

DHS Dimensions

A semiannual newsletter of the Demographic and Health Surveys project

ORC Macro Joins Forces with Outstanding Organizations; Remains Prime Contractor for DHS Contract

ORC Macro will be the prime contractor for the execution of the second phase of the MEASURE Demographic and Health Surveys (DHS) project that was awarded September 30, 2003 by the United States Agency for International Development (USAID).



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For nearly 20 years, Macro International Inc., an Opinion Research Corporation company (ORC Macro), has been providing participating countries, USAID, Cooperating Agencies, and international organizations with reliable, nationally representative data on population and health. As the prime contractor for MEASURE DHS, ORC Macro will be able to continue its work in this field.

“As prime contractor for the DHS Program since 1984, we feel very honored and privileged that USAID has entrusted us with the execution of this new and challenging project,” said Martin Vaessen, DHS project director. “We have built a strong reputation for quality, which has become one of the hallmarks of the program. Macro’s continuing challenge has been to ensure high-quality data in the face of the many hurdles that are an inherent part of large-scale data collection efforts in developing countries. Over time, we have adapted successfully to changing circumstances and demands, with the content of our surveys changing to meet the needs of countries and development agencies.”

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With the new project comes a special emphasis on helping data users make the best choices among data collection options and on increasing the availability of data and facilitating their use. This will contribute to making DHS data even more useful to policymakers and program managers around the world. Since data users have different levels of technical proficiency and different data needs, MEASURE DHS will use a variety of publications, media and technologies to translate the data into relevant information accessible to a wide range of audiences. To this end, ORC Macro has joined forces with four organizations with outstanding capabilities – the Johns Hopkins University Center for Communications Programs (JHU/CCP), the Program for Appropriate Technology in Health (PATH), Casals and Associates, and Jorge Scientific Corporation (JSC).

A number of innovations will take place under the new project: computer assisted data collection with hand-held computers; development of a DHS Statistics Live tool; expansion of the STATcompiler to include mapping, charting, and interactive capabilities; a “Gender Corner” on the DHS website; recruitment and support for “Data Ambassadors”; experiments with inclusion of non-household-based populations in surveys; and an array of new types of surveys, including AIDS Indicator Surveys, Benchmark Surveys, Health Examination Surveys, Key Indicator Surveys, and Continuous Surveys.

As it has for the last 20 years, ORC Macro’s vision for achieving MEASURE DHS will largely rest on the shoulders of its key personnel, its subcontractors, specialized staff, skillful consultants and long-term resident advisers who, collectively, are proficient in a number of areas of expertise ranging from population-based data collection techniques, data analysis, data dissemination, capacity building of institutions and individuals, qualitative research, gender and service provision assessment surveys to epidemiology, reproductive health, biomarkers, HIV/AIDS, and information technology.

Mr. Vaessen emphasized that the increased importance of data translation and utilization under MEASURE DHS as well as the need to create increased demand for quality data will be achieved through an inclusive process of consultation with stakeholders at the global, national, and sub-national level. “The extensive experience of our subcontractors in these areas greatly strengthens our capacity to deliver on this promise. The increased importance of data utilization goes hand-in-hand with a continued emphasis on innovations in the area of health. The increasing use of biomarkers in surveys, as well as the inclusion of new emphasis areas such as malaria and adult health, will provide valuable new data and expand the audience for DHS results. Our subcontractors’ experience in the area of biomarkers will be invaluable and will greatly enhance the potential use of these data,” said Mr. Vaessen.

The MEASURE DHS project is for a period of five years and officially started on October 1, 2003. Subsequent issues of DHS Dimensions will address some of the new areas of work the project entails. ■

Zambia DHS First to Include HIV Testing in High Prevalence Country

Results from the Zambia Demographic and Health Survey (ZDHS) carried out in 2001–2002 show that 16 percent of all Zambians age 15 to 49 are HIV positive. The same survey also found that 7 percent of Zambian adults age 15 to 49 have syphilis.

The 2001–2002 ZDHS represents the first time HIV testing was conducted as part of a Demographic and Health Survey in a country facing a generalized HIV epidemic, such as Zambia. It was also the first fully national, population-based assessment of both HIV and syphilis prevalence in Zambia. The ZDHS involved a nationally representative sample of more than 8,000 households, with HIV and syphilis testing conducted in one-third of these households. Blood samples were collected for adults from the subsampled households who consented to the testing.

The ZDHS findings confirm the widespread nature of the HIV/AIDS epidemic in Zambia and show that three provinces – Lusaka (22 percent), Copperbelt (20 percent), and Southern (18 percent) – have HIV levels above the national average (16 percent). Northern and North-Western are the only provinces where the HIV level is under 10 percent.

According to the ZDHS results, people who live in urban areas are more than twice as likely as rural residents to be infected with HIV (23 percent and 11 percent, respectively).

HIV levels were found to be higher among women (18 percent) than men (13 percent). Due to physiological differences, women have a higher risk of infection when exposed to HIV than men.

Since ZDHS is the first national-level survey to include HIV testing, it cannot shed light on the trend (i.e. whether the infection rate is falling, staying at the same level or rising) in the HIV epidemic in Zambia. Two or more population-based surveys will be needed to show trends in HIV levels among the entire adult population.

The ZDHS results also represent the first national-level estimate of syphilis prevalence among men and women in the reproductive ages in Zambia. According to the ZDHS, men are slightly more likely than women to have syphilis (8 percent and 7 percent, respectively).

Like HIV levels, syphilis rates vary markedly by province, from a low of 2 percent Northern province to 10 percent in Copperbelt and Lusaka. At 9 percent, urban residents are also more likely to have syphilis than rural residents whose level

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is 6 percent.

Pregnant women have slightly higher syphilis rates than nonpregnant women (7 and 6 percent, respectively). Among the sexually-active never-married population, women are almost twice as likely to be infected with syphilis as men (5 percent versus 3 percent). Among married women and men, more men (10 percent) than women (7 percent) are infected. Divorced, separated, or widowed men have a very high risk of being infected, with 25 percent infected, compared with 9 percent of their female counterparts.

Monitoring the HIV/AIDS Epidemic

Population-based surveys offer another tool for obtaining data on the HIV epidemic and its nature in Zambia. Before the ZDHS was conducted, HIV prevalence was estimated based on data from epidemiological HIV sentinel surveillance (ESS) amongst antenatal care (ANC) clinic attendees. ANC surveillance systems are suited to monitoring trends in prevalence; however, they are less useful for producing estimates of

national prevalence in the general population because they exclude women who are not pregnant, those who are pregnant but do not attend ANC, and men. ANC clinics also tend to be concentrated in urban or semi-urban areas. Thus, surveillance systems tend to overestimate the HIV prevalence in a population; the excluded populations – women who are not sexually active, rural women, younger women, and men – have lower HIV rates in general than the population at large.

National level population-based surveys like the ZDHS have the potential to provide a more accurate assessment of the prevalence of HIV than ANC surveillance systems because they interview a representative sample of

both men and women in the reproductive ages. The geographic coverage in a survey is also broader than in a sentinel surveillance. However, popu-

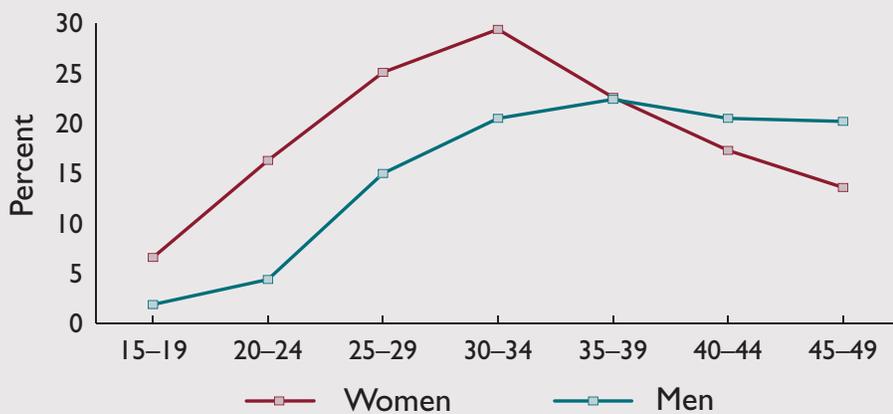
HIV Prevalence by Age, Sex and Residence

	WOMEN		MEN	
	Urban	Rural	Urban	Rural
15–19	9.0	4.7	2.4	1.6
20–24	22.7	11.9	4.9	4.0
25–29	38.4	15.4	24.0	9.5
30–34	42.5	21.0	34.3	9.2
35–39	40.2	15.4	33.9	15.6
40–44	29.4	11.6	27.2	17.7
45–49	20.1	10.7	29.4	15.4

lation-based surveys cannot be done as frequently as a sentinel surveillance. As a result, they are not convenient for monitoring trends in HIV prevalence.

Therefore, it is important to note that although the HIV prevalence found in the ZDHS is lower than previous rates found using sentinel surveillance, this cannot be interpreted as a decline in the national prevalence rate. Because of the differing methodologies used to measure HIV prevalence, results of ANC sentinel surveillance and of the ZDHS are not directly comparable. In order to track changes over time, either two sentinel surveillance surveys or two population-based surveys must be compared to one another. For the reasons described above, neither alone is wholly satisfactory for monitoring the HIV epidemic. However, together they provide a rich body of information for understanding the nature and scope of the epidemic in Zambia. ■

HIV Prevalence Rates by Sex and Age, Zambia 2001–2002



MEASURE DHS assists countries worldwide in the collection and use of data to monitor and evaluate population, health, and nutrition programs. Funded by the United States 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 Johns Hopkins University Bloomberg School of Public Health's Center for Communication Programs, the Program for Appropriate Technology in Health, Casals and Associates, and Jorge Scientific Corporation. 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; www.measuredhs.com). Project Director: Martin Vaessen.

Rwanda SPA Examines Quality of Available Health Services

The 2001 Rwanda Service Provision Assessment (RSPA) was conducted in a representative sample of 223 health facilities throughout Rwanda. The survey covered hospitals and health centers, and included both governmental (public) and non-governmental health facilities that receive government support. The RSPA used interviews with health service providers and clients and observations of provider-client consultations to obtain information on the capacity of facilities to provide quality services, and the existence of functioning systems to support quality services. The areas addressed were the overall facility infrastructure; specific child health, family planning, and maternal health services; and services for sexually transmitted infections (STIs) and HIV/AIDS. The objective was to assess the strengths and weaknesses of the infrastructure and systems supporting these services, as well as to assess the adherence to standards in the delivery of curative care for children and antenatal care for women.

Service availability

Slightly more than half of facilities offer some level of the defined range of basic child, maternal, and reproductive health services: consultation services for sick children and for sexually transmitted infections, temporary methods of

Slightly more than half of facilities offer some level of basic health services. Almost all facilities had at least one qualified provider for curative care.

family planning, antenatal care, immunization, and child growth monitoring. In addition, almost all facilities had at least one qualified provider for curative care.

Three-fourths of hospitals were found to have all items available that were assessed for supporting quality 24-hour emergency services (overnight or inpatient beds, at least two qualified providers for curative care, 24-hour onsite or on-call staffing, access to 24-hour emergency communication, a client latrine, and an onsite water source at least some time during the year). All of these elements, plus a year-round onsite water supply and a 24-hour regular source of electricity, were available at 50 percent of hospitals.

Child Health Services

All basic child health services (curative care, growth monitoring, and immunization) are available in over three-fourths of Rwandan facilities. However, overall, child health services are not provided in an integrated manner; immunization and growth monitoring are most often offered two days a week, while curative care for sick children is available seven days a week.



The capacity to provide pre-referral care to seriously ill children is limited because of lack of staff qualified to administer pre-referral antibiotics.

Family Planning Services

Oral contraceptives and progestin-only injections are the most commonly available temporary methods of family planning. Long-term methods such as the intrauterine device (IUD) and implants are offered at less than 10 percent of facilities, with few of these facilities having the method available the day of the survey.

Family planning service providers in almost half of facilities offering family planning provide diagnosis and treatment of STIs.

STIs and HIV/AIDS

STI services are widely available, however, there is an opportunity to increase case detection and treatment through expansion of service integration with antenatal care and family planning services.

HIV/AIDS diagnostic and care and support services are in the process of development and expansion. Counseling is

Family planning service providers in almost half of facilities offering family planning provide diagnosis and treatment of STIs.

widely available, however, HIV testing is available at only 11 percent of facilities and antiretroviral treatment is available at only 9 percent of hospitals. Half of all facilities had condoms available at the time of the survey. ■

Are Infants Better Fed Now? DHS Provides Useful Bites of Information

Nutrition within the DHS has reached a most interesting part of its development. Under MEASURE DHS+, there has been an expansion in the number and depth of infant feeding questions related to exclusive breastfeeding, complementary feeding, and micronutrient status and intake. As a result, DHS findings now play a key role in better assessing trends in breastfeeding practices and in the development of complementary feeding indicators. Therefore, a more complete picture of population-based child nutrition is now available to researchers, policy-makers, and program planners around the world.

Breastfeeding

DHS recently completed an analysis on breastfeeding practices that was presented at a meeting organized by UNICEF. The analysis looked at different types of breastfeeding practices and their evolution over time. It was found that it is now more common for mothers throughout Asia, Latin America, and Africa to initiate exclusive breastfeeding (EBF) at birth. Mothers are also more inclined to continue breastfeeding their child exclusively for at least the first two months of life.

New questions now arise: are these increases due to real reductions in mixed feeding for which breastfed infants are given water, other milks (non-breast), and foods during the first few months of life? Are these reductions in mixed feeding the result of improved or increased messages from the health sector leading to better feeding practices by mothers?

The observed increases in the initiation of EBF may also be attributed to the deteriorating economic situation in many countries, making EBF the most affordable infant feeding method. Some participants at the UNICEF meeting thought that baby friendly hospitals may have contributed to promoting the early initiation of EBF. Others believed that the AIDS epidemic has had an impact on the increased amount of information provided to mothers and possible resulting changes in behavior. Some researchers also wondered if these results are simply an artifact of the data, due to recent changes in the dietary recall questions.

As a result of these discussions, slight modifications were instituted to the questionnaires of upcoming surveys to see whether the increases in the percentages of EBF will remain. This is an exciting area of research on nutrition that demonstrates how DHS survey can inform policies and programs and how policies and programs in turn can impact on how surveys are carried out.

Complementary Feeding

Complementary feeding practices are further elucidated with the expansion of the 24-hour dietary recall. Information on feeding patterns of young children can be used to inform the nutrition community on the areas in need of policy and

interventions, and researchers can be enlightened on the contribution of infant feeding to the determinants of child health and nutrition. In the last two years, the availability of DHS data has made it easier for WHO, UNICEF and USAID to develop new complementary feeding indicators. It is now possible to look at several indicators—e.g., types of food, diet diversity, frequency of feeding (number of meals in the past day and night)—by age, area of residence, nutritional status, and disease outcomes. Therefore, at a population level, the way children under three years of age are being fed can now be better described.

Micronutrients

To round up the nutrition picture, DHS also provides information on micronutrient status, as well as on supplementation and/or fortification of iron, vitamin A and iodine. Data collection on micronutrients is at an early stage and in most cases does not allow for trends to be assessed yet. It has been standardized, however, resulting in comparability across countries and regions. A Micronutrient Update is available for those interested in cross-country data. It can be downloaded from the DHS website (search for “Micronutrient Update”).

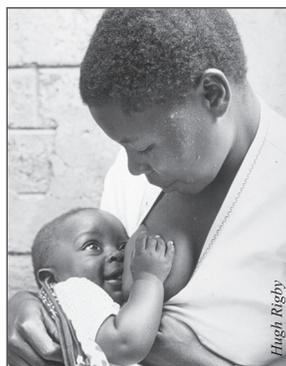
Africa Nutrition Program

Through USAID Africa Bureau’s funding of the Africa Nutrition Program, new products have been developed to expand the dissemination of nutrition findings from that part of the world. Prototype wall charts and fact sheets with data on micronutrients, infant feeding practices and nutritional status of women and children have been developed for three countries (Togo, Ghana, and Uganda). Two regional fact sheets

have been published on nutrition in West and Central and East and Southern Africa, putting nutrition facts at the fingertips of local and regional program managers, policy makers, and development workers. The regional fact sheets are available from the DHS website (search for “Nutrition Fact Sheet”).

The Program has also been instrumental in allowing DHS researchers to participate and present nutrition data at international meetings. In 2002, in Tanzania, two papers on infant feeding practices entitled “Influences on Initiation and Prelacteal Feeding in Africa” and “Complementary Feeding: Findings from Demographic and Health Surveys” were presented at the World Alliance of Breastfeeding for Action (WABA) Global Forum, and in 2003 a presentation was made at a meeting in South Africa on diarrhea, malnutrition, and infant feeding.

When reviewing the main DHS reports, one can see that nutrition has been widely expanded. As a result, there has been increased demand for the nutrition data. The DHS is making an important contribution to the international body of available information on nutrition providing useful data for decision-making at various levels. ■



Summary of Demographic and Health Surveys

SURVEYS	IMPLEMENTING ORGANIZATION	SURVEYS	IMPLEMENTING ORGANIZATION
SOUTH/SOUTHEAST ASIA		CENTRAL ASIA	
Bangladesh 2003/04	Mitra & Associates/NIPORT	Kazakhstan 1999	National Institute of Nutrition
2001 (Special)*	Mitra & Associates/ACPR/NIPORT	1995	Inst. of Obst. & Ped., MOH
1999/2000	Mitra & Associates/NIPORT	Kyrgyz Republic 1997	Settlmt. and Land Rec. Dep., Min. of Agr.
1999/2000 (SPA)	Mitra & Associates/NIPORT	Turkmenistan 2000	MCH/MOH/MIT
1996/97	Mitra & Associates/NIPORT	Uzbekistan 2002 (Special)*	Min. of Macroeconomics/MOH
1993/94	Mitra & Associates/NIPORT	1996	Inst. of Obst. & Gynec./MOH
Cambodia 2000	National Institute of Statistics/MOH	LATIN AMERICA & CARIBBEAN	
1998	SAWA Cam./Nat. Inst. of Public Health	Bolivia 2003	Instituto Nacional de Estadística
India 1998–2003*	Various Organizations	1998	Instituto Nacional de Estadística
1998/99	International Inst. for Population Sciences	1993/94	Instituto Nacional de Estadística
1992/93	International Inst. for Population Sciences	1989	Instituto Nacional de Estadística
Indonesia 2002	Central Bureau of Statistics/NFPCB/MOH	Brazil 1996	Soc. Civil Bem-Estar Familiar no Brasil
2002 (Special)*	Central Bureau of Statistics	1991 (Northeast)	Soc. Civil Bem-Estar Familiar no Brasil
1997	Central Bureau of Statistics/NFPCB/MOH	1986	Soc. Civil Bem-Estar Familiar no Brasil
1994	Central Bureau of Statistics/NFPCB/MOH	Colombia 2000	PROFAMILIA
1991	Central Bureau of Statistics/NFPCB/MOH	1995	PROFAMILIA
1987	Central Bureau of Statistics/NFPCB	1990	PROFAMILIA
Myanmar 1996 (Special)	Settlmt. and Land Rec. Dep., Min. of Agr.	1986	Corp. Cen. Reg. de Pob./Min. de Salud
Nepal 2002–04 (Special)*	New ERA	Dominican Rep. 2002	CESDEM
2001	New ERA	1999 (Experimental)	CESDEM
1996	Ministry of Health/New ERA	1996	CESDEM/PROFAMILIA
1987 (In-depth)	New ERA	1991	PROFAMILIA
Pakistan 1990/91	National Institute of Population Studies	1986	Consejo Nacional de Población y Familia
Philippines 2003	National Statistics Office/Dept. of Health	1986 (Experimental)	Consejo Nacional de Población y Familia
1998	National Statistics Office/Dept. of Health	Ecuador 1987	Cen. de Estud. de Pob. y Paternidad Responsable
1993 (In-depth)*	National Statistics Office	El Salvador 1985	Asociación Demográfica Salvadoreña
1993	National Statistics Office	Guatemala 1998/99 (Interim)	Instituto Nacional de Estadística
Sri Lanka 1987	Dept. of Cen. & Stat., Min. of Plan Impl.	1997 (In-depth)*	Instituto Nacional de Estadística
Thailand 1987	Inst. of Pop. Studies, Chulalongkorn U.	1997 (SPA)	Instituto Nacional de Estadística
Vietnam 2002	Comm. for Pop. Fam. & Children/GSO	1995	Instituto Nacional de Estadística
1997	Nat. Comm. on Pop. and FP/Gen. Stat. Off.	1987	Inst. de Nutrición de Cent. y Panamá
NORTH AFRICA/WEST ASIA/EUROPE		Haiti 2004	Institut Haïtien de l'Enfance
Armenia 2000	Nat. Stat. Service/MOH	2000	Institut Haïtien de l'Enfance
Egypt 2003 (Interim)	Min. of Health & Pop./El-Zanaty & Associates	1994/95	Institut Haïtien de l'Enfance
2002 (SPA)	Min. of Health & Pop./El-Zanaty & Associates	Mexico 2000 (SPA)	Nat. Institute of Public Health
2000	National Population Council	1987	Dir. Gen. de Plan. Fam., Sec. de Salud
1998 (Interim)	El-Zanaty & Associates	Nicaragua 2001	Instituto Nacional de Estadísticas y Censos
1997 (Interim)	El-Zanaty & Associates	1997/98	Instituto Nacional de Estadísticas y Censos
1996/97 (In-depth)*	National Population Council	Paraguay 1990	Centro Paraguayo de Estudios de Población
1995	National Population Council	Peru 2002–06 (Continuous)	Instituto Nacional de Estadística
1992	National Population Council	2000	Instituto Nacional de Estadística
1988	National Population Council	1996	Instituto Nacional de Estadística
Jordan 2002	Department of Statistics	1992	Instituto Nacional de Estadística
1997	Department of Statistics	1986	Instituto Nacional de Estadística
1990	Department of Statistics	1986 (Experimental)	Instituto Nacional de Estadística
Morocco 2003	SEIS – Ministère de la Santé	Trinidad & Tobago 1987	Family Planning Association of Trinidad/Tobago
1995 (Panel)	Ministère de la Santé Publique		
1992	Ministère de la Santé Publique		
1987	Ministère de la Santé Publique		
Tunisia 1988	Office Nat. de la Fam. et de la Population		
Turkey 1998	Hacettepe Inst. of Population Studies		
1993	Hacettepe Inst. of Population Studies/MOH		
Yemen 1997	Central Statistical Organization		
1991/92	Central Statistical Organization		

SURVEYS

IMPLEMENTING ORGANIZATION

SURVEYS

IMPLEMENTING ORGANIZATION

SUB-SAHARAN AFRICA

Benin 2001 1996	Institut Nat. de la Stat. et de l'Ana. Écon. Institut National de la Statistique
Botswana 1988	Ministry of Health
Burkina Faso 2003 1998/99 1992/93	Inst. Nat. de la Statistique et la Démo. Inst. Nat. de la Statistique et la Démo. Inst. Nat. de la Statistique et la Démo.
Burundi 1987	Dép. de la Pop., Min. de l'Intérieur
Cameroon 2004 1998 1991	DSCN and BUCREP Bur. Cen. Recensements et Études de Pop. Min. du Plan et de l'Amén. du Terr.
Cape Verde 2004	Instituto Nacional de Estadística
Central African Rep. 1994/95	Dir. des Stat. Dém. et Sociales
Chad 2004 1996/97	Inst. de la Stat., des Études Écon. et Démogra. Bureau Central du Recensement
Comoros 1996	Centre National de Doc. et de Rech. Sci.
Congo-Brazzaville 2004	Centre National de la Stat. et des Études Écon.
Côte d'Ivoire 1998/99 1994	Inst. National de la Statistique Inst. National de la Statistique
Eritrea 2002 1995	National Statistics and Evaluation Office National Statistics Office
Ethiopia 2000	Central Statistical Authority
Gabon 2000	Direction Générale de la Statistique
Ghana 2003 2002 (SPA) 1998 1993/94 1988	Ghana Statistical Service Ghana Statistical Service Ghana Statistical Service Ghana Statistical Service Ghana Statistical Service
Guinea 2004 1999 1992	Direction Nationale de la Statistique Direction Nationale de la Statistique Direction Nationale de la Statistique
Kenya 2003 1999 (SPA) 1998 1993 1989	Central Bureau of Statistics National Council for Population and Dev. National Council for Population and Dev. National Council for Population and Dev. National Council for Population and Dev.
Lesotho 2004	Min. of Health and Social Welfare/Bur. of Stat.
Liberia 1986	Min. of Planning & Economic Affairs
Madagascar 2003 1997 1992	Institut Nat. de la Stat. Institut Nat. de la Stat. Centre Nat. de Recherches sur l'Env.
Malawi 2004 2000 1996 (KAP) 1992	National Statistical Office National Statistical Office National Statistical Office National Statistical Office
Mali 2001 1995/96 1987	CPS/MSSPA et DNSI CPS/MSSPA et DNSI CERPOD
Mauritania 2003 (Special) 2000/01	Office National de la Statistique Office National de la Statistique
Mozambique 2003 1997	Instituto Nacional de Estadística Instituto Nacional de Estadística
Namibia 2000 1992	Min. of Health and Social Services Min. of Health and Social Services
Niger 1998 1992	Care International Dir. de la Stat. et des Comptes Nat.

Nigeria 2003 1999 1990 1986 (Ondo State)	Nat. Pop. Commision Nat. Pop. Commision Federal Office of Statistics Ministry of Health, Ondo State
Rwanda 2004 2001 (SPA) 2000 1992	Office National de la Population Office National de la Population Office National de la Population Office National de la Population
Senegal 2004 1999 1997 1992/93 1986	Centre de Rech. pour le Dév. Humain SERDHA Min. de l'Economie et des Finances Dir. de la Prévision et de la Stat. Min. de l'Economie et des Finances
South Africa 1998	Dept. of Health/Med. Research Council
Sudan 1990	Dept. of Stat., Min. of Fin. & Econ. Plan.
Tanzania 2003/04 (AIS) 1999 (Interim) 1996 1995 (In-depth)* 1994 (KAP) 1992	National Bureau of Statistics National Bureau of Statistics Bureau of Statistics, Planning Comm. Bureau of Statistics, Planning Comm. Bureau of Statistics, Planning Comm. Bureau of Statistics, Planning Comm.
Togo 1998 1988	Direction de la Statistique Unité de Rech. Dém., Dir. de Stat., Dir. Gén. Santé
Uganda 2004 (AIS) 2000/01 1995/96 (In-depth)* 1995 1988	Ministry of Health Uganda Bureau of Statistics Inst. Stat. & Applied Econ., Makerere U. Dept. of Stat., Min. Fin. & Econ. Plan. Ministry of Health
Zambia 2001/02 1996 1992	Central Statistical Office Central Statistical Office University of Zambia
Zimbabwe 1999 1994 1988	Central Statistical Office Central Statistical Office Central Statistical Office

AIS: AIDS Indicator Survey

SPA: Service Provision Assessment

*Bangladesh:	Maternal Health Services and Maternal Mortality Survey
*Egypt:	Reasons for Nonuse in Upper Egypt
*Guatemala:	Health Expenditure Survey
*India and Nepal:	Benchmark Surveys/Various Topics
*Indonesia:	Young Adult Reproductive Health Survey
*Philippines:	Safe Motherhood Survey
*Tanzania:	Estimation of Adult and Childhood Mortality in a High HIV/AIDS Population
*Uganda:	Negotiating Reproductive Outcomes
*Uzbekistan:	Health Examination Survey

Greater Self-Reliance in Family Planning among Indonesian Women

Recent findings from the 2002–2003 Indonesia Demographic and Health Survey (IDHS) show that current efforts to increase contraceptive self-reliance among Indonesian women are succeeding. Women are much more likely to purchase their own contraceptive method than to receive it free of charge. Overall, 89 percent of family planning users pay for their contraceptive method. This is an increase from the 1997 IDHS, when 84 percent of family planning users paid for their method.

Women are also relying less and less on the public sector for their family planning needs. In 1997, 43 percent of family planning users received their method from a government source. Currently, only 28 percent rely on government sources. This trend can

be explained by the increased use of private midwives—an 18-percentage-point increase from 1997.

In Indonesia, 60 percent of married women now use family planning, an increase from 57 percent in 1997. More women now use injectable forms of birth control—28 percent of all married women use injectables, versus 21 percent in 1997—which accounts for much of the overall increase in family planning use. The pill and the IUD are losing ground in terms of percentage of total birth control method mix, but both are still popular contraceptive methods.

Married women in urban areas use contraception at a much higher rate than do their rural counterparts (42 percent versus 15 percent). Women in

the middle of their reproductive years (20–30), better-educated women, and women with larger numbers of children show higher contraceptive use than do other groups.

In spite of these advances, there remains an unmet need for family planning. The percentage of married women who do not want to get pregnant right away, but who do not use family planning, has remained at 9 percent since 1997.

Maternal Health

Nine in ten mothers received professional medical care during their pregnancy, while four percent received no antenatal care. Women from urban areas are more likely to see a health care provider during pregnancy, but even in rural areas, 87 percent of women visit a health care provider for antenatal care.

The percentage of women receiving medical assistance at birth has increased significantly from previous DHS surveys. Currently, 66 percent of births are assisted by a doctor, nurse, or midwife.

Six in ten births take place at home, rather than in a health facility, and births to women at high risk for complications are even more likely to take place at home than lower-risk births. For example, 69 percent of births to teenage mothers take place at home, compared with 56 percent of births to women age 20–34.

Fertility

Fertility rates continue to decline over time. Although fertility rates vary greatly among subgroups, the total fertility rate has dropped by 40 percent, from 3.0 in 1988–1991 to 2.6 in 2002–2003. Higher education levels, postponement of marriage and childbearing, longer intervals between births, and women's desire for smaller families are all factors driving the downward trend.

However, there is still a lag between wanted and actual fertility: if all unwanted births in Indonesia could be prevented, the total fertility rate would be 2.2 births per woman instead of the actual 2.6. ■

Indonesia Completes Young Adult Survey

The 2002–2003 Indonesia Young Adult Reproductive Health Survey (IYARHS) is the first study of its kind conducted by MEASURE DHS. This survey of never-married men and women between the ages of 15 and 24 is the first to present national-level data on the reproductive knowledge, attitudes and practices of Indonesian youth.

The survey includes national results, covering the same area as the 2002–2003 IDHS, as well as results for Jayapura City alone, the capital of Papua province, where HIV/AIDS rates are among the highest in the country. Only preliminary results are currently available; the final results will be published later this year.

Knowledge of Family Planning and HIV/AIDS

The survey found that knowledge of contraceptive methods among unmarried young adults in the country is widespread, with women in both reports having a slight knowledge edge. Youth in the studies were more familiar with modern contraceptive methods than traditional ones.

The preliminary IYARHS results show that nine in 10 respondents had heard of AIDS, and two in three knew how to avoid contracting the disease. Older, urban and better-educated respondents of both genders were more likely to have heard about AIDS and more likely to know how to avoid it.

Attitudes about Marriage and Children

In Indonesia as a whole, when asked about the ideal age for women to marry, urban respondents had an older ideal age than did young adults in rural areas. Most rural respondents believe women should marry before 21, but only 32 percent of urban respondents agreed; more urban respondents (39 percent) believe women should marry at age 25 or older. Across the board, respondents believed men should marry at age 25 or older.

Nationally, younger respondents cited younger ages for women to have their first child, with 20 percent of women between 15 and 19 believing it is

Continued on page 11

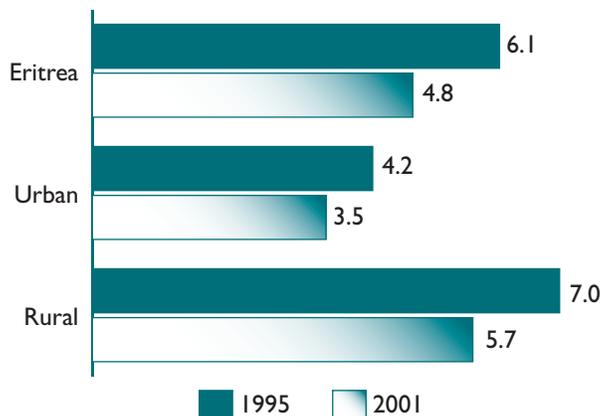
Fertility and Child Mortality Decline in Eritrea

The 2002 EDHS data indicate that fertility has dropped by 21 percent since the last EDHS survey in 1995, from 6.1 children per woman to 4.8 children, while use of a method of contraception has remained stable at 8 percent. The fertility reduction may be attributed to the decline in the proportion of married women living with their husbands in all age groups, but particularly in the younger age groups, and to a change in co-residence of spouses likely due to military mobilization and displacement that occurred during the 1998–2001 border conflict with Ethiopia.

The 2002 EDHS data indicate that early childhood mortality in Eritrea has declined sharply since 1995. The infant mortality rate has declined from 72 per 1,000 live births in the 1995 EDHS survey (1991–1995) to 48 per 1,000 in the 2002 EDHS survey (1997–2001). During the same period, the under-five mortality rate declined from 136 per 1,000 to 93 per 1,000. Factors that have contributed

to the decline in child mortality are increasing urbanization, major gains in child immunization, improved nutrition, and increasing education among women.

Total Fertility Rates by Residence, Eritrea 1995 and 2001



Findings from the 2002 EDHS indicate that there has been a substantial improvement in antenatal care coverage since 1995. Seven in ten women with births in the five years before the survey received antenatal care services for the last birth from a health professional (doctor, trained nurse, midwife or auxiliary midwife), compared with only half of mothers in 1995.

Delivery under hygienic conditions and where medical assistance is available has led to decreases in risk of maternal mortality and morbidity. Overall, one-fourth of births – compared with 17 percent in 1995 – occurred in health facilities, almost all of them public facilities. More than nine in ten women with deliveries outside health facilities did not receive any postnatal checkup. ■

Visit the New DHS Website

If you haven't seen the DHS website recently, visit us at www.measuredhs.com and check out our new and improved website. We are working hard to make the website easier for you.

Go to the new section, Country Statistics, to find all the DHS information available for a country, no matter how many DHS surveys have been carried out. For each country the website provides 15 key indicators such as the total fertility rate, the percentage of children fully immunized, and others. For countries with multiple surveys, you will see changes in these 15 indicators over time. You will also find detailed information for each survey and a link to every country publication. You can download it all for free.

Just a few years ago, our website hosted few data

on HIV/AIDS. Now, the newly refurbished HIV/AIDS survey indicators database includes more than 150 data sets. Follow the simple directions, and you can download customized tables with data from the DHS, UNICEF's Multiple Indicator Cluster Surveys (MICS), the U.S. Centers for Disease Control and Prevention's Reproductive Health Surveys (RHS), and Family Health International's Behavioral Surveillance Surveys (BSS). Over the next 18 months MEASURE DHS will carry out more than 15 baseline surveys for the President's Emergency Plan for AIDS Relief (PEPFAR). Go to our website for the latest results.

In the next few months you'll see even more additions – press releases, the new Gender Corner, and more. MEASURE DHS is growing and changing. Our website is changing with us. Visit us often to see what's new! ■

Indicator	1990	1995	2000
Percentage of women with no education	5.7	4.2	3.8
Percentage of women with access to newspaper, television and radio	44.8	42.7	51.8
Total fertility rate (children per woman)	3.2	2.9	3.0
Median age at first birth for women age 25-49 (years)	21.5	22.1	22.1
Percentage of teenagers who have begun childbearing	13.6	12.8	17.4
Percentage of married women currently using any method of family planning	64.8	66.1	72.2

MEASURE DHS Visitors and Events

February 2003

Bernard Barrère made three presentations on DHS HIV/AIDS-related activities at a training course held in Dakar, Senegal, on monitoring and evaluation (M&E) of HIV/AIDS programs.

Shea Rutstein and Pav Govindasamy attended an international vitamin A consultative group meeting in Marrakech, Morocco, and organized a poster session on mortality effects of Nepal's vitamin A distribution program.

March 2003

In Geneva, Switzerland, Nancy Fronczak made a presentation on Health Facility Survey experience related to HIV/AIDS services, during a meeting organized by WHO for Monitoring HIV/AIDS Care and Support.

Shea Rutstein attended the "Poverty and Wealth Indicators" conference in Oxford, England, and made a presentation on the DHS wealth index.

April 2003

Glen Barcenas and Brando Suarez from the Philippines visited ORC Macro from April 19 to May 11 to develop data entry programs for the 2003 Philippines DHS.

Bernard Barrère made a presentation at the UNAIDS Inter-Agency Technical Consultation on "Indicators Development for Children Orphaned or Made Vulnerable by HIV/AIDS," in Gaborone, Botswana.

May 2003

Altrena Mukuria made a presentation entitled "Malnutrition, Diarrhea and Infant Feeding: Evidence from Mali 2001 DHS" at the 6th Congress of the Commonwealth Association of Paediatric Gastroenterology and Nutrition (CAPGAN) on Diarrhoea and Malnutrition, held in Drakensberg Mountains, South Africa.

In Kathmandu, Nepal, Livia Montana conducted training for USAID/Nepal and their partners on the use of GIS.

June 2003

Livia Montana made a presentation on the results of the small area estimation project to participants representing World Food Program (WFP) offices from 12 countries in the Asia region during a workshop on Vulnerability Analysis and Mapping/WFP, held in Bangkok, Thailand.

Joshua Musinguzi and Wilford Kirungi from Uganda visited ORC Macro June 5-13 to finalize the protocol, budget and subcontract for the Uganda HIV/AIDS Sero-Behavioral Survey.

Shea Rutstein made a presentation at the Catalyst Consortium Meeting for Central American Health Ministers, Antigua, Guatemala, on the effects of birth spacing on childhood mortality; the presentation was also made to the Guatemalan Ministry of Health Region Directors.

Stan Yoder made a presentation at WHO in Geneva about the use of qualitative research for the study of sexual relations. He also made a presentation about how an in-

formed consent statement was used to obtain blood samples for HIV testing in Mali at a workshop on ethics and AIDS research sponsored by the Surveillance and Monitoring Division of WHO's HIV/AIDS Department.

From June 19 to July 3, Kamla Gupta from India visited ORC Macro to work on a study of women's empowerment and reproductive choices.

Hussein Shakhathreh, Fathi Nsour, Wadji Akeel Ibrahim, and Su'dud Mustafa Alrefa'ei from Jordan visited ORC Macro from June 21 to July 14 to finalize publications and other communications materials for the Population and Family Health Survey, including the final survey report, the Key Findings report, a wallchart, and a video.

July 2003

Bernard Barrère went to Geneva, Switzerland, to attend the 7th UNAIDS Monitoring and Evaluation Reference Group (MERG) meeting.

August 2003

Shea Rutstein made a presentation at the Health Metrics Network Task Force meeting in Geneva, Switzerland.

September 2003

Bernard Barrère attended a workshop on Measurement of Sexual Behavior in the Era of HIV/AIDS in London, UK.

October 2003

Anja Giphart and Nancy Fronczak traveled to Phnom Penh, Cambodia and Thailand to pretest HIV/AIDS indicators as part of the Service Provision Assessment (SPA) survey.

Fred Arnold made a presentation on anemia testing in DHS surveys at a meeting of the Malaria and Anemia Task Force of the Monitoring and Evaluation Reference Group, Roll Back Malaria, in Geneva, Switzerland.

November 2003

Zulkhunior Mutalov and Rafika Rahmanova of Uzbekistan visited ORC Macro to finalize the 2002 UDHS final report.

December 2003

Kiersten Johnson made a presentation on the DHS wealth index at a conference organized by the Union for African Population Studies, in Tunis, Tunisia.

January 2004

Ann Way made a presentation at a meeting on new strategies for HIV surveillance in resource-constrained countries, in Addis Ababa, Ethiopia. ■

New Publications

Dominican Rep.	2002 DHS Final Report
Egypt	2002 Service Provision Assessment Final Report
Eritrea	2002 DHS Final Report
Eritrea	2002 DHS Key Findings
Ghana	2002 Service Provision Assessment Final Report
Indonesia	2002–2003 DHS Final Report
Jordan	2002 DHS Final Report
Jordan	2002 DHS Key Findings
Namibia	2000 DHS Final Report
Rwanda	2001 Service Provision Assessment Final Report (English and French)
Uganda	2002 Health Facilities Survey Final Report
Uganda	2002 Health Facilities Survey Key Findings
Vietnam	2002 DHS Final Report
Zambia	2001–2002 DHS Final Report

Analytical Studies

Bell, Jacqueline et al. 2003. *Trends in Delivery Care in Six Countries*.

Comparative Reports

Centers for Disease Control and Prevention and ORC Macro. 2003. *Reproductive, Maternal and Child Health in Eastern Europe and Eurasia: A Comparative Report*.

Mahy, Mary. 2003. *Childhood Mortality in the Developing World*.

Westoff, Charles F. 2003. *Trends in Marriage and Early Childbearing in Developing Countries*.

DHS EdData Reports

Malawi DHS EdData Survey 2002 Final Report.

Zambia DHS EdData Survey 2002 Final Report.

Geographic Studies

Balk, Deborah et al. 2003. *Spatial Analysis of Childhood Mortality in West Africa*.

Other Publications

Davis, Paula, Eva Tagoe Darko, and Altrena Mukuria. 2003. *Water, Koko, and Appetite: Complementary Feeding Practices in Kumasi, Ghana*.

El-Zanaty and Assoc. and ORC Macro. 2003. *Perspectives on Women's and Children's Health in Egypt*.

Ould Mohamed Lemine, et al. 2003. *Indicateurs de genre en Mauritanie*.

Yoder, P. Stanley and Mamadou Kani Konaté. 2004. *Obtenir le consentement éclairé pour le test du VIH: l'expérience de l'Enquête Démographique et de Santé au Mali*. (French version of the previously published report *Obtaining Informed Consent for HIV/AIDS Testing: The DHS Experience in Mali*.)

All DHS publications may be downloaded and ordered online at
<http://www.measuredhs.com>

Final Reports Coming Soon

Bangladesh Maternal Mortality and Maternal Health Survey
Uzbekistan Health Examination Survey

Indonesia Young Adult Survey, *continued from page 8*

ideal for a woman to give birth before age 21. Only 12 percent of women age 20 to 24 agreed.

In Jayapura City, many respondents did not have an opinion on the ideal age for marriage and childbirth. Among those who did have an opinion, the largest percentage of both sexes said the ideal age at first marriage is between 25 and 29. Roughly half of women say the ideal age for women to have their first child is between 24 and 27. Men expect women to be a little younger when they have their first child; 20 percent of male respondents said the best age is between 22 and 23.

Discussion of Sexual Matters

Both nationally and in Jayapura City, more respondents talked with their peers than with anyone else about reproductive health. Respondents of both genders said they received significant information on reproductive health from their teachers.

Dating and Sexual Behavior

Acceptance of premarital sex is low nationally and in Jayapura City, with women less likely to accept premarital sex than men. Both genders are more likely, however, to accept premarital sex for men than for women.

In Indonesia as a whole, less than 1 percent of unmarried women reported having had sex. Men were somewhat more likely to report having had sexual experience (5 percent). In Jayapura City, 8 percent of women and 23 percent of men reported being sexually experienced. ■

Selected Statistics From DHS Surveys

SURVEYS	VITAL RATES			USE OF CONTRACEPTION (Currently Married Women 15–49)		MATERNAL CARE (Births in Last 5 Years)		CHILD HEALTH INDICATORS		
	Total Fertility Rate ^a	Total Wanted Fertility Rate ^a	IMR/Under-5 Mortality Rate ^b	% Currently Using Any Method ^c	% Currently Using Any Modern Method ^d	% Women Receiving Antenatal Care ^e	% Women Receiving Assistance at Delivery from Professional ^e	Median Duration (Months) of Breast-feeding ^f	% Children 0–59 Months Stunted ^g	% Children Fully Immunized ^h
CENTRAL ASIA										
Kazakhstan 1999	2.1	1.9	62/71	66	53	94	99	7	10	81
Turkmenistan 2000	2.9	2.7	74/94	62	53	98 ⁱ	97	18	22	90
Uzbekistan 2002	2.9	†	‡	68	63	†	†	‡	21	†
LATIN AMERICA/CARIBBEAN										
Bolivia 1998	4.2	2.5	67/92	48	25	65	57	18	26 ^m	26
Colombia 2000	2.6	1.8	21/25	77	64	91 ⁱ	86	13	14	52 ^o
Dominican Rep. 2002	3.0	2.3	31/38	70	66	98	98	7	9	35
Guatemala 1999	5.0	4.1	45/59	38	31	60	41	20	46	60
Haiti 2000	4.7 ^b	2.7 ^b	80/119	28	22	79	24	19	23	34
Nicaragua 2001	3.2	2.3	31/40	69	66	86	67	17	20	72 ^p
Peru 2000	2.9	1.8	33/47	69	50	84 ⁱ	59	22	25	66 ^p
NORTH AFRICA/WEST ASIA/EUROPE										
Armenia 2000	1.7	1.5	36/39	61	22	92 ⁱ	97	9	13	76
Egypt 2000	3.5	2.9	44/54	56	54	53	61	18	19	92
Jordan 2002	3.7	2.6	22/27	56	41	99	100	13	9	94 ^q
Turkey 1998	2.6	1.9	43/52	64	38	68	81	12	16	46
SOUTH/SOUTHEAST ASIA										
Bangladesh 2000	3.3	2.2	66/94	54	43	33 ⁱ	12	31 ^k	45	60
Cambodia 2000	4.0 ^b	3.1 ^b	95/124	24	19	38 ⁱ	32	24	45	40
India 1999	2.9	2.1	68/95	48	43	65 ⁱ	42 ⁱ	25	47 ⁿ	42
Indonesia 2003	2.6	2.2	35/46	60	57	92 ⁱ	66	22	†	51
Nepal 2001	4.1	2.5	64/91	39	35	49	13	33	51	66
Philippines 1998	3.7	2.7	35/48	47	28	86	56	13	†	73
Vietnam 2002	1.9	1.6	18/24	79	57	86 ⁱ	85 ⁱ	18	†	67
SUB-SAHARAN AFRICA										
Benin 2001	5.6	4.6	89/160	19	7	87	73	22	31	59
Burkina Faso 1999	6.8 ^b	6.0 ^b	105/219	12	5	61	31	28	37	29
Cameroon 1998	5.2 ^b	4.6 ^b	77/151	19	7	79 ⁱ	58 ⁱ	18	29 ⁿ	36
Côte d'Ivoire 1999	5.2	4.5	112/181	15	7	84	47	21	25	51
Eritrea 2002	4.8	4.4	48/93	8	7	70	28	22	38	76
Ethiopia 2000	5.9 ^b	4.9 ^b	97/166	8	6	27 ⁱ	6	26	52	14
Gabon 2000	4.3 ^b	3.5 ^b	57/89	33	12	95 ⁱ	87	12	21	17
Ghana 1998	4.6 ^b	3.7 ^b	57/108	22	13	89	44	22	26	62
Guinea 1999	5.5	5.0	98/177	6	4	71	35	22	26	32
Kenya 1998	4.7	3.5	74/112	39	32	92 ⁱ	42 ⁱ	21	33	65
Malawi 2000	6.3	5.2	104/189	31	26	91 ⁱ	56	24 ⁱ	49	70
Mali 2001	6.8	6.1	113/229	8	6	57 ⁱ	41	23	38	29
Mauritania 2001	4.7 ^b	4.3 ^b	74/116	8	5	65 ⁱ	57	21	35	32
Namibia 2000	4.2	3.4	38/62	44	43	91	78	15	24	65
Niger 1998	7.5 ^b	7.2 ^b	123/274	8	5	40 ⁱ	44 ⁱ	21	41 ⁿ	18
Nigeria 1999	5.2 ^b	4.8 ^b	75/140	15	9	64 ⁱ	42 ⁱ	19	46 ⁿ	17
Rwanda 2000	5.8	4.7	107/196	13	4	92 ⁱ	31	33 ⁱ	43	76
South Africa 1998	2.9	2.3	45/59	56	55	94	84	16	†	63
Tanzania 1999	5.6	4.8	99/147	25	17	93 ⁱ	36	21	44	68
Togo 1998	5.2	4.2	80/146	24	7	82 ^j	51 ⁱ	24	22	31
Uganda 2001	6.9	5.3	88/152	23	18	92 ⁱ	39	22 ⁱ	39	37
Zambia 2002	5.9	4.9	95/168	34	23	93	43	21	47	70
Zimbabwe 1999	4.0	3.4	65/102	54	50	93 ⁱ	73	20	27	75

† 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 abstinence, withdrawal, "other."

e Care provided by medically trained personnel.

f Children <3 years old (any breastfeeding).

g Height-for-age z-score is below -2 SD based

on the NCHS/CDC/WHO reference population.

h Children 12–23 months vaccinated (BCG, measles, three doses each DPT and polio).

i Based on last birth.

j Based on births in the preceding 3 years.

k Based on births in the preceding 4 years.

l Children 0–59 months old.

m Children 3–35 months old.

n Children 0–35 months old.

o Excludes measles.

p Children 18–29 months old.

q Excludes BCG.

For more indicators, and to build custom tables with DHS data, visit the STATcompiler at www.measuredhs.com