

This report summarizes the findings of the 2000 Armenia Demographic and Health Survey (ADHS), which was conducted by the National Statistical Service and the Ministry of Health of the Republic of Armenia. ORC Macro provided technical assistance. Funding was provided by the U.S. Agency for International Development (USAID).

This publication was made possible through support provided by the U.S. Agency for International Development under the terms of Contract No. HRN-C-00-97-00019-00. The opinions expressed herein are those of the authors and do not necessarily reflect the views of the U.S. Agency for International Development.

The ADHS is part of the worldwide MEASURE *DHS+* program, which is designed to collect data on fertility, family planning, and maternal and child health. Additional information about the ADHS may be obtained from the National Statistical Service, 3 Government House, Republic Avenue, 375010 Yerevan, Armenia (Telephone: 3741 523-217, 523-997, or 524-460 and Fax: 521-921). Additional information about the DHS project may be obtained from ORC Macro, 11785 Beltsville Drive, Calverton, MD 20705 (Telephone 301-572-0200 and Fax 301-572-0999).

Recommended citation:

National Statistical Service [Armenia], Ministry of Health [Armenia], and ORC Macro. 2001. *Armenia Demographic and Health Survey 2000*. Calverton, Maryland: National Statistical Service, Ministry of Health, and ORC Macro.

PREFACE

The Armenia Demographic and Health Survey (ADHS) is the first multipurpose health survey to be conducted in Armenia. It is also the most recent comprehensive research project on health. The ADHS was conducted through the close collaboration of the Ministry of Health, the National Statistical Service, and ORC Macro, an American research organization. This project was financed by the United States Agency for International Development and with technical assistance was provided by ORC Macro.

The purpose of the ADHS was to define the factors that contribute to the health problems of women of reproductive age and the health of their children. Within the framework of ADHS, information was also collected regarding knowledge of and attitudes regarding HIV/AIDS and tuberculosis. The ADHS results will provide consistent data on women's and children's health to assess the effectiveness of implemented programs, to define priorities in health care, to elaborate appropriate strategy, and to implement policy towards the aforementioned topics.

The final report summarizes the data collected in the ADHS. This report is the aggregated result of more than a half-year of preparatory work and more than a year of data collection, processing and analysis. The preparatory work began in early 2000 and the fieldwork was conducted during October-December 2000.

I acknowledge the work of the technical staff of the ADHS, the input of field staff and data quality teams, and the valuable contribution of all experts and organizations, whose joint efforts ensured the effective implementation of the survey.

I would also like to emphasize my appreciation of the support of the 5,980 households whose participation enabled to obtain the reliable information pursued in the survey.

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Minister of Health
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FOREWORD

The Armenia Demographic and Health Survey (ADHS) final report is the first comprehensive and detailed publication of the National Statistical Service of the Republic of Armenia on demographic and health issues. The final report focuses primarily on indicators of the reproductive health of the population.

This final report was prepared by the Ministry of Health of the Republic of Armenia with the assistance of experts from ORC Macro and financing from the U.S. Agency for International Development. The success of the ADHS was achieved thanks to the joint efforts of the above-mentioned organizations. First of all, it is the U.S. Agency for International Development which provided the financing for the survey. Furthermore, technical assistance for the entire survey process was provided by specialists from ORC Macro. Thanks to them, the implementation of the survey and the preparation and publication of this report were accomplished in a short period of time. It is also necessary to mention the staff involved in the fieldwork; thanks to their careful work good quality data were collected.

This report presents statistical data on fertility, infant mortality, induced abortion, use of contraception, antenatal and postnatal care and assistance, maternal and child nutritional status, and anemia in Armenia. Many indicators are also given for each of the regions. These data are calculated according to the principles of modern statistical methodology, thus allowing for international comparisons.

The ADHS final report is intended to provide information to both specialists and to a wide variety of readers including health and scientific research organizations, state and local self-governing bodies, non-governmental and international organizations, mass media, and others who need detailed statistical information on the health conditions of the Armenian population.

S. Mnatsakanyan
President
National Statistical Service of the Republic of Armenia

SUMMARY OF FINDINGS

The Armenia Demographic and Health Survey (ADHS) is a nationally representative survey of 6,430 women age 15-49 and 1,719 men age 15-54. Survey fieldwork was conducted during the period of October through December 2000.

The ADHS was conducted by the National Statistical Service and the Ministry of Health of the Republic of Armenia. The Measure *DHS+* Project provided technical support for the survey. The U.S. Agency for International Development (USAID)/Armenia provided funding, and the United Nations Children's Fund (UNICEF)/Armenia provided support through the donation of equipment.

CHARACTERISTICS OF RESPONDENTS

Armenia is an ethnically homogeneous country; virtually all respondents are Armenian and report that they are Christians. The majority, approximately 60 percent, live in urban areas. Yerevan accounts for more than one-third of all respondents. Nearly all households in Armenia (99 percent) have electricity. A majority of households in the country have water piped into the residence, a flush toilet, a finished floor, and a place for hand-washing.

Almost all men and women in the sample have attended school. Approximately one-third have attended secondary school, one-third have attended secondary-special school, and one-fifth have attended university. Thirty-four percent of women and 56 percent of men were employed in the 12 months prior to the survey. Twenty-one percent of men reported that they were looking for work at the time of the survey.

FERTILITY

Fertility rates. A useful index of the level of fertility is the total fertility rate (TFR), which indicates the number of children a woman would have if she passed through the childbearing ages at the current age-specific fertility rates. For the

three years preceding the survey, the survey estimate of the TFR was 1.7 children per woman. This is substantially higher than the official estimate of 1.2 children per woman for the period 1998-2000. One possible reason for the difference between estimates is the substantial net emigration from Armenia that has occurred since 1989. Because of net emigration the resident population of Armenia may be smaller than the estimated population figures used for calculating the official fertility rates. When data from the 2001 Population Census become available, this issue should be resolved.

The survey found that the TFR is lower by about half a child in urban areas (1.5 children per woman) than in rural areas (2.1 children per woman).

Time trends. Official estimates indicate that current fertility is less than half the level of the mid-1980s. The ADHS also found a significant decade-long decline in fertility, although at a rate less rapid than that indicated by official estimates.

Age at first birth. Research has shown that childbearing in the teenage years is associated with increased social and health problems for both the mother and her child. The survey found that only 4 percent of women age 15-19 had given birth. Moreover, almost all births to teenage women occurred at ages 18 and 19. Thus, the median age at initiation of childbearing in Armenia is about 21 years.

Birth intervals. Research has shown that children born soon after a previous birth, especially those born within two years of the previous birth, have an increased risk of morbidity and mortality. In Armenia, 34 percent of second and higher order births occur after a birth interval of less than two years. The percentage of births after an interval of less than two years was greater among rural women (40 percent) than among urban women (28 percent). The proportion of births after a short birth interval was particularly high in

Aragatsotn (46 percent), Gegharkunik (44 percent) and Kotayk (42 percent).

CONTRACEPTION

Knowledge and ever use. Knowledge of contraception is widespread in Armenia. Among married women, knowledge of at least one method is universal (99 percent). On average, married women reported knowledge of seven methods of contraception. Eighty-two percent of married women reported having used a method of contraception at some time.

Current use. Among married women, 61 percent reported current use of contraception: 22 percent using modern methods and 37 percent using traditional methods. By far, the most commonly used method was withdrawal. More than half of all users (32 out of 61 percent) were using withdrawal. The IUD, the second most common method, was used by 9 percent of married women.

Overall levels of contraceptive use were similar for women in urban and rural areas and across regions and educational categories (between 50 and 65 percent). Nevertheless, urban women and women with a higher education showed distinctive behavior patterns by relying more on modern methods (the IUD and condom) and less on traditional methods (in particular, withdrawal).

Method failure. A woman may discontinue use of contraception for many reasons, including the desire to have more children, health concerns, or lack of exposure to the risk of pregnancy. In Armenia, the single most prevalent reason for discontinuation is method failure, i.e, becoming pregnant while using a method. The method most commonly used in Armenia, withdrawal, was also the method with the highest failure rate. Twenty-nine percent of women practicing withdrawal experience a contraceptive failure within 12 months of starting use.

Future use. Among married women who were not using contraception, 36 percent reported that they intended to use in the future. When

asked which method they would prefer to use, there was a clear difference between older and younger women. The preferred methods of women age 30 and above were withdrawal (37 percent) and the IUD (21 percent). However, the ranking of these methods by younger women was just the reverse: the IUD (33 percent) and withdrawal (14 percent). This suggests that, at least in terms of method preference, younger women are less satisfied with reliance on withdrawal as their method of contraception.

Source of supply. Most modern method users obtained their methods through the public sector (67 percent), primarily hospitals and polyclinics. Twenty-four percent obtained their contraceptives from the private sector, primarily pharmacies.

Fertility preferences. Among currently married women, 77 percent reported that they either wanted no more children (72 percent) or that they were infecund or sterilized (6 percent). Another 19 percent wanted another child, and 4 percent were undecided about having another child.

INDUCED ABORTION

In Armenia, as in all of the former Soviet Union, induced abortion has been a primary means of fertility control for many years.

Abortion rates. The use of abortion can be measured by the total abortion rate (TAR) which indicates the number of abortions a woman would have in her lifetime if she passed through her childbearing years at the current age-specific abortion rates. The survey estimate of the TAR indicates that a woman in Armenia will have an average of 2.6 abortions during her lifetime. This rate is less than the recently reported rate for Armenia's Caucasian neighbor Georgia (4.7 abortions per woman) but higher than the rates reported for the Central Asian countries of Kazakhstan and the Kyrgyz Republic (1.4 and 1.6 abortions per woman, respectively).

Abortion differentials. The TAR was significantly higher in rural areas (3.4 abortions per woman) than in urban areas (2.1 abortions per woman). This is the reverse of findings in recent surveys in Kazakhstan and the Kyrgyz Republic. However, the higher rates of abortion in rural areas is consistent with the greater reliance on withdrawal as a method of contraception in rural areas than in urban areas.

Contraceptive failure and abortion. When formulating policies designed to improve the reproductive health of women, it is useful to know the contraceptive behavior of women who resort to abortion as a means of fertility control. Two-thirds (64 percent) of all abortions were to women who were using contraception and experienced method failure. More than half of all abortions occurred after method failure while using withdrawal (46 percent) or periodic abstinence (6 percent). This suggests that greater access to and use of more reliable methods would reduce the incidence of abortion.

INFANT MORTALITY

Until 1995, official statistics on live births and infant deaths in Armenia were collected according to a set of definitions developed during the Soviet period. Those definitions result in the classification of fewer events as infant deaths than would be the case if the definitions recommended by the World Health Organization (WHO) had been used. In 1995, Armenia adopted the WHO definitions, although the pace at which those definitions have been implemented in all areas of the country is uncertain.

In the ADHS, data on infant mortality were collected according to the definitions of live birth and infant death recommended by the World Health Organization.

IMR levels. For the 1996-2000 period, the survey estimate of infant mortality is 36 per 1,000 live births. The official government estimate of the infant mortality rate for this period is 15 per 1,000.

IMR differentials. The survey found levels of infant mortality to be about 50 percent higher in rural areas than in urban areas. Infant mortality levels were also much higher among children of women with primary or secondary education than among children of women with secondary-special or higher education. In terms of the interval between successive births, infant mortality was about twice as high for births after an interval of less than three years than for births after an interval of three or more years.

MATERNAL AND CHILD HEALTH AND NUTRITION

Antenatal care. Armenia has a well-developed health system with an extensive infrastructure of facilities that provide maternal care services. Overall, the levels of antenatal care and delivery assistance are high. Ninety-two percent of mothers receive antenatal care from professional health providers (doctors, nurses, and trained midwives). In urban areas, 92 percent of care is provided by doctors, as opposed to 74 percent in rural areas. Almost two-thirds of women with antenatal care make four or more visits, although there is a significant urban-rural differential.

In terms of content of care, it is notable that during their ANC visits only six in ten women were informed about pregnancy complications.

Delivery care. Overall, almost all births are delivered under the supervision of a trained medical professional (97 percent). Most births (91 percent) occur at a health facility. Whereas health facility deliveries are almost universal in urban areas (99 percent), in rural areas home deliveries occur frequently (16 percent). This is particularly the case in Gegharkunik where 41 percent of all births occur at home.

Vaccinations. The health cards maintained at the health facilities are the primary source of vaccination data. Almost all children age 12-23 months have received vaccinations for BCG, DPT1 and polio 1. Coverage is also high for the second and third doses of both DPT and polio. Seventy-nine percent of children age 12-23

months have received the measles vaccination. The data show that there has been significant progress in timely vaccination coverage over the last five years.

Treatment of diarrhea. The ADHS asked about the treatment of children who suffered from diarrhea during the two weeks preceding the survey. Overall, 60 percent of mothers gave either oral rehydration salts or increased fluids to their sick children (oral rehydration therapy). Whereas rural mothers are more likely than urban mothers to give oral rehydration salts to their sick children, urban mothers are more likely than rural mothers to offer more liquids than usual. More important, almost one-quarter of rural mothers engage in the hazardous practice of curtailing fluid intake when their children have diarrhea.

Breastfeeding. Eighty-eight percent of all children born in the five years preceding the survey were breastfed. Although the median duration of breastfeeding is nine months, the duration of exclusive and predominant breastfeeding (breastfeeding plus plain water) is short (a little more than one month and three months, respectively).

Nutritional status. In the ADHS, the height and weight of children under five years of age were measured. These data are used to determine the nutritional status of children, i.e., the percentage of children who are stunted (measured in terms of height-for-age), wasted (weight-for-height), or underweight (weight-for-age). Stunting is a sign of chronic, long-term undernutrition; wasting is a sign of acute, short-term undernutrition; and underweight is a composite measure that takes into account both chronic and acute undernutrition.

In a well-nourished population of children, it is expected that slightly more than 2 percent of children will be stunted or wasted. In Armenia, 13 percent of children under age five are stunted, and 3 percent are severely stunted. There is considerable regional variation, ranging from 8 percent in Yerevan and Kotayk to 32 percent in Gegharkunik. Overall, 2 percent of children are wasted and 3 percent are underweight.

Anthropometric data were also collected from all women age 15-49. According to the findings of the ADHS, approximately four in ten Armenian women weigh more than they should: 27 percent are overweight and 14 percent are obese. There is a positive relationship between age and obesity: the prevalence of obesity, for example, increases from a few percent among women under age 20 to one-third of women age 40-45. More than half of women age 35 and older are either overweight or obese; this indicates that most older women do not have a healthy lifestyle and presents a serious public health challenge for Armenia.

Anemia. Determining anemia levels among women and their children under five years of age was one component of the ADHS. Overall, 24 percent of children suffer from anemia: 10 percent have moderate anemia and less than 1 percent have severe anemia. The prevalence of anemia among children living in rural areas is twice as high as among children living in urban areas (33 percent versus 16 percent). There is also significant variation by region, ranging from a low of 11 percent in Vayots Dzor and Kotayk to a high of 39 percent in Tavush. Twelve percent of Armenian women suffer from some degree of anemia.

HIV/AIDS AND OTHER SEXUALLY TRANSMITTED INFECTIONS

The currently low level of the HIV epidemic in Armenia provides a unique window of opportunity for early targeted interventions to prevent further spread of the disease. However, the increases in the cumulative incidence of HIV infection suggest that this window of opportunity is rapidly closing.

Knowledge and attitudes. Almost all respondents reported that they have heard of HIV/AIDS. However, only 62 percent of women and 73 percent of men believe that there is a way to avoid the virus. Among those respondents who had heard of HIV/AIDS, the most frequently reported means of prevention is condom use. More than half of all men and a

quarter of all women spontaneously mentioned condom use.

More than 90 percent of both women and men reported that it is acceptable for AIDS to be discussed in the mass media. Given the Armenian population's high level of exposure to broadcast media, television and radio messages could be an important component of HIV/AIDS prevention strategies.

Sexually transmitted infections. Forty-two percent of women and 15 percent of men had no knowledge of sexually transmitted infections (STIs). Almost two-thirds of all women who knew of STIs were able to name at least one symptom of an STI in a woman. Eighty-one percent of men who knew about STIs were able to name at least one male symptom.

Condom use. Seventy-nine percent of women and 91 percent of men could cite a place where they could obtain a condom. Seven percent of cohabiting women and seven percent of cohabiting men say that they used a condom during the last sexual intercourse with their partner. The likelihood of using a condom increases more than sixfold for men who had sex with a noncohabiting partner.

ADULT HEALTH

The major causes of death in Armenia are similar to those in industrialized countries (cardiovascular diseases, cancer, and accidents), but there is also a rising incidence of certain infectious diseases, such as tuberculosis.

Women's health. More than half of all women had not been seen by a gynecologist in the past five years. Only one-fifth of Armenian women had visited a gynecologist during the 12 months preceding the survey. Given the high incidence of abortion in Armenia, it is likely that many of the visits to the gynecologist are for this purpose and not for routine examinations.

Only 15 percent of Armenian women know how to give themselves a breast exam. Among women who reported knowledge of breast self-exams, most had not performed a self-exam recently. Furthermore, less than 1 percent of women reported that a doctor had ever given them a breast exam. These data underscore the need to improve women's health services in Armenia.

Tuberculosis. Most men and women have heard of tuberculosis. Among those respondents who had heard of the infection, approximately two-thirds were able to correctly identify the mode of tuberculosis transmission (through the air when coughing). The most commonly cited symptom that would convince the respondent to seek medical assistance was, among women, prolonged coughing and, among men, coughing with sputum.

ARMENIA

