightly higher for male children than for female children. Stunting is higher among children of birth order six or higher compared to other children. The prevalence of stunting varies inversely with the length of the birth interval; a child born less than 24 months after an elder sibling is around 40 percent more likely to be stunted than a child born 48 months or longer after an elder sibling.

Table 14.1 Nutritional status of children by children's characteristics

Percentage of children under five who are classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics of the child, Egypt 2005

	Не	eight-for-age		We	ight-for-heigh	nt	We	eight-for-age		
	Percentage	Percentage	Mean	Percentage	Percentage	Mean	Percentage	Percentage	Mean	
Background	below	below	Z-score	below	below	Z-score	below	below		Number of
characteristic	-3 SD	-2 SD <sup>1</sup>	(SD)	-3 SD	-2 SD <sup>1</sup>	(SD)	-3 SD	-2 SD <sup>1</sup>	(SD)	children
Child's age										
Under 6 months	2.5	13.0	(0.4)	1.2	6.7	0.6	0.4	4.7	(0.2)	1,066
6-9	6.5	20.3	(8.0)	1.5	4.8	0.4	2.7	9.8	(0.3)	852
10-11	5.4	22.0	(0.7)	0.5	6.1	0.4	3.3	8.7	(0.4)	360
12-17	6.9	21.3	(0.6)	0.7	4.5	0.3	0.9	7.0	(0.3)	1,222
18-23	10.3	24.2	(1.0)	1.1	4.9	0.1	1.3	9.3	(0.5)	1,184
24-35	8.3	18.6	(0.7)	1.2	3.9	0.1	1.3	6.4	(0.4)	2,520
36-47	6.8	16.1	(8.0)	0.7	2.8	0.3	0.7	4.2	(0.3)	2,519
48-59	3.5	13.6	(0.7)	0.3	2.3	0.2	0.3	4.9	(0.3)	2,409
Sex										
Male	6.7	18.8	(8.0)	0.7	4.0	0.2	1.1	6.8	(0.4)	6,150
Female	6.0	16.4	(0.6)	1.0	3.8	0.3	0.9	5.5	(0.2)	5,980
Birth order										
1	6.2	16.6	(0.6)	1.0	4.1	0.3	1.1	5.9	(0.2)	3,648
2-3	6.4	17.5	(0.7)	0.9	4.0	0.3	0.9	5.6	(0.3)	5,458
4-5	6.1	17.7	(8.0)	0.6	3.2	0.2	1.0	7.0	(0.3)	1,932
6+	7.2	22.1	(1.0)	0.5	3.1	0.2	1.3	8.2	(0.5)	960
Birth interval in months										
First birth <sup>2</sup>	6.3	16.7	(0.6)	1.0	4.0	0.3	1.1	5.8	(0.2)	3,717
Under 24 months	7.7	20.6	(0.9)	1.4	4.9	0.2	1.5	7.8	(0.5)	1,719
24-47	6.5	19.0	(8.0)	0.6	3.3	0.3	0.9	6.1	(0.3)	4,174
48+	5.5	14.6	(0.5)	0.7	3.7	0.3	8.0	5.5	(0.2)	2,388
Size at birth <sup>3</sup>										
Very small	8.6	23.2	(0.9)	1.4	5.9	0.1	2.3	12.2	(0.5)	416
Small	7.6	21.0	(0.9)	1.6	4.8	0.0	1.6	9.5	(0.6)	1,113
Average or larger	6.2	17.0	(0.7)	0.8	3.7	0.3	0.9	5.5	(0.2)	10,416
Mother's interview										
status			(O =)						(0.0)	44.000
Interviewed	6.4	17.6	(0.7)	0.9	3.9	0.3	1.0	6.1	(0.3)	11,998
Not interviewed	5.0	16.5	(0.4)	0.1	8.0	0.3	0.0	8.4	(0.1)	133
In the household	7.0	17.3	(0.5)	0.3	7.7	0.3	0.0	7.0	(0.0)	62
Not in the household <sup>4</sup>	3.2	15.9	(0.4)	0.0	8.3	0.2	0.0	9.5	(0.2)	71
Total	6.4	17.6	(0.7)	0.9	3.9	0.3	1.0	6.2	(0.3)	12,131

Note: Table is based on children who stayed in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO International Reference Population. The percentage of children who are more than three or more than two standard deviations below the median of the International Reference Population (-3 SD and -2 SD) are shown according to background characteristics. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight. The total includes children whose mothers were not interviewed in the survey. Information on the background characteristics shown in the table is not available for these children. The total also includes 6 children for whom information on the child's size at birth was not available.

<sup>&</sup>lt;sup>1</sup> Includes children who are below -3 standard deviations (SD) from the International Reference Population median.

<sup>&</sup>lt;sup>2</sup> First born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval.

<sup>&</sup>lt;sup>3</sup> Excludes children whose mothers were not interviewed or for whom size at birth information is not available.

<sup>&</sup>lt;sup>4</sup> Includes children whose mothers are deceased.

Table 14.2 shows that there are marked socioeconomic differentials in stunting. Children in rural areas are somewhat more likely to be stunted than urban children (18 percent and 16 percent, respectively). The percentage stunted varies more markedly by place of residence, ranging from only 13 percent in rural Lower Egypt to 23 percent in rural Upper Egypt.

Table 14.2 Nutritional status of children by mother's characteristics

Percentage of children under five who are classified as malnourished according to three anthropometric indices of nutritional status: height-forage, weight-for-height, and weight-for-age, by selected background characteristics, Egypt 2005

	Н	leight-for-age		We	eight-for-heigl	ht	W	/eight-for-age	دِ	
	Percentage	Percentage	Mean	Percentage	Percentage	Mean	Percentage	Percentage	Mean	
Background	below	below	Z-score	below	below	Z-score	below	below	Z-score	
characteristic	-3 SD	-2 SD <sup>1</sup>	(SD)	-3 SD	-2 SD <sup>1</sup>	(SD)	-3 SD	-2 SD1	(SD)	children
Mother's age <sup>2</sup>										
15-19	5.1	16.7	(8.0)	1.0	5.6	0.4	0.6	5.8	(0.3)	387
20-24	7.3	20.0	(8.0)	1.1	4.2	0.3	1.2	6.2	(0.3)	2,939
25-29	6.3	16.7	(0.7)	0.8	3.5	0.3	1.0	5.9	(0.3)	4,097
30-34	5.7	17.7	(0.6)	0.6	3.9	0.3	0.7	5.3	(0.2)	2,559
35-49	6.3	16.3	(0.7)	0.8	3.9	0.2	1.1	7.6	(0.3)	2,077
Urban-rural residence										
Urban	5.6	16.2	(0.6)	1.5	5.2	0.2	1.1	6.5	(0.3)	4,430
Rural	6.8	18.4	(0.8)	0.5	3.1	0.3	0.9	6.0	(0.3)	7,700
Place of residence										
Urban Governorates	6.1	16.9	(0.4)	2.8	7.7	0.1	1.8	8.2	(0.2)	1,668
Lower Egypt	5.4	13.7	(0.4)	0.6	2.9	0.4	0.9	4.0	(0.0)	4,837
Urban	5.7	15.1	(0.6)	0.6	2.7	0.3	1.1	4.2	(0.2)	1,160
Rural	5.3	13.3	(0.4)	0.6	3.0	0.4	0.9	3.9	0.0	3,677
Upper Egypt	7.3	21.4	(1.1)	0.5	3.5	0.2	0.8	7.5	(0.6)	5,482
Urban	5.0	16.6	(8.0)	0.7	4.2	0.1	0.4	6.5	(0.4)	1,514
Rural	8.2	23.2	(1.2)	0.5	3.3	0.2	1.0	7.8	(0.6)	3,968
Frontier Governorates	5.8	14.1	0.6	0.7	5.2	0.2	0.4	4.3	0.4	143
Mother's education <sup>2</sup>										
No education	7.9	21.5	(0.9)	0.6	3.5	0.2	1.3	7.3	(0.5)	3,763
Some primary Primary complete/some	6.7	19.7	(8.0)	0.3	2.5	0.3	0.9	7.4	(0.3)	1,047
secondary	5.6	16.7	(0.7)	1.4	4.6	0.2	0.8	5.7	(0.4)	1,809
Secondary complete/	5.5	14.8	(0.5)	1.0	4.1	0.3	0.9	5.2	(0.1)	F 420
higher	5.5	14.0	(0.5)	1.0	4.1	0.3	0.9	5.2	(0.1)	5,439
Work status <sup>3</sup>		17.0	(0.5)	1 1	4.1	0.2	0.0	г о	(0.1)	1 400
Working for cash	6.6	17.0	(0.5)	1.1	4.1 3.8	0.3	0.9 1.0	5.8	(0.1)	1,400
Not working for cash	6.3	17.7	(0.7)	0.8	3.8	0.3	1.0	6.2	(0.3)	10,598
Wealth quintile										
Lowest	8.7	23.6	(1.0)	0.9	3.7	0.3	0.8	7.7	(0.5)	2,452
Second	6.9	18.5	(0.8)	0.5	2.8	0.3	1.1	6.1	(0.4)	2,539
Middle	6.2	17.3	(0.8)	0.7	3.4	0.3	1.0	5.9	(0.3)	2,616
Fourth	4.3	13.8	(0.5)	1.0	3.9	0.2	0.8	4.7	(0.2)	2,498
Highest	5.6	14.4	(0.3)	1.3	6.2	0.3	1.4	6.4	(0.1)	2,025
Total	6.4	17.6	(0.7)	0.9	3.9	0.3	1.0	6.2	(0.3)	12,131

Note: Table is based on children who stayed in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO International Reference Population. The percentage of children who are more than three or more than two standard deviations below the median of the International Reference Population (-3 SD and -2 SD) are shown according to background characteristics. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.

<sup>&</sup>lt;sup>1</sup> Includes children who are below -3 standard deviations (SD) from the International Reference Population median.

<sup>&</sup>lt;sup>2</sup> For women who were not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers were not listed in the household schedule.

<sup>&</sup>lt;sup>3</sup> Excludes children whose mothers were not interviewed.

The educational level of the mother is inversely related to the level of stunting. Among children whose mothers never attended school, 22 percent are stunted compared to 15 percent of mothers who completed the secondary level or higher. The rate of stunting among children in the lowest wealth quintile is 24 percent compared to 14 percent among children in the highest quintile.

The weight-for-height index provides a measure of wasting, or acute malnutrition. As described above, the weight-for-height index reflects the effects on a child's nutritional status of recent food shortages or recent episodes of diarrheal or other illness that contribute to malnutrition. Overall, around four percent of Egyptian children are wasted (Table 14.2). Wasting is more common among children under age two than among older children. Levels of wasting are highest for children in the Urban Governorates.

Reflecting the effects of both chronic and short-term malnutrition, six percent of children under age five are underweight for their age. Low weight-for-age is more common among children 6-23 months than among older or younger children (Table 14.1). It generally increases with birth order and is higher among children born less than 24 months after a prior birth and children whose mothers considered them to be "very small" at the time of their birth.

Considering socioeconomic characteristics, low weight-for-age is slightly more common among children from the Urban Governorates and children from rural Upper Egypt than other children (Table 14.2).

### **Trends in Child Nutrition**

Table 14.3 looks at recent trends in the nutritional status of children in Egypt using anthropometric data from EDHS surveys undertaken between 1992 and 2005. There are a number of factors that should be kept in mind in looking at the trends in the indicators. The trends may be influenced by differences in the quality of the anthropometric data collected in the surveys or in the reporting of children's ages. Particularly where they are small, the differences in the levels for the various indicators may be simply a result of sampling variability rather than of a genuine change in children's nutritional status.

Table 14.3 Trends in nutritional status of children  Percentage of children under five classified as malnourished according to selected indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, Egypt 1992-2005										
			1997	1998						
Index of	1992	1995	Interim	Interim	2000	2003	2005			
nutritional status	EDHS	EDHS	EDHS	EDHS	EDHS	EIDHS	EDHS			
Height-for-age	26.0	29.8	24.9	20.6	18.7	15.6	17.6			
Weight-for-height	3.4	4.6	6.1	5.1	2.5	4.0	3.9			
Weight-for-age	9.9	12.5	11.7	10.7	4.0	8.6	6.1			
Note: Figures are based on children of respondents under age five. Source: El-Zanaty and Associates and Macro International Inc., 1999, Table 9.7										

Although the changes are not uniform, the overall trend in the nutritional status indicators suggests that the nutritional status of young children in Egypt improved during the period between 1992 and 2005. Looking at the height-for-age measures, for example, there was a decrease in the percentage of children who were considered stunted, from 26 percent at the time of the 1992 EDHS to 18 percent in the 2005 EDHS (Table 14.3). Although exhibiting more fluctuation, the weight-for-age measure also has declined, with the levels observed for the 2005 EDHS being considerably lower than the level in surveys conducted during the 1990s. The trend in the weight-for-height indicator is the most erratic, as it reflects the influences of shorter-term dietary deficiency.

# **NUTRITIONAL STATUS OF NEVER-MARRIED YOUTH AND YOUNG ADULTS**

Height and weight measures were collected for never-married youth and young adults age 10-19 in the 2005 EDHS.

# Measurement of Nutritional Status among Youth and Young Adults

The assessment of the nutritional status of adolescents using height and weight measures is complicated by the fact that adolescents undergo significant changes in their body stature and mass as they go through puberty. Moreover, body proportions may deviate more across populations for adolescents than for young children making it difficult to establish a reference population (Woodruff and Duffield 2000). Approaches to assessing adolescent nutritional status are, thus, less standardized than those for assessing the status of young children. However, WHO has recommended the use of body-mass index (BMI) for age to assess the nutritional status of adolescents (WHO 1995). This approach is adopted in this report using the 2000 CDC Growth Charts (CDC 2000).

The body-mass index (BMI) is calculated by dividing the weight in kilograms by the height in meters squared (kg/m<sup>2</sup>). BMI is calculated using the same formula for children, adolescents, and adults, but the results for children and adolescents are interpreted differently. For adults, BMI is used to define nutritional status without reference to age or gender. For children and adolescents age 2-20, assessments of nutritional status using the CDC BMI growth charts are age- and gender-specific. The growth charts are used to rank individuals according to the percent of the reference population that the individual's BMI equals or exceeds, i.e., according to the percentile in which the individual falls. For example, on the BMIfor-age growth charts, the BMI for a 10-year-old boy ranked in the 75th percentile, is the same or more than the BMI of 75 percent of the reference population of 10-year-old boys, and less than 25 percent of the 10-year-old boys in the reference population. The following established percentile cutoff points are used to identify underweight and overweight adolescents using the CDC Growth charts:

> Underweight BMI-for-age <5th percentile

Normal BMI-for-age 5th percentile to <85th percentile BMI-for-age 85th percentile to < 95th percentile At risk of overweight

Overweight BMI-for-age 95th percentile or higher

### **Results of Data Collection**

Height and weight measurements were obtained for 97 percent of the 12,144 males age 10-19 and 98 percent of the 11,169 females age 10-19 who were eligible for the collection of the anthropometric data. The following analysis focuses on the 11,837 males and 10,990 females for whom complete anthropometric data were collected.

### Levels of Malnutrition among Never-Married Youth and Young Adults

Tables 14.4.1 and 14.4.2 show the BMI-for-age percentile rankings for never-married male and female adolescents, respectively, according to selected background characteristics. The results indicate that six percent of never-married males age 10-19 and eight percent of never-married females age 10-19 in Egypt may be classified overweight, i.e., their BMI values at or above the 95th percentile on the age and sex-specific BMI growth charts. The BMI values for an additional 15 percent of males and 23 percent of females fall between the 85th and 95th percentiles, indicating that they are at risk of becoming overweight. At the other end of the scale, three percent of males and two percent of females are considered to be underweight, i.e., their BMI values fall below the 5th percentile on the growth charts.

Table 14.4.1 Nutritional status of never-married male youth and young adults by background characteristics

Percentage with specific BMI levels among never-married males age 10-19 by background characteristics, Egypt 2005

		Percentag	e of males			
Background characteristic	Underweight (<5 <sup>th</sup> percentile)	Normal (5 <sup>th</sup> -85 <sup>th</sup> percentile)	At risk of overweight (85 <sup>th</sup> -<95 <sup>th</sup> percentile)	Overweight (≥95 <sup>th</sup> percentile)	Total percent	Number of males
Age						
10-11	3.6	69.1	17.8	9.5	100.0	2,321
12-13	4.2	70.5	18.4	6.9	100.0	2,228
14-15	3.6	73.2	17.2	6.1	100.0	2,402
16-17	2.6	79.8	13.8	3.8	100.0	2,484
18-19	2.4	87.0	8.1	2.5	100.0	2,403
						,
Mother's age < 30	4.1	73.9	15.7	6.3	100.0	223
30-34	4.1	73.9 72.9	15.7	6.3 6.7		
					100.0	1,408
35-49	2.9	76.0	15.3	5.7	100.0	8,103
50+	3.9	72.8	16.6	6.7	100.0	1,012
Mother not in household/ no information available	3.3	84.0	9.8	2.9	100.0	1,092
	3.3	01.0	5.0	2.3	100.0	1,032
Urban-rural residence	2.8	75.0	15.2	7.0	100.0	4.675
Urban		75.0	15.2		100.0	4,675
Rural	3.5	76.8	14.9	4.8	100.0	7,162
Place of residence						
Urban Governorates	3.5	77.9	11.7	6.9	100.0	1,897
Lower Egypt	2.2	74.7	18.1	5.0	100.0	4,757
Urban	1.4	69.7	22.1	6.8	100.0	1,223
Rural	2.5	76.4	16.8	4.3	100.0	3,533
Upper Egypt	4.2	77.0	12.9	5.9	100.0	5,056
Urban	3.3	76.3	13.2	7.2	100.0	1,480
Rural	4.6	77.2	12.8	5.3	100.0	3,575
Frontier Governorates	2.2	62.8	27.7	7.3	100.0	127
Mother's education						
No education	3.6	75.8	15.0	5.6	100.0	5,351
Some primary Primary complete/some	3.5	78.3	14.1	4.1	100.0	1,650
secondary	3.7	75.6	13.8	6.9	100.0	1,192
Secondary complete/higher Mother not in household/no	2.2	71.9	18.3	7.6	100.0	2,552
information available	3.3	84.0	9.8	2.9	100.0	1,092
Work status						
Working for cash	2.8	76.1	15.7	5.4	100.0	1,874
Not working for cash Mother not in household/no	3.3	75.4	15.3	6.0	100.0	7,804
information available	3.5	78.5	13.3	4.7	100.0	2,160
Wealth quintile						
Lowest	4.0	78.4	13.9	3.7	100.0	2,698
Second	3.8	77.0	14.5	4.7	100.0	2,540
Middle	3.2	77.2	14.3	5.3	100.0	2,284
Fourth	2.5	74.6	15.6	7.3	100.0	2,124
Highest	2.7	72.3	16.9	8.1	100.0	2,191
Total	3.3	76.1	15.0	5.7	100.0	11,837

Note: Table is based on adolescents who stayed in the household the night before the interview.

Table 14.4.2 Nutritional status of never-married female youth and young adults by background characteristics Percentage with specific BMI levels among never-married females age 10-19 by background characteristics, Egypt 2005

		Percentage	of females			
Background characteristic	Underweight (<5 <sup>th</sup> percentile)	Normal (5 <sup>th</sup> -85 <sup>th</sup> percentile)	At risk of overweight (85 <sup>th</sup> -<95 <sup>th</sup> percentile)	Overweight (≥95 <sup>th</sup> percentile)	Total percent	Number of females
Age						_
10-11	3.4	70.9	16.8	9.0	100.0	2,189
12-13	2.2	66.8	22.6	8.3	100.0	2,140
14-15	1.3	67.5	23.8	7.4	100.0	2,342
16-17	1.1	68.4	23.4	7.1	100.0	2,372
18-19	0.5	67.2	25.9	6.4	100.0	1,948
Mother's age						
< 30	2.9	71.7	16.1	9.3	100.0	206
30-34	2.8	71.2	19.4	6.6	100.0	1,313
35-49	1.6	67.1	23.4	8.0	100.0	7,605
50+	1.0	70.7	19.8	8.5	100.0	870
Mother not in household/no	4.6	60.0	22.4	= 4	400.0	006
information available	1.6	69.9	23.4	5.1	100.0	996
Urban-rural residence						
Urban	1.4	67.0	23.4	8.3	100.0	4,389
Rural	1.9	69.0	21.9	7.2	100.0	6,601
Place of residence						
Urban Governorates	1.4	70.2	20.5	7.9	100.0	1,733
Lower Egypt	1.3	62.5	27.5	8.8	100.0	4,498
Urban	1.2	57.8	31.6	9.4	100.0	1,164
Rural	1.3	64.1	26.0	8.6	100.0	3,334
Upper Egypt	2.3	73.2	18.0	6.5	100.0	4,622
Urban	1.5	71.1	19.2	8.2	100.0	1,411
Rural	2.6	74.1	17.5	5.8	100.0	3,211
Frontier Governorates	1.1	60.9	34.8	3.2	100.0	136
Mother's education <sup>1</sup>						
No education	1.8	69.4	22.0	6.8	100.0	4,865
Some primary Primary complete/Some	2.3	69.6	21.6	6.4	100.0	1,528
secondary	1.1	67.2	22.1	9.6	100.0	1,149
Secondary complete/higher Mother not in household/no	1.4	64.7	23.8	10.1	100.0	2,452
information available	1.6	69.9	23.4	5.1	100.0	996
Work status		c= -	00.5	0.5	100 -	
Working for cash	1.5	67.3	23.3	8.0	100.0	1,843
Not working for cash Mother not in household/no	1.8	67.9	22.5	7.8	100.0	7,221
information available	1.3	70.2	21.8	6.7	100.0	1,926
Wealth quintile						_
Lowest	2.2	74.4	17.0	6.4	100.0	2,451
Second	2.0	69.0	22.8	6.2	100.0	2,315
Middle	1.7	68.3	22.9	7.1	100.0	2,143
Fourth	1.4	62.7	26.2	9.7 9.3	100.0	2,008
Highest	1.0	65.2	24.6	9.3	100.0	2,072
Total	1.7	68.2	22.5	7.6	100.0	10,990

Note: Table is based on adolescents who stayed in the household the night before the interview.

The proportions of both males and female classified in the overweight and at risk of overweight categories are higher among urban residents, especially those living in urban areas in Lower Egypt, and among residents of the Frontier Governorates. These proportions also increase with mother's education status and with wealth quintiles. For example, 34 percent of adolescent females in the highest wealth quintile are overweight or at risk of being overweight compared to 23 percent of adolescent females in the lowest wealth quintile.

#### 14.4 **NUTRITIONAL STATUS OF WOMEN**

The height and weight data collected for ever-married women 15-49 can be used to assess their nutritional status. Table 14.5 shows the distribution of women according to height, weight, and body mass (BMI) along with the means for these indicators. The BMI index used for classifying women is calculated from information on height and weight in the same manner as the index is calculated for adolescents. However, the cutoffs defining women's status do not vary with the woman's age. For the BMI, a cutoff of 18.5 has been recommended for assessing chronic energy deficiency among nonpregnant women. At the other end of the BMI scale, women are considered overweight if their BMI ranges between 25.0 and 29.9 and obese if their BMI exceeds 30.0.

In looking at the results in Table 14.5, it is important to recognize that the anthropometric data are not representative of all women age 15-49 in Egypt. In particular, the results do not include information for women age 15-49 who were not married. Women who were pregnant or less than two months postpartum were also excluded from the analysis of women's weight and body mass. Finally, maternal anthropometric measures are not available for 219 eligible women (0.9 percent of the sample) who were not home when the EDHS staff visited the household to collect the anthropometric measures.

Maternal height is an outcome of nutrition during childhood and adolescence. It is useful in predicting the risk of difficult delivery, since small stature is frequently associated with small pelvis size. The risk of low birth weight babies is also higher for short women. The cutoff point, i.e., the height below which a woman is considered to be at nutritional risk, is defined as 145 centimeters. The mean height of mothers measured in the 2005 EDHS was 159 centimeters. One percent of women were shorter than 145 centimeters and, thus, classified as at nutritional risk.

As Table 14.5 shows, excluding those who are pregnant or less than two months postpartum, the mean BMI of ever-married

Table 14.5 Anthropometric indicators of nutritional status of adult women

Percent distribution of ever-married women 15-49 interviewed in the survey by selected anthropometric indicators, Egypt 2005

-	
Anthropometric	
indicators	Total
Height's in centimeters	
130.0-134.9	0.0
135.0-139.9	0.1
140.0-144.9	0.7
145.0-149.9	5.5
150.0-154.9	18.0
155.0-159.9	34.8
160.0-164.9	27.3
165.0-169.9	11.3
170.0-174.9	1.8
	0.3
175.0-179.9	
≥180.0	0.1
Total percent	100.0
Number of women	19,308
	158.8
Mean height	130.0
Weight in kilograms <sup>1</sup>	
Mean	75.9
Standard deviation	15.7
35.0-39.9	0.1
40.0-49.9	2.6
50.0-59.9	12.9
60.0-69.9	23.8
≥70.0	60.6
Total percent	100.0
Number of women	1 <i>7,</i> 175
Mean	, 75.9
BMI <sup>1</sup>	
Thin	
	0.1
12.0-15.9 (Severely)	0.1
16.0-16.9 (Moderately)	0.0
17.0-18.4 (Mildly)	0.4
Normal	0.4
18.5-20.4 (Normal)	2.1
20.5-22.9 (Normal)	7.3
23.0-24.9 (Normal)	10.4
Overweight	
25.0-26.9	13.2
27.0-28.9	13.2
29.0-29.9	6.7
Obese	
≥30.0 (Obese)	46.6
Total percent	100.0
Number of women	1 <i>7,</i> 169
Mean	30.1
<sup>1</sup> Excludes pregnant women	and women

<sup>&</sup>lt;sup>1</sup> Excludes pregnant women and women with a birth in the preceding 2 months

women in the reproductive ages is 30.1. The majority of women have a BMI of 25.0 or higher and are considered overweight (33 percent) or obese (47 percent). Less than one percent of women have a BMI below 18.5, the level indicating chronic energy deficiency.

Differentials in the maternal height and body mass measures for ever-married women in Egypt are shown in Table 14.6. There is little variation in women's mean height. The proportions classified as obese rise directly with age, from a level of 12 percent among ever-married women age 15-19 to nearly 70 percent among women in the 45-49 age group. Urban women are more likely to be classified as obese than rural women, and the percentage classified as obese ranges from 28 percent in rural Upper Egypt to 62 percent in the Frontier Governorates. Women in the highest wealth quintile are almost twice as likely as women in the lowest quintile to be obese.

Table 14.6 Nutritional status of ever-married women by background characteristics

Mean height and percentage under 145 cm among ever-married women 15-49 and mean body mass index (BMI), and percentage with specific BMI levels among ever-married women who were not pregnant and had not given birth within two of the interview, by background characteristics, Egypt

		Height							$(kg/m^2)^1$				
Background characteristic	Mean height in cm	Percent- age below 145 cm	Number of women	Mean BMI	18.5- 24.9 (normal)	<18.5 (thin)	17.0- 18.4 (mildly thin)	16.0- 16.9 (moder- ately thin)	<16.0 (severely thin)	≥25.0 (over- weight or obese)	25.0- 29.9 (over- weight)	≥30.0 (obese)	Number of women
Age													
15-19	157.9	0.9	797	25.4	48.5	1.1	1.1	0.0	0.0	50.4	38.4	12.1	495
20-24	158.7	0.6	2,942	26.8	38.9	0.7	0.7	0.0	0.0	60.3	37.6	22.7	2,222
25-29	159.0	0.6	3,753	28.0	27.6	0.7	0.5	0.0	0.2	71.7	40.5	31.2	3,093
30-34	159.2	0.7	3,181	29.7	17.6	0.6	0.5	0.1	0.0	81.8	37.8	44.0	2,886
35-39	159.0	0.7	3,157	30.8	14.0	0.3	0.3	0.0	0.0	85.7	32.7	53.0	3,037
40-44	158.4	1.3	2,841	32.3	10.6	0.2	0.2	0.0	0.0	89.2	26.0	63.2	2,799
45-49	158.4	1.1	2,637	33.3	7.4	0.2	0.2	0.1	0.0	92.4	23.5	68.9	2,637
Urban-rural residence													
Urban	158.9	0.7	7,937	31.4	12.8	0.4	0.3	0.0	0.0	86.8	31.6	55.2	7,158
Rural	158.7	0.9	11,371	29.1	24.7	0.5	0.4	0.0	0.1	74.8	34.4	40.4	10,013
Place of residence													
Urban Governorates	159.2	0.7	3,251	32.3	11.3	0.3	0.3	0.0	0.0	88.4	28.9	59.5	2,949
Lower Egypt	159.9	0.5	8,354	30.6	14.8	0.2	0.2	0.0	0.0	85.0	32.9	52.1	7,456
Urban	159.9	0.3	2,174	31.2	10.2	0.2	0.2	0.0	0.0	89.6	33.2	56.4	1,959
Rural	159.8	0.6	6,181	30.4	16.4	0.2	0.2	0.0	0.0	83.4	32.8	50.6	5,496
Upper Egypt	157.3	1.3	7,485	28.5	29.4	0.9	0.6	0.1	0.1	69.7	35.7	34.0	6,580
Urban	157.5	1.1	2,383	30.4	17.5	0.7	0.5	0.2	0.1	81.8	34.2	47.5	2,138
Rural	157.2	1.3	5,102	27.5	35.2	0.9	0.7	0.1	0.2	63.9	36.4	27.5	4,442
Frontier Governorates	159.9	0.1	217	32.0	9.0	0.0	0.0	0.0	0.0	91.0	28.7	62.2	186
Education													
No education	158.0	1.1	6,692	29.7	23.1	0.5	0.4	0.0	0.1	76.4	31.9	44.5	6,142
Some primary Primary complete/	158.0	1.3	2,190	30.9	17.2	0.7	0.5	0.0	0.1	82.1	31.6	50.5	2,047
some secondary Secondary complete/	158.8	0.9	2,701	30.2	21.0	0.6	0.6	0.0	0.0	78.4	32.7	45.7	2,358
higher	159.6	0.4	7,726	30.2	16.9	0.4	0.3	0.0	0.0	82.7	35.1	47.6	6,623
Work status													
Working for cash	159.4	0.6	3,248	30.9	12.9	0.3	0.3	0.0	0.1	86.7	31.8	54.9	3,034
Not working for cash	158.7	0.9	16,060	29.9	21.2	0.5	0.4	0.0	0.1	78.3	33.5	44.8	14,136
Wealth quintile													
Lowest	157.5	1.3	3,548	27.9	33.9	1.1	1.0	0.0	0.1	65.0	33.1	31.8	3,153
Second	158.4	1.0	3,742	29.2	23.2	0.6	0.4	0.1	0.1	76.2	36.9	39.3	3,316
Middle	158.8	0.9	3,905	30.1	19.1	0.4	0.3	0.0	0.0	80.5	33.5	47.0	3,444
Fourth	159.2	0.6	4,098	31.1	14.1	0.1	0.1	0.0	0.0	85.7	31.3	54.4	3,602
Highest	159.8	0.5	4,015	31.7	10.4	0.3	0.2	0.1	0.0	89.3	31.6	57.8	3,654
Total	158.8	0.8	19,308	30.1	19.7	0.5	0.4	0.0	0.1	79.8	33.2	46.6	17,169

Note: The body mass index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m²). <sup>1</sup> Excludes pregnant women and women with a birth in the preceding 2 months

#### 14.5 PREVALENCE OF ANEMIA

Anemia is a condition characterized by a decrease in the concentration of hemoglobin in the blood. Hemoglobin is necessary for transporting oxygen to tissues and organs in the body. The reduction in oxygen available to organs and tissues when hemoglobin levels are low is responsible for many of the symptoms experienced by anemic persons. The consequences of anemia include general body weakness, frequent tiredness, and lowered resistance to disease. Anemia can be a particularly serious problem for pregnant women, leading to premature delivery and low birth weight. It is of concern in children since anemia is associated with impaired mental and physical development. Overall, morbidity and mortality risks increase for individuals suffering from anemia.

Anemia is classified as mild, moderate, or severe based on the concentrations of hemoglobin in the blood. The cutoffs values used in defining each of these levels vary according to age and, for evermarried women, pregnancy status. The following summarizes the cutoffs used in the analysis of the anemia data:

	<b>Mild</b> (g/dl)	Moderate (g/dl)	Severe (g/dl)	<b>Any</b> (g/dl)
Children age 6-59 months	10.0-10.9	7.0-9.9	< 7.0	<11.0
Ever-married women age 15-49				
Not pregnant	10.0-11.9	7.0-9.9	< 7.0	<12.0
Pregnant	10.0-10.9	7.0-9.9	< 7.0	<11.0
Never-married youth and young adults				
Girls				
Age 10-11	10.5-11.4	7.5-10.4	< 7.5	<11.5
Age 12-19	10.0-11.9	7.0-9.9	< 7.0	<12.0
Boys				
Age 10-11	10.5-11.4	7.5-10.4	< 7.5	<11.5
Age 12-14	10.0-11.9	7.0-9.9	< 7.0	<12.0
Age 15-19	12.0-12.9	9.0-11.9	< 9.0	<13.0

# **Prevalence of Anemia among Young Children**

Tables 14.7 and 14.8 present anemia levels for children 6-59 months by selected background characteristics. Overall, about one in two children suffer from some degree of anemia. A very small proportion (less than one percent) is classified as having severe anemia. However, around one in five children are moderately anemic.

Table 14.7 Prevalence of anemia in children by child's characteristics

Percentage of children age 6 to 59 months classified as having anemia, by background characteristics relating to the child, Egypt 2005

Background characteristic	Mild	Moderate	Carrana	Any	Number of children
-	Mila	Moderate	Severe	anemia	chilaren
Child's age					
Under 6 months	31.1	29.2	0.0	60.3	290
6-9	28.6	37.8	0.5	66.9	131
10-11	26.8	32.5	0.2	59.4	447
12-17	31.5	22.6	0.3	54.4	398
18-23	28.4	19.7	0.4	48.5	792
24-35	25.1	15.8	0.4	41.3	864
36-47	27.0	13.3	0.2	40.5	836
48-59					
Sex	26.0	20.1	0.2	46.3	1,904
Male	29.4	21.1	0.4	50.9	1,855
Female					,
Birth order					
1	26.2	20.6	0.4	47.2	1,094
2-3	27.6	21.2	0.3	49.1	1,670
4-5	30.0	20.5	0.1	50.6	609
6+	27.7	19.5	0.2	47.5	344
Birth interval in months					
First birth <sup>1</sup>	26.0	21.0	0.4	47.4	1,112
Under 24 months	29.9	24.4	0.4	54.7	552
24-47	27.1	20.4	0.3	47.8	1,363
48+	29.4	18.1	0.0	47.6	691
Mother's interview status					
Mother interviewed	27.6	20.8	0.3	48.6	3,718
Mother not interviewed <sup>2</sup>	(35.5)	(3.8)	(0.0)	(39.4)	41
Total	27.7	20.6	0.3	48.5	3,759

Note: Table is based on children who stayed in the household the night before the interview. The cutoffs for specific anemia levels are: mild: 10.0-10.9 g/dl; moderate: 7.0-9.9 g/dl; severe: <7.0 g/dl; any: <11.0 g/dl

<sup>&</sup>lt;sup>1</sup> First-born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval.

<sup>&</sup>lt;sup>2</sup> Includes children whose mothers are deceased.

Table 14.8 Prevalence of anemia in children by background characteristics

Percentage of children age 6 to 59 months classified as having anemia, by selected background characteristics of the mother, Egypt 2005, and trends in percentage of children classified as having anemia, Egypt 2000 and 2005

Background characteristic	Mild	Moderate	Severe	Any anemia	Number of children
Mother's age <sup>1</sup>					
15-19	29.2	36.5	0.1	65.9	101
20-24	29.2	24.8	0.8	54.7	861
25-29	27.1	19.7	0.2	47.0	1,262
30-34	26.0	20.3	0.0	46.3	793
35-49	27.7	15.9	0.2	43.8	713
Urban-rural residence					
Urban	28.5	15.1	0.1	43.7	1,380
Rural	27.2	23.7	0.4	51.3	2,379
Place of residence					
Urban Governorates	30.8	11.7	0.2	42.7	528
Lower Egypt	22.6	20.3	0.1	43.0	1,470
Urban	22.9	15.5	0.0	38.4	351
Rural	22.5	21.8	0.1	44.4	1,119
Upper Egypt	31.2	23.6	0.5	55.3	1,714
Urban	30.6	18.7	0.0	49.3	471
Rural	31.4	25.5	0.6	57.6	1,242
Frontier Governorates	24.5	17.9	0.7	43.1	47
Mother's education <sup>1</sup>					
No education	30.3	24.8	0.4	55.5	1,221
Some primary	26.3	20.4	0.0	46.7	310
Primary complete/some	20.2	20.6	0.2	F1.0	F20
secondary	30.2	20.6	0.2	51.0	539
Secondary complete/ higher	24.8	17.8	0.3	43.0	1,661
Work status <sup>2</sup>	20.2	147	0.4	42.2	452
Working for cash	28.2	14.7	0.4	43.3	453
Not working for cash	27.5	21.6	0.3	49.4	3,265
Wealth quintile		0= 0			
Lowest	29.5	25.3	0.4	55.2	792
Second	30.3	25.1	0.4	55.8	741
Middle	26.6	21.4	0.6	48.6	797
Fourth	26.6	18.4	0.0	44.9	748
Highest	25.2	11.6	0.0	36.9	682
Total 2005 EDHS	27.7	20.6	0.3	48.5	3,759
Total 2000 EDHS	18.8	11.3	0.2	30.3	4,045

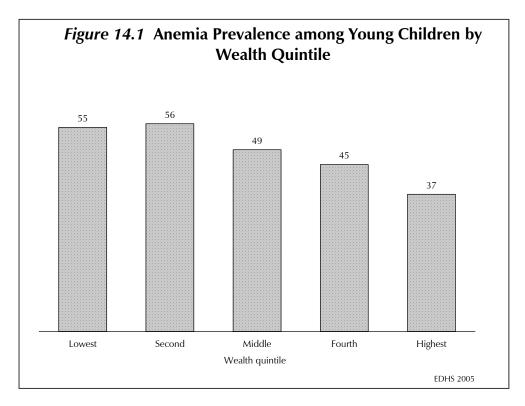
Note: Table is based on children who stayed in the household the night before the interview. The cutoffs for specific anemia levels are: mild: 10.0-10.9 g/dl; moderate: 7.0-9.9 g/dl; severe: < 7.0 g/dl; any: <11.0 g/dl

Table 14.1 shows that children under age two were more likely to be anemic than older children. Female children are slightly more likely than males to be anemic. Short birth intervals (less than 24 months) are also associated with a higher than average likelihood of being anemic. According to the results in Table 14.8, rural children are more likely to be anemic than urban children (51 percent and 44 percent, respectively). Considering place of residence, children in rural Upper Egypt have the highest anemia levels (58 percent), and children in urban Lower Egypt have the lowest levels (38 percent). Looking at the mother's education level, children whose mothers never attended school have the highest anemia level and children whose mothers completed at least secondary school have the lowest level (56 and 43 percent, respectively). Slightly more than one-third of children in the highest wealth quintile are anemic compared to more than half of children in the two lowest wealth quintiles (Figure 14.1).

<sup>&</sup>lt;sup>1</sup> For women who were not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers were not listed in the Household Ouestionnaire.

<sup>&</sup>lt;sup>2</sup> Excludes children whose mothers were not interviewed.

Information on anemia levels also was obtained in the 2005 EDHS, allowing for an assessment of the trend in the prevalence of anemia among young children since 2000. Table 14.8 shows that the level of anemia among children age 6-59 months was much higher in 2005 than in 2000 (49 percent and 30 percent, respectively). Changes are evident between the two surveys in the prevalence of both mild and moderate anemia; however, in both surveys, less than one percent of children were found to be severely anemic.



# Prevalence of Anemia among Never-Married Youth and Young Adults

Tables 14.9.1 and 14.9.2 show the level of anemia among never-married adolescents age 10-19. Overall, around one-quarter of males age 10-19 and one-third of females age 10-19 are anemic. Most were considered to be mildly anemic, with six percent of males and five percent of females classified as moderately anemic.

Anemia levels among males age 11-19 generally increase with age although there is a drop in the rate among males age 18-19. The age differentials for females are less marked than for males, with the level peaking among females age 12-15. Anemia levels are higher among rural than urban residents, especially among males. For both sexes, the levels generally declined with both the mother's education and the wealth quintile. The decline across wealth quintiles is especially notable for males, with the rate for those in the highest quintile less than half the level for those in the lowest quintile.

Tables 14.9.1 and 14.9.2 also show include information on the levels of anemia found among youth and young adults age 11-19 at the time of the 2000 EDHS and the 2005 EDHS. The results indicate that there was little change between the two surveys in the proportions of male youth and young adults classified as anemic. On the other hand, the level of anemia among female youth and young adults increased between the two surveys from 28 percent top 36 percent. Almost all of the change was due to an increase in the proportion of girls who are mildly anemic.

Table 14.9.1 Prevalence of anemia in never-married male youth and young adults by background characteristics

Percentage of never-married males age 10-19 classified as having anemia, by selected background characteristics, Egypt 2005, and trends in the percentage of never-married males age 11-19 classified as having anemia, Egypt 2000 and 2005

Background characteristic	Mild	Moderate	Severe	Any anemia	Number of males
Age					
10-11	14.2	4.4	0.1	18.7	764
12-13	25.2	2.6	0.0	27.8	709
14-15	21.7	7.0	0.5	29.3	821
16-17	21.7	11.0	0.2	32.9	815
18-19	12.6	5.4	0.2	18.2	762
Mother's age <sup>1</sup>					
< 30	12.7	0.0	0.3	13.0	62
30-34	19.7	5.7	0.0	25.4	513
35-49	19.2	6.6	0.3	26.0	2,675
50+	23.2	5.1	0.0	28.3	299
Mother not in household/no					
information available	14.7	6.2	0.5	21.4	322
Urban-rural residence					
Urban	14.8	3.6	0.2	18.7	1,492
Rural	21.7	7.8	0.2	29.7	2,380
Place of residence					
Urban Governorates	15.9	4.4	0.0	20.2	581
Lower Egypt	18.0	4.4	0.0	22.4	1,587
Urban	10.4	2.9	0.0	13.2	419
Rural	20.7	5.0	0.0	25.7	1,167
Upper Egypt	21.4	8.4	0.5	30.2	1,656
Urban	17.6	2.9	0.7	21.3	465
Rural	22.8	10.5	0.4	33.7	1,191
Frontier Governorates	14.8	12.8	0.4	28.0	48
Mother's education <sup>1</sup>					
No education	22.5	6.7	0.3	29.6	1,752
Some primary	20.0	8.0	0.3	28.3	566
Primary complete/some secondary	16.3	6.7	0.0	23.0	378
Secondary complete/higher	14.2	3.7	0.0	17.9	853
Mother not in household/no					
information available	14.7	6.2	0.5	21.4	322
Work status					
Working for cash	18.2	5.1	0.0	23.3	652
Not working for cash	19.4	6.6	0.3	26.3	2,582
Mother not in household/no information available	18.6	5.5	0.3	24.4	639
	10.0	5.5	0.3	24.4	039
Wealth quintile	22.0	10.4	0.2	24.5	000
Lowest	23.9	10.4	0.2	34.5	888
Second	21.2	6.9	0.6	28.7	811
Middle	19.2	5.9	0.2	25.3	767 733
Fourth	15.9	4.2	0.0	20.2	723
Highest	13.3	2.3	0.0	15.7	683
Total age 10-19 2005 EDHS	19.1	6.2	0.2	25.5	3,872
Total age 11-19 2005 EDHS	19.1	6.3	0.2	26.0	3,481
Total age 11-19 2000 EDHS	18.9	7.5	0.1	26.6	4,848
10th age 11-13 2000 ED113	10.9	/.J	0.1	۷۰.0	7,040

Note: Table is based on male adolescents who stayed in the household the night before the interview. The cutoffs for anemia levels for male youth and young adults vary by age as follows:: (1) 10-11 years: mild 10.5-11.4 g/dl; moderate 7.5-10.4 g/dl; severe <7.5 g/dl; any <11.5 g/dl (2) 12-14 years:: mild 10.0-11.9 g/dl; moderate 7.0-9.9 g/dl; severe <7.0 g/dl; any <12.0 g/dl (3) 15-19 years: mild 12.0-12.9 g/dl; moderate 9.0-11.9 g/dl; severe <9.0 g/dl; 30 g/dl.

<sup>1</sup> For women who are not interviewed, information is taken from the Household Questionnaire.

Table 14.9.2 Prevalence of anemia in never-married female youth and young adults by background characteristics

Percentage of never-married females age 10-19 classified as having anemia, by selected background characteristics, Egypt 2005, and trends in percentage of never-married females age 11-19 classified as having anemia, Egypt 2000 and 2005

Background characteristic	Mild	Moderate	Severe	Any anemia	Number of females
Age					
10-11	19.7	8.3	0.0	28.0	734
12-13	31.8	5.2	0.0	37.0	694
14-15	33.5	3.7	0.0	37.2	756
16-17	30.9	4.1	0.4	35.4	760
18-19	31.8	3.5	0.3	35.6	621
Mother's age <sup>1</sup>					
< 30	29.6	4.2	0.0	33.8	70
30-34	21.1	8.3	0.0	29.4	439
35-49	30.3	4.7	0.2	35.1	2,491
50+	33.7	4.1	0.0	37.8	263
Mother not in household/no	24.0	2.0	0.0	0= 4	202
information available	31.3	3.8	0.0	35.1	303
Urban-rural residence	20.0	0.6	0.4	22.0	1 2 1 5
Urban	29.2	3.6	0.1	32.9	1,346
Rural	29.6	5.8	0.2	35.6	2,219
Place of residence					
Urban Governorates	27.1	3.8	0.3	31.2	505
Lower Egypt	31.9	3.5	0.1	35.5	1,503
Urban	33.8	0.8	0.0	34.6	365
Rural	31.3	4.3	0.1	35.8	1,138
Upper Egypt Urban	27.2 26.4	6.8 5.5	0.1 0.0	34.1 32.0	1,509 452
Rural	27.6	7.3	0.0	35.1	1,057
Frontier Governorates	48.4	7.5 7.6	0.0	56.0	49
Mother's education <sup>1</sup>					
No education	28.9	6.0	0.1	35.0	1,519
Some primary	32.2	4.7	0.3	37.2	511
Primary complete/some secondary	26.7	6.0	0.4	33.1	389
Secondary complete/higher	29.5	3.3	0.0	32.7	844
Mother not in household/no					
information available	31.3	3.8	0.0	35.1	303
Work status					
Working for cash	34.4	4.7	0.2	39.3	624
Not working for cash	27.4	5.3	0.1	32.9	2,360
Mother not in household/no					
information available	32.5	3.9	0.0	36.4	581
Wealth quintile					
Lowest	33.5	6.1	0.0	39.6	818
Second	28.5	5.9	0.5	34.9	716
Middle	27.9	5.6	0.2	33.7	693
Fourth	27.1	3.7	0.0	30.8	686
Highest	29.6	3.2	0.0	32.9	653
Total age 10-19 2005 EDHS	20.5	5.0	0.1	246	2.566
Total age 10-19 2005 EDHS Total age 11-19 2005 EDHS	29.5	5.0 4.6	0.1	34.6	3,566
Total age 11-19 2003 EDHS Total age 11-19 2000 EDHS	30.8 24.1	3.2	0.2	35.6 27.5	3,169 4,402
	∠ <del>1</del> .1	3.4	0.1	4/.3	7,704

Note: Table is based on female adolescents who stayed in the household the night before the interview. The cutoffs for anemia levels for female youth and young adults vary by age as follows: (1) 10-11 years: mild 10.5-11.4 g/dl; moderate 7.5-10.4 g/dl; severe <7.5 g/dl; any <11.5 g/dl (2) 12-19 years: mild 10.0-11.9 g/dl; moderate 7.0-9.9 g/dl; severe <7.0 g/dl; any <12.0 g/dl.

For women who are not interviewed, information is taken from the Household Questionnaire.

# Prevalence of Anemia among Ever-Married Women age 15-49

Table 14.10 shows anemia levels among the ever-married women 15-49 interviewed in the 2005 EDHS. Around four in ten women had some degree of anemia. The level of anemia was severe in less than one percent of the women, while seven percent were moderately anemic.

Pregnant women who provide the developing fetus with iron are at greater risk of anemia than nonpregnant women. Anemia during pregnancy increases the risks of maternal and infant death, premature delivery, and low birth weight. Table 14.10 shows anemia levels were highest for breastfeeding mothers and lowest for women pregnant at the time of the survey.

Studies also suggest that IUD use can lead to iron depletion and iron deficiency anemia. There is an association between IUD use and anemia among Egyptian women; 43 percent of IUD users were at least mildly anemic compared to 37 percent of other women.

The other differentials presented in Table 14.10 are generally modest. The largest differences are observed by place of residence, with the prevalence of anemia varying from a low of 35 percent among women living in urban Lower Egypt to a high of 47 percent among women from the Frontier Governorates.

Table 14.10 also compares the prevalence of anemia among women age 15-49 at the time of the 2000 EDHS and the 2005 EDHS. Anemia levels rose from 28 percent in 2000 to 39 percent in 2005. Almost all of the change in anemia prevalence during the period between the two surveys was due to an increase in the percentage of women who were mildly anemic.

Table 14.10 Prevalence of anemia in ever-married women by background characteristics

Percentage of ever-married women age 15-49 classified as having anemia, by selected background characteristics, Egypt 2005, and trends in the percentages of ever-married women age 15-49 classified as having anemia, Egypt 2000 and 2005

Background characteristic	Mild	Moderate	Severe	Any anemia	Number of women
Age					
15-19	36.3	8.6	0.0	44.9	281
20-24	33.7	6.5	0.3	40.5	949
25-29	33.3	6.2	0.2	39.7	1,197
30-34	31.9	6.8	0.4	39.0	1,048
35-39	30.7	7.6	0.2	38.5	1,031
40-44	34.6	5.6	0.4	40.5	911
45-49	30.6	5.4	0.3	36.3	873
Children ever born					
None	27.1	6.8	0.0	33.9	618
1	35.2	7.4	0.6	43.2	873
2-3	33.6	6.3	0.2	40.1	2,564
4-5	32.8	5.7	0.3	38.8	1,400
6+	31.0	7.1	0.2	38.3	835
Maternity status					
Pregnant	19.7	14.2	0.3	34.2	596
Breastfeeding (not pregnant)	38.4	5.1	0.2	43.6	1,326
Neither	32.7	5.8	0.3	38.8	4,367
Using IUD					
Yes	36.7	6.3	0.2	43.2	2,150
No	30.6	6.6	0.3	37.4	4,139
Urban-rural residence					
Urban	34.1	5.5	0.2	39.7	2,620
Rural	31.7	7.2	0.3	39.2	3,669
Place of residence					
Urban Governorates	34.5	5.6	0.1	40.1	1,037
Lower Egypt	29.7	6.1	0.3	36.1	2,733
Urban	31.0	3.7	0.0	34.7	737
Rural	29.2	7.0	0.4	36.6	1,997
Upper Egypt	35.0	7.2	0.3	42.6	2,446
Urban	36.0	7.1	0.4	43.4	802
Rural	34.6	7.3	0.2	42.1	1,643
Frontier Governorates	39.0	7.8	0.4	47.2	73
Education					
No education	32.7	7.5	0.2	40.5	2,156
Some primary	32.9	7.1	0.4	40.4	708
Primary complete/some secondary	30.0	6.8	0.5	37.3	874
Secondary complete/higher	33.4	5.3	0.2	38.9	2,551
Work status					
Working for cash	35.0	4.3	0.2	39.6	1,065
Not working for cash	32.2	6.9	0.3	39.4	5,224
Wealth quintile					,
Lowest	32.6	7.8	0.7	41.0	1,171
Second	32.9	7.7	0.2	40.8	1,151
Middle	31.1	6.5	0.1	37.7	1,264
Fourth	33.9	6.6	0.2	40.7	1,378
Highest	32.7	4.0	0.2	37.0	1,325
	22.7	<i>C</i> <b>F</b>	0.3		
Total 2005 EDHS Total 2000 EDHS	32.7	6.5	0.3	39.4	6,289
10tai 2000 EDFIS	22.7	4.6	0.3	27.7	7,575

Note: Table is based on women who stayed in the household the night before the interview. The cutoffs for anemia levels vary by pregnancy status as follows: (1) non-pregnant: mild 10.0-11.9 g/dl; moderate 7.0-9.9 g/dl; severe <7.0 g/dl; any <12.0 g/dl (2) pregnant: mild 10.0-10.9 g/dl; moderate 7.0-9.9 g/dl; severe <7.0 g/dl; any <11.0 g/dl.

# **KNOWLEDGE OF INFECTIOUS DISEASES** AND OTHER HEALTH ISSUES

The 2005 EDHS included questions to ascertain women's knowledge about HIV/AIDS and hepatitis C. The survey also elicited information relating to knowledge about other sexually transmitted diseases, tuberculosis, injection safety and the dangers of exposure to second-hand smoke. IEC efforts are being directed at increasing awareness of these issues, and the EDHS data will be useful in shaping these initiatives. The chapter also presents information obtained in the survey on other health issues including the barriers women may be experiencing in obtaining health care for themselves and on the coverage of health insurance.

#### 15.1 **HIV/AIDS K**NOWLEDGE AND ATTITUDES

Acquired immunodeficiency syndrome (AIDS) is one of the most serious public health and development challenges facing the world today. Although the rate of HIV infection is low in Egypt, there is a need to educate Egyptians about the disease. The 2005 EDHS collected information to assess the prevalence of knowledge of modes of HIV/AIDS transmission and prevention and attitudes towards persons living with AIDS.

# **Knowledge of HIV/AIDS**

To obtain information on the extent of HIV/AIDS knowledge, EDHS respondents were asked a general question about whether they had heard of the illness. Those who knew about HIV/AIDS were asked additional questions about modes of prevention including whether it is possible to reduce the chance of getting the AIDS virus by having just one faithful sexual partner, using a condom at every sexual encounter, and abstaining from sex. To get at possible misconceptions, respondents also were asked whether they think it is possible for a healthy-looking person to have the AIDS virus and whether a person can get AIDS from mosquito bites or sharing food with a person who has AIDS. The responses to these questions are used to assess the extent to which EDHS respondents have comprehensive knowledge of HIV/AIDS. Comprehensive knowledge of HIV/AIDS is defined as: 1) knowing that both condom use and limiting sex partners to one uninfected partner are HIV prevention methods, 2) being aware that a healthy-looking person can have HIV, and 3) rejecting the two common local misconceptions—that HIV/AIDS can be transmitted through mosquito bites and by sharing food.

Table 15.1 shows that more than eight in ten ever-married women age 15-49 in Egypt have heard about HIV/AIDS. The proportions aware of HIV/AIDS are lowest for women living in rural areas, especially in Upper Egypt, women with no education, and women in the lowest wealth quintile.

Although many women have a basic knowledge of AIDS, the proportions aware of ways in which the risk of infection can be reduced are generally low. Women are most likely to see limiting sex to one uninfected partner as a means of reducing the risk of transmission (63 percent) and least likely to agree that consistent use of condoms would reduce the chances of infection (26 percent). More than half of the women are unaware that a healthy-looking person can have AIDS, and less than half know that the AIDS virus cannot be transmitted through mosquito bites (47 percent) or through sharing food with an infected person (43 percent).

Table 15.1 Knowledge of AIDS by background characteristics

Percentage of ever-married women who have heard of AIDS, percentage who responded to prompted questions by saying that people can reduce the risk of getting the AIDS virus by using condom, by having sex with just one uninfected, faithful partner, and by abstaining from sex, percentage who responded to prompted questions by saying that a healthy-looking person can have the AIDS virus, percentage who know the AIDS virus cannot be transmitted by mosquito bites or sharing food with an infected person, and percentage with comprehensive knowledge about AIDS by background characteristics, Egypt

				people can the AIDS viru			know th	age who he AIDS	Percentage who reject		
	Percent-	Using a	Limiting	Abstaining	By using a condom and having	Percent- age who know a healthy-		innot be itted by: Sharing	two common miscon- ceptions and know that a	Percentage	
	age who	condom	sex to	from	one unin-	looking		food with	n healthy	hensive	
	have	every	one unin-		fected	person		an	person can	knowledge	
Background	heard of	time they		inter-	faithful		Mosquito	infected	have the	about	of
characteristic	AIDS	have sex	partner	course	partner	AIDS	bites	person	AIDS virus	AIDS <sup>1</sup>	women
Age											
15-19	78.4	17.7	55.6	34.6	15.3	42.2	35.3	28.1	10.5	2.6	803
20-24	85.1	23.5	64.2	42.8	20.8	48.1	45.3	39.0	16.6	4.8	2,968
25-29	88.5	28.9	67.2	47.0	25.9	50.6	51.9	49.0	22.9	7.2	3,785
30-34	87.9	27.9	67.9	48.5	25.8	49.8	51.5	48.3	21.9	7.4	3,209
35-39	84.1	27.4	62.4	47.1	25.1	45.8	46.7	42.7	18.4	5.8	3,191
40-44	81.8	28.0	61.2	45.4	25.6	46.4	46.3	43.9	19.6	6.7	2,859
45-49	78.6	23.9	56.0	43.3	21.5	44.1	41.2	36.0	16.4	4.8	2,659
Urban-rural residence											
Urban	94.2	33.1	74.4	53.5	30.3	53.6	60.4	57.5	26.2	9.1	8,033
Rural	77.6	21.7	55.3	39.6	19.4	43.1	37.6	32.7	14.2	4.0	11,441
Place of residence	•	-	-	=	*	•	-	•	•		,
	96.1	34.3	75.0	51.3	31.2	54.4	63.5	62.9	28.0	10.2	3,293
Urban Governorates		34.3 30.5							28.0 21.3		
Lower Egypt	87.0		68.6	50.1	28.1	52.7	46.8	43.0		6.9	8,410
Urban Pural	95.7	37.6	82.0	58.0	35.3	61.7	61.3	56.7	30.9	10.9	2,199
Rural	84.0	28.0	63.8	47.4	25.5	49.5	41.7	38.1	18.0	5.5	6,211
Upper Egypt	76.5	18.2	52.5	37.8	16.0	38.8	40.0	34.1	12.8	3.2	7,552
Urban	90.6	27.0	67.4	53.4	24.4	45.6	55.5	51.1	19.4	5.5	2,411
Rural	69.8	14.1	45.5	30.4	12.1	35.7	32.7	26.2	9.7	2.1	5,141
Frontier Governorates	81.9	31.7	49.1	35.0	24.4	37.5	47.5	47.1	21.4	10.3	218
Education											
No education	66.4	15.1	40.6	32.5	12.8	33.4	24.9	20.5	7.5	1.3	6,740
Some primary	82.2	22.9	57.0	45.8	20.2	42.1	34.3	29.2	9.2	2.3	2,197
Primary complete/some											
secondary	91.3	27.3	68.0	50.9	24.1	50.4	49.7	46.3	19.3	5.6	2,719
Secondary complete/											
higher	98.2	36.7	82.7	54.4	34.4	60.0	68.7	65.0	31.9	11.4	7,818
Work status											
Working for cash	90.5	35.2	74.1	49.4	32.7	56.7	61.1	59.6	30.6	11.5	3,288
Not working for cash	83.2	24.6	61.0	44.5	22.1	45.6	44.1	39.6	16.8	5.0	16,186
Wealth quintile											
Lowest	59.5	11.5	36.0	26.0	9.4	29.4	22.0	17.7	6.8	1.2	3,565
Second	78.5	20.2	52.0	39.7	17.4	42.0	32.7	28.4	10.9	2.6	3,778
Middle	86.5	26.2	64.7	47.4	23.6	45.9	44.4	39.5	15.4	4.3	3,931
Fourth	95.1	33.6	75.3	55.4	31.0	55.8	58.1	55.1	24.8	7.9	4,137
Highest	98.9	37.9	83.7	55.4	35.7	61.2	73.4	69.5	35.6	13.5	4,063
l	2.4	26.4	60.0		22.0		·= 0		40.4		:0 174
Total	84.4	26.4	63.2	45.4	23.9	47.4	47.0	43.0	19.1	6.1	19,474

<sup>&</sup>lt;sup>1</sup> Comprehensive knowledge means knowing that use of condom 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.

Table 15.1 shows that the percentage of ever-married women with comprehensive knowledge of AIDS is low. Overall, six percent of women are classified as having comprehensive knowledge. The proportion of women with comprehensive knowledge is greatest among women in the highest wealth quintile (14 percent).

# **Knowledge of Mother-to-Child Transmission**

To assess the extent to which women are aware of the ways in which AIDS can be transmitted from a mother to her child, EDHS respondents were asked if the virus that causes AIDS can be transmitted during pregnancy, at delivery, or when breastfeeding. As Table 15.2 shows, around seven in ten women believe that the virus can be transmitted from mother to child during pregnancy and at the time of delivery while about half think that it can be transmitted by breastfeeding. Knowledge of pregnancy and delivery as modes of transmission is higher among urban than rural women and increases sharply with both educational attainment and wealth quintile. These characteristics are also associated with a somewhat greater awareness of breastfeeding as a mode of transmission.

Table 15.2 Knowledge of prevention teristics	of mother-to-c	hild transmissic	on of HIV by backg	ground charac-
Percentage of ever-married women during pregnancy, delivery, or by brea	who know that stfeeding, by ba	HIV can be to	ransmitted from m cteristics, Egypt 200	other to child 05
Background		e transmitted fr to her baby duri		Number of
characteristics	Pregnancy	Delivery	Breastfeeding	women
Age		•		
15-19	69.8	61.4	51.4	803
20-24	75.1	69.6	53.7	2,968
25-29	80.3	74.2	54.9	3,785
30-34	80.5	74.7	53.5	3,209
35-39	75.3	70.7	50.2	3,191
40-44	73.3	68.4	49.6	2,859
45-49	69.7	64.8	46.8	2,659
Urban-rural residence				
Urban	85.0	78.0	54.1	8,033
Rural	69.4	65.0	50.0	11,441
Place of residence				
Urban Governorates	86.1	77.7	50.2	3,293
Lower Egypt	79.3	75.5	54.7	8,410
Urban	87.6	84.7	56.2	2,199
Rural	76.3	72.3	54.2	6,211
Upper Egypt	67.6	61.5	49.3	7,552
Urban	81.4	72.6	58.4	2,411
Rural	61.1	56.4	45.0	5,141
Frontier Governorates	72.4	65.8	39.4	218
Education				
No education	57.9	53.4	43.1	6,740
Some primary	71.3	67.3	55.7	2,197
Primary complete/some secondary	82.4	74.9	56.6	2,719
Secondary complete/higher	90.3	84.3	56.2	7,818
Work status				
Working for cash	82.3	78.0	50.3	3,288
Not working for cash	74.5	68.8	52.0	16,186
Wealth quintile				
Lowest	50.8	47.0	39.7	3,565
Second	70.3	66.5	52.6	3,778
Middle	77.1	71.7	54.2	3,931
Fourth	86.2	79.4	58.8	4,137
Highest	91.1	84.0	51.5	4,063
Total	75.8	70.4	51.7	19,474

# Stigma Associated with AIDS

In the 2005 EDHS, women who had heard of AIDS were asked questions to assess the extent of stigma associated with HIV/AIDS. The results shown in Table 15.3 indicate that few women would be willing to care for a relative with AIDS at home (26 percent), buy fresh vegetables from a shopkeeper with AIDS (11 percent), or allow a female teacher with AIDS to keep teaching (11 percent). Less than half say they would be open about having an HIV-positive family member. Accepting attitudes are expressed on all four indicators by only one percent of women, indicating that some degree of stigma is almost universally associated with HIV/AIDS within Egyptian society.

		Percentage				
Background characteristic	Are willing to care for a family member with HIV at home	Would buy fresh vegetables from shopkeeper who has HIV	Believe HIV- positive female teacher should be allowed to keep teaching	Would not want HIV+ status of a family member to remain a secret	Percentage expressing accepting attitudes on all four indicators	Number of women who have heard of HIV/AIDS
Age						
15-19	32.7	12.6	9.9	48.8	1.1	630
20-24	28.6	12.2	10.0	48.2	0.8	2,527
25-29	24.3	12.4	10.3	49.4	1.2	3,348
30-34	24.6	11.2	11.2	48.4	1.2	2,822
35-39	25.6	12.2	11.5	48.5	0.9	2,683
40-44	26.1	10.2	11.1	50.3	1.0	2,338
45-49	26.6	8.5	10.1	46.9	0.9	2,091
Urban-rural residence						
Urban	24.6	12.2	11.3	48.2	1.3	7,565
Rural	27.3	10.6	10.1	49.1	8.0	8,874
Place of residence						
Urban Governorates	19.2	11.5	11.5	48.2	1.5	3,164
Lower Egypt	25.3	11.7	8.9	46.8	0.6	7,321
Urban	26.3	13.9	11.3	46.4	1.2	2,104
Rural	24.8	10.8	8.0	46.9	0.4	5,217
Upper Egypt	31.3	10.8	12.6	51.3	1.3	5,776
Urban	31.5	11.6	11.3	49.9	1.1	2,185
Rural	31.2	10.4	13.4	52.2	1.4	3,590
Frontier Governorates	12.8	9.5	5.2	51.9	0.2	179
Education						
No education	27.1	8.6	8.0	48.2	0.6	4,473
Some primary	30.2	7.5	8.5	45.3	0.9	1,805
Primary complete/some secondary	26.3	10.0	10.1	46.6	1.1	2,482
Secondary complete/higher	24.4	14.2	12.9	50.5	1.3	7,680
Work status						
Working for cash	24.9	16.0	14.2	50.3	1.5	2,977
Not working for cash	26.3	10.3	9.9	48.3	0.9	13,462
Wealth quintile						
Lowest	32.4	9.1	10.8	46.6	1.1	2,122
Second	27.3	10.1	8.6	48.3	0.8	2,964
Middle	26.4	10.7	8.9	50.0	1.0	3,400
Fourth	24.7	12.5	11.7	46.9	0.9	3,935
Highest	23.0	12.9	12.7	50.7	1.4	4,017
		11.3	10.7	48.7		

### **Knowledge of a Source for HIV Testing**

Table 15.4 shows that less than one in five ever-married women in Egypt is aware of a place where an HIV test is available. Knowledge of a source where HIV testing is available is highest among women working for cash (32 percent) and women in the highest wealth quintile (31 percent) and lowest among women with no education (8 percent).

### **Sources of Information About AIDS**

Women reporting that they had heard about AIDS were asked about whether they had received any information about AIDS during the six months prior to the EDHS. Table 15.5 shows that 65 percent of women had received information about AIDS during the period. Urban women are more likely than rural women to have received information about AIDS, and the likelihood of having seen or heard information about AIDS during the period increases with both education and wealth.

When asked about the source(s) from which they had obtained information during the period, virtually all of the women cited television broadcasts. Ten percent of the women mentioned other media as a source of information while three percent received information from a health worker and a similar percentage cited relatives or friends as the source of the information they had received about AIDS.

Table 15.4 Knowledge of a place where HIV testing available by background characteristics

Percentage of ever-married women age 15-49 who know a place where HIV testing is available by background characteristics, Egypt 2005

	Percentage	
	knowing place	
	where HIV	Number
Background	testing is	of
characteristic	available	women
Age		
15-19	12.4	803
20-24	16.4	2,968
25-29	19.6	3,785
30-34	20.4	3,209
35-39	18.4	3,191
40-44	18.4	2,859
45-49	17.8	2,659
Urban-rural residence		
Urban	24.0	8,033
Rural	14.3	11,441
Place of residence		
Urban Governorates	27.4	3,293
Lower Egypt	17.4	8,410
Urban	23.6	2,199
Rural	15.2	6,211
Upper Egypt	15.6	7,552
Urban	20.0	2,411
Rural	13.5	5,141
Frontier Governorates	13.2	218
Education		
No education	8.4	6,740
Some primary	12.3	2,197
Primary complete/some		
secondary	15.8	2,719
Secondary complete/higher	29.4	7,818
Work status		
Working for cash	31.8	3,288
Not working for cash	15.6	16,186
Wealth quintile		
Lowest	9.3	3,565
Second	12.7	3,778
Middle	14.9	3,931
Fourth	21.7	4,137
Highest	31.3	4,063
Total	18.3	19,474

Table 15.5 Sources of information about AIDS by background characteristics

Percentage of all ever-married women knowing about AIDS who heard, saw or received any information about AIDS in the six months prior to the survey and percentage of women receiving information about AIDS within the last months naming various sources of information, according to selected background characteristics, Egypt 2005

	Percentage of women knowing about AIDS Percentage who saw/heard/received information about AIDS from							om:	Number of ever- married women	
	saying they had received information	Number - of ever- married women	ver- ried			lealth worke	er	Husband/ other relatives/	Com- munity	receiving infor- mation about
Background	about AIDS	U	T. /	Other	Any	Home	Facility	friends/	meeting/	AIDS
characteristic	recently	about AIDS	TV	media <sup>1</sup>	contact	visit	visit	neighbors	other	recently
Current age										
15-19	55.5	630	98.9	7.3	2.4	0.0	2.4	3.3	0.0	349
20-24	63.7	2,527	97.6	7.5	1.8	0.3	1.6	3.0	0.0	1,609
25-29	65.9	3,348	99.0	10.0	2.5	0.3	2.2	2.5	0.1	2,207
30-34	65.1	2,822	98.5	8.5	2.8	0.2	2.7	2.8	0.4	1,838
35-39	65.1	2,683	97.7	11.8	2.8	0.5	2.4	4.0	0.0	1,748
40-44	65.0	2,338	98.1	11.2	2.4	0.5	2.3	4.2	0.5	1,519
45-49	65.1	2,091	96.6	11.9	3.8	0.5	3.5	4.1	0.3	1,360
Urban-rural residence										
Urban	68.0	7,565	98.1	11.6	3.6	0.4	3.3	3.4	0.2	5,146
Rural	61.8	8,874	98.0	8.5	1.8	0.3	1.5	3.3	0.1	5,485
Place of residence										
Urban Governorates	64.4	3,164	97.5	12.4	4.0	0.6	3.7	4.1	0.5	2,039
Lower Egypt	62.1	7,321	98.5	14.4	2.3	0.1	2.3	2.9	0.1	4,548
Urban	64.4	2,104	98.2	19.3	3.7	0.0	3.7	3.1	0.1	1,354
Rural	61.2	5,217	98.6	12.3	1.8	0.1	1.7	2.7	0.1	3,194
Upper Egypt	68.5	5,776	97.9	3.6	2.2	0.6	1.8	3.4	0.1	3,957
Urban	77.3	2,185	98.9	4.3	2.8	0.6	2.4	2.7	0.0	1,689
Rural	63.2	3,590	97.2	3.1	1.8	0.6	1.3	3.9	0.1	2,268
Frontier Governorates	48.0	179	94.5	16.8	5.8	1.1	4.6	7.6	0.6	86
Education										
No education	59.1	4,473	97.9	3.4	1.5	0.4	1.2	4.1	0.1	2,644
Some primary	60.4	1,805	98.8	5.9	1.4	0.4	1.3	3.0	0.0	1,091
Primary complete/some		1,003	90.0	3.3	1.7	0.2	1.5	3.0	0.0	1,051
secondary Secondary complete/	62.7	2,482	98.5	6.5	1.8	0.2	1.6	3.5	0.0	1,555
higher	69.5	7,680	97.8	15.1	3.7	0.5	3.5	3.0	0.3	5,340
Work status										
Working for cash	68.5	2,977	95.5	19.5	8.8	1.0	8.4	4.0	0.6	2,038
Not working for cash	63.8	13,462	98.6	7.7	1.2	0.2	1.0	3.2	0.0	8,593
Wealth quintile		,								,
Lowest	59.5	2,122	97.3	3.4	1.4	0.2	1.2	3.3	0.1	1,262
Second	60.3	2,122	97.3 98.9	5. <del>4</del> 5.7	1. <del>4</del> 1.4	0.2	1.2	3.5 2.6	0.1	1,787
Middle	62.3	3,400	96.9 97.7	7.3	2.7	0.4	2.4	4.7	0.1	2,119
Fourth	66.9	3, <del>4</del> 00 3,935	98.0	7.3 11.1	2.7		2.4	2.9	0.1	
						0.1				2,632
Highest	70.4	4,017	98.0	16.7	3.9	0.6	3.6	3.3	0.6	2,830
Total	64.7	16,439	98.0	10.0	2.7	0.4	2.4	3.3	0.0	10,630

<sup>1</sup> Includes radio, newspaper, magazine, pamphlet, brochure, or poster

#### 15.2 REPORTS OF RECENT SEXUALLY TRANSMITTED INFECTIONS

The 2005 EDHS collected information on respondents' awareness of sexually transmitted diseases other than HIV/AIDS. Respondents were asked whether they had had an STI in the past 12 months. In addition, they were asked whether, in the past year, they had experienced a genital sore or ulcer and whether they had any genital discharge. Women who had had an infection or experienced STI symptoms were asked additional questions relating to any treatment that they may have sought for the infection or symptoms. In interpreting the results of these questions, it must be cautioned that the reporting of an abnormal discharge or genital sore or ulcer does not definitively identify STI infection in women. However, the results provide some insight into the extent to which women are aware of and seeking medical assistance for abnormal reproductive tract symptoms.

The results in Table 15.6 indicate that around one in five currently married women have heard about sexually transmitted infections other than HIV/AIDS. Knowledge of other STIs varies considerably by background characteristic. For example, urban women are more than twice as likely as rural women to know about STIs other than AIDS (32 percent and 15 percent, respectively) and women in the highest wealth quintile are more than four times as likely as those in the lowest quintile to be aware of other STIs.

According to the results in Table 15.6, less than one percent of women had had an infection which they had gotten through sexual contact during the 12 months prior to the survey. However, one in five women had had a bad-smelling abnormal genital discharge (13 percent) and/or a genital sore or ulcer (15 percent). Around six in ten women experiencing these symptoms sought medical treatment. Women who sought treatment were more than twice as likely to consult a private medical provider as a public health facility.

Generally the differentials in the percentages reporting they had experienced STI symptoms are not large, except for the somewhat lower percentage among women age 45-49 compared to other women. There are clear differences in the percentages of women seeking medical assistance when they had an STI or STI symptoms. The likelihood that treatment was sought decreases with a woman's age, increases with education and wealth status and is somewhat greater among urban than rural women.

Table 15.6 Self-reported prevalence of sexually-transmitted infections (STIs) and STI symptoms by background characteristics

Among currently married women, percentage who have heard of infections other than AIDS that can be transmitted through sexual contact and percentage with self-reported STI and/or symptoms of an STI in the past 12 months, and, among women with self-reported STI or STI symptoms, the percentage seeking treatment by the type of provider, according to selected background characteristics, Egypt 2005

	Percentage of currently married women who have heard	omen Percentage of ever-married women with neard self-reported STI/STI symptoms						Percentage with self-reported STI/STI symptoms who sought treatment from:			
Background characteristic	of infections other than AIDS that can be transmitted through sexual		in past 1  Abnormal genital	2 months  Genital sore or	STI, genital discharge, sore or	Number of currently married	Any medical	Any public medical	Any private/ nongovern- mental medical	Number of women with STI/STI	
	contact	STI	discharge	ulcer	ulcer	women	provider	provider	provide	symptoms	
Age											
15-19	14.8	0.4	11.2	16.2	20.3	792	69.9	13.9	56.0	161	
20-24	19.3	0.3	14.7	16.9	22.4	2,898	61.8	14.9	47.2	650	
25-29	22.9	0.5	13.5	15.9	21.3	3,653	65.3	16.4	49.2	777	
30-34	23.0	0.3	12.6	16.1	20.1	3,077	65.0	20.4	45.8	618	
35-39	24.3	0.3	13.1	15.4	19.6	3,010	55.4	22.1	33.7	589	
40-44	23.2	0.2	12.9	15.2	19.6	2,525	56.9	16.4	40.7	494	
45-49	19.4	0.2	7.1	10.9	13.1	2,233	54.4	25.4	31.3	292	
Urban-rural residence											
Urban	32.1	0.4	15.7	17.3	22.1	7,490	63.5	18.5	45.7	1,654	
Rural	14.6	0.3	10.2	13.9	18.0	10,697	59.1	18.2	41.4	1,927	
Place of residence											
Urban Governorates	35.6	0.2	14.4	15.7	19.4	3,078	62.2	23.1	39.6	596	
Lower Egypt	15.1	0.2	11.1	12.1	17.5	7,884	58.5	18.2	40.6	1,379	
Urban	21.7	0.3	13.0	13.0	19.1	2,057	64.6	16.6	48.0	392	
Rural	12.8	0.2	10.4	11.8	16.9	5,826	56.1	18.8	37.7	987	
Upper Egypt	23.2	0.5	13.4	18.9	22.6	7,019	62.9	16.5	47.3	1,585	
Urban	36.9	0.6	20.6	24.1	29.2	2,230	63.8	15.1	50.1	652	
Rural	16.8	0.4	10.1	16.4	19.5	4,789	62.3	17.5	45.4	933	
Frontier Governorates	27.2	0.7	6.4	8.0	10.5	206	66.9	36.3	31.6	22	
Education											
No education	9.6	0.3	10.1	14.3	17.3	6,116	51.9	22.1	30.3	1,056	
Some primary Primary complete/some	12.2	0.1	13.6	17.5	21.4	2,019	59.4	20.6	40.3	433	
secondary Secondary complete/	17.0	0.3	15.0	16.7	22.8	2,564	60.3	19.2	41.7	586	
higher	36.1	0.4	13.3	15.0	20.1	7,488	68.4	14.8	54.1	1,507	
Work status											
Working for cash	42.3	0.3	11.2	13.5	18.0	2,920	63.2	21.0	43.5	526	
Not working for cash	17.9	0.3	12.8	15.6	20.0	15,267	60.8	17.9	43.3	3,056	
Wealth quintile											
Lowest	10.6	0.4	10.4	15.6	19.0	3,266	52.7	20.7	32.7	622	
Second	12.1	0.2	10.3	14.2	17.7	3,509	54.4	19.8	35.2	621	
Middle	16.4	0.2	11.8	15.7	19.7	3,675	61.0	22.1	39.0	723	
Fourth	22.6	0.4	15.3	16.2	22.0	3,897	64.3	15.6	49.2	856	
Highest	44.7	0.3	14.2	14.8	19.8	3,840	70.1	14.9	56.3	760	
Total	21.8	0.3	12.5	15.3	19.7	18,187	61.1	18.4	43.4	3,581	

#### 15.3 HEPATITIS C KNOWLEDGE

Hepatitis C is a viral infection of the liver. Infection with the hepatitis C virus (HCV) is a major public health problem in Egypt. The high levels of HCV infection are largely attributed to the use of inadequately sterilized needles during mass campaigns undertaken to treat schistosomiasis (Rao et al. 2002 and Nafeh et al. 2000). The 2005 EDHS included a number of questions to assess awareness of hepatitis C and modes of transmission among ever-married women and to identify the principal channels through which women have received information about hepatitis C recently.

Table 15.7 shows both the level of awareness of hepatitis C among EDHS respondents and the sources from which respondents have recently received information about the illness. The results indicate that eight in ten ever-married women are aware of hepatitis C. Among the women who have heard about hepatitis C, 83 percent had received information about the illness within the six-month period before the survey. Television is the main channel through which these women received information about hepatitis C (88 percent) followed by personal contacts (husband, other relative, friends, or neighbors) (17 percent) and other media (10 percent).

Table 15.8 presents information on the avenues of transmission named by women who had heard about hepatitis C. The percentages naming various transmission routes add to more than 100 percent because women were asked to name all of the ways in which hepatitis C may be spread from one person to another. The results in 15.8 indicate that two-thirds of the women knowing about hepatitis C were able to name a way the illness is transmitted. Of the women able to name an avenue of transmission for hepatitis C, 70 percent said that it could be contracted through a blood transfusion, 52 percent mentioned unclean needles, and 11 percent cited other contact with the blood of an infected person. Other avenues of transmission mentioned by respondents include having sexual relations with an infected person (17 percent) and having other casual physical contact including shaking hands or sharing food (20 percent).

Table 15.8 also shows that knowledge about ways in which hepatitis C can be transmitted is more widespread among urban women than rural women and among women working for cash than other women. The percentages knowing about at least one way hepatitis C can be contracted increase with education and wealth.

Table 15.7 Knowledge of hepatitis C by background characteristics

Percentage of ever-married women age 15-49 knowing about hepatitis C; among women knowing about hepatitis C, percentage receiving information about hepatitis C during the six-month prior to the survey, and percentage of women receiving any information naming various sources of information, according to background characteristics, Egypt 2005

				Number of ever-		Percent	age who s	aw/heard	about her	oatitis C from	1.	Number of ever-married
	Percentage	Number	Percentage receiving information	married women knowing		reiceila		dical prov	<u> </u>	Husband/ other	1.	women receiving information
Background characteristic	knowing about hepatitis C	of ever- married women	recently about hepatitis C	about hepatitis C	TV	Other media <sup>1</sup>	Any	Home visit	Facility visit	relatives/ friends/ neighbors	Community meeting/ other	about hepatitis C recently
Age												
15-19	67.0	803	80.0	538	90.4	6.7	3.8	0.4	3.4	14.7	0.5	430
20-24	76.9	2,968	80.8	2,284	89.2	6.9	5.7	1.6	4.0	16.4	0.2	1,846
25-29	82.3	3,785	82.7	3,115	90.5	10.5	6.7	1.0	5.9	14.2	0.3	2,575
30-34	83.8	3,209	83.3	2,690	90.3	9.0	6.7	0.6	6.1	15.5	0.4	2,242
35-39	82.5	3,191	84.4	2,634	87.5	11.0	6.9	0.8	6.3	16.7	0.1	2,223
40-44	82.5	2,859	83.5	2,358	86.1	12.4	7.6	0.7	7.0	19.4	0.3	1,968
45-49	78.1	2,659	83.6	2,076	84.9	10.7	9.8	1.2	8.8	20.2	0.4	1,735
Urban-rural residence	, 011	2,000	05.0	2,0,0	05		3.0		0.0		٠	.,, 55
Urban Urban	90.1	8,033	83.3	7,238	89.4	12.4	8.6	0.6	8.3	16.1	0.4	6,028
Rural	73.9	11,441	82.7	8,457	87.4	7.9	5.6	1.2	4.4	17.3	0.4	6,992
	13.3	11,771	04.7	0,437	U/. <del>T</del>	1.5	5.0	1.4	4.7	17.5	0.2	0,552
Place of residence	04.0	2 202	00.7	2.005	07.0	45.4	44.2	0.4	44.0	40.4	0.5	2.417
Urban Governorates	91.0	3,293	80.7	2,995	87.9	15.4	11.3	0.1	11.2	18.1	0.5	2,417
Lower Egypt	80.2	8,410	81.7	6,745	88.2	11.3	6.3	0.6	5.8	17.3	0.2	5,509
Urban	91.3	2,199	81.8	2,008	91.0	15.4	8.0	0.5	7.7	15.5	0.2	1,642
Rural	76.3	6,211	81.6	4,737	87.0	9.6	5.5	0.6	5.0	18.1	0.2	3,866
Upper Egypt	76.5	7,552	86.0	5,780	88.8	5.9	5.7	1.8	4.2	15.6	0.3	4,972
Urban	87.9	2,411	88.9	2,120	90.2	5.9	5.7	1.4	4.8	14.3	0.3	1,884
Rural	71.2	5,141	84.3	3,660	88.0	5.8	5.8	2.0	3.8	16.3	0.3	3,087
Frontier Governorates	80.0	218	70.7	174	83.0	12.6	10.2	0.9	9.6	15.9	0.4	123
Education												
No education	64.7	6,740	82.0	4,359	86.3	4.8	5.2	1.4	3.9	17.3	0.2	3,576
Some primary Primary completed./	75.9	2,197	79.3	1,668	87.4	5.8	4.4	0.5	4.1	19.6	0.2	1,323
some secondary Secondary completed/	82.5	2,719	82.0	2,242	89.3	6.5	5.2	0.7	4.5	15.7	0.3	1,839
higher	95.0	7,818	84.6	7,425	89.4	14.9	9.2	0.9	8.5	16.2	0.4	6,283
Work status												
Working for cash	89.8	3,288	87.3	2,951	84.7	18.0	16.2	1.0	15.5	18.3	0.8	2,575
Not working for cash	78.7	16,186	82.0	12,744	89.2	8.0	4.8	1.0	3.9	16.4	0.2	10,446
Wealth quintile												
Lowest	58.4	3,565	81.5	2,081	84.7	4.3	5.4	1.2	4.4	19.6	0.2	1,696
Second	73.7	3,778	82.2	2,783	87.1	5.7	4.9	1.3	3.7	17.5	0.2	2,288
Middle	80.3	3,931	82.7	3,158	88.3	7.2	6.6	1.2	5.5	15.4	0.3	2,612
Fourth	90.8	4,137	83.2	3,756	91.3	11.0	6.7	0.5	6.2	15.2	0.1	3,124
Highest	96.4	4,063	84.3	3,917	88.3	17.1	10.0	0.9	9.5	17.4	0.6	3,301
Total	80.6	19,474	83.0	15,695	88.3	10.0	7.0	1.0	6.2	16.8	0.3	13,021

<sup>&</sup>lt;sup>1</sup> Includes radio, newspaper, magazine, pamphlet, brochure or poster

Table 15.8 Knowledge of the ways a person can contract hepatitis C by background characteristics

Percentage of ever-married women age 15-49 knowing about hepatitis C who can name at least one way in which an individual can contract hepatitis C and percentage of women knowing about a way hepatitis C can be contracted who named various routes of transmission, according to selected background characteristics, Egypt 2005

	Percentage of ever-married women	Number			Percen	tage namir	ng various	routes of t	transmission			Number of ever-
Background characteristic	knowing about hepatitis C who can name at least one way the illness can be contracted	married women knowing	Hetero- sexual relations	Homo- sexual	Blood trans- fusion	Unclean needle	Other contact with blood of infected person <sup>1</sup>	Mother- to-child trans- mission	Smoke cigarettes/ hisha	Other casual physical contact with infected person	Mosquito/ other insect bites/ other <sup>2</sup>	married women who know one way hepatitis C can be contracted
Age												
15-19	50.7	538	18.4	1.0	58.5	49.7	5.6	0.6	9.5	21.7	1.5	273
20-24	62.4	2,284	16.5	2.4	70.5	50.7	9.3	1.7	3.3	17.1	1.7	1,425
25-29	68.8	3,115	18.8	2.4	73.6	53.3	9.9	2.2	2.9	17.3	1.8	2,142
30-34	68.4	2,690	17.5	3.0	69.2	50.8	12.6	2.0	2.5	22.1	0.9	1,839
35-39	70.8	2,634	16.2	2.3	69.4	53.5	13.0	2.3	2.6	20.7	1.8	1,865
40-44	68.5	2,358	15.9	3.6	70.5	53.1	12.0	1.3	2.4	20.8	0.9	1,615
45-49	68.3	2,076	17.0	2.4	70.7	53.3	12.8	1.6	2.3	23.5	1.6	1,418
Urban-rural residence												
Urban	75.1	7,238	19.9	3.6	75.7	52.9	12.8	1.7	1.5	20.2	1.1	5,437
Rural	60.8	8,457	14.2	1.6	64.8	51.9	10.0	2.1	4.3	20.2	1.9	5,139
Place of residence												
Urban Governorates	77.6	2,995	20.1	5.0	80.6	53.3	16.2	1.8	0.8	20.0	0.8	2,323
Lower Egypt	68.5	6,745	15.5	1.9	71.3	53.1	11.1	1.4	1.6	18.0	1.8	4,618
Urban	77.6	2,008	17.7	2.8	75.3	53.7	10.6	1.0	0.9	17.2	1.7	1,559
Rural	64.6	4,737	14.3	1.4	69.3	52.8	11.3	1.6	1.9	18.4	2.0	3,060
Upper Egypt	60.6	5,780	17.7	1.8	62.0	50.8	8.4	2.6	6.0	23.6	1.4	3,502
Urban	68.9	2,120	22.7	1.8	67.8	51.0	9.1	2.2	3.2	24.4	0.7	1,461
Rural	55.8	3,660	14.2	1.9	57.9	50.6	7.9	2.8	7.9	23.1	1.8	2,041
Frontier Governorates	76.0	174	6.3	9.7	81.1	55.5	19.9	1.3	0.9	13.0	1.6	133
Education												
No education	52.3	4,359	14.7	1.3	57.2	47.3	8.1	2.7	6.9	21.4	2.9	2,279
Some primary Primary complete/	55.0	1,668	18.4	0.8	57.8	45.9	8.7	1.5	5.1	27.7	1.6	917
Some secondary Secondary	65.5	2,242	16.5	2.2	65.9	50.9	12.2	1.7	2.7	21.6	1.6	1,468
complete/higher	79.6	7,425	18.0	3.5	78.6	55.8	13.0	1.7	0.9	18.3	0.9	5,911
Work status												
Working for cash	82.6	2,951	16.9	3.7	80.4	56.4	13.8	2.1	0.9	19.4	1.1	2,436
Not working for cash	63.9	12,744	17.2	2.3	67.4	51.2	10.7	1.8	3.4	20.5	1.5	8,140
Wealth quintile												
Lowest	47.8	2,081	13.6	2.3	44.4	43.5	6.6	2.3	11.0	26.3	2.3	995
Second	56.8	2,783	14.5	1.5	59.2	49.0	9.0	2.5	4.0	22.4	2.6	1,581
Middle	64.7	3,158	15.8	1.1	70.0	53.3	9.7	1.7	3.0	18.1	1.4	2,044
Fourth	71.6	3,756	17.0	2.4	73.6	53.6	11.8	1.4	1.8	18.9	1.3	2,690
Highest	83.4	3,917	20.3	4.5	81.5	55.2	14.8	1.9	0.5	19.7	0.7	3,266

<sup>&</sup>lt;sup>1</sup> Includes sharing razors, etc.

<sup>&</sup>lt;sup>2</sup> Includes shaking hands, sharing food and drink, etc.

#### 15.4 **INJECTIONS**

Failure to follow safe injection practices increases the risk of transmission of blood-borne pathogens. To obtain information on the prevalence of injections, EDHS respondents were asked about the total number of injections that they had had in the six months prior to the survey, how many of those injections were administered by a health care provider, and where they had received the last medical injection.

Table 15.9 presents data on the prevalence of injections among EDHS respondents. The results indicate that slightly more than one in four women had had at least one injection during the six-month period prior to the survey. Among women who had an injection, eight in ten said that they received at least one medical injection, i.e., an injection administered by a doctor, nurse, pharmacist or other health care provider. Two out of three women who received a medical injection indicated that they had gotten the injection at a public health facility (not shown in table).

Table 15.10 shows how the percentages receiving any injection and any medical injection in the six months prior to the survey vary by background characteristics. Although there are not large variations in either of the indicators, the results show that injection prevalence levels tend to decline with age, education, and wealth and to be somewhat lower among urban than rural women.

In addition to the basic information on injection prevalence, the 2005 EDHS included several items concerned with injection safety. Respondents who had a recent medical injection were asked if the provider had taken the syringe and needle used for the injection from a new unopened package; 95 percent reported that the provider had followed this basic injection safety procedure (not shown in table).

Table 15.9 Prevalence of injections

Percent distribution of ever-married women age 15-49 by the number of injections and the number of medical injections and the average number of injections and medical injections received during the past six months, Egypt 2005

Injection safety	Total
	Total
Number of injections	
No injections	73.2
1	6.6
2	7.8
3-4	4.7
5-9	3.7
10-19	2.1
20-29	0.6
30-59	0.4
60-94	0.2
95+	0.8
Total percent	100.0
Number of women	19,474
Mean number received <sup>1</sup>	2.0
Number of medical injections <sup>2</sup>	
No injections	73.2
No medical injections	5.7
1	6.1
2	7.0
3-4	3.2
5-9	2.4
10-19	1.3
20-29	0.4
30-59	0.2
60-94	0.1
95+	0.3
Total percent	100.0
Number of women	19,474
Mean number received <sup>3</sup>	4.4

<sup>&</sup>lt;sup>1</sup> Mean number among women receiving any injection(s) during the six-month period.

<sup>&</sup>lt;sup>2</sup> Includes injections given by a doctor, nurse, pharmacist, dentist or other health

<sup>&</sup>lt;sup>3</sup> Mean number among women receiving any medical injection(s) during the sixmonth period

Table 15.10 Injection prevalence by background characteristics

Percentage of ever-married women age 15-49 who received at least one injection and at least one injection from a health care provider in the past six months according to background characteristics, Egypt 2005

Background characteristic	Percentage who received an injection in the past 6 months	Percentage who received an injection from a health care provider in the past 6 months	Number of ever- married women
•	monus	monus	women
Age	25.0	20.6	902
15-19 20-24	35.0 28.6	30.6 23.8	803
25-29	26.4	23.6	2,968 3,785
30-34	26.3	20.3	3,209
35-39	26.0	20.6	3,191
40-44	25.9	18.7	2,859
45-49	25.3	17.8	2,659
Urban-rural residence			_,
Urban Urban	24.9	18.7	9.022
Rural	24.9	22.6	8,033 11,441
	20.1	22.0	11,441
Place of residence			
Urban Governorates	25.1	18.6	3,293
Lower Egypt	26.4	20.3	8,410
Urban	24.6	17.8	2,199
Rural	27.1	21.1	6,211
Upper Egypt Urban	28.0 25.0	22.9	7,552
Rural	25.0 29.4	19.6 24.4	2,411
Frontier Governorates	25.2	20.8	5,141 218
	23.2	20.0	210
Education	06 -		c = 10
No education	26.7	21.4	6,740
Some primary Primary complete/Some	30.3	23.2	2,197
secondary	29.3	23.1	2,719
Secondary complete/higher	25.0	19.4	7,818
Work status			,
Working for cash	25.0	19.3	3,288
Not working for cash	27.1	21.4	16,186
	27.1	21.1	10,100
Wealth quintile	20.7	25.6	2.565
Lowest Second	30.7 27.3	25.6 21.8	3,565
Middle	26.2	20.4	3,778 3,931
Fourth	26.2 27.4	20. <del>4</del> 21.0	3,931 4,137
Highest	22.7	16.8	4,063
i nghest	22./	10.0	<del>1</del> ,003
Total	26.8	21.0	19,474

The EDHS also collected information from all respondents to assess the coverage of recent IEC efforts designed to increase population awareness about safe injection practices. Table 15.11 presents these results. Around six in ten EDHS respondents reported that they had received information about what people should do to be sure that injections are given safely in the six months prior to the survey. The percentage of women reporting they had received information relating to safe injection practices tended to rise with the woman's education and wealth status and to be higher among urban than rural women. As Table 15.11 shows, television was by far the principal source of information for women who had heard about injection safety issues (89 percent) followed by health workers (17 percent).

Table 15.11 Exposure to information regarding injection safety by background characteristics

Percentage of ever-married women age 15-49 receiving information about injection safety during the six-month prior to the survey, and percentage of women receiving any information naming various sources of information, according to background characteristics, Egypt 2005

										Number of ever-married
	Percentage receiving			Percenta	ge who saw	/heard about	injection sa	afety from:		women receiving
	information recently	Number of				Health worke	r	Husband/ other	Com-	information about
Background characteristic	about injection safety	ever- married women	TV	Other media <sup>1</sup>	Any contact	Home visit	Facility visit	relatives/ friends/ neighbors	munity meeting/ other	injection safety recently
Age										
15-19	53.1	803	84.4	5.8	19.9	1.9	18.3	9.9	0.0	426
20-24	58.9	2,968	87.9	5.5	17.4	1.9	15.6	6.9	0.0	1,748
25-29	58.3	3,785	91.0	7.4	16.1	1.6	15.0	6.8	0.2	2,208
30-34	58.4	3,209	89.8	8.1	16.6	1.2	15.4	6.3	0.3	1,873
35-39	58.4	3,191	89.1	8.1	16.0	2.2	14.1	7.9	0.2	1,864
40-44	60.3	2,859	89.1	9.4	16.5	2.1	14.7	6.8	0.5	1,724
45-49	58.2	2,659	89.5	9.2	17.4	1.9	15.7	6.4	0.2	1,546
Urban-rural residence										
Urban	62.8	8,033	90.5	9.3	17.1	1.5	15.8	6.8	0.2	5,042
Rural	55.5	11,441	88.3	6.7	16.5	2.1	14.7	7.1	0.2	6,348
Place of residence										
Urban Governorates	58.9	3,293	89.6	10.1	19.5	0.8	18.9	6.6	0.4	1,939
Lower Egypt	5 <i>7.7</i>	8,410	89.2	11.6	14.8	1.8	13.1	6.4	0.2	4,856
Urban	61.2	2,199	91.1	15.4	14.0	0.8	13.2	6.2	0.0	1,346
Rural	56.5	6,211	88.5	10.2	15.1	2.1	13.1	6.5	0.3	3,510
Upper Egypt	59.6	7,552	89.3	2.8	17.6	2.3	15.7	7.7	0.1	4,498
Urban	70.1	2,411	91.4	3.6	16.4	2.7	14.3	7.7	0.2	1,689
Rural	54.6	5,141	88.1	2.3	18.2	2.0	16.6	7.8	0.1	2,809
Frontier Governorates	44.4	218	82.7	8.0	20.4	1.4	19.2	7.8	0.6	97
Education										
No education	53.1	6,740	87.5	3.9	15.8	1.9	14.0	8.1	0.1	3,581
Some primary	55.1	2,197	87.5	5.4	18.3	2.8	15.7	6.2	0.1	1,210
Primary complete/some										
secondary Secondary complete/	56.8	2,719	91.5	6.7	15.7	1.3	14.6	7.3	0.1	1,544
higher	64.7	7,818	90.3	11.6	17.3	1.6	16.1	6.3	0.4	5,055
Work status										
Working for cash	64.9	3,288	86.5	14.1	24.0	2.3	22.4	8.5	0.7	2,133
Not working for cash	57.2	16,186	89.9	6.4	15.1	1.7	13.5	6.6	0.1	9,257
Wealth quintile										
Lowest	50.5	3,565	81.9	3.8	21.4	2.6	18.9	9.1	0.0	1,802
Second	53.6	3,778	89.0	5.4	14.5	1.6	13.0	6.1	0.3	2,026
Middle	57.5	3,931	90.2	5.2	16.0	1.9	14.3	6.6	0.1	2,262
Fourth	62.5	4,137	91.5	9.2	16.4	1.3	15.5	6.7	0.1	2,585
Highest	66.8	4,063	91.4	13.2	16.2	1.9	14.8	6.8	0.4	2,716
Total	58.5	19,474	89.3	7.8	16.7	1.8	15.2	7.0	0.2	11,390

 $<sup>^{\</sup>rm 1}$  Includes radio, newspaper, magazine, pamphlet, brochure or poster

#### 15.5 **SMOKING**

Smoking during pregnancy increases the risk of having a small or low birth weight baby. Smoking or other use of tobacco also affects women's health and may adversely affect their children's health, especially in terms of vulnerability to respiratory illness. If the woman herself does not smoke tobacco but other household members do within the home, all members of the household presumably are exposed to second-hand tobacco smoke or "environmental" tobacco smoke (ETS), which contributes to a number of adverse health effects including increased risk of respiratory and cardiovascular illnesses, especially for young children (WHO 1999).

The 2005 EDHS collected information on women's use of tobacco and on use of tobacco by other household members. Questions were also included on whether women had received information about the effects of second-hand smoke within a six-month period prior to the EDHS and, if so, the sources from which they had received the information. Table 15.12 presents these findings.

Less than one percent of ever-married women age 15-49 themselves currently smoke or use any form of tobacco. However, 56 percent of the women report that at least one other household member smokes or uses another form of tobacco. The likelihood that another household member uses tobacco is highest (more than 60 percent) among women with no education or who attended school but did not complete secondary school and those in the two lowest wealth quintiles.

Slightly more than three in four EDHS respondents had received information about the health effects of second-had smoke during the six months prior to the survey. Women living in the Frontier Governorates (60 percent) are least likely to have heard about the problem of second-hand smoke during the period. The percentages receiving information about the topic are greatest among women in the highest quintile on the wealth index (86 percent) and among women with a secondary or higher education (85 percent).

As was the case with other health-related information, television was the primary source of information about second-hand smoke among almost all of the women who had seen or heard about the subject recently (96 percent).

Table 15.12 Prevalence of smoking and exposure to information about health effects of second-hand smoke by background characteristics

Percentage of ever-married women age 15-49 who currently smoke or use any form of tobacco, percentage living in household where at least one member smokes or uses other form of tobacco, percentage receiving information about health effects of second-hand smoke during the six-moth prior to the survey, and, among women receiving information about second-hand smoke, percentage receiving information from various sources, according to background characteristics, Egypt 2005

		ge currently	Percentage receiving information recently about			Percentag			about he	ealth effects n:	of	Number of ever-married women
		/using other of tobacco Other	health effects of second-	Number of ever-			He	alth wor	ker	Husband/ other relatives/	Com- munity	receiving information about second-
Background	Woman	household	hand	married		Other	Any	Home	Facility	friends/	meeting/	
characteristic	herself	member	smoke	women	TV	media <sup>1</sup>	contact	visit	visit	neighbors	other	recently
Age												
15-19	0.5	56.3	73.7	803	96.3	8.6	4.0	0.3	4.0	9.1	0.4	592
20-24	0.4	57.2	76.1	2,968	95.4	9.1	4.6	0.5	4.2	8.1	0.0	2,259
25-29	0.4	55.4	78.8	3,785	96.3	11.2	4.2	0.4	3.9	7.6	0.1	2,981
30-34	0.8	55.2	79.1	3,209	95.7	10.5	5.3	0.3	5.1	7.2	0.5	2,537
35-39	0.9	56.2	76.5	3,191	95.9	9.9	5.0	0.5	4.5	7.3	0.3	2,441
40-44	0.9	55.3	75.9	2,859	95.0	12.4	4.8	0.1	4.6	8.0	0.4	2,169
45-49	0.6	55.5	75.3	2,659	95.9	12.0	5.8	0.4	5.4	7.7	0.3	2,003
Urban-rural residence												
Urban	0.9	52.9	81.4	8,033	95.9	12.4	5.3	0.3	5.1	7.2	0.4	6,537
Rural	0.5	57.8	73.8	11,441	95.7	9.4	4.5	0.4	4.1	8.0	0.4	8,445
Place of residence												
Urban Governorates	1.0	52.6	78.5	3,293	94.0	14.0	6.6	0.3	6.4	9.3	0.2	2,585
Lower Egypt	0.4	55.5	79.3	8,410	96.8	15.2	4.1	0.3	3.8	6.6	0.3	6,668
Urban	0.6	52.4	83.7	2,199	97.3	19.6	4.9	0.2	4.7	6.2	0.5	1,842
Rural	0.4	56.6	77.7	6,211	96.6	13.5	3.8	0.4	3.5	6.8	0.2	4,826
Upper Egypt	0.7	57.7	74.1	7,552	95.4	4.0	5.0	0.5	4.6	8.2	0.2	5,599
Urban	0.9	54.2	83.8	2,411	96.9	4.1	3.9	0.4	3.8	5.4	0.4	2,020
Rural	0.6	59.4	69.6	5,141	94.5	4.0	5.5	0.5	5.1	9.7	0.1	3,579
Frontier Governorates	0.6	48.6	59.8	218	94.7	9.0	5.3	0.2	5.1	6.9	0.5	130
Education												
No education	0.5	61.9	68.5	6,740	95.2	5.5	3.9	0.3	3.6	8.6	0.2	4,615
Some primary	8.0	62.3	73.8	2,197	96.5	5.8	4.3	0.5	3.9	8.0	0.0	1,622
Primary complete/some												
secondary	0.8	62.6	76.7	2,719	95.9	8.2	4.6	0.2	4.4	8.4	0.3	2,085
Secondary complete/												
higher	0.6	46.4	85.2	7,818	95.9	16.4	5.7	0.4	5.4	6.7	0.4	6,659
Work status												
Working for cash	0.9	46.0	82.0	3,288	94.1	18.9	9.9	0.8	9.5	7.9	0.8	2,696
Not working for cash	0.6	57.8	75.9	16,186	96.1	8.9	3.7	0.3	3.5	7.6	0.2	12,286
Wealth quintile												
Lowest	0.6	62.3	66.3	3,565	92.4	5.6	4.9	0.4	4.5	12.2	0.2	2,365
Second	0.4	60.5	72.1	3,778	96.7	6.3	3.5	0.2	3.4	7.3	0.2	2,723
Middle	0.5	56.9	77.0	3,931	96.8	8.7	4.7	0.7	4.1	6.1	0.1	3,028
Fourth	0.5	54.7	81.8	4,137	96.6	13.1	5.0	0.2	4.9	7.4	0.2	3,383
Highest	1.1	45.8	85.7	4,063	95.6	17.2	5.9	0.4	5.6	6.6	0.7	3,483
Total	0.6	55.8	76.9	19,474	95.8	10.7	4.9	0.4	4.6	7.7	0.3	14,982

<sup>&</sup>lt;sup>1</sup> Includes radio, newspaper, magazine, pamphlet, brochure or poster

#### 15.6 **TUBERCULOSIS**

Tuberculosis (TB) is considered to be among the top public health problems in Egypt. The 2005 EDHS obtained information from respondents about whether they had heard about TB and, if so, how it was transmitted. Respondents who knew about TB were also asked if they believed it could be cured and, to assess attitudes toward the illness, whether they would want to keep it secret if a family member had TB.

According to the results in Table 15.13, more than three in four ever-married women age 15-49 in Egypt have heard about TB. Knowledge of TB is lowest among women age 15-19 (66 percent), those who had never attended school (64 percent) or had attended but not completed primary school (70 percent), and women in the lowest wealth quintile (59 percent).

Only around half of those who had heard of TB correctly identify that it can be spread through the air when an infected individual coughs or sneezes. Many women are unable to name a way in which TB can be spread. Others have misconceptions about the ways in which the TB is spread; for example, 15 percent believe that TB can be contracted by sharing eating utensils with an infected person. Older women are more likely than women under age 25 to be aware that the TB bacterium is airborne. Urban residence is associated with greater awareness of the way in which TB is spread and correct knowledge of the mode by which TB is transmitted generally increased with education and wealth.

Among women knowing about TB, the majority believe it can be cured (72 percent). The perception that TB can be cured is most strongly associated with increasing education and especially wealth.

Some degree of stigma is clearly attached to TB as evidenced by the fact that, if a family member had TB, four in ten women say they would prefer to keep it a secret. There was little variation in this percentage by background characteristics.

Table 15.13 Awareness and attitudes about tuberculosis by background characteristics

Percentage of ever-married women age 15-49 who have heard about tuberculosis (TB), and, among those who have heard about TB, percentage believing TB can be cured, percentage saying that they would not want others to know if a family member had TB, and percentage naming various routes of transmission, according to background characteristics, Egypt 2005

			Perc	entage kn	owing abou	ıt TB wł	no say it c	an be s	pread thro	ugh:	Percentage of women	Percentage of women knowing about TB saying that	Number
Background characteristic	Percentage having heard about TB		The air when coughing/ sneezing	Sharing utensils	Touching person with TB	Food	Sexual contact	Mos- quito bites	Contami- nated blood transfer/ syringe	Smoking cigar- ettes/ water pipe	knowing about TB who believe it can be cured	like a family	of ever- married women knowing about TB
Age													
15-19	66.2	803	41.1	9.8	5.6	4.3	4.0	0.4	1.7	0.8	65.9	44.5	532
20-24	73.3	2,968	47.6	11.3	6.0	4.7	4.0	1.3	3.0	1.3	68.8	40.1	2,176
25-29	78.3	3,785	54.7	13.9	4.5	4.4	4.2	1.5	2.3	1.4	74.3	39.9	2,965
30-34	80.0	3,209	53.7	14.9	6.8	6.1	3.8	1.3	2.9	1.8	73.1	39.6	2,568
35-39	79.4	3,191	56.8	17.3	6.5	4.6	3.4	2.0	2.3	1.9	74.8	40.8	2,534
40-44	77.6	2,859	55.5	17.7	5.5	6.1	3.5	1.0	1.9	1.4	72.4	41.2	2,218
45-49	75.3	2,659	53.1	15.3	7.2	6.8	4.1	1.5	2.3	1.7	70.4	42.4	2,002
Urban-rural residence													
Urban	86.5	8,033	61.1	17.4	5.5	5.1	4.2	1.0	2.2	1.8	74.1	41.0	6,951
Rural	70.3	11,441	46.5	12.7	6.4	5.5	3.6	1.8	2.6	1.3	70.8	40.5	8,045
Place of residence													
Urban Governorates	89.4	3,293	65.8	20.6	4.1	3.9	4.8	0.8	1.7	1.6	71.4	39.8	2,945
Lower Egypt	71.8	8,410	52.8	12.2	6.5	6.8	4.9	1.9	3.1	0.8	74.4	45.4	6,038
Urban	81.3	2,199	62.4	14.8	7.5	8.0	5.6	1.0	3.8	0.9	75.5	44.8	1,788
Rural	68.4	6,211	48.7	11.2	6.1	6.3	4.6	2.3	2.7	0.7	73.9	45.6	4,251
Upper Egypt	77.1	7,552	47.1	14.6	6.4	4.5	2.2	1.2	2.2	2.4	71.0	36.7	5,826
Urban	87.1	2,411	52.8	15.0	5.7	4.3	1.8	1.2	1.5	2.8	77.1	40.1	2,100
Rural	72.5	5,141	43.9	14.4	6.8	4.6	2.4	1.3	2.5	2.1	67.5	34.8	3,726
Frontier Governorates	85.1	218	63.9	18.8	7.3	5.2	5.6	0.4	0.3	0.6	60.6	29.2	186
Education													
No education	64.0	6,740	40.6	13.0	7.3	5.0	2.4	2.0	2.3	1.7	62.7	42.0	4,316
Some primary	69.7	2,197	39.6	12.6	5.6	5.0	3.6	2.0	3.4	1.5	65.7	41.0	1,530
Primary complete/	0317	_,,	55.0		5.0	5.0	5.0		5		0017		.,550
some secondary Secondary complete/	78.3	2,719	49.4	12.5	5.2	4.9	3.4	1.4	2.5	1.7	69.1	45.2	2,130
higher	89.8	7,818	65.2	17.3	5.5	5.7	4.9	0.9	2.2	1.4	80.6	38.6	7,019
Work status													
Working for cash	85.2	3,288	69.2	19.9	5.7	6.8	5.7	1.4	1.7	1.0	82.1	38.1	2,802
Not working for cash	75.3	16,186	49.6	13.7	6.1	5.0	3.4	1.4	2.6	1.7	70.0	41.3	12,194
ů.	, 5.5	. 5, 100	15.0	13.7	0.1	5.0	5.1		2.0	1.7	, 5.0	11.5	12,131
Wealth quintile	F0.0	2.565	22.4	11.0	<i>C</i> =	4 7	2.2	2.2	2.0	1.0	FO (	20.6	2.000
Lowest	58.8	3,565	33.1	11.6	6.5	4./ 5.Ω	2.2	2.3	3.0	1.8	59.6	39.6	2,096
Second Middle	69.3	3,778	42.6	12.7	7.2 6.5	5.8	4.1	1.8	2.9	1.6	69.0	41.1	2,617
Middle Fourth	75.9 85.9	3,931 4,137	50.9 56.4	12.2 15.0	6.5 5.7	4.8 5.3	3.2 3.6	1.3 1.3	2.0 2.6	1.7 1.0	70.9 73.1	40.8 41.7	2,984 3,553
Highest	92.2	4,137	70.9	20.3	4.7	5.8	5.3	0.8	2.6 1.9	1.8	82.0	40.1	3,333 3,745
i lighest	34.4	+,∪∪3	70.3	20.3	7./	5.0	ر. ی	0.0	1.9	1.0	02.0	<del>4</del> 0.1	J,/ <del>1</del> J
Total	77.0	19,474	53.3	14.9	6.0	5.3	3.8	1.4	2.4	1.5	72.3	40.7	14,996

### 15.7 WOMEN'S ACCESS TO HEALTH CARE

Another important topic explored in the 2005 EDHS was the type of barriers women may face in accessing health care for themselves. To obtain this information, EDHS respondents were asked whether each of the following factors would be a big problem for them in obtaining medical advice or treatment if they were sick: getting permission to go, getting money for treatment, the distance to the health facility, having to take transportation, concern about going alone to the facility, lack of a female health care provider, lack of any health care provider, and concern about the availability of drugs.

Table 15.14 shows that around eight in ten women identify at least one of these obstacles to getting health care as potentially a major problem in accessing health care for themselves. Women most frequently cite the lack of a health care provider (60 percent) and lack of drugs (58 percent) as potentially big problems followed by concern that no female health care provider would be available (40 percent), difficulties in getting the money to pay for treatment (32 percent), and not wanting to go alone (30 percent). Twenty percent or less of women mention as potential barriers the need to arrange for transport, the distance to the provider, or the need to get permission from the husband or someone else before they could go for care.

Urban women are somewhat less likely than rural women to report at least one potential obstacle. Women from Upper Egypt are considerably more likely than those from Lower Egypt and the Urban Governorates to mention at least one potential obstacle. As expected, highly educated women and women who work for cash are less likely than other women to perceive any big problems in accessing health care. The percentage of women who identified at least one potential problem in accessing health care also decreased with increasing wealth.

There are differences by background characteristics, particularly by residence, education, and wealth, in the types of obstacles that women regard as big problems. For example, women in Lower Egypt were much less likely than other women to say that lack of a female provider would be a barrier for them. Getting permission to go and not wanting to go alone were acknowledged much more often as potential obstacles by women from the Frontier Governorates than by women in other residential categories. The percentage saying that getting the money to pay for care would be a big problem declined with the wealth quintile, from half of women in the lowest wealth quintile citing this as a serious problem compared to 14 percent of women in the highest quintile.

Table 15.14 Problems in accessing health care by background characteristics

Percentage of ever-married women 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, Egypt 2005

	Cotting	Cotting			Not	Concorn	Concorn		At least one	
	Getting permission	Getting money	Distance	Having	wanting	Concern no female	Concern	Concern		
Background	to go for	for	to health	to take	to go	provider		no drugs	accessing	Number
characteristic		treatment		transport	alone	available		available		
Age										
15-19	15.2	30.5	20.5	18.8	38.3	46.6	62.9	61.4	83.0	803
20-24	14.1	29.3	17.2	18.5	32.6	41.1	59.7	56.3	78.2	2,968
25-29	11.1	29.2	15.1	17.0	31.1	38.8	59.6	56.9	77.4	3,785
30-34	12.4	31.4	15.1	16.6	27.8	40.6	60.8	58.9	77.6	3,209
35-39	11.9	31.6	17.4	18.9	28.7	40.1	60.2	57.9	77.7	3,191
40-44	9.3	35.7	17.2	18.7	27.9	39.8	58.0	57.9	76.9	2,859
45-49	9.6	34.2	18.5	20.1	30.3	38.1	61.1	59.3	78.2	2,659
Number of living children										
0	11.9	24.4	15.5	16.3	34.6	39.4	59.1	55.6	76.7	1,936
1-2	11.7	28.5	16.0	16.9	28.6	38.2	57.8	55.2	75.4	7,208
3-4	11.0	33.0	16.0	17.8	28.6	39.0	60.4	59.3	78.1	7,053
5+	12.3	40.2	21.2	23.1	34.1	46.6	64.3	62.4	83.3	3,277
Urban-rural residence										
Urban	10.5	29.9	17.6	19.3	29.9	42.9	56.0	52.7	74.8	8,033
Rural	12.4	32.9	16.3	17.5	30.3	38.0	62.8	61.6	80.0	11,441
Place of residence										
Urban Governorates	10.3	31.3	22.4	25.3	36.4	51.3	53.1	50.0	74.0	3,293
Lower Egypt	12.8	27.0	11.3	12.7	22.8	25.5	59.9	59.2	73.5	8,410
Urban	10.7	20.0	9.0	11.1	21.2	24.2	60.1	57.7	71.7	2,199
Rural	13.5	29.4	12.0	13.3	23.4	26.0	59.8	59.7	74.1	6,211
Upper Egypt	10.5	37.3	20.1	20.7	35.0	50.7	63.4	60.1	84.4	7,552
Urban	10.0	37.5	18.3	18.1	28.4	48.1	57.0	52.3	78.9	2,411
Rural	10.7	37.2	20.9	22.0	38.0	51.9	66.4	63.8	87.1	5,141
Frontier Governorates	26.0	24.2	33.6	34.9	49.4	59.8	52.6	53.8	76.3	218
Education										
No education	13.6	44.3	21.4	22.5	34.8	47.3	66.4	65.7	85.9	6,740
Some primary Primary complete/	14.4	44.2	20.9	23.0	33.5	43.2	60.8	60.5	82.3	2,197
some secondary Secondary complete/	14.2	33.0	18.0	19.9	34.0	43.1	62.4	59.0	80.4	2,719
higher	8.2	16.8	11.3	12.6	23.8	31.8	53.5	50.2	68.8	7,818
Work status										
Working for cash	7.8	23.5	13.3	14.4	22.4	31.2	52.6	50.3	69.1	3,288
Not working for cash	12.4	33.3	17.5	19.0	31.7	41.8	61.5	59.5	79.6	16,186
Wealth quintile										
Lowest	14.5	49.4	24.0	24.1	35.5	46.7	66.8	68.4	88.5	3,565
Second	13.0	39.0	18.5	19.7	32.1	41.9	63.3	61.9	82.0	3,778
Middle	12.8	32.5	16.6	17.8	30.8	39.6	61.1	58.4	77.0	3,931
Fourth	11.3	26.4	14.8	17.0	29.8	40.0	59.6	57.6	76.8	4,137
Highest	6.9	14.0	11.2	13.2	23.2	32.9	50.4	45.0	66.5	4,063
Total	11.6	31.7	16.8	18.2	30.1	40.0	60.0	58.0	77.9	19,474

### 15.8 HEALTH INSURANCE COVERAGE

Women's access to care for themselves and for their children improves if they are covered by some form of health insurance. Table 15.15 shows that a minority of ever-married women age 15-49 in Egypt (12 percent) are covered by any type of health insurance. Insurance is clearly associated with employment; nine percent of women have insurance through an employer and three percent are insured through another family member's employer. Among women who work for cash, around half report they have health insurance through their employer. With respect to other characteristics, health insurance coverage is concentrated among older women, urban residents, women with a secondary or higher education, and women in the fourth and highest wealth quintiles.

Percentage of ever-married women characteristics, Egypt 2005	by type of h	ealth insurance	e coverage,	according to	backgrou
Background characteristic	Women's employer	Another family member's employer	Other <sup>1</sup>	No insurance	Number womer
	<sub>-</sub> ,	, , , , , , , , , , , , , , , , , , ,			
Age 15 10	0.2	0.2	0.5	00.0	902
15-19 20-24	0.3	0.2	0.5	98.9	803
	1.6	1.4 2.6	0.2	96.6	2,968
25-29 30-34	5.1 9.6	2.6 4.1	0.8 1.2	91.4 85.2	3,785
					3,209
35-39	10.1	2.8	1.4	85.8	3,191
40-44	15.2	3.0	1.6	80.5	2,859
45-49	13.9	3.1	1.7	82.0	2,659
Number of living children					
0	5.9	2.1	0.7	91.5	1,936
1-2	9.3	2.8	1.2	86.6	7,208
3-4	11.1	3.3	1.4	84.6	7,053
5+	3.4	1.7	0.3	94.4	3,277
Urban-rural residence					
Urban	13.8	3.7	2.2	80.5	8,033
Rural	5.0	2.1	0.3	92.7	11,441
	5.0		0.5	32.7	,
Place of residence	42.0	F 4	2.0	70.4	2 202
Urban Governorates	13.0	5.1	3.9	78.4	3,293
Lower Egypt	10.4	3.7	0.3	86.0	8,410
Urban	19.1	4.5	0.6	76.3	2,199
Rural	7.3	3.4	0.2	89.4	6,211
Upper Egypt	4.7	0.7	8.0	93.7	7,552
Urban	9.8	1.0	1.7	87.4	2,411
Rural	2.3	0.5	0.4	96.6	5,141
Frontier Governorates	11.4	2.9	8.0	85.1	218
Education					
No education	0.3	0.9	0.1	98.5	6,740
Some primary	0.8	2.1	0.2	96.8	2,197
Primary complete/some secondary	1.2	2.1	0.4	96.0	2,719
Secondary complete/higher	20.6	4.7	2.5	72.9	7,818
Work status					
Working for cash	50.0	2.9	3.5	45.2	3,288
Not working for cash	0.2	2.7	0.7	96.3	16,186
ŭ .	0.2	2.7	0.7	50.5	10,100
Wealth quintile	0.6		0.4		0 = 6 =
Lowest	0.6	0.4	0.1	98.7	3,565
Second	1.8	1.4	0.1	96.5	3,778
Middle	5.2	2.3	0.4	92.2	3,931
Fourth	11.7	3.5	1	84.2	4,137
Highest	22.2	5.6	3.7	69.0	4,063
Total	8.6	2.7	1.1	87.7	19,474

The practice of female circumcision (also referred to as female genital cutting) has been a tradition in Egypt since the Pharonic period, and adherence to the custom remains widespread. The 2005 Egypt DHS survey included questions designed to assess the current prevalence of circumcision among survey respondents and their daughters. Questions were included about the daughter's age at circumcision and the person who performed the circumcision. The survey also investigated attitudes toward the practice.

### 16.1 **PREVALENCE OF FEMALE CIRCUMCISION**

### **CIRCUMCISION OF EDHS RESPONDENTS**

Results from the 2005 EDHS show that the practice of female circumcision is virtually universal among women of reproductive age in Egypt. Table 16.1 shows that 96 percent of the ever-married women interviewed in the 2005 EDHS reported that they had been circumcised. Only in the Urban Governorates (89 percent) and the Frontier Governorates (72 percent) does the prevalence of circumcision fall below 90 percent.

### **Circumcision Prevalence among Girls**

The procedure for collecting information about daughters' circumcision status in the 2005 EDHS differed from the approach used in the earlier surveys. In the 1995 and 2000 EDHS surveys, respondents who had surviving daughters were asked about the number of their daughters who had been circumcised. If the woman had at least one daughter circumcised, additional questions were asked about the age at circumcision and the person performing the circumcision for the daughter who had been circumcised most recently. If a respondent's daughter(s) was (were) not yet circumcised, she was asked about whether she intended to have her daughter(s) circumcised in the future.

Table 16.1 Prevalence of female circumcision among evermarried women 15-49 by background characteristics

Percentage of ever-married women 15-49 who have been circumcised according to selected background characteristics, Egypt 2005

	Percentage of	
	ever-married	
	women age	Number of
	15-49 who	ever-married
Background	have been	women age
characteristic	circumcised	15-49
Age		_
15-19	96.4	803
20-24	95.8	2,968
25-29	95.1	3,785
30-34	95.9	3,209
35-39	95.9	3,191
40-44	96.0	2,859
45-49	96.3	2,659
Urban-rural residence		
Urban	92.2	8,033
Rural	98.3	11,441
Place of residence		
Urban Governorates	89.4	3,293
Lower Egypt	98.0	8,410
Urban	95.2	2,199
Rural	99.0	6,211
Upper Egypt	96.9	7,552
Urban	94.5	2,411
Rural	98.0	5,141
Frontier Governorates	71.5	218
Education		
No education	98.4	6,740
Some primary	99.0	2,197
Primary complete/some	97.3	2,719
Secondary complete/higher	92.2	7,818
Work status		
Working for cash	92.7	3,288
Not working for cash	96.4	16,186
Wealth quintile		
Lowest	97.8	3,565
Second	99.1	3,778
Middle	98.3	3,931
Fourth	97.1	4,137
Highest	87.3	4,063
Total	95.8	19,474

In contrast to the two earlier surveys, the 2005 EDHS included a complete circumcision history for daughters under age 18, i.e., women with surviving daughters were asked about the circumcision status of each of their daughters age 0-17 years. For each daughter who was circumcised, information was collected on the age at which the daughter was circumcised and the person performing the circumcision.

Similar to the procedure in the earlier surveys, a woman whose daughter(s) was (were) not circumcised was asked about her intention to have her daughter(s) circumcised in the future.

The inclusion of a complete circumcision history provides the basis for a direct estimate of the prevalence of circumcision among girls, which was not possible using the data from the two earlier DHS surveys. This estimate is not based on the entire population of girls 0-17 years since information is not available for girls whose mothers were not interviewed in the survey, either because they were age 50 and older or had died. However, the estimate is based on a large proportion of the female population in the age group. Overall, EDHS respondents reported on the circumcision status of 20,628 girls age 0-17 years; this represented 93 percent of the 21,864 females in the age range living in EDHS households (not shown in table).

Using the circumcision history data, Table 16.2 presents information on the prevalence of circumcision among girls under age 18 in Egypt. The results indicate that slightly more than one-quarter of girls age 0-17 years have been circumcised. Girls age 9-10 are more than twice as likely as girls age 7-8 to have been circumcised (24 percent and 10 percent, respectively). This reflects the fact that, in Egypt, traditionally girls are circumcised slightly before or at puberty (El-Gibaly et al. 2002). The prevalence of circumcision increases rapidly from age 11 onward to a peak of 77 percent among girls age 15-17.

The percentage already circumcised may be combined with the percentage of girls whose mother expressed an intention to circumcise her daughter(s) in the future to provide an estimate of the expected prevalence of circumcision at

Table 16.2 Current and expected prevalence of female circumcision among girls

Percentage of girls age 0-17 years who are currently circumcised, percentage who are not yet circumcised but whose mothers intend that the girl will be circumcised in the future, and percentage expected to be circumcised by age 18 taking into account the current circumcision status and mother's intention, by the girl's current age, Egypt 2005

		Percentage	•	
		whose mothers	Percentage	
		intend the	expected	
		daughter to be	to be	
	Percentage	circumcised in	circumcised	Number of
Age	circumcised	the future	by age 18	daughters
< 3	0.5	60.7	61.2	3,879
3-4	1.9	65.0	66.9	2,553
5-6	4.2	58.0	62.2	2,544
7-8	9.6	54.2	63.8	2,284
9-10	23.8	45.7	69.5	2,236
11-12	51.4	21.6	73.0	2,038
13-14	68.8	8.7	77.5	1,957
15-17	76.5	3.3	79.8	3,137
Total	27.7	41.0	68.7	20,628

age 18 for each cohort of girls. The results suggest that the prevalence of circumcision will decline over time, from a level of around 80 percent among girls age 15-17 to around 60 percent among girls currently under age 3.

The cohort differences indicate that over the next decade in Egypt, there will be a steady decline in the proportions of young adult women who are circumcised. However, they also suggest that, in 2015, around six in ten girls will continue to be circumcised by their 18th birthday unless further changes occur in the attitudes supporting the practice.

Table 16.3 presents the variation in the current prevalence of circumcision, the mother's intention with regard to circumcision, and expected prevalence of circumcision at age 18 by the girl's current age and selected demographic and socio-economic background characteristics. Overall, the results show that residence is strongly associated with the likelihood a daughter will be circumcised now or in the future. The percentage of women who have at least one daughter who had been circumcised or who intend to have their daughter circumcised in the future is 53 percent in urban areas compared to nearly 80 percent in rural areas. The percentage of daughters who are or are likely to be circumcised in the future is lowest in the Urban Governorates (45 percent) and the Frontier Governorates (43 percent) and highest in rural Upper Egypt (83 percent).

Table 16.3 Current and expected prevalence of female circumcision among girls by background characteristics

Percentage of girls age 0-17 years who are currently circumcised, percentage who are not yet circumcised but whose mothers intend that the girl will be circumcised in the future, and percentage expected to be circumcised by age 18 taking into account the current circumcision status and mother's intention by the girl's current age, according to selected background characteristics, Egypt 2005

		< 9 years	5		9-12 years			12-17 year	'S	T	otal 0-17 ye	ears	
Background	Cir-	Mother intends to	Expected to be circumcised	Cir- cumcised	Mother intends to	Expected to be circumcised by age 18	Cir- cumcised	Mother intends to circumcise	Expected to be circumcised by age 18	Cir- cumcised	Mother intends to circumcise	Expected to be circumcised	Numbe
characteristic	cumcised	circumcise	by age 18	cumcisea	circumcise	by age 16	cumcisea	circumcise	by age 16	cumcisea	circumcise	by age 18	or giris
Mother's age													
15-19	0.0	69.0	69.0	na	na	na	na	na	na	0.0	69.0	69.0	217
20-24	1.7	65.9	67.6	55.3	41.9	97.2	na	na	na	2.0	65.8	67.8	1,841
25-29	2.5	60.6	63.1	29.2	45.6	74.8	51.7	27.3	79.0	5.3	59.0	64.3	3,847
30-34	4.0	57.6	61.6	36.5	38.7	75.2	79.1	9.1	88.2	21.6	46.8	68.4	4,471
35-39	5.2	56.9	62.1	35.5	32.3	67.8	76.2	5.5	81.7	37.9	32.5	70.4	4,897
40-44	5.7	54.9	60.6	38.8	28.4	67.2	71.5	4.8	76.3	46.5	23.5	70.0	3,315
45-49	7.2	56.1	63.3	44.1	30.2	74.3	70.8	4.0	74.8	54.9	18.1	73.0	2,041
Urban-rural residence													
Urban	2.1	45.7	47.8	27.6	26.5	54.1	57.8	4.6	62.4	21.2	31.5	52.7	7,803
Rural	4.3	68.2	72.5	42.7	38.9	81.6	83.3	5.9	89.2	31.7	46.8	78.5	12,825
Place of residence													,
Urban Governorates	1.1	38.8	39.9	19.7	25.2	44.9	50.4	4.6	55.0	16.8	27.8	44.6	3,015
	0.9	61.2	62.1	33.9	37.2		74.3	5.1	79.4	26.4	41.9	68.3	
Lower Egypt	0.9					71.1			79. <del>4</del> 57.1	26.4 18.6			8,385
Urban		42.3	42.7	22.8	26.3	49.1 78.4	51.4 81.7	5.7			29.3 45.9	47.9	1,996
Rural	1.0	66.8	67.8	37.6	40.8			4.9	86.6	28.8		74.7	6,388
Upper Egypt	6.7	66.3	73.0	45.8	35.1	80.9	81.1	6.0	87.1	32.8	45.2	78.0	8,963
Urban	4.4	57.2	61.6	40.6	29.4	70.0	71.2	3.8	75.0	28.3	38.3	66.6	2,636
Rural	7.6	70.0	77.6	47.8	37.4	85.2	85.4	6.9	92.3	34.7	48.1	82.8	6,327
Frontier Governorates	3.0	32.4	35.4	34.1	12.1	46.2	55.4	2.7	58.1	22.6	20.7	43.3	265
Education													
No education	5.6	73.4	79.0	45.8	39.5	85.3	83.8	6.0	89.8	39.1	44.7	83.8	8,204
Some primary Primary complete/some	3.4	72.2	75.6	38.2	43.8	82.0	77.4	5.9	83.3	36.0	43.6	79.6	2,393
secondary	3.9	64.5	68.4	37.4	33.0	70.4	76.2	5.1	81.3	24.8	46.5	71.3	2,750
Secondary complete/higher	1.7	44.4	46.1	24.0	23.5	47.5	47.9	3.9	51.8	13.3	34.0	47.3	7,281
Work status													
Working for cash	2.5	49.2	51.7	26.7	29.1	55.8	56.9	5.0	61.9	24.4	31.3	55.7	3,470
Not working for cash	3.7	61.5	65.2	39.5	35.5	75.0	77.7	5.5	83.2	28.4	43.0	71.4	17,158
Wealth quintile													
Lowest	4.5	76.2	80.7	40.0	47.5	87.5	82.9	8.0	90.9	33.1	51.9	85.0	4,592
Second	5.2	69.9	75.1	47.9	35.1	83.0	85.7	5.1	90.8	34.1	46.6	80.7	4,203
Middle	4.2	64.9	69.1	44.3	34.5	78.8	81.8	4.1	85.9	30.3	44.6	74.9	4,162
Fourth	2.0	51.1	53.1	31.2	34.1	65.3	69.7	5.8	75.5	23.6	37.2	60.8	4,017
Highest	1.1	31.6	32.7	20.3	15.9	36.2	41.7	3.1	44.8	15.3	21.1	36.4	3,653
	3.5	59.7	63.2	37.0	34.2	71.2	73.6	5.4	79.0	27.7	41.0	68.7	20,628

The proportion of girls who are currently circumcised or expected to be circumcised in the future decreases with the mother's educational attainment and with wealth status. Notably, 36 percent of girls in the highest wealth quintile are expected to be circumcised by the time they reach age 18 compared to 85 percent of girls in the lowest wealth quintile.

The results in Table 16.3 also show that there are marked differences within subgroups by cohort in the expected prevalence of circumcision, i.e., the sum of the percentage already circumcised and the percentage whose mothers express an intention to circumcise the girls in the future. For all groups, however, the expected prevalence is highest among girls age 12-17 and lowest among girls less than 9 years of age. For example, the expected prevalence declines from a level of 62 percent among urban girls age 12-17 to 48 percent among urban girls under age 9. Cohort trends in circumcision levels are evident even for groups where the prevalence of circumcision remains high, e.g., among girls in rural Upper Egypt, the expected prevalence decreases from 92 percent among girls 12-17 years to 78 percent among girls under age 9.

### 16.2 CIRCUMCISION EXPERIENCE OF DAUGHTERS

As part of the circumcision history, EDHS respondents were asked about the age at which the daughter had been circumcised and the person who performed the circumcision for each of the daughters reported as circumcised. Table 16.4 presents the distribution of the circumcised girls 0-17 years according to the age at circumcision. More than half of the girls were between seven and ten years of age at the time of circumcision, and virtually all girls were circumcised before age 13. The median age at the time of the circumcision for daughters is 10 years, with girls tending to be circumcised at a somewhat younger age in Upper Egypt and a somewhat older age in Lower Egypt than this average.

Ago at			Urban		Lower Egyp	ot	Upper Egypt			Frontier	
Age at circumcision	Urban	Rural	Gover- norates	Total	Urban	Rural	Total	Urban	Rural	Gover- norates	Total
<3	2.0	3.6	0.6	0.3	0.4	0.3	5.8	3.8	6.4	0.4	3.1
3-4	2.0	4.1	0.7	0.5	0.6	0.5	6.3	3.7	7.1	3.9	3.5
5-6	9.4	11.6	6.5	4.0	2.2	4.3	17.0	14.9	17.8	9.2	11.0
7-8	17.5	16.4	17.3	13.5	11.7	13.8	18.8	19.8	18.5	28.3	16.7
9-10	42.7	38.7	51.3	50.3	44.0	51.6	29.9	35.9	27.9	46.0	39.9
11-12	21.6	19.1	19.1	24.9	36.0	22.7	16.3	16.9	16.0	11.2	19.8
13-14	3.4	4.8	4.1	5.3	4.1	5.5	3.9	2.7	4.3	0.4	4.4
15-17	0.4	0.7	0.0	0.4	0.0	0.5	0.8	1.0	0.8	0.3	0.6
Don'know/missing	1.0	1.0	0.3	0.8	1.1	0.7	1.2	1.4	1.2	0.2	1.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,658	4,062	507	2,213	371	1,843	2,940	747	2,193	60	5,720
Median age	10.0	10.0	10.0	10.4	10.7	10.4	9.1	9.4	9.0	9.5	10.0

Regarding the person performing the circumcision, Table 16.5 shows that trained medical personnel performed almost three-quarters of the circumcisions. Dayas (traditional birth attendants) performed the majority of the remaining circumcisions. Dayas performed more circumcisions in rural Upper Egypt than in other areas; however, even in rural Upper Egypt, the majority of all circumcisions were performed by medical personnel.

Table 16.5 Person performing circumcisions among girls by residence

Percent distribution of girls age 0-17 years reported by their mother to have been circumcised by persons performing the circumcision, according to urban-rural residence and place of residence Egypt 2005

			Urban	1	_ower Egy	pt		Upper Egy	pt	Frontier	
Person performing			Gover-							Gover-	
circumcision	Urban	Rural	norates	Total	Urban	Rural	Total	Urban	Rural	norates	Total
Doctor	72.5	65.6	69.9	71.1	75.6	70.2	64.7	72.5	62.0	62.2	67.6
Nurse/other health worker	8.1	6.4	10.1	8.2	9.9	7.9	5.3	5.9	5.1	12.6	6.9
Daya	17.5	24.4	19.2	16.2	12.2	17.0	27.7	19.4	30.5	22.0	22.4
Barber	0.4	1.5	0.0	2.3	0.4	2.7	0.6	0.6	0.6	1.1	1.2
Ghagaria	0.0	0.6	0.0	0.9	0.0	1.1	0.1	0.1	0.1	1.2	0.4
Other	0.2	0.1	0.0	0.2	0.0	0.2	0.1	0.3	0.0	0.0	0.1
Don't know	1.2	1.3	0.8	1.1	1.9	0.9	1.5	1.2	1.6	0.9	1.3
Total percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,658	4,062	507	2,213	371	1,843	2,940	747	2,193	60	5,720

#### 16.3 SUPPORT FOR FEMALE CIRCUMCISION

The 2005 EDHS obtained information about whether the practice of circumcision was perceived to be required by religious precepts or not, whether women themselves believed the practice of female circumcision should be continued or not, and whether they think men support continuation of the practice.

Table 16.6 shows six in ten ever-married women age 15-49 believe that female circumcision is a religious requirement. The percentage of women considering circumcision to be required by religion tends to increase with age, and it is higher among rural than urban women. Women who have a secondary or higher education are much less likely than less educated women to believe that circumcision is mandated by religion. Women in the highest wealth quintile are the least likely to consider circumcision to be required by religion.

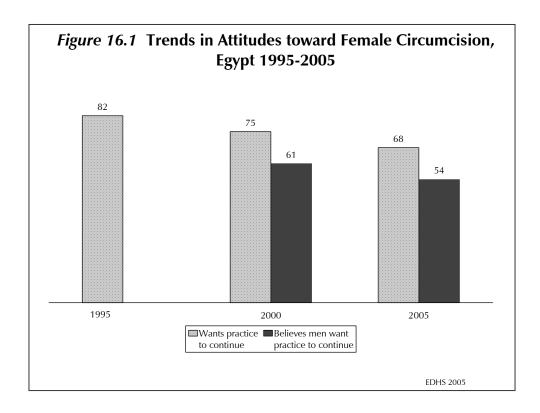
According to results of the 2005 EDHS, two-thirds of ever-married women age 15-49 feel that the practice of circumcision should continue. Fifty-four percent of women believe that men support continuation of the practice of circumcision. Marked differences in these indicators are evident according to the woman's background characteristics. Urban residents are less likely than rural residents to believe circumcision should be continued or to feel men support continuation of the practice. Both a woman's educational level and wealth status are negatively related to the likelihood that she supports the continuation of the practice of circumcision or believes that men want the practice to be continued.

Although support for circumcision is still widespread among women, Figure 16.1 shows there has been some change over time in women's attitudes about circumcision. Fewer women supported continuation of the practice at the time of the 2005 survey than in 2000 or in 1995. Women also were less likely to believe that men wanted the practice to continue in 2005 than in 2000.

Table 16.6 Attitude about continuation of female circumcision by background characteristics

Percentage of women age 15-49 who believe circumcision is required by religious precepts and percent distributions of ever-married women age 15-49 by the woman's own attitude and their perceptions about men's attitude toward the continuation of the practice of female circumcision, according to selected background characteristics, Egypt 2005

	Percentage saying circumcision					Wo	men's perc		bout	Number
	is required	Wome	n's attitude	about p	ractice		men's a	ttitudes		of ever-
Background	by religious		Ве	Not	Total		Ве	Not	Total	married
characteristic	precepts	Continue	stopped	sure	percent	Continue	stopped	sure	percent	women
Age										
15-19	57.8	70.0	17.7	12.3	100.0	54.1	13.4	32.5	100.0	803
20-24	59.1	67.3	22.3	10.5	100.0	53.7	16.8	29.5	100.0	2,968
25-29	59.1	66.0	24.0	10.0	100.0	53.6	19.9	26.5	100.0	3,785
30-34	60.3	65.9	24.6	9.5	100.0	55.1	20.7	24.2	100.0	3,209
35-39	61.5	68.0	23.1	8.9	100.0	53.5	21.0	25.5	100.0	3,191
40-44	63.0	67.8	24.5	7.8	100.0	53.3	23.0	23.7	100.0	2,859
45-49	63.1	70.4	22.5	7.1	100.0	56.8	20.5	22.7	100.0	2,659
Urban-rural residence										
Urban	52.6	55.3	35.0	9.6	100.0	44.3	30.4	25.2	100.0	8,033
Rural	66.5	76.1	15.0	8.8	100.0	61.2	12.7	26.1	100.0	11,441
Place of residence										
Urban Governorates	50.2	49.3	41.6	9.0	100.0	37.1	39.8	23.1	100.0	3,293
Lower Egypt	63.1	67.6	22.5	9.8	100.0	55.9	16.4	27.8	100.0	8,410
Urban	52.0	52.6	35.8	11.6	100.0	45.6	25.3	29.1	100.0	2,199
Rural	67.0	73.0	17.8	9.2	100.0	59.5	13.2	27.3	100.0	6,211
Upper Egypt	63.1	75.9	15.5	8.6	100.0	60.3	14.8	24.9	100.0	7,552
Urban	56.8	66.7	24.5	8.8	100.0	53.4	21.5	25.1	100.0	2,411
Rural	66.1	80.2	11.3	8.5	100.0	63.5	11.6	24.9	100.0	5,141
Frontier Governorates	48.7	48.7	44.9	6.5	100.0	41.8	43.3	14.9	100.0	218
Education										
No education	68.1	80.6	11.3	8.1	100.0	64.4	11.1	24.5	100.0	6,740
Some primary	68.4	77.6	13.2	9.3	100.0	59.0	14.1	26.8	100.0	2,197
Primary complete/some										
secondary	62.1	69.9	21.9	8.2	100.0	56.8	18.0	25.2	100.0	2,719
Secondary complete/higher	51.8	52.7	37.0	10.3	100.0	43.3	30.0	26.7	100.0	7,818
Work status										
Working for cash	54.3	55.9	35.5	8.6	100.0	44.7	31.0	24.3	100.0	3,288
Not working for cash	62.1	69.9	20.8	9.3	100.0	56.2	17.8	26.0	100.0	16,186
Wealth quintile										
Lowest	68.1	81.9	9.2	8.9	100.0	64.1	9.4	26.5	100.0	3,565
Second	67.3	78.6	12.6	8.8	100.0	63.2	11.8	25.0	100.0	3,778
Middle	64.9	73.3	17.5	9.2	100.0	59.2	15.4	25.4	100.0	3,931
Fourth	59.0	62.9	27.3	9.8	100.0	50.8	21.8	27.4	100.0	4,137
Highest	46.0	43.7	47.2	9.1	100.0	36.1	39.6	24.3	100.0	4,063
Total	60.8	67.5	23.3	9.2	100.0	54.3	20.0	25.7	100.0	19,474



#### 16.4 **REASONS FOR SUPPORT OF FEMALE CIRCUMCISION**

To gain a better understanding of Egyptian women's reasons for supporting the practice of circumcision, the EDHS included several statements about circumcision with which women were asked to agree or disagree. Table 16.7 shows that around 60 percent of ever-married women age 15-49 think that the husband prefers the wife to be circumcised. Furthermore, many women see circumcision as ensuring that a woman will remain faithful to her husband; around half of women agree that circumcision prevents adultery.

The results in Table 16.7 also suggest that comparatively few women recognize potential adverse consequences of the practice for women. For example, 32 percent of women agree with the statement that circumcision can cause severe complications that may lead to a girl's death. An even smaller proportion of women believe that childbirth is more difficult for circumcised women than for other women (13 percent).

Table 16.7 shows that women living in rural areas in Upper Egypt and women in the lowest wealth quintile are most likely to believe that men prefer wives to be circumcised (75 percent and 74 percent, respectively). Women in the highest wealth quintile and women living in the Urban Governorates are least likely to share this belief; however even among these groups, around four in ten women agree that men prefer their wives to be circumcised. Except for women in the highest wealth quintile, more than four in ten women in all of the subgroups shown in Table 16.7 believe that circumcision prevents adultery.

Table 16.7 Beliefs about female circumcision by background characteristics Percentage of ever-married women age 15-49 who agree with various statements about female circumcision, according to selected background characteristics, Egypt 2005 Number of Makes Can lead to Background Husbands Prevents childbirth ever-married characteristic adultery girl's death difficult prefer women Age 15-19 62.9 52.0 28.1 14.1 803 20-24 61.9 54.6 30.1 13.4 2,968 25-29 33.2 12.7 61.2 52.5 3,785 30-34 60.9 54.7 36.2 13.5 3,209 35-39 61.3 54.9 32.8 12.9 3,191 40-44 59.0 32.1 2,859 54.1 13.6 45-49 62.9 55.7 30.5 12.4 2,659 Urban-rural residence 49.4 47.2 38.6 Urban 12.1 8,033 Rural 69.6 28.1 13.8 59.1 11,441 Place of residence 42.5 42.3 45.6 13.5 3,293 **Urban Governorates** 8,410 61.5 54.9 39.9 15.4 Lower Egypt Urban 49.2 46.4 47.5 12.7 2,199 Rural 65.8 57.9 37.3 16.4 6,211 Upper Egypt 69.7 59.0 18.1 10.3 7,552 Urban 59.5 55.3 20.5 2,411 9.3 Rural 74.5 60.7 17.0 10.8 5,141 Frontier Governorates 44.2 43.4 40.1 14.5 218 **Education** 72.8 61.0 22.1 13.4 6,740 No education 25.1 67.8 Some primary 62.0 13.3 2,197 Primary complete/some secondary 56.6 29.7 14.0 2,719 63.1 Secondary complete/Higher 48.9 45.3 44.3 12.5 7,818 Work status Working for cash 49.0 45.9 44.2 13.5 3,288 Not working for cash 63.8 55.9 30.0 13.0 16,186 Wealth quintile 57.9 Lowest 74.3 21.4 14.6 3,565 Second 71.9 64.0 24.6 13.6 3,778 Middle 65.2 60.0 29.3 13.8 3,931 Fourth 56.5 51.8 36.3 11.8 4,137 Highest 40.9 38.8 48.5 12.1 4,063 Total 61.3 54.2 32.4 13.1 19,474

The belief that circumcision may lead to a girl's death is more prevalent among urban women, highly educated women, women working for cash, and women in the highest wealth quintile than among other women in Egypt. However, even in these groups, the majority of women do not believe that circumcision has this adverse consequence.

#### 16.5 EXPOSURE TO INFORMATION ABOUT CIRCUMCISION

Table 16.8 summarizes findings from the EDHS concerning women's exposure to information about female circumcision and the channels through which women received information about circumcision during the six-month period prior to the survey. Eight in ten women had received information about female circumcision during the six months prior to the survey. Urban women, highly educated women, women working for cash, and women in the highest wealth quintile were more likely than other women to have received information about circumcision during the period.

Regarding sources of information about circumcision, television was the primary source of information. Among ever-married women, 93 percent reported that they received information about female circumcision on television, and 19 percent had received information from their husband, other relatives or friends and neighbors. Relatively few women cited other media or contacts with health providers as a source from which they had received information about circumcision.

Table 16.8 Exposure to information regarding female circumcision by background characteristics

-0- 3. 3.3. Included women age 13-49 receiving information about temale circumcision during the six-month period prior to the survey, and percentage of women receiving any information naming various sources of information, according to background characteristics, Egypt 2005 Percentage of ever-married women age 15-49 receiving information about female circumcision during the six-month period prior to the

	Percentage receiving		Sourc	e from whi	ch women	saw/hea	ırd about 1	female circum	cision	ever-married women
	information							Husband/ other		receiving
	recently about	Number of ever-			He	alth worl	ker	relatives/		information about female
Background	female	married		Other	Any	Home	Facility	friends/		circumcision
characteristic	circumcision	women	TV	media <sup>1</sup>	contact	visit	visit	neighbors	Other <sup>2</sup>	recently
Age										
15-19	71.8	803	92.8	3.8	0.8	0.0	0.8	16.7	0.8	577
20-24	76.5	2,968	93.1	4.2	3.0	0.3	2.8	19.4	0.9	2,272
25-29	80.6	3,785	93.5	6.6	3.6	0.5	3.3	18.1	0.6	3,052
30-34	82.5	3,209	92.8	7.1	4.7	0.4	4.3	21.4	1.4	2,646
35-39	81.1	3,191	92.8	7.5	3.8	0.5	3.4	19.7	0.9	2,587
40-44	80.2	2,859	91.1	8.8	4.0	0.3	3.8	19.1	1.5	2,294
45-49	77.9	2,659	93.7	6.6	3.4	0.5	2.9	17.8	0.9	2,070
Urban-rural residence										
Urban	86.0	8,033	94.4	8.1	4.4	0.3	4.2	17.6	1.1	6,905
Rural	75.1	11,441	91.6	5.6	3.0	0.4	2.7	20.5	0.9	8,592
Place of residence										
Urban Governorates	88.3	3,293	93.3	8.9	5.7	0.3	5.4	17.9	1.3	2,908
Lower Egypt	76.9	8,410	92.6	9.8	3.4	0.4	3.1	20.6	8.0	6,471
Urban	82.4	2,199	95.0	12.8	4.3	0.4	4.1	18.8	1.1	1,812
Rural	75.0	6,211	91.6	8.7	3.1	0.4	2.7	21.3	0.6	4,659
Upper Egypt	79.0	7,552	93.0	2.3	2.9	0.4	2.6	18.3	1.1	5,965
Urban	86.6	2,411	95.3	3.0	2.7	0.3	2.5	16.2	0.8	2,087
Rural	75.4	5,141	91.8	1.9	3.0	0.5	2.6	19.4	1.2	3,878
Frontier Governorates	70.5	218	90.5	3.7	4.7	0.1	4.6	20.0	0.9	154
Education										
No education	71.5	6,740	90.3	3.4	2.4	0.4	2.1	19.8	1.0	4,818
Some primary	76.7	2,197	91.3	3.2	3.2	0.3	2.9	20.8	0.7	1,686
Primary complete/some										
secondary	80.7	2,719	92.4	4.2	2.3	0.2	2.1	22.3	1.0	2,193
Secondary complete/higher	87.0	7,818	95.3	10.7	5.1	0.4	4.8	17.3	1.1	6,800
Work status										
Working for cash	84.3	3,288	92.2	12.2	8.9	1.0	8.2	19.8	1.3	2,773
Not working for cash	78.6	16,186	93.0	5.5	2.5	0.3	2.3	19.0	0.9	12,724
Wealth quintile										
Lowest	68.4	3,565	88.1	3.2	3.3	0.5	2.8	22.9	0.9	2,438
Second	75.5	3,778	91.4	3.5	2.3	0.4	1.9	20.1	0.7	2,851
Middle	77.8	3,931	93.0	4.6	3.3	0.4	2.9	18.3	8.0	3,060
Fourth	85.2	4,137	94.9	7.5	3.9	0.3	3.7	18.4	1.3	3,527
Highest	89.2	4,063	95.2	12.5	5.1	0.3	4.8	17.5	1.2	3,622
Total	79.6	19,474	92.9	6.7	3.7	0.4	3.3	19.2	1.0	15,497

<sup>&</sup>lt;sup>1</sup> Includes radio, newspaper, magazine, pamphlet, brochure or poster

<sup>&</sup>lt;sup>2</sup> Includes community meeting, religious leader and other responses

### 17.1 **I**NTRODUCTION

Domestic violence against women has been acknowledged worldwide as a violation of basic human rights, and an increasing amount of research highlights the health burdens, intergenerational effects, and demographic consequences of such violence (United Nations General Assembly, 1991; Heise et al., 1994, 1998; Jejeebhoy, 1998).

The 2005 EDHS included a special module designed to obtain information on the extent to which women in Egypt experience domestic violence. The domestic violence module was administered in interviews conducted with eligible women in the households included in the subsample selected for the anemia-testing component of the survey. To ensure confidentiality, only one woman in each household in the subsample was selected to be asked questions about domestic violence.

The module included a series of questions to collect information on various forms of marital violence including physical and emotional violence. Although the module focused on the extent of marital violence, information also was obtained on any physical violence involving perpetrators other than the current (last) husband that the woman experienced since her fifteenth birthday. Women who reported recent marital violence were asked about assistance they may have sought at the time the most recent episode of violence occurred.

The chapter also considers information collected from EDHS respondents about their attitudes toward marital violence.

### 17.2 PHYSICAL VIOLENCE

### **Prevalence of Physical Violence**

Nearly half of ever-married women age 15-49 reported that they had been hit, slapped, kicked, or subjected to some other form of physical violence at some point after their fifteenth birthday (Table 17.1). About one-fifth of the women reported that they had been subjected to some form of physical violence within the 12-month period before the survey interview, including seven percent who reported that they had often experienced some form of physical violence during the period.

Women age 20 and older were somewhat more likely than women age 15-19 to report ever experiencing physical violence. Women age 45-49 were the least likely to have been subject to violence in the year preceding the survey. A woman's marital status was strongly related to the likelihood that she had ever experienced physical violence; 75 percent of divorced or separated women reported at least one episode of physical violence after age 15 compared to 43 percent of women who were widowed and 47 percent of currently married women. Currently married women were more likely to have been subjected to acts of violence within the 12-month period before the survey than other women.

Although urban and rural women were equally likely to have ever experienced physical violence, rural women were somewhat more likely than urban women to report a recent episode, i.e., within the 12-month period before the survey (25 percent and 19 percent, respectively). Women living in the Frontier Governorates were less likely than women living in the Urban Governorates or in the governorates in Lower and Upper Egypt to report having ever or recently experienced physical violence.

Table 17.1 Experience of physical violence since age 15 by background characteristics

Percentage of ever-married women who have ever experienced physical violence since age 15 and percentage who experienced physical violence during the 12 months preceding the survey, by background characteristics, Egypt 2005

		ge who have al violence si	e experienced ince age 15	-	
Background		In past	12 months	Number of	
characteristic	Ever	Often	Sometimes	women	
Age					
15-19	40.0	7.4	14.1	251	
20-29	47.1	7.4	19.2	1,871	
30-39	49.3	7.7	16.2	1,876	
40-49	46.7	5.4	11.5	1,614	
Marital status					
Married	46.8	7.2	16.5	5,240	
Divorced/separated	75.0	6.7	10.0	158	
Widowed	42.9	0.0	1.5	215	
Urban-rural residence					
Urban	47.4	6.0	13.2	2,339	
Rural	47.4	7.5	17.6	3,274	
Place of residence					
Urban Governorates	49.9	6.5	14.5	931	
Lower Egypt	49.9	6.8	17.0	2,456	
Urban	47.6	4.4	12.9	666	
Rural	50.7	7.8	18.5	1,789	
Upper Egypt	43.8	7.2	15.0	2,161	
Urban	44.2	7.0	11.8	703	
Rural	43.6	7.3	16.5	1,458	
Frontier Governorates	38.8	4.7	11.9	66	
Education					
No education	51.6	9.4	19.0	1,923	
Some primary	58.6	8.9	17.1	649	
Primary complete/some secondary	52.3	8.0	19.0	780	
Secondary complete/higher	39.0	3.8	11.5	2,262	
Work status					
Working for cash	44.3	6.1	11.3	973	
Not working for cash	48.1	7.1	16.7	4,640	
Wealth quintile					
Lowest	51.0	9.2	19.9	1,048	
Second	52.8	8.1	20.7	1,018	
Middle	47.5	7.8	16.2	1,129	
Fourth	48.7	6.2	13.6	1,226	
Highest	38.4	3.8	9.6	1,192	
Total	47.4	6.9	15.7	5,613	

The prevalence of physical violence was just under 40 percent among women with a secondary or higher education compared to more than 50 percent among less-educated women. Women who worked for cash were slightly less likely than other women to report physical violence. The prevalence of physical violence decreased with the wealth quintile.

## **Perpetrators of Physical Violence**

Table 17.2 shows the proportions of women who ever experienced violence according to the persons identified as perpetrators of the violence. Husbands were named most frequently; more than seven in ten women identified their current or a previous husband as the perpetrator in at least one episode of physical violence. More than four in ten women had been hit, slapped, kicked, or subjected to some other form of physical violence by male perpetrators other than a husband. The woman's father and brother(s) were most frequently mentioned as the perpetrators, with fathers named twice as often as brothers by the women reporting the violence (53 percent and 23 percent, respectively) (not shown in table). Thirty-six percent indicated that a female—most often the woman's mother—was responsible for at least one episode of physical violence.

Table 17.2 Perpetrators of physical violence										
Percentage of women reporting physical violence by perpetrator of the violence and current marital status, Egypt 2005										
		Male		Number of						
	Current/	perpetrator		women ever						
previous other than Female experiencing										
Marital status	Marital status husband husband perpetrator violence									
Currently married	71.2	45.8	37.1	2,452						
Divorced/separated	91.2	29.2	18.8	118						
Widowed	71.1	30.7	25.1	92						
Total	72.1	44.6	35.9	2,662						

# **Violence during Pregnancy**

Violence during pregnancy may threaten not only a woman's well-being but that of her unborn child. Table 17.3 presents information on the proportion of Egyptian women who have experienced some form of physical violence during pregnancy. Among women who had ever been pregnant, the table shows that six percent were hit, slapped, kicked, or subjected to some other form of physical violence at least once during a pregnancy. Women who were divorced were most likely to report violence during pregnancy. Women with a secondary or higher education and women in the highest wealth quintile were least likely to have experienced an episode of violence when they were pregnant.

Among the women who reported violence during pregnancy, around 81 percent identified the husband (current/previous) as the perpetrator of the violent act(s) experienced during pregnancy (not shown in table). Besides the husband, in-laws were named most often as perpetrators of the violence; five percent named the mother-in-law and three percent the father-in-law as responsible for the violent acts they suffered during pregnancy.

Table 17.3 Violence during pregnancy Among women who have ever been pregnant, percentage ever experiencing physical violence during pregnancy, by background characteristics, Egypt 2005 Percentage ever experiencing Number physical of ever-Background violence during pregnant characteristic pregnancy women Age 15-29 1,925 6.3 30-39 6.2 1,813 40-49 5.9 1,549 **Marital status** Married 5.6 4,954 Divorced 27.6 136 Separated/widowed 4.8 198 Urban-rural residence Urban 5.5 2.222 Rural 3,066 6.7 Place of residence **Urban Governorates** 6.0 875 Lower Egypt 5.7 2,311 Urban 4.3 639 Rural 6.2 1,672 Upper Egypt 6.8 2,041 Urban 5.9 672 Rural 7.2 1,369 Frontier Governorates 4.6 61 **Education** No education 8.2 1,831 Some primary 10.1 622 Primary complete/some secondary 5.5 724

3.4

6.7

6.0

8.8

8.2

6.7

4.5

3.2

6.2

2,111

923

4,365

1,003

1,065

1,142

1,124

5,288

954

Secondary complete/higher

Work status

Working for cash

Wealth quintile

Lowest Second

Middle

Fourth

Highest

Total

Not working for cash

### 17.3 MARITAL VIOLENCE

### **Prevalence of Various Forms of Marital Violence**

The domestic violence module obtained more detailed information on the forms of violence evermarried women had experienced in the relationships with their current husband or, in the case of widowed, divorced, or separated women, their most recent husband. Table 17.4 shows the proportions of women reporting they had ever and recently experienced episodes of emotional, physical, and sexual violence in their relationship with their husband.

Physical violence is the most common form of violence, with one-third of ever-married women reporting being subjected to some form of physical violence at least once by their current or most recent husband, and 20 percent reporting the most recent episodes of violence had taken place within the 12 months preceding the survey. Among six percent of the women, episodes of violence occurred often during that period.

		In past	12 months	
Forms of violence	Ever	Often	Sometime	
Physical violence				
Any <sup>1</sup>	33.2	5.9	14.5	
Any moderately violent act(s) <sup>1</sup>	33.2	5.9	14.4	
Pushed or shook woman or threw something at her	25.7	4.1	10.0	
Slapped her or twisted her arm	28.1	4.2	10.6	
Punched her with fist or other object	12.9	2.5	4.5	
Kicked or dragged her	5.9	1.4	1.8	
Any severely violent act(s) <sup>1</sup>	1.6	0.3	0.4	
Tried to strangle/burn her Threatened her with a knife, gun, or other	1.0	0.2	0.3	
weapon	0.9	0.2	0.1	
Attacked her with a knife, gun, or other weapon	0.5	0.1	0.0	
Sexual violence				
Physically forced to have sex	6.6	1.8	2.0	
Emotional violence				
Any <sup>1</sup>	17.5	4.1	6.6	
Said or did something to humiliate woman	17.1	3.9	6.1	
Threatened harm to woman herself/person close to her	6.2	1.4	2.0	
Any form of physical and/or sexual violence <sup>1</sup>	33.7	6.5	15.2	
Any form of emotional, physical, and/or sexual violence <sup>1</sup>	35.9	7.7	17.0	

<sup>&</sup>lt;sup>1</sup> Composite violence indicators are considered to have taken place often in the 12-month period if any of the component acts of violence occurred often. The indicators are considered to have taken place "sometimes" if all of the component acts took place only sometimes.

The results indicate that the most common forms of physical violence included being slapped or having her arm twisted (28 percent), being pushed or shaken or having objects thrown at her by the husband (26 percent); and being punched with the fist or another object (13 percent). Around two percent of the women were the subject of extremely violent acts including being burned or strangled, or threatened or attacked with some type of weapon.

Seven percent of women indicated that their spouse had ever physically forced them to have sex and four percent reported that they had recently been forced to have sex by their spouse.

Table 17.4 also indicates that 18 percent of ever-married women reported they had ever experienced emotional violence, and 11 percent had experienced a recent episode of emotional violence. Virtually all women experiencing emotional violence indicated that their husbands had said or done something intended to humiliate them; however, six percent reported the husband had threatened them or someone close to them with physical harm.

Violence by husbands against wives is not the only form of spousal violence; women may sometimes be the perpetrators of violence. To measure spousal violence by women, the 2005 EDHS asked ever-married women, "Have (did) you ever hit, slapped, kicked, or done anything else to physically hurt your (last) husband?" This line of questioning may result in some underreporting if women find it difficult to admit that they themselves initiated violence. Results show that less than one percent of evermarried women report initiating violence against their husbands (not shown in table).

# **Differentials in Prevalence of Marital Violence**

Table 17.5 presents differences in the levels of various forms of marital violence by background characteristics, and Table 17.6 shows differences in the levels of violence by spousal characteristics.

Table 17.5	Marital violence l	hy hackground	characteristics

Percentage of ever-married women who have experienced emotional, physical, or sexual violence at the hands of their current or most recent husband and who recently have been physically violent towards their current/most recent husband, by background characteristics, Egypt 2005

-				Form of	violence				
	Emo	tional	Ph	ysical	S	exual	/	Any	
Background characteristic	Ever	Within past 12 months	Ever	Within past 12 months	Ever	Within past 12 months	Ever	Within past 12 months	Number of ever-married women
Age									
15-19	8.7	6.5	19.7	15.8	2.8	2.8	20.9	17.2	251
20-29	16.3	10.9	31.6	21.4	6.3	4.2	34.5	23.5	1,871
30-39	18.5	11.2	35.9	19.1	7.3	4.7	38.8	22.3	1,876
40-49	19.0	8.9	34.1	13.9	6.9	2.7	36.7	15.9	1,614
Marital status									
Married	16.6	10.6	32.4	19.1	6.2	4.1	35.1	21.6	5,240
Divorced/separated	51.9	11.9	67.5	13.5	23.0	1.8	69.1	15.4	158
Widowed	14.0	0.3	28.9	0.9	5.5	0.0	31.3	0.9	215
Urban-rural residence									
Urban	15.4	8.6	31.0	15.2	5.5	2.8	33.8	17.5	2,339
Rural	19.0	11.5	34.8	20.4	7.5	4.6	37.5	22.9	3,274
Place of residence									
Urban Governorates	14.9	7.8	32.6	15.3	5.5	2.6	34.8	16.9	931
Lower Egypt	19.7	11.6	35.6	19.6	8.9	5.5	38.4	22.8	2,456
Urban	17.3	9.1	31.4	15.0	6.7	3.2	35.2	18.9	666
Rural	20.6	12.5	37.1	21.4	9.8	6.4	39.7	24.2	1,789
Upper Egypt	16.2	9.8	31.0	18.0	4.5	2.5	33.8	20.1	2,161
Urban	14.5	9.0	28.6	15.3	4.2	2.6	31.4	17.2	703
Rural	17.1	10.2	32.1	19.2	4.6	2.4	35.0	21.4	1,458
Frontier Governorates	12.5	7.5	27.8	13.8	7.0	5.2	29.1	14.9	66
Education									
No education	23.4	13.7	40.0	22.5	7.2	4.1	42.9	25.1	1,923
Some primary Primary complete/some	24.5	13.6	42.8	20.8	9.1	4.8	45.6	24.6	649
secondary '	16.6	11.4	38.7	22.0	8.1	4.7	42.0	25.2	780
Secondary complete/higher	10.7	6.0	22.8	12.5	4.9	3.1	25.1	14.2	2,262
Work status									
Working for cash	16.6	8.6	28.8	13.4	6.6	2.9	31.3	15.3	973
Not working for cash	17.7	10.6	34.2	19.2	6.6	4.1	36.9	21.8	4,640
Wealth quintile									
Lowest	23.8	15.3	38.9	22.9	6.8	4.4	42.1	26.3	1,048
Second	21.3	12.7	38.5	22.3	8.9	5.0	41.2	25.8	1,018
Middle	19.4	11.4	36.1	20.3	7.3	4.9	39.6	22.7	1,129
Fourth	14.7	7.7	32.2	16.3	7.1	3.9	34.0	18.1	1,226
Highest	9.6	5.2	22.0	10.6	3.5	1.5	24.6	12.0	1,192
Total	17.5	10.2	33.2	18.2	6.6	3.9	35.9	20.7	5,613

The results in Table 17.5 indicate that women age 15-19, women with a secondary or higher education, and women in the highest wealth quintile were less likely to have ever experienced any form of marital violence than other women.

As Table 17.6 shows, violence was somewhat more common if the couple was close in age, i.e., the difference in their age was less than two years. Marital violence was somewhat less likely if the woman's husband was a first or second cousin, particularly a paternal cousin, than if the woman and her husband were more distantly related or not related by blood at all. Marital violence tended to be more likely if the husband had less than a secondary education. Marital violence was least common among couples who have achieved the same level of education and most common among couples where both the husband and the wife never attended school.

### Table 17.6 Marital violence by spousal characteristics

Percentage of ever-married women who have recently experienced emotional, physical, or sexual violence at the hands of their current or most recent husband and who recently have been physically violent towards their current/most recent husband, by selected spousal characteristics, Egypt 2005

									Percentage who have	
				Form of v	violence				recently been	
	Emo	otional	Ph	ıysical	Se	exual		Any	physically	Number
Spousal characteristics	Ever	Within past 12 months	Ever	Within past 12 months	Ever	Within past 12 months	Ever	Within past 12 months	violent towards husband	of ever- married women
Age difference										_
< 2 years	20.9	13.5	38.9	23.3	8.3	5.4	42.2	28.2	0.3	537
2-4 years	17.3	10.4	32.9	19.2	6.3	3.3	35.6	21.4	0.3	1,282
5-9 years	14.7	9.6	31.1	18.5	5.8	4.4	33.6	21.1	0.5	2,087
10 years or more	17.2	11.2	31.2	18.0	5.8	3.9	34.1	20.1	0.5	1,334
Age unknown	30.1	5.3	45.2	6.2	12.9	0.7	47.3	7.0	0.2	373
Relationship to current (last) husband¹										
Paternal cousin	12.9	8.4	28.4	15.2	6.3	4.6	31.0	17.1	0.3	394
Maternal cousin	17.1	9.4	32.5	17.8	4.9	2.0	34.9	20.1	0.1	962
Other blood relative	18.9	12.4	37.6	23.3	10.4	6.1	40.4	26.3	0.7	420
Related by marriage	13.7	3.2	35.1	24.8	2.2	1.8	35.9	25.2	0.0	85
Not related	18.0	10.6	33.4	17.9	6.8	4.0	36.2	20.4	0.5	3,745
Husband's education										
No education	26.3	15.0	42.7	23.9	8.3	4.5	45.1	26.1	0.2	1,309
Some primary Primary complete/some	20.9	12.3	35.6	16.7	7.7	4.7	39.4	21.0	0.2	727
secondary	18.4	12.1	41.8	23.7	8.5	5.2	45.0	27.1	0.6	974
Secondary complete/higher	11.7	6.5	24.6	13.8	4.8	2.8	27.0	15.4	0.6	2,590
<b>Educational differences</b>										
Husband higher than wife	18.3	11.3	36.7	20.3	7.3	4.2	39.8	23.2	0.6	1,879
Wife higher than husband	19.6	12.0	37.7	20.6	9.2	4.8	40.3	22.9	0.2	866
Husband-wife same level	11.0	6.0	23.4	12.1	4.3	2.8	25.9	14.3	0.5	1,885
Both no education	26.6	14.9	41.8	24.1	7.4	4.6	44.2	26.1	0.2	969
Total	17.5	10.2	33.2	18.2	6.6	3.9	35.9	20.7	0.4	5,613

Note: Total includes 5 cases for which information on relationship to the husband is missing and 13 cases for which information on the husband's educational level was missing.

## **Adverse Physical Consequences of Marital Violence**

Around one-third of women experiencing at least one episode of physical violence at the hands of their husbands reported that they suffered from bruises or aches as an outcome of the violence, and 10 percent reported they had a broken bone or suffered other injury as a result of the violence (not shown in table). Five percent of the women indicated that they sought medical assistance as a result of the violence.

# **Help-Seeking Behavior**

The 2005 EDHS collected information to assess the extent to which women seek help to deal with domestic violence episodes. To obtain these data, women who had experienced an episode of physical or sexual violence at the hands of their husband within the 12-month period before the survey were asked whether they had sought any help at any time during the year when their husband had done something to physically hurt them and, if so, from whom they had sought help.

The results in Table 17.7 indicate that around one-third of women sought assistance to deal with the violence. Women were more likely to seek help if the violence had occurred often rather than sometimes. Most of the women who asked for help looked to relatives for assistance. Less than one percent reported seeking assistance from religious leaders, doctors or other medical personnel, the police, or a lawyer.

Women who did not seek assistance to deal with the violence were asked about the main reason they did not ask anyone for help. Nearly half said that they had not sought assistance because the violence was "not important" (Table 17.8). Around 20 percent gave responses sug-

Table 17.7 Help-seeking behavior by women experiencing physical or sexual violence

Percentage of ever-married women reporting that they had experienced physical or sexual violence in their relationship with their current/most recent husband within the past 12 months who reported seeking assistance to prevent or stop violence, by persons from whom assistance was sought, according to frequency of violence, Egypt 2005

		ncy of violer past 12 mon	
Hala and Paula kaka Pau	At least	Office	C 1
Help-seeking behavior	once	Often	Sometimes
Sought any assistance	34.5	49.8	26.4
Sought assistance from:			
Male relative(s)	20.9	32.3	14.8
Father	8.1	9.7	7.2
Brother	6.2	12.9	2.7
Father-in-law	4.1	6.3	2.9
Other male relative	5.6	10.0	3.3
Female relative(s)	20.7	30.8	15.3
Mother	9.3	12.6	7.6
Sister	2.7	5.6	1.2
Mother-in-law	6.7	11.2	4.3
Other female relative	5.6	9.6	3.5
Friend/neighbor	5.6	11.0	2.7
Employer	0.1	0.2	0.0
Religious leader	0.7	0.4	0.9
Doctor/medical personnel	0.1	0.4	0.0
Police .	0.6	1.3	0.2
Lawyer	0.2	0.6	0.0
Number of women	1,059	366	693

gesting a fatalistic attitude toward the violence, i.e., they did not seek help because it was "no use" (6 percent) or the violence was simply "part of life" (15 percent). Around 15 percent said they had not sought help because they were embarrassed or did not want to disgrace the family. Fear of divorce or desertion (4 percent), of additional beatings (4 percent), of getting the husband into trouble (5 percent), and lack of knowledge of where to get help (5 percent) were reasons cited by the other women who did not seek assistance.

The reasons women gave for not seeking help varied according to the frequency of the violence. Women who experienced at least one form of violence often were less likely to say that they had not sought help because the violence was "not important" and more likely to express a fatalistic attitude about the violence or concern about the consequences of reporting the violence, compared to women who only sometimes experienced violence.

Table 17.8 Reason for not seeking assistance to prevent violence

Percent distribution of ever-married women reporting that they had experienced violence within past 12 months and did not seek assistance by main reason for not seeking assistance, according to frequency of violence, Egypt 2005

	Frequency of violence within past 12 months					
Main reason fo r	At least					
not seeking assistance	once	Often	Sometimes			
Don't know where to go	4.5	4.8	4.3			
No use	6.3	10.1	4.9			
Part of life	14.6	19.7	12.9			
Afraid of divorce/desertion	3.5	8.3	1.8			
Afraid of further beatings	3.6	7.2	2.3			
Afraid of getting husband in trouble	5.2	5.8	4.9			
Embarrassed	13.5	15.3	12.8			
Did not want to disgrace family	1.5	3.2	0.9			
Not important	46.8	25.3	54.4			
Other	0.6	0.2	0.7			
Total percent	100.0	100.0	100.0			
Number of women	681	177	504			

### 17.4 WOMEN'S ATTITUDES TOWARDS WIFE BEATING

The 2005 EDHS results indicate that many Egyptian women experience incidents of marital violence. If violence against women by husbands is tolerated and accepted in a society, its eradication is made more difficult. To gauge the acceptability of domestic violence, all ever-married women interviewed in the survey were asked whether they thought a husband would be justified in hitting or beating his wife in each of the following five situations: if she burns the food, if she argues with him, if she goes out without telling him, if she neglects the children, and if she refuses to have sexual relations with him.

Table 17.9 shows that many women find wife beating to be justified in certain circumstances. Overall, half of the women agreed that at least one of these factors is sufficient justification for wife beating. Around one in six women believed that it is justified for all of the reasons mentioned in the question. The most widely accepted reason for wife beating is going out without telling the husband (40 percent) and neglecting the children (40 percent), followed closely by arguing with the husband (37 percent) and refusing to have sex (34 percent). About one-fifth of women believed that burning the food is a justifiable reason for a husband to hit or beat his wife.

The table also shows attitudes towards wife beating by background characteristics. Acceptance of wife beating for at least one of the specified reasons was generally lower among women who were divorced or separated than those who were currently married or widowed. Women who had themselves been beaten by their husbands were more likely than other women to accept wife beating as justified in some circumstances. Acceptance of wife beating was higher among rural women than urban women. Women living in rural Upper Egypt were most likely and women in the Urban Governorates least likely to accept wife beating as justified. The likelihood that women will consider wife beating to be justified decreased with education and wealth and was lower among women working for cash than other women. The differentials by wealth quintile are especially marked; for example, women in the lowest wealth quintile were more than three times as likely to consider wife beating to be justified for at least one of the reasons as women in the highest wealth quintile (74 percent and 23 percent, respectively).

Table 17.9 Attitudes towards wife beating by background characteristics

Percentage of ever-married women who agree that a husband is justified in beating his wife, by selected background characteristics, Egypt 2005

		Percentage ag in beati	reeing husb ing his wife	Percentage agreeing that husband justified in	Percentage agreeing that husband	Number of		
Background characteristic	Goes out without telling him	Neglects the children	Argues with him	Refuses to have sex with him	Burns the food	beating for at least one reason	justified in beating for all five reasons	Number of ever- married women
Age								
15-19	46.2	43.1	42.7	38.8	21.8	55.8	18.9	803
20-29	39.1	38.5	35.2	32.0	17.6	49.1	14.9	6,753
30-39	39.1	38.9	36.7	32.8	18.6	48.8	16.1	6,400
40-49	42.5	41.9	40.3	35.5	20.7	51.7	18.8	5,518
Marital status								
Married	40.7	39.9	37.7	33.7	19.0	50.4	16.6	18 <i>,</i> 187
Divorced/separated	26.1	27.1	23.8	22.8	15.4	34.4	11.2	522
Widowed	41.9	45.1	41.3	37.7	21.1	51.8	18.3	765
Experience with physical violence								
Ever experienced	43.4	43.2	41.0	36.3	18.7	55.1	15.8	2,662
Husband only	48.7	48.8	45.9	44.3	25.2	61.2	22.4	953
Husband and other persons	47.4	47.8	45.7	36.9	18.3	59.4	14.3	924
Other persons only	32.3	31.0	29.5	26.1	11.3	42.5	9.5	784
Never experienced	34.0	34.8	31.7	29.4	16.3	43.5	14.4	2,990
Not in domestic violence subsample	41.1	40.2	38.0	33.9	19.6	50.4	17.2	13,822
Urban-rural residence								
Urban	27.4	27.1	23.8	20.1	10.4	37.0	8.4	8,033
Rural	49.4	48.6	47.0	43.0	25.0	59.1	22.3	11,441
Place of residence								
Urban Governorates	24.4	23.8	19.2	16.9	7.9	33.7	6.3	3,293
Lower Egypt	39.5	41.1	37.0	33.7	20.2	48.9	18.2	8,410
Urban	25.6	26.7	23.2	20.5	11.4	34.4	10.0	2,199
Rural	44.5	46.2	41.9	38.4	23.2	54.1	21.1	6,211
Upper Egypt	48.2	45.3	46.0	40.9	22.7	58.4	19.3	7,552
Urban	32.9	32.0	30.5	24.1	12.8	43.9	9.7	2,411
Rural	55.4	51.5	53.2	48.7	27.3	65.2	23.8	5,141
Frontier Governorates	41.5	36.7	31.8	25.1	11.7	45.8	10.7	218
Education								
No education	59.0	56.6	57.0	51.2	30.8	67.7	27.9	6,740
Some primary	51.8	51.1	48.7	43.8	25.2	63.4	22.0	2,197
Primary complete/some secondary	41.4	41.3	36.3	31.7	17.9	53.4	14.6	2,719
Secondary complete/higher	20.7	21.6	17.8	16.1	7.4	29.8	5.9	7,818
Work status								
Working for cash	23.7	25.4	22.4	21.3	12.3	32.6	10.7	3,288
Not working for cash	43.7	42.7	40.5	36.0	20.3	53.5	17.7	16,186
Wealth quintile								,
Lowest	65.2	63.5	62.8	55.9	34.7	74.4	30.7	3,565
Second	52.8	51.5	50.6	46.6	26.4	62.3	23.8	3,778
Middle	44.7	43.3	40.6	37.1	21.6	54.2	18.8	3,931
Fourth	28.9	29.4	25.5	22.0	10.6	40.6	8.6	4,137
Highest	14.5	15.1	11.9	10.2	4.3	22.7	3.3	4,063
<u> </u>								,
Total	40.4	39.8	37.4	33.5	19.0	50.0	16.5	19,474

Information obtained in the 2005 EDHS allow for an assessment of several key aspects of the welfare of Egypt's children. Questions were included on children's living arrangements and survival status of the parents that can be used to estimate the extent of orphanhood among Egyptian children. The survey also collected information on current school attendance and participation in work or domestic chores. Finally, the 2005 EDHS obtained information on the prevalence of child disciplinary practices.

### 18.1 **ORPHANHOOD AND CHILDREN'S LIVING ARRANGMENTS**

Questions were included in the 2005 EDHS household questionnaire on the living arrangements and the survival status of the biological parents for all children under age 18. Table 18.1 shows that 91 percent of children under age 18 (93 percent of children under age 15) were living with both parents at the time of the survey. Five percent of children under age 18 (4 percent of children under age 15) were orphaned, that is, one or both parents had died. In cases where a single parent had died, it was more often the father than the mother. This is related to the fact that, among 80 percent of couples in Egypt, the husband is at least ten years older than the wife (not shown in table).

Table 18.1 Children's living arrangements and orphanhood by background characteristics
Percent distribution of de jure children under age 18 by children's living arrangements and survival status of parents, according to background
characteristics, Egypt 2005

	Living	mother	g with but not her	father	g with but not other		with eitl	living ner parent	-		Percentage with one or	
Background characteristic	with both parents	Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead	Total percent	both parents dead	Number of children
Age												
<2 years	98.0	1.4	0.4	0.0	0.1	0.0	0.0	0.0	0.0	100.0	0.6	4,874
2-4 years	96.3	2.2	0.8	0.2	0.2	0.2	0.0	0.1	0.0	100.0	1.1	7,514
5-9 years	93.6	2.3	2.4	0.3	0.6	0.4	0.1	0.0	0.1	100.0	3.2	11,992
10-14 years	89.1	2.3	5.3	0.7	1.3	0.5	0.2	0.1	0.2	100.0	7.1	11,246
15-17 years	82.5	2.4	8.8	0.6	1.7	2.0	0.3	0.2	0.5	100.0	11.5	7,746
Sex												
Male	91.6	2.4	3.8	0.4	0.9	0.4	0.1	0.1	0.1	100.0	5.0	22,164
Female	91.2	2.1	3.8	0.4	8.0	0.9	0.2	0.1	0.2	100.0	5.0	21,207
Urban-rural residence												
Urban	91.0	2.6	3.7	0.4	1.0	0.5	0.1	0.2	0.2	100.0	5.1	16,209
Rural	91.7	2.0	3.8	0.4	8.0	0.7	0.2	0.0	0.2	100.0	5.0	27,162
Place of residence												
Urban Governorates	90.2	2.8	3.8	0.7	1.1	0.5	0.1	0.2	0.2	100.0	5.3	6,351
Lower Egypt	92.6	1.6	3.5	0.3	0.7	0.6	0.1	0.1	0.2	100.0	4.6	17,185
Urban	91.8	2.1	3.7	0.2	0.9	0.4	0.0	0.4	0.1	100.0	5.1	4,160
Rural	92.9	1.4	3.5	0.4	0.6	0.7	0.1	0.0	0.2	100.0	4.5	13,025
Upper Egypt	90.7	2.6	4.0	0.4	0.9	0.7	0.2	0.0	0.1	100.0	5.3	19,292
Urban	91.2	2.7	3.6	0.3	1.0	0.5	0.1	0.0	0.1	100.0	4.9	5,381
Rural	90.5	2.6	4.2	0.5	0.9	0.8	0.2	0.1	0.1	100.0	5.5	13,910
Frontier Governorates	92.6	1.1	3.9	0.4	8.0	0.6	0.1	0.1	0.3	100.0	5.3	543
Wealth index												
Lowest	90.5	2.0	4.5	0.4	8.0	0.9	0.2	0.1	0.2	100.0	5.8	9,835
Second	90.5	2.4	4.3	0.4	1.0	0.7	0.2	0.1	0.2	100.0	5.7	9,119
Middle	91.4	2.4	3.7	0.5	0.8	0.7	0.1	0.0	0.2	100.0	4.8	8,726
Fourth	91.9	2.3	3.3	0.4	1.1	0.5	0.1	0.1	0.1	100.0	4.7	8,093
Highest	93.3	2.0	2.9	0.4	0.6	0.3	0.1	0.1	0.1	100.0	3.8	7,596
Children <age 18<="" td=""><td>91.4</td><td>2.2</td><td>3.8</td><td>0.4</td><td>0.9</td><td>0.6</td><td>0.1</td><td>0.1</td><td>0.2</td><td>100.0</td><td>5.0</td><td>43,371</td></age>	91.4	2.2	3.8	0.4	0.9	0.6	0.1	0.1	0.2	100.0	5.0	43,371
Children <age 15<="" td=""><td>93.3</td><td>2.2</td><td>2.7</td><td>0.4</td><td>0.7</td><td>0.3</td><td>0.1</td><td>0.1</td><td>0.1</td><td>100.0</td><td>3.6</td><td>35,625</td></age>	93.3	2.2	2.7	0.4	0.7	0.3	0.1	0.1	0.1	100.0	3.6	35,625

The likelihood that one or both of a child's parents has died rises with the child's age, from less than one percent among children under age 2 to 12 percent among children age 15-17 years. Although the differences are small, the percentage of children who have experienced the death of one or both parents also declines with the wealth quintile.

### 18.2 CURRENT SCHOOL ATTENDANCE

The 2005 EDHS collected information on current school attendance for the population age 6-24 years. Table 18.2 presents the percentages in this population reported as currently attending school by sex, age, and residence. In constructing Table 18.2, the results for children age 6 were adjusted to take into account the child's exact age on October 1, 2004. Children who were not age 6 on that date were not eligible to start school during the 2004-2005 school year; thus, children born on or after October 1, 2004 were removed from the population on which Table 18.2 is based. Because of this adjustment, the figures on current school attendance for the population age 6-10 and the total population age 6-24 are not comparable to the figures on current school attendance presented in the reports for earlier DHS surveys. The adjustment was possible in the 2005 survey and not in the earlier surveys because the upper bound of the age range for the anthropometric data collection, which includes a question on the child's birth date, was raised from age 5 to age 6 in the 2005 survey.

			Urban	Lower Egypt				Upper Egypt			
Age	Urban	Rural	Gover- norates	Total	Urban	Rural	Total	Urban	Rural	Gover- norates	Tota
V					MA	LE					
6-15	93.9	92.3	93.0	94.4	95.8	93.9	91.7	93.5	91.0	91.1	92.9
6-10	96.6	95.2	95.2	97.6	98.3	97.3	94.3	97.0	93.3	95.0	95.7
11-15	91.5	89.7	91.0	91.5	93.6	90.7	89.3	90.5	88.9	87.4	90.4
16-20	65.5	49.6	64.5	55.5	73.3	49.6	53.3	61.0	49.7	50.3	56.2
16-17	78.2	70.3	76.6	75.3	84.4	71.8	70.7	74.5	69.0	73.6	73.5
18-20	56.6	35.1	56.7	42.6	64.3	36.1	39.9	51.6	34.0	30.3	44.0
21-24	21.6	11.8	23.0	14.2	20.1	12.0	15.0	21.5	11.6	8.9	16.0
					FEM	ALE					
6-15	93.5	87.6	93.4	94.3	96.6	93.6	84.6	91.3	81.8	84.6	89.9
6-10	95.7	92.5	95.4	96.2	97.0	96.0	90.8	95.3	89.0	89.4	93.7
11-15	91.4	83.1	91.2	92.6	96.2	91.3	79.0	87.7	75.2	80.5	86.3
16-20	59.2	37.2	61.0	50.6	62.3	46.7	35.6	54.7	27.6	38.5	45.9
16-17	76.7	58.0	76.0	74.0	82.7	71.3	53.4	73.7	44.9	49.3	65.4
18-20	48.0	23.5	51.2	35.7	50.5	30.6	24.0	42.2	16.3	29.7	33.3
21-24	13.1	5.7	15.8	9.2	13.7	7.5	5.4	8.8	3.7	4.6	9.0
					TO	ΓAL					
6-15	93.7	90.0	93.2	94.4	96.2	93.8	88.3	92.4	86.6	88.0	91.4
6-10	96.1	93.9	95.3	96.9	97.7	96.6	92.6	96.1	91.2	92.4	94.8
11-15	91.4	86.5	91.1	92.0	94.9	91.0	84.4	89.1	82.4	84.0	88.4
16-20	62.3	43.2	62.7	53.1	67.7	48.1	44.0	57.8	38.0	44.1	50.9
16-17	77.5	64.0	76.3	74.6	83.6	71.5	62.0	74.1	57.0	61.0	69.4
18-20	52.2	29.0	53.9	39.1	56.8	33.4	31.3	46.9	24.2	30.0	38.4
21-24	17.0	8.5	19.1	11.6	16.7	9.7	9.7	14.6	7.2	6.7	12.

Note: Children age 6 were included in the table only if they were born before October 1, 1998, and thus were age 6 and eligible to enter school during the 2004-2005 school year.

Overall, the majority of children of both sexes age 6-15 were attending school. School attendance rates were slightly higher among boys than among girls in the 6-15 age group. The gender gap in school attendance increases with age, particularly among those in the 16-24 age range.

Table 18.2 also presents school attendance rates by residence. For boys under age 16, residential differences in school attendance rates are quite small; more than nine in ten boys age 15 and under are in school regardless of where they reside. At older ages, however, boys living in urban areas, particularly in urban Lower Egypt, are more likely to attend school than boys from rural areas. For example, 66 percent of boys age 16-20 are currently attending school in urban areas compared to 50 percent of boys in the same age group in rural areas.

Residential differentials in school attendance rates are more evident for girls than boys at all ages. For example, there is a gap of 6 percentage points in the current school attendance rates for girls age 6-15 between urban and rural areas (94 percent and 88 percent, respectively). In general, school attendance rates are lowest for girls living in rural Upper Egypt, followed by girls living in the Frontier Governorates.

# 18.3 CHILD LABOR

The 2005 EDHS included a special module that has been developed by UNICEF to assess the prevalence of child labor. The module included questions on children's work for an external employer, work on a family farm or in a family business, and involvement in domestic chores. The information collected in the module on children's participation in economic activities and domestic chores is used to construct several child labor indicators.

# **Participation in Economic Activities and Domestic Chores**

Table 18.3 shows that seven percent of Egyptian children age 5-14 were reported as engaged in economic activities in the seven-day period before the survey interview. Most children involved in formal work were employed on a family farm or in family business (6 percent).

Table 18.3 Children's involvement in economic activities or domestic chores										
Percentage of de facto household population age 5-14 involved in economic activities or performing domestic chores, by sex and type of activity, Egypt 2005										
Activity	Male	Female	Total							
Worked for external employer <sup>1</sup>	1.8	0.4	1.1							
Worked in past 7 days	1.3	0.3	8.0							
Paid ,	1.2	0.3	8.0							
Unpaid	0.0	0.0	0.0							
Worked in past year but not in past 7 days	0.5	0.2	0.3							
Paid	0.4	0.1	0.3							
Unpaid	0.1	0.0	0.1							
Missing	2.3	2.3	2.3							
Worked on family farm/business in past 7 days	8.1	3.3	5.8							
Engaged in any economic activity in past 7 days <sup>2</sup>	9.6	3.7	6.7							
Performed domestic chores in past 7 days	45.0	57.1	50.9							
Engaged in any economic activity <sup>2</sup> and/or performed chores in past 7 days	49.7	58.0	53.7							
Children age 5-14	12,018	11,454	23,471							
<sup>1</sup> Worked for someone who is not a household member <sup>2</sup> Worked for an external employer or on a family farm or business										

The results in Table 18.3 also show that many children, while not engaged in the formal work force, are responsible for domestic chores; 51 percent of children age 5-14 performed at least some domestic chores during the seven-day period preceding the survey. Overall, 54 percent of children age 5-14 were involved in formal work and/or domestic chores during the period.

Looking at gender patterns, boys were more than twice as likely as girls to have participated in formal economic activities (10 percent and 4 percent, respectively). On the other hand, girls performed domestic chores more often than boys (57 percent and 45 percent, respectively).

Table 18.4 looks at the number of hours that children age 5-14 were engaged in economic activities or domestic chores during the seven-day period before the survey. Among those working for an external employer, nine in ten worked at least 8 hours during the seven days preceding the survey, and six in ten worked at least 24 hours or more. Children working for a family business or on a family farm tended to work fewer hours than those working for an external employer; 71 percent of children involved in work for a family enterprise worked at least 8 hours during the week before the survey, and 23 percent worked for at least 24 hours. The majority of children performing domestic chores spent less than 8 hours during the seven days before the survey on those chores (68 percent), with only four percent spending 24 or more hours on chores during the period.

Percent distribution of de-fac any economic activities or w before the survey by number of	ho performed don	nestic chores i	n the 7 day
Activity/hours involved	Male	Female	Total
Work for external employer <sup>1</sup>			
1-7	7.1	2.7	6.3
8-15	19.9	30.7	21.8
16-23	9.0	8.2	8.9
24 or more	61.6	58.4	61.0
Don't know/missing	2.4	0.0	2.0
Total	100.0	100.0	100.0
Number of children	153	32	185
Worked on family farm/busin	iess		
1-7	27.1	28.4	27.4
8-15	31.5	32.8	31.9
16-23	15.5	17.3	16.0
24 or more	24.5	20.0	23.2
Don't know/missing	1.5	1.6	1.5
Total	100.0	100.0	100.0
Number of children	974	380	1,354
Performed domestic chores			
1-3	39.7	29.1	33.9
4-7	31.8	31.6	31.7
8-15	18.7	23.7	21.5
16-23	3.9	7.5	5.8
24 or more	1.9	5.7	4.0
Don't know/missing	4.0	2.4	3.1
Total	100.0	100.0	100.0
Number of children	5,411	6,545	11,956

Table 18.5 considers the variation in children's participation in economic activities and domestic chores according to selected background characteristics. Rates of participation in formal economic activities rise with a child's age, are higher in rural areas, particularly in Upper Egypt, than in other areas, and decrease markedly with the wealth quintile. Levels of participation in domestic chores also rise with age but exhibit only minor variations by wealth quintile and residence, except for the much higher participation rate among children in the Frontier Governorates than in other areas.

Table 18.5 Children's background characteristi	<u>CS</u>			,
Percentage of de facto of 7 days, and percentage background characteristic	responsible fo			
Background characteristics	Percentage working for an external employer in past 7 days <sup>1</sup>	Percentage working for family business or on family farm in past 7 days	Percentage who are responsible for domestic chores in past 7 days	Number of children age 5-14
Sex				
Male	1.3	8.1	45.0	12,018
Female	0.3	3.3	57.1	11,454
Age of child				
5-9	0.1	3.4	40.8	12,193
10-14	1.5	8.3	61.9	11,278
Urban-rural residence				
Urban	0.8	1.1	51.8	8,930
Rural	8.0	8.6	50.4	14,542
Place of residence				
Urban Governorates	0.7	0.9	55.0	3,540
Lower Egypt	0.7	4.7	49.8	9,237
Urban	0.4	1.0	51.5	2,293
Rural	0.7	5.9	49.3	6,944
Upper Egypt	0.9	8.5	50.1	10,392
Urban	1.1	1.5	47.4	2,919
Rural	0.9	11.2	51.1	7,473
Frontier Governorates	0.5	2.9	66.9	303
Wealth index				
Lowest	1.8	12.9	49.2	5,41 <i>7</i>
Second	0.8	8.7	51.1	4,911
Middle	0.7	3.6	49.0	4,560
Fourth	0.3	1.2	56.6	4,320
Highest	0.1	0.3	49.3	4,264
Total	0.8	5.8	50.9	23,471
Worked for someone w	h a !a m a t a la a			

# **Child Labor Indicators**

Table 18.6 looks at three child labor indicators for children age 6-14: 1) the percentage of children engaged in child labor activities; 2) the percentage of children currently attending school who are involved in child labor activities; and 3) the percentage of children involved in child labor activities who are currently attending school. Children age 6-11 are considered to be involved in child labor activities if, during the week before the interview, they had worked for an external employer or were engaged in work for a family business or on a family farm for at least 1 hour or they performed domestic chores for 28

hours or more. Children age 12-14 are considered to be involved in child labor activities if, during the week before the interview, they had worked for an external employer or were engaged in family work for at least 14 hours or they performed domestic chores for 28 hours or more.

Table 18.6 shows that eight percent of children age 6-14 in the households sampled in the 2005 EDHS were engaged in activities classified as child labor. Boys were somewhat more likely than girls to be engaged in child labor activities (9 percent and 6 percent, respectively), and children age 10-14 were twice as likely as children age 6-9 (10 percent and 5 percent, respectively) to be involved in child labor activities. Child labor is concentrated in rural areas; 11 percent of rural children are engaged in child labor compared to 3 percent of urban children. The percentage of children engaged in child labor activities decreases from 17 percent among children in the lowest wealth quintile to less than one percent of children in the highest quintile.

Table 18.6 Child labor by background characteristics

Percentage of de facto children age 6-14 engaged in child labor activities and percentages of children age 6-14 who are laborer students and student laborers, by background characteristics, Egypt 2005

Background characteristic	Percentage engaged in child labor activities	Number of children 6-14	Percentage of children age 6-14 who are laborer students <sup>1</sup>	Number of children 6-14 attending school	Percentage of children age 6-14 who are student laborers <sup>2</sup>	Number of children 6-14 involved in child labor
Sex						
Male	9.4	10,035	8.2	9,451	83.0	939
Female	6.0	9,632	4.2	8,792	63.4	577
		- /		- / ·		
Age of child	4.8	9 290	4.4	7 020	87.7	402
6-9 10-14	4.6 9.9	8,389 11,278	4.4 7.7	7,939 10,303	67.7 71.1	1,113
	9.9	11,4/0	/./	10,303	/ 1.1	1,113
Urban-rural residence						
Urban	2.7	7,590	1.8	7,181	65.0	202
Rural	10.9	12,077	9.2	11,062	77.1	1,313
Place of residence						
Urban Governorates	1.8	3,040	1.0	2,854	50.8	56
Lower Egypt	5.6	7,750	4.5	7,401	77.5	433
Urban	1.3	1,966	0.9	1,908	(68.3)	26
Rural	7.0	5,784	5.8	5,493	78.1	407
Upper Egypt	11.8	8,623	9.9	7,760	76.1	1,014
Urban	4.7	2,432	3.5	2,278	70.6	114
Rural	14.6	6,191	12.6	5,482	76.7	901
Frontier Governorates	4.6	254	3.8	228	*	12
Wealth index						
Lowest	17.4	4,535	14.5	3,799	69.9	790
Second	11.0	4,105	9.8	3,777	81.5	453
Middle	4.7	3,761	3.9	3,607	79.7	178
Fourth	1.8	3,606	1.6	3,467	87.7	64
Highest	0.8	3,660	0.7	3,593	(81.5)	29
Total	7.7	19,667	6.3	18,242	75.5	1,515

Note: The child labor category includes: 1) children age 6-11 who worked for an external employer or were engaged in family work for at least 1 hour or who performed domestic chores for 28 hours or more during the week before the survey interview, and 2) children age 12-14 who worked for an external employer or was engaged in family work for at least 14 hours or who performed domestic chores for 28 hours or more during the week before the survey interview. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 cases and has been suppressed.

<sup>&</sup>lt;sup>1</sup> Children attending school who are engaged in child labor activities

<sup>&</sup>lt;sup>2</sup> Children engaged in child labor activities who are attending school

Table 18.6 also considers the relationship between school attendance and child labor. First, from the perspective of the population attending school, six percent of children age 6-14 were laborer students, i.e., they were currently attending school and also engaged in child labor activities. Laborer students were concentrated in rural areas, especially in Upper Egypt where about one in eight children was a laborer student, and in the lowest two quintiles of the wealth index.

In addition, Table 18.6 looks at the extent to which children who were involved in child labor activities were attending school, i.e., were student laborers. The results indicate that about three in four children age 6-14 engaged in child labor activities were also going to school. The proportion of children engaged in child labor activities and not attending school was higher among girls than boys, among children age 10-14 than younger children, and among urban than rural children. The household's economic well-being again plays a role with the proportion of children who were involved in child labor activities and not attending school generally falling with the wealth quintile.

#### 18.4 CHILD DISCIPLINARY ACTIVITIES

The 2005 EDHS respondents who had children age 3-17 years were asked questions about the types of actions they took to teach their children the right behavior or to address behavior problems during the month before the survey interview. Specifically they were asked if they had used each of the following approaches at any time during the month: 1) explained why the behavior was wrong; 2) shouted, yelled, or screamed at the children; 3) hit or slapped the child on the body with a hard object; or 4) hit or slapped the child on the face, head, or ears. Table 18.7 shows the prevalence of use of each of these disciplinary practices during the month.

Nine in ten respondents with children age 3-17 years indicated that they had addressed behavior problems by explaining why the behavior was wrong. A similar proportion also said that they had at times shouted, yelled, or screamed at the child when there was a behavior problem. Seven in ten women had hit or slapped a child on the body with a hard object, and four in ten had hit a child on the face, head, or ear. The likelihood that hitting or slapping occurred when disciplining a child rose with the number of children age 3-17 the mother had and decreased with the mother's age. Rural women were slightly more likely than urban women to indicate that they had hit or slapped a child either on the body or face, head, or ear. The proportions reporting that they had hit or slapped a child on the body did not vary in a consistent fashion with the woman's educational level, but the proportion reporting they had hit or slapped a child on the face, head, or ear was much lower among women with a secondary education than other woman. The use of both of these practices decreased with the wealth quintile.

Table 18.7 Child disciplinary practices by background characteristics

Percentage of mothers of children age 3-17 years who reported using various practices in disciplining their child(ren) in the past month, by background characteristics, Egypt 2005

	Explained	Shouted/	Hit or	Hit or slapped	Number of
	why	yelled/	slapped	child(ren)	mothers of
Background	behavior	screamed at	child(ren)	on face,	children age
characteristic	was wrong	child(ren)	on body	head, or ear	3-17
Number of children					
One	91.2	85.9	60.9	32.7	3,838
2-3	94.6	91.3	70.3	41.0	7,934
4 or more	92.5	93.5	78.6	50.0	2,394
Mother's age					
15-24	88.3	92.4	83.4	51.4	1,036
25-34	93.4	93.4	79.2	47.5	5,642
35-49	93.9	87.5	59.6	33.3	7,488
Urban-rural residence					
Urban	94.1	89.6	65.5	35.6	5,890
Rural	92.7	90.7	71.8	43.6	8,277
Place of residence					
Urban Governorates	93.3	90.7	64.1	34.5	2,386
Lower Egypt	94.9	91.5	67.7	37.1	6,048
Urban	94.9	89.1	62.7	31.0	1,609
Rural	94.8	92.3	69.5	39.2	4,439
Upper Egypt	91.4	88.6	72.8	46.3	5,574
Urban	94.1	88.5	69.5	41.4	1,801
Rural	90.1	88.7	74.4	48.6	3,773
Frontier Governorates	98.2	93.8	72.7	38.7	158
Education					
No education	91.2	90.3	71.1	45.8	5,215
Some primary	93.3	89.8	67.4	43.3	1,764
Primary complete/some	93.3	92.2	74.6	43.4	1 057
secondary	93.3 95.3				1,957
Secondary complete/higher  Wealth index	95.3	89.6	65.8	32.5	5,231
Lowest	89.6	89.4	76.3	52.2	2,696
Second	93.1	91.9	70.3	45.6	2,030
Middle	93.4	91.4	72.6 71.5	42.0	2,779
Fourth	95.2	91.1	69.4	37.3	2,949
Highest	94.8	87.5	56.5	25.4	2,928
Total	93.3	90.2	69.1	40.3	14,167

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SAMPLE DESIGN



The major objective of the 2005 Egypt Demographic and Health Survey sample design was to provide estimates with acceptable precision for key population and health indicators for the country as a whole and for six major subdivisions (Urban Governorates, urban Lower Egypt, rural Lower Egypt, urban Upper Egypt, rural Upper Egypt and the Frontier Governorates<sup>1</sup>). In addition, the sample was planned to allow for separate estimates of key indicators for seven governorates that are focal governorates for USAID-supported population, health and nutrition programs (Fayoum, Beni Suef, Menya, Qena, and Aswan in Upper Egypt and Cairo and Alexandria). In addition, with the exception of the Frontier Governorates, the sample included a sufficient number of households in most other governorates to allow for governorate-level estimates of major variables, with the exception of fertility and mortality rates and anemia levels.

To achieve the above objectives, a three stage probability sample was designed. The following is a detailed description of the 2000 EDHS sample design. A description of the field activities involved in the implementation of the sample design is included in Chapter 1 of this report.

#### **B.1 SAMPLE DESIGN**

The main concern in developing the sample design for the 2005 EDHS was to secure a sufficient number of cases in each domain in order to reduce sampling error and provide estimates of adequate precision for the purposes of the survey. Sampling error has two components, one corresponding to the variation between primary sampling units (PSUs) and the other to the variation within PSUs, with the major component usually being the variation between PSUs. Thus, the total number of PSUs is an important factor in controlling the size of the sampling error since the variation between PSUs depends on this number, i.e., generally the smaller the number of PSUs, the greater will be the variation.

Standard DHS sampling policy recommends a minimum of 1,000-1,200 women per major domain. As noted above, however, the 2005 EDHS sample had to be selected in such fashion as to also allow for estimation of contraceptive prevalence rates and other basic health indicators for 21 separate governorates. DHS sampling policy recommends that a minimum of 450 completed interviews with eligible women be obtained to provide reliable estimates for these types of variables. This principle was used in determining the size and distribution of the target sample for the 2005 EDHS presented in Table B.1.

<sup>&</sup>lt;sup>1</sup> The Frontier Governorates were not included in 1988 and 1992 DHS surveys nor in the 1997, 1998 and 2003 interim surveys. However, they were part of the 1995 and 2000 EDHS samples. The inclusion of the Frontier Governorates in the 2005 EDHS will not affect comparisons of the 2005 results with the results of earlier surveys in which these governorates were not part of the samples since only around one percent of the Egyptian population resides in the Frontier Governorates.

	Target number	Target number		Urban		R	ural	Total		
Governorate	of house- holds	of eligible women	Percent urban	Number of PSUs	Number of segments	Number of PSUs	Number of segments	Number of PSUs	Number o	
Urban Governorates										
Cairo	2,015	1,500	100	50	100	-	-	50	100	
Alexandria	1,615	1,200	100	40	80	-	-	40	80	
Port Said	740	550	100	18	36	-	-	18	36	
Suez	740	550	100	18	36	-	-	18	36	
Subtotal	5,110	3,800	100	126	252	-	-	126	252	
Lower Egypt										
Damietta	503	450	27	4	8	11	22	15	30	
Dakahlia	894	799	28	7	14	19	38	26	52	
Sharkia	866	783	23	6	12	20	40	26	52	
Kalyubia	829	722	41	10	20	14	28	24	48	
Kafr El-Sheikh	605	546	23	4	8	14	28	18	36	
Gharbia	806	715	31	7	14	17	34	24	48	
Menoufia	676	614	20	4	8	17	34	21	42	
Behera	792	715	23	6	12	18	36	24	48	
Ismailia	527	450	50	8	16	7	14	15	30	
Subtotal	6,498	5,794	28	56	112	137	274	193	386	
Upper Egypt										
Giza	1,060	1,000	54	18	36	17	34	35	70	
Beni Suef	1,500	1,400	24	10	20	40	80	50	100	
Fayoum	1,500	1,400	23	10	20	40	80	50	100	
Menya	1,500	1,400	19	10	20	40	80	50	100	
Assiut	640	600	27	10	20	12	24	22	44	
Souhag	640	600	22	10	20	12	24	22	44	
Qena1	1,500	1,400	28	11	22	39	78	50	100	
Aswan	1,500	1,400	43	17	34	33	66	50	100	
Subtotal	9,840	8,100	31	96	192	233	466	329	658	
Frontier Governorates										
Red Sea	181	201	75	5	10	2	4	7	14	
New Valley	168	186	48	3	6	4	8	7	14	
Matrouh	214	237	56	5	10	3	6	8	16	
North Sinai	234	259	59	5	10	3	6	8	16	
South Sinai	105	117	50	2	4	2	4	4	8	
Subtotal	902	1,000	59	20	40	14	28	34	68	
Total	22,350	18,694		298	596	384	768	682	1,364	

**B.2 SAMPLE FRAME** 

The sample for the 2005 EDHS was selected in three stages. A list of shiakhas/towns constituted the primary sampling frame for urban areas, and a list of villages served as the frame for rural areas. The Central Agency of Public Mobilization and Statistics (CAPMAS) updated these lists, which had been originally prepared for the 1996 census, to reflect the situation in 2004.

#### **B.3** SAMPLE SELECTION

In order to provide for implicit geographic stratification, the lists of shiakhas/towns and villages in each governorate were arranged in serpentine order according to their location from north to south within the governorate. During the first stage selection, a total of 682 primary sampling units (289 shiakhas/towns and 393 villages) were chosen for the 2005 EDHS sample. A list of the PSUs selected during the first stage of the sampling for the 2005 EDHS is provided below.

The second stage of selection in the 2005 EDHS involved several steps. First, for each of the primary sampling units (PSU), maps were obtained and divided into a number of parts of roughly equal size (assuming approximately 5000 persons per part). In large shiakhas/towns or villages (approximately 20,000 and more population), two parts were selected from each PSU. In the remaining smaller shiakhas/towns and villages, one part was selected. A quick count was carried out in the selected parts in each PSU to provide the information needed to divide the parts into a number of segments of roughly equal size. After the quick count was completed, two segments were then selected from each PSU. In large shiakhas/towns and villages where there were two parts, one segment was chosen from each part. In small shiakhas/towns and villages where only one part had been selected, two segments were chosen from that part.

A household listing was obtained for each segment. Using the household lists, a systematic sample of 22,807 households was chosen for the 2005 EDHS. All ever-married women 15-49 who were present in the sampled households on the night before the interview were eligible for the survey. A subsample of one-third of all households in each segment was selected for the anemia-testing component. In this subsample, information on anemia levels was collected for all eligible women, children under age 6, and youth and young adults age 10-19. One woman in each household in the subsample in which anemia testing was carried out was selected to be asked questions about domestic violence.

#### **B.4** SAMPLE IMPLEMENTATION

Results of the sample implementation are presented in Table B.2. The results indicate that households were selected for the 2000 EDHS sample. The EDHS field staff successfully interviewed 22,807 of the sample households, for a response rate of 98.9 percent. In the interviewed households, 19,565 eligible women were interviewed with a response rate 99.5 percent. This gives an overall response rate of 98.5 percent.

# Table B.2 Sample implementation

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall response rates, according to urban-rural residence and place of residence, Egypt 2005

			Urban	L	ower Egyp	ot	Į	Jpper Egyp	ot	Frontier	
			Gover-						,	Gover-	
Result	Urban	Rural	norates	Total	Urban	Rural	Total	Urban	Rural	norates	Total
Selected households											
Completed (C)	94.5	98.1	94.1	97.0	94.9	97.9	97.2	95.3	98.2	94.6	96.3
Household present but no competent											
respondent at home (HP)	1.3	0.3	1.6	0.5	8.0	0.3	0.6	1.2	0.3	0.8	0.8
Postponed (P)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Refused (R)	0.3	0.0	0.3	0.2	0.4	0.1	0.2	0.5	0.0	0.0	0.2
Dwelling not found (DNF)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Household absent (HA)	1.2	0.5	1.5	8.0	1.4	0.6	0.5	0.6	0.4	1.6	0.8
Dwelling vacant/address not a											
dwelling (DV)	2.1	1.0	2.1	1.3	2.2	0.9	1.4	2.1	1.0	2.6	1.6
Dwelling destroy (DD)	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other (Ŏ)	0.3	0.1	0.3	0.2	0.4	0.1	0.1	0.2	0.1	0.2	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
Number of sampled households	11,164	11,643	5,231	6,656	2,071	4,585	9,998	3,247	6,751	922	22,807
Household response rate (HRR)	98.2	99.6	98.0	99.3	98.8	99.5	99.2	98.1	99.6	99.0	98.9
Eligible women											
Completed (EWC)	99.4	99.7	99.2	99.7	99.6	99.8	99.5	99.4	99.6	99.9	99.5
Not at home (EWNH)	0.5	0.2	0.8	0.2	0.4	0.1	0.3	0.4	0.3	0.1	0.3
Postponed (EWP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (EWR)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
Partly completed (EWPC)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Incapacitated (EWI)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Other (EWO)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	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	8,147	11,418	3,568	5,918	1,560	4,358	9,177	2,486	6,691	902	19,565
Eligible women response rate (EWRR)	99.4	99.7	99.2	99.7	99.6	99.8	99.5	99.4	99.6	99.9	99.5
Overall response rate (ORR)	97.6	99.2	97.2	99.0	98.4	99.3	98.7	97.5	99.2	98.9	98.5

<sup>&</sup>lt;sup>1</sup> Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:: 100 \* C

C + HP + P + R + DNF

<sup>&</sup>lt;sup>2</sup> Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

100 \* EWC

EWC + EWNH + EWP + EWR + EWPC + EWI + EWO

<sup>&</sup>lt;sup>3</sup> The overall response rate (ORR) is calculated as: ORR = HRR \* EWRR/100

El-Marg El-Baharia Berket El-Hag El-Walzahraa and Masaken El-Helmeya El-Zahraa and Masaken El-Helmeya El-Barad El-Barad El-Barad El-Barad El-Sahel Mer El-Zayton El-Gharbia Mas El-Bostan El-Hamra Masaken El-Zayton El-Gharbia Mas El-Bostan El-Khasa Had Al-Sharabia El-Kabaseya El-Gharbia El-Kabaseya El-Gharbia El-Kabaseya El-Gharbia El-Masarany Sharq Al-Manteka Al-Sadessa El-Ganzoury Shara El-Hanafy Abo El-Seoud & El-Madabegh El-Masarany Monshaat Naser Rahi El-Hanafy Abo El-Seoud & El-Madabegh El-Mahasia Helwan El-Katameya+El Tagamoe El El-Bi Khames+Eskan Moubarak Helwan El-Keblia+Ain Helwan El-Seouf & Kebly El-Masara El-Balad Helwan El-Seoufe Bahary El-Manasra El-Balad Helwan El-Seoufe Bahary El-Manasra El-Balad El-Mandra Kebly El-Manasra El-Balad Dani Bahary El-Manasra El-Balad Dani Bahary El-Baharhousa Hagar El-Nouatia Dan Sain-Estefanou El-Radieh El-Keblia El-Manashia El-Koubra El-Babe El-Gidid Shark Anh Ragheb Basha Haret El-Farhda El-Marouz Charb Baba El-Manashia El-Koubra El-Babe El-Gidid Shark Anh El-Woardianne Charb El-Marouz Charb Baba El-Amriah Shark El-Dekheila El-Manakh Abou El-Hassan El-Amriah Shark El-Dekheila El-Amriah Shark El-Dekheila El-Manashi El-Gomorbi El-Manashi El-Koubra El-Manashi El-Koubra El-Marouz Charb Baba El-Amriah Shark El-Dekheila El-Amriah Shark El-Dekheila El-Manashi El-Koubra El-Marouz Charb Baba El-Marouz Shark El-Dekheila El-Marouz Charb Baba El-Marnah Shark El-Dekheila El-Marouz Charb Baba El-Marnah Shark El-Dekheila El-Marouz Charb Baba El-Marnah Shark El-Dekheila El-Mariah Shark El-Manashi El-Koubra El-Marouz Charb Baba El-Mariah Shark El-Manashi El-Koubra El-Marouz Charb Baba El-Marouz Charb Baba El-Mariah Shark El-Manashi El-Koubra El-Marouz Charb Baba El-Marouz Charb Baba El-Marouz Charb Baba El-Mariah Shark El-Dekheila El-Mariah Shark El-Dekheila El-Mariah Shark El-Manashi El-Koubra El-Koubra El-Galaa El-Salam El-Marouz Charb Baba El-Mariah Shark El-Mariah Sha	et El-Nasr atar sheyet El-Tahrir Abo Taweela yet El-Seerg iken El-Ameeria Al-Shamalia aek El-Koba abyada anteka Al-Oula kas+Eshash El Nakhl wet Abdeen anial El-Gharby ssateen El-Gharbia
El-Marg El-Baharia Berket El-Hag HI-Elad Hierobataria Mar Al-Zahraa and Masaken El-Helmeya Tolombat Ein-Shams Mar El-Erab (El-Mataria) Shagaret Maryam Arat El-Barad El-Barad El-Sahel Mer El-Zaytoon El-Charbia Mas El-Bostan El-Rostan El-Khasa Had Al-Sharabia El-Bostan El-Khasa Had Al-Sharabia El-Bostan El-Khasa Had Al-Sharabia El-Abasseya El-Charbia El-Masaroy Sharq Al-Manteka Al-Sadessa El-Canzoury Sharq Al-Manteka Al-Sadessa El-Rahameya El-Badad Bahary El-Balad Helwanes-Eskan Moubarak Bahary El-Bahary El-Balad Helwanes-Eskan Moubarak Bahary El-Bahard Al-Oula El-Zeioufe Bahary El-Bahard Rebly El-Mantara Rebly El-Mahrousa Hagar El-Nouatia Dan Sain-Estefanou El-Riadieh Ezbet El-Safieh El-Kel-Ibrahimia Bahary El-Hadra Kebly Eb-El-Bahary El-Baba El-Gidid Shark Antagar El-Manshia El-Koubra El-Babe El-Gidid Shark Antagar El-Manshia El-Koubra El-Babe El-Gidid Shark Antagar El-Mantah Bahary El-Babe El-Gidid Shark Antagar El-Mantah El-Marmah Shark El-Mariah Shark El-Mariah Shark El-Mariah Shark El-Mariah Shark El-Mantah Babary El-Babe El-Gidid Shark Antagar El-Mantah Babary El-Babe El-Gidid Shark Shark El-Mantah Babary El-Babe El-Gidid Shark Shark El-Mantah Babary El-Babar El-Kaboura Babar El-Kaboura Babar El-Kaboura Babar El-Kaboura Babar El-Calada El-Marmah Shark El-Mantah Babary El-Babar El-Gidid Shark Shark El-Mantah Babary El-Babar El-Gidid Shark Shark El-Mantah B	atar sheyet El-Tahrir Abo Taweela yet El-Seerg aken El-Ameeria Al-Shamalia aek El-Koba abyada anteka Al-Oula kas+Eshash El Nakhl pet Abdeen anial El-Gharby
Al-Zahraa and Masaken El-Helmeya El-Ezab (El-Mataria) El-Barad El-Barad El-Barad El-Sahel Bl-Saher El-Zayton El-Gharbia El-Bostan El-Barad Al-Sharabia El-Barad El-Barad El-Barad El-Barabia El-Abasseya El-Gharbia El-Masarary Sharq Al-Manteka Al-Sadessa El-Ganzoury Shara El-Hanafy Abo El-Seoud & El-Madabegh El-M Al-Abagia El-Salam El-Salam El-Salam El-Salam El-Salam El-Salam El-Barasara El-Balad El-Masara El-Balad El-Mandara Kebly El-Mandara Kebly El-Mandara Kebly El-Mandara Kebly El-Mandara Kebly El-Manhousa Hagar El-Nouatia Dan Sain-Estefanou El-Braidieh El-Braidieh El-Mannia Bahary El-Babae El-Gidid Shark And Ragheb Basha El-Manrous Harret El-Farhda El-Marous Shark El-Manrous Charb El-Mariah Shark El-Marea El-Bahary El-Babe El-Gidid Shark And Ragheb Basha Haret El-Farhda El-Marriah Shark El-Marriah Shark El-Mariah Shark El-Bahary+El-Sanakra  El-Salam El-Kabouty El-Galaa El-Salam El-Amriah Shark El-Babarah El-Babarah E	sheyet El-Tahrir Abo Taweela yet El-Seerg aken El-Ameeria Al-Shamalia aek El-Koba abyada anteka Al-Oula kas+Eshash El Nakhl pet Abdeen anial El-Gharby
Al-Zahraa and Masaken El-Helmeya El-Ezab (El-Mataria) El-Barad El-Barad El-Sahel Mer El-Zawya El-Hamra Masaken El-Sahel El-Sahel El-Saheri El-Barad El-Bostan El-Salam El-Salam El-Salam El-Salam El-Bostan El	Abo Taweela yet El-Seerg aken El-Ameeria Al-Shamalia aek El-Koba abyada anteka Al-Oula kas+Eshash El Nakhl yet Abdeen anial El-Gharby
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El-Barad El-Zayva El-Hamra Masaken El-Zaytoon El-Gharbia Masaken El-Bostan El-Khasa Had El-Bostan El-Khasa El-Khasa Had Al-Sharabia El-Khasa El-Khasa El-Khasa El-Khasa El-Charbia El-Khasa El-Charbia El-Khasarany El-Jahasseya El-Gharbia El-Manteka Al-Sadessa El-Ganzoury Shar El-Sharamy Monshaat Naser Rahi El-Hanafy Abo El-Seoud & El-Madabegh El-Malaniy El-Hanafy Abo El-Seoud & El-Madabegh El-Mansey El-Bamary El-Salam Ezbet Nafea Masara El-Balad Helwan El-Salam Ezbet Nafea Mansheyet El-Masry El-Masara El-Balad Helwan El-Keblia+Ain Helwan El-Sheyakha Al-Oula El-Mandara Kebly El-Mandara Kebly El-Mouhagrine Sidi Sidi Beshr Kibly El-Manbousa Hagar El-Nouatia Dana Sain-Estefanou El-Riadieh Ezbet El-Baihmina Bahary El-Hadra Kebly El-Hadra Kebly El-Manshia El-Koubra El-Babe El-Gidid Shark Ander Ragheb Basha Haret El-Farhda El-Woardianne Gharb El-Mafrouza Gharb Bab Karmouz Shark El-Dekheila El-Mafrouza Gharb Bab Mountarah Shark Zaowyat Abd El-Kader El-Manakh Abou El-Hassan El-Amriah Shark El-Dekheila El-Katoutra El-Bahary+El-Sanakra El-Bahary+El-Sanakra El-Salam El-Kabouty El-Galaa El-Salam	yet El-Seerg aken El-Ameeria Al-Shamalia aek El-Koba abyada anteka Al-Oula kas+Eshash El Nakhl pet Abdeen anial El-Gharby
El-Zawya El-Hamra Masaken El-Kaytoon El-Gharbia Had El-Bostan El-Khasa Had Al-Sharabia El-Eab (El-Sharabia) Al-Masooret El-Shawam El-Abasseya El-Gharbia El-Masseya El-Gharbia El-Masooret El-Shawam Bl-Abasseya El-Gharbia El-Masooret El-Shawam Bl-Ganzoury Shara El-Ganzoury Shara El-Hanafy Al-Manteka Al-Sadessa El-Ganzoury Shara El-Hanafy Abo El-Seoud & El-Madabegh El-Machagia El-Katameya + El Tagamoe El El-Bakames + Eskan Moubarak Dar El-Salam Ezbet Nafea Masanseyet El-Masyr El-Masasra El-Balad Helwan El-Keblia + Ain Helwan El-Keblia + Ain Helwan El-Seioufe Kebly El-Masara El-Balad Helwan El-Seioufe Bahary El-Machagrine Sidi Sidi Beshr Kibly El-Zahiria & Ezbet El-Safieh El-Kel-Mandra Kebly El-Mouhagrine Sidi Sain-Estefanou El-Radieh Ezbet El-Batieh El-Woarlian Bahary El-Hadra Kebly El-Houatia Dan Sain-Estefanou El-Radieh Ezbet El-Babe El-Gidid Shark Amagheb Basha Haret El-Farhda El-Mouraliane Charb El-Marouz Gharb Baba El-Amriah Shark El-Dekheila El-Marinah Shark El-Dekheila El-Marinah Shark El-Dekheila El-Marinah Shark El-Dekheila El-Marinah Shark El-Dekheila El-Amriah Shark El-Dekheila El-Amriah Shark El-Bahary + El-Sanakra El-Bahary + El-Salam El-Kabouty El-Gomrokia Port Tafra Thani El-Ganoub El-Kabouty El-Ganoub El-Rabouty El-Rab	ken El-Ameeria Al-Shamalia nek El-Koba abyada anteka Al-Oula kas+Eshash El Nakhl net Abdeen anial El-Gharby
El-Bostan El-Khasa El-Khasa El-Karabia Al-Narabia El-Ezab (El-Sharabia) Al-Narabia El-Ezab (El-Sharabia) Al-Narabia El-Masseya El-Gharbia El-Masseya El-Gharbia El-Manardy Sharq Al-Manteka Al-Sadessa El-Ganzoury Shar El-Sharany Monshaat Naser Rahi El-Hanafy Abo El-Seoud & El-Madabegh El-Nafagia El-Hanafy Abo El-Seoud & El-Madabegh El-Nafagia El-Salam El-Salam El-Salam El-Masara El-Balad Helvan El-Salam El-Masara El-Balad Helvan El-Keblia+Ain Helwan El-Keblia+Ain Helwan El-Sheyakha Al-Oula El-Seioufe Bahary El-Seioufe Kebly El-Mandara Kebly El-Mandara Kebly El-Maundaria Kebly El-Mandara El-Moutatia Dan Sain-Estefanou El-Riadieh El-Mahrousa Hagar El-Nouatia Dan Sain-Estefanou El-Riadieh El-Mandara El-Koubra El-Babe El-Gidid Shark Anm Ragheb Basha Haret El-Farhda El-Mariouz Shark El-Dekheila El-Mariouz Charb Bab Karmouz Shark El-Dekheila El-Mariouz Charb Bab Karmouz Shark El-Dekheila El-Mariouz Charb Bab Karmouz Shark El-Dekheila El-Mandarh Mountazah Saad Moustafa Hamzah+El-Daera El-Gomrokia El-Amriah Shark Zaowyat Abd El-Kader Katt El-Zeraa El-Bahary+El-Sanakra El-Salam El-Kabouty El-Kabouty El-Katt El-Salam El-Kabouty El-Kab	aek El-Koba abyada anteka Al-Oula kas+Eshash El Nakhl bet Abdeen anial El-Gharby
Al-Sharabia El-Ezab (El-Sharabia) Al-M Kasooret El-Shawam El-Abasseya El-Charbia El-M Sharq Al-Manteka Al-Sadessa El-Ganzoury Shart El-Shaarany Monshaat Naser Rahi El-Hanafy Abo El-Seoud & El-Madabegh El-M Al-Abagia El-Bahary El-Bakan Moubarak Ezbet Nafea Mansheyet El-Masay El-Bakan Moubarak El-Bahary El-Masayar El-Bahad Helwan El-Keblia+Ain Helwan El-Sheyakha Al-Oula El-Seioufe Bahary El-Seioufe Kebly El-Mantara Kebly El-Mantara Kebly El-Mantara Kebly El-Mantara Kebly El-Abarina El-Riadieh El-Brinaina Bahary El-Bahar El-Riadieh El-Brinainia Bahary El-Hadra Kebly Ezbet El-Bahar El-Koubra El-Babe El-Gidid Shark Antaret El-Baba Baha Haret El-Farhda El-Marouza Gharb El-Woardianne Gharb El-Marouza Gharb El-Marouza Charb Bahark El-Amriah Shark El-Desheila El-Amriah Shark El-Caraa El-Bahary+El-Sanakra El-Babary El-Riadieh El-Marouza Gharb El-Marouza El-Marouza El-Gomrokia El-Salam El-Salam El-Kabouty El-Kader El-Salam El-Salam El-Kabouty El-Gala El-Salam El-Salam El-Kabouty El-Galam El-Kabouty El-Galam El-Ganoub El-Kabouty El-Galam El-Salam El-Kabouty El-Galam El-Salam El-Kabouty El-Galam El-Salam El-Salam El-Salam El-Kabouty El-Salam El-Sal	abyada anteka Al-Oula kas+Eshash El Nakhl oet Abdeen anial El-Gharby
Kasooret El-Shawam El-Abasseya El-Gharbia El-Manteka Al-Sadessa El-Ganzoury Shar El-Shaarany Monshaat Naser Rahi El-Hanafy Abo El-Seoud & El-Madabegh El-W Al-Abagia El-Katameya + El Tagamoe El Khames + Eskan Moubarak Barany Ezbet Nafea Mansheyet El-Masry El-Maasara El-Balad Helwan El-Keblia + Ain Helwan El-Seioufe Bahary El-Seioufe Bahary El-Seioufe Kebly El-Mandara Kebly El-Mahandara Kebly El-Mahandara Kebly El-Mahandara Kebly El-Mahandara Kebly El-Mahandara El-Safieh El-Katamou El-Ibrahimia Bahary El-Babe El-Gidid Shark Ant Ragheb Basha Haret El-Farhda El-Warriah Shark El-Warriah Shark El-Warriah Shark El-Zeraa El-Bahary+El-Sanakra El-Zeraa El-Bahary+El-Sanakra El-Zouhour El-Radiou El-Kabouty El-Salam El-Kabouty El-Kabouty El-Salam El-Kabouty El-Kabouty El-Salam El-Kabouty El-Galaa El-Katouty El-Salam El-Kabouty El-Kabouty El-Galaa El-Kabouty El-Salam El-Kabouty El-Kabouty El-Galaa El-Kabouty El-Kabouty El-Galaa El-Kabouty El-Calaa El-Calaa El-Calaa El-Calaa E	anteka Al-Oula kas+Eshash El Nakhl bet Abdeen anial El-Gharby
Sharq Al-Manteka Al-Sadessa El-Ganzoury Shar El-Sharany Monshaat Naser Rahl El-Hanafy Abo El-Seoud & El-Madabegh El-W Al-Abagia El-Katameya + El Tagamoe El El-Balam Ezbet Nafea Mansheyet El-Masry El-Masara El-Balad Helwan El-Keblia + Ain Helwan El-Sheyakha Al-Oula El-Seioufe Bahary El-Mandaria El-Sheyakha Al-Oula El-Seioufe Bahary El-Mandara Kebly El-Mouhagrine Sidi Sidi Beshr Kibly El-Zahiria & Ezbet El-Safieh El-K El-Mahrousa Hagar El-Nouatia Dan Sain-Estefanou El-Riadieh Ezbet El-Safieh El-K El-Ibrahimia Bahary El-Hadra Kebly El-Hadra Kebly Ezbet El-Baharbia El-Koubra El-Babe El-Gidid Shark Amt El-Woardianne Gharb El-Mafrouza Gharb Baba Karmouz Shark El-Dekheila El-Mafrinza Bahary El-Bahary El-Bahary Baba Haret El-Farhda El-Marmiah Shark Zaowyat Abd El-Kader Kattel-Zeraa El-Bahary + El-Sanakra El-Cadiaa El-Salam El-Kathanakh Abou El-Hassan Mountazah Saad Moustafa Hamzah + El-Daera El-Gomrokia Port El-Salam El-Kabouty El-Ganoub	kas+Eshash El Nakhl oet Abdeen anial El-Gharby
El-Sharany Monshaat Naser Rahi El-Hanafy Abo El-Seoud & El-Madabegh El-M Al-Abagia El-Katameya+ El Tagamoe El Khames+ Eskan Moubarak Dar El-Salam Ezbet Nafea Maa Mansheyet El-Masry El-Maasara El-Balad Helv Helwan El-Keblia+Ain Helwan El-Sheyakha Al-Oula  El-Seioufe Bahary El-Seioufe Kebly El-Mandara Kebly El-Mandara Kebly El-Mouhagrine Sidi Sidi Beshr Kibly El-Zahiria & Ezbet El-Safieh El-K El-Mahrousa Hagar El-Nouatia Dan Sain-Estefanou El-Riadieh Ezbe El-Ibanhimia Bahary El-Babe El-Gidid Shark Ant Ragheb Basha Haret El-Farhda El-M El-Woardianne Gharb El-Mafrouza Gharb Bab Karmouz Shark El-Dekheila El-A El-Amriah Shark Zaowyat Abd El-Kader Katte El-Zeraa El-Bahary+El-Sanakra  El-Zouhour El-Galaa El-Saine El-Zouhour El-Galaa El-Saine El-Calaa El-Salam Bl-Katte El-Calaa El-A Mountazah Saad Moustafa Hamzah+El-Daera El-Comrokia Port El-Salam El-Kabouty El-Ganoub  Ferssal & El-Sabah Kism Awal Kism Kism Rabea Kism Awal Kism	oet Abdeen anial El-Gharby
El-Hanafy Al-Abagia El-Katameya+El Tagamoe El El-B Khames+Eskan Moubarak Dar El-Salam Ezbet Nafea Mansheyet El-Masry El-Masara El-Balad Helwan El-Keblia+Ain Helwan El-Seioufe Bahary El-Seioufe Kebly El-Mandara Kebly El-Mandara Kebly El-Abagrine Sidi Beshr Kibly El-Zahiria & Ezbet El-Safieh El-Mahrousa Bain-Estefanou El-Riadieh El-Mahrousa El-Hahara Kebly El-Hahara Kebly El-Hahara Kebly El-Hahrousa El-Hahara Kebly El-Hahrousa El-Riadieh Ezbe El-Houbardiane Bahary El-Babe El-Gidid Shark Antagheb Basha Haret El-Farhda El-Woardianne Gharb El-Marrouz Shark El-Dekheila El-Marriah Shark El-Dekheila El-Aarriah Shark El-Zena El-Bahary+El-Sanakra  El-Zouhour El-Galaa El-Salam El-Ganoub  Fort Said  El-Galaa El-Salam El-Ganoub  Fessal & El-Sabah Kism Rabea  Kism Awal  LOWER EGYPT	anial El-Gharby
Al-Abagia El-Katameya+El Tagamoe El Khames+Eskan Moubarak Dar El-Salam Ezbet Nafea Maa Mansheyet El-Masry El-Massara El-Balad Helvan El-Keblia + Ain Helwan El-Seioufe Kebly El-Mouhagrine Sidi Beshr Kibly El-Mantousa Hagar El-Nouatia Dan Sain-Estefanou El-Babe El-Gidid Shark Amble Haret El-Babe El-Gidid Shark Amble Haret El-Babe El-Gidid Shark El-Mariane Gharb El-Mariane Gharbane	,
Khames+ Eskan Moubarak Dar El-Salam Ezbet Nafea Mansheyet El-Masry El-Maasara El-Balad El-Seioufe Bahary El-Seioufe Kebly El-Mandara Kebly Sidi Beshr Kibly El-Adhrousa Sain-Estefanou El-Brainia Bahary El-Brainia Bahary El-Hadra Kebly El-Hadra Kebly El-Hadra Kebly El-Hadra Kebly El-Hadra Kebly El-Babe El-Gidid Shark Ambarabhia El-Koubra El-Wardianne Gharb El-Wardianne Gharb El-Marfouza Gharb El-Marfouza Gharb El-Dekheila El-Amriah Shark El-Zeraa El-Bahary+El-Sanakra  El-Zouhour El-Galaa El-Zouhour El-Salam Bel-Ganoub  El-Galaa El-Salam El-Ganoub  Suez  Fessal & El-Sabah Kism Rabea  Kism Rabea  Kism Awal  Kism Awal  LOWER EGYPT	catoon El Charbia
Dar El-Salam Mansheyet El-Masry El-Masara El-Balad El-Seioufe Bahary El-Seioufe Kebly El-Mandara Kebly El-Mandara Kebly El-Mahrousa Sain-Estefanou El-Balad El-Balad El-Balad El-Balad El-Bahary El-Abirria & Ezbet El-Safieh El-K El-Mahrousa Sain-Estefanou El-Riadieh Ezbe El-Ibrahimia Bahary El-Hadra Kebly El-Hadra Kebly El-Manshia El-Koubra El-Babe El-Gidid Shark Amt Ragheb Basha Haret El-Farhda El-Wardianne Gharb El-Wardianne Gharb El-Marriah Shark El-Dekheila El-Zeraa El-Bahary+El-Sanakra  El-Zahariah Shark El-Zahiria & El-Kader El-Amriah Shark El-Zahiria & El-Kader El-Amriah Shark El-Bahary+El-Sanakra  El-Galaa El-Zouhour El-Galaa Bl-Katte El-Zouhour El-Galaa El-Salam El-Kabouty El-Galaa El-Salam El-Kabouty El-Galaa Katte El-Salam El-Kabouty El-Galaa El-Salam El-Kabouty El-Galaa El-Salam El-Kabouty El-Galaa Kism Kism Rabea  Kism Awal	sateen el-Chainid
Mansheyet El-Masry Helwan El-Keblia + Ain Helwan El-Sheyakha Al-Oula  El-Seioufe Bahary El-Seioufe Kebly El-Mandara Kebly El-Mandara Kebly El-Mahrousa Sain-Estefanou El-Riadieh El-Mahrousa El-Babe El-Cidid Shark Ammuz Shark El-Woardianne Gharb El-Mafrouza Gharb El-Mariah Shark El-Aminah Shark El-Zeraa El-Bahary+El-Sanakra  El-Zeraa El-Bahary+El-Sanakra  El-Zouhour El-Zouhour El-Salam El-Kabouty El-Salam El-Kabouty El-Kabouty El-Kism Kism Rabea  Kism Rabea  LOWER EGYPT	
El-Seioufe Bahary El-Seioufe Keblia + Áin Helwan El-Seioufe Kebly El-Aandara Kebly El-Mandara Kebly El-Mandara Kebly El-Aahiria & Ezbet El-Safieh El-K El-Mahrousa Bain-Estefanou El-Riadieh El-Riadieh El-Babe El-Cidid Shark El-Mashia El-Koubra El-Mashia El-Koubra El-Mariouza Gharb El-Mariouza Gharb El-Mariouza Gharb El-Mariouza Gharb El-Mariah Shark El-Dekheila El-Ael-Amriah Shark El-Zeraa El-Bahary+El-Sanakra El-Zeraa El-Bahary+El-Sanakra El-Zeraa El-Bahary+El-Sanakra El-Zouhour El-Salam El-Kabouty El-Salam El-Kabouty El-K	di El-Khabeery El- Gharbia
El-Seioufe Bahary El-Seioufe Kebly El-Mandara Kebly El-Mouhagrine Sidi Sidi Beshr Kibly El-Zahiria & Ezbet El-Safieh El-K El-Mahrousa Bain-Estefanou El-Riadieh Ezbet El-Ibrahimia Bahary El-Hadra Kebly El-Hadra Kebly El-Babe El-Gidid Shark Amt Ragheb Basha Haret El-Farhda El-Woardianne Gharb El-Mafrouza Gharb Babo El-Amriah Shark El-Amriah Shark El-Zeraa El-Bahary+El-Sanakra  El-Zouhour El-Galaa El-Zouhour El-Galaa El-Salam Bloustafa Hamzah+El-Daera El-Gomrokia El-Salam El-Kabouty El-Ganoub  Fessal & El-Sabah Kism Rabea  Kism Awal  LOWER EGYPT	an El-Balad
El-Seioufe Bahary El-Seioufe Kebly El-Mandara Kebly El-Mouhagrine Sidi Sidi Beshr Kibly El-Zahiria & Ezbet El-Safieh El-K El-Mahrousa Hagar El-Nouatia Dan Sain-Estefanou El-Riadieh Ezbe El-Ibrahimia Bahary El-Hadra Kebly El-Babe El-Gidid Shark Ann Ragheb Basha Haret El-Farhda El-Woardianne Gharb El-Mafrouza Gharb Bab Karmouz Shark El-Dekheila El-Amriah Shark El-Zeraa El-Bahary+El-Sanakra  El-Zouhour El-Galaa El-Kader El-Galaa El-Kader El-Manakh Mountazah Saad Moustafa Hamzah+El-Daera El-Gomrokia El-Salam El-Kabouty El-Ganoub  Suez  Fessal & El-Sabah Kism Rabea  LOWER EGYPT	
El-Mandara Kebİy El-Mouhagrine Sidi Sidi Beshr Kibly El-Zahiria & Ezbet El-Safieh El-K. El-Mahrousa Hagar El-Nouatia Dan Sain-Estefanou El-Riadieh Ezbet El-Bahary El-Hadra Kebly Ezbet El-Bahary El-Hadra Kebly Ezbet El-Manshia El-Koubra El-Babe El-Gidid Shark Ambasha Haret El-Farhda El-Woardianne Gharb El-Mafrouza Gharb Babak El-Qardianne Gharb El-Mafrouza Gharb Babak El-Amriah Shark El-Dekheila El-Amriah Shark El-Dekheila El-Kader Kattet El-Zeraa El-Bahary+El-Sanakra El-Manakh Abou El-Hassan El-A Mountazah Saad Moustafa Hamzah+El-Daera El-Gomrokia Port El-Salam El-Kabouty El-Ganoub El-Kabouty El-Ganoub LOWER EGYPT	
El-Mandara Kebİy El-Mouhagrine Sidi Sidi Beshr Kibly El-Zahiria & Ezbet El-Safieh El-K. El-Mahrousa Hagar El-Nouatia Dan Sain-Estefanou El-Riadieh Ezbet El-Bahary El-Hadra Kebly Ezbet El-Bahary El-Hadra Kebly Ezbet El-Manshia El-Koubra El-Babe El-Gidid Shark Ambasha Haret El-Farhda El-Woardianne Gharb El-Mafrouza Gharb Babak El-Quardianne Gharb El-Mafrouza Gharb Babak El-Amriah Shark El-Dekheila El-Amriah Shark El-Dekheila El-Kader Kattet El-Zeraa El-Bahary+El-Sanakra El-Manakh Abou El-Hassan El-A Mountazah Saad Moustafa Hamzah+El-Daera El-Gomrokia Port El-Salam El-Kabouty El-Ganoub El-Kabouty El-Ganoub Kism Rabea Kism Awal Kism Kism Rabea Kism Awal Kism Kism Awal Kism Kism Rabea	nrawy
El-Zahiria & Ezbet El-Safieh El-K. El-Mahrousa Hagar El-Nouatia Dan Sain-Estefanou El-Riadieh Ezbe El-Ibrahimia Bahary El-Hadra Kebly Ezbe El-Ibrahimia Bahary El-Babe El-Gidid Shark Amb Ragheb Basha Haret El-Farhda El-W El-Woardianne Gharb El-Mafrouza Gharb Babk Karmouz Shark El-Dekheila El-A El-Amriah Shark Zaowyat Abd El-Kader Katte El-Zeraa El-Bahary+El-Sanakra  El-Zouhour El-Galaa El-Sa El-Manakh Abou El-Hassan El-A Mountazah Saad Moustafa Hamzah+El-Daera El-Gomrokia Port El-Salam El-Kabouty El-G Tafrr Thani El-Ganoub  Suez  LOWER EGYPT	Beshr Bahary
El-Mahrousa Hagar El-Nouatia Dan Sain-Estefanou El-Riadieh Ezbe El-Ibrahimia Bahary El-Hadra Kebly Ezbe El-Ibrahimia Bahary El-Hadra Kebly Ezbe El-Manshia El-Koubra El-Babe El-Gidid Shark Amk Ragheb Basha Haret El-Farhda El-Moardianne Charb El-Mafrouza Gharb Bab Karmouz Shark El-Dekheila El-Dekheila El-A; El-Amriah Shark Zaowyat Abd El-Kader Katte El-Zeraa El-Bahary+El-Sanakra  El-Zouhour El-Galaa El-Said El-Manakh Abou El-Hassan El-A Mountazah Saad Moustafa Hamzah + El-Daera El-Gomrokia Port El-Salam El-Kabouty El-Ganoub  Suez  Fessal & El-Sabah Sheiakha Khames Kism Rabea Kism Awal Kism Kism Rabea Kism Awal Kism	
Sain-Estefanou El-Riadieh Ezbe El-Ibrahimia Bahary El-Hadra Kebly Ezbe El-Ibrahimia Bahary El-Hadra Kebly Ezbe El-Manshia El-Koubra El-Babe El-Gidid Shark Ambasha El-Woardianne Gharb El-Mafrouza Gharb Bab Karmouz Shark El-Dekheila El-Armiah Shark Zaowyat Abd El-Kader Katte El-Zeraa El-Bahary+El-Sanakra  El-Zouhour El-Galaa El-Bahary+El-Sanakra El-Manakh Abou El-Hassan El-A Mountazah Saad Moustafa Hamzah+El-Daera El-Gomrokia Port El-Salam El-Ganoub  Fessal & El-Sabah Sheiakha Khames Kism Rabea Kism Awal Kism Kism Rabea	sea (Bahary Seket Hadid Abou Kir
El-Ibrahimia Bahary El-Manshia El-Koubra El-Manshia El-Koubra El-Babe El-Gidid Shark Amb Ragheb Basha Haret El-Farhda El-Woardianne Gharb El-Woardianne Gharb El-Mafrouza Gharb El-Amfrouza Gharb Babb Karmouz Shark El-Dekheila El-Amriah Shark El-Zeraa El-Bahary+El-Sanakra  El-Zouhour El-Zouhour El-Galaa Abou El-Hassan Mountazah Saad Mountazah Saad El-Salam El-Kabouty El-Kabouty El-Ganoub  Suez  Fessal & El-Sabah Kism Rabea  El-Sabah Kism Awal  El-WER EGYPT  El-Woardianse El-Mand El-Maret El-Farhda El-Maret El-Farhda El-Mafrouza Gharb Babb Babb El-Maret El-Farhda El-Maret El-Farhda El-Maret El-Farhda El-Maret El-Farhda El-Maret El-Farhda El-Mafrouza Gharb Babb Babb El-Maret El-Farhda El-Mafrouza Gharb Babb Babb El-Maret El-Farhda El-Mafrouza Gharb Babb Babb El-Maret El-Farhda El-Maret El-Farhda El-Mafrouza Gharb Babb Babb Babb Babb Babb Babb Babb B	El-Gidida & Ezbet El-Wastania
El-Manshia El-Koubra Ragheb Basha Haret El-Farhda El-Woardianne Gharb El-Woardianne Gharb El-Mafrouza Gharb El-Amfrouza Gharb El-Amriah Shark El-Dekheila El-Amriah Shark El-Zeraa El-Bahary+El-Sanakra  El-Zouhour El-Zouhour El-Galaa El-Galaa Abou El-Hassan Mountazah Saad Moustafa Hamzah+El-Daera El-Gomrokia El-Galam El-Kabouty El-Ganoub  Suez  Fessal & El-Sabah Kism Rabea  El-Sabah Kism Awal  Kism Awal  El-Wort Said  El-Sabar Kism Ambes Kism Awal  Kism Awal  El-Wort Said  El-Sabar Kism Ambes Kism Awal  El-Woardianne El-Amriah Shark El-Am	t El-Nouzha
Ragheb Basha El-Woardianne Gharb El-Mafrouza Gharb Babb Karmouz Shark El-Dekheila El-Amriah Shark Zaowyat Abd El-Kader Katte El-Zeraa El-Bahary+El-Sanakra  El-Zouhour El-Galaa El-Baharkh Abou El-Hassan El-A Mountazah Saad Moustafa Hamzah+El-Daera El-Gomrokia Port El-Salam El-Kabouty El-Kabouty El-Ganoub  Fessal & El-Sabah Sheiakha Khames Kism Rabea Kism Awal Kism Awal	t El-Gameea
El-Woardianne Gharb Karmouz Shark El-Dekheila El-Dekheila El-Amriah Shark El-Zeraa El-Bahary+El-Sanakra  El-Zouhour El-Zouhour El-Manakh Mountazah Saad El-Salam El-Kabouty  Ferssal & El-Sanabh Kism Rabea  El-Sabah Kism Awal  El-Woardianne Gharb El-Aglaa El-Aglaa El-Sabah Kism Awal  El-Galaa Bel-Sababh Kism Awal  El-Kabouty El-Gomrokia Fl-Gamoub  El-Kabouty El-Gomrokia Fl-Gamoub  Suez  LOWER EGYPT	ruze & Mouharam Bek
Karmouz Shark El-Amriah Shark Zaowyat Abd El-Kader Katte El-Zeraa El-Bahary+El-Sanakra  El-Zouhour El-Galaa El-Hassan El-A Mountazah Saad Moustafa Hamzah+El-Daera El-Gomrokia El-Galam El-Kabouty El-Galam El	etrasse
El-Amriah Shark El-Zeraa El-Bahary+El-Sanakra  Port Said  El-Zouhour El-Zouhour El-Manakh Abou El-Hassan Mountazah Saad El-Salam El-Kabouty El-Kabouty El-Ganoub  Suez  Fessal & El-Sabah Kism Rabea  LOWER EGYPT  Katter  Suez  El-Sa  El-Sa  Kism  LOWER EGYPT	Sedret El-Barany Gharb
El-Zeraa El-Bahary+El-Sanakra  Port Said  El-Zouhour El-Zouhour El-Galaa El-Manakh Abou El-Hassan Mountazah Saad El-Salam El-Kabouty El-Ganoub  Suez  Fessal & El-Sabah Kism Rabea  LOWER EGYPT	amy El-Baharia
El-Zouhour El-Galaa El-Sa El-Manakh Abou El-Hassan El-A Mountazah Saad Moustafa Hamzah + El-Daera El-Gomrokia Port El-Salam El-Kabouty El-G Thani El-Ganoub  Suez  Fessal & El-Sabah Kism Rabea Kism Awal Kism LOWER EGYPT	a Mariout
El-Zouhour El-Galaa El-Sa El-Manakh Abou El-Hassan El-A Mountazah Saad Moustafa Hamzah + El-Daera El-Gomrokia Port El-Salam El-Kabouty El-G Tafre Thani El-Ganoub  Suez  Fessal & El-Sabah Sheiakha Khames Kism Rabea Kism Awal Kism	
El-Manakh Abou El-Hassan El-A Mountazah Saad Moustafa Hamzah+El-Daera El-Gomrokia Port El-Salam El-Kabouty El-Kabouty El-Ganoub  Suez  Fessal & El-Sabah Kism Rabea Kism Awal Kism LOWER EGYPT	
El-Manakh Abou El-Hassan El-A Mountazah Saad Moustafa Hamzah+El-Daera El-Gomrokia Port El-Salam El-Kabouty El-Kabouty El-Ganoub  Suez  Fessal & El-Sabah Kism Rabea Kism Awal Kism Awal	rai
Mountazah Saad El-Salam El-Salam El-Kabouty  Suez  Fessal & El-Sabah Kism Rabea  Moustafa Hamzah+El-Daera El-Gomrokia El-Kabouty  Suez  Kism Awal  LOWER EGYPT	
El-Salam El-Kabouty El-Canoub  Suez  Fessal & El-Sabah Kism Rabea Kism Awal Kism LOWER EGYPT	Fouad+Thani Port Fouad
Tafre Thani El-Ganoub  Suez  Fessal & El-Sabah Kism Rabea  Kism Awal  LOWER EGYPT  Tafre	noub+Moubarak (Shark El-
Thani El-Ganoub  Suez  Fessal & El-Sabah Kism Rabea  Kism Awal  Kism Awal  LOWER EGYPT	,
Fessal & El-Sabah Sheiakha Khames Kism Rabea Kism Awal Kism LOWER EGYPT	ea)
Fessal & El-Sabah Sheiakha Khames Kism Rabea Kism Awal Kism LOWER EGYPT	
Kism Rabea Kism Awal Kism LOWER EGYPT	Thaleth
LOWER EGYPT	Thany+ El-Daera El-Gomrokia
	Thany F El Bacia El Gollionia
Dannetta	
Lishan	
<u>Urban</u>	
Ezbet El-Borg Kism Thaleth Kafr Meat Abou Ghalab City	El Battikh
Rural	
	F-b at Fl I along
	Ezbet El-Lahm
/	ahamadia
/	
Meet El-Sheukh Meet El-Khouly Abd El-Allah+Ezbet El-Baz	ı Garida

Dakahlia

<u>Urban</u>

El-Mataria Sherbien El-Manzala

Kism Than El-Hwar Dekernes Kism Kafr El-Badamas

El-Senbelawein

Rural

El-Ramla Monshaat Shouman Kafr Abou Zaher &, it's Ezabs

 $El\hbox{-}Gammala + El\hbox{-}Orban$ El-Bagalat El-Kobab El-Soghra

Orman Talkha Meet Antar Nesha (includes Kafr El-Bashabsha &

Kafr El-Halawani)

Telbana Meet Badr Khamees Meet Fares & it's Kafr El-Hegayza Tookh El-Aklam+El-Fanan Borg Nour El-Homos

Menyet Samanoud El-Rahmaneya+Kafr Hegazy+Kafr Atallah Sentemay

Soliman

Meet Abou Khaled & Kafr Aly Badra

Sharkia

<u>Urban</u>

Al-Ebrahimia Al-Salhia El-Gadida+ Al-Manteka Al-Senaea Al-Hosainia

Al-Gameea **Belbes** Ashra Ramadan City

Rural

El-Akhewa Samakeen El-Gharb El-Sofeya El-Soora El-Beroum + El-Salatna El-Ghazaly Kafr El-Hag Omar Manzel Maymoun Derb El-Sook Tal Mohamed Kafr Ageeba Bardeen Neshwa Sefeeta El Naamna

Kafr Shalshalamon El-Sanagra+El-Omara Kafr El-Azazy Kafr Ayoub Soliman

El-Mansheya

Kalyubia

<u>Urban</u>

Kafr Shokr El Kanater El Khairia Kafr Manaker Shobra El Khima Kalyub **Bahtim** 

Bigam

<u>Rural</u>

Kafr Sharaf El-Deen Monshaat Banha Demloo El-Abadla Karkashanda El-Gaafra Kafr El-Shobak El Nasereya Basoos El-Sabah Koom Eshfeen Al-Qalg El-Khosoos El-Gabal El-Asfar

Kafr El-Sheikh

Urban

**Baltiem** Sidi Salim Desouk

Meet Elwan

<u>Rural</u>

El-Hamad El-Baria Koum El-Hagar

El-Hadady & it's Ezabs Shalma+Monshaat Al-Masry El-Komysion Gharb Koum El-Hagna El-Merabeen Ebshan Kafr El-Manshy El- Bahary+Helis El-Nawayga Ezab Abou Mandour

El-Salimia Shabassy Omeir

Continued..

Gharbia <u>Urban</u> Hussien said Ahmad Aly Emam El-Hoseiny Mohamed Hussien El Sehly Kobry El-Mahatta Kafr El-Zayat El-Malgaa Zifta Rural Shobra Babel Mahalat Abo Aly El-Kantara El-Hayatem Segeen El-Koum El-Nasereya Meet Assas Kasr Nasr El-Dine Genag Abyar Shabsheer El-Hessa El-Ragdeya Kaneeset Damsheet Shobrabeel Kananeya Nawag Meet Yazeed Shobra El-Yaman Meet El-Rakha Menoufia <u>Urban</u> Said Ahmed Hassan El-Kot Menouf Tla El-Bagour <u>Rural</u> Kafr Meet Abo Al-Koom+Kafr Zarkan Zanara Tookh Tanbasha Kafr El-Sheikh Ibrahim Om Khanan+Monshaat Om Khanan Al-Batanon & Hesattha Meet Masoud Shemyates + Kafr El-Gamala Shanwan Dabraky Feesha El-Kobra Al-Makatee Koom El-Dabea Abou Rakaba+Kafr Abou Rakaba Ramlat Al-Angab Kafr El-Tarayna Shaashaa Behera <u>Urban</u> Edco Kafr El-Dawar Shobra Nakrha Abo El-Matamier **Badr City** Rural Debi El-Malkah Kom Asho El-Karawi Sahali El-Saarania Ezab Besentawy Abaadiat Damanhour Ezab Saknida Nadebyah Monshaat Ganakles Shaltoot Mahalat Sa Demisna El-Bostaan Mahmoud Abu Wafya Al-Kabera Dist El-Ashraf Omar Shahin Ismailia <u>Urban</u> Monshaat El-Shohadaa El-Tomsah El-Hekr Hai El-Sheik Zaid El-Tall El-Kebeer Faid Rural Abou Khalifa+El-Nasr El-Sabea Abar El-Sharkeya El-Manaif Nafisha El-Kassassien El- Kadima+Abou Ashour Abou Soultan

Fanara

Continued.

#### Giza

<u>Urban</u>

OusiemEl-WarrakEl-MouniraMatar EmbabaMeit AokbaAbo QatadaBoulak El-DakrourKafr TohormosEl-Shiakha El-ThalthaMonshaat El-BakaryGezeret El-DahabEl-Talbia El-KebliaEl-Omrania El-GharbiaOula El-HaramEl-Badrashein

Rural

El-Manashy Zat El-Koum El-Baragil Abou Rawash Saft El-Laban Kafr Hakim

Ard Al-Lewa El-Manawat Nazlet El-Ashter + Beni Youssef

El-Tarfaia Monshaat Dahshour El-Shorafa&El-Attiat

Negoue El-Arab El-Mateneia Kafr Barakat+Kafr Abou Abas

El-Kebabat Manial El-Soultan

#### Beni Suef

<u>Urban</u>

Nasser Ehnassia El-Gezira El-Bahary

El-Mermah Kebly Moqbel Beba

El-Fashn

Rural

Abweet El-Hooma El-Haram
Bany Nussier Saft El-Sharkia Kamn El-Aaroos
Monshaat Abou Seer Ashmant+Monshaat El-Sherka El-Zaytoon

Bahbasheen Tahha Boosh Monshaat Hadeeb+Gheit El Bahary

El-Noweera Tama Fayoum Maasaret Naasan Monshaat kasab Nazlet El-Mamaleek El-Hakamna Baha El-Agouz Ahnasia El Khadraa Bany Hamad Tazmant El-Sharkia Riad Nazlet Abo Selim El Dabaana Bany Kasem Sods El-Omaraa Kanbash El-Hamraa Tarshoob Nazlet El-Sherif

El-Aasakra Dashasha Koom El-Ramly El-Kebly

Monshaat Abo Maleeh El-Gafadon El-Fant
Beni saleh Shenry Saft El-Nour

Nazlet Akfahs

#### Fayoum

<u>Urban</u>

Tamia Sanores Apshaway+Youssef El-Sedek

Kism Thani Kism Thaleth Kism Rabea

Ettsa **Rural** 

El-RodaEl-MazatlySarsenahKasser RashwanMaessaret SawyEl-AkhssassEl-Kaeabi El-GadeedaNekalifiaSanhour

FadeemineMattartaressMonshaat SanoresAbo KessaeEl-KhalidiaEl-NassariaSenro El-KeblyaTobharEl-HamoulyChidan (El-Mashrek)El-Nazlah & El-MorabeaShaelane

Karoun+Wadi El-Rayan Kahke El-Basyonia El-Adawa El-Nasseriah Dassiah

Sanofer+Monshaat Al-Gazaer Koufour El-Sheikh Fadel Monshaat Abd Allah Haoaret Adlaen El-Hagar El-Gharek El-Mahmoudia El-Wanaysa Gardo

Ezbet Kalmasha Kalmasha Monshaat El-Amir

Monshaat Fessal

Continued...

Dichan		Menya	
Maghaglach   Beni Mazar   Smallout   Som Tallout   Som Tallout   Event   Eve	Urhan	Menya	
Kam Taleth El-Menya         Kism Khames         Kaff El-Mainsoura El-Kebly           Kam Awal Malawy         Kism Thaleth Malawy         De'r Mowas           Rund         El-Siekin Masoud         El-Sarfaya         Aba El-Wakf           Berthat         Dahamro         Abad Sharouna         About El-Wakf           Nazle Barry Khalef         Aatou El-Wakf         El-Sacdia           Beni Samet         Taho         Aboutan           Beni Samet         Taho         Aboutan           Beni Amar         Morshact Loft Allah         El-Gazeer           El-Tiba         Dakouf         Shousha           Kom El-Loufy         Admo         Beni Ahmed           Dumarres         Sawada         Tahnasha           Morshact El-Dahb El-Baharia         Abou Korlasse         El-Sheikh Terny           Bary Bokad         Slace El-Serobelawein + El-Zaufrana         Morshact Deckse           Bary Rorka         Der Abou Hanasse         Kast Houre           Abou Kaltah         El-Bayadiah         El-Sheikh Ebadah           Bary Rorka         Der About Hanasse         Kast Houre           Bary Rorka         El-Rabaratieh         El-Badary           El-Kasad         Ahnoub         Sheyakha Kamesa           El-Harne El-Thania		Roni Mazar	Smallout
Kism Awal Malawy         Kism Thaledt Malawy         Deir Mowas           Rural         El-Sheik Masoud         El-Safarya         Aba El-Wakí           Berbat         Daharmo         Abad Sharouna           Nazlee Barny Khaleé         Atou El-Wakí         El-Sadedia           Beni Samet         Tanbo         Abouan           Berni Amar         Morshaal Tel-Filha         Shousha           Berni Amar         Morshaal Tel-Malh         El-Crazer           El-Tiba         Dakouf         Shousha           Kom El-Loufy         Admo         Ben Ahmed           Dumarres         Sawada         Talmasha           Abou Kaltah         El-Bapadiah         Bish Kelekh Temy           Bary Bbead         Safaxe-El-Sernbelavein+El-Zaafrana         Mornhaat Deabes           Bary Rohe         Deer Alsou Harnase         Kare Houre           Naziet Hanzawy         El-Bardia         Bary Koriah           Naziet Hanzawy         Farkmanieh         Bary Koriah           Bary Koriah         Sahel Selim         El-Badary           Burral         El-Rosia         Abnoub         Sheyakha Karnesa           El-Radia         Dairout El-Sherief         Naziet Sourkna + Sourkna           Bary Koriah         Nezally Caro			
Remail         FL-Sniranya         Aba FL-Wakir           Beribat         Dahamro         Aba GI Sharouna           Nazlet Eany Khalef         Aatou EL-Wakir         EL-Saedla           Beni Samet         Tanbo         Abouan           Beni Samet         Tanbo         Abouan           Beni Amar         Morshaat IrAllah         EL-Carzer           EL-Tiba         Dakouf         Shousha           Kom El-Loufy         Admo         Beni Ahmed           Dumarress         Savada         Tanhasha           Morshaat El-Dahah FL-Baharia         Abou Korlasea         EL-Sheikh Tempe           Abou Kalah         El-Bayadiah         EL-Sheikh Eadarh           Abou Kalah         El-Bayadiah         EL-Sheikh Eadarh           Naziet Hamzawy         El-Rahmarieh         Tal Bany Omran           Tassuit           Tassuit           Tassuit           Tassuit           Li Hanzawy         Abnoub         Sheyakha Kamesa           El-Kosia         Abnoub         Sheyakha Kamesa           El-Hamra El-Thania         Sahe Selm         Naziet Sourkna + Sourkna           Bany Kosia         Naziet Someh         Ray Raisa			•
Fisheik Masoud	· ·	,	
Berbat         Daharn'o         Abad Sharouna           Naziet Bany Khalef         Atou EWWalf         ES-sedia           Beni Samet         Tanbo         Abouan           Beni Amar         Monshar Lotf Allah         EC-Zazer           EI-Tiba         Dakouf         Shousha           Kom El-Lody         Admo         Beni Ahmed           Damarres         Savada         Tahnasha           Monshaat El-Dahab E-Baharia         Abou Korkase         El-Sheikh Tenkalah           Bary Bead         Safae - El-Senbelawein + El-Zaafrana         Monshaat Deabes           Abou Kaltah         El-Bayadiah         El-Sheikh Eskalah           Bary Robe         Deer Abou Hanase         Kasr Houre           Naziet Hamzawy         El-Ramanieh         Safe Hel-Baran           El-Ramanieh         El-Bany Omran         El-Bany Omran           Tangang Markan           About El-Sheid         Bany Omran           El-Hama El-Dania         Abnoub         Sheyakha Kamesa           El-Hamar El-Tania         Abnoub         Sheyakha Kamesa           El-Hamar El-Tania         Bany Sede Selm         Bary Rafaa           Bany Karla         Naziet Sourkna + Sourkna         Bary Rafaa           R		FI C-(	Ale - FLANAL
Nazlet Bany Khalef         Atou El-Walé         El-Saedia           Beni Samet         Tanbo         Abouan           Beni Amar         Morsbaat Loff Allah         El-Carvaer           El-Tiba         Dakouf         Shousha           Kom El-Loufy         Admo         Beni Ahmed           Damarress         Sawada         Tahnasha           Monshaat El-Dahab El-Baharia         Abou Korkasee         El-Sheikh Temy           Bany Bhead         Safae - El-Sonbelawein + El-Zaafrana         Monshaat Debess           Abon Kaltah         Fl-Bayadiah         Fl-Sheikh Fhatdah           Bany Bhead         Deer Abou Hanasse         Kar Houre           About Kaltah         Fl-Bayadiah         Fl-Sheikh Fhatdah           About Kaltah         Fl-Bayadiah         Fl-Sheikh Fhatdah           About Kaltah         Fl-Bayadiah         Fl-Sheikh Fhatdah           Brank Bany Kaltah         Fl-Sheikh Fhatdah         Fl-Sheikh Fhatdah           About Hanasse         Kar Houre           Brank Bany Kaltah         Fl-Sheikh Fhatdah           Brank Bany Kaltah         Fl-Sheikh Fhatdah           Brank Bany Kaltah         Fl-Motah           Brank Bany Kaltah			
Beni Samer         Tanbo         Abouan           Beni Amar         Monshaat Lotf Allah         El-Cazaer           B-Tiba         Dakouf         Shousha           Kom El-Louly         Admo         Beni Almed           Damarross         Sawada         Tahnasha           Monshaat El-Dahab El-Baharia         Abou Korkasee         El-Sheikh Temy           Bary Bbead         Safae + El-Senbelawein + El-Zaafrana         Monshaat Deabess           Abou Kaltah         El-Bayadiah         El-Bardian           Bary Rohe         Deer Abou Hanasse         Kasr Houre           Nazier I tamzawy         El-Rahmanieh         Tal Barry Omran           El-Rosia         Abnoub         Sheyakha Kamesa           El-Harding         Sahel Selim         El-Badary           El-Harding         Sahel Selim         Bary Barry           Barry Maria         Naziet Sourkna+Sourkna           Barry Karea         Barry Rafea           Barry Korah         Nezable Ganoube         Barry Rafea           Barry Karea         Barry Rafea         Barry Rafea           Barry Karea         El-Notata         Barry Rafea           Barry Karea         El-Notata         Barry Rafea           Barry Karea         El-Notata </td <td></td> <td></td> <td></td>			
Beni Amar	,		
Kom El-Loufy         Admo         Beni Ahmed           Damarres         Sawada         Tahnasha           Monshaat El-Dahab El-Baharia         Abou Korkase         El-Sheikh Temy           Bany Ebead         Safae + El-Senbelawein + El-Zaafrana         Monshaat Deabess           Bany Rohe         Deer Abou Hanasse         Kaer Houre           Naziet Hanzawy         El-Rahmanieh         Tal Bany Omran           Tessuit           Urban           El-Kosai         Abnoub         Sheyakha Kamesa           El-Hamra El-Thania         Sahed Selim         El-Badary           El-Rada           Bany Korah         Naziet Sourkna + Sourkna           Bany Korah         Nezally Canoube         Bany Rafea           El-Rad         Dairout El-Sherief         Naziet Sourkna + Sourkna           Bany Korah         Nezally Canoube         Bany Rafea           El-Rada El-Moustagadah         Nezally Canoube         Bany Rafea           El-Nazia El-Moustagadah         Bany Semae         El-Rasoul Abou Hassouba         El-Naoarra           Vibran           Souhag           El-Nazia El-Moustagadah         El Sherii         Akhmiem           Cerga			
Damarress         Sawada         Tahnusha           Monshaat E-Dahb El-Baharia         Abou Korkase         El-Sheikh Termy           Bany Ebead         Safax-El-Senbelawein+El-Zaafrana         Monshaat Deabess           Abou Kallah         El-Bayadiah         El-Sheikh Ebadah           Bany Rohe         Deer Abou Hanasse         Kasr Houre           Assuit           Urban           El-Kossia         Abnoub         Sheyakha Kamesa           El-Hamra El-Thania         Sabel Selim         El-Badary           El-Riad         Dairout El-Sherief         Nazlet Sourkna + Sourkna           Bany Korah         Nozally Canoube         Bany Rafoa           El-Riad         Nagad Abd El-Rasoul Abou Hassouba         El-Moidah           Refa         Nagad Abd El-Rasoul Abou Hassouba         El-Naoarra           Urban           Souhag           Urban           Corega         El Saliana           Bury         El Sea           Bany         Banga           Abo Bakr El Sedeek         Aksa           Bany         Banga           Abo Bakr El Sedeek         Aksa           Bany         El-Danakla           Abo	El-Tiba	Dakouf	Shousha
Monshaat El-Dahab El-Baharia Bany Ebead Abou Kaltah El-Bayadiah Bany Rohe Deer Abou Hanasse Kare Houre Tal Bany Omran Tal Bany Males Tal Bany Tal B	Kom El-Loufy		
Bany Ebead         Safae + El-Senbelawein + El-Zaafrana         Monshaat Deabess           Abou Kaltah         El-Bayadiah         El-Sheikh Ebadah           Bany Rohe         Deer Abou Hanasse         Kasr Houre           Naziet Hamzawy           El-Rahmanieh         Tal Bany Omran           Urban           El-Kossia         Abnoub         Sheyakha Kamesa           El-Hamra El-Thania         Abnoub         Sheyakha Kamesa           El-Rada         Abnoub         El-Badary           El-Rada         Dairout El-Sherief         Nazlet Sourkna + Sourkna           Bany Korah         Nezally Canoube         Bany Rafea           El-Rada         Dairout El-Sherief         Nazlet Sourkna + Sourkna           Bany Korah         Nezally Canoube         Bany Rafea           El-Rada         Nagoa Abd El-Rasoul Abou Hassouba         Bany Elleg           El-Nacia El-Noustagadah         Bany Sema         El-Naoara           Souhag           Urban         El Sherif         Akhmiem           Gerga         El Baliana         El Baliana           Burjal         El Sceleck         Aksas <td></td> <td></td> <td></td>			
Abou Kaltah   El-Bayadiah   El-Sheikh Ebadah   Bany Rohe   Deer Abou Hanasse   Kasr Houre   Razlet Hamzawy   El-Rahmanieh   Tal Bany Omran			
Bany Rohe Nazlet Hamzawy El-Rahmanieh Sawit  Sawit  Wirhan El-Kossia El-Hamra El-Thania Bany Abnoub Sheyakha Kamesa El-Badary  Bernar El-Thania Bany Korah Nezally Canoube Bany Korah Nazlet Romeh Bany Korah Nezally Canoube Bany Korah Nezally Canoube Bany Korah Nezally Canoube Bany Korah Nezally Canoube Bany Korah Bany Korah Nezally Canoube Bany Korah Bany Korah Nezally Canoube Bany El-Rada Bany Korah Nezally Canoube Bany Korah Refa Bany Korah Bany Korah Refa Bany Korah Bany	,		
Naziet Hamzawy   El-Rahmanieh   Tal Bany Omran			
Care   Care	,		
Urban       El-Kossia     Abnoub     Sheyakha Kamesa       El-Hamra El-Thania     Sahel Selim     El-Badary       Rural       El-Riad     Dairout El-Sherief     Nazlet Sourkna + Sourkna       Bany Korah     Nezally Canoube     Bany Rafea       Bany Korah     Nagea Abd El-Rasoul Abou Hassouba     El-Motiah       Kefa     Nagea Abd El-Rasoul Abou Hassouba     Bany Elleg       El-Nazla El-Moustagadah     Bany Sernae     El-Naoarra       Awhad Elyase     El-Naoarra       Souhag       Urban       Capra       El Sherif     Akhmiem       Gerga       El Baliana       Eural       Bany Masel     Es Acret Mahrous     El-Maharnda El-Bahria       Cezeret Mahrous     El-Maharnda El-Bahria       El Balbeesh Kebly     Alvad Yehia Bahary     El Magabra       El Balbeesh Kebly     Alvad Yehia Bahary     El Magabra       Livan       Deshna     Kism Awal     Kism Thaleth       El-Wald     Naga Hamady     Qous       Luxor     Gezeret El-Awamia     Armant       Esna       Burbal     El-Cara	- Naziec Hanzawy		Tai baily simail
El-Hanra El-Thania         Abnoub         Sheyakha Kamesa           Bural           El-Riad         Dairout El-Sherief         Nazlet Sourkna+Sourkna           Bany Korah         Nezally Ganoube         Bany Rafea           Nazlet Romeh         Bany Mohamadiatte         El-Motiah           Refa         Nagea Abd El-Rasoul Abou Hassouba         Bany Elleg           El-Naoira         Bany Semae         El-Naoirra           Souhag           Drban           Souhag           Wrban           Cohaina         El Sherif         Akhmiem           Gerga         El Sherif         Akhmiem           Gerga         El Baliana         Banga           Bural         Banga         Banga           Babab         Aksas         Banga           Abo Bakr El Sedek         Aksas         Bahaleel El Gezeera           Bany Wassel         Gezeret Mahrous         El-Mahamál El-Baharia           Gezeeret Shandaweel         El-Danakla         Koom Badar           El Balabeesh Kebly         Awad Yehia Bahary         El Magabra           I Balabeesh Kebly         Kism Awal         Kism Smalleth           Luvor         Gezeret El-Awamia <td></td> <td>Assuit</td> <td></td>		Assuit	
El-Hamra El-Thania         Sahel Selim         El-Badary           Rural         Bural         Bural         Nazlet Sourkna + Sourkna           Bany Korah         Nezally Ganoube         Bany Rafea           Nazlet Romeh         Bany Mohamadiatte         El-Motiah           Refa         Nagea Abd El-Rasoul Abou Hassouba         Bany Elleg           El-Nazla El-Moustagadah         Bany Semae         El-Naoarra           Awlad Elyasse         Souhag         El-Naoarra           Souhag           Urban           Souhag           Urban           Coraga         El Sherif         Akhmiem           Cerga         El Baliana           Banga           Banga           Abo Bakr El Sedeek         Aksas         Bahaleel El Gezeera           Bany Wassel         Gezeret Mahrous         El-Mahamda El-Baharia           Gezeret Shandaweel         El Danakla         Koom Badar           El Balabeesh Kebly         Awlad Yehia Bahary         El Magabra           Al El Shane         El Choneimia         Kism Thaleth           L-Wakí         Naga Hamady         Quo           L-Wakí         Naga Hamady			
Rural       El-Riad     Dairout El-Sherief     Nazlet Sourkna + Sourkna       Bany Korah     Nezally Canoube     Bany Rafea       Nazlet Romeh     Bany Mohamadiatte     El-Ndotiah       Refa     Nagea Abd El-Rasoul Abou Hassouba     Bany Elleg       El-Naoarra     El-Naoarra       Souhag       Urban       Cohaina     El Sherif     Akhmiem       Cerga     El Baliana       Rural       El Gabab     Faw Charb     Banga       Abo Bakr El Sedeek     Aksas     Bahaleel El Gezeera       Bany Wassel     Gezeret Mahrous     El-Mahamda El-Baharia       Cezeeret Shandaweel     El-Danakla     Koom Badar       El Balabeels Kebly     Awad Yehia Bahary     El Magabra       Al Eslah     El Ghoneimia     El Ghoneimia       Urban       Senna     Kism Awal     Kism Thaleth       El-Walf     Naga Hamady     Qous       Luxor     Gezeret El-Awamia     Armant       Esna     El-Habilatte El-Charbia     El-Soulyemate     El-Karah       Bakhanes     Ebet El-Boussa     Abou Manae Bahary       Abou Manae Kebly     El-Attiate     Nagea El-Shiek kli       El-Ashaf El-Keblia<			
El-Riad Dairout El-Sherief Nazlet Sourkna+Sourkna Bany Korah Nezally Ganoube Bany Rafea Nazlet Romeh Bany Mohamadiatte El-Motiah Refa Nagea Abd El-Rasoul Abou Hassouba Bany Eleg El-Naciara El-Noustagadah Bany Semae El-Naciara El-Naciara El-Naciara El-Naciara El-Naciara El-Naciara El-Naciara El-Naciara El-Naciara El-Naciara El-Naciara El-Naciara El-Naciara El Sherif Awdad El-Rasoul Abou Hassouba El-Naciara El-Naciara El-Naciara El Sherif El-Naciara El Sherif Awdad El-Rasoul Abou Hassouba El-Naciara El Sherif El-Raciara El Baliana El Sherif El-Baliana El Sherif El-Baliana El Sherif El-Danakla El Gabab Faw Charb Banga Abo Bakr El Sedeck Aksas Bahaleel El Gezeera El-Danakla El-Danakla El-Danakla Koom Badar El-Danakla El-Danakla El-Danakla El-Danakla El-Danakla El-Danakla El-Danakla El-Danakla El-Danakla El-Danakla El-Danakla El-Danakla El-Naciara El-Walf Naga Hamady Qous El-Walf Naga Hamady Qous Luxor Gezeret El-Awamia Armant Esna El-Walf Naga Hamady Qous Gezeret El-Awamia Armant Esna El-Habilatte El-Gharbia El-Soulyemate El-Awamia Armant Esna Ezbet El-Boussa Abou Manae Bahary Abou Manae Kebly El-Attiate Nagae El-Sheik Ali El-Ashrif El-Keblia El-Der-El-Sharky El-Chossa El-Akhadma Dandarah El-Helfaia Bahary El-Rahmania Kebly El-Sayad El-Komana El-Arky El-Komana El-Arky El-Komana El-Arky El-Komana El-Arky El-Komana El-Arky El-Komana El-Arky El-Komana El-Arky El-Komana El-Arky El-Komana El-Arky El-Arky El-Komana El-Arky El-Arky El-Komana El-Arky El-Arky El-Komana El-Arky El-Ar	El-Hamra El-Thania	Sahel Selim	El-Badary
Bany Korah Nazlet Romeh Nazlet Romeh Nazlet Romeh Nazlet Romeh Nage Abd El-Rasoul Abou Hassouba Bany El-Naoarra Refa El-Naoarra Awlad Elyasse  Bany Semae Bany Semae Bany Semae Bany Semae Bany Bemae Bany Bemae Bany Bemae Bany Bemae Bany Bemae Bel-Naoarra Bel-	<u>Rural</u>		
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Refa Bary Semae Bary Semae El-Nacourt Bernoustagadah Awlad El-Nacourt Bary Semae El-Naco	Bany Korah		Bany Rafea
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Awlad Elyasse    Souhag			, 0
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Al Eslah  Liban  Deshna El-Wakf Luxor Esna  Rural  El-Habilatte El-Gharbia Bakhanes Abou Manae Kebly El-Ashraf El-Keblia El-Ashraf El-Keblia El-Ashraf El-Keblia El-Sayad Awad Bena Bena El-Sayad Bena Bena El-Soune Bena El-Soune El-Soune Bena El-Soune El-Boussa Abou Manae Bahary Bel-Gharbia Bel-Ashraf El-Keblia El-Helfaia Bahary El-Helfaia Bahary El-Rahmania Kebly El-Sayad Awad Negm El-Keblia El-Komana El-Komana Awad Negm El-Keblia How El-Arky			
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El-Rahmania Kebly El-Sayad El-Komana Awlad Negm El-Keblia How El-Arky			
Awlad Negm El-Keblia How El-Arky			•
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<u>Rural</u> Qena

Kom El-Baga El-Barahma El-Kalahine El-Khatara Toukhe El-Okbe El-Masside Gezeret Mattira Khouzam El-Boghdady El-Edaissate El-Dabeaia

El-Domokratte El-Marisse El-Homaidate + El-Hanady El-Adaima Al-Negoa Kebly Kiman El-Mattaana

Aswan

<u>Urban</u>

El Sebeaia Gharb Edfo Koum-Ombou Shiakha Oula Shiakha Thania

Shiakha Thaletha Khazan Aswan+Abo Sombol El-Siahia City

**Rural** 

Edfo Kebly El-Hagz Bahary El-Hagz Kebly El-Radeesia Bahary El-Ramady Bahary El-Ramady Kebly El-Kanan El-Kalh Gharb El-Saayda Akleet El Aabasseya El Aatmour El Mansheya El Gedeeda El Kagoug Selwah Bahary Faress Kofoor Koum-Ombou Nemra 7 Bahary Nemra 7 Kebly Armana Balana Dahmeet+Dar El-Salam+Sayala El-Gaafra El-Mansouria Benban Kebly Negoea El-Shatb+Masaken Draw Abo El-Reesh Kebly

El-Aakab Sahara city

FRONTIER GOVERNORATES

**Red Sea** 

<u>Urban</u>

Ras Ghareb Hurgada Safaga

El-Koseir+Marsa Alam

Rural

Hurgada Port+El-Zaafarana Om El Huwaitat & El Gawasees

**New Valley** 

<u>Urban</u>

El-Farafra El-Kharga

Rural

Naser El Thawra El-Kasr Taniedah

Baghdad+El-Max El- Kebly+El-Oula+El-

Thania Bedarb El-Arbaeen

Matrouh

<u>Urban</u>

El-Dabaa El-Negyla Marsa Matrouh Sewa

Rural

Om El-Rakhm+Awlad Maree Awlad Elwany+El-Sharnabeya+El-Tarabeya Kora El-Kherregen

Continued.

	North Sinai	
<u>Urban</u>		
Rafah El-Ahtam	Kism Awal El-Areish Beir El-Abd	Kism Thani El-Ariesh
<u>Rural</u>		
El-Gorah	El-Nagah	Om Katfe+Al-Monbateh
	South Sinai	
<u>Urban</u>		
Abo Znema city+Ras Sedr	Tor Sinai	
<u>Rural</u>		
Al-Heswa+Feran	Al-Kora Al-Seyaheya (Neama)+Ras Mohamed+Ras Nasrany+Al-Gobeil (Tor Sinai)	



The estimates from a sample survey are affected by two types of errors: (1) nonsampling errors, and (2) 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 2005 Egypt DHS to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the 2005 EDHS 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.

If the sample of EDHS respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the 2005 EDHS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae, specifically the Taylor linearization method of variance estimation, to calculate sampling errors for means or proportions from the survey. The Jacknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

Sampling errors for the 2005 EDHS were 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, and for each of the residential categories: Urban Governorates, total Lower Egypt, urban Lower Egypt, rural Lower Egypt, total Upper Egypt, urban Upper Egypt, rural Upper Egypt, and Frontier Governorates. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table C.1.

Tables C.2 to C.12 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 (+/-2SE), for each variable. In these tables, sampling errors are presented 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. In addition to the standard error, the design effect (DEFT) is estimated for each estimate; DEFT 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. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1).

In general, the relative standard errors for most variables are small at the level of the country as a whole, except for estimates involving very small proportions. For estimates for subpopulations, however, there is more variability in the size of the relative standard error for the variables. For example, for the variable *contraceptive use for currently married women age 15-49*, the relative standard errors as a percent of the estimated mean for the whole country, for urban areas, and for rural areas are 0.7 percent, 1.0 percent, and 1.0 percent, respectively. The confidence interval as calculated for *contraceptive use for currently married women age 15-49* is interpreted as follows: the overall national sample proportion is 0.592 and its standard error is .007. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample contraceptive use for currently married women age 15 to 49 is between 0.583 and 0.601.

/ariable	Estimate	Base population
	Proportion	Ever-married women 15-49
iterate	Proportion	Ever-married women 15-49
No education	Proportion	Ever-married women 15-49
Completed secondary/higher	Proportion	Ever-married women 15-49
Currently married	Proportion	Ever-married women 15-49
Children ever born to women 40-49	Mean	All women 15-49
Children surviving	Mean	All women 15-49
Children ever born to women 40-49	Mean	All women 15-49
ever used any contraceptive method	Proportion	Currently married women 15-49
Currently using any contraceptive method	Proportion	Currently married women 15-49
Currently using any modern method	Proportion	Currently married women 15-49
Currently using pills	Proportion	Currently married women 15-49
Currently using IUD	Proportion	Currently married women 15-49
Currently using injectables	Proportion	Currently married women 15-49
Currently using condom	Proportion	Currently married women 15-49
Currently using female sterilization	Proportion	Currently married women 15-49
Currently using periodic abstinence	Proportion	Currently married women 15-49
Jsing public sector source	Proportion	Currently married women 15-49
Want no more children	Proportion	Currently married women 15-49
Want to delay birth least two years	Proportion	Currently married women 15-49
deal family size	Mean	Ever-married women 15-49
Mothers received tetanus injection for last birth	Proportion	Births in last 5 years
Mothers received medical assistance at delivery	Proportion	Births in last 5 years
Child had diarrhea in last two weeks	Proportion	Children 0-59 months
reated with oral rehydration salts (ORS)	Proportion	Children under 5 with diarrhea in last 2 weeks
Taken to a health provider	Proportion	Children under 5 with diarrhea in last 2 weeks
Had immunization record	Proportion	Children 12-23 months
Received BCG	Proportion	Children 12-23 months
Received DPT (3 doses)	Proportion	Children 12-23 months
Received polio (3 doses)	Proportion	Children 12-23 months
Received measles	Proportion	Children 12-23 months
Fully immunized	Proportion	Children 12-23 months
Had heard about HIV/AIDS	Proportion	Ever-married women 15-49
Height-for-age (below -2SD)	Proportion	Children 0-59 months
Weight-for-height (below -2SD)	Proportion	Children 0-59 months
Weight-for-age (below -2SD)	Proportion	Children 0-59 months
Anemia among ever-married women	Proportion	Ever-married women 15-49
Severe anemia among ever-married women	Proportion	Ever-married women 15-49
Anemia among children 6-59 months	Proportion	Children 6-59 months
Severe anemia among children 6-59 months	Proportion	Children 6-59 months
Anemia among male adolescents 10-19	Proportion	Male youth and young adults 10-19
Severe anemia among male adolescents 10-19	Proportion	Male youth and young adults 10-19
nemia among female adolescents 10-19	Proportion	Female youth and young adults 10-19
Severe anemia among female adolescents 10-19	Proportion	Female youth and young adults 10-19
Total fertility rate (0-3 years)	Rate	Women-years of exposure to childbearing
Neonatal mortality rate	Rate	Number of births
Postneonatal mortality rate	Rate	Number of births
nfant mortality rate ′	Rate	Number of births
Child mortality rate	Rate	Number of births
Jnder-five mortality rate	Rate	Number of births

		Stand-	Number of cases			Rela-		
	Value	ard error	Un- weighted	Weight- ed	Design effect	tive error	Confidence limits	
Variable	(R)	(SE)	(N)	(WN)	(DEFT)	(SE/R)	R-2SE	R+2SI
Jrban	0.413	0.006	19474	19474	1.825	0.016	0.400	0.425
iterate	0.591	0.005	19474	19474	1.551	0.009	0.580	0.602
No education	0.346	0.005	19474	19474	1.479	0.015	0.336	0.356
Completed secondary education/higher	0.401	0.006	19474	19474	1.717	0.015	0.389	0.414
Currently married	0.934	0.002	19474	19474	1.183	0.002	0.930	0.938
Currently pregnant	0.061	0.002	30011	29270	1.160	0.029	0.058	0.065 2.123
Children ever born	2.046 1.872	0.039 0.035	30011 30011	29270 29270	1.144	0.019 0.019	1.969 1.802	1.943
Children surviving	4.480	0.033	5573	5639	1.152 1.162	0.019	4.406	4.554
Children ever born to women age 40-49 ver using contraceptive method	0.812	0.037	18134	18187	1.162	0.008	0.804	0.819
Currently using any contraceptive method	0.512	0.004	18134	18187	1.202	0.004	0.583	0.601
Currently using any contraceptive method	0.565	0.004	18134	18187	1.202	0.007	0.556	0.574
Currently using a modern method	0.099	0.004	18134	18187	1.255	0.008	0.093	0.104
Currently using IUD	0.365	0.005	18134	18187	1.281	0.013	0.355	0.374
Currently using 1005	0.070	0.003	18134	18187	1.293	0.015	0.066	0.075
Eurrently using condom	0.010	0.001	18134	18187	1.194	0.089	0.008	0.012
Currently using female sterilization	0.013	0.001	18134	18187	1.172	0.077	0.011	0.015
Currently using periodic abstinence	0.007	0.001	18134	18187	1.356	0.118	0.006	0.009
ublic sector source	0.566	0.007	9960	10285	1.412	0.012	0.552	0.580
Vant no more children	0.645	0.004	18134	18187	1.204	0.007	0.637	0.654
Vant to delay birth at least 2 years	0.162	0.003	18134	18187	1.181	0.020	0.155	0.168
deal family size	2.882	0.011	17972	17940	1.137	0.004	2.859	2.904
Nothers received tetanus injection for last birth	0.773	0.006	9991	9845	1.344	0.007	0.762	0.784
Nothers received medical assistance at delivery	0.742	0.006	13851	13600	1.397	0.009	0.729	0.754
Had diarrhea in two weeks before survey	0.184	0.005	13351	13120	1.269	0.025	0.175	0.193
reated with oral rehydration salts (ORS)	0.335	0.011	2472	2411	1.122	0.034	0.313	0.358
aken to a health provider	0.479	0.013	2472	2411	1.248	0.028	0.452	0.506
lad vaccination card	0.733	0.010	2746	2680	1.165	0.014	0.713	0.753
Received BCG	0.980	0.003	2746	2680	1.069	0.003	0.974	0.986
Received DPT (3 doses)	0.935	0.006	2746	2680	1.141	0.006	0.924	0.946
eceived polio (3 doses)	0.966	0.004	2746	2680	1.125	0.004	0.957	0.974
eceived measles	0.966	0.004	2746	2680	1.052	0.004	0.958	0.973
ully immunized	0.887	0.007	2746	2680	1.139	0.008	0.873	0.90
las heard of HIV/AIDS	0.844	0.003	19474	19474	1.310	0.004	0.837	0.85
leight-for-age (below -2SD)	0.176	0.004	12434	12131	1.143	0.024	0.168	0.185
Veight-for-height (below -2SD) Veight-for-age (below -2SD)	0.039 0.061	0.002 0.003	12434 12434	12131 12131	1.267 1.226	0.060 0.045	0.034 0.056	0.044
WI <18.5	0.005	0.003	17071	17169	1.226	0.043	0.036	0.06
nemia among ever-married women	0.394	0.007	6317	6289	1.153	0.127	0.380	0.408
evere anemia among ever-married women	0.003	0.007	6317	6289	1.082	0.262	0.300	0.004
Anemia among children under five	0.485	0.001	3882	3759	1.116	0.202	0.468	0.503
evere anemia among children under five	0.003	0.003	3882	3759	1.159	0.342	0.001	0.00
nemia among adolescent boys 10-19	0.255	0.008	4014	3872	1.187	0.032	0.239	0.271
evere anemia among adolescent boys 10-19	0.002	0.001	4014	3872	1.514	0.503	0.000	0.005
Anemia among adolescent girls 10-19	0.346	0.009	3725	3566	1.185	0.027	0.328	0.364
evere anemia amonmg adolescent girls 10-19	0.001	0.001	3725	3566	1.307	0.577	0.000	0.003
otal fertility rate 0-3 years	3.129	0.042	na	82054	1.389	0.013	3.045	3.213
Neonatal mortality (5 years)	19.745	1.676	13905	13640	1.258	0.085	16.393	23.097
ost-neonatal mortality (5 years)	13.493	1.224	13922	13658	1.222	0.092	10.857	15.723
nfant mortality (5 years)	33.238	2.110	13926	13662	1.266	0.063	28.798	37.124
Child mortality (5 years)	8.071	0.875	13952	13684	1.147	0.118	5.296	8.572
Under 5 mortality (5 years)	41.041	2.246	13977	13709	1.242	0.055	35.371	44.168

Table C.3 Sampling errors for Urban sample, Egypt 2005 Number of cases Stand-Rela-Weight-Confidence limits ard Un-Design tive Value error effect error weighted ed Variable (R) (SE) (N) (WN) (DEFT) (SE/R) R-2SE R+2SEUrban 1.000 0.000 8095 8033 0.000 1.000 1.000 na 0.758 0.009 8095 8033 1.949 0.739 0.776 Literate 0.012 0.197 800.0 8095 8033 1.766 0.040 0.181 0.212 No education Completed secondary education/higher 0.550 0.012 8095 8033 2.128 0.021 0.527 0.574 0.932 8095 0.939 Currently married 0.003 8033 1.213 0.004 0.926 Currently pregnant 0.052 0.003 13200 12706 1.267 0.063 0.045 0.058 1.887 Children ever born 1.735 0.076 13200 12706 1.146 0.044 1.582 Children surviving 12706 1.179 1.625 0.073 13200 0.045 1.478 1.772 Children ever born to women age 40-49 0.047 2689 2709 1.245 3.749 3.654 0.013 3.559 7537 7490 Ever using contraceptive method 0.848 0.005 1.236 0.006 0.837 0.858 Currently using any contraceptive method 0.626 0.006 7537 7490 1.136 0.010 0.613 0.639 7537 7537 1.174 Currently using a modern method 0.598 0.007 7490 0.011 0.585 0.611 Currently using pill 7490 1.307 0.005 0.120 0.110 0.043 0.101 Currently using IUD 0.405 0.007 7537 7490 1.240 0.017 0.391 0.419 Currently using injectables Currently using condom 7537 0.045 0.003 7490 1.220 0.065 0.039 0.051 , 7537 7490 1.140 0.017 0.002 0.101 0.0130.020Currently using female sterilization 0.013 0.002 7537 7490 1.164 0.117 0.010 0.016 Currently using periodic abstinence 0.014 0.002 7537 7490 1.346 0.132 0.010 0.017 Public sector source 0.480 0.010 4446 4485 1.366 0.501 0.021 0.460 Want no more children 7490 0.658 7537 1.269 0.6440.007 0.011 0.672 Want to delay birth at least 2 years 0.149 0.005 7537 7490 1.158 0.032 0.140 0.159 Ideal family size 2.731 0.018 7569 7454 1.270 0.007 2.694 2.767 3814 Mothers received tetanus injection for last birth 0.685 0.011 3753 1.411 0.016 0.663 0.706 4948 Mothers received medical assistance at delivery 5042 1.499 0.904 0.887 0.008 0.009 0.871 Had diarrhea in two weeks before survey 0.171 0.008 4880 4778 1.451 0.048 0.155 0.188 Treated with oral rehydration salts (ORS) 0.283 0.019 813 818 1.154 0.067 0.245 0.321 Taken to a health provider 0.537 813 818 0.043 0.491 0.583 0.023 1.261 Had vaccination card 0.714 0.017 1019 972 1.171 0.024 0.679 0.749 Received BCG 0.988 0.004 1019 972 1.084 0.004 0.9800.996 Received DPT (3 doses) 0.955 0.935 0.010 1019 972 1.212 0.010 0.915 0.967 972 0.952 Received polio (3 doses) 0.007 1019 1.211 0.008 0.982 Received measles 0.968 0.007 1019 972 1.190 0.007 0.954 0.981 0.891 0.012 972 0.013 0.914 Fully immunized 1019 1.132 0.868 Has heard of HIV/AIDS 0.942 0.004 8095 8033 1.640 0.005 0.950 0.933 Height-for-age (below -2SD) 4541 4430 1.288 0.147 0.177 0.162 0.0070.046 Weight-for-height (below -2SD) 0.052 0.005 4541 4430 1.389 0.096 0.042 0.062 4430 Weight-for-age (below -2SD) 0.065 0.005 4541 1.303 0.076 0.055 0.075 BMI < 18.5 7158 1.113 0.006 0.004 0.001 7184 0.208 0.002 1.208 Anemia among ever-married women 0.3970.011 2672 2620 0.029 0.375 0.420 Severe anemia among ever-married women 0.0020.001 2672 2620 1.262 0.580 0.0000.004 Anemia among children under five 0.437 0.015 1445 1380 1.185 0.035 0.406 0.468 Severe anemia among children under five 0.001 1445 1380 0.842 0.000 0.001 0.723 0.002 Anemia among adolescent boys 10-19 0.187 0.011 1533 1492 1.073 0.057 0.166 0.208 Severe anemia among adolescent boys 10-19 0.002 0.002 1533 1492 1.832 0.942 0.000 0.007 Anemia among adolescent girls 10-19 Severe anemia amonmg adolescent girls 10-19 0.329 0.013 1463 1346 1.071 0.040 0.303 0.356 1346 0.9990.003 0.001 0.0011463 1.284 0.000Total fertility rate 0-3 years 2.749 0.055 36010 1.297 0.020 2.640 2.858 na Neonatal mortality (10 years) 21.445 2.388 9856 9697 1.355 0.111 16.668 26.221 Postneonatal mortality (10 years) 9862 9703 10.259 1.194 1.186 7.872 12.646 0.116 31.704 Infant mortality (10 years) 2.735 9863 9705 1.341 0.086 26.233 37.174 Child mortality (10 years) 7.628 1.068 9863 9705 1.1670.140 5.492 9.764 Under 5 mortality (10 years) 2.932 9871 9714 0.075 33.226 44.953 39.089 1.321

na = Not applicable

		Ctand	Number of cases			Dala		
/ariable	Value (R)	Stand- ard error (SE)	Un- weighted (N)	Weight- ed (WN)	Design effect (DEFT)	Rela- tive error (SE/R)	Confider R-2SE  0.000 0.462 0.439 0.285 0.930 0.064 2.179 1.968 5.133 0.777 0.557 0.530 0.084 0.021 0.0613 0.626 0.162 2.960 0.815 0.641 0.180 0.335 0.417 0.719 0.968 0.922 0.955 0.956 0.867 0.766 0.174 0.027 0.053 0.004 0.374 0.027 0.053 0.004 0.374 0.001 0.491 0.001 0.491 0.001 0.275 0.000 0.331 0.000 3.285 20.422 18.536 40.509 9.182	nce limit R+2S
Jrban	0.000	0.000	11379	11441	na	na	0.000	0.000
iterate	0.474	0.006	11379	11441	1.314	0.013		0.486
No education	0.451	0.006	11379	11441	1.333	0.014		0.463
Completed secondary education/higher	0.297	0.006	11379	11441	1.396	0.020		0.309
Currently married	0.935	0.003	11379	11441	1.160	0.003		0.940
Surrently married	0.069	0.003	17004	16588	1.148	0.036		0.074
Children ever born	2.281	0.051	17004		1.147	0.030		2.384
				16588				
Children surviving	2.059	0.046	17004	16588	1.142	0.022		2.150
Children ever born to women age 40-49	5.238	0.053	2886	2933	1.138	0.010		5.343
ver using contraceptive method	0.787	0.005	10597	10697	1.244	0.006		0.796
Currently using any contraceptive method	0.568	0.006	10597	10697	1.223	0.010		0.580
Currently using a modern method	0.542	0.006	10597	10697	1.228	0.011		0.554
Currently using pill	0.091	0.003	10597	10697	1.195	0.037		0.097
Currently using IUD	0.336	0.006	10597	10697	1.305	0.018		0.348
Currently using injectables	0.088	0.004	10597	10697	1.315	0.041		0.095
Currently using condom	0.005	0.001	10597	10697	1.289	0.173		0.007
Currently using female sterilization	0.012	0.001	10597	10697	1.178	0.103	0.010	0.015
Currently using periodic abstinence	0.003	0.001	10597	10697	1.437	0.264	0.001	0.004
Public sector source	0.632	0.009	5514	5799	1.435	0.015	0.613	$0.65^{\circ}$
Vant no more children	0.636	0.005	10597	10697	1.154	0.008	0.626	0.647
Vant to delay birth at least 2 years	0.170	0.004	10597	10697	1.189	0.025	0.162	0.179
deal family size	2.989	0.014	10403	10486	1.051	0.005	2.960	3.018
Mothers received tetanus injection for last birth		0.006	6177	6092	1.283	0.008		0.840
Mothers received medical assistance at delivery		0.008	8809	8651	1.354	0.013		0.67
Had diarrhea in two weeks before survey	0.191	0.005	8471	8342	1.169	0.028		0.202
reated with oral rehydration salts (ORS)	0.362	0.014	1659	1593	1.074	0.038		0.389
aken to a health provider	0.449	0.016	1659	1593	1.230	0.036		0.482
Had vaccination card	0.744	0.012	1727	1708	1.166	0.017		0.769
Received BCG	0.976	0.004	1727	1708	1.060	0.004		0.984
Received DPT (3 doses)	0.935	0.007	1727	1708	1.098	0.007		0.949
Received polio (3 doses)	0.965	0.007	1727	1708	1.074	0.007		0.97
Received measles	0.965	0.003	1727	1708	0.974	0.005		0.97
fully immunized	0.885	0.009	1727	1708	1.141	0.010		0.903
Has heard of HIV/AIDS	0.776	0.005	11379	11441	1.205	0.006		0.785
Height-for-age (below -2SD)	0.184	0.005	7893	7700	1.069	0.028		0.194
Veight-for-height (below -2SD)	0.031	0.002	7893	7700	1.113	0.072		0.036
Veight-for-age (below -2SD)	0.060	0.003	7893	7700	1.174	0.055		0.066
MI <18.5	0.005	0.001	9887	10011	1.173	0.160		0.00
nemia among ever-married women	0.392	0.009	3645	3669	1.113	0.023		0.410
evere anemia among ever-married women	0.003	0.001	3645	3669	1.005	0.287		0.00
nemia among children under five	0.513	0.011	2437	2379	1.085	0.021		0.53
evere anemia among children under five	0.004	0.002	2437	2379	1.191	0.375		0.00
nemia among adolescent boys 10-19	0.297	0.011	2481	2380	1.197	0.037		0.319
evere anemia among adolescent boys 10-19	0.002	0.001	2481	2380	1.224	0.534	0.000	0.004
nemia among adolescent girls 10-19	0.356	0.012	2262	2219	1.237	0.035		$0.38^{\circ}$
evere anemia amonmg adolescent girls 10-19	0.002	0.001	2262	2219	1.311	0.705		0.004
otal fertility rate 0-3 years	3.410	0.062	na	46213	1.366	0.018		3.534
Veonatal mortality (10 years)	23.532	1.555	17170	16782	1.232	0.066		26.642
Postneonatal mortality (10 years)	21.695	1.580	17191	16800	1.330	0.073		24.854
nfant mortality (10 years)	45.227	2.359	17194	16802	1.372	0.052		49.945
Child mortality (10 years)	11.403	1.111	17194	16823	1.267	0.032		13.625
Under 5 mortality (10 years)	56.115	2.698	17212	16845	1.414	0.097	50.719	61.510

		Stand-	Numbei	r of cases		Rela-		
	Value	ard error	Un- weighted	Weight- ed	Design effect	tive error		nce limits
Variable ————————————————————————————————————	(R)	(SE)	(N)	(WN)	(DEFT)	(SE/R)	R-2SE	R+2SE
Urban	1.000	0.000	3538	3293	na	0.000	1.000	1.000
Literate	0.782	0.018	3538	3293	2.539	0.023	0.747	0.817
No education	0.180	0.014	3538	3293	2.171	0.078	0.152	0.208
Completed secondary education/higher	0.560 0.935	0.022 0.004	3538 3538	3293 3293	2.587 1.072	0.039 0.005	0.517 0.926	0.603 0.944
Currently married Currently pregnant	0.933	0.004	5830	5417	1.263	0.003	0.920	0.944
Children ever born	1.568	0.003	5830	5417	1.235	0.037	1.347	1.788
Children surviving	1.485	0.116	5830	5417	1.256	0.070	1.273	1.697
Children ever born to women age 40-49	3.325	0.056	1294	1186	1.105	0.017	3.212	3.437
Ever using contraceptive method	0.858	0.007	3304	3078	1.231	0.009	0.843	0.873
Currently using any contraceptive method	0.639	0.009	3304	3078	1.102	0.014	0.620	0.657
Currently using a modern method	0.612	0.011	3304	3078	1.240	0.017	0.591	0.633
Currently using pill	0.082	0.006	3304	3078	1.182	0.069	0.071	0.094
Currently using IUD	0.439	0.011	3304	3078	1.301	0.026	0.417	0.462
Currently using injectables	0.044	0.004	3304	3078	1.197	0.097	0.035	0.052
Currently using condom	0.025	0.003	3304	3078	1.082	0.116	0.020	0.031
Currently using female sterilization	0.011	0.002	3304	3078	1.111	0.184	0.007	0.015
Currently using periodic abstinence	0.015	0.002	3304	3078	1.077	0.152	0.010	0.020
Public sector source	0.542	0.016	2024	1890	1.422	0.029	0.511	0.574
Want no more children	0.674	0.010	3304	3078	1.191	0.014	0.655	0.694
Want to delay birth at least 2 years	0.138	0.006	3304	3078	1.077	0.047	0.125	0.151
Ideal family size	2.593	0.022	3278	3074	1.109	0.009	2.548	2.637
Mothers received tetanus injection for last birth		0.017	1545	1460	1.441	0.027	0.604	0.673
Mothers received medical assistance at delivery		0.015	1979	1879	1.888	0.017	0.877	0.937
Had diarrhea in two weeks before survey	0.153	0.012	1929	1826	1.437	0.079	0.129	0.177
Treated with oral rehydration salts (ORS)	0.216	0.027	299 299	280	1.126	0.124	0.163	0.270
Taken to a health provider	$0.556 \\ 0.720$	0.033 0.029	424	280 402	1.118 1.312	0.060 0.040	$0.489 \\ 0.662$	0.622 0.778
Had vaccination card Received BCG	0.720	0.029	424	402	1.204	0.046	0.002	1.002
Received DPT (3 doses)	0.946	0.013	424	402	1.182	0.014	0.920	0.972
Received polio (3 doses)	0.961	0.013	424	402	1.175	0.014	0.939	0.984
Received measles	0.970	0.009	424	402	1.150	0.012	0.951	0.989
Fully immunized	0.903	0.017	424	402	1.159	0.019	0.869	0.937
Has heard of HIV/AIDS	0.961	0.006	3538	3293	1.779	0.006	0.949	0.972
Height-for-age (below -2SD)	0.169	0.012	1807	1668	1.276	0.074	0.144	0.193
Weight-for-height (below -2SD)	0.077	0.010	1807	1668	1.540	0.137	0.056	0.098
Weight-for-age (below -2SD)	0.082	0.009	1807	1668	1.292	0.108	0.064	0.099
BMI < 18.5	0.003	0.001	3168	2949	1.149	0.364	0.001	0.005
Anemia among ever-married women	0.401	0.019	1135	1037	1.322	0.048	0.363	0.440
Severe anemia among ever-married women	0.001	0.001	1135	1037	0.999	1.000	0.000	0.003
Anemia among children under five	0.427	0.022	573	528	1.080	0.052	0.382	0.471
Severe anemia among children under five Anemia among adolescent boys 10-19	0.002	0.002	573	528	0.979	0.994	0.000	0.005
Anemia among adolescent boys 10-19	0.202	0.015	629	581	0.906	0.072	0.173	0.231
Severe anemia among adolescent boys 10-19	0.000	0.000	629	581	na 1 126	na o o <del>z</del> o	0.000	0.000
Anemia among adolescent girls 10-19	0.312	0.022	577 577	505 505	1.136	0.070	0.268	0.356
Severe anemia amonmg adolescent girls 10-19 Total fortility rate 0.3 years	0.003	0.003	577 na	505 16143	1.314	0.996	0.000	0.009
Total fertility rate 0-3 years	2.499 16.469	0.083 2.917	na 3937	16143 3741	1.394 1.268	0.033 0.177	2.334 10.635	2.664 22.303
Neonatal mortality (10 years)								
Postneonatal mortality (10 years)	9.560 26.029	1.895 3.572	3940 3940	3745 3745	1.252 1.249	0.198 0.137	5.771 18.885	13.349 33.172
Infant mortality (10 years)		1.932		3745 3745				
Child mortality (10 years) Under 5 mortality (10 years)	8.210 34.025	4.296	3940 3943	3745 3749	1.312 1.343	0.235 0.126	4.346 25.433	12.073 42.617

		Stand	Number of cases			Dolo		
Variable	Value (R)	Stand- ard error (SE)	Un- weighted (N)	Weight- ed (WN)	Design effect (DEFT)	Rela- tive error (SE/R)	Confider R-2SE  0.242 0.602 0.288 0.428 0.931 0.054 1.840 1.712 4.204 0.846 0.629 0.091 0.425 0.062 0.005 0.014 0.003 0.551 0.656 0.144 2.705 0.797 0.798 0.154 0.301 0.438 0.679 0.975 0.926 0.966 0.965 0.866 0.860 0.125 0.024 0.033 0.001 0.399 0.000 0.199 0.000 0.322 0.000 2.793 17.672 7.489 27.174 3.991	nce limits R+2SE
Urban	0.261	0.010	5903	8410	1.687	0.037	0.242	0.281
Literate	0.617	0.008	5903	8410	1.225	0.013		0.633
No education	0.302	0.007	5903	8410	1.183	0.023		0.316
Completed secondary education/higher	0.445	0.009	5903	8410	1.329	0.019		0.463
Currently married	0.937	0.003	5903	8410	1.000	0.003	0.931	0.944
Currently pregnant	0.060	0.003	8737	12311	1.022	0.049	0.054	0.066
Children ever born	1.973	0.067	8737	12311	1.101	0.034	1.840	2.107
Children surviving	1.836	0.062	8737	12311	1.102	0.034	1.712	1.960
Children ever born to women age 40-49	4.298	0.047	1679	2427	0.974	0.011	4.204	4.393
Ever using contraceptive method	0.856	0.005	5542	7884	1.082	0.006	0.846	0.866
Currently using any contraceptive method	0.659	0.007	5542	7884	1.041	0.010		0.672
Currently using a modern method	0.642	0.006	5542	7884	0.983	0.010		0.655
Currently using pill	0.100	0.005	5542	7884	1.122	0.045		0.109
Currently using IUD	0.440	0.007	5542	7884	1.102	0.017		0.454
Currently using injectables	0.071	0.004	5542	7884	1.254	0.061		0.079
Currently using condom	0.008	0.001	5542	7884	1.180	0.181		0.010
Currently using female sterilization	0.017	0.002	5542	7884	0.978	0.100		0.020
Currently using periodic abstinence	0.005	0.001	5542	7884	1.209	0.230		0.007
Public sector source	0.572	0.011	3534	5063	1.269	0.018		0.593
Want no more children	0.669	0.007	5542	7884	1.055	0.010		0.682
Want to delay birth at least 2 years	0.154	0.005	5542	7884	1.052	0.033		0.164
deal family size	2.736	0.015	5587	7923	1.036	0.006		2.767
Mothers received tetanus injection for last birth		0.009	2875	4066	1.194	0.011		0.831
Mothers received medical assistance at delivery	0.816 0.166	0.009	3804 3690	5399 5235	1.196 0.906	0.011 0.035		0.833 0.178
Had diarrhea in two weeks before survey Freated with oral rehydration salts (ORS)	0.100	0.006 0.019	578	869	0.950	0.056		0.178
Taken to a health provider	0.486	0.013	578	869	1.127	0.050		0.535
Had vaccination card	0.713	0.024	765	1071	1.020	0.030		0.748
Received BCG	0.984	0.005	765	1071	1.019	0.005		0.994
Received DPT (3 doses)	0.944	0.009	765	1071	1.047	0.010		0.962
Received polio (3 doses)	0.981	0.006	765	1071	1.059	0.006		0.992
Received measles	0.976	0.006	765	1071	0.994	0.006		0.987
Fully immunized	0.909	0.011	765	1071	1.058	0.012		0.931
Has heard of HIV/AIDS	0.870	0.005	5903	8410	1.199	0.006		0.881
Height-for-age (below -2SD)	0.137	0.006	3440	4837	1.011	0.045		0.150
Neight-for-height (below -2SD)	0.029	0.003	3440	4837	0.938	0.095		0.035
Weight-for-age (below -2SD)	0.040	0.004	3440	4837	1.077	0.094	0.033	0.048
3MI < 18.5	0.002	0.001	5210	7456	1.019	0.301	0.001	0.003
Anemia among ever-married women	0.361	0.011	1924	2733	0.999	0.030	0.339	0.383
Severe anemia among ever-married women	0.003	0.001	1924	2733	0.804	0.324	0.001	0.005
Anemia among children under five	0.430	0.015	1050	1470	0.991	0.035	0.399	0.460
Severe anemia among children under five	0.001	0.001	1050	1470	1.090	1.002	0.000	0.003
Anemia among adolescent boys 10-19	0.224	0.012	1138	1587	0.994	0.055		0.248
Severe anemia among adolescent boys 10-19	0.000	0.000	1138	1587	na	na		0.000
Anemia among adolescent girls 10-19	0.355	0.016	1075	1503	1.119	0.046		0.388
Severe anemia amonmg adolescent girls 10-19	0.001	0.001	1075	1503	1.085	0.996		0.003
Total fertility rate 0-3 years	2.924	0.066	na	35507	1.187	0.022	2.793	3.055
Neonatal mortality (10 years)	22.603	2.466	7394	10499	1.220	0.109		27.534
Postneonatal mortality (10 years)	10.117	1.314	7396	10503	1.143	0.130		12.745
Infant mortality (10 years)	32.720	2.773	7396	10503	1.213	0.085	2/.174	38.267
Child mortality (10 years) Under 5 mortality (10 years)	5.846 38.375	0.927 2.939	7401 7403	10509 10512	1.042 1.199	0.159 0.077	3.991 32.497	7.701 44.252

		Stand-	Number	of cases		Rela-		
	Value	ard error	Un- weighted	Weight- ed	Design effect	tive error		nce limits
Variable	(R)	(SE)	(N)	(WN)	(DEFT)	(SE/R)	R-2SE	R+2SE
Urban	1.000	0.000	1553	2199	na	0.000	1.000	1.000
Literate	0.788	0.012	1553	2199	1.194	0.016	0.763	0.813
No education	0.154	0.011	1553	2199	1.225	0.073	0.132	0.177
Completed secondary education/higher	0.605	0.019	1553 1553	2199	1.501	0.031	0.568	0.642
Currently married	0.936 0.051	0.006 0.005	2407	2199 3371	0.959 1.035	0.006 0.104	0.924 0.040	0.947 0.061
Currentlý pregnant Children ever born	1.741	0.003	2407	3371	0.964	0.104	1.526	1.955
Children surviving	1.647	0.107	2407	3371	0.969	0.062	1.444	1.850
Children ever born to women age 40-49	3.603	0.080	534	770	1.084	0.002	3.443	3.763
Ever using contraceptive method	0.860	0.010	1454	2057	1.070	0.011	0.840	0.879
Currently using any contraceptive method	0.641	0.012	1454	2057	0.974	0.019	0.617	0.666
Currently using a modern method	0.623	0.011	1454	2057	0.897	0.018	0.600	0.646
Currently using pill	0.123	0.009	1454	2057	1.081	0.076	0.104	0.141
Currently using IUD	0.423	0.013	1454	2057	1.036	0.032	0.397	0.450
Currently using injectables	0.043	0.007	1454	2057	1.239	0.154	0.030	0.056
Currently using condom	0.010	0.003	1454	2057	1.085	0.280	0.004	0.016
Currently using female sterilization	0.017	0.003	1454	2057	0.909	0.179	0.011	0.024
Currently using periodic abstinence	0.010	0.003	1454	2057	1.180	0.301	0.004	0.017
Public sector source	0.415	0.019	899	1282	1.177	0.047	0.376	0.454
Want no more children	0.655	0.015	1454	2057	1.243	0.024	0.624	0.686
Want to delay birth at least 2 years	0.147	0.010	1454	2057	1.060	0.067	0.127	0.167
Ideal family size	2.734	0.038	1494	2108	1.265	0.014	2.657	2.810
Mothers received tetanus injection for last birth		0.021	709	987	1.247	0.029	0.680	0.765
Mothers received medical assistance at delivery	0.929 0.152	0.010 0.012	925 891	1297 1248	1.086	0.011	0.908 0.129	0.950 0.176
Had diarrhea in two weeks before survey  Treated with oral rehydration salts (OPS)	0.132	0.012	132	190	0.914 1.070	0.076 0.120	0.129	0.176
Treated with oral rehydration salts (ORS) Taken to a health provider	0.571	0.047	132	190	0.956	0.120	0.486	0.656
Had vaccination card	0.609	0.040	172	235	1.025	0.066	0.528	0.689
Received BCG	1.000	0.000	172	235	na	0.000	1.000	1.000
Received DPT (3 doses)	0.923	0.023	172	235	1.030	0.025	0.877	0.969
Received polio (3 doses)	0.957	0.019	172	235	1.076	0.020	0.919	0.996
Received measles	0.971	0.013	172	235	1.005	0.014	0.944	0.997
Fully immunized	0.895	0.026	172	235	1.017	0.029	0.844	0.947
Has heard of HIV/AIDS	0.957	0.007	1553	2199	1.404	0.008	0.942	0.971
Height-for-age (below -2SD)	0.151	0.013	837	1160	1.042	0.087	0.125	0.178
Weight-for-height (below -2SD)	0.027	0.005	837	1160	0.889	0.187	0.017	0.037
Weight-for-age (below -2SD)	0.042	0.007	837	1160	0.931	0.159	0.029	0.055
BMI < 18.5	0.002	0.001	1379	1959	1.024	0.615	0.000	0.004
Anemia among ever-married women	0.347	0.020	527	737	0.943	0.056	0.307	0.386
Severe anemia among ever-married women	0.000	0.000	527	737	na	na 0.076	0.000	0.000
Anemia among children under five	0.384	0.029	258 258	351 351	0.958	0.076	0.326	0.442 0.000
Severe anemia among children under five Anemia among adolescent boys 10-19	0.000 0.132	0.000 0.021	258 302	351 419	na 1.092	na 0.161	0.000 0.090	0.000
Severe anemia among adolescent boys 10-19	0.132	0.000	302	419	1.092 na	na	0.000	0.000
Anemia among adolescent boys 10-19	0.346	0.000	273	365	0.994	0.083	0.289	0.403
Severe anemia amonmg adolescent girls 10-19	0.000	0.000	273	365	na	na	0.000	0.000
Total fertility rate 0-3 years	2.663	0.119	na	10654	1.197	0.045	2.425	2.900
Neonatal mortality (10 years)	24.114	6.495	1796	2505	1.344	0.269	11.124	37.104
Postneonatal mortality (10 years)	5.846	1.774	1796	2505	0.981	0.303	2.298	9.394
Infant mortality (10 years)	29.960	6.491	1796	2505	1.265	0.217	16.978	42.942
Child mortality (10 years)	4.630	1.623	1797	2507	0.983	0.351	1.383	7.876
Under 5 mortality (10 years)	34.451	6.478	1797	2507	1.214	0.188	21.495	47.406

		Stand	Number	Number of cases		Dala		
Variable	Value (R)	Stand- ard error (SE)	Un- weighted (N)	Weight- ed (WN)	Design effect (DEFT)	Rela- tive error (SE/R)	R-2SE  0.000 0.540 0.338 0.370 0.931 0.057 1.912 1.770 4.507 0.843 0.650 0.633 0.082 0.428 0.070 0.004 0.013 0.001 0.659 0.145 2.706 0.826 0.758 0.157 0.282 0.406 0.706 0.968 0.930 0.978 0.965 0.887 0.827 0.119 0.024 0.030 0.978 0.965 0.887 0.827 0.119 0.024 0.030 0.001 0.340 0.002 0.408 0.000 0.228 0.000 0.319 0.000 0.228 0.000 0.319 0.000 2.852 17.039 8.216 27.467	nce limits R+2SE
Urban	0.000	0.000	4350	6211	na	na	0.000	0.000
Literate	0.557	0.009	4350	6211	1.156	0.016		0.574
No education	0.354	0.003	4350	6211	1.120	0.023		0.370
Completed secondary education/higher	0.389	0.009	4350	6211	1.268	0.024		0.408
Currently married	0.938	0.004	4350	6211	1.015	0.004		0.945
Currently pregnant	0.064	0.003	6337	8947	1.039	0.055		0.071
Children ever born	2.059	0.074	6337	8947	1.100	0.036		2.207
Children surviving	1.906	0.068	6337	8947	1.101	0.036		2.042
Children ever born to women age 40-49	4.622	0.057	1145	1657	0.963	0.012		4.737
Ever using contraceptive method	0.854	0.006	4088	5826	1.084	0.007		0.866
Currently using any contraceptive method	0.665	0.008	4088	5826	1.074	0.012		0.681
Currently using a modern method	0.648	0.008	4088	5826	1.023	0.012		0.664
Currently using pill	0.092	0.005	4088	5826	1.125	0.055		0.102
Currently using IUD	0.445	0.009	4088	5826	1.127	0.020	0.428	0.463
Currently using injectables	0.080	0.005	4088	5826	1.263	0.067		0.091
Currently using condom	0.007	0.002	4088	5826	1.226	0.234	0.004	0.010
Currently using female sterilization	0.017	0.002	4088	5826	1.001	0.120	0.013	0.021
Currently using periodic abstinence	0.003	0.001	4088	5826	1.264	0.359	0.001	0.005
Public séctor source	0.626	0.012	2635	3781	1.286	0.019	0.601	0.650
Want no more children	0.674	0.007	4088	5826	0.983	0.011	0.659	0.688
Want to delay birth at least 2 years	0.157	0.006	4088	5826	1.048	0.038	0.145	0.169
deal family size	2.737	0.016	4093	5816	0.924	0.006	2.706	2.768
Mothers received tetanus injection for last birth		0.009	2166	3079	1.122	0.010	0.826	0.861
Mothers received medical assistance at delivery		0.011	2879	4101	1.210	0.014		0.801
Had diarrhea in two weeks before survey	0.170	0.007	2799	3987	0.901	0.039		0.184
Treated with oral rehydration salts (ORS)	0.323	0.021	446	678	0.921	0.064		0.365
Taken to a health provider	0.462	0.028	446	678	1.168	0.061		0.519
Had vaccination card	0.743	0.019	593	836	1.022	0.025		0.780
Received BCG	0.980	0.006	593	836	1.013	0.006		0.992
Received DPT (3 doses)	0.950	0.010	593	836	1.060	0.010		0.969
Received polio (3 doses)	0.987	0.005	593	836	1.031	0.005		0.997
Received measles	0.977	0.006	593	836	0.988	0.006		0.989
Fully immunized	0.912	0.013	593	836	1.074	0.014		0.937
Has heard of HIV/AIDS	0.840	0.006	4350	6211	1.140	0.008		0.853
Height-for-age (below -2SD)	0.133 0.030	0.007 0.003	2603 2603	3677 3677	1.005 0.949	0.053 0.110		0.147 0.037
Weight-for-height (below -2SD)	0.030	0.003	2603 2603	3677 3677		0.110		0.037
Weight-for-age (below -2SD) BMI <18.5	0.039	0.004	3831	5496	1.123 1.017	0.113		0.046
_	0.366	0.001	1397	1997	1.017	0.343		0.004
Anemia among ever-married women Severe anemia among ever-married women	0.004	0.013	1397	1997	0.802	0.324		0.392
Anemia among children under five	0.444	0.001	792	1119	1.006	0.324		0.007
Severe anemia among children under five	0.001	0.018	792 792	1119	1.086	1.002		0.479
Anemia among adolescent boys 10-19	0.257	0.001	836	1167	0.952	0.056		0.285
Severe anemia among adolescent boys 10-19	0.000	0.000	836	1167	na	na		0.000
Anemia among adolescent girls 10-19	0.358	0.000	802	1138	1.152	0.054		0.397
Severe anemia amonmg adolescent girls 10-19	0.001	0.020	802	1138	1.076	0.995		0.004
Total fertility rate 0-3 years	3.008	0.078	na	26027	1.156	0.026		3.164
Neonatal mortality (10 years)	22.132	2.546	5598	7994	1.166	0.115		27.225
Postneonatal mortality (10 years)	11.446	1.615	5600	7998	1.155	0.141		14.676
nfant mortality (10 years)	33.578	3.056	5600	7998	1.204	0.091		39.689
Child mortality (10 years)	6.237	1.114	5604	8002	1.063	0.179	4.009	8.466
Under 5 mortality (10 years)	39.606	3.318	5606	8006	1.206	0.084	32.970	46.242

		Ctand	Numbe	r of cases		Dolo		
	Value	Stand- ard error	Un- weighted	Weight- ed	Design effect	Rela- tive error	Confide	nce limit
√ariable	(R)	(SE)	(N)	(WN)	(DEFT)	(SE/R)	Confider  R-2SE  0.299 0.461 0.450 0.267 0.922 0.063 2.234 1.988 5.239 0.731 0.485 0.496 0.094 0.239 0.075 0.003 0.006 0.003 0.544 0.170 3.129 0.766 0.606 0.195 0.331 0.423 0.727 0.963 0.908 0.944 0.841 0.753 0.200 0.029 0.066 0.094 0.094 0.000 0.528 0.001 0.275 0.000 0.317 0.000 3.521 21.413 22.917 46.013 11.505	R+2S
Jrban	0.319	0.010	9132	7552	2.119	0.032	0.299	0.340
Literate	0.478	0.009	9132	7552	1.627	0.018		0.495
No education	0.467	0.009	9132	7552	1.663	0.019		0.484
Completed secondary education/higher	0.284	0.009	9132	7552	1.820	0.030		0.302
Currently married	0.929	0.004	9132	7552	1.363	0.004		0.937
Currently pregnant	0.069	0.003	13739	11216	1.254	0.044		0.075
Children ever born	2.355	0.061	13739	11216	1.155	0.026		2.470
Children surviving	2.095	0.054	13739	11216	1.162	0.026		2.203
Children ever born to women age 40-49	5.394	0.077	2374	1972	1.370	0.014		5.549
Ever using contraceptive method	0.744	0.006	8437	7019	1.319 1.294	0.008		0.756
Currently using any contraceptive method	0.499 0.461	0.007 0.007	8437 8437	7019 7019	1.294	0.014 0.016		0.513 0.475
Eurrently using a modern method Eurrently using pill	0.461	0.007	8437	7019 7019	1.333	0.018		0.47
Currently using pill Currently using IUD	0.103	0.004	8437	7019	1.289	0.043		0.11
Currently using injectables	0.082	0.004	8437	7019	1.215	0.024		0.089
Currently using injectables Currently using condom	0.002	0.004	8437	7019	1.213	0.044		0.00
Currently using female sterilization	0.003	0.001	8437	7019	1.380	0.161		0.00
Currently using periodic abstinence	0.006	0.001	8437	7019	1.712	0.102		0.00
Public sector source	0.568	0.012	4009	3234	1.519	0.021		0.59
Want no more children	0.608	0.007	8437	7019	1.274	0.011		0.62
Want to delay birth at least 2 years	0.180	0.005	8437	7019	1.264	0.029		0.19
deal family size	3.171	0.021	8229	6729	1.220	0.007		3.21
Mothers received tetanus injection for last birth		0.008	5081	4200	1.418	0.011		0.79
Mothers received medical assistance at delivery		0.010	7375	6153	1.496	0.017		0.64
Had diarrhea in two weeks before survey	0.210	0.008	7065	5897	1.505	0.036		0.22
Freated with oral rehydration salts (ORS)	0.362	0.015	1502	1239	1.167	0.042	0.331	0.39
Γaken to a health próvider	0.459	0.018	1502	1239	1.329	0.040	0.423	0.49
Had vaccination card	0.754	0.014	1406	1169	1.186	0.018	0.727	0.78
Received BCG	0.973	0.005	1406	1169	1.093	0.005		0.982
Received DPT (3 doses)	0.925	0.008	1406	1169	1.182	0.009		0.94
Received polio (3 doses)	0.954	0.007	1406	1169	1.178	0.007		0.96
Received measles	0.957	0.006	1406	1169	1.102	0.006		0.96
ully immunized	0.863	0.011	1406	1169	1.195	0.013		0.88
Has heard of HIV/AIDS	0.765	0.006	9132	7552	1.324	0.008		0.77
Height-for-age (below -2SD)	0.214	0.007	6598	5482	1.237	0.032		0.22
Weight-for-height (below -2SD)	0.035	0.003	6598	5482	1.323	0.089		0.042
Veight-for-age (below -2SD) BMI <18.5	0.075 0.009	0.004 0.001	6598 7927	5482	1.282 1.239	0.056 0.150		0.00
	0.426	0.001	2958	6578 2446	1.239	0.130		0.01
Anemia among ever-married women Severe anemia among ever-married women	0.003	0.001	2958	2446	1.366	0.469		0.00
Anemia among children under five	0.553	0.001	2066	1714	1.134	0.403		0.57
Severe anemia among children under five	0.005	0.002	2066	1714	1.260	0.400		0.00
Severe anemia among children under five Anemia among adolescent boys 10-19	0.302	0.014	2050	1656	1.351	0.045		0.33
Severe anemia among adolescent boys 10-19	0.005	0.003	2050	1656	1.667	0.512		0.010
Anemia among adolescent girls 10-19	0.341	0.012	1874	1509	1.130	0.036		0.36
Severe anemia amonmg adolescent girls 10-19		0.001	1874	1509	1.466	0.998		0.00
Total fertility rate 0-3 years	3.656	0.067	na	31052	1.420	0.018		3.79
Neonatal mortality (10 years)	24.841	1.714	14380	11914	1.229	0.069		28.26
Postneonatal mortality (10 years)	26.747	1.915	14403	11930	1.345	0.072		30.57
nfant mortality (10 years)	51.587	2.787	14406	11934	1.406	0.054		57.16
Child mortality (10 years)	14.364	1.430	14420	11949	1.332	0.100		17.22
Under 5 mortality (10 years)	65.210	3.144	14449	11972	1.422	0.048	58.923	71.49

		Stand-	Number	of cases		Rela-		
	Value	ard error	Un- weighted	Weight- ed	Design effect	tive error	Confide	nce limits
Variable	(R)	(SE)	(N)	(WN)	(DEFT)	(SE/R)	R-2SE  0 1.000 0.667 5 0.227 0 0.452 8 0.910 2 0.046 9 1.768 2 1.611 9 3.984 1 0.807 0 0.576 2 0.537 9 0.114 3 0.327 2 0.038 6 0.004 1 0.006 5 0.006 8 0.415 9 0.616 7 0.146 2 2.825 6 0.671 8 0.807 7 0.172 0 0.221 4 0.423 8 0.740 0 0.958 0 0.958 0 0.962 0 0.937 4 0.433 0 0.887 2 0.139 2 0.027 2 0.048 0 0.003 7 0.394 9 0.000 0 0.434	R+2SE
Urban	1.000	0.000	2471	2411	na	0.000		1.000
Literate	0.698	0.016	2471	2411	1.709	0.023		0.730
No education	0.255	0.014	2471	2411	1.606	0.055		0.283
Completed secondary education/higher	0.491	0.020	2471	2411	1.971	0.040		0.531
Currently married	0.925 0.057	$0.008 \\ 0.005$	2471	2411 3719	1.459 1.223	$0.008 \\ 0.092$		0.941 0.067
Currentlý pregnant Children ever born	1.959	0.003	4048 4048	3719	0.933	0.092		2.150
Children surviving	1.796	0.093	4048	3719	0.933	0.049		1.981
Children ever born to women age 40-49	4.227	0.033	729	721	1.418	0.032		4.470
Ever using contraceptive method	0.826	0.010	2268	2230	1.235	0.012		0.846
Currently using any contraceptive method	0.600	0.012	2268	2230	1.176	0.020		0.624
Currently using a modern method	0.561	0.012	2268	2230	1.171	0.022		0.585
Currently using pill	0.135	0.011	2268	2230	1.478	0.079		0.156
Currently using IUD	0.350	0.011	2268	2230	1.143	0.033		0.373
Currently using injectables	0.048	0.005	2268	2230	1.092	0.102		0.058
Currently using condom	0.010	0.003	2268	2230	1.325	0.276	0.004	0.016
Currently using female sterilization	0.012	0.003	2268	2230	1.374	0.261	0.006	0.018
Currently using periodic abstinence	0.015	0.004	2268	2230	1.666	0.285	0.006	0.023
Public sector source	0.449	0.017	1265	1251	1.225	0.038		0.484
Want no more children	0.641	0.012	2268	2230	1.236	0.019		0.666
Want to delay birth at least 2 years	0.165	0.009	2268	2230	1.214	0.057		0.184
Ideal family size	2.902	0.038	2271	2143	1.316	0.013		2.978
Mothers received tetanus injection for last birth		0.018	1270	1235	1.446	0.026		0.745
Mothers received medical assistance at delivery		0.015	1718	1669	1.388	0.018		0.868
Had diarrhea in two weeks before survey	0.208	0.018 0.029	1654	1604	1.693	0.087		0.244
Treated with oral rehydration salts (ORS)	0.280 0.508	0.029	324 324	333 333	1.116 1.459	0.105 0.084		0.338 0.593
Taken to a health provider Had vaccination card	0.783	0.043	329	312	0.927	0.034		0.826
Received BCG	0.703	0.009	329	312	1.119	0.020		0.996
Received DPT (3 doses)	0.931	0.018	329	312	1.290	0.020		0.968
Received polio (3 doses)	0.982	0.010	329	312	1.327	0.010		1.002
Received measles	0.966	0.014	329	312	1.382	0.015		0.994
Fully immunized	0.875	0.021	329	312	1.134	0.024		0.917
Has heard of HIV/AIDS	0.906	0.009	2471	2411	1.614	0.010	0.887	0.925
Height-for-age (below -2SD)	0.166	0.014	1538	1514	1.410	0.082	0.139	0.193
Weight-for-height (below -2SD)	0.042	0.008	1538	1514	1.353	0.182		0.058
Weight-for-age (below -2SD)	0.065	0.009	1538	1514	1.392	0.132		0.082
BMI <18.5	0.007	0.002	2178	2138	1.083	0.274		0.011
Anemia among ever-married women	0.434	0.020	832	802	1.188	0.047		0.475
Severe anemia among ever-married women	0.004	0.003	832	802	1.379	0.729		0.011
Anemia among children under five	0.493	0.030	495 405	471 471	1.319	0.060		0.552
Severe anemia among children under five Anemia among adolescent boys 10-19	0.000 0.213	0.000 0.022	495 489	471 465	0.451 1.170	1.001 0.102	0.000	0.001
Severe anemia among adolescent boys 10-19	0.213	0.022	489 489	465 465	1.170	0.102	0.169	0.256 0.022
Anemia among adolescent boys 10-19	0.320	0.007	511	452	0.933	0.967	0.000	0.022
Severe anemia amonmg adolescent girls 10-19	0.000	0.000	511	452	na	na	0.000	0.000
Total fertility rate 0-3 years	3.124	0.000	na	10930	1.298	0.031	2.927	3.320
Neonatal mortality (10 years)	24.731	3.871	3347	3260	1.250	0.051	16.990	32.473
Postneonatal mortality (10 years)	14.609	2.334	3350	3261	1.151	0.160	9.941	19.278
Infant mortality (10 years)	39.341	5.021	3351	3263	1.377	0.128	29.298	49.384
Child mortality (10 years)	9.462	1.930	3350	3261	1.088	0.204	5.601	13.323
Under 5 mortality (10 years)	48.431	5.369	3355	3267	1.332	0.111	37.693	59.168

		Stand-	Number	r of cases		Rela-		
	Value	ard error	Un- weighted	Weight- ed	Design effect	tive error	Confide	nce lim
Variable	(R)	(SE)	(N)	(WN)	(DEFT)	(SE/R)	Confider  R-2SE  0.000 0.356 0.545 0.173 0.924 0.067 2.395 2.110 5.874 0.690 0.435 0.396 0.080 0.191 0.088 0.002 0.004 0.001 0.614 0.577 0.174 3.247 0.795 0.524 0.195 0.357 0.403 0.710 0.960 0.904 0.927 0.940 0.833 0.710 0.960 0.904 0.927 0.940 0.833 0.710 0.960 0.904 0.927 0.940 0.833 0.710 0.960 0.904 0.927 0.940 0.833 0.710 0.960 0.904 0.927 0.940 0.833 0.710 0.960 0.904 0.927 0.940 0.833 0.710 0.960 0.904 0.927 0.940	R+25
Jrban	0.000	0.000	6661	5141	na	na		0.00
Literate	0.375	0.009	6661	5141	1.557	0.025		0.39
No education	0.566	0.010	6661	5141	1.703	0.018		0.58
Completed secondary education/higher	0.187	0.007	6661	5141	1.477	0.038		0.20
Currently married	0.931	0.004	6661	5141	1.275	0.004		0.93
Currently pregnant	0.074	0.004	9796	7500	1.221	0.049		0.08
Children ever born	2.550	0.077	9796	7500	1.181	0.030		2.70
Children surviving	2.243	0.067	9796	7500	1.167	0.030		2.37
Children ever born to women age 40-49	6.055	0.091	1647	1253	1.333	0.015		6.23
ver using contraceptive method	0.705	0.008	6169	4789	1.355	0.011		0.72
Currently using any contraceptive method	0.452	0.009	6169	4789	1.342	0.019		0.46
Currently using a modern method	0.414	0.009	6169	4789	1.416	0.021		0.43
Currently using pill	0.088	0.004	6169	4789	1.139	0.047		0.09
Currently using IUD	0.206	0.007	6169	4789	1.395	0.035		0.22
Currently using injectables	0.098	0.005	6169	4789	1.257	0.049		0.10
Currently using condom	0.003	0.001	6169	4789	0.884	0.193		0.00
Currently using female sterilization	0.007	0.001	6169	4789	1.333	0.205	0.004	0.01
Currently using periodic abstinence	0.003	0.001	6169	4789	1.526	0.384		0.00
Public sector source	0.643	0.014	2744	1983	1.5 <i>77</i>	0.022	0.614	0.67
Vant no more children	0.592	0.008	6169	4789	1.277	0.013	0.577	0.60
Want to delay birth at least 2 years	0.187	0.006	6169	4789	1.276	0.034	0.174	0.20
deal family size	3.296	0.025	5958	4586	1.161	0.007		3.34
Mothers received tetanus injection for last birth		0.009	3811	2965	1.401	0.011		0.83
Mothers received medical assistance at delivery	0.548	0.012	5657	4484	1.464	0.022	0.524	0.57
Had diarrhea in two weeks before survey	0.211	0.008	5411	4292	1.406	0.038	0.195	0.22
Freated with oral rehydration salts (ORS)	0.392	0.018	1178	906	1.172	0.045	0.357	0.42
Γaken to a health provider	0.441	0.019	1178	906	1.249	0.044	0.403	0.48
Had vaccination card	0.744	0.017	1077	857	1.277	0.023	0.710	0.77
Received BCG	0.971	0.005	1077	857	1.089	0.006	0.960	0.98
Received DPT (3 doses)	0.922	0.009	1077	857	1.146	0.010		0.94
Received polio (3 doses)	0.944	0.009	1077	857	1.178	0.009	0.927	0.96
Received measles	0.953	0.007	1077	857	1.008	0.007	0.940	0.96
Fully immunized	0.859	0.013	1077	857	1.223	0.015	0.833	0.88
Has heard of HIV/AIDS	0.698	0.007	6661	5141	1.258	0.010		0.71
Height-for-age (below -2SD)	0.232	0.008	5060	3968	1.173	0.033		0.24
Weight-for-height (below -2SD)	0.033	0.003	5060	3968	1.267	0.097	0.026	0.03
Veight-for-age (below -2SD)	0.078	0.005	5060	3968	1.262	0.062		0.08
3MI <18.5	0.009	0.002	5749	4440	1.304	0.178		0.01
Anemia among ever-married women	0.421	0.012	2126	1643	1.136	0.029		0.44
Severe anemia among ever-married women	0.002	0.001	2126	1643	1.276	0.594		0.00
Anemia among children under five	0.576	0.013	15 <i>7</i> 1	1242	1.060	0.023		0.60
severe anemia among children under five	0.006	0.003	1571	1242	1.305	0.409		0.01
Anemia among adolescent boys 10-19	0.337	0.016	1561	1191	1.373	0.049		0.37
Severe anemia among adolescent boys 10-19	0.004	0.002	1561	1191	1.370	0.532		0.00
Anemia among adolescent girls 10-19	0.351	0.016	1363	1057	1.201	0.044		0.38
severe anemia amonmg adolescent girls 10-19		0.002	1363	1057	1.493	0.997		0.00
Total fertility rate 0-3 years	3.918	0.084	na	20821	1.309	0.022		4.08
Neonatal mortality (10 years)	24.882	1.875	11033	8654	1.221	0.075	21.131	28.63
Postneonatal mortality (10 years)	31.329	2.342	11053	8669	1.334	0.075	26.644	36.01
nfant mortality (10 years)	56.210	3.219	11055	8670	1.382	0.057	49.772	62.64
Child mortality (10 years)	16.253	1.813	11070	8688	1.399	0.112	12.626	19.88
Jnder 5 mortality (10 years)	71.550	3.636	11094	8706	1.403	0.051	64.277	78.82

		Stand-	Number	r of cases	-	Rela-		
	Value	ard error	Un- weighted	Weight- ed	Design effect	tive error	Confider	nce limits
Variable	(R)	(SE)	(N)	(WN)	(DEFT)	(SE/R)	R-2SE	R+2SE
Urban	0.596	0.017	901	218	1.026	0.028	0.563	0.630
Literate	0.605	0.017	901	218	1.033	0.028	0.571	0.638
No education	0.378	0.017	901	218	1.032	0.044	0.345	0.412
Completed secondary education/higher	0.374	0.022	901	218	1.335	0.058	0.331	0.417
Currently married	0.943	0.007	901 1402	218	0.913	0.007	0.929	0.957
Currently pregnant	0.073	0.006		341	0.898	0.088	0.061	0.086
Children ever born	2.020 1.919	0.112 0.109	1402 1402	341	1.064 1.093	0.055 0.05 <i>7</i>	1.796 1.700	2.244 2.137
Children surviving Children ever horn to women age 40,49	1.919 4.480	0.109	230	341 56	1.093	0.037	4.137	4.823
Children ever born to women age 40-49		0.171	851					0.780
Ever using contraceptive method Currently using any contraceptive method	0.745 0.507	0.018	851	206 206	1.183 1.315	0.024 0.044	0.710 0.462	0.760
	0.307	0.023	851	206	1.313	0.044	0.462	0.552
Currently using a modern method Currently using pill	0.472	0.022	851	206	1.291	0.047	0.426	0.516
Currently using IUD	0.144	0.014	851	206	1.201	0.100	0.113	0.173
	0.219	0.010	851	206	1.131	0.004	0.162	0.230
Currently using injectables Currently using condom	0.071	0.010	851	206	1.131	0.140	0.006	0.091
Currently using condom  Currently using female sterilization	0.013	0.003	851	206	0.777	0.313	0.004	0.023
Currently using periodic abstinence	0.003	0.002	851	206	0.605	0.203	0.004	0.014
Public sector source	0.596	0.033	393	97	1.328	0.055	0.530	0.662
Want no more children	0.592	0.033	851	206	1.235	0.035	0.550	0.633
Want to delay birth at least 2 years	0.332	0.021	851	206	0.978	0.033	0.330	0.201
Ideal family size	3.332	0.013	878	213	1.641	0.026	3.158	3.505
Mothers received tetanus injection for last birth		0.034	490	119	1.623	0.020	0.627	0.762
Mothers received medical assistance at delivery		0.034	693	169	1.693	0.050	0.646	0.791
Had diarrhea in two weeks before survey	0.148	0.017	667	162	1.181	0.117	0.113	0.183
Treated with oral rehydration salts (ORS)	0.217	0.050	93	24	1.106	0.231	0.116	0.317
Taken to a health provider	0.380	0.071	93	24	1.353	0.188	0.237	0.522
Had vaccination card	0.777	0.037	151	37	1.091	0.047	0.703	0.851
Received BCG	0.989	0.011	151	37	0.947	0.011	0.966	1.011
Received DPT (3 doses)	0.909	0.026	151	37	1.139	0.029	0.856	0.962
Received polio (3 doses)	0.955	0.018	151	37	1.061	0.019	0.919	0.990
Received measles	0.927	0.027	151	37	1.111	0.029	0.873	0.981
Fully immunized	0.856	0.034	151	37	1.115	0.039	0.789	0.924
Has heard of HIV/AIDS	0.819	0.015	901	218	1.173	0.018	0.789	0.849
Height-for-age (below -2SD)	0.141	0.021	589	143	1.337	0.147	0.100	0.183
Weight-for-height (below -2SD)	0.052	0.007	589	143	0.764	0.129	0.039	0.066
Weight-for-age (below -2SD)	0.043	0.011	589	143	1.237	0.244	0.022	0.064
BMI < 18.5	0.000	0.000	766	186	na	na	0.000	0.000
Anemia among ever-married women	0.472	0.036	300	73	1.264	0.077	0.399	0.545
Severe anemia among ever-married women	0.004	0.004	300	73	1.092	0.989	0.000	0.012
Anemia among children under five	0.431	0.047	193	47	1.328	0.110	0.336	0.526
Severe anemia among children under five Anemia among adolescent boys 10-19	0.007	0.005	193	47	0.873	0.740	0.000	0.018
Anemia among adolescent boys 10-19	0.280	0.042	197	48	1.301	0.149	0.196	0.363
Severe anemia among adolescent boys 10-19	0.004	0.004	197	48	0.950	1.037	0.000	0.013
Anemia among adolescent girls 10-19	0.560	0.043	199	49	1.213	0.076	0.475	0.646
Severe anemia amonmg adolescent girls 10-19	0.000	0.000	199	49	na	na	0.000	0.000
Total fertility rate 0-3 years	3.338	0.139	na	958	0.929	0.042	3.060	3.616
Neonatal mortality (10 years)	24.526	4.279	1315	325	0.924	0.174	15.967	33.084
Postneonatal mortality (10 years)	8.727	2.695	1314	325	0.919	0.309	3.337	14.118
Infant mortality (10 years)	33.253	5.517	1315	325	0.962	0.166	22.219	44.287
Child mortality (10 years)	9.116	2.969	1314	325	1.117	0.326	3.178	15.053
Under 5 mortality (10 years)	42.065	6.804	1315	325	1.082	0.162	28.458	55.672

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Table D.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Egypt 2005

	Fen	nale	Ma	ıle		Fen	nale	M	ale
		Per-		Per-			Per-		Per-
Age	Number	centage	Number	centage	Age	Number	centage	Number	centage
0	1,359	2.6	1,258	2.3	36	507	1.0	543	1.0
1	1,321	2.5	1,260	2.3	37	559	1.1	570	1.1
2	1,333	2.5	1,273	2.4	38	544	1.0	653	1.2
3	1,300	2.5	1,314	2.4	39	453	0.9	523	1.0
4	1,310	2.5	1,270	2.4	40	938	1.8	907	1.7
5	1,467	2.8	1,292	2.4	41	460	0.9	429	0.8
6	1,221	2.3	1,188	2.2	42	627	1.2	624	1.2
7	1,122	2.1	1,180	2.2	43	507	1.0	525	1.0
8	1,198	2.3	1,113	2.1	44	437	0.8	382	0.7
9	1,238	2.4	1,174	2.2	45	901	1.7	843	1.6
10	1,143	2.2	1,144	2.1	46	346	0.7	386	0.7
11	1,147	2.2	1,049	1.9	47	409	0.8	455	0.8
12	1,210	2.3	1,145	2.1	48	467	0.9	500	0.9
13	1,089	2.1	1,027	1.9	49	338	0.6	482	0.9
14	1,183	2.2	1,140	2.1	50	638	1.2	412	0.8
15	1,281	2.4	1,250	2.3	51	305	0.6	348	0.6
16	1,273	2.4	1,245	2.3	52	433	0.8	599	1.1
17	1,296	2.5	1,340	2.5	53	397	0.8	398	0.7
18	1,368	2.6	1,385	2.6	54	350	0.7	341	0.6
19	1,154	2.2	1,238	2.3	55	530	1.0	752	1.4
20	1,151	2.2	1,364	2.5	56	302	0.6	275	0.5
21	965	1.8	1,143	2.1	57	301	0.6	205	0.4
22	1,019	1.9	1,172	2.2	58	278	0.5	254	0.5
23	966	1.8	1,118	2.1	59	227	0.4	161	0.3
24	855	1.6	970	1.8	60	525	1.0	741	1.4
25	1,009	1.9	1,345	2.5	61	158	0.3	106	0.2
26	741	1.4	885	1.6	62	254	0.5	177	0.3
27	887	1.7	815	1.5	63	200	0.4	114	0.2
28	772	1.5	820	1.5	64	155	0.3	105	0.2
29	568	1.1	634	1.2	65	466	0.9	606	1.1
30	941	1.8	1,033	1.9	66	92	0.2	76	0.1
31	495	0.9	598	1.1	67	147	0.3	90	0.2
32	654	1.2	655	1.2	68	92	0.2	59	0.1
33	466	0.9	613	1.1	69	64	0.1	43	0.1
34	524	1.0	507	0.9	70+	1,289	2.4	1,337	2.5
35	917	1.7	1,020	1.9	Don't know/ missing	0	0.0	2	0.0
					Total	52,638	100.0	53,998	100.0

Table D.2 Age distribution of eligible and interviewed women

De facto household population of women age 10-54, interviewed women age 15-49, and percentage of eligible women who were interviewed (weighted), by five-year age groups, Egypt 2005

	Household	population	Ever-married women age 15-49 interviewed		
	All	Ever-married			Percentage
	women	women			interviewed
Age	age 10-54	age 10-54	Number	Percent	(weighted)
10-14	5,506	0	na	na	na
15-19	6,458	795	790	4.1	99.3
20-24	5,767	2,970	2,955	15.4	99.5
25-29	4,499	3,701	3,685	19.2	99.6
30-34	3,405	3,205	3,185	16.6	99.4
25-39	3,309	3,193	3,180	16.6	99.6
40-44	2,867	2,795	2,776	14.5	99.3
45-49	2,665	2,616	2,604	13.6	99.6
50-54	2,097	2,061	na	na	na
15-49	28,971	19,274	19,174	100.0	99.5

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 schedule. na = Not applicable

Table D.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Egypt 2005

	Reference	Percentage with missing	Number of
Subject	population	information	cases
Subject	рораватоп	mormation	cases
Birth date	Births in last 15 years		
Month only		5.9	37,935
Month and year		< 0.1	37,935
Age at death	Deaths among births in last 15 years	< 0.5	2,123
Age and year at first union	Ever-married women	<1.0	19,474
Respondent's education	Ever-married women	0.01	19,474
Diarrhea in last 2 weeks		< 0.5	13,120
Anthropometric measure			
Height	Living children 0-59 months	1.1	13,030
Weight	Living children 0-59 months	1.0	13,030
Height or weight	Living children 0-59 months	1.1	13,030
Anemia			
Children	Living children 0-59 months	3.1	3,878
Women	Ever-married women	2.3	6,339

# Table D.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), Egypt 2005

Calendar	Nu	mber of b	irths	Percent	tage with c birth date		Se	ex ratio at b	oirth	Cale	endar yea	r ratio
year	L	D	Т	L	D	Т	L	D	T	L	D	Т
2005	1,048	34	1,081	100.0	100.0	100.0	111.9	124.6	112.2	na	na	na
2004	2,676	100	2,776	100.0	100.0	100.0	108.4	142.9	109.4	na	na	na
2003	2,606	108	2,714	100.0	100.0	100.0	100.1	136.4	101.3	96.4	109.6	96.8
2002	2,733	97	2,830	100.0	100.0	100.0	103.7	127.1	104.4	103.6	102.3	103.5
2001	2,673	81	2,754	100.0	100.0	100.0	101.0	79.3	100.3	103.0	85.3	102.4
2000	2,458	93	2,551	100.0	100.0	100.0	109.3	114.2	109.5	89.3	74.2	88.7
1999	2,830	170	3,000	98.6	76.6	97.3	106.4	106.0	106.4	114.8	138.2	115.9
1998	2,472	153	2,626	95.0	66.3	93.3	100.6	95.6	100.3	96.4	90.1	96.0
1997	2,301	170	2,471	91.4	60.6	89.2	98.5	131.9	100.4	97.5	113.7	98.5
1996	2,246	146	2,392	89.7	60.9	87.9	106.1	131.1	107.5	97.4	89.3	96.9
2001-2005	11,736	419	12,156	100.0	100.0	100.0	104.0	121.2	104.5	na	na	na
1996-2000	12,306	733	13,039	95.2	70.6	93.8	104.2	114.9	104.8	na	na	na
1991-1995	10,668	832	11,500	91.5	57.0	89.0	105.8	107.7	105.9	na	na	na
1986-1990	10,166	1,094	11,259	92.2	51.9	88.3	104.1	108.2	104.4	na	na	na
<1986	9,926	2,004	11,930	84.6	47.2	78.3	105.7	112.4	106.8	na	na	na
All	54,802	5,081	59,884	93.0	57.5	90.0	104.7	111.8	105.3	na	na	na

na = Not applicable

<sup>&</sup>lt;sup>1</sup> Both year and month of birth given

 $<sup>^2</sup>$  (Bm/Bf)x100, where Bm and Bf are the numbers of male and female births, respectively

 $<sup>^{3}</sup>$  [2Bx/(Bx-1+Bx+1)]x100, where Bx is the number of births in calendar year x

Table D.5 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey (weighted), Egypt 2005

	Nun	nber of years p	receding the s	urvey	
Age at death (days)	0-4	5-9	10-14	15-19	Total 0-19
<1	69	71	77	50	267
1	35	65	70	49	219
2	27	26	26	26	105
3	27	43	37	28	135
4	10	7	12	15	44
5	16	12	16	16	60
6	2	6	8	15	30
7	31	41	58	114	245
8	2	7	6	4	18
9	6	6	5	2	19
10	7	4	5	12	28
11	4	1	6	2	12
12	2	3	2	1	7
13	1	0	4	3	7
14	3	3	4	0	11
15	12	14	13	16	54
16	0	2	1	0	3
17	2	1	3	2	8
18	2	5	1	2	9
20	4	2	8	5	19
22	0	0	1	2	3
23	2	0	0	0	2
25	2	2	0	0	4
26	2	0	0	0	2
27	2	0	2	0	4
28	2	2	0	2	7
29	1	0	0	0	1
30	1	1	1	0	3
Total 0-30	272	325	365	366	1,328
Percent early neonatal <sup>1</sup>	68.2	71.2	67.0	54.4	64.8
<sup>1</sup> (6 days/0-30 days)					

Table D.6 Reporting of age at death in months

Distribution of reported deaths under two years of age 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, Egypt 2005

Age at death	Num	ber of years p	receding the s	urvey	
(months)	0-4	5-9	10-14	15-19	Total 0-19
<11	272	325	365	366	1,328
1	30	41	52	61	184
2	28	33	31	40	133
3	22	27	30	37	115
4	19	34	35	49	137
5	10	21	22	28	81
6	16	34	41	60	151
7	9	22	25	31	86
8	9	23	20	25	77
9	8	20	30	43	101
10	4	5	6	7	23
11	6	3	6	8	23
12	6	13	34	48	101
13	1	1	3	2	8
14	4	9	6	2	21
15	5	2	0	4	11
16	0	1	3	0	4
17	0	0	2	1	3
18	9	24	34	43	110
19	2	2	2	3	9
20	0	2	5	0	7
21	0	4	0	0	4
22	1	0	0	1	2
23	1	0	0	0	1
1 year	3	9	20	19	51
Total 0-11	433	589	666	754	2,441
Percent neonatal <sup>2</sup>	63.0	55.2	54.8	48.5	54.4

<sup>&</sup>lt;sup>1</sup> Includes deaths under one month reported in days

<sup>&</sup>lt;sup>2</sup> Under one month/under one year

ARAB REPUBLIC OF EGYPT MINISTRY OF HEALTH AND POPULATION **NATIONAL POPULATION COUNCIL EL-ZANATY & ASSOCIATES** 



# **EGYPT DEMOGRAPHIC AND HEALTH SURVEY** 2005

# **HOUSEHOLD QUESTIONNAIRE**

DATA COLLECTED FROM THIS STUDY IS CONFIDENTIAL AND WILL BE USED FOR SCIENTIFIC PURPOSES ONLY

# HOUSEHOLD QUESTIONNAIRE

		IDENTIFICATION		
KISM/MARKAZ SHIAKHA/VILLAGE HOUSEHOLD NUMB URBAN LARGE CITY ANEMIA SUBSAMPI NAME OF HOUSEH	BER			GOVERNORATE  PSU/SEGMENT NO.  HOUSEHOLD NO. URBAN/RURAL  LOCALITY SUBSAMPLE
		INTERVIEWER VISITS	<u> </u>	
	1	2	3	FINAL VISIT
2 N H 3 E 4 P 5 R 6 D 7 D 8 D	OMPLETED O HOUSEHOLD MEMBER OME AT TIME OF VISIT NTIRE HOUSEHOLD ABSE DSTPONED EFUSED	AT HOME OR NO COMPETEN ENT FOR EXTENDED PERIOD DDRESS NOT A DWELLING (SPECIFY)		DAY MONTH YEAR  0 0 5  TEAM
		<u> </u>		YES NO
ADDRESSED CHEC	KED BY:	<u></u>	<u></u>	_ 1 2 1 2
NAME	FIELD EDITOR	OFFICE EDITOR	/ / 200	/ KEYER // 2005
SIGNATURE				

<u>HOUSEHOLD SCHEDULE</u>

Now we would like some information about the people who usually live in your household or who are staying with you now.

	1		RESIDENCE				STATUS
							IF AGE 15 OR OLDER
001	002	006	007	008	009	010	011
	Please give me the names of the persons who usually live in your household and guests of the household who slept here last night, starting with the head of the household.	What is the relationship of (NAME) to the head of the household?  (SEE CODES BELOW)	Does Did Is (NAME) (NAME) usually sleep here male or		Is (NAME) male or female?	How old was (NAME)? at his/her last birthday? RECORD IN COMPLETED YEARS	What is (NAME'S) current marital status?
	AFTER LISTING NAMES, ASK QUESTIONS 003-005 TO BE SURE THAT THE LISTING IS COMPLETE. THEN GO ON TO QUESTION 006.						1 MARRIED 2 WIDOWED 3 DIVORCED 4 SEPARATED 5 SIGNED CONTRACT 6 NEVER MARRIED
			YES NO	YES NO	M F	IN YEARS	
01		HEAD 0 1	1 2	1 2	1 2		
02			1 2	1 2	1 2		
03			1 2	1 2	1 2		
04			1 2	1 2	1 2		
05			1 2	1 2	1 2		
06			1 2	1 2	1 2		
07			1 2	1 2	1 2		
08			1 2	1 2	1 2		
09			1 2	1 2	1 2		
10			1 2	1 2	1 2		
003 Are or infants	make sure that I have a complete househ there any other persons such as small child is that we have not listed?	ren YES	ADD TO 002	NO .	01 = HEAD 02 = WIFE/HUS 03 = SON/DAU	P TO HEAD OF HOU 08 SBAND 09 IGHTER	= BROTHER/SISTER = BROTHER-IN-LAW/ SISTER-IN-LAW
or friends 005 Are t	s of your family, such as domestic servants, s who usually live here? there any guests or temporary visitors stayin to else who slept here last night, who have n	YES YES	ADD TO 002	NO	04 = SON-IN-L DAUGHT 05 = GRANDC 06 = PARENT 07 = PARENT-	ER-IN-LAW 11 HILD 12	= OTHER RELATIVE = ADOPTED/FOSTER CHILD = STEPCHILD = NOT RELATED

LINE		ELIGIBILITY			SURVIVORSHIP AI	ND RESIDENCE	
NO.	WOMEN	CHILDREN	ADOLES- CENTS		OF BIOLOGICA	L PARENTS	
					IF AGE 0-17	YEARS	
	012	013	014	015	016	017	018
	CIRCLE LINE NUMBER OF ELIGIBLE WOMEN (I.E., EVER-MARRIED WOMEN AGE 15-49 WHO ARE USUAL RESIDENTS OR SLEPT THERE ON THE NIGHT BEFORE THE INTERVIEW).	CIRCLE LINE NUMBER OF ALL CHILDREN AGE 0-5.	CIRCLE LINE NUMBER OF ALL MALE ADOLESCNETS AGE 10-19 AND NEVER- MARRIED FEMALE ADOLESCENTS AGE 10-19 WHOSE MARITAL STATUS IS NEVER MARRIED OR SIGNED CONTRACT.	Is (NAME)'s natural mother alive?  QUESTION REFERS TO CHILD'S BIOLOGICAL MOTHER.	Does (NAME)'s natural mother live in this household?  IF YES: What is her name?  RECORD MOTHER'S LINE NUMBER.  IF NO: RECORD 00.	Is (NAME)'s natural father alive?  QUESTION REFERS TO CHILD'S BIOLOGICAL FATHER.	Does (NAME)'s natural father live in this household?  IF YES: What is his name?  RECORD FATHER'S LINE NUMBER.  IF NO: RECORD 00.
				YES NO DK		YES NO DK	
01	01	01	01	1 2 <del>- 8</del> GO TO 017		1 2 <del>- 8</del> GO TO 019	
02	02	02	02	1 2 <del>8</del> GO TO 17		1 2 <del>- 8</del> GO TO 019	
03	03	03	03	1 2 <del>- 8</del> GO TO 017		1 2 <del>- 8</del> GO TO 019	
04	04	04	04	1 2 <del>8</del> GO TO 017		1 2 <del>8</del> GO TO 019	
05	05	05	05	1 2 — 8 GO TO 017		1 2 — 8 GO TO 019	
06	06	06	06	1 2 — 8 GO TO 017		1 2 — 8 GO TO 019	
07	07	07	07	1 2 — 8 GO TO 017		1 2 — 8 GO TO 019	
08	08	08	08	1 2 <del>8</del> GO TO 017		1 2 <del>- 8</del> GO TO 019	
09	09	09	09	1 2 <del>8</del> GO TO 017		1 2 <del>- 8</del> GO TO 019	
10	10	10	10	1 2 <del>8</del> GO TO 017		1 2 <del>8</del> GO TO 019	

LINE NO.			EDU	CATION			
	IF AGE 6 Y	EARS OR OLDER		IF AGE 6-24	YEARS		IF AGE 3-5 YEARS
	019	020	021	022	023	024	025
	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended? What is the highest grade (NAME) completed at that level? (SEE CODES BELOW)	Did (NAME) attend school at any time during the 2004-2005 school year?	During this/that school year, what level and grade [is/was] (NAME) attending? (SEE CODES BELOW)	Did (NAME) attend school at any time during the previous school year, that is, in the 2003-2004 school year?	During that school year, what level and grade did (NAME) attend? (SEE CODES BELOW)	Has (NAME) ever attended kindergarten, private nursery or other program to prepare (him/her) for primary school?  (SEE CODES BELOW)
	YES NO	LEVEL GRADE	YES NO	LEVEL GRADE	YES NO	LEVEL GRADE	
01	1 2 GO TO 026		1 2 ↓ GO TO 023		1 2 ↓ GO TO 026		
02	1 2 GO TO 026		1 2 GO TO 023		1 2 GO TO 026		
03	1 2 GO TO 026		1 2 GO TO 023		1 2 GO TO 026		
04	1 2 GO TO 026		1 2 GO TO 023		1 2 GO TO 026		
05	1 2 GO TO 026		1 2 GO TO 023		1 2 GO TO 026		
06	1 2 GO TO 026		1 2 GO TO 023		1 2 ↓ GO TO 026		
07	1 2 GO TO 026		1 2 GO TO 023		1 2 GO TO 026		
08	1 2 GO TO 026		1 2 GO TO 023		1 2 GO TO 026		
09	1 2 GO TO 026		1 2 GO TO 023		1 2 GO TO 026		
10	1 2 GO TO 026		1 2 GO TO 023		1 2 GO TO 026		

CODES FOR Qs. 020, 022, AND 024 EDUCATION LEVEL:

- 0 = NURSERY SCHOOL
- 1 = PRIMARY
- 2 = PREPARATORY
- 3 = SECONDARY 4 = UPPER INTERMEDIATE
- 5 = UNIVERSITY
- 6 = MORE THAN UNIVERSITY

### EDUCATION GRADE:

0 = LESS THAN 1 YEAR COMPLETED (FOR Q. 020 ONLY. THIS CODE IS NOT ALLOWED FOR Qs. 022 AND 024.)

8 = DON'T KNOW

### CODES FOR Q025

- 1 = KINDERGARTEN AT PUBLIC SCHOOL
- 2 = KINDERGARTEN AT PRIVATE SCHOOL 3 = PRIVATE NURSERY
- 4 = OTHER
- 5 = DIDN'T ATTEND PRESCHOOL PROGRAM 8 = DON'T KNOW

LINE NO.	CHILD LABOR  Now I would like to ask you about any work that children in this household may do.										
	IF AGE 5-14 YEARS										
						IF AGE	5-14 YEAI	RS			
		026	027		028		02	29	030	031	032
	kind of work for someone who is not a member of this household even if it was only for a short period of time?  IF YES:  WEEK), about how many hou did (NAME) do this work for someone who is not a member of Was (NAME) paid in cash or in kind for his/her work?  WEEK), about how many hou did (NAME) how this work for someone who is not a member of this household in cash or in kind for his/her work?		(DAY OF THE WEEK), about how many hours did (NAME) do this work for someone who is not a member of this household? IF MORE THAN ONE JOB, INCLUDE ALL HOURS AT ALL JOBS. IF 95 HOURS OR MORE,	did (NA kind of v someon membe househoonly for time?	ne who is not r of this old even if w a short perio AME) his/her work he past	as as	During ti past wer did (NAME) help with househot chores, such as house cleaning shoppin collectin firewood fetching water, o caring fo children even if it a short p of time?	ek, old g, gg, tis for period	Since last (DAY OF THE WEEK), about how many hours did (NAME) spend doing these chores? IF 95 HOURS OR MORE, RECORD 95.	During the past week, did (NAME) do any (other) family work, such as helping on the farm or in a family business or selling goods (in a shop, on the street,) even if it is for short period of time?	Since last (DAY OF THE WEEK) about how many hours did (NAME) spend doing this work? IF 95 HOURS OR MORE, RECORD 95.
	YES PAID	YES UNPAID NO	HOURS	YES PAID	YES UNPAID	NO	YES	NO	HOURS	YES NO	HOURS
01	1	2 3 GO TO 028	GO TO 029	1	2	3	1 GO	2 ↓ TO 031		1 2 NEXT ← LINE	NEXT LINE OR 033
02	1	2 3 GO TO 028	GO TO 029	1	2	3	1 GO	2 TO 031		1 2 NEXT ← LINE	NEXT LINE OR 033
03	1	2 3 GO TO 028	GO TO 029	1	2	3	1 GO	2 ↓ TO 031		1 2 NEXT ← LINE	NEXT LINE OR 033
04	1	2 3 GO TO 028	GO TO 029	1	2	3	1 GO	2 TO 031		1 2 NEXT ← LINE	NEXT LINE OR 033
05	1	2 3 GO TO 028	GO TO 029	1	2	3	1 GO	2 TO 031		1 2 NEXT ← LINE	NEXT LINE OR 033
06	1	2 3 GO TO 028	GO TO 029	1	2	3	1 GO	2 ↓ TO 031		1 2 NEXT ← LINE	NEXT LINE OR 033
07	1	2 3 GO TO 028	GO TO 029	1	2	3	1 GO	2 ↓ TO 031		1 2 NEXT   LINE	NEXT LINE OR 033
08	1	2 3 GO TO 028	GO TO 029	1	2	3	1 GO	2 TO 031		1 2 NEXT ← LINE	NEXT LINE OR 033
09	1	2 3 GO TO 028	GO TO 029	1	2	3	1 GO	2 TO 031		1 2 NEXT ← LINE	NEXT LINE OR 033
10	1	2 3 GO TO 028	GO TO 029	1	2	3	1 GO	2 ↓ TO 031		1 2 GO ← J TO 033	NEXT LINE OR 033
GO TO 028 GO TO 029 GO TO 031 TO 033 N  033 CHECK 012 AND ENTER THE TOTAL NUMBER OF ELIGIBLE WOMEN  034 CHECK 013 AND ENTER THE TOTAL NUMBER OF ELIGIBLE CHILDREN  035 CHECK 014 AND ENTER THE TOTAL NUMBER OF ELIGIBLE ADOLESCENTS  036 TICK IF AN ADDITIONAL HOUSEHOLD QUESTIONNAIRE USED											

CHECK IF HOUSEHOLD IS IN THE ANEMIA SUBSAMPLE ON THE IDENTIFICATION SHEET  IN THE SUBSAMPLE OF TO QUESTION 101
TABLE FOR SELECTION OF THE ELIGIBLE WOMAN FOR THE DOMESTIC VIOLENCE QUESTIONS
IF THERE IS NO ELIGIBLE WOMAN, RECORD '00' IN BOXES ASSIGNED FOR RECORDING LINE NUMBER OF ELIGIBLE WOMAN. THEN GO TO QUESTION 101.
037 LOOK AT THE LAST DIGIT OF THE QUESTIONNAIRE NUMBER ON THE COVER PAGE. PUT BOX AROUND THAT NUMBER ON THE LEFT IN THE TABLE BELOW TO IDENTIFY THE ROW YOU WILL USE IN SELECTING THE ELIGIBLE RESPONDENT.
CHECK THE TOTAL NUMBER OF ELIGIBLE WOMEN ON Q033/THE COVER SHEET OF THE HOUSEHOLD QUESTIONNAIRE. PUT A BOX AROUND THAT NUMBER AT THE TOP OF THE TABLE TO IDENTIFY THE <b>COLUMN</b> YOU WILL USE IN SELECTING THE ELIGIBLE RESPONDENT.
FIND POINT WHERE THE ROW AND THE COLUMN YOU HAVE MARKED MEET. CIRCLE THE NUMBER THAT APPEARS IN THE BOX. THIS NUMBER IS USED TO IDENTIFY WHETHER THE FIRST ('1'), SECOND ('2'), THIRD ('3'), ETC. ELIGIBLE WOMAN LISTED IN THE HOUSEHOLD SCHEDULE WILL BE ASKED THE DOMESTIC VIOLENCE QUESTIONS.
EXAMPLE; IF THE QUESTIONNAIRE NUMBER IS '36716', GO TO ROW '6'. IF THERE ARE THREE ELIGIBLE WOMEN IN THE HOUSEHOLD, GO TO COLUMN '3'. FIND THE BOX WHERE ROW '6' AND COLUMN '3' MEET. THE NUMBER IN THAT BOX ('2') INDICATES THAT THE SECOND ELIGIBLE WOMAN IN THE HOUSEHOLD LISTING SHOULD BE ASKED THE DOMESTIC VIOLENCE QUESTIONS. IF THE LINE NUMBERS OF THE THREE WOMEN ARE '02', '03', AND '07', THEN THE SECOND ELIGIBLE WOMAN IS THE WOMEN WHOSE LINE NUMBER IS '03'. THIS WOMAN WILL BE ASKED THE DOMESTIC VIOLENCE QUESTIONS (SECTION 9 IN THE WOMAN QUESTIONNAIRE).
LINE NUMBER OF WOMAN SELECTED FOR DOMESTIC VIOLENCE SECTION
ADD A BOX ON THE LINE NUMBER FOR THIS WOMAN IN 012.
LAST DIGIT OF THE TOTAL NUMBER OF ELIGIBLE WOMEN IN THE HOUSEHOLD (COLUMN)

LAST DIGIT OF THE QUESTIONNAIRE	TO	OTAL NUME	BER OF ELIC	GIBLE WON	IEN IN THE	HOUSEHO	LD (COLUM	N)			
NUMBER (ROW)	1	2	3	4	5	6	7	8			
0	1	2	2	4	3	6	5	4			
1	1	1	3	1	4	1	6	5			
2	1	2	1	2	5	2	7	6			
3	1	1	2	3	1	3	1	7			
4	1	2	3	4	2	4	2	8			
5	1	1	1	1	3	5	3	1			
6	1	2	2	2	4	6	4	2			
7	1	1	3	3	5	1	5	3			
8	1	2	1	4	1	2	6	4			
9	1	1	2	1	2	3	7	5			

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	What type of dwelling does your household live in?	APARTMENT	
102	Is your dwelling owned or rented by your household?  IF OWNED: Is it owned solely by your household or jointly with someone else?	OWNED	
103	What is the main source of drinking water for members of your household?	PIPED WATER           PIPED INTO DWELLING         11           PIPED TO YARD/PLOT         12           PUBLIC TAP/STANDPIPE         13           TUBE WELL         21           DUG WELL         31           PROTECTED WELL         32           WATER FROM SPRING         41           UNPROTECTED SPRING         42           TANKER TRUCK         61           CART WITH SMALL TANK         71           SURFACE WATER (RIVER/DAM/           LAKE/POND/STREAM/CANAL/         IRRIGATION CHANNEL)         81           BOTTLED WATER         91           OTHER         96	108 105
104	What is the main source of water used by your household for other purposes such as cooking and handwashing?	PIPED WATER         11           PIPED INTO DWELLING         11           PIPED TO YARD/PLOT         12           PUBLIC TAP/STANDPIPE         13           TUBE WELL         21           DUG WELL         31           UNPROTECTED WELL         32           WATER FROM SPRING         41           UNPROTECTED SPRING         41           UNPROTECTED SPRING         42           TANKER TRUCK         61           CART WITH SMALL TANK         71           SURFACE WATER (RIVER/DAM/ LAKE/POND/STREAM/CANAL/ IRRIGATION CHANNEL)         81           OTHER         96           (SPECIFY)	→ 108
105	Where is (SOURCE IN 103 OR 104) located?	IN OWN DWELLING	]→ 108
106	How long does it take to go there, get water, and come back?	MINUTES	→ 108

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
107	Who usually goes to this source to fetch the water for your household?	ADULT WOMAN 15+	
		OTHER 6 (SPECIFY)	
108	During the last two weeks, was there any time when water was not available from (SOURCE IN 103 OR 104)?	YES       1         NO       2         DON'T KNOW       8	<b>110</b>
109	Did this happen on a daily or almost daily basis, only a few times per week, or less frequently?	DAILY/ALMOST DAILY         1           FEW TIMES PER WEEK         2           LESS FREQUENTLY         3           DON'T KNOW         8	
110	Do you treat your water in any way to make it safer to drink?	YES       1         NO       2         DON'T KNOW       8	112
111	What do you usually do to the water to make it safer to drink?  Anything else?  RECORD ALL MENTIONED.	BOIL	
		OTHER X (SPECIFY) DON'T KNOW Z	
112	What kind of toilet facility do members of your household usually use?	MODERN FLUSH TOILET	→ 117
113	Into where does this toilet flush drain?	PIPED SEWER SYSTEM         01           VAULT (BAYARA)         02           SEPTIC SYSTEM         03           PIPED CONNECTED TO CANAL         04           PIPED CONNECTED TO GROUND         WATER         05           EMPTIED (NO CONNECTION)         06           OTHER         96           (SPECIFY)         DON'T KNOW WHERE         98	
114	Are you or your neighbors currently experiencing any problems with this drainage system?	YES	<b>116</b>
115	What problems are you experiencing?	POOLING AROUND OWN DWELLING . A POOLING AROUND NEIGHBOR'S DWELLING	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
116	Including your own household, how many households use this toilet?	NO. OF HOUSEHOLDS  IF LESS THAN 10  10 OR MORE HOUSEHOLDS 95  DON'T KNOW 98	
117	Does your household have:  Electricity? A radio with cassette recorder? A color television? A black and white television? A video or DVD player? A mobile? A telephone? A satellite dish? A personal home computer? A sewing machine? An electric fan? An air conditioner?	YES NO	
118	What type of fuel does your household mainly use for cooking?	ELECTRICITY         01           LPG         02           NATURAL GAS         03           BIOGAS         04           KEROSENE         05           COAL, LIGNITE         06           CHARCOAL         07           WOOD         08           STRAW/SHRUBS/GRASS         09           AGRICULTURAL CROP         10           ANIMAL DUNG         11           OTHER         96           (SPECIFY)	120
119	In your household, is food cooked on a stove or an open fire?  PROBE FOR TYPE.	OPEN FIRE OR STOVE WITHOUT CHIMNEY/HOOD	
120	Is the cooking usually done in the house, in a separate building, or outdoors?	IN THE HOUSE	122
121	Do you have a separate room which is used as a kitchen?	YES	
122	How does your household mainly dispose of kitchen waste and trash?  RECORD MAIN METHOD OF DISPOSAL ONLY.  IF TWO OR MORE METHODS ARE USED EQUALLY,  RECORD THE METHOD HIGHEST ON THE LIST.	COLLECTED	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
123	Does your household have:  A refrigerator? A freezer? A water heater? A dishwasher? An automatic washing machine? Any other washing machine? A bed? A sofa? A hanging lamp (yellow with no cover)? A table? A "Tablia" (very low round table)? A chair? Kolla/Zeer (a container for reserving water)?	YES         NO           REFRIGERATOR         1         2           FREEZER         1         2           WATER HEATER         1         2           DISHWASHER         1         2           AUTOMATIC WASHER         1         2           OTHER WASHER         1         2           BED         1         2           SOFA         1         2           HANGING LAMP         1         2           TABLE         1         2           TABLIA         1         2           CHAIR         1         2           KOLLA/ZEER         1         2	
124	How many rooms does your household use for living (excluding the bathrooms, kitchens and stairway areas)?	ROOMS	
125	MAIN MATERIAL OF THE FLOOR.  RECORD OBSERVATION.	NATURAL FLOOR         EARTH/SAND       11         RUDIMENTARY FLOOR         WOOD PLANKS       21         FINISHED FLOOR         PARQUET OR POLISHED         WOOD       31         CERAMIC/MARBLE TILES       32         CEMENT TILES       33         CEMENT       34         WALL-TO-WALL CARPET       35         VINYL       36         OTHER       96         (SPECIFY)	
126	TYPE OF WINDOWS.  RECORD OBSERVATION.	ALL WINDOWS WITH GLASS	
127	Does any member of this household own:  A watch? A bicycle? A motorcycle or motor scooter? An animal-drawn cart? A car or truck?	YES         NO           WATCH         1         2           BICYCLE         1         2           MOTORCYCLE/SCOOTER         1         2           ANIMAL-DRAWN CART         1         2           CAR/TRUCK         1         2	
128	Does any member of this household own any land that can be used for agriculture?	YES	→ 130
129	How many feddans or kirates of agricultural land do members of this household own?  IF MORE THAN 95 FEDDAN, ENTER '9995'.	LAND AREA  DON'T KNOW	
130	Does your household own any livestock, herds, or farm animals or any poultry or birds?	YES	<b>→</b> 132

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
131	How many of the following does your household own?		
	Cattle(buffalo, calf)?	CATTLE	
	Milk cows or bulls?	COWS/BULLS	
	Horses, donkeys, or mules?	HORSES/DONKEYS/MULES .	
	Goats?	GOATS	
	Sheep?	SHEEP	
	Birds (Chickens, geese, ducks, and pigeons)?	BIRDS(CHICKENS/GEESE/ETC)	
	IF NONE, ENTER '00'. IF MORE THAN 95, ENTER '95'. IF UNKNOWN, ENTER '98'.		
132	Does any member of your household have an account in a bank or any saving institution?	YES	
133	ASK RESPONDENT FOR A TEASPOONFUL OF COOKING SALT. TEST SALT FOR IODINE.  RECORD PPM (PARTS PER MILLION)	0 PPM (NO IODINE)	

# $\underline{\text{WEIGHT, HEIGHT AND HEMOGLOBIN MEASUREMENT}}$

CHECK COLUMNS 012-014: RECORD THE LINE NUMBER, NAME AND AGE OF ALL EVER-MARRIED WOMEN AGE 15-49, ALL CHILDREN UNDER AGE 6,

AND WALE			MALE ADOLESCENTS AGE10-19.	WEIGHT AND HE	0.17.145.0.15514517	05 51/50 14100150	
	EVER	R-MARRIED	WOMEN 15-49	WEIGHT AND HEIGHT MEASUREMENT OF EVER-MARRIED WOMEN 15-49			
LINE NO. FROM 012	NAME FROM 002	AGE FROM 010	What is (NAME'S) date of birth?	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	RESULT 1 MEASURED 2 NOT PRESEN 3 REFUSED 6 OTHER
(201)	(202)	(203)	(204)	(205)	(206)	(207)	(208)
		YEARS					
		CHILDREN	I AGE 0-5	WEIGHT AN	ID HEIGHT MEASURE	MENT OF CHILDRE	N AGE 0-5
LINE NO. FROM 013	NAME FROM 002	AGE FROM 010	What is (NAME'S) date of birth? IF MOTHER INTERVIEWED, COPY MONTH AND YEAR FROM BIRTH HISTORY AND ASK DAY. IF MOTHER NOT INTERVIEWED, ASK DAY, MONTH, AND YEAR.	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	RESULT 1 MEASURED 2 NOT PRESEN 3 REFUSED 6 OTHER
(201)	(202)	(203)	(204)	(205)	(206)	(207)	(208)
			DAY MONTH YEAR			LYING STAND.	
		-		0 .		1 2	
				0 .		1 2	
				0 .		1 2	
				0 .		1 2	

MALE	AND NEVER-MA	RRIED FEN	MALE ADOLESCENTS AGE 10-19	WEIGHT AND HEIGH	HT MEASUREMENT OF	ELIGIBLE ADOLES	CENTS AGE 10-19		
LINE NO. FROM 014	NAME FROM 002	AGE FROM 010	What is (NAME'S) date of birth? IF MOTHER INTERVIEWED, COPY MONTH AND YEAR FROM BIRTH HISTORY AND ASK DAY. IF MOTHER NOT INTERVIEWED, ASK DAY, MONTH, AND YEAR.	WEIGHT (KILOGRAMS)	HEIGHT (CENTIMETERS)	MEASURED LYING DOWN OR STANDING UP	RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER		
(201)	(202)	(203)	(204)	(205)	(206)	(207)	(208)		
		YEARS  The state of the state o	DAY MONTH YEAR						
	CHECK IN THE IDENTIFICATION SECTION ON THE COVER PAGE IF THE HOUSEHOLD IS INCLUDED IN THE ANEMIA SUBSAMPLE  IN THE SUBSAMPLE  NOT IN SUBSAMPLE  GO TO 301								

	HEMOGLOBIN MEASUREMENT OF EVER-MARRIED WOMEN 15-49										
LINE NO. FROM 201	NAME CHECK COLUMN (202):			READ CONSENT STATEMENT TO WOMAN*  CIRCLE CODE (AND SIGN)	HEMOGLOBIN LEVEL (G/DL)	CURRENTLY PREGNANT	RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER				
	(209)	(210a)	210	211	(212)	(213)	(214)				
				GRANTED REFUSED  1 2 SIGN NEXT LINE		YES NO/DK					
				1 SIGN NEXT LINE 4		1 2					
				1 SIGN NEXT LINE		1 2					
				HEMOGLOBIN MEASUREMENT OF CHILDR	EN AGE 0- 5 YEAR	S					
LINE NO. FROM 201	NAME CHECK COLUMN (202):	CHECK COLUMN (204) CHILD AGE 0-5 MONTHS, I.E, BORN IN MONTH OF INTERVIEW OR PREVIOUS 5 MONTH?	LINE NO. OF PARENT/ RESPONSIBLE ADULT. RECORD '00' IF NOT LISTED IN HOUSEHOLD SCHEDULE.	READ CONSENT STATEMENT TO PARENT/RESPONSIBLE ADULT*  CIRCLE CODE (AND SIGN)	HEMOGLOBIN LEVEL (G/DL)		RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER				
	(209)	(210a)	210	211	(212)	(213)	(214)				
		AGE 0-5 MONTHS OTHER 1 2 L NEXT CHILD		GRANTED REFUSED  1 2 SIGN NEXT LINE							
		1 2 NEXT CHILD		1 2 SIGN NEXT LINE ←							
		1 2 L NEXT CHILD		1 2 SIGN NEXT LINE ←							
		1 2 NEXT CHILD		1 2 SIGN NEXT LINE <b>↓</b>							
		1 2 NEXT CHILD		1 2 SIGN NEXT LINE ✓							

	HEMOGLOBIN MEASUREMENT OF MALE AND NEVER-MARRIED FEMALE ADOLESCENTS AGE 10-19										
LINE NO. FROM 201	NAME CHECK COLUMN (202):	CHECK COLUMN (203) AGE	LINE NO. OF PARENT/ RESPONSIBLE ADULT. RECORD '00' IF NOT LISTED IN HOUSEHOLD SCHEDULE.	READ CONSENT STATEMENT TO ADOLESCENT/PARENT/RESPONSIBLE ADULT <sup>*</sup> CIRCLE CODE (AND SIGN)	HEMOGLOBIN LEVEL (G/DL)		RESULT 1 MEASURED 2 NOT PRESENT 3 REFUSED 6 OTHER				
	(209)	(210a)	210	211	(212)	(213)	(214)				
		AGE AGE 10-17 18-19  1 GO TO 211   1 GO TO 211   2 GO TO 211   1 GO TO 211   2 GO TO 211   1 GO TO 211   2 GO TO 211   2 GO TO 211   2 GO TO 211   1 GO TO 211   1 GO TO 211   1 GO TO 211   1 GO TO 211   1 GO TO 211   1 GO TO 211   1 GO TO 211   1 GO TO 211  1 GO TO		GRANTED  PARENT/RESP ADOLESCENT AD. REFUSED  REFUSED  1 SIGN  2 NEXT LINE  3 SIGN							
	TICK HERE IF CON	ITINUATION SHEET U	SED	NAME OF ASSISTANT							

#### \* CONSENT STATEMENT

As part of this survey, we are studying anemia among women, children and adolescents. Anemia is a serious health problem that usually results from poor nutrition, infection, or chronic disease. This survey will assist the government to develop programs to prevent and treat anemia.

We request that you (and all children under age 6, and all male and never married female adolescents aged 10-19) to participate in the anemia testing part of this survey and give a few drops of blood from a finger. The test uses disposable sterile instruments that are clean and completely sate. The blood will be analyzed with new equipment and the results of the test will be given to you right after the blood is taken. The results will be kept confidential.

May I now ask that you (and NAME OF CHILD[REN]/ADOLESCENT) participate in the anemia test. However, if you decide not to have the test done, it is your right and we will respect your decision. Now please tell me if you agree to have the test(s) done.

### OBSERVATIONS TO BE FILLED IN AFTER COMPLETING INTERVIEW

#### 301 INTERVIEWER'S OBSERVATIONS

COMMENTS ABOUT RESPONDENT:			
COMMENTS ON SPECIFIC QUESTIONS:			
ANY OTHER COMMENTS:			
	302	SUPERVISOR'S OBSERVATIONS	
NAME OF SUPERVISOR:		DATE.	
NAME OF SUPERVISOR.		DATE:	
	303	EDITOR'S OBSERVATIONS	
	303	EBITOR 3 OBSERVATIONS	
NAME OF EDITOR:		DATE:	
TO SINE OF EDITORS.		DATE.	

ARAB REPUBLIC OF EGYPT MINISTRY OF HEALTH AND POPULATION NATIONAL POPULATION COUNCIL **EL-ZANATY & ASSOCIATES** 

# **EGYPT DEMOGRAPHIC AND HEALTH SURVEY** 2005

# **WOMAN QUESTIONNAIRE**

DATA COLLECTED FROM THIS STUDY IS CONFIDENTIAL AND WILL BE USED FOR SCIENTIFIC PURPOSES ONLY.

### WOMAN QUESTIONNAIRE

		IDENTIFICATION			
GOVERNORATE  KISM/MARKAZ  SHIAKHA/VILLAGE		BUILDING NO		GOVERNORATE PSU/SEGMENT NO.	
HOUSEHOLD NUMBER					
		INTERVIEWER VISITS			
	1	2	3	FINAL VISIT	
DATE TEAM INTERVIEWER SUPERVISOR RESULT NEXT VISIT: DATE TIME RESULT CODES: 1 COMPL	ETED 4 REF			DAY MONTH YEAR  0 0 5  TEAM	
	THOME 5 PAR	FUSED RTLY COMPLETED APACITATED	7 OTHER _	(SPECIFY)	
NAME DATE / SIGNATURE	/ 2005	OFFICE EDITOR	/ / 200	KEYER  05 / / 2005	

## SECTION 1. RESPONDENT'S BACKGROUND

INFORM	MED CONSENT		
Nationa apprecia will help	My name is and I am wo I Population Council. We are conducting a national survey about the heal ate your participation in this survey. I would like to ask you about your heap the government to plan health services. The survey usually takes betwee tion you provide will be kept strictly confidential and will not be shown to o	alth (and the health of your children). This information and 45 minutes to complete. Whatever	
-	ation in this survey is voluntary and you can choose not to answer any independent of the that you will participate in this survey since your views are important.	ividual question or all of the questions. However,	
	ime, do you want to ask me anything about the survey? egin the interview now?		
Signatu	re of interviewer:	Date:	
RESPO	NDENT AGREES TO BE INTERVIEWED 1 RESPONDENT ↓	DOES NOT AGREE TO BE INTERVIEWED .	2→ 1301
NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR	
102	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)?	YEARS	
	IF LESS THAN ONE YEAR, RECORD '00' YEARS.	ALWAYS	104
103	Just before you moved here, did you live in Cairo, Giza, Alexandria, in another city or town, or in a village?	CAIRO/GIZA       1         ALEXANDRIA       2         OTHER CITY/TOWN       3         VILLAGE       4         OUTSIDE EGYPT       5	
	(NAME OF LOCALITY AND GOVERNORATE)	(SPECIFY)	
		OFFICE: GOVERNORATE CODE	
104	In what month and year were you born?	MONTH	

DON'T KNOW MONTH ..... 98

DON'T KNOW YEAR ..... 9998

YEAR .....

AGE IN COMPLETED YEARS

105

How old were you at your last birthday?

INCONSISTENT.

COMPARE AND CORRECT 104 AND/OR 105 IF

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
106	What is your current marital status?	MARRIED       1         WIDOWED       2         DIVORCED       3         SEPARATED       4	
107	Now I would like to ask you some questions about your marriage(s). How many times have you been married?	NUMBER OF TIMES MARRIED	
108	CHECK 107:		
	MARRIED MARRIED MORE THAN ONCE	MONTH	
	In what month and year Now I would like to ask about did you enter into your first husband.	DON'T KNOW MONTH 98	
	a marriage contract with In what month and year your husband? did you enter into a marriage contract with your first husband?	YEAR	<b>→</b> 110
	your instituspand?	DON'T KNOW YEAR 9998	
109	How old were you when you entered into a marriage contract with your (first) husband?	AGE IN COMPLETED YEARS .	
110	CHECK 107:		
	MARRIED MARRIED MORE THAN ONCE	MONTH	
	In what month and year  Now I would like to ask about your first husband.	DON'T KNOW MONTH 98	
	with your husband? In what month and year did you start living together with your first husband?	YEAR	<b>→</b> 112
		DON'T KNOW YEAR 9998	
111	How old were you when you started living together with your (first) husband?	AGE IN COMPLETED YEARS .	
112	DETERMINE ALL OF THE MONTHS SINCE JANUARY 2000 THAT THE ENTER 'X' IN COLUMN 1 OF CALENDAR FOR EACH MONTH MARRIE NOT MARRIED, SINCE JANUARY 2000.		
	FOR WOMEN WHO ARE NOT CURRENTLY MARRIED OR WHO HAVE FOR DATE WHEN CURRENT UNION STARTED AND, IF APPROPRIAT DATES OF ANY PREVIOUS UNIONS SINCE JANUARY 2000.		
113	Have you ever attended school?	YES	<b>→</b> 117
114	What is the highest level of school you attended?	PRIMARY         1           PREPARATORY         2           SECONDARY         3           UPPER INTERMEDIATE         4           UNIVERSITY         5           MORE THAN UNIVERSITY         6	
115	What is the highest grade you successfully completed at that level?	GRADE	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
116	CHECK 114:  PRIMARY  PR	EEPARATORY OR HIGHER	120
117	Now I would like you to read this sentence to me.  SHOW CARD TO RESPONDENT.  IF RESPONDENT CANNOT READ WHOLE SENTENCE, PROBE: Can you read any part of the sentence to me?	CANNOT READ AT ALL	
118	Have you ever participated in a literacy program or any other program that involves learning to read or write (not including primary school)?	YES	
119	CHECK 117:  CODE '2' OR '3'  CIRCLED	ODE '1' OR '4' CIRCLED	121
120	Do you read a newspaper or magazine almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY	
121	Do you listen to the radio almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY	
122	Do you watch television almost every day, at least once a week, less than once a week or not at all?	ALMOST EVERY DAY	
123	What is your religion?	MUSLEM 1 CHRISTIAN 2 OTHER 6 (SPECIFY)	

# SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES	→ 206
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES	→ 204
203	How many sons live with you?  And how many daughters live with you?	SONS AT HOME  DAUGHTERS AT HOME	
	IF NONE, RECORD '00'.		<u> </u>
204	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES	→ 206
205	How many sons are alive but do not live with you?  And how many daughters are alive but do not live with you?  IF NONE, RECORD '00'.	SONS ELSEWHERE	
206	Have you ever given birth to a boy or girl who was born alive but later died?  IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES	→ 208
207	How many boys have died?  And how many girls have died?  IF NONE, RECORD '00'.	BOYS DEAD	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL	
209	CHECK 208:  Just to make sure that I have this right: you have had in TOTAL  YES  NO	probe and correct  PROBE AND CORRECT 201-209 AS NECESSARY.	
210	CHECK 208:  ONE OR MORE BIRTHS  NO BIRTHS		226

211 Now I would like to record the names of all your births, whether still alive or not, starting with the first one you had. RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES AND MARK WITH A BRACKET. (IF THERE ARE MORE THAN 12 BIRTHS, USE AN ADDITIONAL QUESTIONNAIRE).

212	213	214	215	216	217	218	219	220	221
What name was given to your (first/next) baby?	Were any of these births twins?	Is (NAME) a boy or a girl?	In what month and year was (NAME) born? PROBE:	Is (NAME) still alive?	IF ALIVE: How old was (NAME) at his/her last birthday?	IF ALIVE: Is (NAME) living with you?	IF ALIVE: RECORD HOUSE- HOLD LINE NUMBER OF	IF DEAD: How old was (NAME) when he/she died?  IF '1 YR', PROBE:	Were there any other live births between (WHEN
			What is his/her birthday? In what season was (NAME) born?		RECORD AGE IN COM- PLETED YEARS.		CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE- HOLD).	How many months old was (NAME) when he/she died? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	YOU FIRST MARRIED/ NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
01	SING 1	BOY 1	MONTH	YES 1	AGE IN YEARS	YES 1	HH LINE NO.	DAYS 1 MONTHS . 2	YES 1 ADD BIRTH ◀
(NAME)	MULT 2	GIRL 2	YEAR	NO 2 (GO TO 220)		NO 2	↓ (GO TO 221)	YEARS 3	NO 2 NEXT BIRTH
02	SING 1	BOY 1	MONTH	YES 1	AGE IN YEARS	YES 1	HH LINE NO.	DAYS 1 MONTHS . 2	YES 1 ADD BIRTH ◀
(NAME)	MULT 2	GIRL 2	YEAR	NO 2 (GO TO 220)		NO 2	(GO TO 221)	YEARS 3	NO 2 NEXT BIRTH
03	SING 1	BOY 1	MONTH	YES 1	AGE IN YEARS	YES 1	HH LINE NO.	DAYS 1	YES 1 ADD BIRTH ◀
(NAME)	MULT 2	GIRL 2	YEAR	NO 2 (GO TO 220)		NO 2	(GO TO 221)	YEARS 3	NO 2 NEXT BIRTH <b>4</b>
04	SING 1	BOY 1	MONTH	YES 1	AGE IN YEARS	YES 1	HH LINE NO.	DAYS 1	YES 1 ADD BIRTH ◀
(NAME)	MULT 2	GIRL 2	YEAR	NO 2 (GO TO 220)		NO 2	(GO TO 221)	YEARS 3	NO 2 NEXT BIRTH <b>↓</b>
05	SING 1	BOY 1	MONTH	YES 1	AGE IN YEARS	YES 1	HH LINE NO.	DAYS 1 MONTHS . 2	YES 1 ADD BIRTH ◀
(NAME)	MULT 2	GIRL 2	YEAR	NO 2 (GO TO 220)		NO 2	(GO TO 221)	YEARS 3	NO 2
06	SING 1	BOY 1	MONTH	YES 1	AGE IN YEARS	YES 1	HH LINE NO.	DAYS 1	YES 1 ADD BIRTH ◀
(NAME)	MULT 2	GIRL 2	YEAR	NO 2 (GO TO 220)		NO 2	(GO TO 221)	YEARS 3	NO 2
07	SING 1	BOY 1	MONTH	YES 1	AGE IN YEARS	YES 1	HH LINE NO.	DAYS 1	YES 1 ADD BIRTH ◀
(NAME)	MULT 2	GIRL 2	YEAR	NO 2 (GO TO 220)		NO 2	(GO TO 221)	YEARS 3	NO 2

212	213	214	215	216	217	218	219	220	221
What name was given t your (first/next) baby?		Is (NAME) a boy or a girl?	In what month and year was (NAME) born? PROBE: What is his/her birthday? In what season was (NAME) born?	Is (NAME) still alive?	IF ALIVE: How old was (NAME) at his/her last birthday? RECORD AGE IN COM- PLETED YEARS.	IF ALIVE: Is (NAME) living with you?	IF ALIVE: RECORD HOUSE- HOLD LINE NUMBER OF CHILD (RECORD '00' IF CHILD NOT LISTED IN HOUSE- HOLD).	IF DEAD: How old was (NAME) when he/she died?  IF '1 YR', PROBE: How many months old was (NAME) when he/she died? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS; OR YEARS.	Were there any other live births between (WHEN YOU FIRST MARRIED/ NAME OF PREVIOUS BIRTH) and (NAME), including any children who died after birth?
08 (NAME)	SING 1	BOY 1 GIRL 2	MONTH YEAR	YES 1 NO 2 ↓ (GO TO 220)	AGE IN YEARS	YES 1 NO 2	HH LINE NO. (GO TO 221)	DAYS 1 MONTHS. 2 YEARS 3	YES 1 ADD BIRTH  NO 2 NEXT BIRTH
09 (NAME)	SING 1	BOY1	MONTH YEAR	YES 1  NO 2  ↓ (GO TO 220)	AGE IN YEARS	YES 1	HH LINE NO. (GO TO 221)	DAYS 1 MONTHS. 2 YEARS 3	YES 1 ADD BIRTH ↓ NO 2 NEXT BIRTH ↓
10 (NAME)	SING 1	BOY 1 GIRL 2	MONTH YEAR	YES 1 NO 2 ↓ (GO TO 220)	AGE IN YEARS	YES 1	HH LINE NO. (GO TO 221)	DAYS 1 MONTHS . 2 YEARS 3	YES 1 ADD BIRTH ◀ NO 2 NEXT BIRTH ◀
(NAME)	SING 1	BOY 1 GIRL 2	MONTH YEAR	YES 1 NO 2  (GO TO 220)	AGE IN YEARS	YES 1 NO 2	HH LINE NO. (GO TO 221)	DAYS 1 MONTHS. 2 YEARS 3	YES 1 ADD BIRTH ↓ NO 2 NEXT BIRTH ↓
12 (NAME)	SING 1	BOY 1	MONTH YEAR	YES 1 NO 2 ↓ (GO TO 220)	AGE IN YEARS	YES 1 NO 2	HH LINE NO. (GO TO 221)	DAYS 1 MONTHS . 2 YEARS 3	YES 1 ADD BIRTH   NO 2 GO TO 222   ■
222			oirths since the birth DRD BIRTH(S) IN TA			YES		1	ADD TO TABLE
223	COMPARE 208 WITH NUMBER OF BIRTHS IN HISTORY ABOVE AND MARK:  NUMBERS ARE SAME  OIFFERENT  OIFFERENT  (PROBE AND RECONCILE)  CHECK: FOR EACH BIRTH: YEAR OF BIRTH IS RECORDED.  FOR EACH BIRTH SINCE JANUARY 2000: MONTH AND YEAR OF BIRTH RECORDED.  FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED.  FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED.  FOR AGE AT DEATH 12 MONTHS OR 1 YEAR: PROBE TO DETERMINE EXACT NUMBER OF MONTHS.								
224			ER THE NUMBER C AND GO TO 225a.	F BIRTHS SI	NCE JANUARY	2000 OR LA	ATER.		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP				
225	FOR EACH BIRTH SINCE JANUARY 2000, ENTER 'B' IN THE MONTH OF BIRTH IN COLUMN 2 OF THE CALENDAR. FOR EACH BIRTH, ASK THE NUMBER OF MONTHS THE PREGNANCY LASTED AND RECORD 'P' IN EACH OF THE PRECEDING MONTHS ACCORDING TO THE DURATION OF PREGNANCY.  NOTE: THE NUMBER OF 'P'S MUST BE ONE LESS THAN THE NUMBER OF MONTHS THAT THE PREGNANCY LASTED.  WRITE THE NAME OF THE CHILD TO THE RIGHT OF THE 'B' CODE.						
225a	ENTER THE MONTH AND YEAR OF THE MOST RECENT BIRTH PRIOR TO JANUARY 2000 IN THE BOXES AT THE BOTTOM OF THE CALENDAR.						
226	Are you pregnant now?	YES	1 ≥ 230				
227	How many months pregnant are you?	MONTHS.					
	RECORD NUMBER OF COMPLETED MONTHS.	MONTHS					
228	ENTER 'P'S IN COLUMN 2 OF CALENDAR, BEGINNING WITH THE MO THE TOTAL NUMBER OF MONTHS OF THE CURRENT PREGNANCY (						
229	At the time you became pregnant did you want to become pregnant then, did you want to wait until later, or did you not want to have any (more) children at all?	THEN       1         LATER       2         NOT AT ALL       3					
230	Unfortunately many women have pregnancies that do not end in a live is sometimes a baby is still born, that is, the baby is born who does not be other times women have a miscarriage or abortion early during a pregrit is very important in our study to know about such pregnancies so head using the information in the CALENDAR, PROBE TO DETER BIRTHS, MISCARRIAGES, OR ABORTIONS BACK TO JANUARY 2018. IF THE WOMAN REPORTS A PREGNANCY THAT DID NOT END IN AND YEAR IN WHICH THE PREGNANCY ENDED.  RECORD THE APPROPRIATE CODE FOR THE PREGNANCY OUTCOME CALENDAR ("S" FOR STILL BIRTH, "M" FOR MISCARRIAGE THEN ASK ABOUT THE NUMBER OF MONTHS THE PREGNANCY OF THE PRECEDING MONTHS ACCORDING TO THE DURATION OF THE PRECEDING MONTHS ACCORDING TO THE DURATION OF THE PRECEDING MONTHS ACCORDING TO THE DURATION OF THE NUMBER OF P'S MUST BE ONE LESS THAN THE NUPREGNANCY LASTED.  ILLUSTRATIVE QUESTIONS  TO IDENTIFY NON-LIVE BIRTH PREGNANCIES, ASK:  INTERVAL BETWEEN CURRENT PREGNANCY AND PRIOR BIRTH Did you have any pregnancy that ended in a still birth after the bir your current pregnancy? Or any pregnancy that ended in a miscarriage.  INTERVAL BETWEEN LAST AND PRIOR BIRTH DID you have any pregnancy that ended in a still birth between (N OF PRIOR BIRTH)? Or any pregnancy that ended in a miscarriage.  INTERVAL BETWEEN NEXT-TO-LAST BIRTH AND PRIOR BIRTH DID you have any pregnancy that ended in a still birth between (N (NAME OF PRIOR BIRTH)? Or any pregnancy that ended in a miscarriage or any other pregnancy that ended in a miscarriage or any other pregnancy that ended in a miscarriage or any other pregnancy that ended in a miscarriage or any other pregnancy that ended in a miscarriage or abortion?  WOMEN WITH NO LIVE BIRTHS BUT WITH CURRENT PREGNAN Before your current pregnancy that ended in a miscarriage or abortion?  WOMEN WITH NO LIVE BIRTHS AND NOT CURRENTLY PREGNAN Have you ever had a still birth? If YES: When did the last still birth Have you ever had a miscarriage or abortion? If YES: When did the last still birth Have you ever had a	reath or show any life. nancy. alth programs can be developed for women.  RMINE IF THE WOMAN HAD ANY STILL 1000.  A LIVE BIRTH, ASK ABOUT THE MONTH COME ON THAT DATE IN COLUMN 2 IN AND "A" FOR ABORTION). LASTED AND RECORD "P" IN EACH OF THE PREGNANCY.  D IN THE MONTH THAT PREGNANCY MBER OF MONTHS THAT THE  H (LAST BIRTH) th of (NAME OF LAST BIRTH) and before rriage or abortion?  AME OF LAST BIRTH) and (NAME ge or abortion?  CY nancy that ended in a still birth?  INT occur? he last miscarriage or abortion occur?					

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
231	Did you have any (other) pregnancies that terminated before January 2000 that did not result in a live birth?	YES	-
232	RECORD IN THE BOXES AT THE BOTTOM OF THE CALENDAR THE YEAR THAT THE PREGNANCY TERMINATED FOR THE LAST PRESTILL BIRTH, MISCARRIAGE, OR ABORTION PRIOR TO JANAUR' IF NONE RECODE '0' IN OUTCOME.	GNANCY THAT ENDED IN A	
233	When did your last menstrual period start?  (DATE, IF GIVEN)	DAYS AGO	
234	From one menstrual period to the next, are there certain days when a woman is more likely to become pregnant if she has sexual relations?	YES	301
235	Is this time just before her period begins, during her period, right after her period has ended, or halfway between two periods?	JUST BEFORE HER PERIOD  BEGINS 1  DURING HER PERIOD 2  RIGHT AFTER HER  PERIOD HAS ENDED 3  HALFWAY BETWEEN  TWO PERIODS 4  OTHER	

## SECTION 3. CONTRACEPTION

301	Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy					
	CIRCLE CODE 1 IN 302 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 302, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 302, ASK 303.					
	METHOD	302 Which ways or methods have you heard about? FOR METHODS NOT MENTIONED, ASK: Have you ever heard of (METHOD)?	303 Have you ever used (METHOD)?			
01	FEMALE STERILIZATION Women can have an operation to avoic having any more children	YES 1 NO 27	Have you ever had an operation to avoid having any more children? YES			
02	MALE STERILIZATION Men can have an operation to avoid having any more children.	YES 1 NO 27	Have you ever had a husband who had an operation to avoid having any more children? YES			
03	PILL Women can take a pill every day.	YES 1 NO 27	YES			
04	IUD Women can have a loop or coil placed inside them by a doctor or a nurse.	YES 1 NO 27	YES 1 NO 2			
05	INJECTABLES Women can have an injection by a health provide that stops them from becoming pregnant for one or more months.	YES 1 NO 27	YES 1 NO 2			
06	IMPLANTS Women can have small rods placed in their upper arm by a doctor or nurse which can prevent pregnancy for several years.	YES 1 NO 27	YES 1 NO 2			
07	CONDOM Men can use a rubber covering during sexua intercourse.	YES 1 NO 27	YES 1 NO 2			
08	DIAPHRAGM, FOAM, JELLY A woman can place a sponge, suppository, diaphragm, jelly or cream inside her vagina before intercourse.	YES 1 NO 27	YES 1 NO 2			
09	RHYTHM METHOD A couple can avoid having sexua intercourse on the days of the month the woman is mos to get pregnant.	YES 1 NO 27	YES 1 NO 2			
10	WITHDRAWAL Men can be careful and pull out before ejaculation.	YES 1 NO 27	YES			
11	PROLONGED BREASTFEEDING A woman can prolong the time that she breastfeeds her baby to delay the next pregnancy	YES 1 NO 27	YES 1 NO 2			
12	EMERGENCY CONTRACEPTION Women can prevent pregnancy after having sexual intercourse within five days by taking one or two doses of pills.	YES 1 NO 27	YES 1 NO 2			
13	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES 1 (SPECIFY)	YES			
		(SPECIFY)  NO 2	YES			
304	CHECK 303:  NOT A SINGLE  "YES"  (NEVER USED)  AT LEAST ONE  "YES"  (EVER USED)		→ 308			

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
305	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES	→ 307
306	ENTER '0' IN COLUMN 2 OF CALENDAR IN EACH BLANK MONTH.		→ 341
307	What have you used or done?		
	CORRECT 302 AND 303 IF NECESSARY.	(SPECIFY)	
308	Now I would like to ask you about the first time that you did something or used a method to avoid getting pregnant.	NUMBER OF CHILDREN	
	How many living children did you have at that time, if any? IF NONE, RECORD '00'.		
309	CHECK 303 (01 - FEMALE STERILIZATION):		
	WOMAN NOT WOMAN STERILIZED STERILIZED		→313A
310	CHECK 106: MARITAL STATUS		
	CURRENTLY WIDOWED/ MARRIED DIVORCED/ SEPARATED		→340
311	CHECK 226: CURRENTLY PREGNANT		
311	NOT PREGNANT PREGNANT PREGNANT		
	OR UNSURE		→ 340
312	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES	→ 340
313	Which method are you using?	FEMALE STERILIZATION C	
	CIRCLE ALL MENTIONED.	MALE STERILIZATION D PILL E	
313A	CIRCLE 'C' FOR FEMALE STERILIZATION.	IUD	→ 315A
314	CHECK 313/313A:		
	FEMALE MALE STERILIZATION STERILIZATION CODE "C" CIRCLED CODE "D" CIRCLED		
	Before your sterilization operation, were you told that you would not be able to have any (more) children because of the operation?  Before the sterilization operation, was your husband told that he would not be able to have any (more) children because of the operation?	YES	
315	In what month and year was the sterilization performed?		
315A	IF MORE THAN ONE METHOD RECORDED IN 313, ASK FOR METHOD HIGHEST ON LIST: In what month and year did you start using (CURRENT METHOD) continuously?	MONTH YEAR	
	<b>PROBE:</b> For how long have you been using (CURRENT METHOD) now without stopping?		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
316	CHECK 315/315A, 215, AND THE CALENDAR:		
	ANY BIRTH OR PREGNANCY TERMINATION AFTER MONTH AND YEAR OF START OF USE OF CONTRACEPTION IN 315/315A.		
	GO BACK TO 315/315A, PROBE AND RECORD MONTH AND YEA USE OF CURRENT METHOD (MUST BE AFTER LAST BIRTH OR F		
317	CHECK 315/315A:		
	YEAR IS 2000 OR LATER	YEAR IS 1999 OR EARLIER	
	INTERVIEW IN COLUMN 2 OF THE CALENDAR AND IN	NTER CODE FOR METHOD USED IN MONTH OF ITERVIEW IN COLUMN 2 OF THE CALENDAR AN ACH MONTH BACK TO JANUARY 2000.	D
318	CHECK 313/313A:	FEMALE STERILIZATION C MALE STERILIZATION D	
	CIRCLE METHOD CODE. IF MORE THAN ONE METHOD	PILL E	→ 321
	CODE CIRCLED IN 313/313A, CIRCLE CODE FOR HIGHEST METHOD IN LIST.	IUD F INJECTABLES G	→ 321
		IMPLANTS	7 . 224
		DIAPHRAGM/FOAM/JELLY K RHYTHM METHOD N	321
		WITHDRAWAL R PROLONGED BREASTFEEDING T	
		OTHER METHOD X (SPECIFY)	
242		(SFEGIFT)	
319	CHECK 313/313A  IF MORE THAN ONE METHOD RECORDED IN 313/313A,  CHECK AND ASK ABOUT METHOD HIGHEST ON THE LIST.		
	F/M STERIL. Where did the sterilization take place?	MINISTRY OF HEALTH  URBAN HOSP'L (GENERAL/DISTRICT) 1  URBAN HEALTH UNIT	
		HEALTH OFFICE	
	IUD Where did you have the IUD inserted?	RURAL HEALTH UNIT	
		MOBILE UNIT 7	
	IMPLANT Where did you have the implant	OTHER GOVERNMENTAL UNIVERSITY HOSPITAL	
	inserted?	TEACHING HOSPITAL 9 HEALTH INSURANCE ORG A	
	RHYTHM/ WITHDRAWL/ Did you obtain advice about how to	CURATIVE CARE ORGANIZATION B OTHER GOVERNMENTAL C	
	PRLNG. BR./ use (METHOD) at the time you began	NON-GOVERNMENTAL ORGANIZATION	
	OTHER this current segment of use?  If yes: from where did you get the	EGYPT FAMILY PLANNING ASSOC D CSI PROJECT E	
	advice?	OTHER NON-GOVERNMENTAL . F PRIVATE MEDICAL	
	IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME AND THE ADDRESS OF THE PLACE.	PRIVATE HOSPITAL/ CLINIC G PRIVATE DOCTOR H	
	PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.	PHARMACY I OTHER PRIVATE	
	THE AFFROPRIATE CODE.	MOSQUE HEALTH UNIT J	
		CHURCH HEALTH UNIT K OTHER NON-MEDICAL	
	(NAME AND ADDRESS OF PLACE)	OTHER VENDOR (SHOP, KIOSK, ETC.,) L	
	FOR OFFICE USE:	FRIEND/RELATIVE M OTHER X	
	SOURCE CODE	(SPECIFY)	
		NO ONE Y	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
320	CHECK 315/315A  YEAR IS 2000 OR LATER	YEAR IS 1999 OR EARLIER	
	ENTER SOURCE CODE FROM 319 IN COLUMN 3 OF CALENDAR IN THE MONTH AND YEAR IN WHICH THE CURRENT SEGMENT OF USE BEGAN AND WRITE SOURCE NAME TO THE RIGHT OF THE CODE. THEN GO TO 326.	GO TO 326.	
321	CHECK 313/313A  IF MORE THAN ONE METHOD RECORDED IN 313/313A, CHECK AND ASK ABOUT METHOD HIGHEST ON THE LIST.  PILL  Where did you obtain the packet of pills you are using now (you used most recently)?  Where did you go for your last injection?  M CONDOM/ DIAPHRAGM/ FOAM/ JELLY  From where did you obtain your most recent supply of (METHOD)?  IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME AND THE ADDRESS OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.  (NAME AND ADDRESS OF PLACE)  FOR OFFICE USE:  SOURCE CODE	MINISTRY OF HEALTH  URBAN HOSP'L (GENERAL/DISTRICT) 1  URBAN HEALTH UNIT	
322	At the time you began this current period of use of (METHOD), did you obtain or consult about (METHOD) at (SOURCE IN 321) or did you go somewhere else?	YES, SAME PLACE	→ 324
323	CHECK 315/315A  YEAR IS 2000 OR LATER  ENTER SOURCE CODE FROM 321 IN COLUMN 3 OF CALENDAR IN THE MONTH AND YEAR IN WHICH THE CURRENT SEGMENT OF USE BEGAN AND WRITE SOURCE NAME TO THE RIGHT OF THE CODE. THEN GO TO 326.	YEAR IS 1999 OR EARLIER  GO TO 326.	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
324	Where did you first obtain/get advice about (METHOD) during your current period of use?  IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME AND THE ADDRESS OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.  (NAME AND ADDRESS OF PLACE)  FOR OFFICE USE:  SOURCE CODE	MINISTRY OF HEALTH  URBAN HOSP'L (GENERAL/DISTRICT) 1  URBAN HEALTH UNIT	
325	CHECK 315/315A		
	YEAR IS 2000 OR LATER  ENTER SOURCE CODE FROM 324 IN COLUMN 3 OF CALENDAR IN THE MONTH AND YEAR IN WHICH THE CURRENT SEGMENT OF USE BEGAN AND WRITE SOURCE NAME TO THE RIGHT OF THE CODE. THEN CONTINUE WITH 326.	YEAR IS 1999 OR EARLIER	
326	When you got (METHOD) at (SOURCE IN 319/321 or 324) were you told about side effects or problems you might have with this method?	YES	→ 328
327	Were you ever told by a health or family planning worker about side effects or problems you might have with the method?	YES	→ 329
328	Were you told what to do if you experienced side effects or problems?	YES	
329	When you got (METHOD) at (SOURCE IN 319/321 or 324), were you told about other methods of family planning?	YES         1           NO         2           NO SOURCE/RELATIVE/FRIEND         3	→ 331
330	Were you ever told by a health or family planning worker about other methods of family planning that you could use?	YES	
331	CHECK 313/313A:  USING FEMALE/ MALE STERILIZATION  How much did you (your husband) pay in total for the sterilization, including any consultation you may have had?  USING OTHER METHOD  The last time you obtained (CURRENT METHOD) how much did you pay in total, including the cost of the method and any consultation you may have had?	POUNDS PT  COST	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
332	CHECK 313/313A AND RECORD THE METHOD CURRENTLY USE	D:	
	USING USING IUD		→ 338
	PILL USING INJECTABLES		→ 339
	USING OTHER METHOD		→ 340
222	•	PACKAGE SEEN 1	7 340
333	May I see the package of pills you are using?	PACKAGE SEEN 1	→ 335
	RECORD NAME OF BRAND.	BRAND NAME	
		(SPECIFY)  PACKAGE NOT SEEN	
334	Do you know the brand name of the pills you are using?		
334		BRAND NAME	
	RECORD NAME OF BRAND.	(SPECIFY)  DON'T KNOW 98	
335	How many pill cycles did you get the last time?		
	, , , , , , , , , , , , , , , , , , ,	NUMBER OF CYCLES	
		DON'T KNOW	
336	How much does one cycle of pills cost?	POUNDS PT	
		соѕт	
		FREE 9995	
		DON'T KNOW 9998	
337	Would you be willing to pay the following for a cycle of pills? (IF YES, CONTINUE WITH NEXT AMOUNT. IF NO GO TO 340. AFTER ASKING ABOUT AMOUNT MORE THAN 5 POUNDS, RECORD YES OR NO AND GO TO 340.)	YES NO	
	50 piasters? 75 piasters? 1 pound? 2 pounds? 5 pounds? More than 5 pounds?	50 PIASTERS 1 2 75 PIASTERS 1 2 1 POUND 1 2 2 POUNDS 1 2 5 POUNDS 1 2	→ 340 → 340
338	Would you be willing to pay the following for an IUD (including all costs)? (IF YES, CONTINUE WITH NEXT AMOUNT. IF NO GO TO 340. AFTER ASKING ABOUT AMOUNT MORE THAN 200 POUNDS, RECORD YES OR NO AND GO TO 340.) 5 pounds? 10 pounds? 25 pounds? 50 pounds? 100 pounds? 150 pounds? More than 200 pounds?	YES NO  5 POUNDS 1 2 10 POUNDS 1 2 25 POUNDS 1 2 50 POUNDS 1 2 100 POUNDS 1 2 150 POUNDS 1 2 200 POUNDS 1 2 MORE THAN 200 POUNDS 1 2	→ 340 → 340
339	Would you be willing to pay the following for the injectables (including all costs)? (IF YES, CONTINUE WITH NEXT AMOUNT. IF NO GO TO 340. AFTER ASKING ABOUT AMOUNT MORE THAN 20 POUNDS, RECORD YES OR NO AND GO TO 340.) 2 pounds? 5 pounds? 10 pounds? 15 pounds? 20 pounds? More than 20 pounds?	YES NO 2 POUNDS 1 2 5 POUNDS 1 2 10 POUNDS 1 2 15 POUNDS 1 2 20 POUNDS 1 2 MORE THAN 20 POUNDS 1 2	→ 340

NO. QUESTIONS AND FILTERS **CODING CATEGORIES** SKIP 340 I would like to ask some questions about all of the (other) periods in the last few years during which you or your husband used a method to delay or avoid getting pregnant. **COLUMN 2 - SEGMENTS OF CONTRACEPTIVE USE SINCE JANUARY 2000** PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH THE MOST RECENT PERIOD OF USE AND GOING BACK TO JANUARY 2000. USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS. RECORD PERIODS OF USE AND NONUSE IN COLUMN 2 OF THE CALENDAR. FOR EACH MONTH IN WHICH A METHOD WAS USED, ENTER THE CODE FOR THE METHOD; ENTER "0" IN THOSE MONTHS WHEN NO METHOD WAS USED. **ILLUSTRATIVE QUESTIONS FOR COLUMN 2** - When was the last time you used a method? Which method was that? - When did you start using that method? How long after the birth of (NAME)? How long did you use the method then? **COLUMN 3 - SOURCE OF CONTRACEPTIVE METHOD SINCE JANUARY 2000** ASK FOR SOURCE OF METHOD FOR EACH SEGMENT OF USE IN THE CALENDAR PRIOR TO THE CURRENT SEGMENT OF USE. RECORD THE CODE FOR THE SOURCE IN COLUMN 3 IN THE MONTH AND YEAR IN WHICH THE SEGMENT OF USE BEGAN. FOR THE PILL, CONDOM, INJECTION, AND DIAPHRAGM/FOAM/JELLY, THE SOURCE SHOULD BE THE PLACE FROM WHICH THE METHOD WAS OBTAINED AT THE TIME THE SEGMENT OF USE BEGAN. PROBE FOR THE EXACT ADDRESS OF EACH SOURCE. WRITE THE NAME TO THE RIGHT OF COLUMN 3 OF THE CALENDAR IN MONTH IN WHICH THE SEGMENT OF USE BEGAN. THE NUMBER OF CODES ENTERED IN COLUMN 3 MUST BE THE SAME AS THE NUMBER OF **SEGMENTS OF CONTRACEPTIVE USE IN COLUMN 2. ILLUSTRATIVE QUESTIONS FOR COLUMN 3** FOR MODERN METHODS (CODES C-K) - Where did you obtain (METHOD) when you began using it that time? FOR TRADITIONAL METHODS (CODES N-X); - Did you seek advice about how to use (METHOD) when you began using it that time? From where did you get the advice? IF PHARMACY/OTHER NONMEDICAL SOURCE(S) (CODES I, L, M, X): - Did you consult a doctor or a clinic when you began using (METHOD) that time? IF YES: Where did you consult? IF NO: RECORD CODE FOR PHARMACY OR OTHER SOURCE **COLUMN 4 - REASON FOR DISCONTINUATION** FOR EACH PERIOD OF USE, ASK WHY SHE STOPPED USING THE METHOD AND RECORD THE REASON FOR DISCONTINUATION IN COLUMN 4 OF THE CALENDAR IN THE MONTH IN WHICH THE SEGMENT OF **USE WAS TERMINATED.** IF A PREGNANCY FOLLOWED, ASK IF SHE BECAME PREGNANT UNINTENTIONALLY WHILE USING THE METHOD OR WHETHER SHE DELIBERATELY STOPPED USING THE METHOD TO GET PREGNANT. THE NUMBER OF CODES ENTERED IN COLUMN 4 MUST BE THE SAME AS THE NUMBER OF COMPLETE **SEGMENTS OF CONTRACEPTIVE USE IN COLUMN 2. ILLUSTRATIVE QUESTIONS FOR COLUMN 4** - Why did you stop using the (method)? - Did you become pregnant while using (method),or did you stop to get pregnant, or stop for some other IF DELIBERATELY STOPPED TO BECOME PREGNANT, ASK: - How many months did it take you to get pregnant after you stopped using (method)? ENTER "0" IN EACH SUCH MONTH IN COLUMN 2.

AFTER COMPLETING COLUMNS 2, 3 AND 4 AS APPROPRIATE, GO TO 401.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
341	Do you know of a place where you can obtain a method of family planning?	YES	→ 401
342	Where is that?  IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME AND THE ADDRESS OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.	MINISTRY OF HEALTH           URBAN HOSP'L (GENERAL/DISTRICT)         1           URBAN HEALTH UNIT         2           HEALTH OFFICE         3           RURAL HOSP'L (COMPLEMENTARY)         4           RURAL HEALTH UNIT         5           MCH CENTER         6           MOBILE UNIT         7           OTHER GOVERNMENTAL         8           TEACHING HOSPITAL         9           HEALTH INSURANCE ORG         A           CURATIVE CARE ORGANIZATION         B           OTHER GOVERNMENTAL         C	
	(NAME AND ADDRESS OF PLACE)	NON-GOVERNMENTAL ORGANIZATION	

## SECTION 4. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
401	CHECK 106: MARITAL STATUS  CURRENTLY WIDOWED/ DIVORCED/ SEPARATED		<b>→</b> 413
402	CHECK 313/313A: USING STERILIZATION  NEITHER HE OR SHE STERILIZED STERILIZED		<b>→</b> 413
403	NOT PREGNANT OR UNSURE  Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children?  Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD	→ 405 → 413 → 410 → 409
404	CHECK 226: CURRENTLY PREGNANT  NOT PREGNANT OR UNSURE  How long would you like to wait from now before the birth of (a/another) child?  After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS	→ 409 → 413
405	CHECK 226: CURRENTLY PREGNANT  NOT PREGNANT  OR UNSURE  PREGNANT  D		<b>→</b> 410
406	CHECK 312: USING A CONTRACEPTIVE METHOD?  NOT NOT CURRENTLY USING	NTLY SING	<b>→</b> 413
407		00-23 MONTHS DR 00-01 YEAR	<b>→</b> 410

NO.	QUESTIONS AND	FILTERS	CODING CATEGORIES	SKIP
408	CHECK 403: DESIRE FOR A(NOT WANTS TO HAVE A/ANOTHER CHILD You have said that you do not want (a/another) child soon, but you are not using any method to avoid pregnancy.  Can you tell me why you are not using a method?  Any other reason?  RECORD ALL REASON	You have said that you do not want any (more) children, but you are not using any method to avoid pregnancy.  Can you tell me why you are not using a method?  Any other reason?	FERTILITY-RELATED REASONS  NOT HAVING SEX A INFREQUENT SEX B MENOPAUSAL/HYSTERECTOMY C SUBFECUND/INFECUND D POSTPARTUM AMENORRHEIC E BREASTFEEDING F FATALISTIC G OPPOSITION TO USE RESPONDENT OPPOSED H HUSBAND OPPOSED J OTHERS OPPOSED J RELIGIOUS PROHIBITION K LACK OF KNOWLEDGE KNOWS NO METHOD L KNOWS NO SOURCE M METHOD-RELATED REASONS HEALTH CONCERNS N FEAR OF SIDE EFFECTS O LACK OF ACCESS/TOO FAR P COSTS TOO MUCH Q INCONVENIENT TO USE R INTERFERES WITH BODY'S NORMAL PROCESSES S OTHER X (SPECIFY) DON'T KNOW Z	→ 410
409	CHECK 312: USING A CONTRACEPTIVE METHOD?  NOT NO, YES, ASKED NOT CURRENTLY USING CURRENTLY USING		<b>→</b> 413	
410	Do you think you will use a contrac pregnancy at any time in the future	· ·	YES	<b>1</b> →412
411	Which contraceptive method would	you prefer to use?	FEMALE STERILIZATION C MALE STERILIZATION D PILL E IUD F INJECTABLES G IMPLANTS H CONDOM I DIAPHRAGM/FOAM/JELLY K RHYTHM METHOD N WITHDRAWAL R PROLONGED BREASTFEEDING T OTHER METHOD X (SPECIFY) DON'T KNOW Z	413

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
412	What is the main reason that you think you will not use a contraceptive method at any time in the future?	FERTILITY-RELATED REASONS           NOT HAVING SEX         21           INFREQUENT SEX         22           MENOPAUSAL/HYSTERECTOMY         23           SUBFECUND/INFECUND         24           WANTS AS MANY CHILDREN AS         26           POSSIBLE         26           OPPOSITION TO USE         31           RESPONDENT OPPOSED         31           HUSBAND OPPOSED         32           OTHERS OPPOSED         33           RELIGIOUS PROHIBITION         34           LACK OF KNOWLEDGE         KNOWS NO METHOD         41           KNOWS NO SOURCE         42           METHOD-RELATED REASONS         51           FEAR OF SIDE EFFECTS         52           LACK OF ACCESS/TOO FAR         53           COSTS TOO MUCH         54           INCONVENIENT TO USE         55           INTERFERES WITH BODY'S         NORMAL PROCESSES         56           OTHER         96           (SPECIFY)         DON'T KNOW         98	
413	CHECK 216:  HAS LIVING CHILDREN  If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?  PROBE FOR A NUMERIC RESPONSE.	NONE	→ 415 → 415
414	How many of these children would you like to be boys, how many would you like to be girls and for how many would the sex not matter?	NUMBER BOYS GIRLS EITHER  OTHER 96  (SPECIFY)	
415	Would you consider it appropriate for a couple to use family planning after the first birth?	YES	
416	Would you consider it appropriate for a newly married couple to use family planning before the first pregnancy?	YES	
416a	In your opinion, what is the ideal length of time that a woman should wait between births?  RECORD RESPONSE EXACTLY AS GIVEN.	MONTHS	
417	Have you ever heard (know) of "premarital examination" that is a consultation with a doctor or other staff as part of the preparation for marriage?	YES	<b>→</b> 419
418	Did you have a premarital examination at the time you got married or within two months after you married?	YES, BEFORE       1         YES, AFTER       2         YES, BOTH       3         NO       4	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
419	Did a health worker, a raida rifia or anyone else visit you to talk about family planning during the past 6 months?  IF YES: Who visited you?	VISITED BY: HEALTH WORKER A RAIDA RIFIA B OTHER X	
		(SPECIFY) NOT VISITED Y	
420	Have you visited governmental health facility for any reason during the past 6 months?	YES	→ 422
421	Did any staff member at the health facility speak to you about family planning methods during any of your visits?	YES	
422	Have you visited a private doctor or clinic for any reason during the past 6 months?	YES	→ 424
423	Did the doctor or any other staff member there speak to you about family planning methods during any of your visits?	YES	
424	During the past 6 months have you heard about family planning:  On the radio? On the television? In a newspaper or magazine? On a poster, billboard, or sign? At a community meeting? From a religious leader?	RADIO         1         2           TELEVISION         1         2           NEWSPAPER/MAGAZINE         1         2           POSTER/BILLBOARD/SIGN         1         2           COMMUNITY MEETING         1         2           RELIGIOUS LEADER         1         2	
425	Is there a special brand of pill that is appropriate for a woman to use while breastfeeding?  IF YES: What brand is that?	YES AND NAMED	
426	CHECK 106: MARITAL STATUS  WIDOWED/  CURRENTLY DIVORCED/  MARRIED SEPARATED		→ 501
427	CHECK 313/313A:  METHOD CODES CODES C, E, F, G, H, K N, T OR X CIRCLED  NO CODE CIRCLED		→ 429 → 431
428	Does your husband know that you are using a method of family planning?	YES	
429	Would you say that using contraception is mainly your decision, mainly your husband's decision, or did you both decide together?	MAINLY RESPONDENT         1           MAINLY HUSBAND         2           JOINT DECISION         3           OTHER         6           (SPECIFY)	
430	CHECK 313/313A:		
	NEITHER HE OR SHE STERILIZED STERILIZED		→ 501
431	Do you think your husband wants the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER         1           MORE CHILDREN         2           FEWER CHILDREN         3           DON'T KNOW         8	

### SECTION 5. PREGNANCY AND POSTNATAL CARE AND BREASTFEEDING

501	CHECK 224: ONE OR MORE BIRTHS IN 2000 OR LATER	BIRTHS IN 20		→ 663
502	ENTER IN THE TABLE THE LINE N ASK THE QUESTIONS ABOUT ALL (IF THERE ARE MORE THAN 3 BIR Now I would like to ask you some que about each separately.)	OF THESE BIRTHS. BEGIN W THS, USE LAST 2 COLUMNS C	ITH THE LAST BIRTH. OF ADDITIONAL QUESTIONNA	RES).
503	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER	NEXT-TO-LAST BIRTH LINE NUMBER	SECOND-FROM-LAST BIRTH LINE NUMBER
504	FROM 212 AND 216	NAME	NAME	NAME
505	At the time you became pregnant with (NAME), did you want to become pregnant then, did you want to wait until later, or did you not want to have any (more) children at all?	THEN	THEN	THEN
506	How much longer would you have liked to wait?	MONTHS 1  YEARS 2  DON'T KNOW 998	MONTHS 1  YEARS 2  DON'T KNOW 998	MONTHS 1  YEARS 2  DON'T KNOW 998
507	Did you see anyone for antenatal care for this pregnancy?  IF YES: Whom did you see? Anyone else?  PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS SEEN.	HEALTH PROFESSIONAL     DOCTOR	HEALTH PROFESSIONAL DOCTOR A NURSE/MIDWIFE B OTHER PERSON DAYA C OTHER X (SPECIFY) NO ONE Y (SKIP TO 512)	HEALTH PROFESSIONAL DOCTOR A NURSE/MIDWIFE B OTHER PERSON DAYA C OTHER X (SPECIFY) NO ONE Y (SKIP TO 512)

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH				
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME				
		-						
508	Where did you receive antenatal care for this pregnancy?  CIRCLE ALL MENTIONED.  IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND	YOUR HOME A OTHER HOME B GOVERNMENT URBAN HOSPITAL C URBAN HEALITH UNIT D HEALTH OFFICE . E RURAL HOSPITAL F RURAL HEALITH UNIT G	YOUR HOME A OTHER HOME B GOVERNMENT URBAN HOSPITAL C URBAN HEALITH UNIT D HEALTH OFFICE . E RURAL HOSPITAL F RURAL HEALITH UNIT G	HOME YOUR HOME A OTHER HOME B GOVERNMENT URBAN HOSPITAL C URBAN HEALITH UNIT D HEALTH OFFICE . E RURAL HOSPITAL F RURAL HEALITH UNIT G				
	(1) (NAME OF PLACE(S))  (2) (NAME OF PLACE(S))	MCH CENTER H OTHER GOV'T  I (SPECIFY)  NONGOVERNMENTAL  EGYPTIAN FP  ASSOC J  CSI PROJECT K OTHER NGO  L (SPECIFY)  PRIVATE MEDICAL  PVT. HOSPITAL/ CLINIC M  PVT. DOCTOR N	MCH CENTER H OTHER GOV'T  [SPECIFY]  NONGOVERNMENTAL  EGYPTIAN FP  ASSOC J  CSI PROJECT K OTHER NGO  L  (SPECIFY)  PRIVATE MEDICAL  PVT. HOSPITAL/ CLINIC M  PVT. DOCTOR N	MCH CENTER H OTHER GOV'T  I (SPECIFY)  NONGOVERNMENTAL  EGYPTIAN FP  ASSOC J  CSI PROJECT K OTHER NGO  L (SPECIFY)  PRIVATE MEDICAL  PVT. HOSPITAL/  CLINIC M  PVT. DOCTOR . N				
509	(NAME OF PLACE(S))  How many times did you receive antenatal care during this	OTHER NON-MEDICAL  (SPECIFY)  OTHER NON-MEDICAL  (SPECIFY)  NUMBER OF TIMES	OTHER NON-MEDICAL  (SPECIFY)  OTHER NON-MEDICAL  (SPECIFY)  NUMBER OF TIMES	OTHER PVT.  MED. P (SPECIFY)  OTHER NON-MEDICAL  X (SPECIFY)  NUMBER OF TIMES				
	pregnancy?	DON'T KNOW98	DON'T KNOW98	DON'T KNOW98				
510	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS 0  DON'T KNOW98						
511	How many months pregnant were you when you last received antenatal care for this pregnancy?	MONTHS 0  DON'T KNOW98						
512	During this pregnancy, were you given an injection in the arm to prevent the baby from getting tetanus, that is, convulsions after birth?	YES	YES	YES				
513	During this pregnancy, how many times did you get this tetanus injection?	TIMES 8	TIMES 8	TIMES				

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
514	Where did you receive the tetanus injection(s)?  CIRCLE ALL MENTIONED.  IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND  CIRCLE THE APPROPRIATE	GOVERNMENT  URBAN HOSPITAL C URBAN HEALITH  UNIT D HEALTH OFFICE . E RURAL HOSPITAL F RURAL HEALITH  UNIT G MCH CENTER H OTHER GOV'T  [SPECIFY]	GOVERNMENT  URBAN HOSPITAL C URBAN HEALITH  UNIT D HEALTH OFFICE . E RURAL HOSPITAL F RURAL HEALITH  UNIT G MCH CENTER H OTHER GOV'T  (SPECIFY)	GOVERNMENT  URBAN HOSPITAL C  URBAN HEALITH  UNIT D  HEALTH OFFICE . E  RURAL HOSPITAL F  RURAL HEALITH  UNIT G  MCH CENTER H  OTHER GOV'T  (SPECIFY)
	(1)(NAME OF PLACE(S))	NONGOVERNMENTAL  EGYPTIAN FP  ASSOC J  CSI PROJECT K  OTHER NGO  L  (SPECIFY)	NONGOVERNMENTAL  EGYPTIAN FP  ASSOC J  CSI PROJECT K  OTHER NGO  (SPECIFY)	NONGOVERNMENTAL EGYPTIAN FP ASSOC J CSI PROJECT K OTHER NGO (SPECIFY)
	(NAME OF PLACE(S))	PRIVATE MEDICAL PVT. HOSPITAL/ CLINIC M PVT. DOCTOR . N OTHER PVT. MED. P (SPECIFY) OTHER NON-MEDICAL	PRIVATE MEDICAL PVT. HOSPITAL/ CLINIC M PVT. DOCTOR . N OTHER PVT. MED. P (SPECIFY) OTHER NON-MEDICAL	PRIVATE MEDICAL PVT. HOSPITAL/ CLINIC M PVT. DOCTOR . N OTHER PVT. MED. P (SPECIFY) OTHER NON-MEDICAL
	(NAME OF PLACE(S))	(SPECIFY) X	(SPECIFY) X	(SPECIFY) X
514a	CHECK 507:	NO ANC HAD ANC (SKIP TO 516)		
515	Did any of the persons you saw for the tetanus injection(s) advise you that you should go for antenatal care?	YES		
516	CHECK 513:	2 OR MORE OTHER TIMES (SKIP TO 521)		
517	At any time before this pregnancy, did you receive any tetanus injections?	YES		
518	Before this pregnancy, how many times did you get a tetanus injection? IF 7 OR MORE TIMES, RECORD '7'.	TIMES 8		
519	In what month and year did you receive the last tetanus injection before this pregnancy?	MONTH 98  YEAR  (SKIP TO 521) ←  DK YEAR 9998		

NO.	QUESTIONS AND FILTERS	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
520	How many years ago did you receive that tetanus injection?	YEARS AGO		
521	When you were pregnant with (NAME), did you see a doctor, nurse, or anyone else for health care (other than an antenatal checkup or a tetanus injection)?  IF YES: Whom did you see?  Anyone else?  PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS SEEN.	HEALTH PROFESSIONAL DOCTOR A NURSE/MIDWIFE B OTHER PERSON DAYA C OTHER X (SPECIFY) NO ONE Y (SKIP TO 523)		
522	Where did you get that care?  CIRCLE ALL MENTIONED.  IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.  (NAME OF PLACE(S))	HOME YOUR HOME A OTHER HOME B GOVERNMENT URBAN HOSPITAL C URBAN HEALITH UNIT D HEALTH OFFICE . E RURAL HOSPITAL F RURAL HEALITH UNIT G MCH CENTER H OTHER GOV'T  (SPECIFY)  NONGOVERNMENTAL EGYPTIAN FP ASSOC J CSI PROJECT K OTHER NGO L (SPECIFY)  PRIVATE MEDICAL PVT. HOSPITAL/ CLINIC M PVT. DOCTOR . N OTHER PVT. MED. P (SPECIFY) OTHER NON-MEDICAL  (SPECIFY)  OTHER NON-MEDICAL X (SPECIFY)		
523	CHECK 507, 512, 521:	OTHER ANC/ NO CARE TT CARE ONLY (SKIP TO (SKIP 527) TO 530)		
524	At any time did you seek this care because you thought there was a problem with the pregnancy?	YES		
525	How many times did you receive care during this pregnancy?	NUMBER OF TIMES		

NO.	QUESTIONS AND FILTERS	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
526	How many months pregnant were you when you last received care?	MONTHS 0  DON'T KNOW98		
527	As part of the care you got during this pregnancy, were any of the following done at least once? Were you weighed? Was your blood pressure measured? Did you give a urine sample? Did you give a blood sample?	YES NO WEIGHT 1 2 BP 1 2 URINE 1 2 BLOOD 1 2		
528	During (any of) your care visit(s), were you told about the signs of pregnancy complications?	YES		
529	Were you told where to go if you had any of these complications?	YES		
530	During this pregnancy, were you given or did you buy any iron tablets or iron syrup?  SHOW TABLETS/SYRUP.	YES		
531	During the whole pregnancy, for how many days did you take the tablets or syrup?  IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER OF DAYS.	NUMBER OF DAYS DON'T KNOW 998		
532	When (NAME) was born, was he/she very large, larger than average, average, smaller than average, or very small?	VERY LARGE	VERY LARGE	VERY LARGE 1 LARGER THAN AVERAGE 2 AVERAGE 3 SMALLER THAN AVERAGE 4 VERY SMALL 5 DON'T KNOW 8
533	Was (NAME) weighed at birth?	YES	YES	YES
534	How much did (NAME) weigh?  RECORD WEIGHT IN  KILOGRAMS FROM HEALTH  CARD, IF AVAILABLE.	KG FROM CARD  KG FROM RECALL  DON'T KNOW . 99998	KG FROM CARD  1	KG FROM CARD  1

		LACT DIDTH	NEVT TO LACT DIDTH	OFOONID FROM LAGT RIPTU					
NO.	OUESTIONS AND FILTERS	LAST BIRTH NAME	NEXT-TO-LAST BIRTH NAME	SECOND-FROM-LAST BIRTH NAME					
NO.	QUESTIONS AND FILTERS		NAME	NAME					
535	Who assisted with the delivery of (NAME)?  Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS ASSISTING. IF RESPONDENT SAYS NO ONE ASSISTED, PROBE TO DETERMINE WHETHER ANY ADULTS WERE PRESENT AT THE DELIVERY.	HEALTH PROFESSIONAL DOCTOR A NURSE/MIDWIFE B OTHER PERSON DAYA C OTHER X (SPECIFY) NO ONE Y	HEALTH PROFESSIONAL DOCTOR A NURSE/MIDWIFE B OTHER PERSON DAYA C OTHER X (SPECIFY) NO ONE Y	HEALTH PROFESSIONAL  DOCTOR					
536	Where did you give birth to (NAME)?	HOME YOUR HOME 11	HOME YOUR HOME 11	HOME YOUR HOME 11					
	IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.  (1)  (NAME OF PLACE(S))  (3)  (NAME OF PLACE(S))	(SKIP TO 542)  OTHER HOME 12  GOVERNMENT  URBAN HOSPITAL 21  URBAN HEALITH  UNIT	(SKIP TO 543) - 12  GOVERNMENT  URBAN HOSPITAL 21  URBAN HEALITH  UNIT	(SKIP TO 543) ←    OTHER HOME 12  GOVERNMENT  URBAN HOSPITAL 21  URBAN HEALITH  UNIT 22  HEALTH OFFICE 23  RURAL HOSPITAL 24  RURAL HEALITH  UNIT 25  MCH CENTER 26  OTHER GOV'T  27  (SPECIFY)  NONGOVERNMENTAL  EGYPTIAN FP  ASSOC 31  CSI PROJECT 32  OTHER NGO  36  (SPECIFY)  PRIVATE MEDICAL  PVT. HOSPITAL/  CLINIC 41  PVT. DOCTOR 42  OTHER PVT.  MED 46  (SPECIFY)  PRIVATE NON-MEDICAL  (SPECIFY)  PRIVATE NON-MEDICAL  96  (SPECIFY)  (SPECIFY)  PRIVATE NON-MEDICAL  96  (SPECIFY)					
537	How long after (NAME) was delivered did you stay there?	HOURS 1	HOURS . 1	HOURS . 1					
	IF LESS THAN ONE DAY,	DAYS 2	DAYS 2	DAYS 2					
	RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	WEEKS 3	WEEKS 3	WEEKS 3					
		DON'T KNOW 998	DON'T KNOW 998	DON'T KNOW 998					
538	Was (NAME) delivered by caesarean section?	YES	YES	YES					

NO.	QUESTIONS AND FILTERS	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH						
539	Before you were discharged after (NAME) was born, did a health professional check on your health?  IF YES: Who checked on your health at that time?  PROBE FOR MOST QUALIFIED PERSON.	HEALTH PROFESSIONAL DOCTOR	HEALTH PROFESSIONAL DOCTOR	HEALTH PROFESSIONAL  DOCTOR 1  NURSE/MIDWIFE 2  OTHER 6  (SPECIFY)  NO ONE 7						
540	How many hours, days or weeks after delivery did the first check take place?  IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . 1  DAYS 2  WEEKS 3  DON'T KNOW 998 - (SKIP TO 546)								
541	At any time in the two months after you were discharged, did a health professional or a traditional birth attendant check on your health?  IF YES: Who checked on your health that time?  RECORD ALL MENTIONED.	HEALTH PROFESSIONAL  DOCTOR A¬  NURSE/MIDWIFE B¬  OTHER PERSON  DAYA C¬  OTHER X¬  (SPECIFY)  (SKIP TO 544) ◆  NO ONE Y  (SKIP TO 546) ◆	HEALTH PROFESSIONAL DOCTOR A  NURSE/MIDWIFE B  OTHER PERSON DAYA C  OTHER X  (SPECIFY) NO ONE Y  (SKIP TO 547)	HEALTH PROFESSIONAL  DOCTOR A ¬  NURSE/MIDWIFE B ¬  OTHER PERSON  DAYA C ¬  OTHER X ¬  (SPECIFY)  NO ONE Y ¬  (SKIP TO 547) ←						
542	Why didn't you deliver in a health facility?  PROBE: Any other reason?  RECORD ALL MENTIONED.	COST TOO MUCH A FACILITY NOT OPEN . B TOO FAR/ NO TRANSPORTATION C DON'T TRUST FACILITY/POOR QUALITY SERVICE D NO FEMALE PROVID- ER AT FACILITY E HUSBAND/FAMILY DID NOT ALLOW F NOT NECESSARY G NOT CUSTOMARY H OTHERX (SPECIFY)								
543	At any time in the two months after (NAME) was born, did a health professional or a traditional birth attendant check on your health?  IF YES: Who checked on your health?  RECORD ALL MENTIONED.	HEALTH PROFESSIONAL DOCTOR A NURSE/MIDWIFE . B OTHER PERSON DAYA C OTHER X (SPECIFY) NO ONE Y (SKIP TO 546)	HEALTH PROFESSIONAL DOCTOR	HEALTH PROFESSIONAL DOCTOR A NURSE/MIDWIFE B OTHER PERSON DAYA C OTHER X (SPECIFY) NO ONE Y						
544	How many hours, days or weeks after delivery did the first check take place?  IF LESS THAN ONE DAY, RECORD HOURS.  IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . 1								

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
545	Where did this first check take place?  IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.  (NAME OF PLACE)	HOME YOUR HOME 11 OTHER HOME 12 GOVERNMENT URBAN HOSPITAL 21 URBAN HEALITH UNIT 22 HEALTH OFFICE . 23 RURAL HOSPITAL 24 RURAL HEALITH UNIT 25 MCH CENTER 26 OTHER GOV'T  (SPECIFY) NONGOVERNMENTAL EGYPTIAN FP ASSOC 31 CSI PROJECT 32 OTHER NGO  (SPECIFY) PRIVATE MEDICAL PVT. HOSPITAL/ CLINIC 41 PVT. DOCTOR 42 OTHER PVT. MED 46 (SPECIFY) OTHER NON-MEDICAL  (SPECIFY) OTHER NON-MEDICAL  (SPECIFY)		
546	During the two weeks after birth, was a blood sample taken from (NAME'S) heel?	YES		
547	In the two months after (NAME) was born, did a health professional or traditional birth attendant check on his/her health?  IF YES: Who checked on (NAME'S) health at that time?  RECORD ALL MENTIONED	HEALTH PROFESSIONAL DOCTOR A NURSE/MIDWIFE . B OTHER PERSON DAYA C OTHER X (SPECIFY) NO ONE Y (SKIP TO 550) DON'T KNOW Z	HEALTH PROFESSIONAL DOCTOR A NURSE/MIDWIFE . B OTHER PERSON DAYA C OTHER	HEALTH PROFESSIONAL DOCTOR
548	How many hours, days or weeks after the birth of (NAME) did the first check take place?  IF LESS THAN ONE DAY, RECORD HOURS. IF LESS THAN ONE WEEK, RECORD DAYS.	HOURS . 1 DAYS 2 WEEKS 3 DON'T KNOW 998		

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
549	Where did this first check of (NAME) take place?  IF SOURCE IS HOSPITAL, HEALTH UNIT OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.  (NAME OF PLACE)	HOME YOUR HOME 11 OTHER HOME 12 GOVERNMENT URBAN HOSPITAL 21 URBAN HEALITH UNIT 22 HEALTH OFFICE . 23 RURAL HOSPITAL 24 RURAL HEALITH UNIT 25 MCH CENTER 26 OTHER GOV'T  27 (SPECIFY) NONGOVERNMENT EGYPTIAN FP ASSOC 31 CSI PROJECT 32 OTHER NGO  (SPECIFY) PRIVATE MEDICAL PVT. HOSPITAL/ CLINIC 41 PVT. DOCTOR 42 OTHER PVT. MED 46 (SPECIFY) OTHER NON-MEDICAL  [SPECIFY] OTHER NON-MEDICAL  [SPECIFY]		
550	When you were pregnant with (NAME), when you delivered, or in the two months after the delivery, did anyone give you advice about family planning?  IF YES: Who gave you the advice? RECORD ALL MENTIONED.	HEALTH PROVIDER . A SOCIAL WORKER . B DAYA C RELIGIOUS LEADER D NEIGHBORS/ FRIENDS E HOUSEHOLD MEMBER F OTHER RELATIVES . G OTHER _ X (SPECIFY) NO ONE Y		
551	When you were pregnant with (NAME), when you delivered, or in the two months after the delivery, did anyone give you advice about breastfeeding?  IF YES: Who gave you the advice?  RECORD ALL MENTIONED.	HEALTH PROVIDER : A SOCIAL WORKER : B DAYA		
552	In the first two months after delivery, did you receive a vitamin A dose like (this/any of these)? SHOW TYPES OF/CAPSULES/.	YES	YES	YES 1 NO 2
		I		<u>.</u>

NO.	QUESTIONS AND FILTERS	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
553	Has your menstrual period returned since the birth of (NAME)?	YES		
554	Did your period return between the birth of (NAME) and your next pregnancy?		YES	YES
555	For how many months after the birth of (NAME) did you not have a period?	MONTHS DON'T KNOW 98	MONTHS DON'T KNOW 98	MONTHS DON'T KNOW 98
556	CHECK 226: IS RESPONDENT PREGNANT?	NOT PREGNANT OR UNSURE (SKIP TO 558) ◆		
557	Have you resumed sexual relations since the birth of (NAME)?	YES		
558	For how many months after the birth of (NAME) did you <u>not</u> have sexual relations?  IF LESS THAN 2 MONTHS, RECORD DAYS.  OTHERWISE, RECORD BY COMPLETED MONTHS.	DAYS . 1 MONTHS . 2 DON'T KNOW 998	DAYS . 1  MONTHS . 2  DON'T KNOW 998	DAYS . 1 MONTHS . 2 DON'T KNOW 998
559	Did you ever breastfeed (NAME)?	YES	YES	YES
560	How long after birth did you first put (NAME) to the breast?  IF LESS THAN 1 HOUR, RECORD '000'.  IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.	IMMEDIATELY 000 HOURS 1 DAYS 2		
561	In the first three days after delivery, was (NAME) given anything to drink other than breast milk?	YES		
562	What was (NAME) given to drink?  Anything else?  RECORD ALL LIQUIDS  MENTIONED.	MILK (OTHER THAN BREAST MILK) . A PLAIN WATER B SUGAR OR GLU- COSE WATER C GRIPE WATER D SUGAR-SALT-WATER SOLUTION E FRUIT JUICE F INFANT FORMULA . G TEA/INFUSIONS H HONEY I OTHER X (SPECIFY)		

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH					
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME					
563	CHECK 504: IS CHILD LIVING?	LIVING  (GO BACK TO 505 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 601)	LIVING  (GO BACK TO 505 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 601)	(GO BACK TO 505 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE; OR, IF NO MORE BIRTHS, GO TO 601)					
564	CHECK 559: EVER BREASTFED?	EVER NEVER BREASTFED BREAST- FED (GO TO 569)	EVER NEVER BREASTFED BREAST- FED (GO TO 569)	EVER NEVER BREASTFED BREAST- FED (GO TO 569)					
565	Are you still breastfeeding (NAME)?	YES	YES	YES					
566	For how many months did you breastfeed (NAME)?	MONTHS (SKIP TO 569) ← 98	MONTHS 98	MONTHS					
567	How many times did you breastfeed (NAME) last night between sunset and sunrise?  IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF NIGHTTIME FEEDINGS .							
568	How many times did you breastfeed (NAME) yesterday during the daylight hours?  IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF DAYLIGHT FEEDINGS .							
569	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES	YES	YES					
		GO BACK TO 505 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 601.	GO BACK TO 505 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 601.	GO BACK TO 505 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONNAIRE OR, IF NO MORE BIRTHS, GO TO 601.					

## SECTION 6. CHILD IMMUNIZATION AND HEALTH

601	ENTER IN THE TABLE THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH IN 2000 OR LATER. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 3 BIRTHS, USE LAST 2 COLUMNS OF ADDITIONAL QUESTIONNAIRES).										
602	LINE NUMBER FROM 212	LAST BIRTH LINE NUMBER	NEXT-TO-LAST BIRTH LINE NUMBER	SECOND-FROM-LAST BIRTH LINE NUMBER							
603	FROM 212 AND 216	NAME  LIVING  (GO TO 603  IN NEXT COLUMN  OR, IF NO MORE  BIRTHS, GO TO 663)	NAME  LIVING  (GO TO 603  IN NEXT COLUMN  OR, IF NO MORE  BIRTHS, GO TO 660)	NAME							
604	Has (NAME) ever received a vitamin A dose like (this)? SHOW CAPSULES	YES	YES	YES							
605	Since how many months did (NAME) take the last dose?	MONTHS	MONTHS	MONTHS							
606	Do you have a a birth certificate for (NAME)? IF YES: May I see it please? RECORD IF CERTIFICATE INCLUDES VACCINATION RECORD.	YES, SEEN AND VACCINATION DATES RECORDED	YES, SEEN AND	YES, SEEN AND							
607	Did you ever have a vaccination card for (NAME)? IF YES: Did the certificate include a vaccination record?	YES , HAD CERTICATE WITH RECORD 1 7 YES, CERTIFICATE WITH NO RECORD 2— NO CERTIFICATE 3— (SKIP TO 610)	YES , HAD CERTICATE WITH RECORD 1 YES, CERTIFICATE WITH NO RECORD 2 NO CERTIFICATE 3 (SKIP TO 610)	YES , HAD CERTICATE WITH RECORD 1 7 YES, CERTIFICATE WITH NO RECORD 2 7 NO CERTIFICATE 3 7 (SKIP TO 610)							

															_										
NO.	QUESTIONS AND FILTERS	NAME				IRTI			N4	NEXT-TO-LAST BIRTH						1	SECOND-FROM-LAST BIRTH								
608	DURING NIDS DA	ION DA	TE F	OR	EAC	CH V	/AC	CINE FR	T MC	HE (	CARI	D. D	O N	OT I	NCL	NCLUDE VACCINATIONS RECEIVED VEN (OTHER THAN DURING A NIDS DAY),									
	BUT NO DATE IS		RDED	١.					·								·								
		DAY				RTH YE	EAR		NEXT-TO-LAST BIRTH DAY MONTH YEAR								SECOND-FROM-LAST BIRTH DAY MONTH YEAR								
	BCG							ВС	G								BCG								
	POLIO 1							P	1								P1								
	POLIO 2							P	2								P2								
	POLIO 3							P	3								P3								
	ACTIVATED DOSE							А	P								AP								
	DPT 1								1								D1								
	DPT 2								2								D2								
	DPT 3								3								D3								
	ACTIVATED DOSE							А									AD								
	MEASLES							ME	A								MEA								
	HEPATITIS 1							н	1								H1								
	HEPATITIS 2							Н	2								H2								
	HEPATITIS 3							Н	3								НЗ								
	VITAMIN A DOSE 1							VA-	1								VA-1								
	POLIO 0 (POLIO GIVEN AT BIRTH)							Р	0								P0								
	POLIO 4							P	4								P4								
	MMR							ММ	R								MMR								
	VITAMIN A DOSE 2							VA	2								VA2								
	OTHER (SPECIFY)							ОТ	н								ОТН								
610	Has (NAME) received any vaccinations that are not recorded on the certificate other than those received during national immunization days? RECORD 'YES' ONLY IF RESPONDENT MENTIONS BCG, POLIO, DPT, HEPATITIS, MEASLES OR MMR VACCINES.  Do you have a health card where (NAME'S) vaccinations are	YES					N( D(	ES (PR(VAC) VAC) (P66' IN 60' IN 60' IN 70' IN	DBE CINA N TH D8 F6  KNC	FOF ATIO HE D OR 1  DW .	R NNS NAY ITHE  TO EN	ANE COL VAC	O WR LUMN CCIN	E(S	))) 2	(PR: VAC '66' IN 6 NO	OE IN 608 	BE INA THE FC NO EEN (S	1 FOR ATIONS AND WRITE HE DAY COLUMN OR THE VACCINE(S))						
	written down?  IF YES:  May I see it please?	NO						3	(SKIP TO 614) ←						(SKIP TO 614) ← NO										
611	Did (NAME) ever have a health	YES						1 I) <del> </del>	YES						YES										

NO.	QUESTIONS AND FILTERS	L <i>F</i>	AST BIRTH	NEXT-TO-	LAST BIRTH	SECOND-FROM-LAST BIRTH		
	TILTERS	NAME		NAME		NAME		
612	DURING NIDS DA	YS. Y' COLUMN IF	COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN (OTHER THAN DURING A NIDS DAY),					
		LAS DAY MONT	ST BIRTH TH YEAR	NEXT-TO- DAY MONTH	LAST BIRTH I YEAR	SECOND-FROM-LAST BIRTH DAY MONTH YEAR		
	BCG	B/(T WORT	BCC		BC			
	POLIO 1		P	1		P1		
	DPT 1		D	1		D1		
	HEPATITIS 1		н	1	<del>                                     </del>	H1		
	POLIO 2		Р.	2		P2		
	DPT 2		D	2	<del>                                     </del>	D2		
	HEPATITIS 2		н	2	<del>                                     </del>	H2		
	POLIO 3		P	3		P3		
	DPT 3		D	3		D3		
	HEPATITIS 3		н	3		нз		
	POLIO4		P	4		P4		
	MEASLES		ME	A	ME	EA IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		
	ACTIVATED POLIO		Al		<del>                                     </del>	AP		
	ACTIVATED DPT		AI		<i>I</i>	AD AD		
	VITAMIN A DOSE 1		VA	1	V	A1		
	POLIO 0 (POLIO GIVEN AT		P	0		P0		
	MMR		ММІ	R	MM	AR I		
	VITAMIN A DOSE 2		VA	2	V	A2		
	OTHER (SPECIFY)		ОТН	4	01	гн		
613	Has (NAME) received any vaccinations that are not recorded on the certificate excluding those received during national immunization days? RECORD 'YES' ONLY IF RESPONDENT MENTIONS BCG, POLIO, DPT, HEPATITIS, MEASLES OR MMR VACCINES.	(PROBE F VACCINA' '66' IN THI IN 612 FO NO	OR TIONS AND WRITE E DAY COLUMN R THE VACCINE(S))	(PROBE FOR VACCINATIO '66' IN THE D IN 612 FOR T NO		YES		

NO.	QUESTIONS AND FILTERS	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
614	CHECK 608 AND 612	NO DATES/ RECORD CODES '44' OR '66'  (SKIP TO 626)	NO DATES/ RECORD CODES '44' OR '66'	NO DATES/ RECORD CODES '44' OR '66'  (SKIP TO 626)
615	Did (NAME) ever receive any vaccinations to prevent him/her from getting diseases?	YES	YES	YES
616	Please tell me if (NAME) received any of the following vaccinations:  A BCG vaccination against tuberculosis, that is, an injection in the arm or shoulder that usually causes a scar?	YES	YES	YES
617	Polio vaccine, that is, drops in the mouth?	YES	YES	YES
618	Excluding any doses gotten during national immunization days, how many times was a polio immunization received?	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES
619	Was the first polio vaccine received in the first two weeks after birth or later?	FIRST 2 WEEKS 1 LATER 2	FIRST 2 WEEKS 1 LATER 2	FIRST 2 WEEKS 1 LATER 2
620	A DPT vaccination, that is, an injection given in the thigh or buttocks, sometimes given at the same time as polio drops?	YES	YES	YES
621	How many times was a DPT vaccination received?	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES
622	An injection to prevent measles at nine months?	YES	YES	YES
623	An injection against hepatitis?	YES	YES	YES
624	How many times was a hepatitis vaccination received?	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES
625	An MMR injection, that is an injection against measles, mumps, and rubella given at 18 months?	YES	YES	YES
626	During the past two years, did (NAME) receive any polio vaccinations as part of the national immunization day campaigns?	YES	YES	YES

NO.	QUESTIONS AND FILTERS	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
627	How many times did (NAME) receive a polio vaccination at national immunization days in the past two years? IF NON-NUMERIC ANSWER, PROBE TO GET ESTIMATE.	NUMBER OF TIMES	NUMBER OF TIMES	NUMBER OF TIMES
627a	At any time when you took (NAME) for immunizations, did anyone talk to you about family planning?	YES		
627b	At any time when you took (NAME) for immunizations, did anyone talk to you about any other health services (nutrition/antenatal care)?	YES		
628	Has (NAME) had diarrhea in the last 2 weeks?	YES	YES	YES
629	Was there any blood in the stools?	YES	YES	YES
630	Now I would like to know how much (NAME) was given to drink during the diarrhea. Was he/she given less than usual to drink, about the same amount, or more than usual to drink?  IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS 1 SOMEWHAT LESS 2 ABOUT THE SAME 4 NOTHING TO DRINK	MUCH LESS 1 SOMEWHAT LESS 2 ABOUT THE SAME 4 NOTHING TO DRINK 5 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE 4 NOTHING TO DRINK 5 DON'T KNOW 8
631	When (NAME) had diarrhea, was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat?  IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE 4 STOPPED FOOD 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS 2 ABOUT THE SAME	MUCH LESS 1 SOMEWHAT LESS 2 ABOUT THE SAME 3 MORE 4 STOPPED FOOD 5 NEVER GAVE FOOD 6 DON'T KNOW 8
632	Did you seek advice or treatment for the diarrhea from any source?	YES	YES	YES

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
633	Where did you seek advice or treatment?  IF SOURCE IS A HOSPITAL, HEALTH UNIT OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.	GOVERNMENT  URBAN HOSPITAL C  URBAN HEALITH  UNIT D  HEALTH OFFICE . E  RURAL HOSPITAL F  RURAL HEALITH  UNIT G  MCH CENTER H  OTHER GOV'T	GOVERNMENT  URBAN HOSPITAL C  URBAN HEALITH  UNIT D  HEALTH OFFICE . E  RURAL HOSPITAL F  RURAL HEALITH  UNIT G  MCH CENTER H  OTHER GOV'T	GOVERNMENT  URBAN HOSPITAL C  URBAN HEALITH  UNIT D  HEALTH OFFICE . E  RURAL HOSPITAL F  RURAL HEALITH  UNIT G  MCH CENTER H  OTHER GOV'T
	Anywhere else? RECORD ALL PLACES MENTIONED.  (1)  (NAME OF PLACE(S))	(SPECIFY)  NONGOVERNMENTAL  EGYPTIAN FP  ASSOC J  CSI PROJECT K  OTHER NGO  (SPECIFY)	(SPECIFY)  NONGOVERNMENTAL  EGYPTIAN FP  ASSOC J  CSI PROJECT K  OTHER NGO  (SPECIFY)	(SPECIFY)  NONGOVERNMENTAL  EGYPTIAN FP  ASSOC J  CSI PROJECT K  OTHER NGO  (SPECIFY)
	(2) (NAME OF PLACE(S)) (3)	PRIVATE MEDICAL  PVT. HOSPITAL/  CLINIC M  PVT. DOCTOR . N  PHARMACY O  OTHER PVT.  MED P  (SPECIFY)	PRIVATE MEDICAL PVT. HOSPITAL/ CLINIC M PVT. DOCTOR . N PHARMACY O OTHER PVT. MED. P (SPECIFY)	PRIVATE MEDICAL PVT. HOSPITAL/ CLINIC M PVT. DOCTOR . N PHARMACY O OTHER PVT. MED. P (SPECIFY)
	(NAME OF PLACE(S))	OTHER NON-MEDICAL  (SPECIFY)  X	OTHER NON-MEDICAL  (SPECIFY)	OTHER NON-MEDICAL  (SPECIFY)  X
634	CHECK 633:	TWO OR ONLY  MORE ONE  CODES CODE  CIRCLED CIRCLED  (SKIP TO 636)	TWO OR ONLY  MORE ONE  CODES CODE  CIRCLED CIRCLED  (SKIP TO 636)	TWO OR ONLY  MORE ONE  CODES CODE  CIRCLED CIRCLED  (SKIP TO 636)
635	Where did you first seek advice or treatment?  USE LETTER CODE FROM 633.	FIRST PLACE	FIRST PLACE	FIRST PLACE
636	How many days after the diarrhea began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.	DAYS	DAYS	DAYS
637	Does (NAME) still have diarrhea?	YES	YES	YES
638	Was he/she given a fluid made from a special packet called mahloul moalget el gafaf?	YES	YES	YES
639	Was anything (else) given to treat the diarrhea?	YES	YES	YES

		LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
NO.	QUESTIONS AND FILTERS	NAME	NAME	NAME
640	What (else) was given to treat the diarrhea?  Anything else?  RECORD ALL TREATMENTS GIVEN.	PILL OR SYRUP  ANTIBIOTIC A  ANTIMOTILITY B  ZINC C  OTHER (NOT ANTIBIOTIC, ANTIBIOTIC, ANTIBIOTIC, ANTIBIOTIC, ANTIBIOTIC	PILL OR SYRUP  ANTIBIOTIC	PILL OR SYRUP  ANTIBIOTIC
641	CHECK 640: GIVEN ZINC?	CODE "C" CODE "C" CIRCLED NOT CIRCLED  (SKIP TO 643)	CODE "C" CODE "C" CIRCLED NOT CIRCLED (SKIP TO 643)	CODE "C" CODE "C" CIRCLED NOT CIRCLED  (SKIP TO 643)
642	How many times was (NAME) given zinc?	TIMES 98	TIMES 98	TIMES 98
643	Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES	YES	YES
644	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES	YES	YES
645	When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty breathing?	YES	YES	YES
646	Was the fast or difficult breathing due to a problem in the chest or to a blocked or runny nose?	CHEST ONLY 1 7 NOSE ONLY 2 7 BOTH 3 7 OTHER 6 7 (SPECIFY) DON'T KNOW 8 7 (SKIP TO 648)	CHEST ONLY 1 NOSE ONLY 2 BOTH 3 OTHER 6 OTHER (SPECIFY)  DON'T KNOW 8 OKEN OF TO 648)	CHEST ONLY 1 - NOSE ONLY 2 - BOTH 3 - OTHER (SPECIFY)  DON'T KNOW 8 - (SKIP TO 648)
647	CHECK 643: HAD FEVER?	YES NO OR DK  (SKIP TO 659)	YES NO OR DK  (SKIP TO 659)	YES NO OR DK  ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

NO.	QUESTIONS AND FILTERS	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
648	Now I would like to know how much (NAME) was given to drink during the illness with a (fever/cough). Was he/she given less than usual to drink, about the same amount, or more than usual to drink?  IF LESS, PROBE: Was he/she given much less than usual to drink or somewhat less?	MUCH LESS 1 SOMEWHAT LESS 2 ABOUT THE SAME 4 NOTHING TO DRINK	MUCH LESS 1 SOMEWHAT LESS 2 ABOUT THE SAME 4 NOTHING TO DRINK	MUCH LESS 1 SOMEWHAT LESS 2 ABOUT THE SAME 4 NOTHING TO DRINK
649	When (NAME) had a (fever/cough), was he/she given less than usual to eat, about the same amount, more than usual, or nothing to eat?  IF LESS, PROBE: Was he/she given much less than usual to eat or somewhat less?	MUCH LESS 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8	MUCH LESS 1 SOMEWHAT LESS 2 ABOUT THE SAME	MUCH LESS 1 SOMEWHAT LESS . 2 ABOUT THE SAME . 3 MORE 4 STOPPED FOOD . 5 NEVER GAVE FOOD 6 DON'T KNOW 8
650	Did you seek advice or treatment for the illness from any source?	YES	YES	YES
651	Where did you seek advice or treatment?  IF SOURCE IS A HOSPITAL, HEALTH UNIT OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.  Anywhere else? RECORD ALL PLACES MENTIONED.  (1)  (NAME OF PLACE(S))  (3)  (NAME OF PLACE(S))	GOVERNMENT  URBAN HOSPITAL C  URBAN HEALITH  UNIT D  HEALTH OFFICE . E  RURAL HOSPITAL F  RURAL HEALITH  UNIT G  MCH CENTER H  OTHER GOV'T  (SPECIFY)  NONGOVERNMENTAL  EGYPTIAN FP  ASSOC J  CSI PROJECT K  OTHER NGO  (SPECIFY)  PRIVATE MEDICAL  PVT. HOSPITAL/  CLINIC M  PVT. DOCTOR N  PHARMACY O  OTHER PVT.  MED. P  (SPECIFY)  OTHER NON-MEDICAL  X  (SPECIFY)	GOVERNMENT  URBAN HOSPITAL C  URBAN HEALITH  UNIT D  HEALTH OFFICE . E  RURAL HOSPITAL F  RURAL HEALITH  UNIT G  MCH CENTER H  OTHER GOV'T  (SPECIFY)  NONGOVERNMENTAL  EGYPTIAN FP  ASSOC J  CSI PROJECT K  OTHER NGO  (SPECIFY)  PRIVATE MEDICAL  PVT. HOSPITAL/ CLINIC M  PVT. DOCTOR N  PHARMACY O  OTHER PVT.  MED P  (SPECIFY)  OTHER NON-MEDICAL  X  (SPECIFY)	GOVERNMENT  URBAN HOSPITAL C  URBAN HEALITH  UNIT D  HEALTH OFFICE . E  RURAL HOSPITAL F  RURAL HEALITH  UNIT G  MCH CENTER H  OTHER GOV'T  (SPECIFY)  NONGOVERNMENTAL  EGYPTIAN FP  ASSOC J  CSI PROJECT K  OTHER NGO  (SPECIFY)  PRIVATE MEDICAL  PVT. HOSPITAL/  CLINIC M  PVT. DOCTOR N  PHARMACY O  OTHER PVT.  MED P  (SPECIFY)  OTHER NON-MEDICAL  X  (SPECIFY)
652	CHECK 651:	TWO OR ONLY  MORE ONE  CODES CODE  CIRCLED CIRCLED  (SKIP TO 654)	TWO OR ONLY  MORE ONE  CODES CODE  CIRCLED CIRCLED  (SKIP TO 654) ←	TWO OR ONLY  MORE ONE  CODES CODE  CIRCLED CIRCLED  (SKIP TO 654)
653	Where did you first seek advice or treatment? USE LETTER CODE FROM 651.	FIRST PLACE	FIRST PLACE	FIRST PLACE

NO.	QUESTIONS AND FILTERS	LAST BIRTH	NEXT-TO-LAST BIRTH	SECOND-FROM-LAST BIRTH
654	How many days after the illness began did you first seek advice or treatment for (NAME)? IF THE SAME DAY, RECORD '00'.	DAYS	DAYS	DAYS
655	Is (NAME) still sick with a (fever/cough)?	YES	YES	YES
656	At any time during the illness, did (NAME) take any drugs for the illness?	YES	YES	YES
657	What drugs did (NAME) take?  Any other drugs?  RECORD ALL MENTIONED.	ANTIBIOTIC  PILL/SYRUP A INJECTION B —  ANTI PYRETIC  ASPIRIN C —  ACETA-  MINOPHEN D—  IBUPROFEN E —  OTHER ANTI  PYRETIC F —  (SPECIFY)  COUGH DRUG G —  OTHER X—  (SPECIFY)  DON'T KNOW Z —  (SKIP TO 659)	ANTIBIOTIC  PILL/SYRUP A INJECTION B  ANTI PYRETIC  ASPIRIN C  ACETA- MINOPHEN D  IBUPROFEN E  OTHER ANTI PYRETIC F  (SPECIFY)  COUGH DRUG G  OTHER  (SPECIFY)  DON'T KNOW Z  (SKIP TO 659)	ANTIBIOTIC  PILL/SYRUP A INJECTION B — ANTI PYRETIC  ASPIRIN C — ACETA- MINOPHEN D — IBUPROFEN E — OTHER ANTI PYRETIC F — (SPECIFY) COUGH DRUG G — OTHER
658	Did you already have the antibiotic at home when the child became ill?	YES	YES	YES
659		GO BACK TO 603 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 660.	GO BACK TO 603 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 660.	GO BACK TO 603 IN NEXT-TO-LAST COLUMN OF NEW QUESTIONN- AIRE; OR, IF NO MORE BIRTHS, GO TO 660

NO.	QUESTIONS AND FILTERS	LAST BIRTH		NEXT-TO-LAST BIRTH		
NO.	QUESTIONS AND FIL	TERS		CODING CATEGO	DRIES	SKIP
660	CHECK 215 AND 218, ALL ROWS:					
	NUMBER OF CHILDREN BORN IN 20	00 OR LATER LIVING WIT	H THE	RESPONDENT		
	ONE OR MORE	] <sub>N</sub>	NONE			→ 663
661	The last time (NAME OF YOUNGEST (what was done to dispose of the stools)			CHILD USED TOILET OR LA PUT/RINSED INTO TOILET OR LATRIN PUT/RINSED INTO DRAIN OR DITCH THROWN INTO GARBAGE BURIED LEFT IN THE OPEN OTHER (SPECII	E	
662	CHECK 638 ALL COLUMNS:	D 🗀 💮 🗛	NY CH	III D		
	RECEIVED FLU FROM ORS PACKI	ID R	ECEIV	YED FLUID  DRS PACKET		→ 664
663	Have you ever heard of a special produmahloul moalget el gafaf you can get for of diarrhea?			YES		
664	In the last 6 months, have you heard/se information about the warning ar dange be aware of in order to have a safe pres	r signs women should		YES		→701
665	What was the last source you got inform	nation from?		TELEVISION RADIO NEWSPAPER/MAGAZINE PAMPHLET/BROCHURE POSTER MEDICAL PROVIDER HUSBAND OTHER RELATIVE FRIENDS/NEIGHBORS OTHER (SPECII		

# SECTION 7. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 106: MARITAL STATUS		
	CURRENTLY WIDOWED/ MARRIED DIVORCED/ SEPARATED		→ 704
702	RECORD LINE NUMBER OF HUSBAND FROM HOUSEHOLD SCHEDULE. IF HUSBAND IS NOT PRESENT IN THE HOUSEHOLD, RECORD '00'.	HUSBAND'S LINE NUMBER	
703	How old was your husband on his last birthday?	AGE IN COMPLETED YEARS	
704	In what month and year was your (last) husband born?  COMPARE AND CORRECT 703 AND/OR 704 IF INCONSISTENT.	MONTH	
705	Before you got married, was your (last) husband related to you in anyway through blood or marriage?	YES	→ 707
706	What type of relationship was it?	FIRST COUSIN FATHER'S SIDE	
707	Did your (last) husband ever attend school?	YES	<b>→</b> 710
708	What is the highest level of school he attended?	PRIMARY         1           PREPARATORY         2           SECONDARY         3           UPPER INTERMEDIATE         4           UNIVERSITY         5           MORE THAN UNIVERSITY         6	
709	What was the highest grade he completed at that level?	GRADE	
710	CHECK 701:  CURRENTLY MARRIED  What is your husband's occupation?  That is, what kind of work does he mainly do?  WIDOWED/DIVORCED/ SEPARATED  What was your (last) husband's occupation?  That is, what kind of work did he mainly do?	(RECORD ANSWER IN DETAIL)	
711	Aside from your own housework, have you done any work in the last seven days even if it was only for a short period of time?	YES	<b>→→</b> 715
712	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. In the last seven days, have you done any of these things or any other work even if it was only for a short period of time?	YES	<b>→</b> 715

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
713	Although you did not work in the last seven days, do you have any job or business from which you were absent for leave, illness, vacation, maternity leave or any other such reason?	YES	<b>→</b> 715
714	Have you done any work in the last 12 months even if it was only for a short period of time?	YES	<b>→</b> 722
715	What is your occupation, that is, what kind of work do you mainly do?	(RECORD ANSWER IN DETAIL)	
716	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER         1           FOR SOMEONE ELSE         2           SELF-EMPLOYED         3	
717	Do you usually work at home or away from home?	HOME	
718	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR	
719	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY       1         CASH AND KIND       2         IN KIND ONLY       3         NOT PAID       4	
720	CHECK 715:  WORKS IN AGRICULTURE  DOES NOT WORK IN AGRICULTURE		<b>→</b> 722
721	Do you work mainly on your own land or on family land, or do you work on land that you rent from someone else, or do you work on someone else's land?	OWN LAND       1         FAMILY LAND       2         RENTED LAND       3         SOMEONE ELSE'S LAND       4	
722	CHECK 106: MARITAL STATUS  CURRENTLY MARRIED  DIVORCED/ SEPARATED		→ 728
723	CHECK 719:  CODE 1 OR 2 CIRCLED OTHER		→ 726
724	Who decides how the money you earn will be used: mainly you, mainly your husband, or you and your husband jointly?	RESPONDENT       1         HUSBAND       2         RESPONDENT AND       1         HUSBAND JOINTLY       3         OTHER       6	
725	Would you say that the money that you bring into the household is more than what your husband brings in, less than what he brings in, or about the same?	MORE THAN HIM	<b>→</b> 727

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES			SKIP
726	Who decides how your husband's earnings will be used: mainly you, mainly your husband, or you and your husband jointly?		RESPONDENT       1         HUSBAND       2         RESPONDENT AND       3         HUSBAND JOINTLY       3         HUSBAND DOESN'T       8         BRING IN ANY MONEY       4         OTHER       6			
727	Who usually makes the following decisions: mainly you, mainly your husband, you and your husband jointly, or someone else?		RESPONDENT = 1 HUSBAND = 2 RESPONDENT & HUSBAND JOINTL SOMEONE ELSE = 4 OTHER = 6	Y = 3		
	About health care for yourself? About making major household purchases? About making purchases for daily household needs? About visits to your family or relatives?		1 2 3 1 2 3 1 2 3 1 2 3	4 4 4 4	6 6 6	
728	PRESENCE OF OTHERS AT THIS POINT (PRESENT LISTENING, PRESENT BUT NOT LISTENING, OR NO PRESENT)			1 2 1 2	NOT PRES  3 3 3 3	
729	Sometimes a husband is annoyed or angered by things wife does. In your opinion, is a husband justified in hitti beating his wife in the following situations:  If she goes out without telling him? If she neglects the children? If she argues with him? If she refuses to have sex with him? If she burns the food?		GOES OUT	1 2 1 2 1 2	DK 8 8 8 8	
730	CHECK 217 AND 218:  AT LEAST ONE CHILD AGED 3-17 YEARS AND LIVING WITH RESPONDENT	ONE				→ 801
731	Now, we will talk about another issue. All adults use certain ways to teach children the right behavior or to address a behaviour problem. I will read various methods that are used and I want you to tell me if you have used this with your child(ren) in the past month.	RECORD NA	AMES OF CHILDREN AGE 3-17	YEARS	NO	
	Explained why the behavior was wrong?	EXPLAINED		1	2	
	Shouted, yelled or screamed to him/her/any of them?	SHOUTED, Y SCREAMED	YELLED, OR	1	2	
	Hit or slap him/her/any of them on the body with hand or a hard object?	HIT OR SLAI ON THE BOI	P DY	1	2	
	Hit or slap him/her/any of them on the face, head or ears?	HIT OR SLAI HEAD OR E	P ON FACE, ARS	1	2	

# SECTION 8 FEMALE CIRCUMCISION

NO.	QUESTIONS AND	FILTERS			CODING CATE	GORIES	SKIP
801	Now I would like to talk about the putawe you yourself been circumcised		mcision.	I			→ 803
802	How old were you when you were o	sircumcised?			IN COMPLETED YEA	<u></u>	
803	CHECK 214 AND 217  AT LEAST ONE DAUGHTER AGE 0-17 YEARS	DAUGHT 0-17 YE					→ 812
804	CHECK QUESTIONS 214 AND 213 ENTER THE NAME, AND LINE NU WITH THE YOUNGEST DAUGHTE THAN FOUR DAUGHTERS. Now I would like to ask you some q	JMBER FOR EACH D ER. USE AN ADDITIO	DAUGHTER IN DNAL QUESTI	N 805 BEI	LOW BEGINNING	-17 YEARS.	
805	CHECK 212: RECORD NAME(S) AND LINE NUMBER(S) FOR DAUGHTERS	LINE NO.	LINE NO		LINE NO.	LINE NO.	
		(NAME)	(NAME	≣)	(NAME)	(NAME)	
805a	CHECK 217:	AGE 15-17 0-14 YRS YRS (GO TO ▼ 807) ←	YRS (GO 1	0-14 YRS TO 07) <b>←</b>	AGE 15-17 0-14 YRS YRS ☐ (GO TO 807) ←	AGE 15-17 0-14 YRS YRS (GO TO 807) ←	
806	What is (NAME'S) marital statu	EVER MARRIED . 1  NEVER MARRIED/ SIGNED CONTRACT 2	EVER MARRIED NEVER MARRIED SIGNED CONTRAC	)/	EVER MARRIED . 1  NEVER MARRIED/ SIGNED CONTRACT 2	EVER MARRIED . 1  NEVER MARRIED/ SIGNED CONTRACT 2	
807	Is (NAME) circumcised?	YES 1 NO 2 7 DK 8- (GO TO NEXT* DAUGHTER OR TO 810)	YES NO DK (GO TO NE: DAUGHTE OR TO 81	2 8– XT <b>←</b> ER	YES 1 NO 2 DK 8– (GO TO NEXT → DAUGHTER OR TO 810)	YES 1 NO 2 DK 8– (GO TO 810)◀	
808	Who performed the circumcision to (NAME)?	DOCTOR 1 NURSE/ OTHER HLTH PRV. 2 DAYA 3 BARBER . 4 GHAGARIA 5 OTHER 6	GHAGARIA OTHER (SPECIF	V. 2 3 . 4 A 5 6	DOCTOR 1 NURSE/ OTHER HLTH PRV. 2 DAYA 3 BARBER . 4 GHAGARIA 5 OTHER 6	DOCTOR 1 NURSE/ OTHER HLTH PRV. 2 DAYA 3 BARBER . 4 GHAGARIA 5 OTHER 6	
809	How old was (NAME) when she was circumcised?	AGE 8	AGE DK		DK 8  AGE  DK 98	DK 8  AGE	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
810	CHECK 807:  AT LEAST ONE DAUGHTERS CIRCUMCISED		→812
811	You have (number of daughter not circumcised) daughter(s) who (has/have) not been circumcised. Do you intend that (she/they) will be circumcised in the future?	YES	
812	During the past year have you discussed circumcision with your relatives, friends, or neighbors?	YES	
813	During the past year have you heard, seen or received any information about circumcision?	YES	1 815
814	Where did you hear or see that information?  Anywhere else?  RECORD ALL MENTIONED	TELEVISION         A           RADIO         B           NEWSPAPER/MAGAZINE         C           PAMPHLET/BROCHURE         D           POSTER         E           COMMUNITY MEETING         F           HOME VISIT BY HEALTH WORKER         G           FACILITY-BASED HEALTH WORKER         H           HUSBAND         I           OTHER RELATIVE/FRIENDS         J           OTHER         X           (SPECIFY)	
815	Do you believe that this practice is required by religious precepts?	YES	
816	Do you think that the practice of circumcision should be continued or should it be stopped?	CONTINUED         1           STOPPED         2           DON'T KNOW         8	
817	Do you think that men want this practice to continue or to stop?	CONTINUED         1           STOPPED         2           DON'T KNOW         8	
818	I will read you some statements about circumcision. Please tell me if you agree or disagree.	DIS- AGREE AGREE DK	
	A husband will prefer his wife to be circumcised.	HUSBAND PREFER 1 2 8	
	Circumcision prevents adultery.	PREVENTS ADULTERY 1 2 8	
	Childbirth is more difficult for a woman who has been circumcised.	CHILDBIRTH DIFFICULT 1 2 8	
	Circumcision can cause severe consequences that can lead to a girl's death.	MAY LEAD TO GIRL'S DEATH 1 2 8	

# SECTION 9: DOMESTIC VIOLENCE

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES		SKIP					
901	CHEC	K IDENTIFICATION	I SECTION ON COVE	R PAGE						
		AN SELECTED THIS SECTION	<u></u>		MAN NO	т 🔲				<b>→</b> 1001
902	CHEC	K FOR PRESENCE	OF OTHERS:							
	DO NO	OT CONTINUE UNT	IL EFFECTIVE PRIVA	ACY IS ENSU	JRED.					
		IVACY AINED 1	ı	PRIVA NOT POSSIE		2—				<b>→</b> 921
903	READ	TO ALL RESPOND	DENTS:							
	some the co	of these questions a	u questions about som are very personal. How Egypt. Let me assure one.	ever, your an	swers are	e crucial fo	or helping to und	derstand		
904		f you will permit me, husband.	I need to ask some mo	ore questions	about yo	ur relation	ship with your			
	904A	(Does/did) your (la	ast) husband ever:			904B	How often did t the last 12 mor sometimes, or	nths: often, only	-	
						OFTEN	SOME TIMES	NOT AT ALL	NA	
	1)		ng to humiliate you	YES	1	1	2	3	5	
		in front of others?		NO	2 <b>↓</b>					
	2)	threaten you or so you with harm?	omeone close to	YES NO	1 → 2 ↓	1	2	3	5	
905	905A	(Does/did) your (la	ast) husband ever:			905B	How often did t the last 12 mor sometimes, or	nths: often, only		
						OFTEN	SOME TIMES	NOT AT ALL	NA	
	1)	push you, shake y something at you?		YES NO	1 → 2 ↓	1	2	3	5	
	2)	slap you or twist y	our arm?	YES NO	1 → 2 ↓	1	2	3	5	
	3)	punch you with his something that co		YES NO	1 → 2 ↓	1	2	3	5	
	4)	kick you or drag y	ou?	YES NO	1 → 2 ↓	1	2	3	5	
	5)	try to strangle you	or burn you?	YES NO	1 → 2 ↓	1	2	3	5	
	6)	threaten you with other type of weap	_	YES NO	1	1	2	3	5	
	7)	attack you with a litype of weapon?	knife, gun, or other	YES NO	1 → 2 ↓	1	2	3	5	
	8)	physically force you intercourse with his want to?	ou to have sexual im when you did not	YES NO	1 → 2 ↓	1	2	3	5	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
906	CHECK 905A: AT LEAST ONE 'YES'  NOT A SINGLE 'YES'		908
907	Did the following ever happen because of something your (last) husband did to you:	YES NO	
	You had bruises and aches?	BRUISES/ACHES 1 2	
	2) You had an injury or a broken bone?	INJURY/BROKEN BONE 1 2	
	You went for treatment as a result     of something your husband did to you?	WENT FOR TREATMENT 1 2	
908	Have (did) you ever hit, slapped, kicked or done anything to physically hurt your (last) husband?	YES	→ 910
909	In the last 12 months, how often have you done this to your husband: often, only sometimes, or not at all?	OFTEN       1         SOMETIMES       2         NOT AT ALL       3         NOT APPLICABLE       5	
910	From the time you were 15 years old has anyone other than your (current/last) husband hit, slapped, kicked, or done anything else to hurt you physically?	YES	913
911	Who has physically hurt you in this way?  Anyone else?	MOTHER         A           FATHER         B           STEP-MOTHER         C           STEP-FATHER         D	
	RECORD ALL MENTIONED.	SISTER	
912	In the last 12 months, how often have you been hit, slapped, kicked, or physically hurt by this/these person(s): often, only sometimes, or not at all?	OFTEN         1           SOMETIMES         2           NOT AT ALL         3	
913	CHECK 208 AND 226 AND THE CALENDER:		
	EVER PREGNANT PR	NEVER EGNANT	→ 916
914	Has any one ever hit, slapped, kicked, or done anything else to hurt you physically while you were pregnant?	YES	→ 916

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
915	Who has done any of these things to physically hurt you while you were pregnant?  Anyone else?  RECORD ALL MENTIONED.	MOTHER A FATHER B STEP-MOTHER C STEP-FATHER D SISTER E BROTHER F DAUGHTER G SON H LATE/EX-HUSBAND I MOTHER-IN-LAW X OTHER FEMALE RELATIVE/IN-LAW L OTHER MALE RELATIVE/IN-LAW M FEMALE FRIEND/ACQUAINTANCE N MALE FRIEND/ACQUAINTANCE O FEMALE TEACHER P MALE TEACHER Q FEMALE EMPLOYER R MALE EMPLOYER S STRANGER (FEMALE) T STRANGER (MALE) U OTHER X	
916	CHECK 905B: CODE '1' (OFTEN) OR CODE '2' (SOMETIMES) CIRCLED FOR AT LEAST ONE ITEM  CHECK 905B: NOT A SINGLE CODE '1' OR '2' CIRCLED		→ 920
917	At any time during the past year when your (current/last) husband did something to physically hurt you, did you try to get help to prevent or stop him from hurting you?	YES	→ 919
918	From whom did you seek help?  Anyone else?  RECORD ALL MENTIONED.	MOTHER	→ 920
919	What is the main reason you have never sought help?	DON'T KNOW WHO TO GO TO         01           NO USE         02           PART OF LIFE         03           AFRAID OF DIVORCE/DESERTION         04           AFRAID OF FURTHER BEATINGS         05           AFRAID OF GETTING PERSON         06           EMBARTING HER INTO TROUBLE         06           EMBARRASSED         07           DON'T WANT TO DISGRACE         FAMILY         08           NOT IMPORTANT         09           OTHER         96           (SPECIFY)         (SPECIFY)	

NO.	QUESTIONS AND FILTERS		CODING (	CATEGORIES		SKIP
920	DID YOU HAVE TO INTERRUPT THE INTERVIEW BECAUSE SOME ADULT WAS TRYING TO LISTEN, OR CAME INTO THE ROOM, OR INTERFERED IN ANY OTHER WAY?	OTHER MAL	YES ONCE	YES, MORE THAN ONCE 2 2 2	NO 3 3 3	
921	INTERVIEWER'S COMMENTS / EXPLANATION FOR	R NOT COMPLE	TING THE DOMESTIC \	/IOLENCE MODUI	_E	

1	INTERVIEWER'S COMMENTS / EXPLANATION FOR NOT COMPLETING THE DOMESTIC VIOLENCE MODULE

## SECTION 10. HEALTH CARE ACCESS AND OTHER HEALTH CONCERNS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1001	Now I would like to ask you some questions about medical care for yourself.		
	Many different factors can prevent women from getting medical advice or treatment for themselves. When you are sick and want to get medical advice or treatment, is each of the following a big problem or not?	BIG NOT A BIG PROB- PROB- LEM LEM	
	Getting permission to go.	PERMISSION TO GO 1 2	
	Getting money needed for treatment.	GETTING MONEY 1 2	
	The distance to the health facility.	DISTANCE 1 2	
	Having to take transportation.	TAKING TRANSPORT 1 2	
	Not wanting to go alone.	GO ALONE 1 2	
	Concern that there may not be a female health provider.	NO FEMALE PROV 1 2	
	Concern that there may not be any health provider.	NO PROVIDER 1 2	
	Concern that there may be no drugs available.	NO DRUGS 1 2	
1002	Do you have health insurance?	YES	→ 1004
1003	What type of health insurance do you have?  RECORD ALL MENTIONED.	HEALTH INSURANCE THROUGH EMPLOYER A HEALTH INSURANCE THROUGH EMPLOYER OF ANOTHER FAMILY MEMBER B HEALTH INSURANCE THROUGH THE GENERAL AGENCY OF HEALTH INSURANCE C HEALTH INSURANCE THROUGH ANY OF THE SYNDICATES D OTHERX (SPECIFY)	
1004	Now I would like to ask you some questions about any injections you have had in the last six months. Have you had an injection for any reason in the last six months? (including family planning or tetanus injections)  IF YES: How many injections have you had?  IF NUMBER OF INJECTIONS IS GREATER THAN 95, OR DAILY FOR 3 MONTHS OR MORE, RECORD '95'.  IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.	NUMBER OF INJECTIONS	→ 1008
1005	Among these injections, how many were administered by a doctor, a nurse, a pharmacist, a dentist, or any other health worker?  IF NUMBER OF INJECTIONS IS GREATER THAN 95, OR DAILY FOR 3 MONTHS OR MORE, RECORD '95'.	NUMBER OF INJECTIONS	→ 1008
	IF NON-NUMERIC ANSWER, PROBE TO GET AN ESTIMATE.		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1006	The last time you had an injection given to you by a health worker, where did you get the injection?  IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME AND THE ADDRESS OF THE PLACE.  PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.  (NAME AND ADDRESS OF PLACE)	HOME YOUR HOME	
1007	The last time you had an injection from a health worker did the person who gave you that injection take the syringe and needle from a new, unopened package?	YES	
1008	In the last 6 months have you heard, seen, or received any information about what people should do to be sure that injections are given safely?	YES	1010
1009	Where did you hear or see that information?  Anywhere else?  RECORD ALL MENTIONED.	TELEVISION A RADIO B NEWSPAPER/MAGAZINE C PAMPHLET/BROCHURE D POSTER E COMMUNITY MEETING F HOME VISIT BY HEALTH WORKER G FACILITY-BASED HEALTH WORKER H HUSBAND I OTHER RELATIVE/FRIENDS/ NEIGHBORS J OTHER X (SPECIFY)	
1010	Do you currently smoke cigarettes?	YES	→ 1012
1011	In the last 24 hours, how many cigarettes did you smoke?  IF DIDN'T SMOKE DURING THE LAST 24 HOURS RECORD '00'	CIGARETTES	
1012	Do you currently smoke or use any other type of tobacco?	YES	→ 1014

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1013	What (other) type of tobacco do you currently smoke or use?  RECORD ALL MENTIONED.	PIPE         A           CHEWING TOBACCO         B           SNUFF         C           ROLLED CIGARETTES         D           WATER PIPE         E           OTHER         X           (SPECIFY)	
1014	Does anyone else in your household currently smoke cigarettes or use any other type of tobacco?	YES,CIGARETTES       1         YES, OTHER TOBACCO       2         YES, BOTH       3         NO       4	
1015	In the last 6 months have you heard, seen, or received any information about the health effects of second hand smoke (that is, exposure to direct smoke from smokers)?	YES	1101
1016	Where did you hear or see that information?  Anywhere else?  RECORD ALL MENTIONED.	TELEVISION A RADIO B NEWSPAPER/MAGAZINE C PAMPHLET/BROCHURE D POSTER E COMMUNITY MEETING F HOME VISIT BY HEALTH WORKER G FACILITY-BASED HEALTH WORKER H HUSBAND I OTHER RELATIVE/FRIENDS/ NEIGHBORS J OTHER X (SPECIFY)	

## SECTION 11. HIV/AIDS AND OTHER SEXUALLY TRANSMITTED INFECTIONS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1101	Now I would like to talk about something else. Have you ever heard the illness Hepatitis C?	YES	<b>→</b> 1105
1102	In the last 6 months have you heard, seen, or received any information about Hepatitis C?	YES	1104
1103	Where did you hear or see that information?  Anywhere else?  RECORD ALL MENTIONED.	TELEVISION         A           RADIO         B           NEWSPAPER/MAGAZINE         C           PAMPHLET/BROCHURE         D           POSTER         E           COMMUNITY MEETING         F           HOME VISIT BY HEALTH WORKER         G           FACILITY-BASED HEALTH WORKER         H           HUSBAND         I           OTHER RELATIVE/FRIENDS/         NEIGHBORS           NEIGHBORS         J           OTHER         X           (SPECIFY)	
1104	How does Hepatitis C spread from one person to another?  Any other ways?  RECORD ALL MENTIONED.	HETEROSEXUAL SEX A HOMOSEXUAL SEX B CONTACT WITH INFECTED PERSON'S BLOOD THROUGH: TRANSFUSION C UNCLEAN NEEDLES D OTHER (E.G., RAZORS) E CASUAL PHYSICAL CONTACT(S) (E.G., SHAKING HANDS, SHARING FOOD OR DRINK, ETC.) F MOTHER-TO-CHILD TRANSMISSION G MOSQUITO/OTHER INSECT BITE H OTHER X  (SPECIFY) DON'T KNOW Z	
1105	Have you ever heard of an illness called tuberculosis or TB?	YES	<b>→</b> 1109
1106	How does tuberculosis spread from one person to another?  Any other ways?  RECORD ALL MENTIONED.	THROUGH THE AIR WHEN COUGHING OR SNEEZING A THROUGH SHARING UTENSILS B THROUGH TOUCHING A PERSON WITH TB C THROUGH FOOD D THROUGH SEXUAL CONTACT E THROUGH MOSQUITO BITES F  OTHER X (SPECIFY) DON'T KNOW Z	
1107	Can tuberculosis be cured?	YES	
1108	If a member of your family got tuberculosis, would you want it to remain a secret or not?	YES, REMAIN A SECRET       1         NO       2         DON'T KNOW/NOT SURE/       8	
1109	Now I would like to talk about something else. Have you ever heard of an illness called AIDS?	YES	<b>→</b> 1127
1110	Can people reduce their chances of getting the AIDS virus by having just one sex partner who is not infected and who has no other partners?	YES	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1111	Can people get the AIDS virus from mosquito bites?	YES	
1112	Can people reduce their chances of getting the AIDS virus by using a condom every time they have sex?	YES	
1113	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES	
1114	Can people reduce their chance of getting the AIDS virus by abstaining from sexual intercourse?	YES	
1115	Can the HIV virus be transmitted from a mother to her baby:	YES NO DK PREGNANCY 1 2 8	
	During pregnancy?		
	During delivery?	DELIVERY 1 2 8	
	By breastfeeding?	BREASTFEEDING . 1 2 8	
1116	Is there anything else a person can do to avoid or reduce the chances of getting the AIDS virus?	YES	1118
1117	What can a person do?  Anything else?  RECORD ALL WAYS MENTIONED.	ABSTAINING FROM SEXUAL INTERCOURSE	
1118	Is it possible for a healthy-looking person to have the AIDS virus?	YES	
1119	Do you know of a place where people can go to get tested for the virus that causes AIDS?	YES	<b>→</b> 1121

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1120	Where is that?  IF SOURCE IS HOSPITAL, HEALTH UNIT, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE.  Any other place?  RECORD ALL SOURCES MENTIONED.  (NAME OF PLACE)	GOVERNMENT GOVERNMENT HOSPITAL A GOVT. HEALTH UNIT B VCT CENTER C FAMILY PLANNING CLINIC D MOBILE CLINIC E OTHER GOVT. F (SPECIFY)  NON GOVERNMENTAL  G (SPECIFY)  PRIVATE MEDICAL PRIVATE HOSPITAL/CLINIC/PRIVATE DOCTOR H PHARMACY I OTHER PRIVATE MEDICAL J (SPECIFY)  OTHER NON-MEDICAL  (SPECIFY)  OTHER NON-MEDICAL  X (SPECIFY)	
1121	Would you buy fresh vegetables from a shopkeeper or vendor if you knew that this person had the AIDS virus?	YES	
1122	If a member of your family became sick with the virus, that causes AIDS would you want it to remain a secret or not?	YES, REMAIN A SECRET       1         NO       2         DK/NOT SURE/DEPENDS       8	
1123	If a relative of yours became sick with the virus that causes AIDS, would you be willing to care for her or him in your own household?	YES	
1124	In your opinion, if a female teacher has the AIDS virus but is not sick, should she be allowed to continue teaching in the school?	SHOULD BE ALLOWED	
1125	In the last 6 months have you heard, seen, or received any information about HIV/AIDS?	YES	<u></u> 1127
1126	Where did you hear or see that information?  Anywhere else?  RECORD ALL MENTIONED.	TELEVISION         A           RADIO         B           NEWSPAPER/MAGAZINE         C           PAMPHLET/BROCHURE         D           POSTER         E           COMMUNITY MEETING         F           HOME VISIT BY HEALTH WORKER         G           FACILITY-BASED HEALTH WORKER         H           HUSBAND         I           OTHER RELATIVE/FRIENDS/         NEIGHBORS           OTHER         X           (SPECIFY)	
1127	CHECK 1109:  HEARD ABOUT AIDS ABOUT AIDS ABOUT AIDS  Apart from AIDS, have you heard about other infections that can be transmitted through sexual contact?  NOT HEARD ABOUT AIDS  Have you heard about infections that can be transmitted through sexual contact?	YES	<b>→</b> 1129

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1128	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a disease which you got through sexual contact?	YES	
1129	Sometimes women experience a bad smelling abnormal genital discharge.  During the last 12 months, have you had a bad smelling abnormal genital discharge?	YES	
1130	Sometimes women have a genital sore or ulcer.  During the last 12 months, have you had a genital sore or ulcer?	YES	
1131	CHECK 1128, 1129, AND 1130:  HAS HAD AN INFECTION (ANY 'YES')  HAS NOT HAD AN INFECTION OR DOES NOT KNOW		→ 1201
1132	The last time you had (PROBLEM FROM 1128/1129/1130), did you seek any kind of advice or treatment?	YES	<b>→</b> 1201
1133	Where did you go?  Any other place?  RECORD ALL SOURCES MENTIONED.	MINISTRY OF HEALTH  URBAN HOSPITAL A  URBAN HEALTH UNIT B  HEALTH OFFICE C  RURAL HOSPITAL D  RURAL HEALTH UNIT E  MCH CENTER F  MOBILE UNIT G  OTHER GOVERNMENTAL  UNIVERSITY HOSPITAL H  TEACHING HOSPITAL I  HEALTH INSURANCE ORG J  CURATIVE CARE ORGANIZATION K  OTHER GOVERNMENTAL L  NON-GOVERNMENTAL L  EGYPT FAMILY PLANNING ASSOC. M  CSI PROJECT N  OTHER NON-GOVERNMENTAL O  PRIVATE HOSPITAL/ CLINIC P  PRIVATE HOSPITAL/ CLINIC P  PRIVATE HOSPITAL/ CLINIC P  RIVATE HOSPITAL/ CLINIC P  CHARMACY R  MOSQUE HEALTH UNIT S  CHURCH HEALTH UNIT T  OTHER NON-MEDICAL  OTHER VENDOR (SHOP, KIOSK, ETC.,) U  FRIEND/RELATIVE V  OTHER X	

### SECTION 12. MOTHER AND CHILD NUTRITION

NO.	SECTION 12. MOTHER AND CH QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP						
1201	CHECK 215 AND 218:								
	BORN IN 2002 OR LATER BO	HAVE ANY CHILDREN DRN IN 2002 OR LATER AND LIVING WITH HER	1207						
	RECORD NAME OF YOUNGEST CHILD LIVING WITH HER (AND CONTINUE WITH 1202)								
	(NAME)								
1202	As part of this study, we are also looking at the nutrition of mothers and children. To help us understand these issues, I will first ask you about what (NAME FROM 1201) may have drank or eaten yesterday during the day or at night. Then I will also ask you about what you may have eaten or drunk yesterday.								
1203	First I would like to ask you about liquids/foods (NAME FROM 1201) had yesterday during the day or at night.								
	Did (NAME FROM 1201) had:	YES NO DK							
	a. Plain water?     b. Infant formula, that is, a special commercially produced breastmilk substitutes such as Similac, Bebelack and Biomeal?	<b>a</b> PLAIN WATER 1 2 8 <b>b</b> INFANT FORMULA 1 2 8							
	c. Any commercially fortified baby cereal (like Cerelac, or Riri or Gerber)?  C. Any commercially fortified baby cereal (like Cerelac, or Riri or Gerber)?	c COMMERCIAL BABY CEREALS							
	d. Other porridge or gruel made from wheat, rice or other grains?	d OTHER PORRIDGE GRUEL 1 2 8							
1204	Now I would like to ask you about (other) liquids or foods that (NAME I during the day or at night. I am interested in whether your child or you other foods.								
	Did (Name/you) dring (eat):	CHILD MOTHER							
		YES NO DK YES NO DK							
	a. Milk such as tinned, powdered, or fresh animal milk?	a 1 2 8 1 2 8	-						
	b. Tea or coffee?	<b>b</b> 1 2 8 1 2 8	=						
	c. Sugary drinks such as sodas or fruit juices?	<b>c</b> 1 2 8 1 2 8	=						
	d. Any other liquids?	d 1 2 8 1 2 8	=						
	e. Bread, rice, noodles, macaroni, biscuits, or other food made from grains?	<b>e</b> 1 2 8 1 2 8							
	f. Any pumpkin, carrots, squash or sweet potatoes that are yellow or orange inside?	f 1 2 8 1 2 8							
	g. Any potatoes, white potatoes or any other food made from roots or tubers?	g 1 2 8 1 2 8							
	h. Spinach, parsley or broccoli?	<b>h</b> 1 2 8 1 2 8	-						
	i Any legumes like fava beans, chickpeas, lentils, or peanuts?	i 1 2 8 1 2 8							
	j. Canteloupe, mango, apricots or peaches?	j 1 2 8 1 2 8	-						
	k. Any other vegetables or fruits?	k 1 2 8 1 2 8	-						
	I. Any liver, kidney, heart or other organ meats?	I 1 2 8 1 2 8	=						
	m Any beef, lamb, goat, or rabbit?	m 1 2 8 1 2 8							
	n. Any chicken, duck, pigeon, geese or other birds?	n 1 2 8 1 2 8							
	o. Any eggs?	<b>o</b> 1 2 8 1 2 8							
	<b>p.</b> Any fresh or dried or smoked or canned fish or shellfish?	<b>p</b> 1 2 8 1 2 8							
	q. Any nuts?	<b>q</b> 1 2 8 1 2 8	-						
	r. Any cheese or yogurt or milky products?	r 1 2 8 1 2 8							
	s. Any food made with oil, fat, or butter?	<b>s</b> 1 2 8 1 2 8							
	t. Any sugary foods such as chocolates, sweets, or candies	t 1 2 8 1 2 8							
	u. Any other solid or semi-solid food?	u 1 2 8							

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
1205	CHECK 1204 (CHILD):		
	AT LEAST ONE "YES"	NOT A SINGLE "YES"	→ <sub>1207</sub>
1206	How many times did (NAME) eat solid, semisolid, or soft foods other than liquids yesterday during the day or at night?	NUMBER OF TIMES	
	IF 7 OR MORE TIMES, RECORD '7'.	DON'T KNOW 8	
1207	RECORD THE TIME.	HOUR	
		MINUTES	

THANK YOU FOR TAKING THE TIME TO ANSWER THESE QUESTIONS. WE MAY RETURN TO INTERVIW YOU OR ANY OTHER MEMBER OF YOUR HOUSEHOLD IN THE FUTURE AND WE HOPE YOU WILL AGREE TO PARTICIPATE AGAIN AT THAT TIME.

### OBSERVATIONS

## TO BE FILLED IN AFTER COMPLETING INTERVIEW

# 1301 INTERVIEWER'S OBSERVATIONS

COMMENTS ABOUT RESPONDENT:		
COMMENTS ON SPECIFIC QUESTIONS:		
ANY OTHER COMMENTS:		
	1302 SUPERVISOR'S OBSERVATIONS	
NAME OF SUPERVISOR:	DATE:	
	1303 EDITOR'S OBSERVATIONS	
NAME OF EDITOR:	DATE.	
NAME OF EDITOR:	DATE.	

INSTRU	PTIONS:				1	2	CHILD'S NAME	3	SOURCE ADDRESS	4		
ONLY O	NE CODE SHOULD APPEAR IN ANY BOX.		12 DE				NAIVIE	3	ADDRESS	_	01 DEC	
FOR CO	LUMNS 1, 2 ALL MONTHS SHOULD BE FILLED.		11 NO 10 OC			1	4		- I		02 NOV 03 OCT	
COL. 1:	MARRIAGE/UNION		09 SE				1		j t		04 SEP	
	X IN UNION (MARRIED OR LIVING TOGETHER)	2	08 AU				1		] [		05 AUG	
COL. 2:	0 NOT IN UNION BIRTHS, PREGNANCIES, CONTRACEPTIVE USE	0	07 JUI 06 JUI				1		1 -		06 JUL 07 JUN	0
	B BIRTHS	5	05 MA	Y 08			1		1 [		08 MAY	
	P PREGNANCIES M MISCARRIAGE		04 API 03 MA				-		<b>∤</b> ⊢		<ul><li>09 APR</li><li>10 MAR</li></ul>	
	A ABORTION		02 FEI				]		1 [		11 FEB	
	S STILL BIRTH		01 JAN	N 12	2						12 JAN	
	0 NO METHOD		12 DE	C 13	3	1		T .			13 DEC	
	C FEMALE STERILIZATION		11 NO				1		1 [		14 NOV	
	D MALE STERILIZATION E PILL		10 OC 09 SE				4		<b>∤</b> ⊦		15 OCT 16 SEP	
	F IUD	2	08 AU						1		17 AUG	2
	G INJECTABLES	0	07 JUI				]		] [		18 JUL	0
	H IMPLANTS I CONDOM	0 4	06 JUI 05 MA				1		1 -		<ul><li>19 JUN</li><li>20 MAY</li></ul>	0
	K DIAPHRAGM/FOAM OR JELLY	·	04 AP	R 21			1		1 [		21 APR	•
	N RHYTHM METHOD		03 MA				1		1		22 MAR	
	R WITHDRAWAL T PROLONGED BREASTFEEDING		02 FEI 01 JAN			1	1		1 -		23 FEB 24 JAN	
	X OTHER											
COL. 3:	(SPECIFY) SOURCE OF CONTRACEPTION		12 DE				1	-	<del> </del>		25 DEC 26 NOV	
002.0.	MINISTRY OF HEALTH		10 OC	T 27	7		1		1 [		27 OCT	
	1 URBAN HOSPITAL 2 URBAN HEALTH UNIT	_	09 SEI				1		1		28 SEP	0
	2 URBAN HEALTH UNIT 3 HEALTH OFFICE	2	08 AU 07 JUI				1		1 +		29 AUG 30 JUL	2 0
	4 RURAL HOSPITAL	0	06 JUI	N 31			]		1 [		31 JUN	0
	5 RURAL HEALTH UNIT 6 MCH CENTER	3	05 MA 04 API			+	1	-	<b>↓</b>  -		<ul><li>32 MAY</li><li>33 APR</li></ul>	3
	7 MOBILE UNIT		03 MA			1	1		1 -		34 MAR	
	OTHER GOVERNMENTAL		02 FEI				]		] [		35 FEB	
	8 UNIVERSITY HOSPITAL 9 TEACHING HOSPITAL		01 JAN	N 36	6						36 JAN	
	A HEALTH INSURANCE ORGANIZATION		12 DE	C 37	7						37 DEC	
	B CURATIVE CARE ORGANIZATION C OTHER GOVERNMENTAL		11 NO 10 OC				1		<b>↓</b>		38 NOV	
	C OTHER GOVERNMENTAL NON-GOVERNMENTAL		10 OC 09 SE			1	1		1 -		<ul><li>39 OCT</li><li>40 SEP</li></ul>	
	D EGYPT FAMILY PLANNING ASSOC.	2	08 AU				1		] [		41 AUG	
	E CSI PROJECT F OTHER NON-GOVERNMENTAL	0	07 JUI 06 JUI				1		<del> </del>		42 JUL 43 JUN	0
	PRIVATE MEDICAL	2	05 MA				<u> </u>		1 [		44 MAY	
	G PRIVATE HOSPITAL/ CLINIC		04 API				1		1		45 APR	
	H PRIVATE DOCTOR I PHARMACY.		03 MA 02 FEI				1	-	† F		46 MAR 47 FEB	
	OTHER PRIVATE		01 JAN	N 48	3						48 JAN	
	J MOSQUE HEALTH UNIT K CHURCH HEALTH UNIT		12 DE	C 49	a I	1	1	T	1		49 DEC	
	OTHER NON-MEDICAL		11 NO				<u> </u>		1 [		50 NOV	
	L OTHER VENDOR (SHOP, KIOSK, ETC.,)		10 OC				1		1 -		51 OCT	
	M FRIENDS / RELATIVES X OTHER	2	09 SE				1		† F		52 SEP 53 AUG	2
	(SPECIFY)	0	07 JUI				]		] [		54 JUL	0
	Y NO ONE Z DON'T KNOW	0 1	06 JUI 05 MA			1	1	-	<del> </del>		55 JUN 56 MAY	0
COL. 4:	DISCONTINUATION OF CONTRACEPTIVE USE		04 AP	R 57	7		1		1 [		57 APR	
	INFREQUENT SEX/HUSBAND AWAY     BECAME PREGNANT WHILE USING		03 MA 02 FEI				4		<b>∤</b> ⊦		58 MAR 59 FEB	
	2 WANTED TO BECOME PREGNANT		01 JAN								60 JAN	
	3 HUSBAND DISAPPROVED		40 DE	0 04			1				C4 DEC	
	4 WANTED MORE EFFECTIVE METHOD 5 HEALTH CONCERNS		12 DE				1		† F		61 DEC 62 NOV	
	6 SIDE EFFECTS		10 OC	T 63	3		1		1 [		63 OCT	
	7 LACK OF ACCESS/TOO FAR 8 COSTS TOO MUCH	2	09 SE				4		<b>∤</b> ⊦		64 SEP 65 AUG	2
	9 INCONVENIENT TO USE	0	07 JUI				1		j		66 JUL	0
	F FATALISTIC A DIFFICULT TO GET PREGNANT/MENOPAUSAL	0	06 JUI 05 MA				4		4 F		67 JUN 68 MAY	0
	D MARITA	U	04 API			+	1	-	1		69 APR	
	X OTHER (SPECIFY)		03 MA				]		] [		70 MAR	
	Z DON'T KNOW		02 FEI 01 JAN				1		† F		<ul><li>71 FEB</li><li>72 JAN</li></ul>	
	CUTOOME AND DATE OF		·-	01	LITOOME		1					
	OUTCOME AND DATE OF PREGNANCY TERMINATI				UTCOME ONTH							
	TO JANUARY 2000				EAR							
	IF NONE, RECORD '0' IN C	OUT	COME.									
	BIRTH DATE OF LAST CH		BORN		ONTH							
	PRIOR TO JANUARY 2	000		YE	EAR							