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DHS⁺ DIMENSIONS

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The DHS STATcompiler builds customized tables from DHS data from anywhere in the world.



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Access DHS Data Instantly and Easily With New Internet Tool

Researchers, policymakers, members of academic institutions and general users from around the world have long realized the value of their well-worn final reports in giving them access to data from the Demographic and Health Surveys (DHS). Users can now benefit from a new tool that provides easy, unlimited, and instant access to DHS data from country reports.

The DHS STAT compiler is an innovative on-line database tool that allows users to select from numerous countries and hundreds of indicators and to create customized tables to serve their specific data needs. The flexible and easy to use tool is certain to save data users time, money and papercuts as they build tables by means of just a few simple clicks of the mouse.

What kind of information does the STAT compiler contain?

Virtually all of the population and health indicators that are published in DHS final reports can be viewed on-line. The available indicators are grouped under the following topics:

- Characteristics of households
- Fertility
- Fertility regulation
- Other proximate determinants of fertility
- Fertility preferences
- Early childhood mortality

STATcompiler continued from page 1

- Maternal and child health
- Maternal and child nutrition
- AIDS and other STIs.

What does the STAT compiler offer?

• Worldwide access. Because it is an on-line tool, the DHS STATcompiler is accessible from anywhere in the world. No longer do you need to search through volumes of DHS survey reports to find the data you need.

• Immediate results. Access to more than 600 indicators from more than 60 countries allows users to retrieve up-to-date statistics on population and health instantly.

• Flexibility. Customized tables can be exported to Microsoft Excel for direct inclusion in reports or for editing.

How much does it cost to use the STAT compiler?

Nothing. Use of the DHS STATcompiler is free to anyone with access to the World Wide Web. You simply log on to www.measuredhs.com, select STATcompiler from the home page, and begin building a customized table.

Is the STAT compiler difficult to use?

Not at all. The STAT compiler was designed to be accessible to even the most technically challenged user. Customized tables can be created in just three easy steps (see sidebar).

What are examples of practical applications of the tool?

A simple example of the use of the STAT compiler would be to obtain quick figures on the prevalence of family planning in West Africa. If you wanted to use the STAT compiler to find out how many women with no education are using a modern method of family planning in all the West African countries where DHS has conducted surveys, you would select all of the countries from the West African region and choose "current use of contraception by background characteristics" as an indicator. A table would be built in less than a minute. To compare those figures with the percentage of women using traditional methods, you could simply add that indicator to the table.

You might also use the STAT compiler to view trends within a country in terms of a single indicator across time. For example, you could examine trends in infant mortality for the three most recent Indonesia DHS surveys by first selecting Southeast Asia from the Select Surveys drop-down list and then choosing the 1991, 1994, and 1997 Indonesia DHS surveys. Next, you would click on "Select Indicators" and choose "Early Childhood Mortality" from the list of topics. Then you would select "Infant and Child Mortality by background characteristics" and check the Infant mortality box. Finally, you would add the items to the table and click on "Build Table." In a matter of seconds, the table would be ready for you to print, save, or export into another file format.

3 easy steps for building custom tables with the STATcompiler

Step 1:

If you know the country you want to search for, choose "Select Surveys." If you know the specific indicators you wish to identify, choose "Select Indicators."

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Opening screen invites a search by selecting a survey country or indicator

Step 2:

Continue selecting topics until you come to a list of variables with boxes to check. Select at least one variable from each group. Groups are identified by those items separated by the word "by." For your convenience, key indicators are preselected. Click on "Add Items to Table." Repeat step 2 for all desired surveys and indicators.

Step 3:

After you have finished selecting and saving your desired items, click on **Build Table** at the bottom of the "Custom Table Selection" box.



Childhood mortality indicators are selected to be added to a table with four surveys



The specific indicators for infant and under-five mortality by residence are selected

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Table is generated and ready for printing or export to other program

Survival Chances Increase for Children in Bangladesh

Recent preliminary findings from the 1999-2000 Bangladesh Demographic and Health Survey (BDHS) show that child survival has improved dramatically in the past 15 years. Under-five mortality has declined 19 percent, from 116 deaths per 1,000 live births for the period 1992-96 to 94 deaths for the period 1995-99.

Contributing most to the overall decline in under-five mortality was the reduction in infant mortality—the probability of a child's dying before reaching his or her first birthday. The infant mortality rate declined from 82 to 66 deaths per 1,000 live births between the two periods. This encouraging trend in childhood mortality raises the question, "What factors are contributing to this dramatic decline?" Improvements in childhood nutrition and an increase in immunization coverage may, in part, provide an answer.

Childhood nutrition

Although the overall nutritional status of Bangladeshi children has improved considerably since 1996, the twin goals of ending poverty and malnutrition remain among the most important challenges to the health and welfare of infants and young children in Bangladesh. Undernourishment influences both the physical and the mental development of children. It not only exposes them to an increased risk of illness but also puts them at risk for a reduction in cognitive development, which may result in lower educational attainment.

Significant progress has recently been made in fighting childhood undernutrition in Bangladesh. Although the 1999-2000 BDHS shows that 45 percent of children under five are too short for their age (stunted) and 10 percent are underweight for their height (wasted), those figures represent a significant improvement since the 1996-1997 BDHS, in which 55 percent of children were identified as stunted and 18 percent were wasted.

Bangladeshi infant feeding practices have also improved in recent years. Many studies have shown the beneficial effects

An improvement in childhood nutrition and an increase in immunization coverage may be factors contributing to the encouraging downward trend in childhood mortality.

of breastfeeding on infants' nutritional status, morbidity, and mortality. In Bangladesh, the overall duration of breastfeeding is among the longest in the world.

However, many mothers do not follow the recommended practice of giving infants breast milk *exclusively* during the first 4 to 6 months of life. Only half of infants from birth to 3 months old are exclusively breastfed, while the others receive water, other liquids, or solid/ mushy foods. These practices have important implications for a child's health and nutritional status because a child is placed at an increased risk of developing an infection, diarrhea or other illness.

Later in life, it is the lack of proper supplementation that endangers children's health. Among children 10 to 12 months old, 14 percent receive only breast milk or breast milk and water. At that age, however, children should be receiving supplementary foods.

Childhood illness

An important means of improving the survival of young children consists of immunizing them against the principal childhood diseases: tuberculosis; diphtheria, pertussis, and tetanus (DPT); polio; and measles. Overall, 60 percent of Bangladeshi children age 12-23 months receive all the vaccinations recommended by the Extended Programme on Immunisation, an increase from the level in the 1996-1997 BDHS (54 percent). Most children received the first dose of polio vaccine (94 percent), although only 72 percent received the third dose as required for complete immunization.

In the 2 weeks before the survey, 6 percent of children under five years of age had diarrhea. More than 60 percent of those children were treated with a solution prepared from packets of oral rehydration salts (ORS) packet or *khabar*, while one-quarter were given a home-made solution of *labon gur*.

Vitamin A deficiency is a leading cause of preventable childhood blindness, as well as being a major contributing factor to the severity of several other causes of childhood morbidity and mortality. Data from the 1999-2000 BDHS show that vitamin A supplementation increased from 67 percent of children under ages in 1996-1997 to 73 percent in 1999-2000.

MEASURE *DHS*+ assists countries worldwide in the collection and use of data to monitor and evaluate population, health, and nutrition programs. Funded by the U.S. Agency for International Development (USAID), MEASURE *DHS*+ is implemented by Macro International Inc., an Opinion Research Corporation company (ORC Macro), in Calverton, Maryland, with the Population Council and the East-West Center. *DHS*+ *Dimensions* is published twice a year to provide information about the program and the status of *DHS*+ surveys. Send correspondence to MEASURE *DHS*+, ORC Macro, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705, USA (Tel.: 301-572-0200; Fax: 301-572-0999). Project Director: Martin Vaessen.

Marilyn Pfalt

Survey Looks at Service Delivery in Kenya's Health Facilities

Results from the 1999 Kenya Service Provision Assessment (KSPA) provide a comprehensive picture of the reproductive and child health care services in the country. The KSPA focuses on the supply side of the health care situation, and complements the information on health status and health care needs collected in the 1998 Kenya Demographic and Health Survey (KDHS).

The KSPA, the first national-level facility-based survey to be conducted in Kenya, specifically examined the availability and quality of services for clients seeking services for family planning, sexually transmitted infections (STIs) or maternal and child health. Data for the KSPA were collected through community interviews, visits to health facilities and observations of consultations.

Family Planning Services

Since the launching of Kenya's family planning program, the use of contraceptive methods in the country has expanded. Findings from the 1998 KDHS indicated a contraceptive prevalence rate of almost 40 percent among currently married women, an increase from the findings of the 1993 survey. However, the survey also found a considerable unmet need for family planning among married and unmarried women.

Information collected in the KSPA covers the delivery of family planning services at Kenyan health facilities, the suppliers of modern contraceptive methods to 85 percent of current users. The results indicate that access to family planning services is available at most facilities and that most clients are offered a choice of methods, although clinical methods are not as readily available as supply methods such as the pill, condom, and injection. More than a quarter of facilities offer adolescents special family planning counseling. Most facilities performed well in the areas of contraceptive storage and record keeping and relatively few reported stockouts.

An area of concern for Kenya's family planning services was poor compliance with infection control procedures, including sterilization of equipment and disposal of needles. Providers have also not always been discussing the full range of options with their clients: in about a quarter of new client consultations only one method was discussed. Although virtually all providers give out information on how to use contraceptive methods, fewer discuss the health risks, benefits and side effects. Finally, of particular concern is the fact that too often health workers fail to take the opportunity of counseling sessions to discuss STIs or HIV/AIDS prevention with new family planning clients.

STI/HIV/AIDS Services

The high prevalence of STIs and HIV/AIDS poses a major problem for Kenya's future development. It is compounded by a large sexually active youth population and inadequate knowledge and education about the problem. The government of Kenya faces the challenges of educating the population about the means of preventing the diseases and promoting behavioral changes, including the use of condoms. The KSPA assesses how well prepared health facilities are to meet the challenges and to deal with STI sufferers.

More than 90 percent of facilities offer STI treatment services, and slightly more than half offer testing. Less than 60 percent of Kenyan facilities offer HIV/AIDS services. Stockouts of the primary drugs used to treat the most common STIs are a major problem among all types of health facilities in Kenya. Another major concern is the lack of training among health providers. Only about half of health providers providing STI services have had basic training in HIV/AIDS.

During observations of STI consultations, it was noted that a high percentage of clients were asked questions important for proper diagnosis. Laboratory tests were performed for around a third of clients. Most health workers were observed either giving medicine to clients for a diagnosed STI or giving a prescription for the drugs. Few workers, however, were observed mentioning to their clients the risk factors for acquiring HIV/AIDS and only slightly over a third promoted condoms.

Maternal and Newborn Health Services

Complications related to pregnancy and childbirth are among the leading causes of morbidity and mortality among Kenyan women. Data collected in the KSPA are intended to help the Ministry of Health evaluate its efforts to promote safe motherhood through the National Reproductive Health Strategy.

Antenatal care is provided by 86 percent of facilities, while delivery care is provided in one-third of all facilities, mainly in hospitals, maternities and health centers. To provide comprehensive and high quality maternal care for women. health facilities need to have available appropriate equipment, supplies, and medicines. Although most facilities are well equipped to deal with normal deliveries and offer antenatal care, they are not prepared for managing obstetric complications or transferring women in emergency situations. Furthermore, training of maternal and newborn care providers is lacking, particularly in the areas of managing complications and counseling. Many facilities lack essential equipment, including items needed for neonatal resuscitation.

Relatively few facilities have the capacity to provide women with assisted vaginal delivery (AVD) when progress in labor is slow. Just over a quarter of delivery services can perform caesarean section, including the majority of hospitals, half of all maternities, and a quarter of clinics. Availability of blood transfusion services and post-abortion care is limited.

Child Health Services

The KSPA looked at a number of aspects of child health service, including the provision of immunization services and the treatment of common illness.

More than 85 percent of health facilities in Kenya offer immunization services and treatment for common childhood illnesses. Among those facilities, immunization services are offered an average of 4 days a week. However, only two-thirds of facilities that offer immunizations have all the necessary elements of the cold chain system. On the day of the survey, most facilities had five out of the six essential drugs used to treat common childhood illnesses in stock.

The standards of care used to assess the quality of sick-child consultations were based on the Ministry of Health guidelines and WHO/UNICEF's Integrated Management of Childhood Illness (IMCI). The observations of consultations for children with fever, diarrhea, and cough or difficult breathing, indicated that providers are not taking the appropriate steps during history taking and are not paying attention to danger signs. For example, less than half of the children with diarrhea were checked for dehvdration.

Medications are being delivered inappropriately—too many children with simple cough or cold are being given antibiotics and too few children with fever are being given antimalarials. Furthermore, heath workers need to explain procedures, such as treatment of diarrhea at home, to caretakers of children. The lack of training among providers of child health services is again a major factor.

Release of CSPro Promises Increased Flexibility

New census and survey processing software has expanded capabilities

Just hours after the first version of the Census and Survey Processing (CSPro) system was made available to the public in May, users from around the world were downloading the new software. During the first week, more than 100 users from 20 countries downloaded CSPro to use in universities, government organizations and the private sector.

CSPro is an integrated system for census and survey data processing designed to meet the needs of data producing organizations worldwide. It is a Windows-based system that provides for entry and tabulation of census and survey data, including the creation of data entry systems, secondary editing, tabulation and analysis, and dissemination of data files. The software was created for increased user-friendliness and flexibility and it combines the capabilities of the Integrated System for Survey Analysis (ISSA) and the Integrated Microcomputer Processing Systems (IMPS). The product is the result of a joint development effort among MEASURE *DHS+*, MEASURE partner, the International Program Center (IPC) at the U.S. Bureau of the Census (BUCEN), and a team of programming consultants at SerPro Ltda.

The first release of the software contains the CSPro Designer, where dictionaries and applications are created, the Data Entry Module, and the Quick Tabulation Module. The Map Viewer, Text Viewer, and Table Viewer tools, add-on utilities that allow for different table formats, are included with the release. Future versions of the system will offer the Batch Processing Module, the Full Tabulation Module, and the Sampling Errors Module, as well as improvements and extensions to the existing modules.

New Features of CSPro

- The new Data Entry Module allows users to design Windows-based data entry forms (screens) and applications for both form and field level processing, which include both preand post-entry logic. The processing language, based on the extremely powerful ISSA language, includes all of the functionality that you would expect from a full-featured programming language. The data entry system will allow interactive verification of data as well as the separate comparison of data
- The Quick Tabulation Module allows users to tabulate variables quickly by means of an interactive graphical interface. You can drag-and-drop variables from a list onto a table grid to design table layouts, then simply hit a button to tabulate the data. The Quick Tabulation Module allows you to generate quick tables whose rows and columns allow for nesting, thus permitting 4 dimensions of tabulation.
- In the near future, a Full Tabulation Module will allow for multiple row, column, and layer variables, with nesting on each dimension. This module will also give you complete control over the tabulation process, and allow tallying to individual cells, multiple tallies per case, and post processing of tabulations. Users will be able to define the type of statistic to present in each row or column of the table or to calculate their own statistics.
- •The Sampling Errors Module will permit users to calculate sampling errors for various types of indicators (including complicated statistics such as fertility and mortality rates) by means of several techniques.
- ■Finally, the Batch-Processing Module will permit the processing of multiple questionnaires or cases at a time. It can be used for editing data, recoding data, producing reports, or other forms of secondary processing. An export module will allow you to export data to use with SPSS, SAS, Stata, or other statistical packages.

An advantage for users accustomed to ISSA is that they can convert ISSA dictionaries into CSPro by using the dictionary converter. Since CSPro uses the ISSA language, ISSA applications only require minor modifications to function with CSPro.

The current version of CSPro is updated each week. The next major release is planned for Fall 2000. Look for the new releases of CSPro on the *DHS+* web site at http://www.measuredhs.com/about/survey_processing.cfm

Summary of Demographic and

COUNTRY SURVEY

ASIA

Bangladesh 2000 1997 1994 Cambodia 2000 1998 India 1998-2000* 1999 1993 Indonesia 1997 1994 1991 1987 Kazakhstan 1999 1995 Kyrgyz Republic 1997 Myanmar 1996² Nepal 1996 1987 (In-Depth) Pakistan 1991 Philippines 1998 1993 Sri Lanka 1987 Thailand 1987 Turkmenistan 2000 Uzbekistan 1996 Vietnam 1997³

IMPLEMENTING ORGANIZATION

Mitra & Associates/NIPORT Mitra & Associates/NIPORT Mitra & Associates/NIPORT National Institute of Statistics/MOH SAWA Cam./Nat. Inst. of Public Health Various organizations International Inst. for Population Sciences International Inst. for Population Sciences Central Bureau of Statistics/NFPCB/MOH Central Bureau of Statistics/NFPCB/MOH Central Bureau of Statistics/NFPCB/MOH Central Bureau of Statistics/NFPCB Academy of Preventive Medicine National Institute of Nutrition Inst. of Obst. & Ped., MOH Settlmt. and Land Rec. Dep., Min. of Agr. Ministry of Health/New ERA New ERA National Institute of Population Studies National Statistics Office/Dept. of Health National Statistics Office Dept. of Cen. & Stat., Min. of Plan Impl. Inst. of Pop. Studies, Chulalongkorn U. MCH/MOH and MIT Inst. of Obst. & Gynec., MOH Nat. Comm. on Pop. and Fam. Planning

LATINAMERICA & CARIBBEAN

Instituto Nacional de Estadística Instituto Nacional de Estadística Instituto Nacional de Estadística Soc. Civil Bem-Estar Familiar no Brasil Soc. Civil Bem-Estar Familiar no Brasil PROFAMILIA PROFAMILIA PROFAMILIA Corp. Cen. Reg. de Pob./Min. de Salud CESDEM CESDEM/PROFAMILIA PROFAMILIA



COUNTRY SURVEY

LATIN AMERICA & CARIBBEAN

1986 1986 (Exp.) Ecuador 1987 El Salvador 1985 Guatemala 1999 (Interim) 1997 (In-Depth 1)* 1997 (In-Depth 2)* 1995 1987 Haiti 2000 1994 Mexico 1987 Nicaragua 1997 Paraguay 1990 Peru 2000 1996 1992 1986 1986 (Exp.) Trinidad & Tobago 1987

Consejo Nacional de Población y Familia Consejo Nacional de Población y Familia Cen. de Estud. de Pob. y Paternidad Responsible Asociación Demográfica Salvadoreña Instituto Nacional de Estadística Instituto Nacional de Estadística Instituto Nacional de Estadística Instituto Nacional de Estadística Inst. de Nutrición de Cent. y Panamá Institut Haïtien de l'Enfance Institut Haïtien de l'Enfance Dir. Gen. de Plan. Fam., Sec. de Salud Instituto Nacional de Estadísticas y Censos Centro Paraguayo de Estudios de Población Instituto Nacional de Estadística Family Planning Association of Trinidad/Tobago

IMPLEMENTING

ORGANIZATION

NEAR EAST/NORTH AFRICA/EUROPE

Nat. Stat. Service/MOH National Population Council El-Zanaty & Associates El-Zanaty & Associates National Population Council National Population Council National Population Council National Population Council Department of Statistics Department of Statistics Ministère de la Santé Publique Ministère de la Santé Publique Ministère de la Santé Publique Office Nat. de la Statistique Office Nat. de la Fam. et de la Population Hacettepe Inst. of Population Studies Hacettepe Inst. of Population Studies/MOH Central Statistical Organization Central Statistical Organization



COUNTRY SURVEY

SUB-SAHARANAFRICA

Benin 1996 Botswana 1988 Burkina Faso 1999 1992 Burundi 1987 Cameroon 1998 1991 Central African Rep. 1994 Chad 1997^{3,4} Comoros 1996⁴ Côte d'Ivoire 1994 Eritrea 1995 Ethiopia 2000 Gabon 2000 Ghana 1998 1993 1988 Guinea/Conakry 1999 Kenya 1999 (SPA)* 1998 1993 1989 Liberia 1986 Madagascar 1997⁴ 1992 Malawi 2000 1996 (KAP) 1992 Mali 2000 19965 1987 Mauritania 2000^{3,4} Mozambique 1997 Namibia 1992³ Niger 1998 1992 Nigeria 1999⁶ 1990 Ondo State, Nigeria 1986 Rwanda 2000 1992

IMPLEMENTING ORGANIZATION

Institut National de la Statistique Ministry of Health Inst. Nat. de la Statistique et la Démo. Inst. Nat. de la Statistique et la Démo. Dép. de la Pop., Min. de l'Intérier Bur. Cen. Recensements et Études de Pop. Min. du Plan et de l'Amén. du Terr. Dir. des Stat. Dém. et Sociales Bureau Central du Recensement Centre National de Doc. et de Rech. Sci. Inst. National de la Statistique National Statistics Office Central Statistical Authority Direction Générale de la Stat Ghana Statistical Service Ghana Statistical Service Ghana Statistical Service Direction Nationale de la Statistique National Council for Population and Dev. Min. of Planning & Economic Affairs Dir. de la Dem. et de la Statistique Sociale Centre Nat. de Recherches sur l'Env. National Statistical Office National Statistical Office National Statistical Office CPS/MSSPA et DNSI CPS/MSSPA et DNSI Inst. de Sahel: USED/CERPOD Office Nat. de la Statistique Instituto Nacional de Estatística Min. of Health and Social Services Care International Dir. de la Stat. et des Comptes Nat. Nat. Pop. Commission Federal Office of Statistics Ministry of Health, Ondo State Office National de la Population Office National de la Population



COUNTRY SURVEY SUB-SAHARANAFRICA

IMPLEMENTING ORGANIZATION

SERDHA

Min. de l'Economie et des Finances Dir. de la Prévision et de la Stat. Min. de l'Economie et des Finances Dept. of Health/Med. Research Council Dept. of Stat., Min. of Fin. & Econ. Plan. National Bureau of Statistics Bureau of Statistics, Planning Comm. Direction de la Statistique Unité de Recherche Dém., U. du Benin Uganda Bureau of Statistics Inst. Stat. & Applied Econ., Makerere U. Dept. of Stat., Min. Fin. & Econ. Plan. Ministry of Health Central Statistical Office University of Zambia Central Statistical Office Central Statistical Office Central Statistical Office

- 1 Funded by ADB and the World Bank
- 2 Funded by UNDP3 Funded by the World Bank
- 4 Funded by UNFPA
- 5 Funded directly by USAID/Mali
- 6 Limited technical assistance
- *India: *Guatemala 1: *Guatemala 2: *Egypt: *Kenya: *Tanzania:

*Uganda:

12 Uttar Pradesh Benchmark Surveys Health Expenditure Survey Health Provider Survey Reasons for Nonuse in Upper Egypt Service Provision Assessment Estimation of Adult and Childhood Mortality in a High HIV/AIDS Population Negotiating Reproductive Outcomes



Increased Use of Contraception in Kazakhstan Contributes to Abortion Decline

Women in Kazakhstan are having fewer induced abortions now than 5 years ago and are choosing new methods of family planning to limit births, according to the findings of the 1999 Kazakhstan Demographic and Health Survey (KDHS). Induced abortion, which has long been used as a means of fertility control in the republics of the former Soviet Union, can adversely affect a woman's health, reduce her chances for further childbearing, and contribute to maternal and perinatal mortality.

In Kazakhstan, induced abortion accounts for 37 percent of all pregnancy outcomes. Although women in all demographic groups use induced abortion to control fertility, the extent of the practice varies widely. For example, urban women terminate 46 percent of pregnancies, while rural women terminate 28 percent. Women of Russian ethnicity are almost twice as likely to terminate a pregnancy (49 percent) as Kazakh women (27 percent).

Data collected in the survey were used to calculate the total abortion rate (TAR), which is interpreted as the number of abortions a woman would have in her lifetime if she observed the current rate during her childbearing years. The TAR is 1.4 abortions per woman, although that rate varies by residence and ethnicity. The data show that the TAR for Russian women (1.7 abortions per woman) exceeds the TAR for Kazakh women (1.1) by about 55 percent.



*currently married women using any method

A comparison of the 1999 KDHS and the 1995 KDHS indicates a decline of 22 percent in the total abortion rate, from 1.8 to 1.4 abortions per woman. The decline occurred across all regions and education groupings. Whereas the TAR among Russians declined 37 percent from 2.7 to 1.7, the TAR among Kazakhs remained stable at 1.1.

More than half of the induced abortions that took place during the 3 years before the survey were preceded by contraceptive failure. It appears that the availability of more reliable methods might further reduce the incidence of induced abortion. In an effort to limit the practice of abortion, the Ministry of

Induced abortion, long used as a means of fertility control in the republics of the former Soviet Union, may affect women's health adversely.

Health in Kazakhstan has for the past decade been committed to making safe, effective contraceptive methods widely available to the population. As part of this effort, family planning offices have been opened around the country in both cities and villages. These offices provide women with professional advice about family planning as well as supplies of various contraceptive methods. Results from the 1999 KDHS indicate there has been an increase in the use of modern contraceptive methods over the past 5 years.

Among married women in Kazakhstan, two-thirds are using a method of contraception. Most of these women are using a modern method (53 percent). The IUD is by far the most widely used modern method of contraception, chosen by 42 percent of currently married women, followed by the condom.



Overall use of family planning has increased since 1995. In particular, the country has witnessed an increase in the use of modern methods from 46 percent in 1995 to 53 percent in 1999. While the use of modern contraceptive methods has increased, the use of traditional methods such as periodic abstinence and withdrawal has declined.

Accompanying the rise in the use of modern contraceptive methods has been a decline in total fertility in Kazakhstan. Data from the 1999 KDHS indicate that the total fertility rate is 2.1 children per woman, although the rate varies according to the background characteristics of the respondents. As expected, fertility rates are higher both in rural areas and among women with less education. Additionally, the total fertility rate is highest among Kazakh women (2.5 children per woman), compared with 1.4 for Russian women and 1.7 among other ethnic groups.

During the decade between the 1989 census and the 1999 KDHS, fertility declined by 28 percent, or almost one child per woman. Total fertility has decreased from 2.9 children per woman during the period 1988-1989 (Darsky and Dworak 1993) to 2.5 for the period 1992-1995 (1995 KDHS) to 2.1 for the period 1996-1999. Fertility declines took place not only among ethnic Kazakh and Russian women, but also among rural and urban women, among women in all regions of Kazakhstan, and among all education levels.

Health Conditions in Burkina Faso Show Little Improvement

On July 13-14, 2000, a National Dissemination Seminar was held in Ouagadougou, the capital of Burkina Faso, to officially release the results of the second DHS survey in the country the *Enquête Démographique et de Santé au Burkina Faso, 1998-1999* (EDSBF-II), which was carried out under MEASURE *DHS+*. The results of the EDSBF-II indicate that there has been little improvement in the health and well being of women and children since the last DHS survey conducted in 1993. In some areas, health conditions have even worsened.

Adequate care during pregnancy and childbirth can reduce the risks of illness and death for both mothers and children. Antenatal care has been proven to be most effective when it is received from early in the pregnancy through delivery. Women who are at risk of future complications during pregnancy or at the time of delivery can be identified and monitored during routine antenatal care visits. For four in 10 births in Burkina Faso mothers received no antenatal care, which is the same proportion as in 1993.

An important component of antenatal care is protecting pregnant women and children against tetanus, a principal cause of death among infants. In Burkina Faso, data show that for almost half of all births (45 percent) no tetanus toxoid injections were given. The figure was 36 percent in 1993.

Furthermore, only three in 10 births were to mothers who received assistance at delivery. The low level of delivery assistance, however, was not surprising to some seminar participants. They held that the widespread prevalence of home deliveries (67 percent) highlights the need to ensure that *matrones* (traditional birth attendants) who assist 42 percent of home deliveries are trained to refer pregnant women with serious complications to medical facilities. In 1993, 56 percent of births occurred at home.

Immunization against the major preventable diseases of childhood (tuberculosis; diphtheria, pertussis, and tetanus; polio; measles) also increases the chances of child survival. EDSBF-II data show a decrease in total immunization coverage: only 29 percent of children were immunized in 1999, compared with 35 percent in 1993. The administration of BCG vaccine, which protects children against tuberculosis, and the measles vaccine dropped the most since the last survey, from 85 percent to 72 percent and 60 percent to 46 percent, respectively.

In the 2 weeks before the survey one in five children under the age of five was ill with diarrhea. Respondents' knowledge and use of commercially packaged oral rehydration salts (ORS) to treat dehydration caused by severe diarrhea improved slightly since 1993 (from 49 percent to 52 percent and 12 percent to 15 percent, respectively). However, a smaller proportion of children received increased fluids (a decrease from 43 percent to 37 percent) when they had diarrhea.

The stagnation in the health improvement of Burkinabe children and mothers is unfortunately coupled with feeding practices that put children at increased risk of infection. Many studies have demonstrated that breast milk is the best source of the nutrients and fluids that infants need early in their lives. Only about 5 percent of infants in Burkina Faso are exclusively breastfed during the first 6 months of life.

The introduction of liquids and solid foods earlier than the recommended age of about six months puts infants at a greater risk of diarrheal disease. Consumption of liquids and solid foods also decreases an infant's intake of breast milk, which in turn reduces the mother's supply of milk. Solid foods should be introduced to infants after they have reached the age of six months because then breast milk alone is no longer sufficient to maintain a child's optimal growth. In Burkina Faso, one in two children age 6 to 9 months old is not being properly fed.

It is estimated that around 37 percent of all deaths that occur before the age of five in Burkina Faso are related to malnutrition, especially through the weakening of a child's immune system. Continued high levels of fertility in the country (6.8 children per woman) translate into fewer household resources for each child and may increase the chances that a mother may not be able to breastfeed or care for her children adequately. EDSBF-II data also show that the proportion of children under 5 years old who are stunted (or chronically malnourished) has increased since 1993— from 29 percent to 37 percent— and that those who are underweight increased from 30 percent to 34 percent.

Mortality trends presented on the second day of the National Dissemination Seminar indicated a decline in child survival since the 1993 survey. Based on data from 0-4 years before the survey, it is estimated that more than one in 10 children (105 per 1,000 births) will die before their first birthday compared with 94 per 1,000 in 1993. The increase is wholly due to a higher risk of dying between the first and 12th month (from 51 to 65 per 1,000), while the risk of dying during the first month has actually decreased slightly (from 43 to 41 per 1,000). More than one in five children in Burkina Faso will not live to see their fifth birthday. This rate is among the highest in sub-Saharan Africa.



After the age of 6 months, solid foods should be introduced to children as a supplement to breast milk. In Burkina Faso, half of children 6 to 9 months old are not being fed properly and malnutrition is a big concern.

MEASURE DHS+ Visitors and Events

January 2000

■ Ms. Lourdes Fidalgo and Ms. Carina Ismael from Mozambique visited ORC Macro to finalize the draft of the Mozambique In-Depth Nutrition Report.

■ The Zonal Dissemination Seminars for the 1998 Ghana Demographic and Health Survey were held in Tamale, Kumasi, and Sogakope from January 11 to January 17.



USAID Ghana representative Mr. Lawrence Aduonum-Darko addresses the participants at the Northern Zone 1998 GDHS Dissemination Seminar, held in Tamale on January 11. The seminar received generous media coverage, including a segment on national television.

February 2000

■ Ms. Ana Vega from Colombia visited ORC Macro to work on converting the standard data entry and data management programs for the MEASURE *DHS+* survey in Colombia.

March 2000

■ **Mr. Tinga Sinaré** and **Mr. François Ilboudo** from Burkina Faso visited ORC Macro to draft the final report for the 1998-99 Burkina Faso DHS survey.

■ Mr. Mamadou Badian Diallo, Mr. Ibrahima Diallo, and Ms. Marie-Anne Doualamou from Guinea visited ORC Macro to complete the draft of the final report for the 1999 Guinea DHS survey.

April 2000

■ *DHS+* conducted a 2-week workshop on Disseminating DHS Results at the National Seminar held from April 10 to 21 in Calverton, Maryland. The workshop covered: selecting and targeting audiences, preparing computerized presentations of results, working with the media, speaker rehearsals, and tips on designing printed dissemination materials. **Mr. Julius Atula** and **Ms. Ebere Iheanacho** from Nigeria, **Mr. Irenius Ruyobya** from Tanzania, **Mr. Peter Katambarare** from Zimbabwe, **Mr. Mario Gutierrez** from Bolivia, and **Mr. Tinga Sinaré** from Burkina Faso participated in the workshop.

Dr. Paul Kizito and **Dr. Margaret Mukumi** from Kenya visited ORC Macro to draft the final report for the 1999 Kenya Service Provision Assessment.

■ **Mr. Joseph Maturofa** from Zimbabwe visited ORC Macro to work on the final report for the 1999 Zimbabwe DHS survey.

May 2000

■ *DHS+* held a 1-week workshop on Preparing Materials for the National Seminar in Conakry, Guinea May 8-12. **Ms. M'Ballou Bérété, Ms. Salématou Diallo, Mr. Mamadou Chérif Bah, Mr. Ibrahima Diallo, Ms. Marie-Anne Doualamou, Mr. Mamadou Badian Diallo, Mr. Lansana Fofana, Mr. Ousmane Balole, Mr. Lansana Chérif,** and **Mr. Abdoulaye Diallo** attended the workshop.

■ Mr. Bedel Sarbaev, Dr. Adil Katarbaev, Dr. Turqeldy Sharmanov, and Dr. Akkumys Salkhanova from Kazakhstan visited ORC Macro to finalize the final report for the 1999 Kazakhstan DHS survey.

June 2000

■ The Bangladesh National Dissemination Seminar was held in Dhaka, Bangladesh, on June 22.

■ Mr. Emmanuel Boadi and Mr. Steve Grey from Ghana spent time at ORC Macro to work on the further analysis of the 1998 Ghana DHS survey.

■ *DHS+* participated in the annual meeting of the **Global Health Council**, held June 13-16 in Crystal City, Virginia.



Participants in the DHS+ workshop on Preparing Materials for the National Seminar held in Guinea this May pose with their certificates of completion and DHS staff member Daniel Vadnais.

Fresh Look for DHS Publications

DHS recently unveiled a new look for several publications that are guaranteed to brighten any bookshelf. The covers of the final report, summary report, chartbooks, and other publications now feature colorful designs from survey countries. The motifs are chosen in collaboration with survey implementing organizations and include local textile patterns, artwork, and symbols. Other survey publications, such as wall charts, fact sheets, and calendars, also incorporate the designs to create a uniform appearance.

The formatting of the final report content has also been updated for easier reference and greater visual appeal. A redesigned summary report is intended to better target policymakers and program managers with more informative sections and eye-catching graphics.





How to order DHS publications

DHS publications are listed on the DHS web site and may be ordered directly. Requests can also be sent to the Publications Clerk at the address below. To receive a publications catalogue or the newsletter (*DHS+* Dimensions), contact

Demographic and Health Surveys Attn: Publications Clerk ORC Macro 11785 Beltsville Drive, Suite 300 Calverton, MD 20705-3119 USA

Tel.: 301-572-0958 Fax: 301-572-0999 E-mail: reports@macroint.com Web: www.measuredhs.com

What's New in Print?

Country Reports

Burkina Faso	1998-99 Final Report (French) 1998-99 Summary Report (French)
Guinea	1999 Final Report (French) 1999 Summary Report (French)
Kazakhstan	1999 Final Report (English)
Tanzania	1999 Final Report (English)

Further Analysis Reports

Govindasamy, P. and E. Boadi. 2000. A Decade of Unmet Need for Contraception in Ghana: Programmatic and Policy Implications. (English)

Blanc, A. K. and S. Gray. 2000. Greater than Expected Fertility Decline in Ghana: An Examination of the Evidence. (English)

Other Publications

Burkina Faso Nutrition Chartbook (French/English) Guinea Nutrition Chartbook (French/English)

Dissemination Materials

1998 South Africa Fact Sheet (English) 1999 Guinea Fact Sheet (French) 1999 Guinea Wall Chart (French) 1999 Burkina Faso Wall Chart (French) 1999 Burkina Faso Fact Sheet (French)

Look for these publications coming soon!

Bangladesh 1999-2000 Final Report (English) Colombia 2000 Final Report (Spanish) Kenya 1999 SPA Final Report (English) Nigeria 1999 Final Report (English) Senegal 1999 Final Report (French) Zimbabwe 1999 Final Report (English)

Espeut, D., et al. 2000. Nutrition and Health Status of Young Children and Their Mothers in Mozambique. (English and Portuguese)

Rafalimanana, H. and C. Westoff. 2000. Gap Between Preferred and Actual Birth Intervals in Sub-Saharan Africa. (English)

REGION/ Total % Currently % Women Median % SURVEY Total % Currently % Women Receiving Duration Children SURVEY Total Wanted IMR/ Using Using Any Receiving Assistance at (Months) 0-35 COUNTRY Fertility Fertility Under-5 Any Modern Antenatal Delivery From of Breast- Months	% Children Fully Immunized ^h
ASIA	ininanizou
Bangladesh 2000 3.3 tt 66/94 54 43 33 13 tt 45	60
Indonesia 1997 2.8 2.4 46/58 57 55 82 43 24 t	55
Kazakhstan 1999 2.1 1.9 62/71 66 53 94 99 7 10 ¹	81
Kyrgyz Republic 1997 3.4 3.7 61/72 60 49 97 98 17 25	82
Nepal 1996 4.6 2.9 79/118 29 26 39 ^j 10 ^j 31 48	43
Philippines 1998 3.7 2.7 35/48 47 28 86 56 13 †	73
Uzbekistan 1996 3.3 3.1 49/59 56 51 95 ^j 98 ^j 17 31	85
Vietnam 1997 2.7 ^b 2.4 28/38 75 56 71 77 17 †	57
LATIN AMERICA/CARIBBEAN	
Bolivia 1998 4.2 2.5 67/92 48 25 65 ^j 57 ^j 18 26 ^k	26
Brazil 1996 2.5 1.8 $39/49$ 77 70 81^{1} 7 8^{1} 7 11^{1}	73
Colombia 1995 3.0 2.2 28/36 72 59 83 85 11 13	66
Dominican Republic 1996 3.2 2.5 47/57 64 59 98 96 8 11	39
Guatemala 1999 5.0 4.1 45/59 38 31 60 41 20 42	60
Haiti 1994 4.8 3.0 74/131 18 13 68 46 18 27	30
Nicaragua 1997 3.9 2.8 40/50 60 57 82 65 12 25	73
Peru 1996 3.5 2.2 43/59 64 41 66 55 20 26 ¹	63
NEAR EAST/NORTH AFRICA	
Egypt 2000 3.5 †† 56/69 56 54 53 61 †† ††	92
Jordan 1997 4.4 2.9 29/32 53 38 96 97 12 8	21
Morocco 1995 3.3 2.2 62/80 50 42 45 40 15 21 ^m	85
Turkey 1998 2.6 1.9 43/52 64 38 68 81 † †	46
Yemen 1997 6.5 4.5 90/121 21 10 34 22 18 52 ⁱ	28
SUB-SAHARAN AFRICA	
Benin 1996 6.3 ^b 5.0 ^b 94/167 16 3 80 ^j 64 ^j 23 25	56
Burkina Faso 1999 6.8 6.0 105/219 12 5 61 31 27 37 ⁱ	29
Cameroon 1998 5.2 4.6 77/151 19 7 79 58 18 29	36
Chad 1997 6.6 6.3 103/194 4 1 32 24 21 40 ^m	11
Comoros1996 5.1° 3.7° 77/104 21 11 85 ¹ 52 ¹ 20 34	55
Eritrea 1995 6.1 5.7 66/136 8 4 499 219 22 38	41
Ghana 1998 4.5° 4.2° 56/10/ 22 13 81 39 22 26	51
Guiriea 1999 5.5 5.0 98/17/ 0 4 71 35 22 20'	32
Kenya 1998 4.7 3.5 74/112 39 31 92 44 21 33 Madagaggar 1007 6.0 E.2 06/1E0 10 10 70 47 21 40	05 24
Madagascar 1997 6.0 5.2 96/159 19 10 78 47 21 48	30
Wall 1990 0.7 0.0 123/238 7 5 4/2 402 22 30 Magrambiana 1007 E.4 E.0 125/201 4 E 71 44 22 24	3Z 47
Nicon 1009 7.5 7.0 102/074 9 5 40 44 22 50	47 10
NIGEL 170 1.0 1.2 120/2/4 0 0 44 21 41 Sanaga 1007 5.7 1.6 68/120 12 0 02 17 21 +	10 +
South Africa 1008 2.0 ++ 15/50 6.2 6.1 0.1 0.1 0.1 ++ ++	63
Juur Annua 1770 2.7 43/37 02 01 74 84 Tanzania 1000 5.6 / 8 00/1/7 25 17 / 0 26 21 //	03 60
Tanzania 1777 5.0 4.0 77/147 2.3 1.7 4.7 3.0 2.1 4.4 Tana 1008 5.4 4.2 80/146 2.4 7 8.2 5.0 2.4 2.2	21
Uganda 1995 6.9 5.6 81/147 15 8 01 ⁿ 28 ⁿ 20 28	47
Zambia 1996 6.1 5.3 109/197 26 14 96 47 20 42 ⁱ	67
Zimbabwe 1999 4.0 †† †† 54 50 93 83 †† ††	75

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> 6

0

9.6

19.3

2

10

0.11

↑ = Not available from survey data.
 ↑↑ = Not available until publication of final report.
 a Based on 3 years preceding survey (women 15-49).
 b Based on 5 years preceding survey.
 c Excludes prolonged abstinence.
 d Excludes periodic/prolonged abstinence, withdrawal, "other."

e Care provided by medically trained personnel. f Children <3 years old (any breastfeeding). Height-for-age zscore is below -2 SD based on the NCHS/CDC/WHO reference population. h Children 12-23 months (BCG, measles, 3 doses each DPT/polio). i Children 0-59 months old.

 j
 Based on births in the preceding 3 years.

 k
 Children 3-35 months old.

 l
 Care provided by doctor.

 m
 From 1992 ENP5-II.

 n
 Based on births during the preceding 4 years.