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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).

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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.

Ararat Mkrtchyan
Minister of Health
Republic of Armenia

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, televison 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 cohabitin 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.

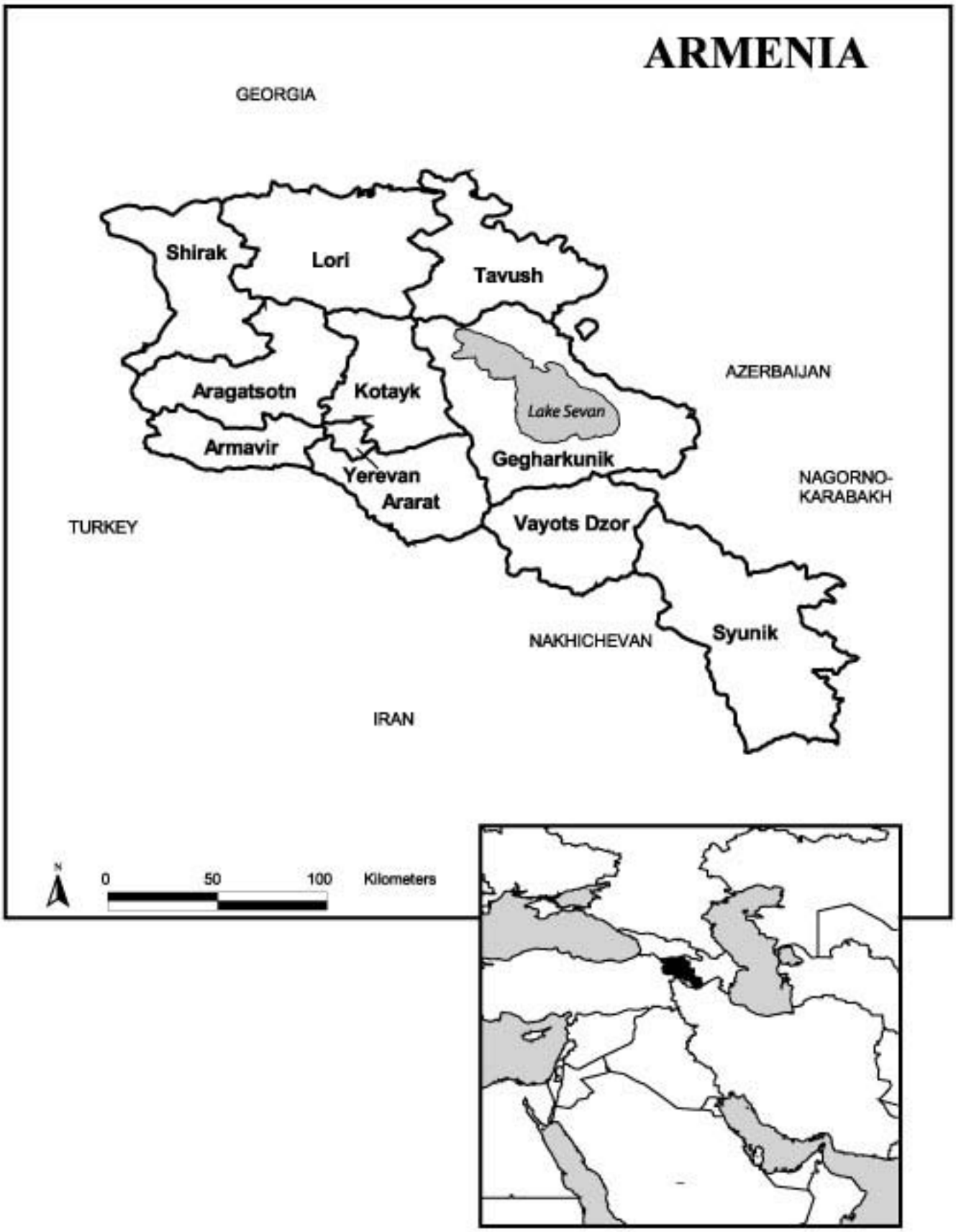
Adult Health

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.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INTRODUCTION 1

S. Mnatsakanyan and A. Zeynalyan

1.1 Territory

The Republic of Armenia is a small, mountainous country, 90 percent of which is located more than 1,000 meters above sea level. The country is located in southwestern Asia, between the Caucasus and Near Asia (the area between the Kur and Araks rivers). The country is bordered by Georgia and Azerbaijan on the north and east and by Turkey and Iran on the west and south. The area of the country is 29,743 square kilometers, 46 percent of which is agricultural lands, 35 percent mountains and highlands, 13 percent forests, and 6 percent water surface. In Armenia, the largest lake is Sevan, which has a surface area of 1,260 square kilometers. The longest river is the Araks.

The highest point in the country is the peak of Aragats (4,090 meters); the lowest point is the Debet River (390 meters). The longest distance between the northwest and the southeast is 360 kilometers, and the longest distance between west and east is 200 kilometers.

The county is subdivided into 11 regions (marzes), which includes the region of Yerevan, the capital city of Armenia.

1.2 Demographic Characteristics

As of January 1, 2001, the official population of the Republic of Armenia was 3.8 million. The country's population is composed almost entirely of ethnic Armenians, although there are some Yazidis, Kurds, Russians, Ukrainians, Asserians, Greeks, and other national minorities.

Most ethnic Armenians live outside the borders of the republic (approximately 5 million Armenians live in 66 countries). The location and size of the various Armenian diaspora communities is related to the available living conditions and security of the given areas. The formation of the Armenian diaspora began during the First World War (1914-1918), when the territory of Armenia was divided between the fighting empires. The Ottoman Empire owned the largest part of the historical territory of Armenia—West Armenia—and the Russian Empire owned East Armenia.

1.3 History

The Armenian highland is one of the origins of civilization, where human beings have lived since the Stone Age. The Armenian nation is one of the oldest nations in the world. Its ancient history dates back almost 5,000 years, and the Armenian nation has long been famous for its material and spiritual culture. The most important two Old World trade and strategic routes connecting the East and the West went through Armenia, which made it an arena for war.

In the ninth through the sixth centuries B.C., the Urartu (Ararat) Kingdom, with its unique and ancient civilization, flourished in the Armenian highland. The ruins of Erebuni City, which was

founded by King Argishti of Urartu in 782 B.C., testify to this great culture. In the Ararat Kingdom, the construction of stronghold cities was very popular, as were handicrafts, blacksmithing, jewelry, stone and wood working, and other material cultures. The culture, architecture, theater, literature, and other arts were highly developed. After the collapse of Urartu, during the kingdom of King Tigran Mets (95-55 B.C.), Armenia continued to grow and develop.

The Armenian Church was established in A.D. 301 by Grigor Lusavorich and the center was located in the city of Echmiadzin, where it has remained until the present day. In 2001, Armenia celebrated the 1,700th anniversary of the adoption of Christianity as the official religion.

In 1375, the collapse of the Kingdom of Kilikia marked the end of Armenia's freedom. Survival in an alien empire was kept in the memory of the Armenian nation as a history of humiliating concessions, retreats, and pressures. In the nineteenth century, this memory served as the basis of a new ideological awakening. In 1827, East Armenia was unyoked from the Persians and incorporated into the Russian Empire

The First World War had a serious impact on the fate of the Armenian nation. Taking advantage of the war situation, in 1915, the Ottoman Empire committed genocide against the Armenians living in the territory. As a result, 1.5 million Armenians fell prey to that genocide, the rest became refugees and migrated to different countries. In fact, Turkey's governors were able to clear the Armenian people from the whole territory of West Armenia through genocide and migration.

As a result of assistance from the Russian Empire, Armenians had the opportunity to establish a free state in 1918. After the genocide, war, and revolution, Armenia found itself in a political crisis, with a collapsed economy, refugees, and unemployment. Furthermore, Armenia was without allies or a developed ideology. That republic endured for only two and a half years because national democratic values could not survive the period of ideological turmoil and the attack of the Red Army. This first Armenian republic, however, with all its weaknesses and disadvantages, became an important historical precedent by creating a system of democracy, from a national assembly and university to banking and an army.

On November 29, 1920, Armenia was incorporated into the USSR. Armenia remained in the Soviet Union for about 70 years, during which time the Armenians were able to develop in the spheres of culture, science, art, and economy within the territory of their historic homeland. From 1921 to 1991, Armenians in their second republic gained unique experience in self-governance and developed a national self-consciousness, without which the formation of the third republic would have been impossible.

1.4 The Transition Period from Soviet Republic to Independent State

On September 21, 1990, the Supreme Council of the Republic of Armenia adopted a declaration of independence. Three months later, Armenia became a part of Commonwealth of Independent States, and on March 2, 1992, it became a member of the United Nations. Armenia became a member of the European Council on February 18, 2001. The state language is Armenian, which belongs to the Indo-European language group; the national currency is the dram, which has been in circulation since November 1993.

The Republic of Armenia is a self-governing, democratic, social, and legal country (Constitution of RA, Chapter 1, Article 1). In the Republic of Armenia, authority belongs to the

people. The president of the country is responsible for the independence, the territorial integrity, and the security of the country. In the Republic of Armenia, the National Assembly is the legislative authority. People exercise their rights through free elections, as well as by state and local self-governance bodies and official bodies suggested by the Constitution (Constitution of RA, Chapter 1, Article 2). State authority is implemented according to the Constitution and laws based on the principle of distinguishing the legislative, administrative, and judicial authorities (Constitution of RA, Chapter 1, Article 5).

1.5 Population Migration between 1988 and 2000

During the 1980s, large-scale migration began to occur in Armenia. The population movements were a result of interethnic fighting, the Karabakh crisis, a devastating earthquake centered in the north of the country, and post-Soviet political, social and economic transitions.

As a result of all of these factors, Armenia experienced net out-migration during the crisis period, especially from 1992 to 1994. Unfortunately, the current system of administrative registration of the population does not provide sufficient data on the migration that occurred during the 10 years preceding the survey; this is because some emigrants leave the Republic and live abroad for long periods of time without registering their departure. The porous borders between Armenia and other CIS countries, together with the lack of registration at border crossings, means that some population movements have not been included in the statistics on migration.

The above factors account for the fact that according to official statistics, during the 1992-2000 period, the Republic registered a net loss of 94,200. Other data, however, indicate that the real level of out-migration was higher. For example, according to the data on registration of passengers implemented by the General Department of Civil Aviation in the period 1992-2000 the cumulative net loss of people from the Republic comprised about 644,000. Furthermore, data collected at railway stations during May and June 2000 and data on border crossing by vehicles confirm that the current (available) population in the Republic is significantly lower because of out-migration. Thus, it is clear that the underregistration of migration has resulted in a paucity of reliable data on the current resident population. Furthermore, although some quantitative data on population movements by air, railway and vehicle transport are available, the age and sex structure of the migration streams is unknown.

As previously mentioned, the calculation of the resident population of the Republic is based on official statistical data. In turn, all demographic indicators are calculated using the resident population in the denominator. Data collected in the Population Census, conducted in October 2001, will be used to recalculate demographic indicators.

1.6 Health Care System and Epidemiological Situation in Armenia

Until recently, Armenia's health care system, which developed as part of the Soviet-planned system, could be seen as a planned public service provided by the state, with all health personnel being state employees. The system was highly centralized and standardized. Services were free to patients, provided in state-owned facilities, and financed mostly by the state budget. Heavy emphasis was placed on training large numbers of doctors and providing large numbers of hospital beds. The system was intended to provide comprehensive health coverage and universal access to services with a focus on disease prevention.

Health services were provided through a network of primary health care institutions, including ambulatories, polyclinics, hospitals, and doctor's assistant/midwife posts. For management purposes, the country was divided into health care delivery areas, each representing between 2,000 and 3,000 people. Specialized services were provided through secondary and tertiary health systems.

The Soviet health care system was successful in providing access to comprehensive health services for most of the country's population, including those who resided in rural and remote areas. However, maintaining such a system required substantial and continuous budgetary support and enormous manpower resources and managerial skills. Although the Soviet health care system met many of its goals, the system itself and the health of the population has deteriorated of late, largely due to the political and economic turmoil that accompanied the collapse of the Soviet Union.

As a result, Armenia inherited a health care system that was in a chronic state of disarray. Even in the years that preceded the collapse, the Soviet Union was the only major country where the percentage of the gross domestic product (GDP) going to health care decreased, and it was already in the range of just 3 to 4 percent. This percentage compares with average health care expenditures of 6 to 10 percent of the GDP in most developed countries. After the collapse of the Soviet Union, the GDP fell by as much as 50 percent and funding to the health sector in Armenia decreased to about 1 to 3 percent of the GDP. This has resulted in declines in life expectancy, increased morbidity, poor conditions in hospitals and other facilities, and overall public dissatisfaction with health services.

This situation, as well as the guarantee of free basic health care in the 1995 Constitution, prompted the country to search for other ways to fund health services. In 1997, the government-run health care institutions began a process of privatization, resulting in the re-registration of the state institutions into closed joint-stock companies, run as for-profit business organizations, but managed by the government. The network of pharmacies has now been completely privatized, while the dental service industry is almost completely privatized.

While searching for an efficient funding mechanism, the country took major steps in restructuring the health care system with the intent to redirect resources to the primary health care sector. Efforts to restructure the primary care delivery system in Armenia have focused on creating a network of doctor's assistant/midwife posts.

On the other hand, abrupt increases in the market price of medications coupled with the poor financial condition of the health care sector have made health care inaccessible to large portions of the population. Admissions to both ambulatory and stationary medical facilities have decreased significantly. In-patient occupancy rates rarely exceed 35 to 40 percent. House calls have decreased by more than 30 percent. These phenomena are not due to improvements in patient health; rather, there are increases in the incidence of illnesses and mortality rates.

From an epidemiological standpoint, Armenia has features of both developed and developing countries. The major causes of death are similar to those of industrialized countries: cardiovascular disease, cancer, and accidents. The decline in life expectancy is not due to infectious diseases, but to increases in cardiovascular mortality, accidents, and cancer. Infectious diseases account for a relatively low percentage of overall mortality, generally less than 20 percent.

At the same time, there is a rising incidence of tuberculosis, especially multi-drug-resistant forms. Because of its likelihood to consume a large proportion of the limited resources available to the health sector and its potential to spread to other countries, tuberculosis is of great public health

concern in Armenia. During the last 2-3 years, a slight increase in infant mortality has been observed. Among children, acute respiratory infections and childhood diarrheal diseases are the main causes of death.

The insufficiency of the health industry mirrors declines in the country's socioeconomic condition, as people are increasingly unable to pay medical costs. The search for alternative health care systems as well as a means to finance the health care system has become a difficult political issue; health care reform has become a priority issue for many.

In recent years, many international organizations have supported various public health initiatives including maternal and child health and immunization programs, programs aiming to decrease mortality due to acute respiratory infections and diarrheal diseases, breastfeeding promotion, family planning campaigns, primary health care reform, tuberculosis control, and preventive care for women.

1.7 Family Planning Policies and Programs

Maternal and child health issues in Armenia are the responsibility of the government, as written into the republic's Constitution and legislation. National maternal and child health care strategy is based upon the state's health care model. The legislative bases for child health care, as well as for the population as a whole, are the Constitution of the Republic of Armenia, the Armenian Laws on Child Rights and the Health Care and Services of the Population, upon which the right to use reproductive and family planning services is based.

The main objectives of the family planning programs in Armenia are to ensure safe motherhood among women of reproductive age, to decrease health risks during pregnancy, and to reduce reliance upon abortion as a method of family planning while promoting more modern and effective methods of contraception. In this respect, the legal right to terminate a pregnancy has been granted by both the Ministry of Health and the Ministry of Justice. The government of the Republic of Armenia has also legalized procedures for medical sterilization. A draft of a nationwide law on human reproduction has been developed and is under discussion. However, many issues concerning both legal and medical aspects of the reproductive health of women still need to be addressed.

Stemming from analyses of reproductive health data, there has been increasing demand to regulate family planning in Armenia. Networks of family planning services in Armenia had not been adequately developed until 1996 when the Reproductive Health Improvement national program was jointly implemented by the Armenian Ministry of Health, the World Health Organization (WHO), and the United Nations Population Fund (UNFPA). With the framework for family planning services now in place in every region, 77 family planning clinics were opened by 1997. In September 2000, the public relations department at Johns Hopkins University in the United States, with financial support from the U.S. Agency for International Development (USAID), implemented a media campaign called Green Road, designed to increase the public's knowledge of family planning issues.

In Armenia, abortion is a common method used to terminate unwanted pregnancies. Although originally outlawed in 1920, abortion was legalized by the Soviet Union in 1955 due to increases in mortality associated with illegal abortions. Today, abortion is legal during the first 12 weeks of pregnancy. In certain cases, it may be performed until 22 weeks of gestation if there are medical or social justifications. Abortions are performed in hospitals by trained medical staff. Despite decreases in recent years, the incidence of abortion remains an important issue for Armenian health care because of its negative effects on women's health.

The main barrier to the spread of family planning services and contraception is insufficient knowledge of modern family planning methods. There is also the lack of access to modern methods of family planning due to the changes in the Armenian health sector and underfunding of family planning services. Under the framework of the Reproductive Health Improvement Program, although contraceptives are distributed free of charge, medical consultations are not free. For many years, oral contraceptives were not commonly available in Armenia, due to the order "On the Side Effects and Complications of Oral Contraceptives" published by the Ministry of Health of the former Soviet Union in 1974. This document in effect banned the distribution and use of oral contraceptives.

1.8 Financing

Due to the far-reaching nature of the Armenian health care system, and its principle of three stages of health care, maternal and child health care should theoretically be available to all. Specialized obstetrics and gynecological services are found primarily in the main cities and are administered through specialized medical genetics centers, family planning clinics, prenatal diagnostic laboratories, and maternity wards. Children's health care is implemented through stationary and ambulatory polyclinics and boarding house health care services.

The collapse of the socialist system adversely affected the country's maternal and child health care system. Socioeconomic crises have worsened these problems. The deterioration of the communications infrastructure has severely reduced access to health care: the three-stage principle of health care cannot effectively operate, it has become almost impossible to organize specialized health care outside the republic, and emergency health care can be organized only with great difficulty. The problems are most apparent with regard to diagnostics, child nutrition, medication, and vaccinations, which are currently imported primarily by humanitarian organizations.

No study has yet been conducted to calculate the cost of administering health care through separate services. Currently, however, economic reforms are being implemented by the Ministry of Health that would allocate funds to medical institutions on a per-patient basis.

Budget allocations for the health care system are conducted annually in the framework of the state's goal-oriented programs. However, budget allocations for the health sector are decreasing (2.7 percent of the GDP in 1990 and 1.4 percent in 1999). In spite of the fact that 30-40 percent of the health care budget is allocated to maternal and child health, there still exists insufficient funds to cover many services; in 2000, the health care system overall received only one-half of its predicted budget. Budget shortfalls have limited access to and the quality of health care, resulting in increases in mortality and morbidity.

1.9 Objectives and Organization of the Survey

The Armenia Demographic and Health Survey (ADHS) was a nationally representative sample survey designed to provide information on population and health issues in Armenia. The primary goal of the survey was to develop a single integrated set of demographic and health data, the first such data set pertaining to the population of the Republic of Armenia. In addition to integrating measures of reproductive, child, and adult health, another feature of the DHS survey is that the majority of data are presented at the marz level.

The ADHS was conducted by the National Statistical Service and the Ministry of Health of the Republic of Armenia during October through December 2000. ORC Macro provided technical

support for the survey through the MEASURE *DHS+* project. MEASURE *DHS+* is a worldwide project, sponsored by the USAID, with a mandate to assist countries in obtaining information on key population and health indicators. USAID/Armenia provided funding for the survey. The United Nations Children's Fund (UNICEF)/Armenia provided support through the donation of equipment.

The ADHS collected national- and regional-level data on fertility and contraceptive use, maternal and child health, adult health, and AIDS and other sexually transmitted diseases. The survey obtained detailed information on these issues from women of reproductive age and, on certain topics, from men as well. Data are presented by marz wherever sample size permits.

The ADHS results are intended to provide the information needed to evaluate existing social programs and to design new strategies for improving the health of and health services for the people of Armenia. The ADHS also contributes to the growing international database on demographic and health-related variables.

Sample Design and Implementation

The sample was designed to provide estimates of most survey indicators (including fertility, abortion, and contraceptive prevalence) for Yerevan and each of the other ten administrative regions (marzes). The design also called for estimates of infant and child mortality at the national level for Yerevan and other urban areas and rural areas.

The target sample size of 6,500 completed interviews with women age 15-49 was allocated as follows: 1,500 to Yerevan and 500 to each of the ten marzes. Within each marz, the sample was allocated between urban and rural areas in proportion to the population size. This gave a target sample of approximately 2,300 completed interviews for urban areas exclusive of Yerevan and 2,700 completed interviews for the rural sector. Interviews were completed with 6,430 women. Men age 15-54 were interviewed in every third household; this yielded 1,719 completed interviews.

A two-stage sample was used. In the first stage, 260 areas or primary sampling units (PSUs) were selected with probability proportional to population size (PPS) by systematic selection from a list of areas. The list of areas was the 1996 Data Base of Addresses and Households constructed by the National Statistical Service. Because most selected areas were too large to be directly listed, a separate segmentation operation was conducted prior to household listing. Large selected areas were divided into segments of which two segments were included in the sample. A complete listing of households was then carried out in selected segments as well as selected areas that were not segmented.

The listing of households served as the sampling frame for the selection of households in the second stage of sampling. Within each area, households were selected systematically so as to yield an average of 25 completed interviews with eligible women per area. All women 15-49 who stayed in the sampled households on the night before the interview were eligible for the survey. In each segment, a subsample of one-third of all households was selected for the men's component of the survey. In these households, all men 15-54 who stayed in the household on the previous night were eligible for the survey.

Questionnaires

Three questionnaires were used in the ADHS: a Household Questionnaire, a Women's Questionnaire, and a Men's Questionnaire. The questionnaires were based on the model survey

instruments developed for the MEASURE *DHS+* program. The model questionnaires were adapted for use during a series of expert meetings hosted by the Center of Perinatology, Obstetrics, and Gynecology. The questionnaires were developed in English and translated into Armenian and Russian. The questionnaires were pretested in July 2000.

The Household Questionnaire was used to list all usual members of and visitors to a household and to collect information on the physical characteristics of the dwelling unit. The first part of the household questionnaire collected information on the age, sex, residence, educational attainment, and relationship to the household head of each household member or visitor. This information provided basic demographic data for Armenian households. It also was used to identify the women and men who were eligible for the individual interview (i.e., women 15-49 and men 15-54). The second part of the Household Questionnaire consisted of questions on housing characteristics (e.g., the flooring material, the source of water, and the type of toilet facilities) and on ownership of a variety of consumer goods.

The Women's Questionnaire obtained information on the following topics:

- Background characteristics
- Pregnancy history
- Antenatal, delivery, and postnatal care
- Knowledge and use of contraception
- Attitudes toward contraception and abortion
- Reproductive and adult health
- Vaccinations, birth registration, and health of children under age five
- Episodes of diarrhea and respiratory illness of children under age five
- Breastfeeding and weaning practices
- Height and weight of women and children under age five
- Hemoglobin measurement of women and children under age five
- Marriage and recent sexual activity
- Fertility preferences
- Knowledge of and attitude toward AIDS and other sexually transmitted infections.

The Men's Questionnaire focused on the following topics:

- Background characteristics
- Health
- Marriage and recent sexual activity
- Attitudes toward and use of condoms
- Knowledge of and attitude toward AIDS and other sexually transmitted infections.

Field Staff

Thirteen interviewing teams were involved in data collection; each team consisted of four female interviewers, a male interviewer, a health technician, a field editor, and a team supervisor. The health technicians received special training in anthropometric measurement and anemia testing and were responsible for the collection of data on height and weight and anemia levels.

Training of the survey field staff occurred during a three-week period in September 2000. Training for all field staff, except the health technicians, was conducted by the National Statistical Service. Training for the health technicians was conducted by the Ministry of Health. Training

consisted of lectures, practice in the classroom, and two days of practice in the field. Field practice was conducted on a team basis with interviewers and health technicians working in the same households.

Fieldwork and Data Processing

The main fieldwork began in early October and was completed by early December. All callbacks and reinterviews were completed in early January 2001. Two special quality control teams, consisting of a female interviewer, a male interviewer, and a health technician, visited the teams in the field to check on the quality of the fieldwork.

After a team had completed interviewing in a cluster, questionnaires were returned promptly to the National Statistical Service in Yerevan for data processing. The office editing staff first checked that questionnaires for all selected households and eligible respondents had been received from the field staff. In addition, a few questions that had not been precoded (e.g., occupation) were coded at this time. Using the ISSA (Integrated System for Survey Analysis) software, a specially trained team of data processing staff entered the questionnaires and edited the resulting data set on microcomputers. The process of office editing and data processing was initiated soon after the beginning of fieldwork and was completed by the end of January 2001.

Response Rates

Table 1.1 presents household and individual response rates for the survey. A total of 6,524 households were selected for the sample, of which 6,150 were occupied at the time of fieldwork. The main reason for the difference is that some of the dwelling units that were occupied during the household listing operation were either vacant or the household was away for an extended period at the time of interviewing. Of the occupied households, 97 percent were successfully interviewed.

Table 1.1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence, Armenia 2000

	Residence		
Result	Urban	Rural	Total
Household interviews			
Households sampled	3,629	2,895	6,524
Households occupied	3,386	2,764	6,150
Households interviewed	3,260	2,720	5,980
Household response rate	96.3	98.4	97.2
Individual interviews: women			
Number of eligible women	3,699	2,986	6,685
Number of eligible women interviewed	3,545	2,885	6,430
Eligible woman response rate	95.8	96.6	96.2
Individual interviews: men			
Number of eligible men	1,045	868	1,913
Number of eligible men interviewed	943	776	1,719
Eligible man response rate	90.2	89.4	89.9

In these households, 6,685 women were identified as eligible for the individual interview (i.e., age 15-49). Interviews were completed with 96 percent of them. Of the 1,913 eligible men identified, 90 percent were successfully interviewed. The principal reason for non-response among eligible women and men was the failure to find them at home despite repeated visits to the household. The refusal rate was low.

The overall response rates, the product of the household and the individual response rates, were 94 percent for women and 87 percent for men.

HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS 2

H. Petrosyan and J. Magluchants

This chapter provides a summary of the demographic and socioeconomic characteristics of the household population in the ADHS, including age, sex, place of residence, educational status, and household characteristics. Information collected on the characteristics of the households and respondents is important in understanding and interpreting the findings of the survey and also provides indicators of the representativeness of the survey.

A household is defined as a person or group of related and unrelated persons who live together in the same dwelling unit(s) or in connected premises, who acknowledge one adult member as head of the household, and who have common arrangements for cooking and eating their food. The questionnaire for the ADHS distinguishes between the de jure population (persons who usually live in a selected household) and the de facto population (persons who stayed the night before the interview in the household). According to the ADHS data, the differences between these populations are small. Tabulations for the household data presented in this chapter are primarily based on the de facto population.

Due to the way the sample was designed, the number of cases in some regions may appear small since they are weighted to make the regional distribution nationally representative. Throughout this report, numbers in the tables reflect weighted numbers. To ensure statistical reliability, percentages based on 25 to 49 unweighted cases are shown within parentheses, and percentages based on fewer than 25 unweighted cases are suppressed.

2.1 Characteristics of the Population

Age-Sex Structure

Age and sex are important demographic variables and form the primary basis of demographic classification in vital statistics, censuses, and surveys. They are also important variables in the study of mortality, fertility, and nuptiality. Table 2.1 presents the percent distribution of the de facto population by five-year age groups, according to urban-rural residence and sex. The information is used to construct the population pyramid shown in Figure 2.1.

The total de facto population was 24,372. The data show that 54 percent of the population is female; the gender disparity is more pronounced in urban areas than in rural areas (83 versus 90 men per 100 women). Among the youngest age groups, however, the sex ratio is more balanced; it is not until the 15-19 age cohort that the percentage of women is higher than the percentage of men. Overall, this imbalance in the sex ratio strongly suggests that the outmigration from Armenia in the decade of the 1990s was disproportionately selective of men.

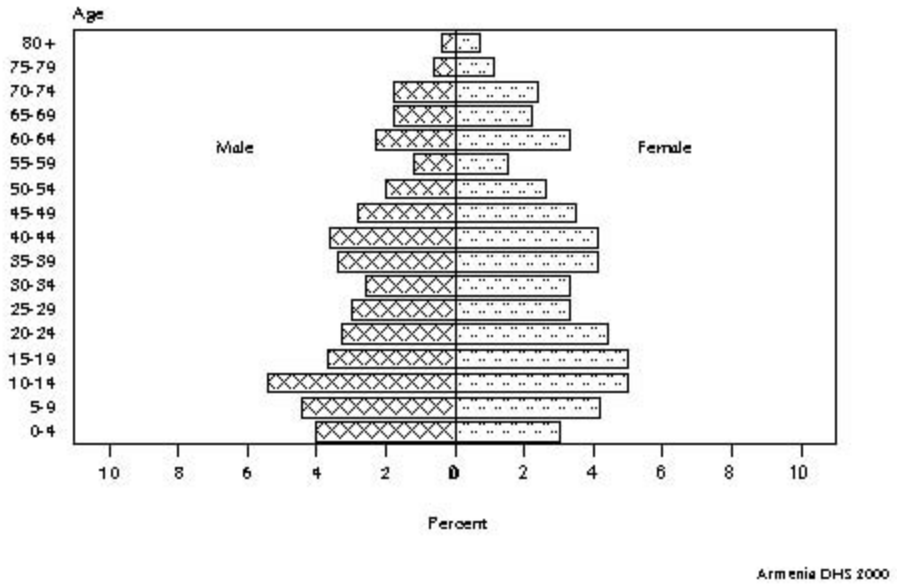
About 63 percent of the population is in the 15-64 age group, also referred to as the economically active population. The proportion of the population falling within this age group is significantly higher in urban areas (66 percent) than in rural areas (59 percent). This difference may be largely attributed to high levels of rural-urban migration, especially among the young in search

Table 2.1 Household population by age, residence, and sex

Percent distribution of the de facto household population by five-year age group, according to sex and urban-rural residence, Armenia 2000

	Urban			Rural			Total		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
0-4	7.9	4.8	6.2	9.5	6.7	8.0	8.6	5.6	7.0
5-9	8.6	7.0	7.8	10.7	9.1	9.9	9.5	7.9	8.6
10-14	11.4	8.5	9.8	12.0	10.3	11.1	11.6	9.3	10.4
15-19	8.0	9.2	8.7	8.1	9.5	8.8	8.1	9.3	8.7
20-24	7.3	8.7	8.1	6.9	7.2	7.1	7.1	8.1	7.7
25-29	6.9	6.2	6.5	5.9	6.1	6.0	6.4	6.2	6.3
30-34	5.0	6.0	5.5	6.6	6.4	6.5	5.7	6.2	5.9
35-39	7.1	7.8	7.5	7.6	7.5	7.5	7.3	7.7	7.5
40-44	8.0	7.9	7.9	7.7	7.2	7.4	7.8	7.6	7.7
45-49	6.9	7.9	7.4	5.0	4.8	4.9	6.1	6.6	6.4
50-54	5.4	5.6	5.5	2.8	3.7	3.3	4.3	4.8	4.6
55-59	3.0	3.0	3.0	2.2	2.4	2.3	2.6	2.8	2.7
60-64	4.9	6.1	5.6	4.9	6.1	5.5	4.9	6.1	5.5
65-69	4.0	3.9	3.9	3.8	4.5	4.1	3.9	4.1	4.0
70-74	3.6	4.1	3.9	4.2	5.1	4.7	3.9	4.5	4.2
75-79	1.3	2.0	1.7	1.3	2.0	1.7	1.3	2.0	1.7
80 +	0.7	1.3	1.0	0.9	1.5	1.2	0.8	1.4	1.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	6,423	7,732	14,155	4,847	5,370	10,217	11,271	13,101	24,372

Figure 2.1 **Population Pyramid of Armenia**



of jobs and higher education. The disproportionately low percentage of the population in the 55-59 age group is probably due to low levels of fertility during World War II (Figure 2.1).

The data further indicate that slightly more than one-fourth of the population consists of children under 15 years of age. As table 2.1 shows, the proportion under 15 is greater in the rural population than in the urban population (29 and 24 percent, respectively). This is evidence of higher fertility in the rural areas. The 10- to 14-year-old cohort is the largest of the five-year age groups. This may largely be due to the fertility peaks of both 1986 and 1990-1991—the second of which was the so-called "compensation period" following the earthquake of 1988.

Household Composition

Table 2.2 presents the distribution of households in the ADHS sample by sex of the head of the household and by household size for urban and rural areas. These characteristics are important because they are often associated with differences in household socioeconomic levels. For example, female-headed households are frequently poorer than households headed by males. In addition, the size and composition of the household affects the allocation of financial and other resources among household members, which in turn influences the overall well-being of these individuals. Household size is also associated with crowding in the dwelling, which can lead to unfavorable health conditions.

Table 2.2 Household composition

Percent distribution of households by sex of head of household and household size, according to urban-rural residence, Armenia 2000

	Residence		
Characteristic	Urban	Rural	Total
Sex of household head			
Male	68.7	74.9	71.1
Female	31.3	25.1	28.9
Total	100.0	100.0	100.0
Number of usual members			
1	9.3	7.0	8.4
2	13.5	11.6	12.7
3	14.5	9.6	12.6
4	22.3	16.4	20.0
5	18.8	21.0	19.7
6	12.0	17.5	14.1
7	4.9	10.0	6.9
8	1.8	3.5	2.5
9+	2.9	3.4	3.1
Total	100.0	100.0	100.0
Mean size	4.1	4.7	4.3

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

In general, heads of household in Armenia are male (71 percent). However, there is a greater proportion of female-headed households in urban areas (31 percent) than in rural areas (25 percent). The average household size in Armenia is 4.3 persons. The data show that rural households (4.7 members) are larger than urban households (4.1 members).

Detailed information on living arrangements and orphanhood for children under 15 years of age is presented in Table 2.3. This shows that the vast majority (90 percent) of children under 15 live with both parents. Countrywide, 9 percent of children live with only one of their parents, in most cases the mother. In Lori, the proportion of children under 15 living with both parents is much lower than in the rest of the country. There, a full 15 percent of children live only with their mother and not their father. This is likely because many men have left the region, which was devastated in the 1988 earthquake, in search of work. Aragatsotn has the highest proportion of children living with both parents (96 percent). Almost no children (0.1 percent) are orphans, i.e., had both of their parents die. Although still small, the highest proportion of orphans is in the earthquake zone of Lori and Shirak.

Table 2.3 Children's living arrangements and orphanhood

Percent distribution of de jure children under age 15 by children's living arrangements and survival status of parents, according to background characteristics, Armenia 2000

Background characteristic	Living with both parents	Living with mother but not father		Living with father but not mother		Not living with either parent				Missing information on father/mother	Total	Number of children
		Father alive	Father dead	Mother alive	Mother dead	Both alive	Only father alive	Only mother alive	Both dead			
Age												
0-1	94.1	4.9	0.4	0.2	0.2	0.3	0.0	0.0	0.0	0.0	100.0	640
2-4	92.0	4.9	1.2	0.7	0.2	0.3	0.1	0.0	0.0	0.6	100.0	1,095
5-9	89.8	5.3	2.9	0.4	0.5	0.6	0.1	0.1	0.1	0.3	100.0	2,150
10-14	88.0	4.6	4.9	0.5	0.7	0.4	0.2	0.1	0.2	0.6	100.0	2,550
Sex												
Male	90.2	4.7	3.0	0.5	0.4	0.4	0.0	0.0	0.1	0.5	100.0	3,418
Female	89.5	5.2	3.2	0.4	0.6	0.5	0.2	0.1	0.1	0.3	100.0	3,017
Residence												
Urban	87.0	6.9	3.4	0.4	0.8	0.3	0.1	0.1	0.2	0.6	100.0	3,402
Rural	93.0	2.7	2.8	0.5	0.2	0.5	0.1	0.0	0.0	0.2	100.0	3,033
Region												
Yerevan	87.5	6.3	3.8	0.4	0.9	0.3	0.2	0.0	0.1	0.5	100.0	1,747
Aragatsotn	96.0	1.3	1.4	0.6	0.0	0.5	0.0	0.0	0.0	0.2	100.0	365
Ararat	93.8	2.0	3.0	0.8	0.3	0.1	0.0	0.0	0.0	0.0	100.0	784
Armavir	89.0	3.8	4.9	0.4	0.4	1.1	0.0	0.0	0.0	0.5	100.0	644
Gegharkunik	94.9	2.6	1.1	0.2	0.6	0.3	0.2	0.0	0.0	0.2	100.0	610
Lori	81.8	10.2	4.8	1.2	0.0	0.2	0.0	0.5	0.5	0.7	100.0	505
Kotayk	90.9	6.3	1.3	0.5	0.8	0.3	0.0	0.0	0.0	0.0	100.0	453
Shirak	87.4	5.6	4.3	0.2	0.6	0.2	0.0	0.2	0.4	0.9	100.0	602
Syunik	89.7	5.3	2.5	0.0	0.4	1.4	0.2	0.0	0.0	0.4	100.0	276
Vayots Dzor	94.2	3.5	0.8	0.4	0.0	0.8	0.2	0.0	0.0	0.2	100.0	130
Tavush	92.7	4.2	1.5	0.0	0.2	0.7	0.0	0.0	0.2	0.5	100.0	317
Total	89.9	4.9	3.1	0.5	0.5	0.4	0.1	0.1	0.1	0.4	100.0	6,435

Note: Orphans are children with both parents dead.

Education

The educational attainment of household members is an important determinant of their opportunities and behaviors. Many phenomena such as use of health facilities, reproductive behavior, health of children, and proper hygienic habits are associated with the educational level of household members, especially women.

The school system in Armenia has three levels. The first level, primary education, consists of grades one through three for students age 7-9. The second level, or middle school, consists of grades four through eight for students age 10-14. The first two levels together are called total general education and are compulsory. Secondary school, the third level of school, comprises grades nine and ten. The three levels together are referred to as a full secondary education.

Students who have completed a minimum of eight grades may enroll in secondary-special education. There are two tracks within secondary-special education. The first track consists of professional-technical institutions that train students in a variety of specializations. Students who have completed at least primary and middle school are eligible for this secondary-special track. The second track prepares specialists with mid-level qualifications, such as teachers, midwives, and mechanics. This track can be completed in two years by students who have completed the tenth grade or can be completed in four years by students who completed the eighth grade.

University and postgraduate education prepares higher level specialists. Students who complete a full secondary education may enroll in university.

Table 2.4 presents information on the educational attainment of the Armenian population age 7 and over. Virtually all Armenians have gone to school. The median number of years of schooling is 10 for both women and men. Individuals residing in urban areas have significantly higher levels of university education than those in rural areas. Approximately one-fourth of those living in the capital city of Yerevan have attended university. The proportion of the population with no education is low, with the highest levels being seen among those 65 years and older.

Table 2.4 Educational attainment of household population

Percent distribution of the de facto male and female household populations age seven and over by highest level of education attended, according to background characteristics, Armenia 2000

Background characteristic	Highest level of schooling attended: No education	Primary/ middle	Second-ary	Secondary-special	Univer-sity	Higher	Total	Number of males/ females	Median number of years
MALES									
Age									
7-9	3.3	96.7	0.0	0.0	0.0	0.0	100.0	668	0.7
10-14	0.8	99.2	0.0	0.1	0.0	0.0	100.0	1,311	4.6
15-19	0.5	36.7	43.9	7.7	11.2	0.0	100.0	910	8.6
20-24	0.2	19.5	39.4	20.2	20.3	0.3	100.0	806	9.8
25-29	0.6	11.0	35.1	30.4	22.4	0.6	100.0	726	10.9
30-34	0.5	6.9	30.9	40.5	20.3	0.8	100.0	639	11.5
35-39	0.5	8.0	28.5	42.2	20.0	0.8	100.0	827	11.4
40-44	0.3	10.1	29.2	41.3	18.8	0.3	100.0	883	11.4
45-49	0.5	9.5	25.5	38.5	25.1	0.9	100.0	687	11.8
50-54	1.5	8.3	29.2	33.8	26.3	0.9	100.0	482	11.5
55-59	0.3	15.1	32.5	31.7	19.5	0.9	100.0	295	11.0
60-64	0.7	31.4	25.3	23.0	19.0	0.5	100.0	552	9.7
65+	3.9	49.0	18.8	13.3	14.6	0.4	100.0	1,111	7.7
Residence									
Urban	0.7	32.0	23.7	22.7	20.2	0.7	100.0	5,711	9.7
Rural	1.8	42.0	25.6	22.1	8.5	0.0	100.0	4,186	9.2
Region									
Yerevan	0.4	30.2	22.9	21.5	23.8	1.0	100.0	3,121	9.9
Aragatsotn	2.1	36.0	25.3	25.3	11.0	0.4	100.0	472	9.4
Ararat	2.2	40.6	24.2	22.9	10.0	0.1	100.0	1,098	9.2
Armavir	1.7	43.1	24.8	21.3	9.0	0.1	100.0	893	9.1
Gegharkunik	0.7	37.6	28.0	23.7	9.8	0.1	100.0	825	9.3
Lori	1.1	39.6	22.7	25.0	11.4	0.2	100.0	769	9.3
Kotayk	2.1	37.0	23.4	26.0	11.4	0.2	100.0	704	9.4
Shirak	1.0	34.8	27.3	19.9	16.8	0.3	100.0	949	9.5
Syunik	0.4	38.7	25.0	25.4	10.2	0.0	100.0	412	9.4
Vayots Dzor	1.9	37.4	28.3	23.3	9.1	0.0	100.0	188	9.3
Tavush	1.0	43.8	24.7	17.8	12.5	0.1	100.0	468	9.1
Total	1.1	36.2	24.5	22.5	15.3	0.4	100.0	9,897	9.5
FEMALES									
Age									
7-9	2.4	97.6	0.0	0.0	0.0	0.0	100.0	660	0.8
10-14	0.4	99.4	0.2	0.0	0.0	0.0	100.0	1,212	4.7
15-19	0.0	23.4	52.3	13.4	11.0	0.0	100.0	1,220	9.1
20-24	0.2	8.2	29.9	35.4	25.8	0.4	100.0	1,062	11.3
25-29	0.1	3.8	36.8	38.1	20.5	0.7	100.0	809	11.3
30-34	0.4	4.0	31.6	43.4	19.9	0.7	100.0	807	11.5
35-39	0.4	5.3	35.0	42.9	16.4	0.1	100.0	1,004	11.2
40-44	0.3	6.7	35.4	41.2	16.3	0.1	100.0	996	11.1
45-49	0.4	8.8	30.6	38.0	21.9	0.3	100.0	864	11.4
50-54	0.8	12.6	32.3	29.9	23.9	0.4	100.0	628	11.2
55-59	0.3	27.1	34.8	19.3	18.4	0.0	100.0	364	9.7
60-64	3.0	34.3	34.4	18.2	9.9	0.2	100.0	801	9.3
65+	9.4	48.3	19.5	12.4	10.3	0.1	100.0	1,578	7.2
Residence									
Urban	1.0	25.1	25.3	27.9	20.3	0.4	100.0	7,174	9.9
Rural	2.9	39.2	32.7	19.9	5.3	0.0	100.0	4,829	9.1
Region									
Yerevan	0.8	22.9	24.5	26.6	24.7	0.5	100.0	3,995	10.5
Aragatsotn	3.7	36.1	32.5	20.0	7.3	0.3	100.0	540	9.2
Ararat	4.1	35.6	30.6	23.4	6.3	0.0	100.0	1,255	9.3
Armavir	2.7	37.3	29.9	22.2	7.8	0.0	100.0	1,012	9.2
Gegharkunik	3.7	39.3	33.2	18.8	4.9	0.0	100.0	938	9.1
Lori	0.9	32.6	30.6	26.7	9.3	0.0	100.0	972	9.5
Kotayk	1.8	33.7	25.6	28.8	10.1	0.0	100.0	874	9.5
Shirak	0.8	29.1	29.1	24.5	16.3	0.2	100.0	1,155	9.6
Syunik	0.6	33.6	28.8	28.8	8.2	0.0	100.0	500	9.5
Vayots Dzor	1.3	32.8	39.3	20.6	5.8	0.1	100.0	208	9.3
Tavush	1.6	37.5	28.2	21.6	11.1	0.0	100.0	553	9.3
Total	1.8	30.8	28.2	24.7	14.2	0.2	100.0	12,003	9.6

Data on net attendance ratios (NARs) and gross attendance ratios (GARs) by school level, sex, residence, and region are shown in Table 2.5. The NAR indicates participation in primary/middle school for the population age 7-14 and secondary school for the population age 15-16. The GAR measures participation at each level of schooling among those of any age from 6 to 24. The GAR is nearly always higher than the NAR for the same level because the GAR includes participation by those who may be older or younger than the official age range for that level.[1] An NAR of 100 percent would indicate that all those in the official age range for the level are attending at that level. The GAR can exceed 100 percent if there is significant overage or underage participation at a given level of schooling.

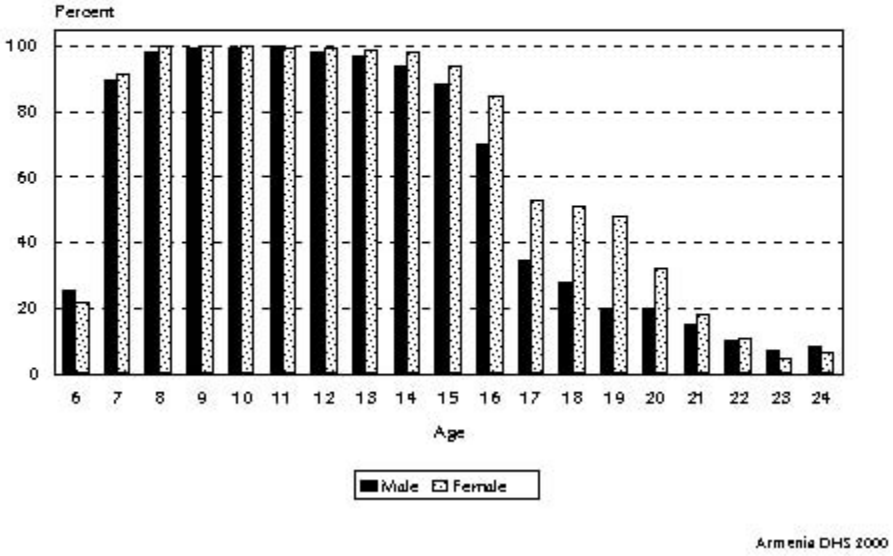
In Armenia, school attendance among school-age household members is high. The NAR for primary/middle school is 95 percent and for secondary school is 87 percent. Attendance ratios are, in general, higher for girls than for boys. Attendance ratios are virtually the same among urban and rural populations. A comparison of NARs and GARs indicates that approximately 6 percent of students in primary/middle school and 5 percent of students in secondary school are either underage or overage.

Figure 2.2 presents the age-specific attendance ratios (ASAR) for the population 6-24 by sex. The ASAR indicates participation in schooling at any level, from primary through higher education. The closer the ASAR is to 100 percent, the higher the proportion of a given age attending school.

In Armenia, almost all youths of primary to middle school age (7-14) attend school as there are no significant differences by gender. Among the secondary-school age population (15-16), attendance ratios begin to decline, particularly among males. It should be noted that among 17 to 20 year olds, a significantly higher proportion of females than males are attending school.

Figure 2.2 **Age-Specific Attendance Rates**

Percentage of the De Jure Household Population Age 6-24 Years Attending School, by Age and Sex



[1] Students who are overage for a given level of schooling may have started school overage, may have repeated one or more grades in school, or may have dropped out of school and later returned.

Table 2.5 School attendance ratios

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de jure household population by level of schooling and sex, according to background characteristics, Armenia 2000

Background characteristic	Net attendance ratio [1]			Gross attendance ratio [2]		
	Male	Female	Total	Male	Female	Total
PRIMARY/MIDDLE SCHOOL						
Residence						
Urban	93.5	95.6	94.5	100.4	101.8	101.1
Rural	94.1	95.0	94.5	101.3	101.0	101.2
Region						
Yerevan	93.5	95.4	94.4	100.9	101.4	101.1
Aragatsotn	94.9	94.9	94.9	100.8	106.1	103.2
Ararat	93.0	92.7	92.8	99.1	96.7	97.9
Armavir	94.6	96.8	95.6	100.0	101.1	100.5
Gegharkunik	96.0	94.3	95.2	105.6	101.9	103.9
Lori	90.0	95.7	92.9	97.1	101.4	99.3
Kotayk	91.7	93.5	92.5	97.2	95.2	96.3
Shirak	92.5	96.8	94.5	98.1	108.6	103.0
Syunik	98.9	99.0	98.9	109.9	102.0	105.8
Vayots Dzor	96.0	96.6	96.3	101.0	100.0	100.5
Tavush	95.2	95.0	95.1	106.0	100.0	102.7
Total	93.8	95.3	94.5	100.8	101.4	101.1
SECONDARY SCHOOL						
Residence						
Urban	83.8	90.6	87.2	89.1	94.3	91.7
Rural	82.3	89.7	86.0	87.8	95.6	91.7
Region						
Yerevan	82.5	89.2	85.9	88.8	92.1	90.5
Aragatsotn	84.7	87.9	86.5	91.8	90.9	91.3
Ararat	82.3	91.4	86.3	86.4	99.1	92.0
Armavir	78.4	90.9	84.2	83.3	98.9	90.5
Gegharkunik	85.8	86.2	86.0	92.9	95.4	94.1
Lori	79.5	92.8	86.0	83.0	97.6	90.1
Kotayk	82.4	94.5	88.7	88.2	99.1	93.9
Shirak	87.1	86.2	86.6	92.5	89.4	90.9
Syunik	88.9	95.6	92.5	91.9	97.3	94.8
Vayots Dzor	89.2	90.4	89.8	93.7	97.4	95.6
Tavush	83.3	91.7	87.4	87.7	95.4	91.5
Total	83.1	90.2	86.7	88.5	94.9	91.7

[1] The NAR for primary/middle school is the percentage of the primary/middle-school-age (7-14 years) population that is attending primary/middle school. The NAR for secondary school is the percentage of the secondary-school-age (15-16 years) population that is attending secondary school. By definition the NAR cannot exceed 100 percent.

[2] The GAR for primary/middle school is the total number of primary/middle school students, expressed as a percentage of the official primary/middle-school-age population. The GAR for secondary school is the total number of secondary school students, expressed as a percentage of the official secondary-school-age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100 percent.

Table 2.6 Grade repetition and dropout rates

Repetition and dropout rates for the de jure household population age 6-24 years by school grade, according to background characteristics, Armenia 2000

Background characteristic	School grade							
	1	2	3	4	5	6	7	8
	REPETITION RATE [1]							
Sex								
Male	0.5	0.0	0.2	1.5	0.7	0.8	0.0	0.0
Female	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.8
Residence								
Urban	0.6	0.0	0.0	1.0	0.0	0.4	0.0	0.5
Rural	0.0	0.1	0.2	0.5	0.9	0.5	0.0	0.3
Region								
Yerevan	1.2	0.0	0.0	2.1	0.0	0.0	0.0	0.9
Aragatsotn	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ararat	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0
Armavir	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0
Gegharkunik	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lori	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kotayk	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0
Shirak	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Syunik	0.0	0.0	1.9	4.5	0.0	0.0	0.0	2.0
Vayots Dzor	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0
Tavush	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0
Total	0.3	0.1	0.1	0.8	0.4	0.4	0.0	0.4
	DROPOUT RATE [2]							
Sex								
Male	0.8	0.0	0.0	0.4	0.5	0.8	0.5	10.5
Female	0.0	0.0	0.0	0.0	0.0	0.4	0.0	4.5
Residence								
Urban	0.5	0.0	0.0	0.0	0.0	0.0	0.0	5.6
Rural	0.4	0.0	0.0	0.5	0.6	1.4	0.6	9.8
Region								
Yerevan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4
Aragatsotn	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.8
Ararat	0.0	0.0	0.0	2.2	0.0	1.6	0.0	15.7
Armavir	2.0	0.0	0.0	0.0	2.3	2.6	0.0	11.8
Gegharkunik	2.3	0.0	0.0	0.0	0.0	0.0	0.0	2.6
Lori	0.0	0.0	0.0	0.0	0.0	2.4	0.0	4.3
Kotayk	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3
Shirak	0.0	0.0	0.0	0.0	0.0	0.0	2.8	10.5
Syunik	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Vayots Dzor	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.3
Tavush	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
Total	0.4	0.0	0.0	0.2	0.2	0.6	0.3	7.4

[1] The repetition rate is the percentage of students in a given grade who are repeating that grade.
[2] The dropout rate is the percentage of students in a given grade in the previous school year who are not attending school.

Repetition and dropout rates, shown in Table 2.6, describe the flow of students through the school system. Repetition and dropout rates often vary across grades, indicating points in the school system where students are not regularly promoted to the next grade. In Armenia, the repetition rates for grades one through eight are very low—less than 1 percent.

Dropout rates are also less than 1 percent for grades one through seven. The dropout rate after eighth grade, however, is more than 7 percent, meaning that these children stop studying after the compulsory years of school.

2.2 HOUSING CHARACTERISTICS

To assess the socioeconomic conditions under which the population lives, respondents were asked to give specific information about their household environment. Tables 2.7 and 2.8 present major housing characteristics by urban-rural residence. Type of water source, sanitation facilities, and floor material are characteristics that affect the health status of household members and particularly of children. They also indicate the socioeconomic status of households.

Virtually 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 handwashing. Overall, most of the respondents in urban areas live in environments with adequate sanitary conditions. In rural areas, living conditions are more mixed.

Table 2.7 Housing characteristics

Percent distribution of households by housing characteristics, according to urban-rural residence, Armenia 2000

Characteristic	Residence		Total
	Urban	Rural	
Electricity	99.1	98.6	98.9
Source of drinking water			
Piped into residence	86.4	26.2	62.8
Piped into yard/plot	10.2	45.7	24.1
Public tap	1.4	10.3	4.9
Open well in yard/plot	0.2	0.7	0.4
Spring	1.2	12.6	5.7
River/stream	0.0	0.4	0.1
Tanker truck	0.3	2.5	1.1
Other	0.3	1.6	0.9
Total	100.0	100.0	100.0
Time to water source			
<15 minutes	97.5	81.6	91.3
Sanitation facilities			
Own flush toilet	90.3	20.5	62.9
Traditional pit toilet	9.2	79.1	36.6
Other	0.5	0.4	0.5
Total	100.0	100.0	100.0
Flooring material			
Earth, sand	0.7	2.7	1.4
Wood planks	34.7	74.7	50.4
Parquet, polished wood	54.8	6.5	35.9
Lynoleum	4.2	3.4	3.9
Cement	1.4	11.1	5.2
Carpet	4.1	1.6	3.1
Other material	0.1	0.1	0.1
Missing	0.1	0.0	0.1
Total	100.0	100.0	100.0
Place for hand washing			
In dwelling/yard/plot	99.2	94.2	97.2
Nowhere	0.8	5.8	2.8
Total	100.0	100.0	100.0
Type of cooking fuel			
Electricity	48.5	20.4	37.4
LPG, natural gas	12.7	15.5	13.8
Liquid gas	28.1	9.5	20.8
Kerosene	1.9	0.7	1.4
Charcoal	0.6	0.5	0.6
Firewood, straw	6.3	29.3	15.3
Tezek (dung)	1.7	24.2	10.5
Other	0.2	0.0	0.1
Missing	0.0	0.0	0.0
Total	100.0	100.0	100.0
Total	3,633	2,347	5,980

Table 2.8 Housing characteristics by region

Percent distribution of households by housing characteristics, according to region, Armenia 2000

Characteristic	Region											
	Yerevan	Aragat-sotn	Ararat	Arma-vir	Geghar-kunik	Lori	Kotayk	Shirak	Syunik	Vayots Dzor	Tavush	Total
Electricity	99.1	99.3	99.2	99.1	98.3	98.1	99.7	98.7	99.3	97.5	99.2	98.9
Source of drinking water												
Piped into residence	91.0	33.8	30.5	31.1	33.3	52.4	77.9	69.0	83.7	57.0	36.5	62.8
Piped into yard/plot	8.2	26.7	55.3	44.9	39.7	28.1	14.1	18.2	11.2	36.6	29.6	24.1
Public tap	0.2	12.8	13.0	1.2	14.6	4.2	3.9	2.8	0.2	5.0	13.8	4.9
Open well in yard/plot	0.0	0.0	0.0	0.5	1.7	1.4	0.0	0.6	0.0	0.2	0.0	0.4
Spring	0.4	26.0	0.4	9.8	6.9	10.4	3.3	8.9	4.0	1.1	16.3	5.7
River/stream	0.0	0.0	0.0	0.0	1.2	0.5	0.0	0.0	0.0	0.0	0.0	0.1
Tanker truck	0.0	0.0	0.8	11.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	1.1
Other	0.3	0.7	0.0	1.5	2.6	3.1	0.8	0.4	0.9	0.0	0.8	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Time to water source												
<15 minutes	99.6	79.9	90.3	90.9	78.6	86.1	93.1	89.6	95.6	95.5	75.0	91.3
Sanitation facilities												
Own flush toilet	93.0	24.3	27.9	35.7	24.3	54.0	72.7	74.9	80.0	49.5	46.1	62.9
Traditional pit toilet	6.4	75.4	71.8	63.3	75.5	46.0	27.3	24.2	19.8	50.5	53.7	36.6
Other	0.6	0.2	0.4	0.9	0.2	0.0	0.0	0.8	0.2	0.0	0.2	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Flooring material												
Earth, sand	1.1	0.7	1.5	0.5	2.7	0.9	3.0	1.9	0.4	5.2	0.6	1.4
Wood planks	26.9	74.7	74.0	70.3	67.4	47.4	36.5	62.8	59.1	42.0	70.4	50.4
Parquet, polished wood	67.6	10.2	11.8	19.9	12.3	32.1	38.4	11.0	36.3	32.3	17.9	35.9
Lynoleum	1.0	2.4	2.3	0.7	3.1	11.6	0.3	16.2	0.7	2.5	3.3	3.9
Cement	1.1	12.1	8.0	6.5	14.5	3.5	3.3	6.7	1.5	14.8	5.2	5.2
Carpet	2.1	0.0	2.3	2.1	0.0	4.5	18.2	1.3	2.0	3.2	1.9	3.1
Other	0.1	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.8	0.1
Missing	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Place for handwashing												
In dwelling/yard/plot	99.4	99.3	98.3	97.4	93.4	92.0	99.7	92.4	99.8	96.4	98.8	97.2
Nowhere	0.6	0.7	1.7	2.6	6.6	8.0	0.3	7.6	0.2	3.6	1.2	2.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Type of cooking fuel												
Electricity	46.0	25.5	32.6	34.6	10.8	28.1	53.3	55.2	45.3	32.3	4.8	37.4
LPG, natural gas	10.4	5.0	22.5	21.3	19.3	6.4	17.7	16.9	10.3	9.3	10.7	13.8
Liquid gas	39.1	7.6	20.8	21.0	6.2	8.7	16.6	8.0	7.7	8.9	4.8	20.8
Kerosene	2.0	0.5	0.8	2.1	0.4	1.4	1.1	2.2	0.2	0.2	0.0	1.4
Charcoal	0.8	0.0	0.6	0.7	0.4	0.2	0.3	0.2	0.4	1.4	1.2	0.6
Firewood, straw	1.2	12.3	13.5	11.9	22.9	44.8	8.6	3.0	30.5	8.9	78.3	15.3
Tezek (dung)	0.2	49.2	9.0	8.4	39.5	10.1	2.5	14.5	5.5	39.1	0.2	10.5
Other	0.2	0.0	0.0	0.0	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.1
Missing	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total	1,946	248	580	496	507	519	413	602	258	111	300	5,980

In urban areas, drinking water is most often piped directly into the household (86 percent). In rural areas, the most common source is water that has been piped into the yard (46 percent), and only one-fourth (26 percent) of households have drinking water that has been piped directly into the residence. Flush toilets are widespread in urban areas (90 percent), while pit latrines are more common in rural areas (79 percent). Yerevan has the best sanitary conditions of the country: 93 percent of the population in the capital use a flush toilet, and 99 percent have a convenient place for handwashing. In other regions, the proportion of households with a flush toilet ranges from 80 percent in Syunik to 24 percent in Aragatsotn and Gegharkunik, where many people live in rural areas and pit toilets are common.

Finished wood floors are most common in urban areas (55 percent). In rural areas, the majority of households have wooden plank floors (75 percent), and 3 percent of households have an earth or sand floor. In the urban areas, most cooking is done with electricity (49 percent) or liquid gas (28 percent). In rural areas, however, wood and tezek (dung) are more commonly used. Firewood is most commonly used in Tavush and in Lori, which are famous for huge forests (78 percent and 45 percent, respectively). Tezek is more commonly used in Aragatsotn, Gegharkunik, and Vayots Dzor, where cattle breeding is one of the primary economic activities.

Household Durable Goods

The availability of durable goods is a proximate measure of household socioeconomic status. Tables 2.9 and 2.10 provide information on household ownership of durable goods (radios, televisions, telephones, and refrigerators) and modes of transportation (bicycles, motorcycles, and automobiles).

Table 2.9 shows that urban households are more likely than rural households to own durable goods, while rural households are more likely to own a means of transportation. Overall, 89 percent of Armenian households have televisions and 75 percent have refrigerators. Telephones

Table 2.9 Household durable goods

Percentage of households possessing various durable consumer goods, by urban-rural residence, Armenia 2000

	Residence		
Durable consumer goods	Urban	Rural	Total
Radio	47.5	23.6	38.1
Television	91.8	83.7	88.6
Telephone	74.9	40.4	61.3
Refrigerator	80.9	66.9	75.4
Bicycle	5.3	8.4	6.6
Motorcycle	0.8	2.8	1.6
Car/truck	21.0	27.6	23.6
None of the above	2.6	6.9	4.3
Number of households	3,633	2,347	5,980

Table 2.10 Household durable goods by region

Percentage of households possessing various durable consumer goods, by region, Armenia 2000

Durable consumer good	Yerevan	Aragat-sotn	Ararat	Arma-vir	Geghar-kunik	Lori	Kotayk	Shirak	Syunik	Vayots Dzor	Tavush	Total
Radio	53.2	32.2	38.4	22.0	19.7	21.2	32.3	26.4	69.0	49.1	33.2	38.1
Television	94.0	81.1	93.1	88.1	85.0	79.2	87.8	89.2	79.3	86.8	83.1	88.6
Telephone	81.6	32.4	53.8	43.9	51.4	44.8	62.4	43.7	69.0	76.1	64.1	61.3
Refrigerator	86.9	62.6	85.3	71.7	60.9	57.5	76.0	69.5	75.2	74.1	64.7	75.4
Bicycle	5.3	3.1	16.2	13.3	4.8	6.4	4.4	3.5	4.0	4.5	3.3	6.6
Motorcycle	0.2	4.3	6.3	1.6	1.2	0.9	0.8	1.3	1.1	2.7	2.3	1.6
Car/truck	22.9	21.3	30.5	31.5	22.9	18.6	27.6	15.8	24.2	26.6	22.1	23.6
None of the above	1.6	8.7	1.7	4.7	6.7	10.4	4.7	6.3	2.2	3.4	5.6	4.3
Number of households	1,946	248	580	496	507	519	413	602	258	111	300	5,980

are much more common in urban areas than in rural areas (75 percent versus 40 percent). In Aragatsotn, for example, less than one-third of households have a telephone, compared with 82 percent of households in the capital city of Yerevan. Throughout the country, automobiles are much more common than either bicycles or motorcycles. In Armenia, almost a fourth of households possess a car or truck, while only 7 percent have a bicycle, and less than 2 percent have a motorcycle.

BACKGROUND CHARACTERISTICS OF RESPONDENTS 3

H. Petrosyan and J. Magluchants

The purpose of this chapter is to provide a demographic and socioeconomic profile of the ADHS sample. Information on the basic characteristics of women and men interviewed in the survey is essential for the interpretation of findings presented later in the report and can provide an approximate indication of the representativeness of the survey.

3.1 Background Characteristics of Respondents

Table 3.1 presents the percent distribution of interviewed women age 15-49 and men age 15-54 by background characteristics including age, marital status, place of residence, educational level, ethnicity, and religion. As noted in Chapter 1, all women age 15-49 who were usual residents or present in the household on the night before the interviewer's visit were eligible to be interviewed in the ADHS. Men age 15-54 were interviewed in every third household. In order not to double-count respondents, the tables in this report are based on the de facto population, that is, those who stayed in the household the previous night.

The male and female populations represented in the sample are evenly distributed by age with some noticeable exceptions. There are 50 percent more women age 15-19 than women age 25-29 or 30-34 (18 percent versus 12 percent). There are more than twice as many men age 15-19 (15 percent) and age 40-44 (16 percent) than age 50-54 (7 percent).

Approximately two-thirds of both women and men are currently married. Seven percent of women are divorced, separated, or widowed as opposed to 2 percent of men. Twenty-nine percent of women and 31 percent of men have never been married.

The majority of the respondents, approximately 60 percent, live in urban areas. Yerevan accounts for more than a third of the respondents. The distribution of the respondents in other regions ranges from approximately 10 percent in Ararat to less than 2 percent in Vayots Dzor.

All but five women in the sample have ever attended school. Nine percent have attended only primary/middle school, 36 percent have attended secondary school, 36 percent have attended a secondary-special institution, and 19 percent have had at least some higher education. Men have approximately the same levels of educational attainment as women.

Armenia is an ethnically homogeneous country; virtually all respondents are Armenian and report that they are Christians.

Table 3.1 Background characteristics of respondents

Percent distribution of women and men by background characteristics, Armenia 2000

Background characteristic	Weighted percent	Number of women: Weighted	Number of women: Un-weighted	Weighted percent	Number of men: Weighted	Number of men: Un-weighted
Age						
15-19	18.0	1,160	1,168	15.3	263	266
20-24	15.7	1,007	991	12.5	215	223
25-29	12.0	769	763	11.3	194	192
30-34	11.9	763	764	11.9	205	202
35-39	15.0	962	972	13.8	237	237
40-44	14.7	947	966	16.0	275	270
45-49	12.8	822	806	11.8	203	209
50-54	na	na	na	7.3	126	120
Marital status						
Never married	28.8	1,851	1,796	30.8	530	534
Married	63.7	4,098	4,173	67.3	1,157	1,155
Living together	0.4	27	25	0.2	4	4
Divorced, separated	3.8	245	241	1.3	22	21
Widowed	3.3	210	195	0.3	5	5
Residence						
Urban	61.3	3,942	3,545	59.6	1,024	943
Rural	38.7	2,488	2,885	40.4	695	776
Region						
Yerevan	34.3	2,206	1,604	33.9	582	448
Aragatsotn	4.3	279	484	4.5	78	139
Ararat	10.0	642	564	10.3	177	139
Armavir	8.6	553	495	10.0	172	145
Gegharkunik	7.5	484	489	7.2	124	117
Lori	7.6	489	409	6.9	119	87
Kotayk	7.9	505	445	8.0	137	127
Shirak	9.5	611	492	9.3	161	139
Syunik	4.2	271	494	3.8	65	119
Vayots Dzor	1.8	113	458	1.5	25	101
Tavush	4.3	278	496	4.6	79	158
Education						
Primary/middle	9.2	593	612	14.2	245	243
Secondary	36.4	2,341	2,475	29.7	510	540
Secondary-special	35.7	2,295	2,271	34.2	588	583
Higher	18.7	1,201	1,072	21.9	376	353
Ethnicity						
Armenian	97.9	6,298	6,304	98.5	1,693	1,696
Other	2.1	132	126	1.5	26	23
Religion						
Christian	98.6	6,339	6,329	98.3	1,689	1,683
Other	1.4	91	101	1.7	30	36
Total	100.0	6,430	6,430	100.0	1,719	1,719

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

3.2 EDUCATIONAL LEVEL OF RESPONDENTS

Tables 3.2.1 and 3.2.2 show the educational level of female and male respondents by selected background characteristics. Urban women have attained a higher level of education than rural women; more than one-fourth (26 percent) of urban women have attained a university or higher level of education, compared with 8 percent of rural women. Women in Yerevan and Shirak have the highest proportion of university-level or higher education (31 percent and 22 percent, respectively), while only 6 percent of women in Gegharkunik and 9 percent of women in both Ararat and Vayots Dzor have attended university.

Table 3.2.1 Educational attainment by background characteristics: women

Percent distribution of women by highest level of schooling attended, and median number of years of schooling, according to background characteristics, Armenia 2000

Background characteristic	Highest level of schooling attended: Grades 1-8	Grades 9-10	Secondary-special	University	Higher	Total	Number of women	Median years of schooling
Age								
15-19	22.6	51.0	14.4	11.9	0.0	100.0	1,160	9.2
20-24	8.2	30.2	36.2	25.1	0.4	100.0	1,007	11.3
25-29	3.5	35.8	40.2	19.7	0.8	100.0	769	11.3
30-34	4.0	32.1	43.9	19.2	0.8	100.0	763	11.4
35-39	5.1	35.7	42.8	16.3	0.1	100.0	962	11.2
40-44	7.2	34.6	41.7	16.3	0.1	100.0	947	11.1
45-49	8.8	31.0	38.0	22.0	0.3	100.0	822	11.3
Residence								
Urban	6.3	29.4	38.6	25.1	0.5	100.0	3,942	11.4
Rural	13.8	47.5	31.1	7.7	0.0	100.0	2,488	9.7
Region								
Yerevan	6.1	27.6	35.8	29.7	0.8	100.0	2,206	11.6
Aragatsotn	10.5	46.5	32.0	10.5	0.4	100.0	279	9.8
Ararat	10.1	42.9	37.9	9.0	0.0	100.0	642	9.9
Armavir	16.2	42.2	30.5	11.1	0.0	100.0	553	9.7
Gegharkunik	15.5	47.9	30.3	6.3	0.0	100.0	484	9.7
Lori	9.0	40.3	37.4	13.2	0.0	100.0	489	10.0
Kotayk	10.6	34.4	42.5	12.6	0.0	100.0	505	10.4
Shirak	6.1	35.8	36.2	21.7	0.2	100.0	611	11.2
Syunik	7.5	37.2	43.1	12.1	0.0	100.0	271	10.6
Vayots Dzor	8.1	52.8	30.3	8.5	0.2	100.0	113	9.8
Tavush	12.3	41.1	31.7	14.9	0.0	100.0	278	9.9
Total	9.2	36.4	35.7	18.4	0.3	100.0	6,430	10.5

As Table 3.2.2 shows, men in urban areas also generally have a higher level of education than their rural counterparts: 29 percent compared with 11 percent having some university-level education or higher. Shirak and Yerevan have the highest proportion of men with at least university-level schooling (37 and 32 percent, respectively), while Lori, Gegharkunik, and Kotayk have the lowest proportions.

Table 3.2.2 Educational attainment by background characteristics: men

Percent distribution of men by highest level of schooling attended, and median number of years of schooling, according to background characteristics, Armenia 2000

Background characteristic	Highest level of schooling attended: Grades 1-8	Grades 9-10	Second-ary-special	Univer-sity	Higher	Total	Number of men	Median years of schooling
Age								
15-19	32.5	39.8	10.4	17.3	0.0	100.0	263	8.8
20-24	21.2	32.6	26.5	19.6	0.0	100.0	215	9.9
25-29	12.6	36.8	31.6	17.7	1.3	100.0	194	10.2
30-34	7.9	32.9	38.4	19.6	1.2	100.0	205	11.3
35-39	6.7	26.1	45.9	20.2	1.1	100.0	237	11.7
40-44	7.6	26.8	45.5	20.0	0.0	100.0	275	11.8
45-49	7.5	17.0	43.6	31.3	0.6	100.0	203	12.3
50-54	15.6	21.4	32.5	27.7	2.8	100.0	126	11.8
Residence								
Urban	11.2	26.9	32.6	28.1	1.2	100.0	1,024	11.4
Rural	18.5	33.9	36.6	11.0	0.0	100.0	695	9.9
Region								
Yerevan	11.6	26.1	30.4	30.6	1.3	100.0	582	11.4
Aragatsotn	10.8	38.1	36.7	14.4	0.0	100.0	78	10.0
Ararat	12.9	30.9	38.8	16.5	0.7	100.0	177	10.8
Armavir	18.6	36.6	29.7	15.2	0.0	100.0	172	9.9
Gegharkunik	16.2	36.8	37.6	9.4	0.0	100.0	124	9.9
Lori	16.1	28.7	46.0	9.2	0.0	100.0	119	10.6
Kotayk	18.1	29.1	43.3	8.7	0.8	100.0	137	10.5
Shirak	12.9	21.6	28.1	36.0	1.4	100.0	161	12.1
Syunik	13.4	28.6	42.0	16.0	0.0	100.0	65	10.8
Vayots Dzor	4.0	57.4	21.8	16.8	0.0	100.0	25	9.8
Tavush	22.8	30.4	31.0	15.8	0.0	100.0	79	9.9
Total	14.2	29.7	34.2	21.2	0.7	100.0	1,719	10.9

3.3 Exposure to Mass Media

The ADHS collected information on the exposure of women to both the broadcast and print media. This information is important because it can help program managers plan the dissemination of information on health, family planning, nutrition, and other programs.

At least once a week, 88 percent of Armenian women watch television, 29 percent read a newspaper, and 32 percent listen to the radio (Table 3.3). Only 9 percent do not regularly have access to mass media. Women with higher levels of education are more likely to read a newspaper, watch television, and listen to the radio than their less educated counterparts. Urban women are twice as likely to read a newspaper or listen to the radio as rural women and are three-and-a-half times as likely to have access to all three media. Women from Yerevan and Syunik are the most likely to read a newspaper or listen to the radio frequently.

In all of the regions, more than eight in ten women watch television at least once a week with the exception of women in Aragatsotn (76 percent). Overall, women in Aragatsotn and women with a primary/middle school education have less exposure to mass media than other women; approximately one in five have no mass media exposure on a weekly basis.

Table 3.3 Exposure to mass media

Percentage of women who usually read a newspaper at least once a week, watch television at least once a week, and listen to the radio at least once a week, by background characteristics, Armenia 2000

Background characteristic	Type of mass media exposure: Reads a newspaper at least once a week	Watches television at least once a week	Listens to the radio at least once a week	All three media	No mass media	Number of women
Age						
15-19	29.6	89.3	35.9	16.5	7.7	1,160
20-24	34.5	89.3	35.8	17.9	7.0	1,007
25-29	29.1	87.4	31.1	14.3	9.8	769
30-34	26.4	88.9	28.3	12.5	7.8	763
35-39	27.6	87.7	31.5	14.6	10.1	962
40-44	27.8	87.4	31.0	13.9	9.3	947
45-49	26.8	88.2	30.3	12.5	9.8	822
Residence						
Urban	36.0	91.0	40.0	20.4	6.3	3,942
Rural	18.0	84.2	20.1	5.9	12.6	2,488
Region						
Yerevan	39.8	92.0	49.6	26.6	5.4	2,206
Aragatsotn	12.4	76.0	27.1	5.4	17.6	279
Ararat	26.1	92.7	27.0	10.3	5.3	642
Armavir	23.8	84.0	19.2	8.3	13.5	553
Gegharkunik	18.6	83.2	17.2	5.1	13.5	484
Lori	25.2	86.8	14.2	4.2	10.5	489
Kotayk	15.7	86.1	22.5	4.7	11.0	505
Shirak	26.8	86.4	16.3	9.8	11.4	611
Syunik	38.3	90.5	54.7	25.5	3.8	271
Vayots Dzor	28.8	91.0	34.9	12.9	5.9	113
Tavush	22.0	87.9	27.0	9.9	9.7	278
Education						
Primary/middle	12.2	74.7	19.5	5.9	22.0	593
Secondary	19.1	87.1	25.1	8.0	10.1	2,341
Secondary-special	30.1	90.4	34.2	15.0	6.7	2,295
Higher	54.8	93.7	48.9	32.1	3.4	1,201
Total	29.0	88.4	32.3	14.8	8.7	6,430

3.4 EMPLOYMENT

According to statistics released by the Armenian government, women were disproportionately affected by unemployment in the year 2000; they comprised 58 percent of the unemployed. More than 90 percent of the officially unemployed lived in urban areas, particularly cities such as Gyumri, Vanadzor, and Yerevan. Official levels of unemployment (calculated by dividing the number of registered unemployed individuals by the total economically active population) reached almost 12 percent nationwide, with the regions of Shirak, Syunik, and Lori being particularly affected (23 percent, 21 percent, and 17 percent, respectively) (NSS, 2001a).

In the ADHS, respondents were asked a number of questions to determine their employment status at the time of the survey and continuity of employment in the 12 months prior to the survey. Table 3.4.1 shows this information for women, according to different background characteristics.

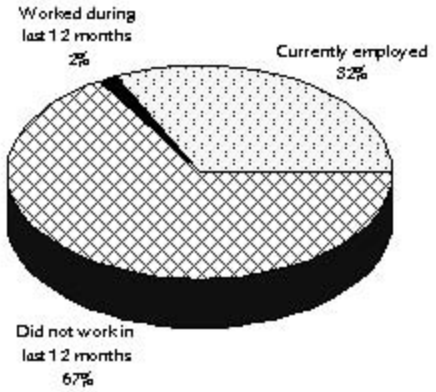
Table 3.4.1 Women's employment status

Percent distribution of women by employment status in the 12 months preceding the survey and continuity of employment for those who worked, according to background characteristics, Armenia 2000

Background characteristic	Employed in last 12 months: Currently employed	Employed in last 12 months: Not currently employed	Not employed in the last 12 months	Total	Number of women	Continuity of employment among women in the 12 months preceding the survey: All year	Seasonally	Occasionally	Missing	Total	Number of women
Age											
15-19	6.5	0.8	92.8	100.0	1,160	25.1	61.2	12.3	1.3	100.0	84
20-24	22.5	1.3	76.2	100.0	1,007	66.6	26.5	6.9	0.0	100.0	240
25-29	30.8	1.8	67.4	100.0	769	61.1	35.2	2.7	1.0	100.0	251
30-34	36.8	1.8	61.4	100.0	763	53.2	40.3	5.6	0.9	100.0	295
35-39	42.3	2.3	55.3	100.0	962	58.0	36.5	5.2	0.3	100.0	430
40-44	46.6	2.0	51.4	100.0	947	63.7	30.6	4.8	0.8	100.0	460
45-49	47.3	0.6	52.1	100.0	822	71.3	25.1	3.6	0.0	100.0	394
Marital status											
Never married	20.5	0.9	78.6	100.0	1,851	71.0	20.0	7.7	1.3	100.0	395
Currently married	35.6	1.7	62.8	100.0	4,125	57.0	38.4	4.3	0.2	100.0	1,535
Formerly married	46.5	2.3	51.3	100.0	455	70.9	22.7	5.3	1.2	100.0	222
Number of living children											
0	21.6	1.2	77.2	100.0	2,121	71.2	20.8	7.0	1.1	100.0	483
1-2	34.6	1.5	63.9	100.0	2,590	67.9	26.5	5.1	0.4	100.0	935
3-4	40.6	1.6	57.7	100.0	1,630	46.6	49.3	3.8	0.3	100.0	689
5+	46.2	5.1	48.7	100.0	89	29.9	68.0	2.2	0.0	100.0	45
Residence											
Urban	28.8	1.5	69.6	100.0	3,942	81.4	10.6	7.4	0.7	100.0	1,197
Rural	37.0	1.4	61.6	100.0	2,488	35.5	62.0	2.1	0.4	100.0	955
Region											
Yerevan	28.2	1.7	70.1	100.0	2,206	84.8	6.0	8.3	0.8	100.0	660
Aragatsotn	26.7	0.4	72.9	100.0	279	45.8	46.6	7.6	0.0	100.0	76
Ararat	24.3	0.5	75.2	100.0	642	53.6	45.0	1.4	0.0	100.0	159
Armavir	44.4	2.0	53.5	100.0	553	41.7	54.8	3.0	0.4	100.0	257
Gegharkunik	50.5	1.2	48.3	100.0	484	30.0	67.2	2.4	0.4	100.0	250
Lori	29.1	4.6	66.3	100.0	489	45.7	45.7	7.2	1.4	100.0	165
Kotayk	34.8	1.3	63.8	100.0	505	50.3	41.6	7.5	0.6	100.0	183
Shirak	22.0	0.4	77.6	100.0	611	94.5	4.5	0.9	0.0	100.0	137
Syunik	37.9	0.6	61.5	100.0	271	66.8	30.5	2.6	0.0	100.0	104
Vayots Dzor	40.8	1.5	57.6	100.0	113	54.1	44.8	0.5	0.5	100.0	48
Tavush	40.3	0.6	59.1	100.0	278	52.2	45.8	2.0	0.0	100.0	114
Education											
Primary/middle	22.9	1.0	76.1	100.0	593	22.4	71.4	6.2	0.0	100.0	142
Secondary	23.3	1.5	75.2	100.0	2,341	31.7	62.0	6.0	0.4	100.0	580
Secondary-special	36.1	1.5	62.4	100.0	2,295	67.9	26.1	5.3	0.6	100.0	864
Higher	45.6	1.6	52.9	100.0	1,201	90.2	5.6	3.5	0.7	100.0	566
Total	32.0	1.5	66.5	100.0	6,430	61.0	33.4	5.1	0.5	100.0	2,152

According to the ADHS data, 32 percent of women were employed at the time of the survey; 67 percent of women had not worked within the 12 months immediately preceding the survey (Figure 3.1). Of those who had been employed within the preceding 12 months, 61 percent had worked all year, while a third had engaged in seasonal work. Younger women, especially those age 15-19 and 20-24, were less likely to be employed than women in other age groups, possibly due to their being in school or in training, rather than in the job market. As women get older, their like-

Figure 3.1 Percent Distribution of Women Age 15-49 by Employment Status



Note: Total does not add to 100 due to rounding.

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lihood of being employed increases. More than one-third of women age 30 and older reported being employed at the time of the survey. Additionally, older women who are employed are more likely to have stable, year-round employment than women in their teens.

As women have more children, they are more likely to be employed or to have been employed within the previous 12 months. However, this is most often seasonal, rather than permanent work; employed women with zero or one to two children are more likely to have worked all year (71 percent and 68 percent, respectively) than women with three to four or five or more children (47 percent and 30 percent, respectively). Women in rural areas are far more likely to have seasonal work, compared with urban women (62 percent versus 11 percent). Women in Gegharkunik have the highest rate of employment (51 percent currently employed) but the lowest rate of year-round employment (30 percent of employed women). Shirak, which has the lowest rate of employment among women (22 percent) has the highest proportion of women working all year (95 percent of employed women). Although educational levels positively correlate with employment status, less than half of women with a higher education were employed in the 12 months preceding the survey.

Table 3.4.2 shows the corresponding employment information for men. In general, employment rates among men are higher than among women; 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 (Figure 3.2).

Two-thirds of men age 15-19 are currently in school, compared with only nine percent who are currently employed. Among men age 20-24, almost as many are looking for work as are employed (31 percent and 37 percent, respectively). More than half of men age 25 and older are currently employed, while approximately one in five are looking for work. Male respondents with either some secondary-special or higher education had higher rates of current employment than the general population, but, similar to levels among women, a little more than half of men with a higher education were currently employed.

Table 3.4.2 Men's employment status

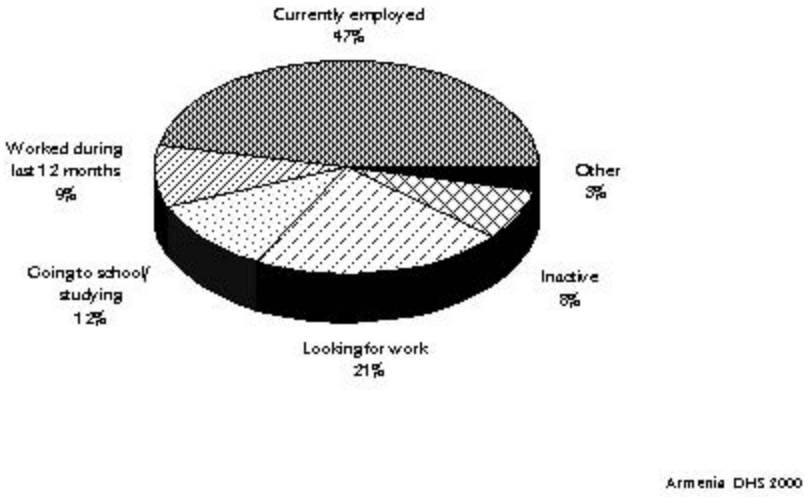
Percent distribution of men by employment status or (if not employed) main activity during 12 months preceding the survey, according to background characteristics, Armenia 2000

Background characteristic	Employed in last 12 months: Currently employed	Employed in last 12 months: Worked in past 12 months	Was going to school, studying	Was looking for work	Was inactive	Could not work, handi-capped	Other	Total	Number of men
Age									
15-19	8.7	1.8	66.7	15.7	3.3	3.0	0.7	100.0	263
20-24	37.1	9.8	8.3	30.6	9.2	2.1	2.9	100.0	215
25-29	54.1	13.9	1.3	22.7	7.4	0.6	0.0	100.0	194
30-34	53.0	15.9	0.0	22.4	7.5	1.1	0.0	100.0	205
35-39	58.0	11.1	0.0	19.3	8.9	1.6	1.1	100.0	237
40-44	55.1	10.5	0.5	21.8	8.3	3.7	0.0	100.0	275
45-49	63.5	4.7	0.0	16.2	10.9	4.6	0.0	100.0	203
50-54	53.7	5.3	0.0	25.8	9.8	4.3	1.0	100.0	126
Marital Status									
Never married	22.0	5.9	36.3	25.8	6.8	2.2	1.0	100.0	530
Currently married	57.9	10.7	0.4	19.2	8.5	2.8	0.5	100.0	1,161
Formerly married	(48.1)	(4.6)	(0.0)	(32.1)	(8.6)	(2.0)	(4.7)	(100.0)	28
Residence									
Urban	42.6	7.8	12.9	23.6	9.9	2.5	0.8	100.0	1,024
Rural	52.6	11.2	9.4	18.3	5.2	2.8	0.5	100.0	695
Region									
Yerevan	40.8	8.0	13.4	23.9	10.9	1.6	1.3	100.0	582
Aragatsotn	75.5	6.5	9.4	0.0	7.9	0.0	0.7	100.0	78
Ararat	64.7	6.5	9.4	11.5	2.9	4.3	0.7	100.0	177
Armavir	24.1	0.0	9.7	60.0	2.1	4.1	0.0	100.0	172
Gegharkunik	83.8	4.3	2.6	3.4	4.3	1.7	0.0	100.0	124
Lori	36.8	35.6	5.7	10.3	6.9	3.4	1.1	100.0	119
Kotayk	41.7	3.9	18.1	13.4	19.7	3.1	0.0	100.0	137
Shirak	35.3	12.9	15.1	28.1	5.8	2.9	0.0	100.0	161
Syunik	49.6	12.6	10.9	16.0	4.2	5.9	0.8	100.0	65
Vayots Dzor	26.7	30.7	16.8	10.9	10.9	2.0	2.0	100.0	25
Tavush	62.0	5.1	10.8	15.8	4.4	1.9	0.0	100.0	79
Education									
Primary/middle	34.2	8.3	20.0	25.3	6.4	5.8	0.1	100.0	245
Secondary	38.8	10.4	13.9	25.8	7.5	2.9	0.7	100.0	510
Secondary-special	53.7	10.0	3.2	20.8	9.7	1.8	0.8	100.0	588
Higher	54.3	6.6	15.6	14.0	7.0	1.3	1.1	100.0	376
Total	46.7	9.1	11.5	21.4	8.0	2.6	0.7	100.0	1,719

Note: Figures in parentheses are based on 25 to 49 unweighted cases.

Current employment among men is higher in rural areas (53 percent) than in urban areas (43 percent), with almost a fourth of urban men looking for work. The regions of Armavir, Vayots Dzor, Shirak, and Lori show low levels of current employment; in these regions, between 24 and 37 percent of men are currently employed. The regions with the highest proportions of currently employed men are Aragatsotn, Ararat, and Gegharkunik (76 percent, 65 percent, and 84 percent, respectively). It is notable that in each of these regions, more than 60 percent of currently employed men report that they are engaged in agricultural work on their own land (data not shown).

Figure 3.2 Percent Distribution of Men Age 15-54 by Employment Status or Activity



3.5 Occupation

In the survey, respondents who indicated that they were currently working were asked about the kind of work that they did. Their responses were recorded verbatim and served as the basis for the coding of occupation that occurred in the central office.

As shown in Tables 3.5.1 and 3.5.2, almost one-third of both employed men and employed women work in the agricultural sector. In rural communities, the primary occupation for both women and men is agricultural work on their own land. In urban areas, agricultural work is rare. Sixty percent of urban women work in professional, technical, or managerial positions. Among urban men, 36 percent work in professional, technical, or managerial positions, 31 percent are employed as skilled manual laborers, and 15 percent work in sales and services. Women age 15-19 are primarily employed in agricultural work on their own land (59 percent). Among women older than 20, more than 40 percent work in professional positions.

There is a relationship between the number of children that a person has and his or her occupation. Women with more than five children are far more likely to work on their own farm than to have other types of work. Women with fewer than three children are more likely to work professional jobs. In regions where agricultural work is scarce, such as Yerevan and Shirak, a large proportion of women work in professional positions. Working women with higher levels of education are more likely to be employed as professionals; 46 percent of women with a secondary-special education and 86 percent of those with a higher degree work in professional positions. Men with a higher education are also more likely to have professional positions (62 percent).

Table 3.5.1 Occupation of women

Percent distribution of currently employed women by occupation (agricultural or nonagricultural) and type of agricultural land worked or type of nonagricultural employment, according to background characteristics, Armenia 2000

	Agricultural				Nonagricultural								
								Manual					
Background characteristic	Own land	Family land	Rented land	Other land	Professional/ tech./ manag.	Clerical	Sales and services	Skilled	Unskilled	Domestic service	Other/ don't know/ missing	Total	Number of women
Age													
15-19	58.7	13.6	0.0	0.0	9.6	0.7	4.0	8.9	1.5	1.5	1.6	100.0	75
20-24	22.1	3.0	1.4	0.9	43.1	7.2	14.9	6.0	1.5	0.0	0.0	100.0	226
25-29	28.8	2.5	0.2	0.7	46.6	8.4	7.0	4.7	0.9	0.0	0.0	100.0	237
30-34	32.4	3.5	0.2	1.5	43.9	3.0	8.7	3.0	3.7	0.0	0.0	100.0	281
35-39	29.2	2.8	0.6	1.5	46.9	4.9	5.6	4.8	3.5	0.2	0.0	100.0	407
40-44	23.3	4.0	0.6	0.1	41.6	8.8	6.5	8.9	5.7	0.0	0.4	100.0	441
45-49	19.6	2.8	0.8	1.0	48.8	5.8	8.4	5.1	6.7	0.8	0.0	100.0	389
Marital status													
Never married	15.9	2.8	0.3	0.6	47.8	10.1	11.7	7.7	2.4	0.3	0.3	100.0	379
Currently married	31.4	3.8	0.8	0.7	43.2	4.6	6.9	4.7	3.6	0.2	0.1	100.0	1,466
Formerly married	15.0	3.0	0.0	2.5	41.9	9.9	7.9	9.9	9.7	0.3	0.0	100.0	211
Number of living children													
0	16.4	3.0	0.2	0.5	48.0	9.8	11.2	7.3	3.0	0.2	0.3	100.0	458
1-2	19.2	2.7	0.3	1.3	53.5	6.2	6.9	6.0	3.2	0.5	0.2	100.0	895
3-4	42.3	4.7	1.1	0.6	29.7	3.9	7.2	4.6	5.7	0.0	0.1	100.0	662
5+	(58.8)	(7.8)	(2.4)	(0.0)	(18.1)	(0.0)	(3.4)	(2.4)	(7.1)	(0.0)	(0.0)	(100.0)	41
Residence													
Urban	4.7	1.1	0.0	0.2	59.7	8.6	12.0	7.8	5.1	0.5	0.2	100.0	1,136
Rural	54.2	6.5	1.4	1.7	24.4	3.2	2.8	3.2	2.7	0.0	0.0	100.0	920
Region													
Yerevan	1.1	0.0	0.0	0.0	62.9	7.7	16.1	7.3	4.4	0.2	0.2	100.0	623
Aragatsotn	26.4	13.2	0.8	1.6	35.7	5.4	6.2	6.2	4.7	0.0	0.0	100.0	74
Ararat	43.8	0.0	0.0	0.0	42.3	5.8	1.5	4.4	2.2	0.0	0.0	100.0	156
Armavir	51.4	5.9	0.9	4.5	26.4	2.7	3.2	2.3	2.3	0.5	0.0	100.0	246
Gegharkunik	61.9	3.6	1.6	0.8	16.2	4.9	2.0	5.3	3.2	0.4	0.0	100.0	244
Lori	21.8	14.3	0.8	0.8	37.0	3.4	5.9	11.8	3.4	0.0	0.8	100.0	142
Kotayk	34.2	0.6	1.3	0.6	32.3	5.8	9.0	9.7	6.5	0.0	0.0	100.0	176
Shirak	3.7	0.0	0.0	0.0	79.6	10.2	3.7	1.9	0.0	0.9	0.0	100.0	134
Syunik	12.3	15.5	0.0	1.1	46.5	7.0	4.8	3.7	8.6	0.5	0.0	100.0	103
Vayots Dzor	43.3	1.6	0.0	1.6	29.9	8.0	5.3	4.3	4.8	0.0	1.1	100.0	46
Tavush	45.0	1.0	2.0	0.0	32.5	6.5	5.0	1.0	7.0	0.0	0.0	100.0	112
Education													
Primary/middle	60.6	6.3	3.2	3.7	3.7	0.2	8.1	3.8	10.4	0.0	0.0	100.0	136
Secondary	54.0	6.2	0.7	1.8	8.7	5.0	8.6	7.6	7.1	0.0	0.3	100.0	545
Secondary-special	19.9	3.4	0.4	0.5	45.8	8.0	11.0	7.0	3.3	0.6	0.2	100.0	829
Higher	1.9	0.4	0.2	0.0	86.0	6.0	2.5	2.5	0.5	0.0	0.0	100.0	547
Total	26.8	3.5	0.6	0.9	43.9	6.2	7.9	5.8	4.0	0.3	0.1	100.0	2,056

Note: *Professional/tech./manag.* includes professional, technical, and managerial occupations.
Note: Figures in parentheses are based on 25 to 49 unweighted cases.

Table 3.5.2 Occupation of men

Percent distribution of currently employed men by occupation (agricultural or nonagricultural) and type of agricultural land worked or type of nonagricultural employment, according to background characteristics, Armenia 2000

	Agricultural				Nonagricultural							
								Manual				
Background characteristic	Own land	Family land	Rented land	Other land	Profes-sional/ tech./ manag.	Clerical	Sales and serv-ices	Skilled	Un-skilled	Domes-tic service	Total	Number of men
Age												
15-19	*	*	*	*	*	*	*	*	*	*	*	23
20-24	25.9	5.8	2.7	1.7	9.3	0.0	18.0	26.4	3.7	6.6	100.0	80
25-29	26.9	0.0	0.0	1.3	31.8	3.2	14.7	12.8	6.1	3.2	100.0	105
30-34	32.4	6.3	1.5	0.0	23.2	2.3	9.5	18.3	3.0	3.4	100.0	109
35-39	36.2	2.2	0.8	0.0	22.5	1.4	5.7	22.4	4.1	4.8	100.0	138
40-44	22.6	2.5	1.0	0.9	24.0	1.7	9.5	27.2	9.1	1.6	100.0	152
45-49	14.3	0.0	0.8	1.5	31.6	2.7	7.9	28.5	9.5	3.2	100.0	129
50-54	12.4	0.0	0.7	0.0	25.2	0.0	11.5	38.0	9.6	2.5	100.0	68
Marital status												
Never married	36.6	3.5	2.3	1.2	17.1	2.0	12.0	18.4	3.9	3.0	100.0	116
Currently married	24.6	2.1	0.8	0.7	24.7	1.7	9.8	25.3	6.9	3.4	100.0	672
Formerly married	*	*	*	*	*	*	*	*	*	*	*	13
Number of living children												
0	35.0	3.2	1.7	0.9	21.2	1.5	10.8	18.0	2.8	4.9	100.0	160
1-2	16.1	1.8	0.7	0.4	31.4	1.8	12.5	23.6	8.3	3.3	100.0	364
3-4	33.2	2.6	0.8	1.2	16.4	1.8	7.2	27.8	6.2	2.8	100.0	261
5+	*	*	*	*	*	*	*	*	*	*	*	17
Residence												
Urban	3.9	0.5	0.1	0.3	35.5	2.1	15.1	31.1	7.5	4.0	100.0	436
Rural	53.6	4.4	2.0	1.3	10.2	1.2	4.3	15.2	5.0	2.7	100.0	365
Education												
Primary/middle	35.3	5.8	3.1	4.9	4.4	0.0	4.5	34.4	6.2	1.4	100.0	84
Secondary	38.1	2.4	0.8	0.0	9.8	2.7	9.1	27.2	8.1	1.7	100.0	198
Secondary-special	28.0	2.7	1.2	0.6	13.3	1.3	13.7	28.0	7.5	3.7	100.0	316
Higher	9.6	0.0	0.0	0.0	62.1	2.1	8.1	9.8	2.9	5.3	100.0	205
Total	26.6	2.3	1.0	0.7	24.0	1.7	10.2	23.8	6.3	3.4	100.0	802

Note: *Professional/tech./manag.* includes professional, technical, and managerial occupations. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

3.6 EARNINGS

Table 3.6 displays the percent distribution of currently employed women by employer and type of earnings. Women who reported being currently employed were asked about their employer—whether they were employed by a relative, a non-relative, or were self-employed. Additionally, they were asked whether they were paid in cash, in kind, or not at all. Overall, two-thirds of employed women earn cash; 30 percent received no payment (Figure 3.3).

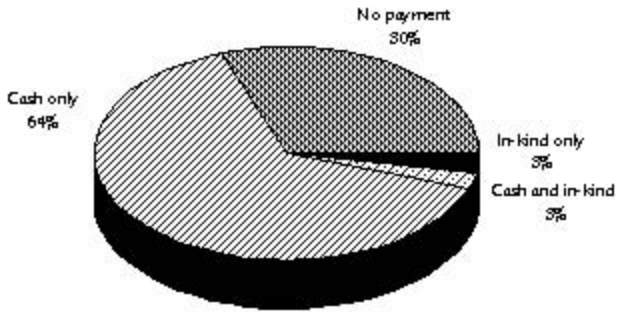
Table 3.6 Employer and form of earnings

Percent distribution of currently employed women by employer and type of earnings (cash, in-kind, no payment), according to background characteristics, Armenia 2000

Background characteristic	Self-employed		Employed by a nonrelative		Employed by a relative		Total	Number of women
	Earns cash	Does not earn cash	Earns cash	Does not earn cash	Earns cash	Does not earn cash		
Age								
15-19	3.4	28.7	17.4	1.8	4.4	44.2	100.0	75
20-24	3.1	12.0	69.2	0.0	1.1	14.6	100.0	226
25-29	1.7	15.4	64.1	0.5	2.6	15.7	100.0	237
30-34	4.4	16.4	56.7	1.2	0.8	20.6	100.0	281
35-39	4.4	14.3	58.6	2.0	2.6	18.1	100.0	407
40-44	3.7	13.2	60.7	1.2	3.5	17.7	100.0	441
45-49	1.6	9.6	69.4	1.7	2.9	14.8	100.0	389
Residence								
Urban	4.4	3.9	83.4	1.5	3.3	3.5	100.0	1,136
Rural	1.8	26.2	33.6	1.0	1.5	35.9	100.0	920
Region								
Yerevan	4.4	1.3	87.9	1.3	4.4	0.7	100.0	623
Aragatsotn	3.9	20.2	48.1	3.9	7.0	17.1	100.0	74
Ararat	4.4	11.7	51.1	1.5	1.5	29.9	100.0	156
Armavir	1.8	2.3	36.4	0.5	1.8	57.3	100.0	246
Gegharkunik	0.4	65.2	30.4	0.4	0.0	3.6	100.0	244
Lori	3.4	0.8	50.4	5.0	0.8	39.5	100.0	142
Kotayk	6.5	8.4	53.5	0.6	2.6	28.4	100.0	176
Shirak	0.9	4.6	90.7	0.9	1.9	0.9	100.0	134
Syunik	0.0	8.6	66.8	0.5	1.1	23.0	100.0	103
Vayots Dzor	7.0	2.7	44.4	1.6	2.7	41.7	100.0	46
Tavush	2.5	41.5	48.5	0.0	1.0	6.5	100.0	112
Education								
Primary/middle	5.8	32.5	19.8	1.3	1.0	39.6	100.0	136
Secondary	3.6	27.6	31.5	1.1	2.5	33.6	100.0	545
Secondary-special	3.5	9.6	67.8	1.8	2.4	15.0	100.0	829
Higher	1.7	1.9	90.8	0.7	3.0	1.8	100.0	547
Occupation								
Agricultural	1.2	42.0	1.8	0.7	0.9	53.4	100.0	655
Nonagricultural	4.2	0.7	88.9	1.6	3.2	1.5	100.0	1,401
Total	3.2	13.9	61.1	1.3	2.5	18.0	100.0	2,056

Note: *Earns cash* includes both women who receive only cash and those who receive both cash and in-kind payment. *Does not earn cash* includes both women who receive only in-kind payment and those who receive no payment.

Figure 3.3 Percent Distribution of Currently Employed Women Age 15-49 by Type of Earnings



Armenia DHS 2000

According to the data, most employed women residing in urban areas earn money through hired work with a non-relative. In rural areas, however, almost two-thirds of employed women are not paid in cash, and most work for a relative or for themselves. Ninety-one percent of women with higher levels of education are employed by a non-relative and are paid in cash. Meanwhile, three-fourths of women with only a primary/middle school education and two-thirds of women who have attended secondary school are paid either in kind or not paid at all.

3.7 Use of Earnings

Employed women receiving cash earnings were asked who the primary decisionmaker is regarding their earnings. This information allows the assessment of women's control over their own earnings. Table 3.7 shows how women's control over their earnings varies by background characteristics. Among women receiving cash earnings, half decide by themselves how to use the money, 41 percent decide jointly with another person, and 9 percent have no say in the allocation of earnings. Married women are more likely to share decisionmaking with another person, while formerly married and never-married women are more likely to make these decisions themselves. Urban women are more independent in decisions involving money than rural women.

To assess the importance of women's wages in paying household expenditures, employed women earning cash were asked what proportion of their household's expenditures were paid for by their earnings. This information allows an evaluation of the relative importance of women's earnings in the household economy. As shown in Table 3.7, the money earned by women often meets only part of the household expenditures; 27 percent of women report that their earnings account for none or almost none of the household expenditures, while 51 percent of women report that their earnings account for less than half of the household's expenditures. Only 5 percent report that their earnings cover all the household's expenditures. However, among formerly married women, 18 percent report that their earnings account for all of the household's expenditures.

Table 3.7 Decision on use of earnings and contribution of earnings to household expenditures

Percent distribution of currently employed women receiving cash earnings by person who decides how earnings are to be used and by proportion of household expenditures met by earnings, according to background characteristics, Armenia 2000

Background characteristic	Person who decides how earnings are used				Proportion of household expenditures met by earnings					Number of women receiving cash earnings
	Self only	Jointly[1]	Some-one else[2]	Total	Almost none/ none	Less than half	Half or more	All	Total	
Age										
15-19	*	*	*	*	*	*	*	*	*	19
20-24	59.2	25.0	15.8	100.0	35.4	47.4	13.9	3.3	100.0	166
25-29	45.2	40.7	14.1	100.0	26.7	55.3	15.0	3.1	100.0	162
30-34	37.8	51.7	10.6	100.0	25.6	57.4	13.8	3.1	100.0	174
35-39	49.7	39.8	10.5	100.0	25.0	51.9	17.6	5.5	100.0	267
40-44	53.1	40.8	6.1	100.0	23.5	53.8	17.9	4.7	100.0	299
45-49	50.7	45.9	3.4	100.0	24.5	44.7	23.3	7.5	100.0	287
Marital status										
Never married	70.8	18.3	10.9	100.0	32.5	45.2	17.3	5.0	100.0	302
Currently married	35.6	54.3	10.1	100.0	26.7	54.7	16.4	2.3	100.0	902
Formerly married	88.5	9.4	2.1	100.0	14.7	43.6	23.9	17.8	100.0	170
Number of living children										
0	65.3	23.5	11.3	100.0	30.3	45.6	18.8	5.4	100.0	362
1-2	47.5	45.2	7.3	100.0	23.1	54.5	18.5	3.9	100.0	674
3-4	38.1	51.1	10.7	100.0	29.2	50.1	14.4	6.4	100.0	325
5+	*	*	*	*	*	*	*	*	*	12
Residence										
Urban	53.8	39.0	7.3	100.0	25.5	50.0	19.4	5.0	100.0	1,035
Rural	38.1	46.5	15.4	100.0	29.4	54.9	11.6	4.2	100.0	340
Region										
Yerevan	55.5	38.8	5.7	100.0	23.1	49.1	22.6	5.3	100.0	602
Aragatsotn	43.4	42.1	14.5	100.0	26.3	60.5	10.5	2.6	100.0	44
Ararat	50.0	42.3	7.7	100.0	37.2	48.7	14.1	0.0	100.0	89
Armavir	43.2	48.9	8.0	100.0	47.7	39.8	10.2	2.3	100.0	98
Gegharkunik	32.9	42.1	25.0	100.0	35.5	56.6	6.6	1.3	100.0	75
Lori	49.2	44.6	6.2	100.0	29.2	40.0	18.5	12.3	100.0	78
Kotayk	56.7	30.9	12.4	100.0	28.9	47.4	15.5	8.2	100.0	110
Shirak	40.6	47.5	11.9	100.0	6.9	74.3	14.9	4.0	100.0	126
Syunik	46.5	37.8	15.7	100.0	26.8	55.1	14.2	3.9	100.0	70
Vayots Dzor	42.6	38.6	18.8	100.0	30.7	53.5	15.8	0.0	100.0	25
Tavush	45.2	47.1	7.7	100.0	29.8	49.0	14.4	6.7	100.0	58
Education										
Primary/middle	(50.5)	(26.0)	(23.6)	(100.0)	(14.7)	(57.5)	(19.7)	(8.1)	(100.0)	36
Secondary	52.6	33.1	14.3	100.0	22.0	51.5	21.2	5.3	100.0	205
Secondary-special	49.4	39.8	10.8	100.0	30.6	49.7	14.9	4.8	100.0	610
Higher	49.4	46.1	4.6	100.0	24.2	52.5	18.9	4.4	100.0	523
Total	49.9	40.8	9.3	100.0	26.5	51.2	17.5	4.8	100.0	1,374

Note: Figures in parentheses are based on 25 to 49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases.
[1] With husband or someone else
[2] Includes husband

Table 3.8 presents differences in the two measures related to the use of women's earnings. According to Table 3.8, slightly more than half of currently married women decide jointly with their husband about how their earnings are to be used. About 10 percent of married women have no say in how earnings will be used. Among currently unmarried women, three-fourths decide by themselves how earnings are to be spent, while 8 percent have no say in the matter. It is notable that among married women, almost all have control over their own earnings or make decisions jointly with their husband no matter what their contribution to household expenditures.

Table 3.8 Control over earnings according to contribution to household expenditures

Percent distribution of currently employed women receiving cash earnings by person who decides how earnings are used and current marital status, according to perceived proportion of household expenditures met by earnings, Armenia 2000

	Currently married							Not married				
Contribution to household expenditures	Self only	Jointly with husband	Jointly with someone else	Husband only	Someone else only	Total	Number of women	Self only	Jointly with someone else	Someone else only	Total	Number of women
Almost none/none	40.8	45.6	1.9	9.7	2.1	100.0	241	87.4	6.6	6.0	100.0	123
Less than half	33.8	53.4	2.3	8.6	1.9	100.0	493	69.4	20.4	10.1	100.0	210
Half or more	28.8	62.4	2.0	6.4	0.4	100.0	148	78.6	17.1	4.4	100.0	93
All	*	*	*	*	*	*	21	(81.9)	(9.4)	(8.7)	(100.0)	45
Total	35.6	52.2	2.1	8.4	1.7	100.0	902	77.1	15.1	7.8	100.0	472

Note: *Not married* includes never-married, divorced, widowed, and separated women. Figures in parentheses are based on 25 to 49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases.

3.8 Household Decisionmaking

To assess women's household decisionmaking autonomy, female ADHS respondents were asked questions about who in the household has the final say in decisions related to the following five specific areas: her own health care, large household purchases, everyday household purchases, visits to friends or relatives, and what food to cook each day. Table 3.9 shows the percent distribution of women according to who in the household usually has the final say in each of these decisions.

According to the data, one-third of married women make decisions on their own about their own health care, while one-fourth of married women have no say in decisions about their own health care. Although more than half of currently married women make decisions about the purchase of large household items jointly with their husband, 38 percent have no say in these matters. Married women are much more likely to make decisions about daily household purchases and are overwhelmingly in charge of deciding what food to cook.

Regarding unmarried women, approximately half have no say in decisions about their own health care. About two-thirds of these women have no input on decisions about daily household purchases, large household purchases, or what foods to cook each day.

Table 3.9 Household decisionmaking

Percent distribution of women by person who has the final say in making specific household decisions and current marital status, according to type of decision, Armenia 2000

	Currently married							Not married				
Household decision	Self only	Jointly with husband	Jointly with someone else	Husband only	Someone else only	Total	Number of women	Self only	Jointly with someone else	Someone else only	Total	Number of women
Own health care	33.8	39.9	1.4	20.2	4.6	100.0	4,125	34.1	16.5	49.3	100.0	2,305
Large household purchases	9.8	50.2	2.2	27.7	10.1	100.0	4,125	17.2	18.5	64.1	100.0	2,305
Daily household purchases	42.3	24.5	3.0	18.0	12.1	100.0	4,125	22.3	14.1	63.4	100.0	2,305
Visits to family or relatives	10.7	64.1	3.1	16.2	5.9	100.0	4,125	29.4	28.1	42.2	100.0	2,305
What food to cook each day	72.4	7.5	7.6	1.3	11.1	100.0	4,125	22.6	16.8	60.3	100.0	2,305

Note: *Not married* includes never married, divorced, widowed, and separated women.

Table 3.10.1 shows how participation in decisionmaking varies by background characteristics. In general, women have the final say in most household decision or participate in the final say jointly with someone else. Overall, two-thirds of women participate in the final say about their own health care, while slightly more than half are involved in decisionmaking about daily and large household purchases. Seven in ten women report that they participate in the final say in visits to family and friends and daily food preparation. Forty percent of women participate in all specified household decisions, while 13 percent report having no say in any household decisions (Figure 3.4).

A woman's employment status is an important predictor of her participation in household decisionmaking. Half of women who are employed and earning cash report having a say in all specific household decisions, while only 3 percent reported having no say in any decisions. This compares with one-third of women who are not employed having a say in all decisions and 17 percent having a say in no decisions. Young and unmarried women are more likely to report having no say in any decisions. Women from Gegharkunik are least likely to report having a final say in all decisions (18 percent), while more than 50 percent of the women in Lori, Shirak, and Syunik have the final say in all decisions.

There is a strong correlation between age and decisionmaking. The percentage of women participating in all decisions increases from 11 percent among women 15-19 to 63 percent among women age 45-49. Furthermore, there is also a significant differential by the number of living children. One-fifth of women with no children participate in all specified decisions, compared with approximately half of women with one or more living child.

Table 3.10.1 Final say in household decisions

Percentage of women who say that they alone or jointly have the final say in specific household decisions, by background characteristics, Armenia 2000

Background characteristic	Alone or jointly has final say in: Own health care	Making large purchases	Making daily pur-chases	Visits to family, relatives, friends	What food to cook daily	All specified decisions	No specified decisions	Number of women
Age								
15-19	31.2	18.2	19.5	39.2	23.8	10.8	46.4	1,160
20-24	54.3	35.0	34.2	60.9	50.0	19.7	19.7	1,007
25-29	68.6	44.9	51.1	71.5	72.3	31.9	6.9	769
30-34	78.1	61.8	71.5	75.9	86.4	44.7	3.8	763
35-39	80.7	69.4	79.0	84.2	90.6	54.6	1.8	962
40-44	81.7	72.8	80.7	85.0	93.4	58.9	2.0	947
45-49	83.5	79.0	83.6	88.8	93.7	63.3	1.3	822
Marital status								
Never married	41.2	25.0	26.1	50.0	28.7	16.2	37.2	1,851
Currently married	75.2	62.2	69.9	77.9	87.6	45.9	3.9	4,125
Formerly married	88.7	79.2	78.2	88.1	82.9	70.0	4.0	455
Number of living children								
0	44.4	28.4	28.9	52.7	33.5	18.4	34.0	2,121
1-2	77.1	63.6	69.1	78.9	85.4	48.0	4.0	2,590
3-4	77.7	66.3	76.9	80.1	93.0	51.2	2.3	1,630
5+	70.4	65.8	73.0	79.7	94.8	50.7	0.7	89
Residence								
Urban	69.3	55.7	59.3	75.0	70.1	41.9	11.8	3,942
Rural	61.7	47.8	55.6	63.6	70.7	34.7	16.1	2,488
Region								
Yerevan	70.4	56.7	58.2	77.9	68.3	40.4	9.7	2,206
Aragatsotn	66.3	51.9	55.6	64.7	74.2	38.4	12.4	279
Ararat	76.6	49.8	58.0	75.2	78.0	40.1	9.4	642
Armavir	66.9	51.5	53.7	63.0	67.9	34.9	13.7	553
Gegharkunik	40.7	31.5	43.8	40.7	58.1	17.8	28.4	484
Lori	72.6	65.5	68.9	74.3	78.5	51.8	9.0	489
Kotayk	53.9	42.5	55.3	66.3	69.2	30.6	18.2	505
Shirak	73.4	55.5	64.0	73.4	69.7	50.8	20.5	611
Syunik	72.7	61.5	64.6	80.2	75.3	53.0	10.3	271
Vayots Dzor	45.6	47.8	50.0	53.9	76.9	35.4	17.5	113
Tavush	52.6	50.6	58.5	67.7	72.4	27.8	11.7	278
Education								
Primary/middle	48.2	40.2	44.3	52.0	52.8	27.9	29.6	593
Secondary	61.6	49.2	54.7	64.7	69.8	37.0	16.7	2,341
Secondary-special	71.9	56.6	63.6	77.2	76.7	42.3	8.4	2,295
Higher	73.9	58.0	59.7	78.7	67.7	42.5	8.7	1,201
Current employment								
Not employed	61.6	47.0	52.2	65.9	66.3	34.9	17.3	4,374
For cash	81.9	67.8	71.4	86.0	77.5	50.4	3.4	1,374
Not for cash	65.6	58.4	66.8	69.6	81.8	43.0	9.2	682
Total	66.4	52.7	57.9	70.6	70.3	39.1	13.4	6,430

Figure 3.4 Percent Distribution of Women by Number of Decisions in Which They Participate in the Final Say

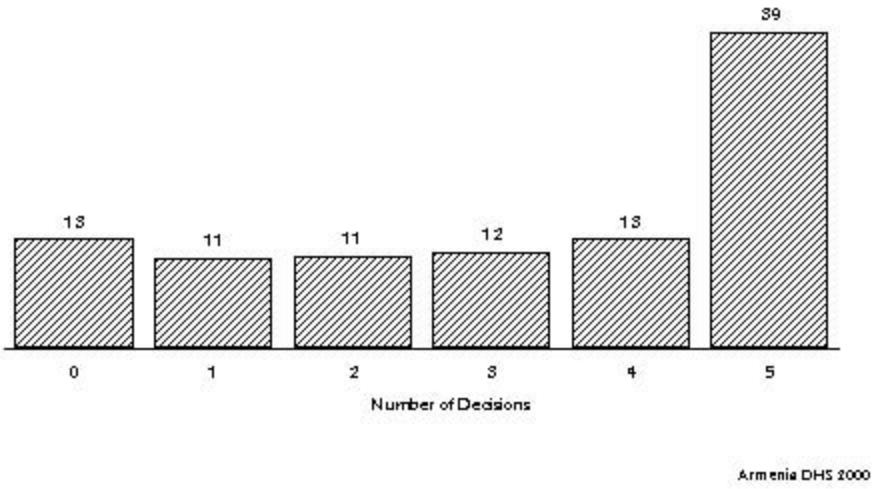


Table 3.10.2 presents data on men's attitudes toward a wife's role in household decisionmaking. About four-fifths of men believe that a wife should have at least an equal say in certain household decisions, namely the number and timing of children, making daily purchases, and what to do with earnings. Fewer men, approximately six in ten, believe that a wife should have at least an equal say in making large purchases and visits to family and friends.

Less than one-third of men, however, believe that wives should have at least an equal say in all five of the aforementioned decisions. Men who are currently or have formerly been married are less likely than never-married men to believe that a wife should have no final say in any decision. Older men and more educated men are more likely to report that wives should have at least an equal say in all household decisions. Nonetheless, it is worth noting that only one-third (34 percent) of men with higher education believe that women should have an equal say in all five decisions. Three-fourths of men (73 percent) in Kotayk report that women should have an equal say in all household decisions, compared with 22 percent of men in Ararat.

Table 3.10.2 Men's attitude towards a wife's role in household decisionmaking

Percentage of men who say that a wife should have at least an equal say in specific household decisions, by background characteristics, Armenia 2000

Background characteristic	A wife should have at least an equal say in: Making large purchases	Making daily purchases	Visits to family, relatives, friends	What to do with earnings	Number and timing of children	All specified decisions	No specified decisions	Number of men
Age								
15-19	52.3	73.9	49.5	69.5	67.2	23.4	11.8	263
20-24	56.0	82.3	54.1	77.9	78.9	23.8	3.8	215
25-29	53.8	79.5	57.3	77.7	82.2	25.5	5.7	194
30-34	58.9	78.0	59.9	74.5	83.8	30.8	4.1	205
35-39	54.2	82.3	62.0	77.7	80.4	30.7	3.1	237
40-44	69.8	84.0	67.3	84.4	86.3	38.1	1.8	275
45-49	69.5	87.5	73.3	82.5	89.2	45.1	1.1	203
50-54	66.8	88.5	68.0	84.8	83.0	43.4	3.5	126
Marital status								
Never married	52.2	76.2	51.3	74.9	72.3	23.0	9.3	530
Currently married	63.8	83.7	65.3	79.9	84.9	36.3	2.4	1,161
Formerly married	(41.7)	(93.3)	(62.5)	(72.9)	(80.1)	(20.1)	(0.0)	28
Residence								
Urban	58.6	81.9	65.6	81.3	82.9	32.2	2.7	1,024
Rural	61.7	80.9	54.1	73.7	78.1	31.6	7.2	695
Region								
Yerevan	50.0	78.8	63.4	78.6	81.7	24.8	1.8	582
Aragatsotn	50.4	89.2	66.2	77.0	77.7	30.2	2.9	78
Ararat	69.8	79.9	41.0	67.6	77.0	21.6	2.2	177
Armavir	62.8	73.8	39.3	76.6	68.3	23.4	15.2	172
Gegharkunik	32.5	74.4	64.1	70.9	74.4	27.4	17.1	124
Lori	71.3	82.8	63.2	71.3	85.1	36.8	1.1	119
Kotayk	94.5	96.1	82.7	97.6	99.2	73.2	0.0	137
Shirak	54.0	81.3	64.7	69.8	72.7	27.3	7.2	161
Syunik	78.2	90.8	76.5	91.6	89.1	49.6	0.0	65
Vayots Dzor	63.4	84.2	67.3	87.1	78.2	40.6	3.0	25
Tavush	75.3	91.1	60.8	96.2	98.7	48.7	0.0	79
Education								
Primary/middle	52.3	77.5	46.1	66.5	71.6	24.6	11.1	245
Secondary	58.5	80.1	56.8	79.0	77.7	29.6	5.5	510
Secondary-special	62.6	82.7	64.8	80.3	84.2	35.4	2.2	588
Higher	62.5	84.3	70.1	81.7	86.4	34.4	2.4	376
Total	59.9	81.5	60.9	78.2	80.9	31.9	4.5	1,719

Note: Figures in parentheses are based on 25 to 49 unweighted cases.

3.9 Attitude toward Wife Beating

Attitudes that see wife beating as justified are indicative of women's lower status both absolutely and relative to men. The ADHS gathered information on women's attitude toward wife beating, a proxy for women's perception of their status. Women were asked whether a husband is justified in beating his wife under a series of circumstances. Possible reasons that justified a man beating his wife included her burning the food, her arguing with him, her going out without telling him, her neglecting the children, and her refusing sexual relations. The results are summarized in Table 3.11.1.

Table 3.11.1 Women's attitude toward wife beating

Percentage of women who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Armenia 2000

Background characteristic	Husband is justified in hitting or beating his wife if she: Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sex with him	Agrees with at least one specified reason	Number of women
Age							
15-19	5.8	14.5	20.2	27.2	5.2	33.5	1,160
20-24	4.9	14.6	20.6	27.2	5.8	32.6	1,007
25-29	3.7	13.3	17.2	25.2	5.2	29.9	769
30-34	5.3	17.0	20.8	27.7	7.4	34.9	763
35-39	5.4	13.6	21.3	28.7	6.5	34.1	962
40-44	5.5	14.5	21.0	28.4	7.9	32.2	947
45-49	3.3	12.4	17.4	24.7	8.3	28.4	822
Marital status							
Never married	4.8	11.6	16.1	22.9	4.1	27.7	1,851
Currently married	5.0	15.8	22.1	29.5	7.6	35.0	4,125
Formerly married	4.9	11.4	15.7	22.6	6.9	26.8	455
Number of living children							
0	4.8	12.0	16.2	22.4	4.3	27.7	2,121
1-2	3.9	12.8	17.6	24.7	6.5	29.5	2,590
3-4	6.6	18.8	27.2	36.1	9.1	41.6	1,630
5+	8.1	26.4	40.9	45.3	15.8	55.4	89
Residence							
Urban	2.4	9.1	11.7	17.9	4.1	22.0	3,942
Rural	8.9	22.4	32.9	41.8	10.4	48.8	2,488
Region							
Yerevan	1.4	6.1	7.2	10.5	2.7	13.3	2,206
Aragatsotn	10.3	25.0	38.4	49.8	14.0	56.2	279
Ararat	2.5	12.1	18.8	26.2	3.5	33.0	642
Armavir	6.1	20.4	30.5	45.7	7.9	49.7	553
Gegharkunik	18.0	31.3	44.8	57.7	16.8	64.2	484
Lori	4.6	17.1	20.8	25.9	8.3	35.0	489
Kotayk	7.6	20.0	30.3	43.4	9.2	48.8	505
Shirak	2.6	14.8	20.1	22.8	8.1	30.1	611
Syunik	3.6	10.9	16.4	22.3	4.0	24.7	271
Vayots Dzor	7.9	13.1	20.1	27.7	6.8	34.5	113
Tavush	8.5	18.3	22.4	34.9	6.9	44.4	278
Education							
Primary/middle	12.4	26.9	36.0	41.9	13.5	49.3	593
Secondary	6.4	18.3	27.5	34.9	8.4	41.3	2,341
Secondary-special	3.4	12.3	15.8	24.7	5.1	29.8	2,295
Higher	1.3	4.0	5.0	9.3	2.2	11.3	1,201
Current employment							
Not employed	4.5	14.3	19.7	26.3	6.4	32.3	4,374
For cash	2.9	8.2	10.9	17.4	4.1	19.5	1,374
Not for cash	11.4	26.1	39.6	52.2	12.6	58.3	682
Number of decisions with woman having final say[1]							
0	8.1	17.5	22.4	27.9	7.0	34.5	865
1-2	5.7	16.2	22.3	30.4	7.0	36.3	1,437
3-4	4.7	14.0	22.0	31.1	6.4	36.4	1,614
5	3.5	12.2	16.3	22.4	6.2	26.6	2,514
Total	4.9	14.3	19.9	27.1	6.5	32.3	6,430

[1] Either by herself or jointly with others

Thirty-two percent of women agree with at least one of the specified reasons justifying a husband beating his wife. Twenty-seven percent agree that a husband is justified in beating his wife if she neglects their children, 20 percent agree if she goes out without telling him, 14 percent agree if she argues with him, 7 percent agree if she refuses sexual relations with him, and 5 percent agree if she burns the food.

Thirty-five percent of women who are currently married agree with at least one reason justifying a man beating his wife; this is a higher percentage than for never-married women or formerly married women (28 and 27 percent, respectively). Almost half of rural women (49 percent) agree with at least one reason justifying a wife's beating, compared with 22 percent of urban women. Women with higher education are less likely to agree with any of the specified reasons, as are women who are employed for cash.

Men were also asked about their opinion on the justification of wife beating under certain circumstances. As shown in Table 3.11.2, men are more likely to agree with one of the reasons justifying a husband's beating of his wife (42 percent compared with 32 percent of women). About one-fourth of men agree that a husband has the right to beat his wife if she either neglects the children, argues with him, or goes out without telling him. Nine percent of men believe that a husband is justified in beating his wife if she refuses to have sex with him, while 6 percent believe he may beat her if she burns the food.

Men in rural areas are more likely than those from urban areas to agree with at least one reason justifying a man beating his wife (52 versus 35 percent). Men who are either employed for cash or have a higher level of education are less likely to agree with any of the stated reasons. The percentage of men agreeing with at least one of these reasons varies by region, from 68 percent in Gegharkunik to only 9 percent in Kotayk.

Table 3.11.2 Men's attitude toward wife beating

Percentage of men who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Armenia 2000

Background characteristic	Husband is justified in hitting or beating his wife if she: Burns the food	Argues with him	Goes out without telling him	Neglects the children	Refuses to have sex with him	Agrees with at least one specified reason	Number of men
Age							
15-19	7.3	30.0	23.1	30.6	12.0	44.6	263
20-24	5.9	29.9	21.9	25.7	9.7	43.1	215
25-29	8.1	29.8	33.2	29.0	9.0	45.4	194
30-34	5.9	31.1	22.3	27.8	7.9	43.5	205
35-39	5.1	29.8	34.4	33.5	10.7	48.2	237
40-44	4.4	24.2	20.6	26.7	8.4	37.5	275
45-49	5.0	17.3	17.9	21.6	3.1	34.1	203
50-54	4.7	26.3	17.8	19.9	11.0	36.7	126
Marital status							
Never married	6.8	30.3	23.2	28.5	11.2	44.4	530
Currently married	5.2	26.0	24.4	27.1	8.1	40.6	1,161
Formerly married	(13.5)	(28.2)	(31.2)	(17.1)	(4.6)	(50.6)	28
Number of living children							
0	6.3	29.1	23.3	27.3	10.7	43.3	615
1-2	5.6	24.5	23.9	25.1	5.8	38.8	626
3-4	5.4	28.3	24.7	29.5	10.7	43.2	455
5+	(4.7)	(39.2)	(41.9)	(50.1)	(15.3)	(62.7)	23
Residence							
Urban	3.5	23.4	17.1	20.0	6.1	34.9	1,024
Rural	9.2	33.2	34.5	38.4	13.2	52.2	695
Region							
Yerevan	2.0	21.0	13.4	14.5	6.0	29.0	582
Aragatsotn	4.3	27.3	26.6	56.8	3.6	65.5	78
Ararat	12.2	31.7	46.0	40.3	14.4	54.7	177
Armavir	9.0	45.5	33.8	36.6	11.0	49.0	172
Gegharkunik	24.8	53.8	52.1	55.6	26.5	68.4	124
Lori	3.4	26.4	28.7	37.9	12.6	57.5	119
Kotayk	0.0	2.4	7.1	8.7	0.0	9.4	137
Shirak	5.0	28.1	20.1	23.7	7.9	49.6	161
Syunik	4.2	32.8	26.9	42.0	11.8	53.8	65
Vayots Dzor	0.0	31.7	24.8	32.7	9.9	43.6	25
Tavush	2.5	20.9	15.2	10.8	1.9	34.8	79
Education							
Primary/middle	10.6	33.3	30.1	33.2	15.3	47.3	245
Secondary	7.8	29.5	26.1	32.9	10.0	45.5	510
Secondary-special	3.8	26.6	25.0	26.2	6.5	42.2	588
Higher	3.1	21.7	16.2	18.2	7.3	33.0	376
Current employment							
Not employed	4.5	27.0	22.6	26.4	9.0	41.3	917
For cash	4.3	22.9	18.1	21.1	6.3	34.4	555
Not for cash	14.2	38.9	43.5	45.3	15.1	61.2	247
Number of decisions in which wife should have final say[1]							
0	19.1	44.1	39.8	41.8	26.1	55.9	77
1-2	11.0	41.5	37.1	45.6	17.3	60.9	258
3-4	4.9	29.3	25.6	28.9	8.0	45.7	834
5	2.9	15.4	13.6	14.6	4.2	25.2	549
Total	5.8	27.4	24.1	27.4	9.0	41.9	1,719

Note: Figures in parentheses are based on 25 to 49 unweighted cases.
[1] Either by herself or jointly with others

3.10 Attitude toward Refusing Sexual Relations

The extent of control women have over when and with whom they have sex has important implications for demographic and health outcomes. The ADHS included a question on whether the respondent thinks that a wife is justified in refusing to have sex with her husband under four circumstances: if she is tired or not in the mood, if she has recently given birth, if she knows her husband has sex with other women, or if she knows her husband has a sexually transmitted disease. These four circumstances were chosen because they are effective in combining issues of women's rights and women's health.

Table 3.12.1 shows the percentage of women who say that women are justified in refusing to have sex with their husband by background characteristics. The table also shows how women's opinions on refusing sex with their husband vary with their decisionmaking autonomy and their attitude toward wife beating, both important aspects of women's empowerment.

Overall, 58 percent of women in Armenia agree that a woman is justified in refusing to have sex with her husband for all four of the selected reasons. Specifically, 66 percent of women said that a woman can refuse to have sex with her husband if she is not in the mood or is tired, 79 percent said they can refuse if they have recently given birth, 81 percent said they can refuse if they know that the husband is having sexual relations with another woman, and 89 percent said they can refuse if they know the husband has a sexually transmitted infection (STI).

Overall, only 9 percent of women do not agree with any of the given reasons for a wife to refuse sex with her husband. Younger women are more likely not to agree with any of the reasons; one-fourth of women 15-19 do not feel that a woman is justified in refusing sex with her husband in any of the specified circumstances. Women who have never been married or have no children are also more likely not to agree with any of the specified reasons. One-fourth of women with only a primary/middle education and 11 percent of women with a secondary school education disagree with all of the scenarios as opposed to 6 percent of women with a secondary-special education and 3 percent of women with a higher education. Among unemployed women, 11 percent do not agree with any of the reasons; this compares with 4 percent of women who are working.

There is a relationship between a woman's status and her attitude toward refusing sexual relations with her husband. For example, one-quarter of women who have no say in household decisionmaking do not agree with any of the specified reasons for a wife refusing to have sex. This compares with 6 percent of women who are the most active participants in household decisionmaking. Furthermore, among women who agree with five or more reasons justifying a husband beating his wife, 19 percent do not agree with any of the reasons that a wife might have to refuse to have sex with her husband.

Table 3.12.2 shows the percentage of men who say that women are justified in refusing sex with their husband by background characteristics. Men are as likely as women to agree with all four of the selected reasons for a wife to withhold sex from her husband (59 percent). Specifically, 76 percent of men agree that a woman can refuse to have sex with her husband if she is not in the mood or is tired, 86 percent said they can refuse if they have recently given birth, only 68 percent said she can refuse if she knows that her husband is having sexual relations with another woman, and 84 percent said that she can refuse if she knows that her husband has an STI.

Table 3.12.1 Women's attitude toward refusing sexual relations

Percentage of women who believe that a wife is justified in refusing to have sex with her husband for specific reasons, according to background characteristics, Armenia 2000

Background characteristic	Wife is justified in refusing sex with her husband if she: Is tired, not in mood	Gave birth recently	Knows husband has sexual relations with other women	Knows husband has an STI[1]	Agrees with all specified reasons	Agrees with no specified reason	Number of women
Age							
15-19	48.7	52.3	67.6	71.8	41.1	24.5	1,160
20-24	63.8	82.1	82.5	90.1	56.4	7.2	1,007
25-29	68.3	86.0	86.7	93.1	60.0	4.0	769
30-34	71.2	86.3	86.2	93.8	62.7	3.7	763
35-39	69.5	84.2	84.0	92.0	60.8	5.1	962
40-44	71.3	84.5	82.5	91.1	62.8	6.6	947
45-49	72.5	88.1	85.0	94.1	66.2	4.8	822
Marital status							
Never married	52.2	60.7	71.2	78.0	44.4	19.0	1,851
Currently married	71.2	86.7	85.8	92.8	63.0	4.4	4,125
Formerly married	69.2	85.0	82.0	92.7	63.3	7.0	455
Number of living children							
0	53.5	63.0	72.1	79.3	45.6	17.5	2,121
1-2	71.0	87.8	87.1	93.8	64.4	4.1	2,590
3-4	72.2	86.1	84.1	92.2	63.0	5.0	1,630
5+	70.6	81.6	79.1	88.2	52.7	4.7	89
Residence							
Urban	65.4	80.1	83.1	91.1	58.6	7.2	3,942
Rural	65.9	77.6	78.4	84.6	56.2	11.2	2,488
Region							
Yerevan	66.3	81.2	85.0	92.1	60.5	6.0	2,206
Aragatsotn	78.3	82.9	89.7	96.7	67.6	2.9	279
Ararat	70.6	79.6	71.6	84.2	53.7	10.3	642
Armavir	60.4	81.4	83.2	92.9	53.1	4.6	553
Gegharkunik	66.9	72.2	73.4	79.1	57.3	15.5	484
Lori	65.5	77.8	79.5	84.8	55.5	12.5	489
Kotayk	73.0	84.3	89.0	93.3	65.6	4.5	505
Shirak	52.6	73.8	80.9	87.6	49.8	11.0	611
Syunik	58.5	65.8	62.6	70.4	51.6	28.7	271
Vayots Dzor	69.9	77.1	85.2	86.7	62.4	8.7	113
Tavush	63.7	83.7	82.1	88.1	54.8	7.1	278
Education							
Primary/middle	52.1	60.6	65.6	71.9	43.7	23.4	593
Secondary	63.0	74.6	79.6	85.0	54.3	11.3	2,341
Secondary-special	68.8	83.9	83.5	92.6	60.9	5.6	2,295
Higher	71.2	87.9	88.2	96.0	65.0	2.8	1,201
Current employment							
Not employed	63.2	76.4	80.0	86.3	55.9	10.9	4,374
For cash	70.3	86.5	85.1	94.8	63.8	4.3	1,374
Not for cash	71.0	81.8	82.0	90.7	56.9	4.3	682
Number of decisions with woman having final say[2]							
0	51.6	57.8	67.5	70.7	45.6	25.2	865
1-2	62.3	75.5	81.7	88.9	52.9	8.3	1,437
3-4	65.9	85.7	85.3	92.8	57.6	4.5	1,614
5	72.0	84.3	83.2	91.8	64.6	6.1	2,514
Number of reasons to justify wife beating							
0	66.7	80.6	82.1	89.6	60.6	8.7	4,352
1-2	62.5	76.8	80.7	89.1	50.4	6.9	1,309
3-4	63.6	74.3	78.7	82.6	51.5	11.0	636
5	68.9	74.3	71.9	77.9	62.7	18.7	134
Total	65.6	79.1	81.3	88.6	57.7	8.8	6,430

[1] Sexually transmitted infection
[2] Either by herself or jointly with others

Table 3.12.2 Men's attitude toward wife refusing sex with husband

Percentage of men who believe that a wife is justified in refusing to have sex with her husband for specific reasons, by background characteristics, Armenia 2000

Background characteristic	Wife is justified in refusing sex with husband if she: Is tired, not in mood	Gave birth recently	Knows husband has sexual relations with other women	Knows husband has an STI[1]	Agrees with all specified reasons	Agrees with no specified reason	Number of women
Age							
15-19	57.9	69.5	58.1	67.7	47.6	26.8	263
20-24	79.6	84.6	62.7	81.4	55.9	8.7	215
25-29	75.2	86.2	64.1	86.3	56.5	8.8	194
30-34	81.9	89.5	68.4	84.8	59.3	8.0	205
35-39	81.5	92.7	70.9	90.8	62.4	5.4	237
40-44	77.3	89.7	74.8	89.6	63.6	7.5	275
45-49	77.8	85.7	71.3	82.2	65.5	13.7	203
50-54	82.2	93.5	76.2	90.7	69.4	6.5	126
Marital status							
Never married	66.3	76.2	59.7	73.6	50.9	19.2	530
Currently married	80.2	90.0	71.5	88.2	63.0	7.7	1,161
Formerly married	(82.1)	(91.1)	(74.3)	(87.2)	(69.7)	(4.3)	28
Number of living children							
0	67.5	77.8	61.4	76.1	51.8	17.1	615
1-2	82.0	91.2	73.0	88.9	66.3	6.9	626
3-4	78.4	88.8	70.8	86.4	60.8	9.6	455
5+	(86.4)	(89.7)	(46.5)	(89.7)	(43.2)	(0.0)	23
Residence							
Urban	77.8	91.9	73.9	90.2	64.2	6.8	1,024
Rural	73.1	76.7	59.1	74.0	52.2	17.7	695
Region							
Yerevan	86.4	98.2	83.9	96.7	76.3	1.6	582
Aragatsotn	97.8	97.8	77.7	98.6	74.8	0.0	78
Ararat	88.5	85.6	72.7	89.2	63.3	3.6	177
Armavir	37.9	37.2	26.9	26.2	24.8	60.7	172
Gegharkunik	74.4	76.1	27.4	65.0	27.4	20.5	124
Lori	71.3	80.5	58.6	81.6	47.1	11.5	119
Kotayk	89.0	96.9	96.9	100.0	88.2	0.0	137
Shirak	40.3	82.7	38.8	74.8	16.5	16.5	161
Syunik	94.1	98.3	87.4	100.0	80.7	0.0	65
Vayots Dzor	66.3	76.2	75.2	87.1	55.4	9.9	25
Tavush	79.7	91.1	87.3	93.7	75.3	5.1	79
Education							
Primary/middle	63.1	73.9	59.1	68.6	49.2	23.5	245
Secondary	71.8	80.6	63.9	80.9	55.3	14.3	510
Secondary-special	81.4	90.3	72.4	86.6	62.8	7.1	588
Higher	81.2	93.3	72.0	92.6	66.0	5.4	376
Current employment							
Not employed	69.3	82.0	66.8	79.1	56.3	15.4	917
For cash	83.3	93.8	75.7	92.4	68.3	4.7	555
Not for cash	83.8	81.5	54.3	80.8	50.5	10.3	247
Number of decisions in which wife should have equal say[2]							
0	33.6	66.9	14.7	27.9	13.0	61.8	77
1-2	70.5	81.4	61.0	78.5	50.8	14.2	258
3-4	77.9	89.1	68.2	86.2	59.3	8.5	834
5	81.5	90.0	78.3	90.1	70.1	6.7	549
Number of reasons to justify wife beating							
0	77.5	86.5	74.8	86.8	67.3	11.3	999
1-2	75.0	87.6	61.0	84.5	52.0	9.3	449
3-4	72.5	81.0	51.9	71.1	39.6	12.9	222
5	68.4	75.2	62.8	69.4	55.1	19.2	50
Total	75.9	85.8	67.9	83.6	59.4	11.2	1,719

Note: Figures in parentheses are based on 25 to 49 unweighted cases.
[1] Sexually transmitted infection
[2] Either by herself or jointly with others

Overall, 11 percent of men do not agree with any of the four reasons given for a wife to refuse to have sex with her husband. Similar patterns among men and women are seen as to which groups are more likely not to agree with any of the given reasons. Younger men age 15-19 (27 percent), never-married men (19 percent), men with no children (17 percent), men from rural areas (18 percent), men with only a primary/middle education (24 percent), and unemployed men (15 percent) all have a higher than average likelihood of not agreeing with any reason given for a wife to withhold sex from her husband.

Men were asked what actions a husband would be justified in taking if his wife refused to have sexual relations with him. Specifically, men were asked whether, when a wife refuses sex, a husband has the right to get angry and reprimand her, to refuse to give her money or financial support, to have sex with someone else, or to use force in order to have sex with her anyway. Table 3.13 shows the percentage of men who say that a husband has the right to take specific actions if the wife refuses to have sex with him when he wants.

Overall, 40 percent of men agree with at least one of the actions for a man to take if his wife refuses to have sex with him when he wants to. Specifically, one-third of men believe that a husband has the right to get angry and reprimand his wife, 20 percent believe he has the right to have sex with someone else, 6 percent believe he has the right to refuse money or financial support, and 3 percent believe he has the right to use force to have sex with her against her will.

The proportion of men who agreed to at least one action being justified varies little between men of different ages, marital status, residence, and educational background. There is significant variation, however, among men from different regions. Eighty percent of men from Gegharkunik agreed with at least one action, compared with five percent in Kotayk and 6 percent in Tavush and Armavir. Twelve percent of men in Gegharkunik and 9 percent of men in Lori believe that a husband has the right to use force to have sex with his wife when she refuses to have sex with him, compared with less than 5 percent of men in all other districts.

Table 3.13 Men's agreement with certain actions husbands are justified in taking if a wife refuses sexual relations

Percentage of men who say that a husband has the right to take specific actions if the wife refuses to have sex with him when he wants to, by background characteristics, Armenia 2000

Background characteristic	Actions a husband has a right to take if wife refuses sex: Get angry and reprimand her	Refuse money, financial support	Use force, have sex anyway	Have sex with someone else	Agrees with at least one reason	Number of men
Age						
15-19	34.9	10.4	4.5	19.7	38.6	263
20-24	32.3	5.1	2.6	21.7	40.2	215
25-29	40.3	6.9	4.4	24.9	45.9	194
30-34	31.9	5.4	1.1	22.8	41.0	205
35-39	38.6	3.9	1.1	20.5	44.3	237
40-44	33.4	5.6	2.3	17.5	40.8	275
45-49	26.8	2.9	3.5	15.2	33.9	203
50-54	26.6	1.8	1.3	12.6	29.6	126
Marital status						
Never married	34.4	8.1	3.8	22.8	41.1	530
Currently married	33.0	4.5	2.2	18.1	39.2	1,161
Formerly married	(38.4)	(0.0)	(0.0)	(21.7)	(40.3)	28
Residence						
Urban	30.9	4.0	1.4	18.4	38.4	1,024
Rural	37.4	7.9	4.5	21.5	41.9	695
Region						
Yerevan	33.9	3.8	0.7	19.4	42.4	582
Aragatsotn	33.1	5.0	0.7	21.6	44.6	78
Ararat	66.9	10.1	2.2	35.3	72.7	177
Armavir	4.1	2.1	2.1	3.4	6.2	172
Gegharkunik	73.5	16.2	12.0	56.4	80.3	124
Lori	46.0	11.5	9.2	20.7	52.9	119
Kotayk	4.7	0.0	0.0	0.0	4.7	137
Shirak	19.4	4.3	2.9	5.8	23.0	161
Syunik	44.5	7.6	3.4	43.7	60.5	65
Vayots Dzor	49.5	5.9	4.0	19.8	55.4	25
Tavush	3.2	1.3	0.6	2.5	5.7	79
Education						
Primary/middle	36.9	10.3	5.2	21.2	42.1	245
Secondary	35.1	6.0	3.1	19.9	38.8	510
Secondary-special	33.1	5.4	1.7	19.3	42.0	588
Higher	29.8	2.2	1.9	18.7	36.3	376
Total	33.5	5.6	2.7	19.6	39.8	1,719

Note: Figures in parentheses are based on 25 to 49 unweighted cases.

FERTILITY 4

M. Khachikyan, S. Gharibyan, and H. Newby

4.1 Introduction

The factors that determine fertility can be placed into two major categories—biological and social. The biological component refers to the capacity to reproduce, usually called "fecundity." A woman's fecundity varies with age; her fecundity begins to increase from menarche (the onset of menstruation), peaks in the twenties, and then declines to menopause (the time when a woman ceases to ovulate and menstruate).

The biological component is necessary but is not on its own a sufficient condition for fertility. Given the capacity to reproduce, the social environment in which people live largely determines whether couples will actually have children, and if so, how many and with what kind of spacing. Demographers use the term "fertility" to refer to the actual production of live offspring or live births.

Live birth is defined by the United Nations (1999) as "the complete compulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which, after such separation, breathes or shows any other evidence of life. . . ."

The ADHS data are used to calculate several measures of fertility. Age-specific fertility rates (ASFRs) are expressed by the number of births to women of a given age interval per 1,000 women in that age interval. In this survey, the ASFR for any specific age interval is calculated by dividing the number of births of women in the age interval during the period 1 to 36 months preceding the survey by the number of years lived by women in that age interval during the same period of 1 to 36 months.

The total fertility rate (TFR) is based on the ASFRs and is one of the most commonly used summary indicators of fertility. The TFR is interpreted as the average number of children that would be born to a woman during her lifetime if she were to experience the currently observed age-specific fertility rates throughout her reproductive years. The TFR is calculated by adding the current age-specific fertility rates, multiplying by 5 if five-year age groups of women are used, then dividing by 1,000. An important property of the total fertility rate is that it is not affected by the age distribution of the population.

All women who were interviewed in the ADHS were asked to give a complete reproductive history. In collecting these histories, each woman first was asked about the total numbers of pregnancies that had ended in live births, induced abortions, miscarriages, and stillbirths. After obtaining these aggregate data, an event-by-event pregnancy history was collected. For each pregnancy, the duration, the month and year of termination, and the result of the pregnancy were recorded. The result of each pregnancy was classified as a live birth, stillbirth, miscarriage, induced abortion, or self-induced abortion. Information was collected about the most recent completed pregnancy, then the next-to-last, etc. For each live birth, information was collected on the sex of the child, survival status, and age (for surviving children) or age at death (for deceased children).

From the information collected in the reproductive histories, it is possible to estimate current fertility levels and trends, fertility differentials, number of children ever born and living, birth intervals, age at first birth, teenage pregnancy, and motherhood.

4.2 Current Fertility Levels

Table 4.1 and Figure 4.1 present the ASFRs and the TFRs for the three years preceding the survey, which corresponds to the period between November 1997 and November 2000. The three-year period was chosen for calculating these rates (rather than a longer or a shorter period) to provide the most current information, to reduce sampling error, and to avoid problems of the displacement of births.

Armenian women experience their prime reproductive years during their twenties. In fact, childbearing during these ages accounts for approximately 70 percent of both urban and rural total fertility rates. Age-specific fertility is highest among young women age 20-24 regardless of residence. Urban women of this age group, however, have a significantly lower fertility rate than their rural counterparts (116 births versus 206 births per 1,000 women).

Table 4.1 Current fertility

Age-specific and cumulative fertility rates and the crude birth rate for the three years preceding the survey, by urban-rural residence, Armenia 2000

Age group and rate	Residence		
	Urban	Rural	Total
Age			
15-19	33	75	50
20-24	116	206	149
25-29	86	91	88
30-34	32	40	35
35-39	19	11	16
40-44	4	1	3
45-49	0	1	0
Rates			
Total fertility rate 15-49[1]	1.5	2.1	1.7
Total fertility rate 15-44[1]	1.5	2.1	1.7
General fertility rate[2]	47	69	56
Crude birth rate[3]	12.1	16.3	13.9

Note: Rates are for the period 1 to 36 months preceding the survey. Rates for age group 45-49 may be slightly biased due to truncation.

[1] Total fertility rates expressed per woman

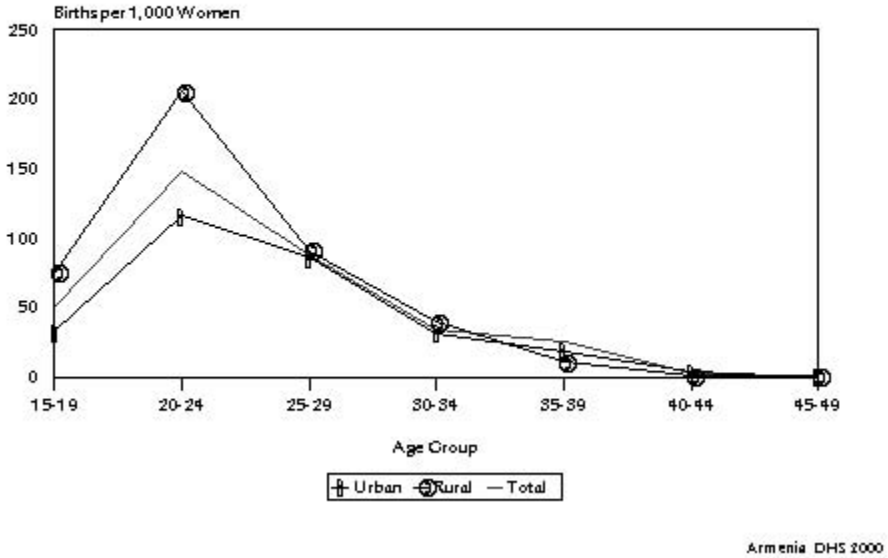
[2] General fertility rate (births divided by number of women 15-44) expressed per 1,000 women

[3] Crude birth rate expressed per 1,000 population

Childbearing among women age 15-19 accounts for about 15 percent of total fertility. The fertility of rural teenagers is more than twice as high as the fertility of urban teenagers (75 live births versus 33 live births per 1,000 women). Childbearing after age 30 accounts for only 16 percent of fertility overall, while childbearing over age 40 accounts for a mere 1 percent of total fertility.

The TFR for the three-year period preceding the survey is 1.7 children per woman. This is below replacement-level fertility (which is slightly more than 2.0). Because rural women have higher levels of fertility than urban women throughout most of their reproductive years, they achieve a significantly higher TFR than urban women (2.1 versus 1.5).

Figure 4.1 Age-specific Fertility Rates for Women Age 15-49 by Residence



4.3 Fertility Differentials by Background Characteristics

Table 4.2 shows the total fertility rate by background characteristics. The TFR in Yerevan is 1.4. There appears to be marked variation between regions, ranging from a low of 1.3 in Kotayk to 2.5 in Gegharkunik. Sampling variability, however, may account for some part of these differences (see Appendix B).

As expected, there is a negative association between education and fertility. Women with a primary/middle school education (2.2) and secondary education (1.9) have more children than women who attended secondary-special (1.6) or higher educational institutions (1.4).

As previously noted, the rural TFR is 40 percent higher than the urban TFR. The urban-rural differential for percentage of women currently pregnant is even more striking—more than twice as many rural women as urban women are currently pregnant (more than 4 percent versus 2 percent).

Table 4.2 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage currently pregnant and mean number of children ever born to women age 40-49, by background characteristics, Armenia 2000

Background characteristic	Total fertility rate[1]	Percentage currently pregnant	Mean number of children ever born to women age 40-49
Residence			
Urban	1.5	1.9	2.4
Rural	2.1	4.4	3.1
Region			
Yerevan	1.4	1.8	2.2
Aragatsotn	2.0	4.5	3.0
Ararat	1.9	4.8	2.9
Armavir	1.7	4.2	2.8
Gegharkunik	2.5	3.7	3.5
Lori	2.1	1.7	2.6
Kotayk	1.3	2.2	2.7
Shirak	1.4	2.8	2.5
Syunik	1.6	3.0	3.0
Vayots Dzor	2.4	3.1	3.0
Tavush	2.2	4.4	2.7
Education			
Primary/middle	2.2	2.5	3.0
Secondary	1.9	3.3	2.9
Secondary-special	1.6	2.8	2.6
Higher	1.4	2.5	2.1
Total	1.7	2.9	2.6

[1] Rate for women age 15-49 years

4.4 Fertility Trends

One of the most essential and complex issues for Armenia during the last decade is the decrease of fertility. According to official estimates, current fertility is less than half of the levels before independence from the Soviet Union in 1991. The results of the ADHS also show declining fertility trends.

Table 4.3 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age at birth, Armenia 2000

Mother's age at birth	Number of years preceding the survey			
	0-4	5-9	10-14	15-19
15-19	57	88	74	64
20-24	169	234	255	249
25-29	97	113	143	148
30-34	39	51	69	[65]
35-39	15	23	[27]	
40-44	2	[6]		
45-49	[0]			

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

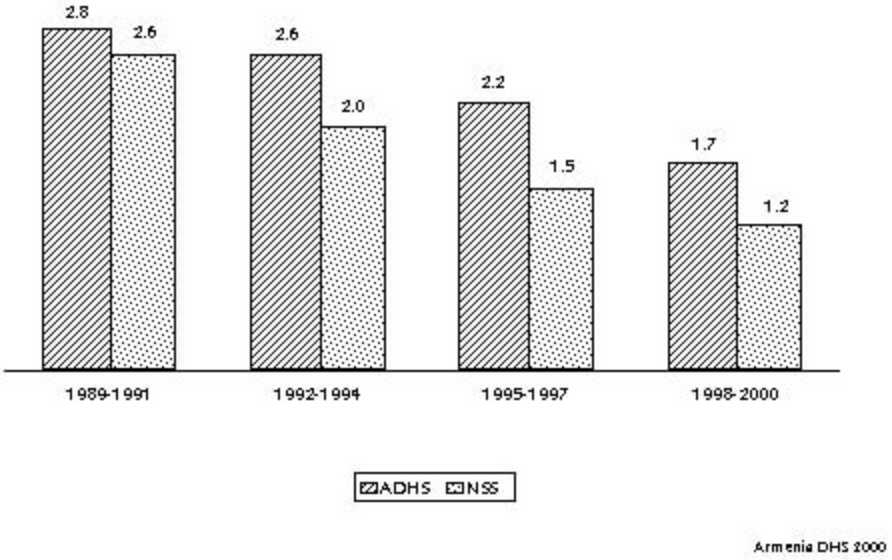
One method of understanding fertility trends is to examine the ASFRs over time. Because women age 50 and older were not interviewed in the survey, the rates are successively truncated as the number of years before the survey increases (see Table 4.3). The data indicate a decline in fertility over the past 20 years. This decline is particularly evident among women age 15-19 and 20-24 over the ten years preceding the survey. For example, age-specific fertility among women age 20-24 decreased from 234 births per 1,000 women 5 to 9 years before the survey to 169 births 0 to 4 years before the survey. This is a decrease of 28 percent.

4.5 Comparison of Fertility Rates from the Government of Armenia and the ADHS

According to the National Statistical Service (NSS), at the national level, the average of the official government TFRs for calendar years 1998 through 2000 is 1.2 children per woman (among women age 15-39). The ADHS rate of 1.7 (among women age 15-39) is significantly higher. To examine the differences between the ADHS and NSS figures, fertility trends can be compared. Figure 4.2 shows that the rates for the 1989-1991 period are similar for the ADHS and NSS data (2.8 and 2.6, respectively). During the 1992-1995 period, however, a significant difference between rates are observed. Whereas there was little change in the ADHS rate, the NSS rates declined 23 percent, from 2.6 to 2.0. In later periods, there is steady decline in both the ADHS and NSS rates. Overall, during the decade preceding the survey, both the ADHS and the NSS total fertility rates declined by more than one child per woman. The ADHS rate declined by 39 percent, while the NSS rate declined by more than half (54 percent).

When examining the differences between the ADHS and NSS rates, a few points regarding the comparability of the data sources should be kept in mind. First, the rates are based on different populations. The ADHS rates are based on the female population resident in Armenia at the time of the survey. The NSS rates, on the other hand, are based on population projections from previous censuses and do not take into account migration. The difference between the resident population and the official population is likely to be significant. Although there is currently little concrete information about the size of the resident population, during the 1992-1999 period, there was a net population loss of at least 670,000 and quite possibly more (MOSSRA 2000). It should be stressed that these data do not encompass the whole period of this fertility comparison. Nonetheless, it is possible to conclude, using this conservative estimate, that the government estimate of the official population size (used to calculate the government TFR) is at least 20 percent larger than the available population.

Figure 4.2 Trends in the Total Fertility Rate (TFR) among Women Age 15-39 according to the ADHS and the National Statistical Service

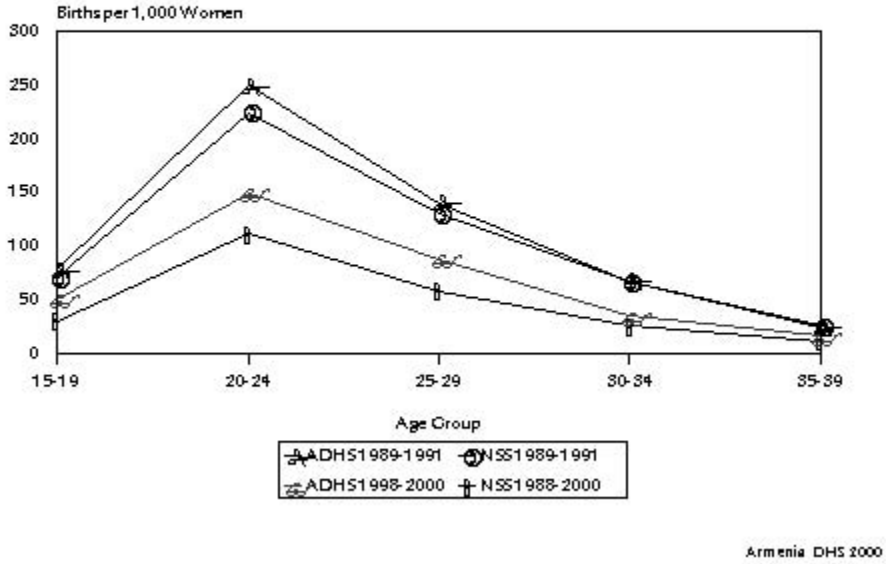


This may account for the difference between the rates, particularly during the 1992-1994 period when there was significant fertility decline according to the NSS data, but not the ADHS data. Although there is a paucity of data on migration activity across national borders, there is reason to believe that the highest levels of emigration from Armenia occurred during these years (MOSSRA and EUROSTAT, 1999). Because this out-migration was not officially registered, an overestimation of the number of women of childbearing age would result in a significantly lower NSS TFR. Other factors that could contribute to the difference between rates include sampling variability of the ADHS estimate and underreporting of births to the government registration system.

Figure 4.3 shows the ADHS and NSS age-specific fertility rates for the years 1989 through 1991 and 1998 through 2000. It is significant that the ASFRs for 1989 through1991 are similar. The ADHS rate is significantly higher only among women age 20-24. In the 1998-2000 period, the ADHS rates are higher among all cohorts; the difference is particularly pronounced among women age 20-24 and 25-29.

It is possible to draw two general conclusions from the comparison between ADHS and NSS rates. The first is that the ADHS results confirm the decline in fertility documented by the NSS over the last decade. The second is that there is a strong possibility that the official fertility rates as calculated by the NSS—due to current uncertainty about the number of women of reproductive age residing in the country—are underestimating the true levels of fertility in Armenia.

Figure 4.3 Trends in Age-Specific Fertility Rates for Women Age 15-39 according to the ADHS and the National Statistical Service



4.6 Children Ever Born and Living

Table 4.4 presents the distribution of all women and currently married women by number of children ever born. Data on the number of children ever born reflect the accumulation of births over the past 30 years and therefore have limited reference to current fertility levels, particularly when the country has experienced a decline in fertility.

On average, women in Armenia have given birth to less than two children by their late twenties. Even in the oldest age groups, the mean number of children ever born does not exceed three. As expected, currently married women have had more births than all women in all age groups. The greatest difference between the data for currently married women and the total sample occurs among young women due to the large number of unmarried young women with no exposure to the risk of pregnancy. Differences at older ages reflect the generally fertility-reducing impact of marital dissolution (divorce or widowhood).

Among currently married women, 12 percent have had only one live-born child, 39 percent have two children, and 29 percent have three children (Figure 4.4). Fifteen percent of women have four or more children.

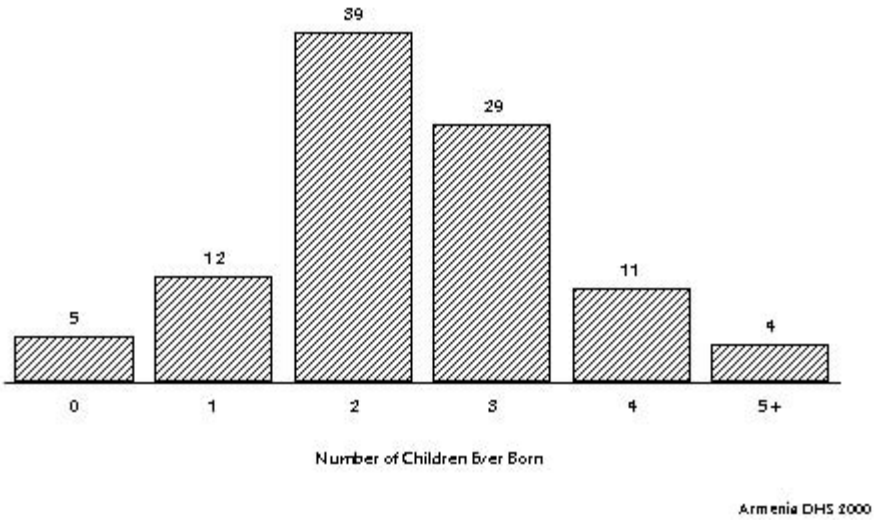
In total, 3 percent of currently married women age 45-49 have never had a live birth. This is an indirect indicator of primary infertility. Voluntary childlessness is rare in Armenia, and most women desire to have at least one child, preferably soon after marriage.

Table 4.4 Children ever born and living

Percent distribution of all women and currently married women by number of children ever born (CEB), mean number of children ever born, and mean number of living children, according to age group, Armenia 2000

Age group	Number of children ever born								Total	Number of women	Mean number of CEB	Mean number of living children
	0	1	2	3	4	5	6	7+				
ALL WOMEN												
15-19	95.6	3.4	0.9	0.1	0.0	0.0	0.0	0.0	100.0	1,160	0.06	0.05
20-24	55.7	21.1	19.1	3.6	0.4	0.1	0.0	0.0	100.0	1,007	0.72	0.70
25-29	18.3	17.4	42.0	17.4	4.3	0.4	0.1	0.0	100.0	769	1.74	1.66
30-34	8.9	8.4	45.2	27.0	8.0	1.9	0.4	0.1	100.0	763	2.25	2.14
35-39	7.2	6.6	37.3	32.2	12.1	3.5	0.7	0.4	100.0	962	2.51	2.37
40-44	8.8	6.9	30.7	34.8	13.6	4.3	0.4	0.5	100.0	947	2.55	2.35
45-49	8.9	6.5	29.2	31.4	15.2	5.7	2.0	1.2	100.0	822	2.70	2.45
Total	32.7	9.8	27.4	19.8	7.3	2.2	0.5	0.4	100.0	6,430	1.69	1.59
CURRENTLY MARRIED WOMEN												
15-19	48.2	40.2	10.0	1.6	0.0	0.0	0.0	0.0	100.0	99	0.65	0.64
20-24	15.0	40.1	37.0	6.9	0.8	0.2	0.0	0.0	100.0	511	1.39	1.34
25-29	4.8	17.9	50.2	21.3	5.3	0.4	0.2	0.0	100.0	625	2.06	1.97
30-34	3.1	6.3	49.0	29.8	8.9	2.2	0.5	0.1	100.0	660	2.44	2.33
35-39	1.0	4.7	38.8	36.6	13.7	4.0	0.8	0.4	100.0	816	2.75	2.60
40-44	1.8	3.8	32.9	39.6	15.7	5.1	0.5	0.6	100.0	773	2.84	2.62
45-49	3.0	4.1	31.3	34.1	17.1	6.4	2.5	1.4	100.0	640	2.96	2.69
Total	5.2	11.9	39.0	28.8	10.6	3.2	0.8	0.4	100.0	4,125	2.43	2.28

Figure 4.4 Percent Distribution of Currently Married Women Age 15-49 by Number of Children Ever Born



4.7 BIRTH INTERVALS

A birth interval, defined as the length of time between two live births, provides information about birth spacing patterns. Research has shown that short birth intervals may adversely affect maternal health and children's chances of survival. Children born too close to a previous birth, especially if the interval between the births is less than two years, are at increased risk of health problems and dying at an early age. Longer birth intervals, on the other hand, contribute to the improved health status of both mother and child.

Table 4.5 presents the percent distribution of second and higher order births in the five years prior to the survey by the number of months since the previous birth. The median birth interval is 32 months. Nonetheless, approximately one-third of births (34 percent) occur within 24 months of the previous birth. Indeed, 17 percent of births occur within 18 months of a previous birth.

Table 4.5 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, according to background characteristics, Armenia 2000

Background characteristic	Number of months since preceding birth					Total	Median number of months since preceding birth	Number of births
	7-17	18-23	24-35	36-47	48+			
Age								
15-19	*	*	*	*	*	*	*	13
20-29	21.8	22.4	25.5	15.7	14.6	100.0	26.2	637
30-39	6.4	8.9	16.2	12.8	55.7	100.0	54.2	319
40-49	(5.2)	(0.7)	(12.2)	(9.4)	(72.5)	(100.0)	77.7	34
Birth order								
2-3	17.8	18.1	22.4	14.5	27.3	100.0	30.5	845
4+	11.9	13.2	19.4	14.6	40.9	100.0	40.5	158
Sex of prior birth								
Male	16.5	17.3	20.3	13.5	32.5	100.0	32.9	492
Female	17.2	17.3	23.4	15.5	26.5	100.0	29.9	510
Survival of prior birth								
Living	15.1	17.2	22.5	14.9	30.3	100.0	32.2	947
Dead	47.1	19.0	11.1	8.3	14.5	100.0	18.6	56
Residence								
Urban	13.5	14.0	20.7	16.2	35.5	100.0	37.8	464
Rural	19.7	20.1	22.9	13.1	24.2	100.0	27.9	538
Region								
Yerevan	9.8	13.6	20.7	16.3	39.7	100.0	41.2	253
Aragatsotn	26.1	20.2	19.3	11.8	22.7	100.0	26.9	69
Ararat	17.6	16.8	22.7	16.8	26.1	100.0	29.9	135
Armavir	14.4	23.3	21.1	11.1	30.0	100.0	28.7	101
Gegharkunik	19.4	24.2	21.8	13.7	21.0	100.0	27.0	123
Lori	17.2	18.8	29.7	7.8	26.6	100.0	27.0	76
Kotayk	29.1	12.7	21.8	12.7	23.6	100.0	27.2	62
Shirak	25.0	9.6	25.0	15.4	25.0	100.0	32.0	65
Syunik	10.3	16.2	25.0	19.1	29.4	100.0	34.5	37
Vayots Dzor	7.8	18.9	25.6	18.9	28.9	100.0	34.0	22
Tavush	18.9	17.9	13.2	17.0	33.0	100.0	36.0	59
Education								
Primary/middle	25.7	21.7	22.9	12.6	17.1	100.0	25.3	95
Secondary	17.2	20.6	23.5	10.1	28.6	100.0	29.2	428
Secondary-special	16.6	13.8	18.9	18.9	31.8	100.0	36.6	336
Higher	10.6	12.8	23.5	18.5	34.7	100.0	39.4	143
Total	16.9	17.3	21.9	14.5	29.5	100.0	31.5	1,003

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth. Figures in parentheses are based on 25 to 49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases.

Birth intervals are shortest after a deceased prior birth—only19 months. Birth interval is also related to birth order and residence. For example, the median birth interval is 38 months in urban areas, but 28 months in rural areas. Birth intervals also vary by region, with the longest in Yerevan (41 months) and the shortest in Aragatsotn, Gegharkunik, Lori, and Kotayk (27 months). There is also a strong relationship between birth interval and education. Birth intervals among mothers with higher education are 10 months longer than births intervals among mothers with a secondary school education and 14 months longer than birth intervals among women with a primary/middle school education.

4.8 Age at First Birth

Age at first birth is an important determinant of fertility. It has significant demographic consequences for society as a whole, as well as for the health and welfare of mothers and children. Table 4.6 presents the percent distribution of women by age at first birth according to current age. For women age 25 and older, the median age at first birth is presented in the last column of the table.

Table 4.6 Age at first birth

Percentage of women who have given birth by specified exact ages, and median age at first birth, according to current age, Armenia 2000

	Percentage of women who have given birth by exact age:					Percentage who have never given birth	Number of women	Median age at first birth
Current age	15	18	20	22	25			
15-19	0.0	na	na	na	na	95.6	1,160	a
20-24	0.0	8.0	25.6	na	na	55.7	1,007	a
25-29	0.0	5.7	33.6	57.4	75.8	18.3	769	21.4
30-34	0.0	3.7	30.5	58.8	80.6	8.9	763	21.4
35-39	0.0	2.1	23.9	53.8	74.5	7.2	962	21.7
40-44	0.0	3.3	22.0	46.7	71.3	8.8	947	22.3
45-49	0.1	6.5	23.7	44.9	69.8	8.9	822	22.6

na: Not applicable
[a] Median was not calculated because less than 50 percent of women in the age group *x* to *x+4* have given birth by age *x*.

The ADHS findings indicate that childbearing among Armenian women begins relatively late. The majority of women age 20-24 have never given birth. The median age at first birth among women age 25 and older is between 21 and 23. The data show that the median age at first birth has decreased by more than one year from women age 45-49 to women age 25-29. This shift in childbearing is reflected in the smaller proportion of older women whose first birth occurred by exact age 20: less than one-quarter (24 percent) of women age 45-49 had given birth by age 20, compared with approximately one-third (34 percent) of women age 25-29.

The decrease in median age at first birth is associated with a decreasing age at first marriage (see Table 7.2). Other researchers have noted that among Armenians, there is an expectation that a child will be born within the first two years of marriage (NPRH 1998). The ADHS data indicate that Armenian women of all cohorts have adhered to the practice of giving birth to a first child

within two years of getting married. Among women age 25-29, the median age at first marriage is approximately one and a half year less than the median age at first birth (19.8 and 21.4, respectively). The same interval between age at first marriage and age at first birth is observed between women age 45-49 (21.1 and 22.6, respectively).

Table 4.7 shows the median age at first birth among women 25-49 by current age and background characteristics. The median age at first birth shows an inverse relationship with educational attainment, from 20 years among women who have a primary/middle school education to 25 years among women with higher education. Variation by region ranges from 21 to 22 years of age in all regions except Yerevan, where the median age at first birth is 23.

Table 4.7 Median age at first birth by background characteristics

Median age at first birth among women 25-49, by current age and background characteristics, Armenia 2000

Background characteristic	Current age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Urban	22.2	21.7	22.4	22.6	23.0	22.4
Rural	20.4	20.7	21.0	21.8	21.3	21.0
Region						
Yerevan	22.9	22.4	22.5	23.0	23.8	22.9
Aragatsotn	20.3	21.0	21.9	22.5	23.0	21.5
Ararat	20.5	20.5	20.7	21.7	21.6	20.9
Armavir	20.8	21.4	21.9	22.1	21.3	21.5
Gegharkunik	19.8	20.4	20.7	21.4	20.7	20.6
Lori	21.9	21.2	21.9	21.8	22.4	21.8
Kotayk	20.8	20.8	20.8	21.8	22.2	21.3
Shirak	20.8	21.3	21.8	22.8	22.4	22.0
Syunik	21.1	20.8	21.5	22.2	21.2	21.4
Vayots Dzor	21.8	21.4	21.4	22.1	21.8	21.7
Tavush	20.9	21.0	22.6	21.9	22.7	21.9
Education						
Primary/middle	20.8	19.5	19.7	21.2	20.0	20.4
Secondary	19.7	20.2	20.8	21.2	20.7	20.5
Secondary-special	21.6	21.4	21.7	22.3	22.6	21.9
Higher	24.4	23.1	25.1	24.4	25.3	24.6
Total	21.4	21.4	21.7	22.3	22.6	21.8

Note: The medians for cohorts 15-19 and 20-24 could not be determined because less than 50 percent of the women had given birth by exact ages 15 and 20, respectively.

4.9 Teenage Pregnancy and Motherhood

It is well known that adolescent pregnancy, early childbearing, and motherhood have negative socioeconomic and health consequences. Adolescent mothers are more likely to have complications during labor, which result in higher morbidity and mortality for themselves and their children. Moreover, childbearing during the teenage years frequently has adverse social consequences, particularly on female educational attainment, since women who become mothers in their teens are more likely to curtail education.

Table 4.8 presents the proportion of women age 15-19 (teenagers) who are mothers or pregnant with their first child, by background characteristics. The total proportion of teenagers who have begun childbearing is approximately 6 percent. More than 4 percent of Armenian teenagers are already mothers, and almost 2 percent are pregnant with their first child. As expected, the proportion of young women who have begun childbearing increases rapidly with age, from less than 1 percent among women age 15 to 20 percent of women age 19.

Teenage fertility varies significantly by residence. More than twice as many rural teenagers as urban teenagers have begun childbearing (9 percent versus 4 percent). The data indicate that teenagers residing in Gegharkunik are significantly more likely to have begun their childbearing than teenagers in other regions (16 percent), while teenagers in Kotayk are the least likely (2 percent).

There is a strong negative correlation between early childbearing and educational attainment. For example, four times as many teens with a primary/middle school education have begun childbearing, compared with teens who have a higher education.

Table 4.8 Teenage pregnancy and motherhood

Percentage of women age 15-19 who are mothers or pregnant with their first child, by background characteristics, Armenia 2000

Background characteristic	Percentage who are: Mothers	Percentage who are: Pregnant with first child	Percentage who have begun child-bearing	Number of teenagers
Age				
15	0.0	0.1	0.1	236
16	1.0	0.4	1.4	249
17	2.3	0.0	2.3	247
18	5.4	2.7	8.1	213
19	14.7	5.3	20.0	216
Residence				
Urban	3.0	1.0	4.0	688
Rural	6.4	2.5	8.9	473
Region				
Yerevan	2.8	1.4	4.2	393
Aragatsotn	6.5	3.3	9.8	53
Ararat	2.0	2.0	4.0	113
Armavir	8.3	1.2	9.5	94
Gegharkunik	13.7	2.1	15.8	94
Lori	7.6	0.0	7.6	79
Kotayk	2.3	0.0	2.3	98
Shirak	1.1	3.2	4.3	117
Syunik	3.2	0.0	3.2	52
Vayots Dzor	6.8	4.5	11.4	22
Tavush	2.4	2.4	4.8	47
Education				
Primary/middle	7.0	0.9	7.9	263
Secondary	4.4	2.2	6.6	592
Secondary-special	3.2	0.9	4.1	168
Higher	1.0	1.0	2.0	138
Total	4.4	1.6	6.0	1,160

CONTRACEPTION 5

K. Arustamyan and G. Avagyan

The primary function of family planning programs is to advocate conscious entry into parenthood for both women and men. Contraception provides women and men with the means to achieve their desired number of children and to time the birth of those children. The efficacy of family planning depends on people's knowledge of contraceptive methods and on the availability of methods to meet the varying needs of a wide spectrum of potential users. Availability of methods, in turn, depends on the quality and quantity of service providers and on available financial and technical resources.

Family planning topics addressed in this chapter include knowledge of contraceptive methods, use of methods in the past and present, source of supply, reasons for nonuse, desire to use in the future, exposure to family planning messages, and attitudes toward family planning.

5.1 Knowledge of Contraceptive Methods

Knowledge of contraceptive methods is a prerequisite for their use. Data on knowledge were collected by asking the respondent to name ways or methods by which a couple could delay or avoid pregnancy. If the respondent failed to mention a particular method spontaneously, the interviewer described the method and asked whether she recognized it. Thus, knowledge of a contraceptive method is defined simply as having heard of a method.

Contraceptive methods include both modern and traditional methods. Modern methods include the pill, the IUD, injectables, implants, female sterilization, male sterilization, emergency contraception, barrier methods (diaphragm, foam, jelly, male and female condom), and the lactational amenorrhea method (LAM). Traditional methods include periodic abstinence (rhythm method) and withdrawal. In addition to these methods, the interviewer was able to record in the questionnaire any other methods mentioned spontaneously by the respondent.

Table 5.1 shows the percentage of women who have heard about specific methods. Knowledge of contraception is nearly universal among Armenian women, 94 percent of whom have heard of at least one method. Knowledge is highest among currently married women (99 percent), but even 84 percent of women with no sexual experience know at least one method. The following discussion of results focuses on currently married women since they have the greatest exposure to the risk of pregnancy.

Regarding knowledge of specific modern methods, 93 percent of currently married women have heard of the IUD, 90 percent have heard of male condoms, and 83 percent have heard of the pill. More than three-fourths of married women have heard of the LAM method. Withdrawal is the most widely known traditional method (88 percent). Among women who are not currently married, the most widely known methods are the condom, IUD, and pill.

On average, Armenian women know 6.2 contraceptive methods. The average number of methods known varies by marital status. Currently married women know an average of 7.1

Table 5.1 Knowledge of contraceptive methods

Percentage of all women, of currently married women, and of unmarried women (by sexual experience) who know any contraceptive method, by specific methods, Armenia 2000

Contraceptive method	All women	Currently married women	Unmarried women: Has had sex	Unmarried women: Has never had sex
Any method	94.4	98.8	94.8	84.4
Any modern method	93.8	98.0	94.2	84.3
Pill	78.3	83.3	78.6	66.9
IUD	84.9	92.7	86.9	67.0
Injectables	42.9	48.9	44.0	29.1
Diaphragm	10.0	11.5	9.5	6.7
Foam/jelly/cream	19.0	21.5	21.2	12.8
Male condom	85.9	90.1	86.6	76.2
Female condom	22.5	24.6	21.4	18.0
Female sterilization	40.8	47.5	40.4	25.9
Male sterilization	18.1	20.3	19.5	12.9
Implants	9.4	10.4	9.9	6.9
Emergency contraception	19.3	22.3	21.4	12.1
Lactational amenorrhea (LAM)	63.8	78.6	70.8	28.9
Any traditional method	74.4	91.4	81.6	34.3
Periodic abstinence	53.3	65.0	59.6	25.6
Withdrawal	69.3	88.0	76.8	25.3
Any folk method	5.3	7.0	6.5	1.2
Douche	3.8	5.2	4.5	0.6
Other	1.5	1.8	2.0	0.6
Any traditional or folk method	74.5	91.6	82.1	34.4
Mean number of methods known	6.2	7.1	6.5	4.2
Number of women	6,430	4,125	468	1,838

methods. Among women who are not married, those women who have ever had sex know an average of 6.5 contraceptive methods and unmarried women with no sexual experience know an average of 4.2 methods.

Table 5.2 shows the percentage of currently married women who know of at least one method of contraception by background characteristics. With the exception of the youngest age group, knowledge of any method and of modern methods does not vary by age and is virtually universal. Knowledge of a contraceptive method does not vary substantially by residence, region, or education.

Table 5.2 Knowledge of contraceptive methods by background characteristics

Percentage of currently married women who know at least one contraceptive method and who know at least one modern method, by background characteristics, Armenia 2000

Background characteristic	Knows any method	Knows any modern method [1]	Number of women
Age			
15-19	92.9	92.9	99
20-24	98.3	97.1	511
25-29	98.5	97.7	625
30-34	98.8	98.5	660
35-39	99.7	98.5	816
40-44	99.0	98.1	773
45-49	99.0	98.6	640
Residence			
Urban	99.1	98.8	2,391
Rural	98.3	96.9	1,733
Region			
Yerevan	98.4	98.4	1,291
Aragatsotn	98.2	97.9	193
Ararat	99.7	99.7	449
Armavir	100.0	99.4	373
Gegharkunik	99.1	98.0	341
Lori	99.6	98.9	323
Kotayk	99.6	98.9	316
Shirak	96.8	92.6	388
Syunik	98.1	97.8	173
Vayots Dzor	96.6	92.2	79
Tavush	99.2	98.9	198
Education			
Primary/middle	96.6	94.7	276
Secondary	98.1	97.0	1,537
Secondary-special	99.3	98.7	1,603
Higher	99.9	99.9	708
Total	98.8	98.0	4,125

[1] Female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, diaphragm, foam or jelly, lactational amenorrhea method (LAM), and emergency contraception

5.2 Ever Use of Contraception

All respondents who had heard of a specific method of contraception were asked whether they (or a partner with them) had ever used that method; each known method was inquired about separately. The questionnaire contained an additional probe to be asked of women who reported no contraceptive use. Results are presented in Table 5.3 for all women and for currently married women by five-year age groups.

Table 5.3 Ever use of contraception

Percentage of all women and of currently married women who have ever used any contraceptive method, by specific method and age, Armenia 2000

		Modern method									Traditional method			Folk method			
Age	Any method	Any modern method	Pill	IUD	Injectables	Condom	Female sterilization	Foam/jelly/cream	Emergency contraception	LAM	Any traditional method	Periodic abstinence	Withdrawal	Any folk method	Douche	Other methods	Number of women
ALL WOMEN																	
15-19	3.0	2.1	0.2	0.2	0.0	0.4	0.0	0.0	0.0	1.3	1.4	0.0	1.4	0.0	0.0	0.0	1,160
20-24	36.6	22.4	1.8	4.0	0.1	8.9	0.3	0.2	0.1	11.5	26.2	4.1	24.8	0.9	0.8	0.1	1,007
25-29	71.4	48.6	4.7	13.8	0.5	23.6	0.3	0.5	0.2	23.5	54.6	13.0	49.7	2.7	2.2	0.5	769
30-34	80.5	56.6	7.2	23.1	0.8	22.8	1.9	1.0	0.8	25.5	62.3	17.7	57.9	4.1	3.6	0.5	763
35-39	78.7	54.7	6.4	24.5	0.6	22.3	2.4	0.5	0.6	25.5	60.7	21.1	52.5	4.8	4.2	0.6	962
40-44	73.8	48.3	4.8	17.4	0.8	18.7	4.0	0.3	0.4	23.5	57.4	17.3	53.0	5.6	4.4	1.2	947
45-49	68.6	47.0	5.1	13.6	0.9	15.2	4.4	0.9	0.7	23.6	51.4	19.6	42.9	6.8	5.1	1.7	822
Total	55.8	37.7	4.1	13.0	0.5	15.0	1.8	0.4	0.4	18.2	42.4	12.5	38.1	3.4	2.7	0.6	6,430
CURRENTLY MARRIED WOMEN																	
15-19	35.4	25.0	2.1	2.8	0.0	4.8	0.0	0.0	0.0	15.4	16.0	0.0	16.0	0.0	0.0	0.0	99
20-24	70.7	43.4	3.5	7.5	0.3	17.1	0.6	0.5	0.3	22.6	50.5	8.1	47.8	1.8	1.6	0.2	511
25-29	85.1	57.8	5.8	16.5	0.6	27.9	0.3	0.6	0.2	28.1	65.4	15.6	59.7	3.3	2.7	0.6	625
30-34	88.0	62.1	8.3	26.1	0.7	25.2	2.2	1.1	1.0	26.8	68.6	19.3	64.1	4.1	3.6	0.5	660
35-39	88.1	61.6	7.3	28.1	0.7	25.0	2.7	0.6	0.8	28.5	68.0	23.8	58.8	5.5	4.8	0.7	816
40-44	83.0	54.8	5.4	20.5	0.9	20.5	4.6	0.3	0.5	27.4	65.2	19.8	60.2	6.0	4.8	1.2	773
45-49	76.6	52.0	5.0	16.3	1.1	17.3	5.0	1.0	0.6	25.6	58.3	22.4	48.3	7.3	5.2	2.1	640
Total	81.5	55.2	5.9	19.6	0.7	22.0	2.7	0.7	0.6	26.5	62.2	18.4	56.0	4.7	3.8	0.9	4,125

Note: 24 women in the sample (0.4 percent) reported ever use of the female condom.

More than eight in ten currently married women have used a contraceptive method at some time in their lives. Levels of ever use among all women are significantly lower than among currently married women because the former includes women who have never been sexually active (56 percent versus 82 percent). More married women have tried a traditional method (62 percent) than a modern method (55 percent). The most common method is, by far, withdrawal. Ever use of withdrawal (56 percent) exceeds by a factor of two ever use of the condom (22 percent) or the IUD (20 percent). Twenty-seven percent of currently married women have used LAM, the second most widely used method after withdrawal.

It should be noted that although female condoms have never been distributed through the public sector in Armenia or sold in pharmacies, 0.4 percent of all women reported ever use. This may be attributed to confusion between male and female condoms. Alternatively, it is possible that a respondent tried female condoms outside the country.

5.3 Current Use of Contraception

Table 5.4 presents levels of current use of contraception for all women and for currently married women. Approximately four out of every ten women of reproductive age are using a method of contraception; almost all users are currently married women. Overall, the ADHS found that 61 percent of married women are currently using a contraceptive method. Among married women, use of traditional methods (37 percent) is two-thirds higher than the use of modern methods (22 percent) (Figure 5.1). The most widely used method is, by far, withdrawal.

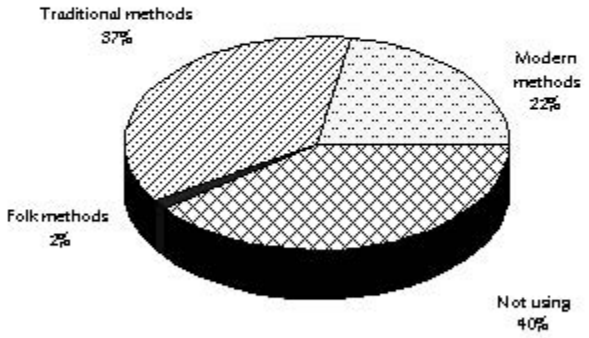
Table 5.4 Current use of contraception

Percent distribution of all women and of currently married women by contraceptive method currently used, according to age, Armenia 2000

		Modern method								Traditional method						
Age	Any method	Any modern method	Pill	IUD	Injectables	Condom	Female sterilization	Foam/jelly/cream	LAM	Any traditional method	Periodic abstinence	Withdrawal	Any folk method	Not using a method	Total	Number of women
ALL WOMEN																
15-19	2.2	1.5	0.2	0.2	0.0	0.2	0.0	0.0	0.9	0.6	0.0	0.6	0.0	97.8	100.0	1,160
20-24	28.2	11.2	0.4	3.0	0.0	4.0	0.3	0.2	3.3	16.8	0.9	15.9	0.1	71.8	100.0	1,007
25-29	56.8	23.1	1.6	9.3	0.0	9.0	0.3	0.0	2.8	32.7	3.3	29.4	0.9	43.2	100.0	769
30-34	61.8	25.7	1.7	11.4	0.0	9.1	1.9	0.4	1.2	35.5	4.0	31.5	0.6	38.2	100.0	763
35-39	60.2	20.3	0.9	10.9	0.0	5.5	2.4	0.1	0.4	38.2	6.0	32.2	1.7	39.8	100.0	962
40-44	48.3	14.8	0.4	6.3	0.2	3.9	4.0	0.0	0.0	31.6	4.2	27.4	1.9	51.7	100.0	947
45-49	30.9	10.7	0.3	4.3	0.0	1.7	4.4	0.0	0.0	18.2	4.5	13.8	2.0	69.1	100.0	822
Total	39.0	14.4	0.7	6.1	0.0	4.4	1.8	0.1	1.2	23.6	3.1	20.5	1.0	61.0	100.0	6,430
CURRENTLY MARRIED WOMEN																
15-19	25.5	18.0	2.1	2.8	0.0	2.6	0.0	0.0	10.5	7.5	0.0	7.5	0.0	74.5	100.0	99
20-24	55.3	21.9	0.8	5.9	0.0	7.6	0.6	0.5	6.5	33.2	1.8	31.4	0.2	44.7	100.0	511
25-29	69.6	28.2	2.0	11.2	0.0	11.0	0.3	0.0	3.5	40.2	4.1	36.2	1.1	30.4	100.0	625
30-34	71.4	29.7	1.9	13.2	0.0	10.6	2.2	0.4	1.4	41.0	4.6	36.4	0.7	28.6	100.0	660
35-39	70.9	23.8	1.1	12.8	0.0	6.5	2.7	0.2	0.5	45.0	7.0	38.0	2.0	29.1	100.0	816
40-44	58.7	17.9	0.5	7.7	0.3	4.8	4.6	0.0	0.0	38.7	5.2	33.5	2.2	41.3	100.0	773
45-49	38.9	12.9	0.2	5.6	0.0	2.2	5.0	0.0	0.0	23.4	5.8	17.7	2.5	61.1	100.0	640
Total	60.5	22.3	1.1	9.4	0.1	6.9	2.7	0.2	1.9	36.7	4.8	31.9	1.5	39.5	100.0	4,125

Note: If more than one method is used, only the most effective method is considered in this tabulation.

Figure 5.1 Current Use of Contraception among Married Women by Method Type



Note: Total does not add to 100 due to rounding.

Armenia DHS 2000

Among married women, current use of withdrawal (32 percent) exceeds by a factor of three current use of the IUD (9 percent) or the condom (7 percent). The level of withdrawal among married women in Armenia is higher than in any other former Soviet republic where a DHS survey has been conducted. In Central Asian countries, for example, use ranges from 3 percent of married women in Kazakhstan (APM and MI, 1999) and Uzbekistan (IOG and MI, 1997) to 5 percent in Turkmenistan (MOH, NISF, and ORC Macro, 2001) and 6 percent in the Kyrgyz Republic (RIOP and MI, 1998). Results from a survey conducted in Georgia indicate that use is 11 percent, which is higher than the Central Asian countries but still just one-third of the prevalence in Armenia (Serbanescu et al., 2000). Furthermore, withdrawal accounts for just one-fourth of contraceptive use among currently married women in Georgia, whereas it accounts for more than half of contraceptive use among currently married women in Armenia. Overall, according to international DHS data, levels of withdrawal in Armenia are three times as high as any other country in the world except for Turkey (HU and MI, 1999), where 24 percent of all married women use withdrawal.

Contraceptive use ranges from a low of one-quarter of currently married women age 15-19 to more than two-thirds of currently married women age 25-39. This pattern holds true for specific methods, with a few exceptions. LAM is most frequently used by women age 15-19 and 20-24 (the cohort with the highest levels of fertility—see Chapter 4), while female sterilization is more common among older women. It should be noted, however, that female sterilization is generally performed for medical reasons as opposed to contraceptive purposes.

5.4 Current Use by Background Characteristics

Table 5.5 shows that levels of current contraceptive use among currently married women vary little by background characteristics. Contraception is used by the majority of women in urban and rural areas, of all educational levels, and at all parities (with the exception of women with no living children).

There are, however, significant differences in terms of the type of contraceptive methods that married women use depending on background characteristics. For example, women of all educational levels are equally likely to be using a contraceptive method, but twice as many women with higher education are using a modern method than women with a primary/middle or a secondary education (35 percent, 13 percent, 18 percent, respectively). Regarding traditional methods, women with higher education are most likely to be using periodic abstinence and least likely to be using withdrawal. Overall, rural women are much more likely to use any traditional method than urban women. Whereas withdrawal is used by one-quarter of urban women (26 percent), 40 percent of rural women are trying to control their fertility through withdrawal (Figure 5.2).

Method use also varies by region. Regarding withdrawal, the most popular contraceptive method, at least one-third of women in all regions (except Yerevan and Syunik) report current use. Vayots Dzor is the region with the highest percentage of women using withdrawal (48 percent). In Yerevan, 21 percent of women rely on withdrawal. Use of a modern method ranges from a high of 28 percent in Yerevan to 13 percent in Syunik. The IUD is used by at least 10 percent of currently married women in Yerevan, Ararat, Lori, and Shirak in comparison to 3 percent in Vayots Dzor. Condom use is reported by 1 in 10 currently married women in Yerevan (12 percent) and Tavush (11 percent) but less than 1 in 30 women in Aragatsotn (2 percent) and Gegharkunik (3 percent). Although sampling variation may account for some of the difference, female sterilization appears to be more prevalent in Ararat and Vayots Dzor than in other regions. Approximately half of women in Kotayk and Syunik are not using any method of contraception.

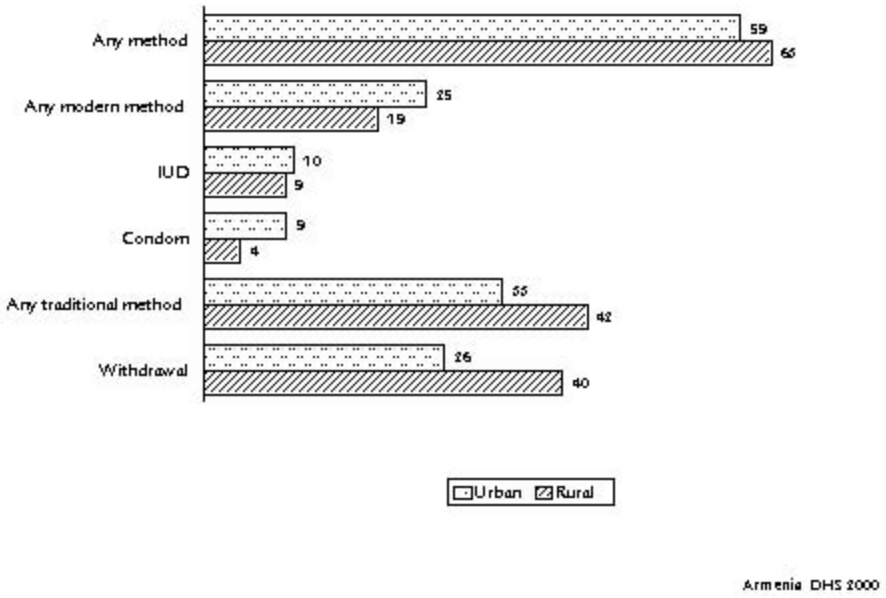
Table 5.5 Current use of contraception by background characteristics

Percent distribution of currently married women by contraceptive method currently used, according to background characteristics, Armenia 2000

		Modern method								Traditional method						
Background characteristic	Using any method	Any modern method	Pill	IUD	Injectables	Condom	Female sterilization	Foam/jelly/cream	LAM	Any traditional method	Periodic abstinence	Withdrawal	Any folk method	Not using a method	Total	Number of women
Residence																
Urban	59.1	24.5	1.2	9.8	0.1	9.0	2.3	0.2	1.9	32.8	6.4	26.4	1.8	40.9	100.0	2,391
Rural	62.5	19.2	1.0	8.9	0.0	4.0	3.1	0.1	2.0	42.2	2.7	39.5	1.1	37.5	100.0	1,733
Region																
Yerevan	57.1	28.1	1.4	9.9	0.0	11.7	2.3	0.4	2.3	27.4	6.6	20.8	1.6	42.9	100.0	1,291
Aragatsotn	63.0	14.6	0.6	7.8	0.0	2.4	2.1	0.0	1.5	48.1	3.9	44.2	0.3	37.0	100.0	193
Ararat	66.3	25.8	1.0	11.4	0.0	5.3	6.1	0.0	2.0	40.0	4.3	35.7	0.5	33.7	100.0	449
Armavir	65.3	18.0	1.2	9.3	0.3	3.3	1.5	0.3	2.1	42.8	4.8	38.0	4.5	34.7	100.0	373
Gegharkunik	56.2	18.3	0.6	8.1	0.0	2.9	3.5	0.0	2.9	37.1	2.6	34.5	0.9	43.8	100.0	341
Lori	68.1	21.1	0.7	11.9	0.4	3.7	1.9	0.0	2.6	45.9	4.1	41.9	1.1	31.9	100.0	323
Kotayk	52.5	14.0	0.0	7.6	0.0	4.0	1.4	0.0	1.1	37.4	2.5	34.9	1.1	47.5	100.0	316
Shirak	65.4	23.7	2.6	11.9	0.0	6.7	1.9	0.0	0.6	39.7	5.8	34.0	1.9	34.6	100.0	388
Syunik	49.7	12.7	0.3	5.7	0.0	4.4	0.9	0.0	1.3	35.8	5.4	30.4	1.3	50.3	100.0	173
Vayots Dzor	65.9	15.0	0.6	2.5	0.0	3.8	6.3	0.0	1.6	50.3	2.8	47.5	0.6	34.1	100.0	79
Tavush	63.8	21.8	1.1	6.5	0.0	10.5	3.1	0.0	0.6	41.0	2.5	38.4	1.1	36.2	100.0	198
Education																
Primary/middle	50.2	13.2	1.0	5.3	0.0	1.4	4.2	0.0	1.3	35.1	1.3	33.8	1.9	49.8	100.0	276
Secondary	59.2	17.9	1.0	8.0	0.0	4.0	2.3	0.3	2.3	40.2	3.1	37.2	1.1	40.8	100.0	1,537
Secondary-special	62.1	22.3	1.0	9.4	0.1	7.2	2.8	0.0	1.6	38.3	5.7	32.6	1.5	37.9	100.0	1,603
Higher	63.8	35.3	1.5	14.2	0.0	14.6	2.7	0.2	2.0	26.4	8.0	18.4	2.2	36.2	100.0	708
Number of living children																
None	5.3	3.0	0.0	0.0	0.0	2.4	0.6	0.0	0.0	2.3	0.0	2.3	0.0	94.7	100.0	226
1	50.7	26.5	0.5	6.1	0.2	10.5	2.1	0.3	6.8	23.4	2.6	20.9	0.8	49.3	100.0	514
2	68.6	26.3	1.9	12.2	0.0	8.5	2.2	0.2	1.3	40.3	6.5	33.8	2.0	31.4	100.0	1,770
3	65.3	19.9	0.7	9.4	0.1	5.1	3.3	0.1	1.2	44.0	5.0	39.0	1.4	34.7	100.0	1,231
4+	53.3	16.7	0.3	6.9	0.0	2.8	4.8	0.0	1.9	35.2	2.6	32.6	1.4	46.7	100.0	384
Total	60.5	22.3	1.1	9.4	0.1	6.9	2.7	0.2	1.9	36.7	4.8	31.9	1.5	39.5	100.0	4,125

Note: If more than one method is used, only the most effective method is considered in this tabulation.

Figure 5.2 Current Use of Contraception (Percent) among Married Women by Residence



5.5 Contraceptive Prevalence Rates from Other Surveys

The findings of the ADHS are similar to those of two recent reproductive health surveys that provided contraceptive prevalence rates at the national level. According to a survey conducted in 1998, for example, 57 percent of ever-married women used contraception, and two-thirds of these current users relied on withdrawal (Khachikyan and Abrahamyan, 1998). Similarly, a 1997 survey found that 60 percent of ever-married women used a contraceptive method, and slightly more than half used withdrawal (NPRH, 1998).

5.6 Discontinuation within 12 Months of Use

Table 5.6 shows contraceptive discontinuation rates. Overall, 40 percent of all users of a contraceptive method discontinued use within 12 months of adopting the method. The first year discontinuation rate is lowest among users of the IUD (7 percent) and highest among users of LAM (77 percent), which should be used only during the first 6 months after a birth. Nearly four in ten users of condoms, periodic abstinence, and withdrawal discontinued using the method during the first year of use.

Table 5.6 First-year contraceptive discontinuation rates

Percentage of contraceptive users who discontinued use of a method by 12 months after beginning use in the five years preceding the survey, by reason for discontinuation and method, Armenia 2000

	Reason for discontinuation				
Method discontinued	Method failure	Desire to become pregnant	Switched to another method[1]	Other reason	Total
IUD	1.4	0.6	1.8	2.8	6.5
Condom	13.0	5.7	8.9	11.3	38.9
Lactational amenorrhea	24.9	4.6	31.1	16.4	77.0
Periodic abstinence	21.4	3.9	7.6	5.0	37.9
Withdrawal	28.6	3.8	3.3	3.5	39.2
Total	22.4	3.7	7.3	6.2	39.6

Note: Contraceptive discontinuation rates were calculated using the multiple decrement life table technique. When there is more than one reason for discontinuation of a contraceptive method, this technique calculates reason-specific discontinuation rates month by month according to duration since the start of use of a particular method. The monthly discontinuation rates are the basis for calculating the one-year reason-specific discontinuation rate.

[1] Used a different method in the month after discontinuation or said that they wanted a more effective method and started another method within two months of discontinuation

Table 5.7 shows the distribution of discontinuations of all contraceptive methods during the last five years preceding the survey by reason for discontinuation. More than half of all discontinuations were attributed to method failure, i.e., accidental pregnancy. The low efficacy of periodic abstinence, withdrawal, and douching (the most popular folkloric method) is evidenced by the high failure rate of these methods during use (Figure 5.3).

As previously noted, withdrawal is the most popular method of contraception. It is used by 32 percent of currently married women and accounts for half of all contraceptive use. Twenty-nine percent of users discontinued during the first year of use because of method failure, i.e., accidental pregnancy. This accounted for two-thirds of all discontinuations. It is striking that method failure is most likely among women who are using the most common method of contraception. Stated another way, a significant proportion of Armenian women who are trying to control their fertility using withdrawal are unable to do so. It is notable that in rural areas, where withdrawal is used by a significantly larger percentage of women than in urban areas (40 percent versus 26 percent), total abortion rates are also significantly higher (3.4 versus 2.1).

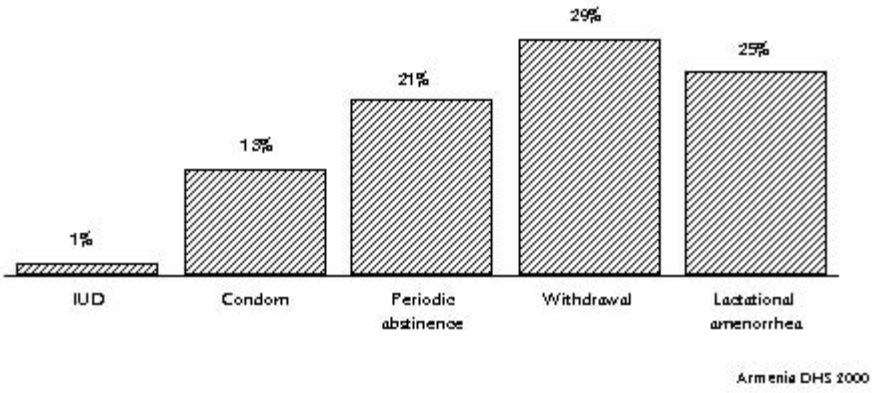
Table 5.7 Reasons for discontinuing contraceptive methods

Percent distribution of discontinuations of contraceptive methods by 12 months after beginning use in the five years preceding the survey by main reason for discontinuation, according to specific method, Armenia 2000

	Modern method discontinued				Traditional/folk method discontinued				
Reason for discontinuation	Pill	IUD	Condom	LAM	Periodic abstinence	Withdrawal	Douche	Other methods	All methods
Became pregnant while using	17.8	8.5	33.1	32.0	57.2	67.2	64.2	(58.7)	52.8
Wanted to become pregnant	7.0	5.2	16.0	5.8	9.1	9.4	4.5	(0.0)	9.1
Side effects	7.4	11.3	3.2	0.4	0.5	0.8	0.0	(3.4)	1.9
Health concerns	38.5	60.1	2.4	0.6	0.3	1.1	7.5	(3.9)	6.8
Access/availability	7.9	0.4	4.1	0.0	0.0	0.1	1.2	(0.0)	0.8
Wanted a more effective method	2.7	2.8	3.6	28.3	11.0	5.1	7.8	(12.1)	7.8
Inconvenient to use	3.9	1.1	7.0	5.6	3.2	1.1	1.5	(10.2)	2.6
Cost too much	6.4	0.0	5.8	0.0	0.4	0.0	0.0	(0.0)	0.9
Husband disapproved	0.0	1.5	7.6	0.7	3.4	4.2	0.0	(0.0)	3.7
Infrequent sex/husband away	6.8	5.4	9.6	1.4	9.7	7.3	10.2	(0.0)	7.0
Marital dissolution/separation	0.0	1.1	0.9	0.2	0.5	0.5	0.0	(0.0)	0.5
Difficult to get pregnant/menopausal	0.0	1.3	1.3	0.4	2.2	1.0	3.0	(7.8)	1.2
Fatalistic	0.0	0.0	0.0	0.0	0.2	0.4	0.0	(0.0)	0.3
Other reason	1.6	1.4	1.9	22.1	1.6	0.7	0.0	(3.9)	3.3
Don't know	0.0	0.0	0.1	0.0	0.0	0.0	0.0	(0.0)	0.0
Missing	0.0	0.0	3.4	2.4	0.8	1.1	0.0	(0.0)	1.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	(100.0)	100.0
Number of discontinuations	71	254	373	336	290	1,786	91	29	3,230

Note: Figures in parentheses are based on 25 to 49 unweighted cases.

Figure 5.3 Contraceptive Discontinuation Due to Method Failure: Proportion of Users Who Discontinued Use Within 12 Months



The DHS data also show that one-quarter of women who rely on LAM as a contraceptive method, also become accidentally pregnant within 12 months of beginning its use. This strongly suggests that Armenian women are not using this method properly. One indication of improper use is that approximately half of all women who use LAM report that they are still relying on the method more than six months after giving birth (data not shown), which is longer than the method can effectively be used.

Fifty-seven percent of periodic abstinence, 64 percent of douche, and 33 percent of condom discontinuations were reported to be method failures. The most common reason cited for discontinuation of the pill and IUD was concern for health (39 and 60 percent, respectively). Although the majority of discontinuations can be attributed to method failure, 9 percent of respondents who discontinued said that they wanted to get pregnant.

5.7 Current Use by Women's Status

A woman's ability to use contraceptive methods to control her fertility is likely to be affected by her status and degree of empowerment. Women who are more empowered are expected to be better able to control all aspects of their lives including their fertility. The ADHS collected information on three indicators of women's empowerment: number of decisions in which the respondent participates in the final say, the number of reasons for which a woman can refuse to have sexual relations with her husband, and the number of reasons for which the respondent feels a husband is justified in beating his wife. This section focuses on the relationship between contraceptive use and women's status. (See Chapter 3 for an explanation of these indicators.)

Table 5.8 shows the relationship of each of these three indicators of women's empowerment with current use of contraceptive methods by currently married women age 15-49. Overall, women who are more empowered (i.e., respondents with higher scores on the first two indicators of status and lower scores on the third indicator of women's status) are more likely to be using a modern method of contraception. For example, less than half of women (45 percent) who have no final say in household decisionmaking are using a method of contraception as opposed to almost two-thirds of women who have a final say in three or more of the specified decisions. Similarly, women with higher levels of status are more likely to use a modern method or periodic abstinence. Results of the second indicator follow the same pattern. Use of periodic abstinence, which requires a high degree of communication and cooperation between a woman and man, is the method that is most correlated with these indicators of women's status. Although the third indicator appears to have no discernable relationship to contraceptive use, these results suggest that overall, different dimensions of women's empowerment are positively associated with women's use of contraception in Armenia.

Table 5.8 Current use of contraception by women's status

Percent distribution of currently married women by contraceptive method currently used, according to selected indicators of women's status, Armenia 2000

		Modern method								Traditional method						
Women's status indicator	Using any method	Any modern method	Pill	IUD	Injectables	Condom	Female sterilization	Foam/jelly/cream	LAM	Any traditional method	Periodic abstinence	Withdrawal	Any folk method	Not using a method	Total	Number of women
Number of decisions where woman has final say [1]																
0	44.7	14.1	1.0	4.9	0.0	3.9	1.5	0.0	2.8	30.6	0.6	30.0	0.0	55.3	100.0	159
1-2	58.5	23.3	1.5	9.3	0.0	6.9	2.2	0.0	3.3	33.8	2.3	31.5	1.3	41.5	100.0	732
3-4	64.0	24.4	0.8	10.7	0.1	7.4	3.3	0.1	2.0	38.0	5.5	32.5	1.6	36.0	100.0	1,338
5	60.2	21.0	1.2	9.0	0.1	6.7	2.5	0.3	1.2	37.5	5.6	31.8	1.6	39.8	100.0	1,895
Number of reasons wife can refuse sex with husband																
0	46.8	11.2	0.0	3.4	0.0	2.0	3.6	0.0	2.2	33.4	1.8	31.5	2.2	53.2	100.0	181
1-2	55.5	22.8	2.0	8.9	0.0	6.9	3.3	0.0	1.7	32.4	4.4	28.0	0.3	44.5	100.0	443
3-4	61.9	22.8	1.0	9.8	0.1	7.1	2.5	0.2	1.9	37.5	5.0	32.4	1.6	38.1	100.0	3,501
Number of reasons wife beating justified																
0	61.5	24.5	1.0	10.2	0.0	8.3	2.7	0.2	2.0	35.4	5.8	29.5	1.7	38.5	100.0	2,681
1-2	61.7	19.8	1.5	9.1	0.0	4.6	3.1	0.0	1.6	40.8	3.6	37.2	1.2	38.3	100.0	884
3-4	52.8	14.8	0.8	6.7	0.0	3.3	1.6	0.0	2.2	36.8	2.1	34.7	1.1	47.2	100.0	469
5	58.4	17.4	0.6	5.7	1.2	6.4	2.3	0.0	1.1	38.2	1.5	36.7	2.8	41.6	100.0	91
Total	60.5	22.3	1.1	9.4	0.1	6.9	2.7	0.2	1.9	36.7	4.8	31.9	1.5	39.5	100.0	4,125

Note: If more than one method is used, only the most effective method is considered in this tabulation.
[1] Either by herself or jointly with others

5.8 Number of Children at First Use

To make an assessment of the motivations for using family planning methods, women were asked how many living children they had at the time they first used a method of family planning. Women who first use a method before having a child presumably want to delay their childbearing to some time in the future. Women who first employ a method after having one or two children may either want to delay the next child or to limit their childbearing. Women who use a method for the first time after having several children are more likely to be using family planning to stop childbearing than to space their births.

Table 5.9 presents the percent distribution of ever-married women by the number of living children they had at the time they first used a method of family planning. Overall, three in ten ever-married women began using contraception after having one child and another third began after having two children. Less than 2 percent of women used contraception prior to giving birth.

Younger women report first use of contraception at lower parities than older women. Contraceptive use among women with one living child, for instance, is more than 50 percent higher among those age 20-29 than among those age 35-49.

Table 5.9 Number of children at first use of contraception

Percent distribution of ever-married women by number of living children at the time of first use of contraception and median number of children at first use, according to current age, Armenia 2000

Current age	Never used contra-ception	Number of living children at time of first use of contraception					Total	Median number of children at first use	Number of women
		0	1	2	3	4+			
15-19	65.0	2.7	31.3	1.0	0.0	0.0	100.0	0.5	100
20-24	30.3	3.9	46.5	17.3	1.9	0.0	100.0	0.7	529
25-29	17.7	1.7	40.7	34.3	4.9	0.7	100.0	1.0	665
30-34	15.0	1.8	30.0	40.3	11.2	1.7	100.0	1.3	723
35-39	16.6	0.7	24.9	36.5	16.9	4.3	100.0	1.4	907
40-44	20.9	0.9	25.2	34.0	15.8	3.2	100.0	1.4	882
45-49	27.2	0.7	23.9	31.0	11.7	5.3	100.0	1.4	775
Total	21.8	1.5	30.5	32.4	11.1	2.7	100.0	1.2	4,579

Note: Median among those who have ever used contraception.

5.9 Knowledge of the Fertile Period

A basic knowledge of the physiology of reproduction is especially useful for the successful practice of coitus-related methods such as periodic abstinence. All women in the ADHS were asked about their knowledge of a woman's fertile period. Table 5.10 shows that less than one-third (30 percent) of all women correctly identify the fertile period as occurring halfway between periods. Approximately one in four women said that they did not know when a woman has her fertile period. Among users of periodic abstinence, however, 73 percent were able to correctly identify the fertile period.

Table 5.10 Knowledge of fertile period

Percent distribution of women who use periodic abstinence, of women who do not use periodic abstinence, and of all women, by knowledge of the fertile period during the ovulatory cycle, Armenia 2000

Perceived fertile period	Users of periodic abstinence	Nonusers of periodic abstinence	All women
Just before her period begins	2.8	3.8	3.8
During her period	0.0	0.2	0.1
Right after her period has ended	17.4	17.7	17.7
Halfway between two periods	72.9	28.8	30.2
No specific time	3.7	10.8	10.6
Other	0.0	0.1	0.1
Don't know	3.2	38.6	37.5
Missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Number of women	199	6,231	6,430

5.10 Source of Family Planning

Information on sources of modern contraceptives is useful for family planning managers and implementers. Women who reported they were currently using a modern method of contraception were asked where they obtained the method the last time. Since the distinction between different types of clinics and between public and private sources may not always be clear, the information on the source of supply must be interpreted with caution.

The public sector is the primary source of contraceptive supply in Armenia (Table 5.11). Sixty-seven percent of modern method users received their method from the public sector. A hospital was the source for almost all sterilized women (96 percent) and the majority of IUD users (60 percent). The majority of pill users obtained their last supply from a public medical facility: 22 percent from polyclinics, 21 percent from women's consulting centers, and 20 percent from hospitals. Among condom users, the majority (61 percent) reported obtaining their most recent supply from the pharmacy. One-fifth of condom users, however, did not know their source of supply, which suggests that their partners obtain the condoms.

Table 5.11 Source of modern contraceptive methods

Percent distribution of current users of modern contraceptive methods by most recent source of supply, according to specific methods, Armenia 2000

Source	Pill	IUD	Condom	Female sterilization	All modern methods
Public sector	(63.9)	97.2	13.9	98.8	67.0
Hospital	(19.9)	60.1	1.4	96.1	42.5
Polyclinic	(21.8)	14.3	3.1	1.6	9.0
Doctor's assistant/midwife post	(1.2)	4.3	4.5	0.0	3.7
Women's consulting center	(21.0)	18.4	4.8	0.0	11.5
Other public	(0.0)	0.0	0.1	1.2	0.2
Private medical	(33.2)	2.2	61.3	1.2	24.3
Private hospital, clinic	(0.0)	0.9	0.0	1.2	0.6
Pharmacy	(33.2)	0.0	60.8	0.0	23.2
Private doctor	(0.0)	0.8	0.0	0.0	0.4
Other private medical	(0.0)	0.0	0.5	0.0	0.2
Other	(2.9)	0.0	5.0	0.0	1.8
Don't know	(0.0)	0.0	19.4	0.0	6.5
Missing	(0.0)	0.6	0.4	0.0	0.4
Total	(100.0)	100.0	100.0	100.0	100.0
Number of users	47	391	285	117	850

Note: Total includes 11 users of other modern methods. Figures in parentheses are based on 25-49 unweighted cases.

5.11 Informed Choice

Women should make decisions about contraceptive use after having been fully informed of the various methods and side effects or risks associated with the methods. Table 5.12 shows the percentage of sterilized women who were informed that they would not be able to bear more children after the sterilization operation. The table also shows the percentage of current users of modern contraception who were told about the side effects of methods and the different methods available by a health or family planning worker at the time they accepted their current method.

Virtually all sterilized respondents reported that they were informed that they would not be able to bear more children after the procedure (94 percent). Among women using other methods of contraception, 36 percent were informed about side effects and 32 percent were told what to do if they did experience side effects. Only 23 percent were informed about other methods of contraception. It is clear that both public and private health and family planning workers in Armenia need to provide women with more information about contraceptive methods in order to help women make informed choices.

Table 5.12 Informed choice

Among current users of specific modern contraceptive methods who adopted the method in the five years preceding the survey, percentage of women who were sterilized in the five years preceding the survey who were informed that they would not be able to have any more children, percentage who were informed about the side effects of the current method used, percentage who were informed what to do if side effects were experienced, and percentage who were informed of other methods that could be used for contraception, by specific method, initial source of method, and background characteristics, Armenia 2000

Method, source, and background characteristic	Type of information			
	Informed that sterilization is permanent[1]	Informed about side effects of method used[2]	Informed what to do if experience side effects[2]	Informed of other methods that could be used[3]
Method				
Pill	na	(44.5)	(41.2)	(49.6)
IUD	na	34.1	31.8	21.2
Female sterilization	94.0	37.0	29.7	11.5
Initial source of method				
Government hospital	94.4	55.6	48.4	30.4
Government polyclinic	*	(44.5)	(41.4)	(29.5)
Women's consulting center	*	66.9	61.4	61.3
Residence				
Urban	92.5	37.0	33.9	27.0
Rural	95.6	33.3	29.2	17.4
Education				
Primary/middle	*	(25.5)	(15.7)	(9.7)
Secondary	(96.1)	31.4	28.6	16.6
Secondary-special	100.0	35.4	30.8	24.5
Higher	*	43.0	41.8	32.8
Total	94.1	35.5	32.0	23.0
Number of women	117	558	558	644

Note: Total includes users of modern methods not shown and users who received their method from sources not shown because of the small numbers of cases. For all methods except sterilization, the figures refer to users who adopted their current method in the five years preceding the survey. The initial source is the source at the start of the current method. Figures in parentheses are based on 25 to 49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable
[1] Sterilized women who were told that they would not be able to have more children
[2] Among users of female sterilization, pill, IUD, injectables, and implants
[3] Among users of female sterilization, pill, IUD, injectables, implants, vaginal methods, and LAM

5.12 Intention to Use Family Planning among Nonusers

The needs and practices of women in the area of contraception change as they go through their reproductive years. Currently married respondents who were not using contraception at the time of the survey were asked whether they intend to use family planning methods in the future. The results are presented in Table 5.13.

Table 5.13 Future use of contraception

Percent distribution of currently married women who are not using a contraceptive method by intention to use in the future, according to number of living children, Armenia 2000

	Number of living children[1]					
Intention	0	1	2	3	4+	Total
Intends to use later	38.2	53.6	35.5	28.6	25.9	35.5
Unsure as to intention	26.2	17.6	19.1	13.3	14.2	17.4
Does not intend to use	35.6	28.3	45.3	58.1	59.9	47.1
Missing	0.0	0.4	0.0	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	148	250	591	448	191	1,629

[1] Includes current pregnancy

More than one-third (36 percent) of all currently married nonusers stated that they do intend to use a contraceptive method at some time in the future. The majority of women with one living child (54 percent) intend to use contraception. These women are significantly more likely to state an intention to use than women with no children and women with two or more living children.

An understanding of the reasons that people do not like to use family planning methods is critical in designing programs that could improve the quality of services. Table 5.14 presents the main reasons for not intending to use family planning as given by currently married nonusers who do not intend to use a method in the future. Reasons for nonuse vary by age. Among younger women, the most common reason is opposition to family planning. Women age 15-29 are significantly more likely to give this reason than women age 30-49 (28 percent versus 15 percent). The majority of older women, on the other hand, cite reasons related to a lower risk of pregnancy such as difficulty becoming pregnant (25 percent), menopause or hysterectomy (14 percent), and infrequent sexual intercourse (11 percent). Eleven percent of both older women and younger women cite health concerns as the reason they do not intend to use a method in the future.

Table 5.14 Reasons for not intending to use contraception

Percent distribution of currently married women who are not using a contraceptive method and who do not intend to use in the future by main reason for not intending to use, according to age, Armenia 2000

	Age		
Reason	15-29	30-49	All ages
Wants children	14.1	2.4	3.2
Side effects	3.7	0.6	0.8
Health concerns	10.8	11.1	11.1
Access/availability	2.3	0.0	0.2
Cost	0.0	0.7	0.7
Inconvenient	4.3	0.2	0.5
Religion	2.6	0.7	0.9
Opposed to family planning	28.1	15.0	15.9
Partner opposed	0.0	1.6	1.5
Others disapprove	0.0	0.2	0.2
Infrequent sex/no sex	4.8	10.9	10.5
Difficult to get pregnant	11.7	25.1	24.2
Menopausal/hysterectomy	0.0	14.2	13.2
Other reason	0.9	1.7	1.7
Don't know/missing	16.7	15.5	15.6
Total	100.0	100.0	100.0
Number of women	53	714	766

Future demand for specific methods of family planning can be assessed by asking nonusers who intend to use in the future which methods they prefer to use. Table 5.15 presents information on method preference among currently married nonusers who say they intend to use in the future. The IUD and withdrawal are the most popular methods among women who intend to use in the future (28 percent and 24 percent, respectively). Women age 30 and over are most likely to cite withdrawal (37 percent), followed by IUD (21 percent) and condom (16 percent). Younger women, on the other hand, are most likely to prefer the IUD (33 percent), although more than one in ten nonusers below 30 years of age state a preference for the condom, pill, or withdrawal (16, 13, and 14 percent, respectively).

Table 5.15 Preferred method of contraception for future use

Percent distribution of currently married women who are not using a contraceptive method but who intend to use in the future by preferred method, according to age, Armenia 2000

Preferred method	Age 15-29	Age 30-49	All women
Pill	12.7	8.7	10.9
IUD	32.7	20.6	27.5
Injectables	0.0	0.2	0.1
Diaphragm/foam/jelly	0.4	0.0	0.2
Condom	15.8	16.2	16.0
Periodic abstinence	4.8	7.3	5.9
Withdrawal	13.6	37.4	23.9
Lactational amenorrhea	0.3	0.0	0.2
Female condom	0.2	0.2	0.2
Douche	0.3	0.8	0.6
Unsure	19.3	8.4	14.6
Total	100.0	100.0	100.0
Number of women	328	251	578

5.13 Exposure to Family Planning Messages in the Mass Media

The mass media provide an opportunity to communicate family planning information to a broad spectrum of the population. Information on the level of exposure to such media is important for programmers and planners to effectively target population subgroups for information, education, and communication campaigns. Table 5.16 shows that almost nine in ten women have seen a mass media family planning message in the few months preceding the survey. This high level of exposure may be attributed to the implementation of the "Green Path" family planning social marketing program, which occurred during the few months preceding the survey.

Television is the most common source of messages on family planning: 87 percent of all female respondents have seen a family planning message on television. With the exception of women living in Lori Region and women with a primary/middle school education, more than eight in ten women of all ages, places of residence, and educational levels have seen a family planning message on television. Approximately one in four women have heard a family planning message on the radio (42 percent) or seen a message in a newspaper (38 percent).

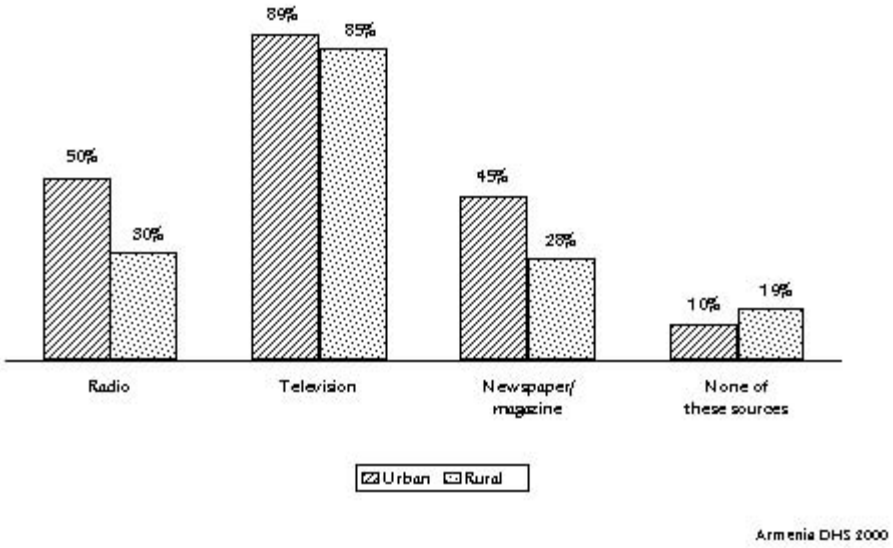
Table 5.16 Exposure to family planning messages

Percentage of women who have heard or seen a famiy planning message on radio, television, or newspaper/magazine in the few months preceding the survey, by background characteristics, Armenia, 2000

Background characteristic	Exposed to family planning messages on			None of these three sources	Number of women
	Radio	Television	Newspaper/ magazine		
Age					
15-19	40.5	84.6	33.6	14.6	1,160
20-24	45.7	90.2	41.6	8.2	1,007
25-29	43.6	90.6	42.7	8.2	769
30-34	40.9	87.2	38.1	11.8	763
35-39	39.5	85.7	37.1	12.5	962
40-44	42.2	85.7	38.3	13.3	947
45-49	41.2	87.1	36.2	11.8	822
Residence					
Urban	49.7	88.8	44.6	10.0	3,942
Rural	29.6	84.6	27.6	14.3	2,488
Region					
Yerevan	57.2	89.7	48.1	9.1	2,206
Aragatsotn	58.3	87.0	53.9	12.0	279
Ararat	33.5	93.3	37.6	6.4	642
Armavir	17.8	89.3	13.3	10.5	553
Gegharkunik	29.9	80.0	28.2	18.2	484
Lori	24.2	75.1	21.8	22.0	489
Kotayk	31.2	87.4	20.7	11.2	505
Shirak	34.6	85.4	44.7	13.8	611
Syunik	63.6	89.3	56.1	9.3	271
Vayots Dzor	58.7	90.4	57.0	8.3	113
Tavush	31.5	82.5	29.4	15.9	278
Education					
Primary/middle	21.6	70.8	17.5	28.4	593
Secondary	35.7	85.9	30.7	12.9	2,341
Secondary-special	45.7	89.5	40.9	9.3	2,295
Higher	56.8	93.1	56.9	5.3	1,201
Total	41.9	87.2	38.0	11.6	6,430

There is a significant relationship between women who are not exposed to family planning messages at all and place of residence and educational level. Women living in rural areas and women with lower levels of education are less likely to have been exposed to a message than urban dwellers and women with higher levels of education (Figure 5.4).

Figure 5.4 Percentage of Women Exposed to Family Planning Messages by Residence



5.14 Contact of Nonusers of Family Planning with Family Planning Providers

Table 5.17 shows the percent distribution of female nonusers by their exposure to a family planning provider. Among women not using a method of contraception, very few discussed family planning with either a fieldworker or with someone at a health facility (2 percent each). Variation by background characteristic is not significant with the exception of Tavush where 9 percent of women discussed family planning with a fieldworker and 11 percent discussed family planning in a health facility. Approximately one-fifth of nonusers visited a health facility but did not discuss family planning.

Table 5.17 Contact of nonusers with family planning providers

Percent distribution of women who are not using contraception by whether they were visited by a family planning worker or spoke with a health facility staff member about family planning methods during the 12 months preceding the survey, according to background characteristics, Armenia 2000

Background characteristic	Women who were visited by a health worker who discussed family planning	Women who visited a health facility and discussed family planning	Women who visited a health facility but did not discuss family planning	Neither visited by a health worker nor discussed family planning at health facility	Number of women
Age					
15-19	0.9	0.3	8.2	98.9	1,135
20-24	2.0	3.5	18.9	95.2	723
25-29	3.3	5.2	32.0	93.4	332
30-34	2.8	4.3	31.0	94.0	291
35-39	2.9	2.5	22.7	95.0	383
40-44	1.2	1.3	19.4	97.7	489
45-49	1.8	1.1	20.1	97.4	568
Residence					
Urban	1.3	1.8	18.8	97.2	2,523
Rural	2.8	2.5	17.6	95.7	1,398
Region					
Yerevan	1.4	1.2	19.3	97.5	1,466
Aragatsotn	2.2	2.2	21.2	96.3	158
Ararat	2.3	1.3	13.6	96.3	342
Armavir	2.2	2.6	14.2	96.0	306
Gegharkunik	2.7	3.7	22.1	94.6	291
Lori	0.9	0.4	22.9	98.7	266
Kotayk	0.0	1.3	18.7	98.7	339
Shirak	0.3	0.7	12.2	99.0	358
Syunik	1.5	4.5	22.0	95.0	185
Vayots Dzor	8.5	4.9	12.1	91.1	61
Tavush	9.0	11.2	22.8	85.4	149
Education					
Primary/middle	0.9	0.6	17.1	98.8	455
Secondary	2.1	1.7	17.7	96.8	1,430
Secondary-special	1.4	2.8	19.3	96.4	1,293
Higher	2.6	2.3	19.0	95.4	744
Total	1.8	2.1	18.4	96.6	3,922

5.15 Couples' Communication about Family Planning

Spousal communication is an important intermediate step toward eventual adoption and use of contraceptive methods. Table 5.18 shows that more than half of all currently married women have never discussed family planning with their husband. Women in their twenties are more likely to have discussed family planning than women of other cohorts. Overall, 32 percent of women have discussed family planning with their husband once or twice in the year preceding the survey, and 12 percent have discussed this topic more often.

Table 5.18 Discussion of family planning with husband

Percent distribution of currently married women who know a contraceptive method by the number of times family planning was discussed with their husband in the past year, according to current age, Armenia 2000

	Number of times family planning was discussed with husband					
Age	Never	Once or twice	Three or more times	Missing	Total	Number of women
15-19	58.6	31.0	9.1	1.2	100.0	92
20-24	46.2	38.3	14.7	0.8	100.0	502
25-29	42.6	38.4	18.7	0.3	100.0	616
30-34	51.6	34.9	12.9	0.6	100.0	652
35-39	54.5	32.2	13.0	0.3	100.0	813
40-44	61.5	30.1	8.2	0.2	100.0	765
45-49	72.5	19.3	7.3	0.9	100.0	634
Total	55.4	31.9	12.2	0.5	100.0	4,074

5.16 Attitudes toward Family Planning

Use of effective contraceptive methods is facilitated when couples have a positive attitude toward family planning. Attitudinal data were collected by asking women whether they approve of couples using family planning and what they perceived as their husband's attitude toward family planning. This information is useful in the formulation of family planning policies, since it indicates the extent to which further education and publicity are needed to increase acceptance of family planning. Widespread disapproval of contraception can be a barrier to the adoption of methods.

Table 5.19 shows that overall, 86 percent of currently married women state that they approve of contraception, and 69 percent state that their husband approves. In general, the youngest and oldest husbands and wives are the least likely to approve. Approval of contraception correlates strongly with education, with approval ranging from 73 percent of women with a primary/middle education to 90 percent of women with a higher education. Similarly, according to their wives only 54 percent of men with a primary/middle school education approve of contraception, compared with 77 percent of men with a higher education. Overall, two-thirds of married respondents state that both they and their husband approve of contraception. It is significant that 7 percent of women state that they are unsure of their own attitude toward contraception and 15 percent are unsure of their husband's attitude.

Table 5.19 Attitudes of couples toward family planning

Percent distribution of currently married women who know of a method of family planning (FP), by approval of family planning and their perception of their husband's attitude toward family planning, according to background characteristics, Armenia 2000

Background characteristic	Woman approves of FP			Woman disapproves of FP			Woman is unsure	Total	Overall approval		Number of women
	Both approve	Husband disapproves	Husband's attitude unknown	Husband approves	Both disapprove	Husband's attitude unknown			Wife approves	Husband approves[1]	
Age											
15-19	48.8	4.5	22.5	2.8	4.0	2.9	14.5	100.0	75.8	52.9	92
20-24	68.1	4.9	14.8	0.9	3.4	0.3	7.7	100.0	87.7	70.2	502
25-29	74.2	5.9	8.8	1.2	3.5	1.9	4.5	100.0	88.9	76.4	616
30-34	70.1	6.9	10.9	1.7	5.3	1.2	3.8	100.0	87.9	72.3	652
35-39	67.0	6.7	11.8	2.2	3.7	1.9	6.6	100.0	85.5	70.3	813
40-44	66.0	5.1	14.0	1.1	6.3	2.1	5.4	100.0	85.0	68.0	765
45-49	56.7	4.7	18.7	1.6	5.7	2.5	10.1	100.0	80.2	58.9	634
Residence											
Urban	68.7	6.1	11.4	1.3	4.8	1.7	6.1	100.0	86.1	70.7	2,369
Rural	63.5	5.2	15.9	1.9	4.6	1.8	7.0	100.0	84.7	66.5	1,705
Region											
Yerevan	69.2	5.6	10.7	1.1	5.2	1.3	6.9	100.0	85.5	71.0	1,271
Aragatsotn	72.9	6.4	7.0	2.1	7.3	1.8	2.4	100.0	86.3	75.1	190
Ararat	64.5	4.3	21.6	1.5	1.8	1.5	4.8	100.0	90.4	66.2	448
Armavir	61.1	6.9	19.2	0.3	3.0	1.5	8.1	100.0	87.1	62.3	373
Gegharkunik	64.0	8.2	11.4	2.3	5.8	3.2	5.0	100.0	83.6	67.5	338
Lori	63.2	4.8	20.4	2.2	2.6	2.2	4.5	100.0	88.5	67.3	321
Kotayk	68.2	6.9	10.5	2.2	3.6	1.1	7.6	100.0	85.6	71.5	314
Shirak	69.9	6.3	5.0	2.6	8.6	2.3	5.3	100.0	81.1	73.5	375
Syunik	50.3	3.2	17.4	0.6	7.7	3.2	17.4	100.0	71.0	51.9	170
Vayots Dzor	67.3	4.5	12.6	1.0	4.5	1.0	9.1	100.0	84.5	71.2	76
Tavush	72.6	4.0	14.2	1.7	1.7	1.7	4.0	100.0	90.9	74.6	196
Education											
Primary/middle	51.9	4.3	17.0	0.6	9.2	2.1	14.9	100.0	73.2	53.8	266
Secondary	64.7	5.6	15.0	1.4	4.4	2.1	6.7	100.0	85.4	67.1	1,508
Secondary-special	66.6	6.5	12.6	2.1	4.5	1.7	6.0	100.0	85.7	69.6	1,592
Higher	75.6	5.0	9.6	1.0	4.0	1.0	3.8	100.0	90.1	77.0	708
Total	66.5	5.7	13.3	1.5	4.7	1.8	6.5	100.0	85.5	68.9	4,074

[1] Includes women who are unsure about their own attitude, but know their husband's attitude

ABORTION 6

R. Abrahamyan and G. Avagyan

In Armenia, as in all former Soviet countries, induced abortion was the primary means of fertility control for many years. Induced abortion was first legalized in the Soviet Union in 1920 but was banned in 1936 as part of a pronatalist policy. This decision was reversed in 1955 when abortion for nonmedical reasons was again legalized throughout the former Soviet Union.

The practice of induced abortion can adversely affect a woman's health, reduce her chances for further childbearing, and contribute to maternal and perinatal mortality. According to official statistics, in Armenia, induced abortions account for a significant proportion of maternal deaths (between 10 and 20 percent). In an effort to reduce the number of induced abortions, the Ministry of Health, with assistance from UNFPA, implemented the Armenian National Family Planning Program in 1997.

Information about induced abortion was collected through a detailed reproductive history. In collecting the histories, each woman was first asked about the total numbers of pregnancies that had ended in live births, induced abortions, self-induced abortions, miscarriages, and stillbirths. After obtaining these aggregate data, an event-by-event pregnancy history was collected. For each pregnancy, the duration, the month and year of termination, and the outcome of the pregnancy were recorded.[1]

6.1 Pregnancy Outcomes

Table 6.1 shows the percent distribution of pregnancy outcomes occurring during the three-year period preceding the survey (approximately from November 1997 to November 2000). Slightly more than one-third of pregnancies resulted in a live birth (38 percent), while more than half resulted in an induced abortion (55 percent).[2] Miscarriages and stillbirths compose 7 percent and 0.5 percent, respectively, of all pregnancy outcomes.

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[1] The pregnancy history was structured to ensure as complete reporting of abortions as possible, especially for the period immediately before the survey. Data were collected in reverse chronological order (i.e., information was first collected about the most recent pregnancy and then about the next to last and so on). This procedure was designed to result in more complete reporting of events for the years immediately before the survey than collecting information in chronological order. At the end of the pregnancy history, interviewers were required to check the consistency between the aggregate data collected at the outset of the reproductive section and the number of events reported in the pregnancy history.

[2] The subsequent analysis combines "self-induced abortion" into the "induced abortion" category. Whereas other research has indicated a significant proportion of self-induced abortions (see Khachikyan et al., 1998), only 37 women in the ADHS sample reported inducing an abortion themselves without the assistance of a medical professional.

Table 6.1 Pregnancy outcomes by background characteristics

Percent distribution of pregnancies terminating in the three years preceding the survey by type of outcome, according to background characteristics, Armenia 2000

Background characteristic	Pregnancy outcome: Live birth	Induced abortion	Mis-carriage	Still-birth	Total	Number of pregnancies
Residence						
Urban	38.3	53.9	7.2	0.6	100.0	1,202
Rural	36.9	56.1	6.6	0.4	100.0	1,220
Region						
Yerevan	40.9	52.7	5.7	0.7	100.0	626
Aragatsotn	32.0	60.6	7.1	0.4	100.0	155
Ararat	40.5	52.0	7.5	0.0	100.0	287
Armavir	28.1	64.0	7.9	0.0	100.0	299
Gegharkunik	38.0	55.7	5.6	0.7	100.0	284
Lori	51.7	41.3	7.0	0.0	100.0	171
Kotayk	26.8	63.7	8.3	1.3	100.0	178
Shirak	33.1	58.1	8.8	0.0	100.0	184
Syunik	36.1	56.0	7.8	0.0	100.0	91
Vayots Dzor	51.9	42.2	5.8	0.0	100.0	38
Tavush	43.9	48.0	6.1	2.0	100.0	111
Education						
Primary/middle	48.8	43.3	7.1	0.9	100.0	188
Secondary	35.6	57.4	6.4	0.6	100.0	994
Secondary-special	34.8	58.5	6.5	0.2	100.0	893
Higher	44.7	45.8	8.9	0.6	100.0	347
Total	37.6	55.0	6.9	0.5	100.0	2,423

There is no significant difference in pregnancy outcome by urban-rural residence. It is interesting to note that there is a curvilinear relationship between induced abortion and education. Women with a primary/middle education have the lowest percentage of pregnancies resulting in induced abortion (43 percent). Approximately one-third more pregnancies end in abortion among women with a secondary or secondary-special education (57 percent and 59 percent, respectively). Among women with higher education, the percentage of pregnancies ending in abortion is virtually the same as the percentage for women with primary/middle school education (46 percent).

There is significant variation between pregnancy outcomes among regions, ranging from a low of 41 percent of pregnancies in Lori resulting in induced abortion to a high of 64 percent in Armavir and Kotayk.

6.2 Lifetime Experience with Induced Abortion

Table 6.2 shows women's lifetime experience with abortion. The statistics on the proportion of women who have ever had an abortion are based on all women 15-49 irrespective of their exposure to the risk of pregnancy.

Almost half of all respondents have had an induced abortion (47 percent). The mean number of abortions per woman is 3.3. As expected, the frequency of abortions increases with age: among women 20-24 years of age 14 percent have had an abortion, compared with 57 percent of women age 25-34 and 73 percent of women age 35 and older. There is also a positive relationship between having had an induced abortion and number of living children. Less than 1 percent of women with no living children have had an abortion, compared with 25 percent of women with one child, 77 percent of women with two to three children and 84 percent of women with four or more children.

Table 6.2 Lifetime experience with induced abortion

Percentage of women who have had at least one induced abortion, and among these women, percent distribution by number of abortions, and the mean number of abortions, according to background characteristics, Armenia 2000

Background characteristic	Percentage with an induced abortion	Number of women	Distribution of women who have had an induced abortion by number of abortions					Mean number of abortions	Number of women with abortions
			1	2-3	4-5	6+	Total		
Current age									
<20	0.6	1,160	*	*	*	*	*	*	6
20-24	13.8	1,007	60.2	33.1	6.3	0.4	100.0	1.7	139
25-34	56.5	1,531	32.6	42.8	14.4	10.2	100.0	2.9	866
35+	73.1	2,731	19.9	43.2	19.9	17.1	100.0	3.7	1,997
Number of living children									
0	0.5	2,121	*	*	*	*	*	*	10
1	25.0	662	53.6	26.3	14.3	5.7	100.0	2.3	165
2-3	76.8	3,237	25.2	44.2	16.9	13.6	100.0	3.3	2,487
4+	84.3	410	13.1	38.6	24.8	23.5	100.0	4.4	346
Residence									
Urban	45.0	3,942	25.0	44.6	17.0	13.4	100.0	3.2	1,776
Rural	49.5	2,488	26.3	39.6	18.6	15.5	100.0	3.5	1,233
Region									
Yerevan	44.1	2,206	25.3	44.6	16.7	13.4	100.0	3.2	972
Aragatsotn	51.4	279	25.3	46.6	12.4	15.7	100.0	3.4	144
Ararat	50.0	642	27.3	45.7	19.1	7.8	100.0	3.0	321
Armavir	51.1	553	25.7	37.9	19.4	17.0	100.0	3.5	283
Gegharkunik	53.8	484	18.6	33.5	20.9	27.0	100.0	5.0	260
Lori	38.6	489	42.4	38.6	13.9	5.1	100.0	2.4	189
Kotayk	49.4	505	16.4	38.2	21.4	24.1	100.0	4.1	250
Shirak	45.9	611	27.0	48.2	15.5	9.3	100.0	2.9	281
Syunik	46.2	271	26.8	46.5	18.0	8.8	100.0	2.8	125
Vayots Dzor	41.9	113	25.0	51.6	16.7	6.8	100.0	2.8	47
Tavush	49.4	278	25.7	38.4	19.2	16.7	100.0	3.5	137
Education									
Primary/middle	30.4	593	22.4	37.1	20.6	19.9	100.0	3.9	180
Secondary	47.8	2,341	26.3	40.5	17.5	15.8	100.0	3.5	1,119
Secondary-special	54.1	2,295	23.7	44.5	18.2	13.7	100.0	3.3	1,241
Higher	39.0	1,201	30.0	44.4	15.5	10.1	100.0	3.0	468
Current marital status									
Never married	0.2	1,851	*	*	*	*	*	*	4
Currently married	66.7	4,125	25.2	42.3	17.7	14.8	100.0	3.4	2,752
Formerly married	55.6	455	28.2	45.8	16.9	9.1	100.0	3.0	253
Total	46.8	6,430	25.5	42.5	17.6	14.3	100.0	3.3	3,008

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

There are no pronounced differentials between the prevalence of induced abortions and urban-rural residence. There is a curvilinear relationship between education and induced abortion with both the least and most educated women less likely to resort to induced abortion than other women. It is possible that higher levels of fertility among less educated women accounts for the low recourse to abortion (i.e., when a woman gets pregnant, she is more likely to give birth); at the same time, it is possible that women with higher education, who use more reliable methods of birth control, are less likely to become accidentally pregnant in the first place.

There is significant variation in lifetime experience of induced abortion by region; prevalence in Lori and Vayots Dzor (39 percent and 42 percent, respectively), is significantly lower than other regions such as Gegharkunik (54 percent), Aragatsotn, and Armavir (51 percent each).

Among women who have ever had an abortion, three-fourths have had more than one abortion. Forty-three percent of women reported 2 to 3 abortions, and 18 percent reported 4 to 5. Fourteen percent had 6 or more abortions; for these women, abortion is the main method of fertility control. Table 6.2 shows that certain regions have very high percentages of repeat abortions. In Gegharkunik and Kotayk, for example, more than eight in ten women who have ever had an abortion have had a repeat abortion.

These data confirm the results of a survey conducted in Armenia in 1997 that found that 65 percent of ever-married respondents had had an induced abortion. Among women who had ever had an abortion, 79 percent had more than one abortion (NPRH, 1998).

6.3 Rates of Induced Abortions

In this section, rates of induced abortion are shown for the three-year period preceding the ADHS survey (approximately from November 1997 to November 2000). Three types of rates are presented: age-specific abortion rates, the total abortion rate, and the general abortion rate. Age-specific rates (ASARs), which are shown per 1,000 women, express the number of abortions among women of a given age, divided by the total number of women in that age group. The total abortion rate (TAR), which is expressed per woman, is a summary measure of the age-specific rates. The TAR is interpreted as the number abortions a woman would have in her lifetime if she experienced the currently observed age-specific rates during her childbearing years.

As shown in Table 6.3, at the national level, the age-specific rates for induced abortion increase in the first few age groups of women, peak among women age 25-29 (175 per 1,000 women), and decline in the older ages. Age-specific abortion rates are lower than the fertility rates of women under age 25 but are greater than the fertility rates for older women (Figure 6.1).

The total abortion rate is 2.6. The rural TAR is more than 60 percent higher than the urban TAR (3.4 versus 2.1). The age-specific abortion rates are higher among rural women than among urban women for all but the youngest and oldest cohorts.

Table 6.3 Induced abortion rates

Age-specific induced abortion rates (per 1,000 women) and total abortion rates for the three-year period preceding the survey, Armenia 2000

	Age-specific abortion rates		
Age	Urban	Rural	Total
15-19	6	6	6
20-24	85	124	99
25-29	128	241	175
30-34	99	176	131
35-39	73	96	82
40-44	29	31	30
45-49	7	5	6
Rates			
Total abortion rate 15-49[1]	2.1	3.4	2.6
Total abortion rate 15-44[1]	2.1	3.4	2.6
General abortion rate[2]	65	106	81

[1] Total abortion rate expressed per woman
[2] General abortion rate (abortions divided by number of women 15-44) expressed per 1,000 women

Figure 6.1 Age-specific Fertility Rates (ASFRs) and Age-Specific Abortion Rates (ASARs)

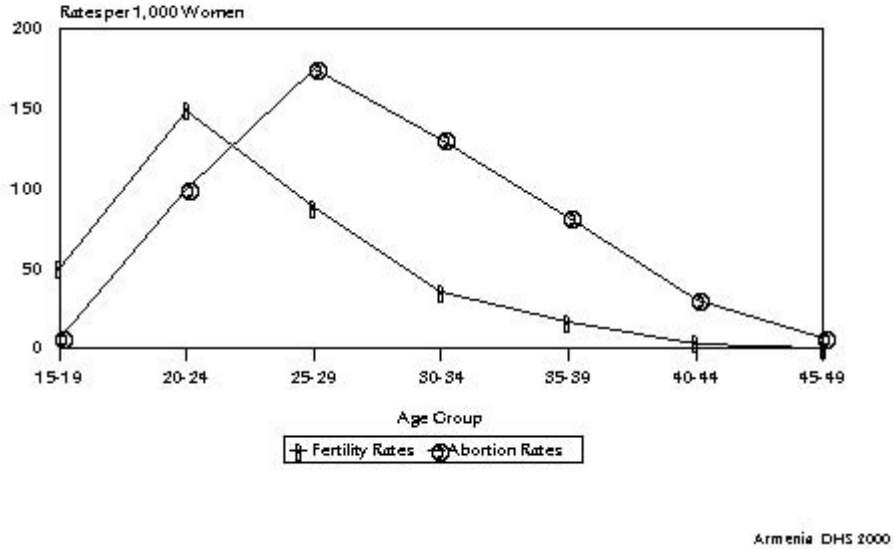


Table 6.4 and Figure 6.2 show induced abortion rates by background characteristics. There are significant differentials by background characteristics. Total abortion rates vary by residence: the TAR in rural areas is higher by more than one abortion per woman than in urban areas (3.4 versus 2.1). It should be noted that significantly more rural than urban married women use withdrawal (40 percent versus 26 percent), which is one of the least reliable methods of contraception (see Table 5.5). Thus, the higher rural TAR may be attributed, at least in part, to the higher proportion of women who are trying, unsuccessfully, to control their fertility by using withdrawal.

The total abortion rates also vary by region from a low of 1.8 in Lori to a high of 4.3 in Gegharkunik. Yerevan has a TAR of 1.9. The TAR has a negative relationship with education. For example, women with a primary/middle school education have a TAR of 2.9, while women with higher education have a TAR of 1.7.

The TAR in Armenia is significantly higher than any post-Soviet Central Asian country where TARs range from a low of 0.7 in Uzbekistan (IOG and MI, 1997) to 1.6 in the Kyrgyz Republic (RIOP and MI, 1998). However, Armenia's Caucasian neighbor Georgia has a significantly higher TAR: 3.7 compared with 2.6 in Armenia (Serbanescu et al., 2000). It should be noted that fertility levels in the two countries are the same (1.7 TFRs), but contraceptive prevalence in Georgia is significantly lower (41 percent versus 61 percent in Armenia).

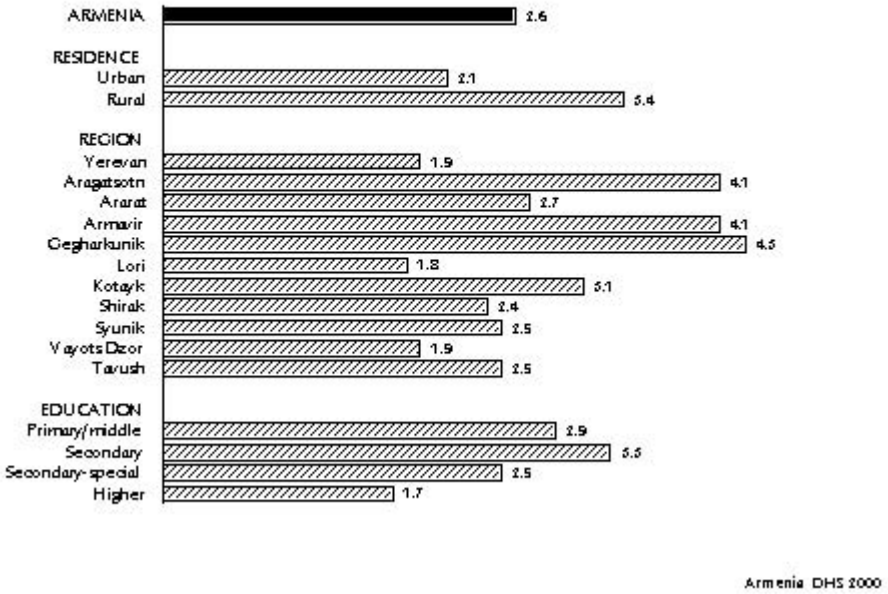
Table 6.4 Induced abortion rates by background characteristics

Total induced abortion rates for the three years preceding the survey and mean number of abortions among women age 40-49, by background characteristics, Armenia 2000

Background characteristic	Total abortion rate [1]	Mean number of abortions among women age 40-49
Residence		
Urban	2.1	2.7
Rural	3.4	3.0
Region		
Yerevan	1.9	2.6
Aragatsotn	4.1	2.9
Ararat	2.7	2.9
Armavir	4.1	2.8
Gegharkunik	4.3	5.4
Lori	1.8	1.6
Kotayk	3.1	3.5
Shirak	2.4	1.9
Syunik	2.5	2.4
Vayots Dzor	1.9	2.2
Tavush	2.5	3.1
Education		
Primary/middle	2.9	3.1
Secondary	3.3	3.0
Secondary-special	2.5	2.8
Higher	1.7	2.2
Total	2.6	2.8

[1] Rate for women age 15-49

Figure 6.2 Total Abortion Rate (Abortions per Woman) by Background Characteristics



6.4 Trends in Induced Abortions

Using the ADHS data, induced abortion trends can be assessed in several ways. One approach is to compare the total abortion rate at the time of the survey with the mean number of abortions to women age 40-49. On average, women who have come to the end of their reproductive years have had an average of 2.8 abortions (Table 6.4). There is no difference between the mean number of abortions to women age 40-49 and the total abortion rate (2.8 versus 2.6). These data indicate that, overall, there has been no significant increase or decrease in levels of induced abortion over the last several decades. Trends do appear, however, by certain background characteristics. The data indicate a decline in levels of abortion among urban women and a slight increase among rural women. Furthermore, in Yerevan, Gegharkunik, and Tavush, the difference between the mean number of abortions to women age 40-49 indicates a decrease in abortions. In Aragatsotn, Armavir, and Shirak, on the other hand, the level of abortions seems to have increased.

Another approach to understanding abortion trends is to examine the ASARs over time. Because women age 50 and above were not interviewed in the survey, the rates are successively truncated as the number of years before the survey increases (Table 6.5). These data indicate a decline in abortion during the most recent period, from a TAR (for women 15-44) of 3.1 for the period 5-9 years before the survey to 2.7 for the period 0-4 years preceding the survey. The data presented in Table 6.5 indicate that during the period 5-14 years preceding the survey, levels of induced abortion were higher than before or after. This is shown by the ASARs for cohorts age 20-24 and 25-29. The rates shown for each cohort for the earliest period (15-19 years before the survey) and the most recent period (0-4 years before the survey) are identical, whereas they are significantly higher for the middle period. This period of higher abortion levels corresponds to calendar years 1987 through 1996.

Table 6.5 Trends in induced abortion rates

Age-specific induced abortion rates (per 1,000 women) for five-year periods preceding the survey, by woman's age at the time of the abortion, Armenia 2000

Woman's age at the time of the abortion	Number of years preceding the survey			
	0-4	5-9	10-14	15-19
15-19	6	12	6	7
20-24	104	147	133	103
25-29	180	194	192	180
30-34	128	139	166	[187]
35-39	84	83	[132]	-
40-44	31	[46]	-	-
45-49	[7]	-	-	-
TAR 15-49	2.7	-	-	-
TAR 15-44	2.7	3.1	-	-

Note: Estimates in brackets are truncated. The total abortion rate (TAR) is expressed per woman.

6.5 Use of Contraceptive Methods before Abortions

It is important to know the contraceptive behavior of women that lead to an induced abortion. This information is of particular interest to both family planning counselors and abortion providers because a woman who has an abortion is either not using a method of contraception at the time of conception or is using (perhaps incorrectly) a method that failed. For each pregnancy that terminated in the three years preceding the survey, respondents were asked whether they were using a method of contraception at the time they became pregnant, and if so, which method.

Table 6.6 shows use of contraception at the time of conception. The majority of respondents who had an induced abortion were using a method of contraception at the time they became pregnant (64 percent). Thus, these abortions were the result of contraceptive failure. More than half of all induced abortions (52 percent) occurred after method failure of a traditional contraceptive method—46 percent while using withdrawal and 6 percent using periodic abstinence.

In addition to a high level of contraceptive failure, it is important to note that one-third of pregnancies resulting in induced abortion were not from women using any method of contraception to prevent the pregnancy. It seems clear that access to and use of more reliable methods of contraception would reduce the incidence of induced abortion, thus improving the reproductive health of the women of Armenia.

Table 6.6 Use of a method of contraception before pregnancies

Percent distribution of pregnancy outcomes in the three years preceding the survey by contraceptive method used at the time of conception, Armenia 2000

Methodused at time of conception	Pregnancy outcome			Total
	Live birth	Induced abortion	Mis-carriage	
No method used	82.6	36.2	74.4	56.5
Any method	17.4	63.8	25.6	43.5
Any modern method	5.1	8.7	4.5	7.0
Pill	0.0	0.5	0.0	0.3
IUD	0.1	0.9	0.0	0.5
Injectables	0.0	0.2	0.0	0.1
Condom	0.9	4.8	1.5	3.1
Female condom	0.1	0.1	0.0	0.1
Lactational amenorrhea	3.9	2.2	3.0	2.9
Any traditional method	11.9	52.4	21.1	34.8
Periodic abstinence	1.3	6.2	3.6	4.2
Withdrawal	10.6	46.2	17.5	30.7
Any folk method	0.5	2.7	0.0	1.6
Douche	0.3	2.1	0.0	1.3
Other	0.1	0.5	0.0	0.3
Total	100.0	100.0	100.0	100.0
Number of pregnancies	905	1,334	167	2,416

Note: Total includes 11 stillbirths, which are not shown separately.

OTHER PROXIMATE DETERMINANTS OF FERTILITY 7

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Given the biological capacity to reproduce, the social environment in which people live largely determines whether couples will have children, and if so, how many and with what kind of spacing. This chapter addresses the principal factors, other than contraception and abortion, that influence fertility. These factors include marriage (including consensual unions), sexual activity, postpartum amenorrhea and abstinence from sexual relations, and menopause.

Marriage is a primary indicator of a woman's exposure to the risk of pregnancy. More direct measures of exposure are age at first sexual intercourse and the frequency of intercourse. Postpartum amenorrhea and abstinence affect the interval between births. Menopause is important since it marks the end of a woman's period of exposure to the risk of pregnancy. None of these determining factors are independent; they interact and influence each other and affect fertility levels and trends. Their contribution varies from person to person, from region to region, and from time to time.

7.1 Marital Status

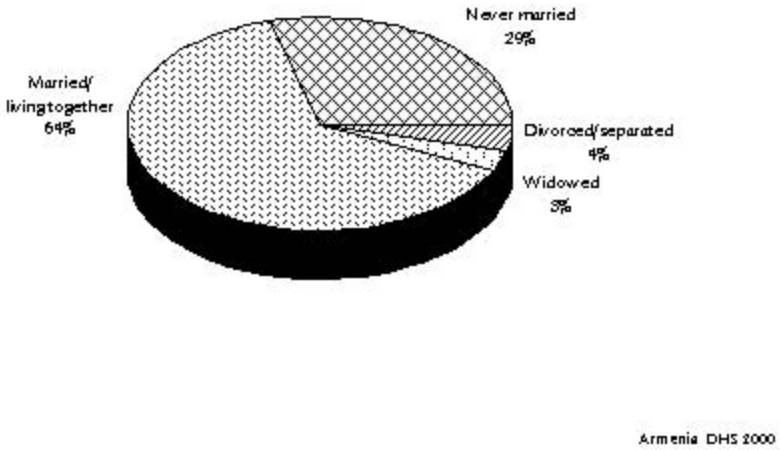
Table 7.1 and Figure 7.1 show the distribution of all women age 15-49 by current marital status at the time of the survey. The term "married" refers to legal or formal marriages (civil or religious), while "living together" refers to informal unions. In subsequent tables, these two categories are merged and referred to collectively as "currently married." Persons who are widowed, divorced, or separated are considered to be "formerly married." According to the ADHS, two-thirds of respondents (64 percent) are either formally married or cohabiting, 3 percent are widowed, 2 percent are divorced, and another 2 percent are separated. It is notable that the proportion of women in informal unions is less than 1 percent. Twenty-nine percent of women have never been married.

Table 7.1 Current marital status

Percent distribution of women by current marital status, according to age, Armenia 2000

	Marital status							
Age	Never married	Married	Living together	Widowed	Divorced	Separated	Total	Number of women
15-19	91.4	8.5	0.0	0.0	0.0	0.1	100.0	1,160
20-24	47.5	50.5	0.2	0.3	0.8	0.7	100.0	1,007
25-29	13.5	80.9	0.4	1.3	1.6	2.1	100.0	769
30-34	5.3	85.9	0.7	2.6	2.2	3.3	100.0	763
35-39	5.8	84.2	0.6	4.4	3.1	2.0	100.0	962
40-44	6.9	81.2	0.5	5.7	3.3	2.4	100.0	947
45-49	5.7	77.2	0.6	9.8	3.5	3.1	100.0	822
Total	28.8	63.7	0.4	3.3	2.0	1.8	100.0	6,430

Figure 7.1 **Marital Status of Respondents**



These data confirm the near universality of marriage in Armenia. The proportion of women currently married increases with age up to age 30-34 and then begins to decline as proportions of women widowed, divorced, or separated increase. Among women age 45-49, only 6 percent have never married, 78 percent are married or cohabiting with a man, and 16 percent are formerly married. The main reason for marital disruption among this age group is widowhood (10 percent).

7.2 Age at First Marriage and Sexual Intercourse

Marriage is an important demographic and social indicator; it generally marks the point in a person's life when parenthood becomes welcome. Information on age at first marriage was obtained by asking all ever-married respondents the month and year they started living together with their first spouse. The ADHS also asked women to state the age at which they first had sexual intercourse.

Overall, the ADHS results indicate that among Armenian women, age at first marriage and age at first intercourse correspond almost exactly. Tables 7.2 and 7.3 indicate that by age 20 virtually the same proportion have married (44 percent) as have had sexual intercourse (45 percent). By age 25, 82 percent of women have married and 81 percent have had sexual intercourse. The relationship between first marriage and first sexual intercourse is also observed in the decreasing ages of each over the last several decades. The median age of both first marriage and first intercourse decreased slightly from just over 21 among women age 45-49 to just under 20 among women age 25-29.

Table 7.2 Age at first marriage

Percentage of women who were first married by specified exact ages, and median age at first marriage, according to current age, Armenia 2000

Current age	Percentage of women who were first married by exact age: 15	18	20	22	25	Percentage who were never married	Number of women	Median age at first marriage
15-19	0.6	na	na	na	na	91.4	1,160	-
20-24	0.8	19.1	37.2	na	na	47.5	1,007	-
25-29	0.3	22.1	53.1	70.0	82.4	13.5	769	19.8
30-34	0.3	16.8	48.8	69.9	87.7	5.3	763	20.1
35-39	0.0	12.9	43.6	66.0	83.2	5.8	962	20.5
40-44	0.2	11.9	38.9	59.2	78.2	6.9	947	21.0
45-49	0.4	15.2	39.4	58.6	77.7	5.7	822	21.1
25-49	0.2	15.5	44.4	64.5	81.7	7.3	4,263	20.5

Note: The medians for cohorts 15-19 and 20-24 could not be determined because less than 50 percent of the women had married for the first time by the lower boundary of the age interval.
na = Not applicable

Table 7.3 Age at first sexual intercourse

Percentage of women who had first sexual intercourse by specified exact ages and median age at first intercourse by current age, Armenia 2000

Current age	Percentage of women who had first sexual intercourse by exact age: 15	18	20	22	25	Percentage who never had intercourse	Number of women	Median age at first intercourse
15-19	0.6	na	na	na	na	91.4	1,160	-
20-24	0.8	19.2	37.1	na	na	47.4	1,007	-
25-29	0.4	22.7	53.5	69.4	82.0	13.4	769	19.7
30-34	0.3	17.4	50.0	70.4	87.5	4.9	763	20.0
35-39	0.0	13.1	44.0	65.5	82.5	5.6	962	20.5
40-44	0.2	12.3	39.9	59.8	78.7	6.3	947	20.9
45-49	0.1	15.4	39.4	58.3	77.0	5.6	822	21.1
25-49	0.2	15.9	45.0	64.4	81.4	7.0	4,263	20.5

Note: The medians for cohorts 15-19 and 20-24 could not be determined because less than 50 percent of the women had intercourse for the first time by the lower boundary of the age interval.
na =Not applicable

Among all women age 25-49, the median age at both first marriage and first intercourse was 20.5 years (Tables 7.4 and 7.5). The median ages at first marriage and first intercourse were higher among urban women than rural women. As expected, there is a positive relationship between education and age at first marriage (and first intercourse). Among women with a primary/middle school education, the median age at first marriage is approximately 19. The median age increases steadily with increasing education to just over 23 among women with higher education.

Table 7.4 Median age at first marriage

Median age at first marriage among women age 25-49, by current age and background characteristics, Armenia 2000

Background characteristic	Current age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Urban	20.6	20.7	21.1	21.4	21.6	21.1
Rural	18.9	19.4	19.7	20.5	19.9	19.7
Region						
Yerevan	21.3	21.4	21.2	21.7	22.1	21.5
Aragatsotn	18.6	19.2	20.6	21.6	21.6	20.1
Ararat	18.9	19.2	19.3	20.6	20.1	19.5
Armavir	18.9	20.1	20.7	20.8	20.2	20.1
Gegharkunik	18.4	19.0	19.5	19.9	19.7	19.3
Lori	20.1	20.0	20.9	19.9	20.6	20.3
Kotayk	19.8	19.5	19.6	20.7	20.7	20.0
Shirak	19.8	20.3	20.7	21.5	20.9	20.8
Syunik	19.5	19.5	20.2	21.1	20.1	20.2
Vayots Dzor	19.9	20.1	20.3	20.7	20.9	20.4
Tavush	19.8	19.4	21.4	20.6	20.9	20.5
Education						
Primary/middle	17.9	17.9	18.8	20.0	18.3	18.8
Secondary	18.3	18.8	19.5	19.8	19.3	19.1
Secondary-special	20.1	20.3	20.6	21.1	21.1	20.6
Higher	22.9	22.3	23.6	23.3	24.3	23.3
Total	19.8	20.1	20.5	21.0	21.1	20.5

Note: The medians for cohorts 15-19 and 20-24 could not be determined because less than 50 percent of the women had married for the first time by the lower boundary of the age interval.

Median age at first marriage and first intercourse varies little by region. The highest median age is in Yerevan (21.5 for first marriage and first sexual intercourse) and the lowest is in Gegharkunik (19.3 for first marriage and 19.2 for first intercourse).

Table 7.5 Median age at first intercourse

Median age at first sexual intercourse among women age 25-49, by current age and background characteristics, Armenia 2000

Background characteristic	Current age 25-29	30-34	35-39	40-44	45-49	Women age 25-49
Residence						
Urban	20.6	20.7	21.1	21.3	21.6	21.1
Rural	18.9	19.3	19.7	20.5	20.0	19.6
Region						
Yerevan	21.2	21.3	21.2	21.6	22.0	21.5
Aragatsotn	18.7	19.0	20.6	21.6	22.0	20.1
Ararat	18.8	19.2	19.3	20.6	20.3	19.5
Armavir	18.9	19.9	20.7	20.2	20.1	19.9
Gegharkunik	18.4	19.0	19.5	19.7	19.7	19.2
Lori	20.1	19.9	20.7	19.9	20.4	20.2
Kotayk	19.8	19.5	19.7	20.5	20.7	20.0
Shirak	19.9	20.4	20.6	21.5	21.3	20.8
Syunik	19.8	19.4	20.3	21.0	20.3	20.2
Vayots Dzor	19.9	20.4	20.3	20.9	21.1	20.5
Tavush	19.7	19.3	21.4	20.6	20.8	20.5
Education						
Primary/middle	17.9	17.7	18.8	19.9	18.0	18.7
Secondary	18.3	18.8	19.5	19.7	19.4	19.1
Secondary-special	20.1	20.3	20.6	21.1	21.2	20.6
Higher	22.8	22.0	23.6	23.2	24.3	23.3
Total	19.7	20.0	20.5	20.9	21.1	20.5

Note: The medians for cohorts 15-19 and 20-24 could not be determined because less than 50 percent of women had intercourse for the first time by the lower boundary of the age interval.

7.3 Recent Sexual Activity

In the absence of contraceptive use, frequency of sexual intercourse is a direct determinant of pregnancy; therefore, knowledge of frequency is a useful indicator of exposure to pregnancy. The ADHS asked women the timing of their last sexual intercourse. Table 7.6 shows the percent distribution of women by time since their last sexual intercourse. Respondents are considered to be sexually active if they have had sexual intercourse at least once in the four weeks prior to the survey.

In the four weeks preceding the survey, more than half of women were sexually active (52 percent). Among the remaining women, 10 percent had sexual intercourse in the year preceding the survey and 9 percent reported sexual intercourse more than a year before. At the time of the survey 29 percent of all respondents had never had sexual intercourse. Among recently married women, some of the lack of recent sexual activity may be attributed to the fact that approximately 10 percent of married women reported that their husband was residing elsewhere (data not shown—see Chapter 2).

Table 7.6 Recent sexual activity

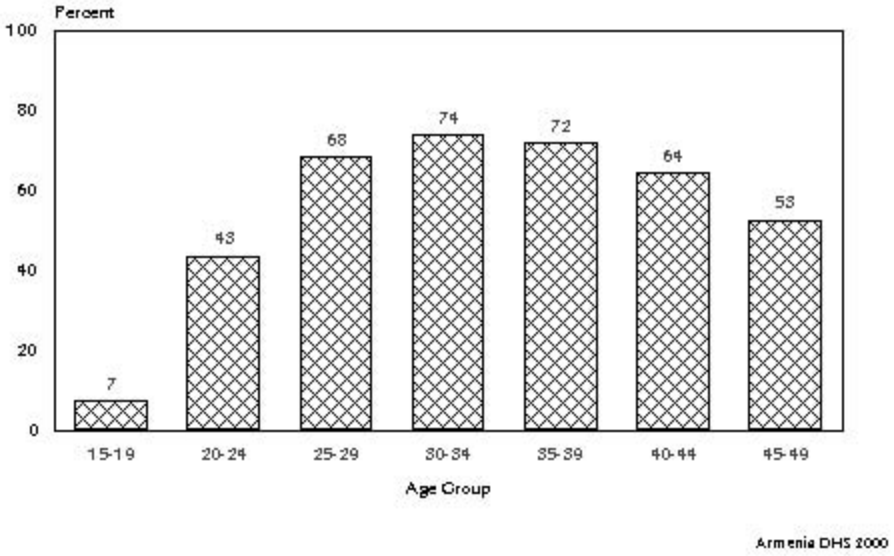
Percent distribution of women by timing of last sexual intercourse, according to background characteristics, Armenia 2000

Background characteristic	Time since last sexual intercourse: Within the past 4 weeks	Within 1 year	One or more years ago	Never had inter-course	Missing	Total	Number of women
Age							
15-19	7.5	1.0	0.0	91.4	0.1	100.0	1,160
20-24	43.4	6.7	2.3	47.4	0.2	100.0	1,007
25-29	68.3	10.6	6.5	13.4	1.3	100.0	769
30-34	73.7	10.4	9.7	4.9	1.3	100.0	763
35-39	71.8	9.2	12.3	5.6	1.0	100.0	962
40-44	64.2	13.4	14.5	6.3	1.6	100.0	947
45-49	52.5	18.8	21.4	5.6	1.6	100.0	822
Marital duration (years)							
Never married	0.1	0.2	0.4	99.3	0.0	100.0	1,851
Currently married	80.8	14.0	4.4	0.0	0.8	100.0	4,125
0-4	84.3	13.7	1.1	0.1	0.8	100.0	598
5-9	84.3	11.3	3.8	0.0	0.6	100.0	738
10-14	85.2	10.8	2.9	0.0	1.1	100.0	760
15-19	81.4	12.5	5.1	0.0	1.0	100.0	797
20-24	79.0	14.6	5.7	0.0	0.7	100.0	743
25+	66.5	25.1	8.1	0.0	0.3	100.0	489
Formerly married	1.1	6.1	86.2	0.0	6.6	100.0	455
Residence							
Urban	48.4	9.3	10.1	31.1	1.1	100.0	3,942
Rural	57.6	9.8	7.2	24.7	0.7	100.0	2,488
Region							
Yerevan	46.8	8.9	9.9	33.1	1.4	100.0	2,206
Aragatsotn	56.8	11.0	5.4	26.2	0.6	100.0	279
Ararat	58.0	10.1	5.7	25.5	0.7	100.0	642
Armavir	57.2	9.7	8.3	24.2	0.6	100.0	553
Gegharkunik	58.3	9.8	6.7	24.3	0.8	100.0	484
Lori	54.5	9.8	10.5	24.2	1.0	100.0	489
Kotayk	46.7	11.5	9.7	31.7	0.4	100.0	505
Shirak	48.2	8.9	13.6	28.3	1.0	100.0	611
Syunik	56.9	5.9	8.5	27.3	1.4	100.0	271
Vayots Dzor	56.6	12.2	6.1	24.9	0.2	100.0	113
Tavush	59.5	9.9	6.5	23.8	0.4	100.0	278
Education							
Primary/middle	36.3	8.4	9.3	45.3	0.7	100.0	593
Secondary	53.0	10.3	7.0	28.7	1.0	100.0	2,341
Secondary-special	56.1	10.0	11.7	21.3	1.0	100.0	2,295
Higher	49.8	7.5	7.6	34.0	1.1	100.0	1,201
Current contraceptive method							
No method	26.6	11.1	14.1	46.8	1.3	100.0	3,922
Pill	(92.1)	(7.9)	(0.0)	(0.0)	(0.0)	(100.0)	47
IUD	88.7	8.8	1.6	0.0	0.8	100.0	391
Condom	94.5	4.6	0.4	0.0	0.5	100.0	285
Female sterilization	66.8	19.2	11.8	1.0	1.2	100.0	117
Periodic abstinence	95.4	3.3	0.6	0.0	0.7	100.0	199
Withdrawal	93.5	6.1	0.2	0.0	0.2	100.0	1,317
Other	91.8	7.3	0.0	0.0	0.9	100.0	153
Total	52.0	9.5	9.0	28.6	1.0	100.0	6,430

Note: Figures in parentheses are based on 25 to 49 unweighted cases.

Figure 7.2 shows recent sexual activity by age. The proportion of women who were recently sexually active increases with age to peak at 74 percent among women age 30-34 and then declines to 53 percent among women age 45-49. Only 8 percent of women age 15-19 reported recent sexual activity; the majority (91 percent) have never had sexual intercourse. As previously noted, very few women reported sexual activity outside of marriage: 99 percent of never married women reported that they never had intercourse.

Figure 7.2 Recent Sexual Activity (in the Past 4 Weeks) among Women 15-49



Women with a primary/middle education are the least likely to have been sexually active in the recent period (36 percent) and women with a secondary-special education the most likely (56 percent). The proportion of sexually active women is significantly higher in rural communities (58 percent) than in urban areas (48 percent). There are also differences in recent sexual activity by region. Sexual activity was comparatively lower in Yerevan (47 percent), Kotayk (47 percent), and Shirak (48 percent), while the highest level of sexual activity was reported in Tavush (60 percent).

The ADHS also analyzed sexual activity according to current contraceptive use. The data show that the majority of women who had sexual intercourse in the four weeks preceding the survey were either not using a method of contraception or were using withdrawal, which is considered to be an unreliable method.

7.4 Postpartum Amenorrhea, Abstinence, and Insusceptibility

Postpartum amenorrhea refers to the interval between childbirth and the return of menstruation. During this period, the risk of pregnancy is reduced. The duration of reduced risk of conception largely depends on two factors: the length and intensity of breastfeeding, which tends to suppress the resumption of ovulation, and the length of time before the resumption of sexual intercourse. Women who are either amenorrheic or abstaining (or both) are considered insusceptible to the risk of pregnancy.

Among births that occurred in the three years preceding the survey, the percentage of mothers who were postpartum amenorrheic, abstaining, or insusceptible at the time of the survey is shown in Table 7.7. At the time of the survey, 15 percent of women who had given birth during the three years preceding the survey were amenorrheic and 7 percent were abstaining. Overall, 17 percent of these women were insusceptible. During the first year after birth, there is a rapid decline in postpartum amenorrhea from 100 percent during the first two months after birth to 8 percent

Table 7.7 Postpartum amenorrhea, abstinence, and insusceptibility

Percentage of births in the three years preceding the survey for which the mother is postpartum amenorrheic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Armenia 2000

Months since birth	Percentage of births for which the mother is: Amenorrheic	Abstaining	Insusceptible	Number of births
< 2	100.0	78.2	100.0	35
2-3	57.4	18.2	60.6	59
4-5	40.5	5.3	43.7	55
6-7	27.8	5.6	27.8	40
8-9	13.5	0.0	13.5	59
10-11	8.2	4.1	10.0	57
12-15	6.2	1.2	7.4	111
16-19	2.1	8.1	8.7	91
20-23	6.0	5.7	9.4	102
24-29	3.0	1.6	4.6	150
30-35	1.4	0.8	2.2	145
Total	15.1	7.0	17.2	905
Median	3.8	1.7	4.0	-
Mean	6.0	3.3	6.8	-

of women 10 to 11 months after giving birth. Postpartum abstinence declines rapidly after birth from 78 percent of women in the first two months to 18 percent of women after 2-3 months to 5 percent of women after 4-5 months. Overall, the median duration of insusceptibility after birth is 4 months.

7.5 Menopause

After age 30, the risk of pregnancy declines as increasing proportions of women become menopausal. Although the onset of menopause is difficult to determine for an individual woman, methods are available for estimating the proportion of women who are menopausal for the population as a whole. Table 7.8 presents data on the percentage of women age 30 and older who are menopausal, that is, who are not pregnant or postpartum amenorrheic and who have not menstruated for six months or longer in the period preceding the survey.

According to the ADHS, 7 percent of women age 30-49 are menopausal. The proportion of women menopausal increases with age from less than 1 percent of women age 30-34 to 32 percent of women age 48-49.

Table 7.8 Menopause

Percentage of nonpregnant and non-postpartum amenorrheic women age 30-49 who are menopausal, Armenia 2000

Age	Percentage menopausal[1]	Number of women
30-34	0.8	718
35-39	0.7	941
40-41	3.9	414
42-43	5.7	357
44-45	13.4	353
46-47	16.6	363
48-49	31.8	276
Total	7.1	3,422

[1] Women whose last menstrual period occurred six or more months before the survey.

FERTILITY PREFERENCES 8

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

8.1 FERTILITY PREFERENCES

In the ADHS, women were asked a series of questions about their fertility preferences. Table 8.1 shows the future reproductive intentions of currently married women by number of living children (including any current pregnancy). The majority of married Armenian women express a desire to control their future fertility. Almost three-fourths of the respondents (72 percent) state that they want no more children (Figure 8.1). As expected, the proportion of women who want no more children or are sterilized increases with parity. Nonetheless, it is significant that 3 percent of women with no living children and 20 percent of women with one living child do not want to have more children. According to Salvador and Danielian (1999), the majority of women involved in their study want to space or limit childbearing during the current economic climate. The majority of women with no living children or only one living child, however, do want to have another child (77 percent and 69 percent, respectively).

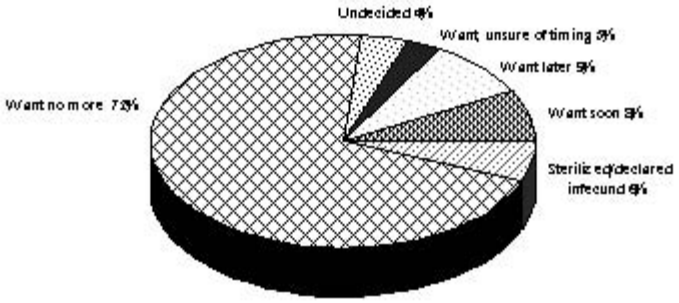
Table 8.1 Fertility preferences by number of living children

Percent distribution of currently married women by desire for children, according to number of living children, Armenia 2000

Desire for children	Number of living children[1]					Total
	0	1	2	3	4+	
Have another soon[2]	68.4	22.4	4.3	1.4	0.6	7.8
Have another later[3]	2.8	39.4	7.3	1.0	0.6	8.5
Have another, undecided when	5.9	6.7	3.1	0.6	0.9	2.7
Undecided	2.6	6.0	5.2	1.8	0.3	3.7
Want no more	3.3	19.7	75.8	89.8	90.4	71.7
Sterilized	0.9	2.1	2.1	3.2	4.7	2.7
Declared infecund	16.2	3.7	2.2	2.3	2.5	3.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	160	510	1,806	1,253	396	4,125

[1] Includes current pregnancy
[2] Wants next birth within 2 years
[3] Wants to delay next birth for 2 or more years

Figure 8.1 Desire for More Children among Currently Married Women



Armenia DHS 2000

Table 8.2 shows the percentage of currently married women who want no more children by number of living children, and background characteristics. Overall, rural women are slightly more likely to want no more children than urban women. At lower parities, however, urban women are more likely than rural women to state that they want no more children.

It is interesting to note that women with higher education are less likely than women with lower levels of educational attainment to desire to limit their childbearing. This can be explained, in part, by the fact that women with higher education are at lower parities than women with less education (data not shown). It is possible that some women with a primary/middle school education had already attained the number of children desired at the time of the survey, while women with a higher education had not. Furthermore, the findings of a previous survey indicate that in Armenia, the higher the level of education, the better the standard of living (NSS, 2001b). It is possible, then, that women with higher education believe that they have the financial resources to provide for another child.

Table 8.2 Desire to limit childbearing

Percentage of currently married women who want no more children, by number of living children and background characteristics, Armenia 2000

Background characteristic	Number of living children[1]					Total
	0	1	2	3	4+	
Residence						
Urban	5.1	26.5	80.0	90.9	95.5	72.6
Rural	2.1	12.5	73.7	95.0	95.0	76.7
Education						
Primary/middle	*	(37.0)	71.0	89.8	98.1	74.6
Secondary	3.9	18.5	78.1	93.7	94.6	76.7
Secondary-special	6.0	19.4	78.5	94.2	95.5	75.6
Higher	(0.0)	25.3	78.1	88.0	*	66.3
Total	4.1	21.8	77.9	93.0	95.1	74.4

Note: Women who have been sterilized are considered to want no more children. Figures in parentheses are based on 25 to 49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
[1] Includes current pregnancy

8.2 Need for Family Planning

Maternal health care services are concerned with defining the size of the population of women who have a potential need for family planning services and identifying women whose need for contraception is not being met. Currently married fecund women who either want no more children or want to wait at least two years before having another child, but who are not using contraception, are considered to have an *unmet need* for family planning.[1] Current users of family planning methods are said to have a *met need* for family planning. The *total demand* for family planning is the sum of the met need and unmet need for family planning.

Table 8.3 shows the demand for family planning services by background characteristics. The total demand for family planning among all women is 74 percent, and 84 percent of the demand is satisfied. The demand for limiting purposes (59 percent) is higher than the demand for spacing purposes (15 percent).

[1] For a description of the calculation, see footnote 1, Table 8.3.

Table 8.3 Need for family planning: currently married women

Percentage of currently married women with unmet need for family planning, and with met need for family planning, and the total demand for family planning, by background characteristics, Armenia 2000

Background characteristic	Unmet need for family planning[1]			Met need for family planning (currently using)[2]			Total demand for family planning[3]			Percentage of demand satis-fied	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total		
Age											
15-19	14.2	3.5	17.7	21.9	3.6	25.5	41.0	8.1	49.1	64.0	99
20-24	8.7	6.3	15.0	32.4	22.9	55.3	43.3	30.0	73.3	79.5	511
25-29	3.5	8.9	12.5	22.2	47.4	69.6	27.5	56.9	84.3	85.2	625
30-34	1.2	11.3	12.5	13.8	57.6	71.4	15.6	70.0	85.5	85.4	660
35-39	1.5	9.5	11.0	6.0	64.9	70.9	7.7	74.7	82.4	86.7	816
40-44	0.6	11.3	11.9	1.8	56.9	58.7	2.5	68.3	70.8	83.1	773
45-49	0.0	7.9	7.9	0.8	38.1	38.9	0.8	46.0	46.8	83.1	640
Residence											
Urban	2.8	8.8	11.6	12.5	46.6	59.1	15.9	55.5	71.4	83.7	2,391
Rural	2.2	9.9	12.0	10.8	51.7	62.5	14.1	62.5	76.6	84.3	1,733
Region											
Yerevan	3.0	9.4	12.4	13.7	43.3	57.1	17.1	52.7	69.9	82.3	1,291
Aragatsotn	2.1	9.3	11.3	10.4	52.5	63.0	14.6	62.7	77.3	85.3	193
Ararat	2.3	7.6	9.9	11.9	54.4	66.3	15.7	62.8	78.5	87.4	449
Armavir	1.2	7.5	8.7	14.1	51.2	65.3	16.5	59.9	76.3	88.6	373
Gegharkunik	2.6	14.8	17.4	12.2	44.1	56.2	15.9	59.7	75.7	77.0	341
Lori	4.4	6.3	10.7	15.9	52.2	68.1	20.7	58.9	79.6	86.5	323
Kotayk	2.5	12.2	14.7	7.6	45.0	52.5	10.8	57.6	68.3	78.4	316
Shirak	1.0	10.3	11.2	8.7	56.7	65.4	9.9	67.3	77.2	85.5	388
Syunik	3.5	6.0	9.5	5.4	44.3	49.7	9.5	50.9	60.4	84.3	173
Vayots Dzor	4.7	7.5	12.2	12.5	53.4	65.9	17.2	60.9	78.1	84.4	79
Tavush	1.7	7.6	9.3	6.5	57.3	63.8	9.0	66.1	75.1	87.6	198
Education											
Primary/middle	4.3	10.6	14.9	9.5	40.6	50.2	15.4	51.6	67.0	77.8	276
Secondary	2.6	9.6	12.2	10.0	49.2	59.2	13.3	59.7	73.0	83.3	1,537
Secondary-special	2.1	10.0	12.1	11.7	50.4	62.1	14.6	60.6	75.1	83.9	1,603
Higher	2.8	6.4	9.1	16.7	47.2	63.8	20.1	53.7	73.8	87.7	708
Total	2.6	9.3	11.8	11.8	48.7	60.5	15.1	58.5	73.6	84.0	4,125

[1] *Unmet need for spacing* includes pregnant women whose pregnancy was mistimed, amenorrheic women who are not using family planning and whose last birth was mistimed, and fecund women who are neither pregnant nor amenorrheic and who are not using any method of family planning and say they want to wait two or more years for their next birth. Also included in unmet need for spacing are fecund women who are not using any method of family planning and say they are unsure whether they want another child or who want another child but are unsure when to have the birth unless they say it would not be a problem if they discovered they were pregnant in the next few weeks. *Unmet need for limiting* refers to pregnant women whose pregnancy was unwanted, amenorrheic women whose last child was unwanted, and fecund women who are neither pregnant nor amenorrheic and who are not using any method of family planning and who want no more children. Excluded from the unmet need category are pregnant and amenorrheic women who became pregnant while using a method (these women are in need of better contraception).

[2] *Using for spacing* is defined as women who are using some method of family planning and say they want to delay their next child or are undecided whether to have another. *Using for limiting* is defined as women who are using and who want no more children. Note that the specific methods used are not taken into account.

[3] Nonusers who are pregnant or amenorrheic and whose pregnancy was the result of a contraceptive failure are not included in the category of unmet need, but are included in the total demand for contraception (since they would have been using had their method not failed).

Overall, 12 percent of the women have an unmet need for family planning, of which 3 percent is for spacing and 9 percent is for limiting. Unmet need is highest among the youngest women and among women with lower levels of educational attainment. Unmet need for family planning ranges from a low of 9 percent in Armavir and Tavush to a high of 17 percent in Gegharkunik.

8.3 Fertility Planning

In the ADHS, women were asked a series of questions about each of their children born in the five years preceding the survey—and, if pregnant, their current pregnancy—to determine whether the pregnancy was wanted *then* (planned), wanted *later* (mistimed), or *not* wanted (unplanned).

Table 8.4 shows the percent distribution of births in the five years before the survey by whether the birth was wanted then, wanted later, or not wanted. The data show that 83 percent of the births in the past five years were wanted at the time of conception. Nine percent were wanted later, and 8 percent of the births were not wanted at all at the time of conception. There is a strong relationship between planning status and birth order. For example, while 98 percent of first order births were wanted at the time of conception, 41 percent of fourth and higher order births were not wanted at all.

Table 8.4 Fertility planning status

Percent distribution of births (including current pregnancy) in the five years preceding the survey by fertility planning status, according to birth order and mother's age at birth, Armenia 2000

Birth order and mother's age at birth	Planning status of birth: Wanted then	Wanted later	Not wanted	Missing	Total	Number of births
Birth order						
1	98.2	1.4	0.2	0.2	100.0	713
2	81.0	17.5	1.4	0.0	100.0	619
3	71.3	12.3	16.2	0.2	100.0	333
4+	53.4	5.4	41.2	0.0	100.0	178
Age at birth						
<19	91.2	7.4	1.3	0.0	100.0	335
20-24	86.1	10.2	3.5	0.1	100.0	826
25-29	80.5	9.8	9.5	0.1	100.0	400
30-34	67.4	9.7	22.8	0.0	100.0	183
35-39	76.1	2.7	20.5	0.7	100.0	85
40-44	*	*	*	*	*	13
45-49	*	*	*	*	*	1
Total	83.2	9.2	7.5	0.1	100.0	1,843

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

8.4 Ideal Number of Children

In the ADHS, women were asked what they considered the ideal family size. This information was obtained by asking the respondents two questions. Respondents who had no children were asked, "If you could choose exactly the number of children to have in your whole life, how many would that be?" For respondents who had children, the question was, "If you could go back to the time when you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?" Responses to these questions are meant to be independent of the number of children that a respondent already has. However, there is typically a correlation between the actual number of children that respondents have and their

reported ideal. This correlation may be because respondents who want larger families have more children or because respondents adjust their ideal family size to match their actual family size or because of a combination of these factors.

Table 8.5 shows that virtually all Armenian women desire a family with several children. Almost half of all women (48 percent) say that two children are ideal and another quarter (26 percent) say that three children are ideal. One-fifth of women state that they prefer to have four or more children. Overall, the mean ideal number of children is 2.7 among all women and 2.8 among married women. There is a positive correlation between the actual and ideal number of children. For example, among all women, the mean ideal number of children increases from 2.3 among women with no children to 3.3 among women with four or more children.

Table 8.5 Ideal number of children

Percent distribution of all women by ideal number of children and mean ideal number of children for all women and for currently married women, according to number of living children, Armenia 2000

Ideal number of children	Number of living children[1]					Total
	0	1	2	3	4+	
0	1.0	0.4	0.2	0.2	0.0	0.4
1	7.0	5.5	2.5	2.2	2.6	4.2
2	62.4	60.9	49.6	22.9	33.1	48.3
3	17.3	23.2	25.9	44.2	15.3	26.0
4	8.2	7.4	19.0	24.9	38.5	16.8
5	0.8	1.1	1.5	3.1	3.1	1.7
6+	0.8	0.7	0.7	1.5	4.5	1.1
Non-numeric responses	2.5	0.8	0.8	1.0	3.0	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	2,056	658	1,964	1,330	422	6,430
Mean ideal number for:[2]						
All women	2.3	2.4	2.7	3.1	3.3	2.7
Number	2,004	653	1,949	1,317	409	6,333
Currently married women	2.6	2.3	2.7	3.1	3.3	2.8
Number	159	505	1,795	1,243	384	4,085

[1] Includes current pregnancy
[2] Means are calculated excluding women who gave non-numeric responses.

Table 8.6 shows the mean ideal number of children by age of woman and background characteristics. The mean ideal number of children increases with increasing age, from 2.3 children among women age 15-19 to 3.1 children among women age 45-49. In general, there is little significant variation in the mean ideal number of children by background characteristics.

There is an interesting relationship, however, between educational attainment and mean ideal number of children. As expected, among women age 40 and above, the higher the educational attainment, the smaller the mean ideal number of children. Among younger women, however, this relationship does not exist; for example, the ideal number of children among all women age 15-19 is 2.3, regardless of their educational background.

Table 8.6 Mean ideal number of children by background characteristics

Mean ideal number of children for all women, by age and background characteristics, Armenia 2000

Background characteristic	Current age of woman							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Residence								
Urban	2.3	2.3	2.4	2.6	2.8	2.9	3.0	2.6
Rural	2.4	2.4	2.5	2.8	3.0	3.2	3.4	2.8
Region								
Yerevan	2.3	2.3	2.4	2.6	2.7	2.8	2.9	2.5
Aragatsotn	2.4	2.4	2.6	2.8	3.1	3.2	3.6	2.8
Ararat	2.3	2.4	2.5	2.7	2.9	3.1	3.0	2.6
Armavir	2.4	2.4	2.6	2.8	3.0	3.2	3.5	2.8
Gegharkunik	2.2	2.3	2.6	2.7	2.8	3.4	3.5	2.7
Lori	2.2	2.3	2.3	(2.7)	2.6	2.9	(2.9)	2.5
Kotayk	2.4	2.5	2.7	(3.0)	3.2	3.3	3.4	2.9
Shirak	2.7	2.6	2.5	2.8	3.0	3.2	3.1	2.8
Syunik	2.3	2.2	2.2	(2.6)	3.0	3.1	3.3	2.7
Vayots Dzor	2.2	2.3	2.7	(2.9)	3.0	3.2	3.3	2.8
Tavush	2.2	2.4	2.5	3.0	2.8	3.0	3.4	2.7
Education								
Primary/middle	2.3	2.3	(2.2)	(2.6)	(2.7)	3.4	3.4	2.6
Secondary	2.3	2.4	2.6	2.8	3.0	3.1	3.3	2.7
Secondary-special	2.3	2.3	2.4	2.8	2.8	3.0	3.1	2.7
Higher	2.3	2.4	2.4	2.5	2.6	2.9	2.9	2.6
Total	2.3	2.3	2.5	2.7	2.8	3.0	3.1	2.7

Note: Figures in parentheses are based on 25 to 49 unweighted cases.

8.5 Wanted and Unwanted Fertility

Table 8.7 presents *wanted fertility rates.* Wanted fertility rates indicate the theoretical level of fertility that would result if all unwanted births were prevented. Unwanted births are those that exceed the respondent's ideal number. The comparison of observed total fertility rates and wanted fertility rates indicates the extent to which couples in a population successfully control their fertility in a given period. In Armenia, there is little difference between the observed total fertility rate (1.7 children per woman) and the wanted total fertility rate (1.5 children per woman). Similarly, only minor differences exist between actual and wanted fertility for population subgroups.

Table 8.7 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, Armenia 2000

Background characteristic	Total wanted fertility rate	Total fertility rate
Residence		
Urban	1.3	1.5
Rural	1.7	2.1
Region		
Yerevan	1.3	1.4
Aragatsotn	1.6	2.0
Ararat	1.6	1.9
Armavir	1.4	1.7
Gegharkunik	2.0	2.5
Lori	1.9	2.1
Kotayk	1.1	1.3
Shirak	1.3	1.4
Syunik	1.3	1.6
Vayots Dzor	2.0	2.4
Tavush	1.7	2.2
Education		
Primary/middle	1.5	2.2
Secondary	1.5	1.9
Secondary-special	1.4	1.6
Higher	1.3	1.4
Total	1.5	1.7

Note: Rates are calculated based on births to women 15-49 in the period 1 to 36 months preceding the survey. The total fertility rates are the same as those presented in Table 4.2.

INFANT AND CHILD MORTALITY 9

K. Saribekyan, K. Ter-Voskanyan, R. Asatyan, and J. Sullivan

9.1 BACKGROUND

This chapter presents information on mortality among children under five years of age. The rates shown provide information on the levels and trends in mortality and mortality differentials between population subgroups. Mortality differentials are useful because they identify population subgroups exposed to elevated risks of mortality.

The mortality rates presented in this chapter are expressed as deaths per 1,000 live births, except in the case of child mortality, which is expressed as deaths per 1,000 children surviving to age one. Rates are presented for the following age intervals:

- Neonatal mortality (NN): the probability of dying within the first month of life
- Postneonatal mortality (PNN): the difference between infant and neonatal mortality
- Infant mortality (${}_1q_0$): the probability of dying between birth and exact age one
- Child mortality (${}_4q_1$): the probability of dying between exact ages one and five
- Under-five mortality (${}_5q_0$): the probability of dying between birth and exact age five.

The questionnaire for the ADHS included a reproductive history in which questions were asked about each of a woman's pregnancies. Respondents were asked to report the outcome of each pregnancy in terms of standard international definitions. *Live birth* was defined as any birth, irrespective of the duration of pregnancy, that after separation from the mother, showed any sign of life (for example, breathing, beating of the heart, or movement of voluntary muscles). *Infant death* was defined as the death of a child under one year of age (WHO, 1993).

For each live birth reported in the pregnancy history, information was collected on the date of birth (month and year), sex, survivorship, and current age (for surviving children) or age at death (for deceased children). Thus, respondents were asked to report about events that occurred throughout their reproductive lives. For older respondents, women age 40 and over, this means events that occurred as long as 25 to 30 years ago. Mortality rates for specific periods preceding the survey were calculated using direct estimation procedures.

The data collected in the survey and the mortality estimates based on those data are applicable to the population resident in Armenia at the time of the survey. In recent years, there have been significant migration flows into and out of Armenia, which were associated with the hostilities between Armenia and Azerbaijan in the early 1990s. The mortality experience of out-migrants is not reflected in the survey data, while that of in-migrants is. Although the net effect of migration on the national estimates of mortality is probably small, this factor must be recognized so that the mortality estimates are properly interpreted.

9.2 Assessment of Data Quality

The accuracy of mortality estimates from the ADHS depends on two factors: non-sampling error (i.e., the completeness and accuracy with which births and deaths are reported) and sampling variability of the estimates. Non-sampling error is considered in this section. Sampling variability is discussed in the next section of this chapter.

The most likely source of non-sampling error in a survey is the underreporting of deceased children. It is well established that underreporting of deceased children is most likely a) for time periods more remote from the survey date and b) for deaths that occured in early infancy (i.e., in the neonatal period). Respondent underreporting of events that occurred in the more distant past is due either to forgetfulness or to conscious avoidance of recalling the tragedy of losing a child. In this report, the focus is on mortality rates for the 15-year period prior to the survey. Rates for earlier time periods are not reported. This eliminates showing mortality estimates for the time periods most susceptible to respondent forgetfulness. Of course, this does not ensure that events occurring in the 15-year period prior to the survey are fully reported.

In the case of underreporting of early infant deaths, the data for the 15-year period prior to the survey can be tested to determine whether underreporting occurred to a significant degree. Significant underreporting would result in an unacceptably low value for the ratio of neonatal to infant mortality (United Nations, 1982). The test consists of comparing the value of the neonatal/infant mortality ratios from the survey with values for national populations known to have relatively complete infant mortality data. In countries at a level of mortality similar to that estimated for Armenia, the value of this ratio is typically greater than 0.50.[1] Neonatal and infant mortality rates from the ADHS are shown in Table 9.1. The neonatal to infant mortality ratio for the periods 1986-1990, 1991-1995, and 1996-2000 are 0.54, 0.63, and 0.54, respectively. All of these values exceed 0.50. Accordingly, this test of the data has not found significant under-reporting of neonatal deaths for the time periods 1986-1990, 1991-1995, or 1996-2000.

9.3 Levels and Trends in Childhood Mortality

Table 9.1 shows infant and child mortality estimates based on data from the ADHS. For the five years immediately preceding the survey (1996-2000), the infant mortality estimate was 36 per 1,000 live births.[2] The estimates of neonatal mortality and postneonatal mortality were 20 and 17 per 1,000 births, respectively. The estimate of child mortality (age one to four) was much lower: 3 per 1,000. The overall under-five mortality rate for the period was 39 per 1,000.

Trends in mortality over the fifteen-year period prior to the survey can also be examined from Table 9.1. The mortality estimates for the earliest two periods (1986-1990 and 1991-1995) indicate an increase in neonatal mortality (from 25 to 32 per 1,000) and a modest decline in postneonatal and child mortality (21 to 19 and 6 to 5 per 1,000, respectively). The under-five mortality estimates indicate an increase (from 51 to 55 per 1,000), all of which is attributable to the increase in neonatal mortality. Whether neonatal mortality actually increased between

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[1] For example, see the neonatal and infant mortality rates for Austria (1959), Canada (1952), and Belgium (1956) in the *U.N. Demographic Yearbook, 1961* (Table 13) and Cuba (1968) and Puerto Rico (1965) in the *U.N. Demographic Yearbook, 1974* (Table 22).

[2] The survey estimate of infant mortality has a standard error of 5.4 per 1,000. Standard errors and 95 percent confidence intervals for mortality rates are shown in Appendix B.

Table 9.1 Early childhood mortality

Neonatal, postneonatal, infant, child, and under-five mortality rates for five-year periods preceding the survey, Armenia 2000

Years preceding the survey	Approximate calendar year[1]	Neonatal mortality (NN)	Postneonatal mortality (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
0-4	1996-2000	19.5	16.7	36.1	3.0	39.0
5-9	1991-1995	31.6	18.9	50.5	4.8	55.0
10-14	1986-1990	24.6	20.9	45.6	5.8	51.1

Note: Postneonatal mortality is computed as the difference between the infant and the neonatal mortality.
[1] Because survey fieldwork was conducted from September to December 2000, the rates for the five-year period 1996-2000 actually apply to the calendar period from November 1995 to November 2000. This is similar for the other rates.

1986-1990 and 1991-1995, whether there was underreporting of neonatal deaths in the 1986-1990 period, or whether these differences were due to sampling variability cannot be definitively determined from these data. However, the early 1990s were a period of increasing social and economic problems that could have had an impact on mortality levels. The early 1990s witnessed the breakup of the Soviet Union and hostilities with Azerbaijan. The former resulted in the disappearance of the traditional markets for Armenia's industrial output, significant unemployment, and associated economic hardship. The latter resulted in the disruption of the country's primary source of oil and a sharp curtailment of electricity throughout the country.

Comparison of the estimated rates for the earliest and the most recent periods (1986-1990 and 1996-2000) indicates declining mortality. Infant mortality declined from 46 to 36 per 1,000 (21 percent), with both the neonatal and postneonatal rates declining to about the same degree (a little more than 20 percent). Child mortality declined from 6 to 3 per 1,000 (48 percent). And overall under-five mortality from 51 to 39 per 1,000 (24 percent). These estimates are compelling evidence of a significant mortality decline over the last fifteen years.

No doubt, many factors have contributed to the decline in mortality over the past 15 years. To some degree, the decline was probably hastened by Ministry of Health (MOH) programs initiated in 1994 in the case management of diarrhea and acute respiratory infection (ARI) as well as programs in support of breastfeeding. Those efforts are more likely to have had an impact on mortality rates for the late postneonatal ages (i.e., months 6-11) and for ages 1 through 5 than on mortality rates for the neonatal period (month 0) and for the early postneonatal period, (i.e, months 1-5). The survey data on age at death was reported by month of age for deaths under two years of age. So, although not shown in Table 9.1, mortality rates for the early and late subdivisions of the postneonatal period can be calculated, allowing a more detailed investigation of the age structure of the mortality decline. Between 1986-90 and 1996-00, the survey data indicate virtually no decline in the early postneonatal mortality rate (stable at 15 per 1,000) but a decline of about 50 percent in the late postneonatal mortality rate (6 to 3 per 1,000). Additionally, Table 9.1 indicates a substantial decline in child mortality over the period (48 percent). These estimates are subject to large sampling error; nevertheless, they indicate an age structure of mortality decline that is consistent with the expected impact of MOH intervention programs.

9.4 INFANT MORTALITY RATES FROM THE NSS AND THE ADHS

Armenia has a long history of demographic and health data collection—primarily through the use of national registration systems. In the case of births and infant deaths, the National Statistical Service collects the data through a system in which reports from local health officials—which primarily document events occurring in health facilities—are forwarded up the reporting hierarchy to the regional *(marz)* level and to the NSS and ultimately to the MOH. Official government statistics on infant mortality are published in the annual statistical reports of the NSS.

Prior to 1995, live births and infant deaths in Armenia were defined according to protocols established during the time of the former Soviet Union. The criteria for classifying pregnancy outcomes in the Soviet protocols differed from those recommended by the World Health Organization. The most important difference relates to pregnancies ending at a gestational age of less than 28 weeks. The Soviet protocols classify such pregnancies as miscarriages (even if signs of life are present at the time of delivery) unless the child survives for seven days.[3] Alternatively, WHO defines a birth showing any sign of life (i.e., breathing, beating of the heart, or movement of voluntary muscles) as a live birth, irrespective of the gestational age at delivery (WHO, 1993). There is also a difference for pregnancies terminating at 28 or more weeks of gestation. The Soviet system classifies such events as live births if the child breathes and as stillbirths if breathing is not evident at delivery. WHO defines these events as live births if any sign of life is present at delivery and otherwise as stillbirths.

In 1995, Armenia officially changed to the WHO definitions of live birth and infant death. However, it is thought that many maternity wards have been slow to convert to the new definitions and are still using the Soviet era definitions (GOA, UNICEF, and SCF, 1999).

Table 9.2 shows infant mortality rates reported by NSS and computed from survey data over the last fifteen years. For all three time periods shown, the survey estimates of infant mortality are more than twice the level of the NSS estimates (e.g., for 1996-2000, 36 versus 15). A thorough investigation of the differences between the two sets of estimates is beyond the scope of this report. However, it is clear that the differences arise about equally from the neonatal and postneonatal periods. While differences in the definitions of pregnancy outcomes can contribute to the differences in the neonatal estimates, they do not affect the postneonatal estimates. Under the reasonable assumption that survey respondents have not overreported postneonatal deaths, it appears that events are underreported in the registration system.

Figure 9.1 shows infant mortality time trends based on NSS and survey data. Two points should be noted. First, the time trend of the estimates from both sources is declining over the last fifteen years. This is strong evidence that child survivorship has increased over the period. And second, in each time period, NSS estimates are significantly lower than survey estimates.

[3] In cases in which the gestational age is unknown, fetuses that weigh less than 1,000 grams or measure less than 35 centimeters in length are considered premature and are classified as miscarriages.

Table 9.2 Comparison of infant mortality estimates

Neonatal, postneonatal and infant mortality rates for five-year periods preceding the survey, Armenia 2000

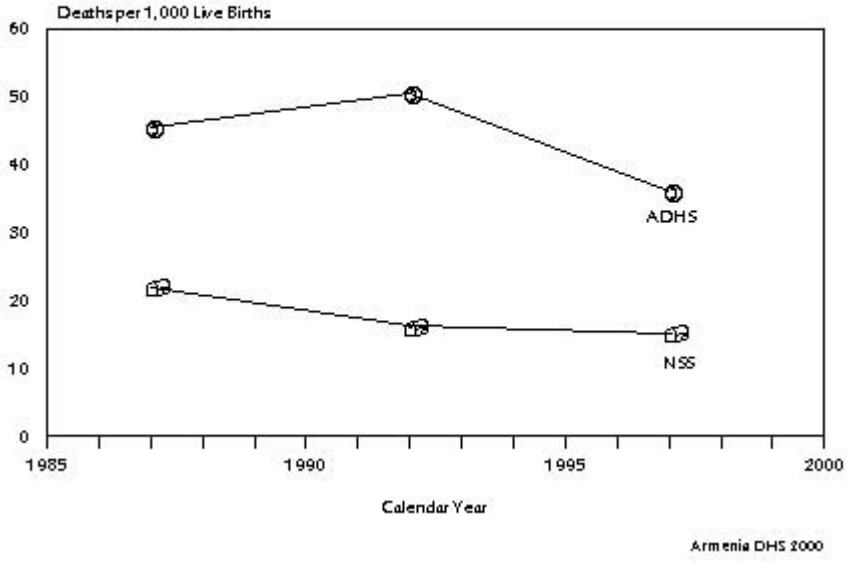
Approximate calendar period [1]	Neonatal mortality		Postneonatal mortality		Infant mortality	
	NSS	ADHS	NSS	ADHS	NSS	ADHS
1996-2000	9.1	19.5	6.2	16.7	15.3	36.1
1991-1995	8.0	31.6	8.5	18.9	16.3	50.5
1986-1990	9.1	24.6	13.0	20.9	22.1	45.6

Source: NSS of Republic of Armenia.

Note: Postneonatal mortality is computed as the difference between the infant and the neonatal mortality rates. Neonatal mortality estimates are based on deaths under 27 days for NSS rates and under one month for ADHS rates.

[1] Because survey fieldwork was conducted from September to December 2000, the rates for the five-year period 1996-2000 actually apply to the calendar period from November 1995 to November 2000. Similarly for the other rates.

Figure 9.1 **Trends in Infant Mortality Based on Rates from the National Statistical Service and the ADHS**



9.5 Socioeconomic Differentials in Childhood Mortality

Table 9.3 shows infant and child mortality estimates from the survey by socioeconomic variables (urban-rural and education). The estimated mortality rates are for the ten-year period preceding the survey. A ten-year period is used to calculate the rates for population subgroups to reduce sampling variability.

As is the case in most countries, mortality rates in infancy and early childhood are higher in rural areas than in urban areas. In terms of infant mortality, rural rates (53 per 1,000) exceed urban rates (36 per 1,000) by a factor of about 1.5. Most of this difference arises from the postneonatal rates. In the case of child mortality, rural rates (6.8 per 1,000) exceed urban rates (1.4 per 1,000) by a factor of about 5.0. In terms of under-five mortality, rural children have higher rates (59 per 1,000) than urban children (37 per 1,000) by a factor 1.6. There is little difference in the mortality risk of children in Yerevan and other urban areas.

As expected, mortality levels decline as the mother's education increases. Between education categories, the differentials are greater for postneonatal mortality and child mortality than for neonatal mortality. Overall, under-five mortality for women with some secondary school education (55 per 1,000) exceeds that for women with a higher education (22 per 1,000) by a factor of about 2.5.

Table 9.3 Early childhood mortality by background characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the ten-year period preceding the survey, by background characteristics, Armenia 2000

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Residence					
Urban	23.1	12.8	35.9	1.4	37.3
Yerevan	20.9	13.3	34.2	2.4	36.5
Other urban	25.7	12.2	37.9	0.3	38.1
Rural	29.5	23.3	52.7	6.8	59.2
Education					
Primary	(47.5)	(35.2)	(82.6)	(7.1)	(89.1)
Secondary	28.4	21.9	50.2	4.7	54.7
Secondary-special	23.9	16.5	40.4	4.2	44.4
Higher	17.1	4.2	21.3	0.4	21.7
Total	26.2	17.9	44.1	4.0	48.0

Note: Rates based on 250 to 499 exposed persons are in parentheses. Postneonatal mortality is computed as the difference between the infant and the neonatal mortality.

9.6 DEMOGRAPHIC DIFFERENTIALS IN CHILDHOOD MORTALITY

Table 9.4 shows the relationship between early childhood mortality and demographic variables. As was the case with the socioeconomic differentials, the rates are shown for the ten-year period preceding the survey.

As expected, mortality rates are generally higher for boys than for girls. There are significant differences in mortality risks associated with mother's age and birth order. The greatest differentials arise in the neonatal period for which the neonatal mortality rates of births to women 30-39 (44 per 1,000) and of order four and higher (54 per 1,000) are substantially greater than the neonatal mortality rate for all births (26 per 1,000).

In terms of the length of the preceding birth interval, mortality rates are decidedly lower for intervals of three years than for shorter or longer birth intervals. In terms of under-five mortality, births following an interval of three years (32 per 1,000) are at about half the risk of mortality as births following a shorter birth interval (60 or 73 per 1,000)

There are significant differences in mortality risks associated with mother's age and birth order. The greatest differentials arise in the neonatal period, in which the mortality rates of births to women 30-39 (44 per 1,000) and of order four and higher (54 per 1,000) are substantially greater than the neonatal mortality rate for all births (26 per 1,000).

Table 9.4 Early childhood mortality by demographic characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the ten-year period preceding the survey, by demographic characteristics, Armenia 2000

Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Sex of child					
Male	29.4	16.7	46.1	4.9	50.7
Female	22.7	19.3	41.9	3.1	44.9
Mother's age at birth					
<20	30.0	19.4	49.5	2.1	51.5
20-29	21.0	15.9	37.0	4.4	41.2
30-39	44.2	24.7	69.0	4.5	73.2
Birth order					
1	22.1	10.3	32.3	1.7	34.0
2-3	24.0	22.4	46.4	5.4	51.5
4+	(53.7)	(23.6)	(77.3)	(5.0)	(81.9)
Previous birth interval					
<2	28.6	27.1	55.6	5.0	60.4
2 years	36.6	30.8	67.4	5.8	72.9
3 years	(16.1)	(7.4)	(23.5)	(8.7)	(31.9)
4 years or more	26.8	17.6	44.5	3.8	48.1
Birth size					
Small and very small	72.7	20.8	93.4	na	na
Average or larger	7.5	18.1	25.6	na	na
Total	26.2	17.9	44.1	4.0	48.0

Note: Rates based on 250 to 499 exposed persons are in parentheses. Postneonatal mortality is computed as the difference between the infant and the neonatal mortality.
na = Not applicable

9.7 Mortality Differentials by Women's Status

Several questions were included in the ADHS to develop indicators of women's status. These data provide insight into a woman's ability to act effectively in her own interest and in the interest of those who depend on her. It follows that if women—the primary caretakers of children—enjoy high status, the health and survival of their infants should be enhanced.

Respondents were asked about their participation in household decision making, about the circumstances under which a wife should be able to refuse having sex with her husband, and about whether there were any circumstances in which wife beating is justified. Indicators were developed that scale 1) a woman's participation in household decision making, 2) her right to refuse sexual relations, and 3) her acceptance of wife beating. The higher the scores on indicators 1 and 2, the higher a woman's status and the more empowered she is to care for her children. The higher the score on indicator 3, the lower a woman's status and the less empowered she is to care for her children.

Table 9.5 shows mortality rates for values of the indicators of women's status. For all three indicators, there is an association between increasing woman's status and decreasing levels of mortality.

Table 9.5 Early childhood mortality by women's status indicators

Neonatal, postneonatal, infant, child, and under-five mortality rates for the ten-year period preceding the survey, by women's status indicators, Armenia 2000

Indicator of women's status	Neonatal mortality (NN)	Postneonatal mortality (PNN)	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-five mortality ($_5q_0$)
Number of decisions with mother having final say					
0	*	*	*	*	*
1-2	27.1	19.7	46.8	2.7	49.4
3-4	25.2	22.0	47.2	3.6	50.6
5+	23.3	13.2	36.5	5.3	41.6
Number of reasons to refuse sexual relations					
0	*	*	*	*	*
1-2	(51.4)	(30.1)	(81.5)	(5.4)	(86.5)
3-4	22.6	17.0	39.6	3.7	43.1
Number of reasons to justify wife beating					
0	22.2	14.4	36.6	3.2	39.7
1-2	32.8	20.0	52.8	2.8	55.5
3-4	34.9	23.9	58.8	9.3	67.5
5+	*	*	*	*	*
Total	26.2	17.9	44.1	4.0	48.0

Note: Rates based on 250 to 499 exposed persons are in parentheses. Rates based on fewer than 250 exposed persons are not shown (*). Postneonatal mortality is computed as the difference between the infant and the neonatal mortality.

9.8 PERINATAL MORTALITY

Perinatal mortality rates indicate the level of mortality from the time of prenatal viability (i.e., the late fetal period beginning at the 28th week of gestation) through labor, delivery, and the early neonatal period of life (i.e., the 0-6 day period after birth). Pregnancies that terminate without signs of life after the 28th week of gestation are referred to as stillbirths. Stillbirths and early neonatal deaths share many of the same underlying causes leading to mortality (e.g., congenital malformations), and for this reason, these events are aggregated into the perinatal mortality rate.

Perinatal mortality rates are reported for the five-year period preceding the survey. It should be noted that data quality is always an issue when considering perinatal mortality rates, as both stillbirths and early neonatal deaths are susceptible to underreporting.

Table 9.6 shows perinatal mortality rates per 1,000 pregnancies by background characteristics. The overall perinatal mortality rate is 29 per 1,000. Stillbirths and deaths under seven days contributed equally to the overall perinatal rate. Although research has not yet established a firm relationship between the two components of the perinatal mortality rate, a number of countries with perinatal mortality rates between 20 and 30 per 1,000 have reported stillbirth and early neonatal mortality rates of approximately the same order of magnitude (Hoffman, et al., 1984).

Table 9.6 Perinatal mortality

Number of stillbirths and early neonatal deaths, and the perinatal mortality rate for the five-year period preceding the survey, by background characteristics, Armenia 2000

Background characteristic	Number of stillbirths[1]	Number of early neonatal deaths[2]	Perinatal mortality rate[3]	Number of pregnancies of 7 or more months duration
Mother's age at birth				
<20	3.5	5.7	(29.2)	315
20-29	12.8	13.8	23.9	1,113
30-39	6.9	4.6	47.0	243
40-49	1.4	0.0	*	11
Previous pregnancy interval				
1st pregnancy	6.6	5.9	21.3	588
<15 months	8.1	6.4	(55.2)	262
15-38 months	6.3	9.8	27.5	586
39+ months	3.6	1.9	22.6	245
Residence				
Urban	10.8	5.7	19.5	849
Yerevan	4.1	1.4	(11.9)	463
Other urban	6.7	4.4	(28.7)	386
Rural	13.7	18.3	38.5	833
Education				
Primary	4.6	4.3	*	159
Secondary	12.5	13.3	37.9	681
Secondary-special	6.3	5.9	22.0	557
Higher	1.1	0.6	(5.9)	284
Total	24.6	24.0	28.9	1,681

Note: Rates based on 250 to 499 pregnancies are in parentheses. Rates based on fewer than 250 pregnancies are not shown (*).
[1] Stillbirths are fetal deaths in pregnancies lasting seven or more months.
[2] Early neonatal deaths are deaths among live-born children age 0-6 days.
[3] The perinatal mortality rate is the sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months duration.

As was the case with overall infant mortality, the estimates from the survey are approximately twice as high as Ministry of Health statistics on perinatal mortality, which, throughout the period 1993-1997, have hovered around 15 per 1,000 (GOA, UNICEF, and SCF, 1999).

9.9 High-Risk Fertility Behavior

Previous research has shown a strong relationship between the fertility patterns of women and the mortality risks of their children. Typically, mortality risks are greater for children who are born to mothers who are too young or too old, who are born after a short birth interval, or who have a high birth order. In this analysis, a mother is classified as *too young* if she is younger than 18 years of age and *too old* if she is older than 34 years of age. A *short birth interval* is defined as a birth occurring within 24 months of the previous birth, and a child is of *high birth order* if the mother had already given birth to three or more children.

Table 9.7 shows the distribution of children born in the five years before the survey by risk category. Although first births to women age 18-34 are considered an unavoidable risk, they are included in the analysis and are shown as a separate risk category.

Column 1 of Table 9.7 shows that in the five-year period before the survey, 29 percent of births were in a single high-risk category and 5 percent were in a multiple high-risk category.

Column 2 shows risk ratios for births in various high-risk categories relative to births not having any high-risk characteristics. Overall, the risk ratio for children in any high-risk category (1.4) was about 40 percent higher than for children who were not in any high-risk category.

Column 3 looks to the future and addresses the question of how many currently married women have the potential for having a high-risk birth. The results were obtained by simulating the risk category into which a birth to a currently married woman would fall if she were to become pregnant at the time of the survey. For example, a woman who was 37 years old at the time of the survey and had three previous births, the last of which occurred three years earlier, would be classified in the multiple high-risk category for being too old (35 or older) and at risk of having a high order birth (greater than three).

Overall, 72 percent of married women have the potential to give birth to a child with an elevated risk of mortality.

Table 9.7 High-risk fertility behavior

Percent distribution of children born in the five years preceding the survey by category of elevated risk of dying and the risk ratio, and the percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Armenia 2000

Risk category	Births in the 5 years preceding the survey		Percentage of currently married women [1]
	Percentage of births	Risk ratio	
Not in any high-risk category	31.4	1.00	24.5 [a]
Unavoidable risk category			
First order births to women 18-34 years	34.9	0.56	4.0
Single high-risk category			
Mothers's age <18	3.3	na	0.2
Mothers's age >34	2.6	1.00	22.2
Birth interval <24 months	17.5	1.35	6.6
Birth order >3	5.2	3.22	8.5
Subtotal	28.5	1.50	37.5
Multiple high-risk category			
Age <18 & birth interval <24 months [2]	0.4	na	0.1
Age >34 & birth interval <24 months	0.4	na	0.3
Age >34 & birth order >3	2.0	0.40	31.4
Age >34 & birth interval <24 months & birth order >3	0.1	na	0.3
Birth interval <24 months and birth order >3	2.3	2.10	2.0
Subtotal	5.2	1.09	34.0
In any avoidable high-risk category	33.7	1.44	71.5
Total	100.0	-	100.0
Number of births	1,657	-	4,125

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

MATERNAL AND CHILD HEALTH 10

K. Saribekyan, R. Abrahamyan, M. Balasanyan, and A. Hovhannisyan

This chapter presents findings on several areas of importance to maternal and child health: antenatal, delivery, and postnatal care; vaccination coverage; and common childhood illnesses and their treatment. This information, in combination with data on mortality, is useful in formulating programs and policies to improve maternal and child health services.

Maternal and child health care in Armenia is implemented through an extensive system of ambulatory polyclinics and hospitals. The network of ambulatory health care is organized around geographical regions and is offered through children's and women's consultation polyclinics and rural health facilities. Obstetric care is offered at hospital obstetric-gynecological departments, regional delivery hospitals located in urban areas, and at republican centers for specialized (tertiary) care.

10.1 Antenatal Care

The health care that a mother receives during pregnancy and at the time of delivery is important for the survival and well-being of both the mother and the child. Antenatal care (ANC) is described according to the type of provider, number of ANC visits, stage of pregnancy at the time of the first and last visits, and number of visits, as well as the services and information provided during ANC.

Antenatal care provider

Table 10.1 presents data on the utilization of different types of antenatal care providers. Overall, the ADHS found that 92 percent of women receive antenatal care from a trained provider (doctor, nurse, or trained midwife) at least once (Figure 10.1). In urban areas, 92 percent of care is provided by doctors and 3 percent is provided by nurses or trained midwives. In rural areas, doctors provide 74 percent of care and nurses and midwives provide 15 percent. In almost all regions, more than 90 percent of mothers receive antenatal care from a trained professional. However, antenatal care is received from a health professional by only 86 percent of mothers in Vayots Dzor, 80 percent in Aragatsotn, and 70 percent in Gegharkunik.

Number and timing of antenatal care visits

The prevention of complications of pregnancy and delivery complications and the successful outcome of the pregnancy for both mother and child is associated with the quality of antenatal care, the number of visits, and the timing of the first visit. In terms of timing, the Ministry of Health recommends the first visit by 12 weeks of gestation. The Ministry of Health has adopted the World Health Organization guideline of at least four antenatal care visits for a normal pregnancy.

Almost two-thirds of all respondents make four or more antenatal care visits. There is a significant urban-rural differential, however. The median number of antenatal care visits among rural women is half that of urban women (three visits versus six visits). Although only 18 percent

Table 10.1 Antenatal care

Percent distribution of women who had a live birth in the five years preceding the survey by antenatal care (ANC) provider during pregnancy, according to background characteristics, Armenia 2000

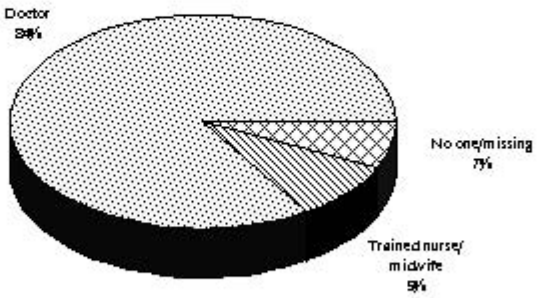
Background characteristic	Antenatal care provider[1]					Number of births
	Doctor	Nurse/ midwife	Traditional birth attendant/ other[2]	No one	Total	
Mother's age at birth						
<20	79.4	10.6	0.0	10.0	100.0	172
20-34	85.0	8.6	0.2	6.2	100.0	999
35-49	78.2	4.5	0.0	17.3	100.0	77
Birth order						
1	89.2	7.8	0.0	3.0	100.0	384
2-3	83.4	8.5	0.2	8.0	100.0	723
4+	71.3	12.0	0.8	15.9	100.0	141
Residence						
Urban	92.3	3.3	0.3	4.1	100.0	664
Rural	74.1	14.8	0.0	11.1	100.0	583
Region						
Yerevan	96.3	1.1	0.0	2.6	100.0	374
Aragatsotn	77.8	1.7	0.0	20.5	100.0	68
Ararat	93.2	3.8	0.0	3.0	100.0	150
Armavir	81.7	12.2	0.0	6.1	100.0	129
Gegharkunik	49.6	20.7	0.0	29.8	100.0	120
Lori	88.4	3.5	0.0	8.1	100.0	103
Kotayk	69.1	22.1	2.9	5.9	100.0	77
Shirak	75.7	21.4	0.0	2.9	100.0	87
Syunik	96.7	2.2	0.0	1.1	100.0	49
Vayots Dzor	82.2	4.0	0.0	13.9	100.0	25
Tavush	75.6	22.7	0.0	1.7	100.0	67
Education						
Primary/middle	65.1	15.5	0.0	19.3	100.0	106
Secondary	81.2	10.8	0.0	7.9	100.0	490
Secondary-special	86.4	7.1	0.3	6.2	100.0	430
Higher	93.4	3.4	0.5	2.7	100.0	222
Total	83.8	8.6	0.2	7.4	100.0	1,248

Note: For women with two or more live births in the five-year period, data refer to the most recent birth.

[1] If the respondent mentioned more than one provider, only the most qualified provider is considered.

[2] Includes women who don't know the type of provider

Figure 10.1 Antenatal Care Provider



Armenia DHS 2000

of women overall have an antenatal care visit by 3 months of gestation, the median number of months pregnant at time of first visit is 3.8, and there is virtually no difference between women residing in urban and rural areas.

Antenatal care content

Determining the extent of care given during antenatal visits is important in judging the value of antenatal care services. In Armenia, antenatal care should include the testing of blood and urine samples; a vaginal examination; a bacterioscopic vaginal examination; and height, weight, and blood pressure measurement. Pregnant women who are ill or at higher risk of complications undergo additional examinations. Finally, antenatal care includes the health education of pregnant women, which informs them about pregnancy complications. Table 10.3 presents information on the percentage of women who were informed about the signs of pregnancy complications and who received routine antenatal care procedures during their last pregnancy in

Table 10.2 Number of antenatal care visits and timing of first visit

Percent distribution of women who had a live birth in the five years preceding the survey by number of antenatal care (ANC) visits, and by the timing of the first visit, according to residence, Armenia 2000

Number and timing of ANC visits	Residence		
	Urban	Rural	Total
Number of ANC visits			
None	4.1	11.1	7.4
1 visit	2.1	12.0	6.8
2-3 visits	8.3	28.2	17.6
4+ visits	81.7	45.4	64.7
Don't know/missing	3.8	3.3	3.6
Total	100.0	100.0	100.0
Median number of visits (for those with ANC)	6.3	3.2	4.9
Number of months pregnant at the time of the first ANC visit			
No antenatal care	4.1	11.1	7.4
<3	21.6	13.4	17.8
3-4	58.6	54.8	56.8
5-6	11.6	12.9	12.2
7+	3.5	4.6	4.0
Don't know/missing	0.6	3.1	1.8
Total	100.0	100.0	100.0
Median months pregnant at first visit (for those with ANC)	3.7	3.9	3.8
Total	664	583	1,248

Note: For women with two or more live births in the five-year period, data refer to the most recent birth.

Table 10.3 Antenatal care content

Percentage of women with a live birth in the five years preceding the survey who received antenatal care, by content of antenatal care and background characteristics, Armenia 2000

Background characteristic	Informed of signs of pregnancy complications	Blood pressure measured	Urine sample taken	Blood sample taken	Received vaginal exam	Weight measured	Height measured	Number of women
Age at birth								
<20	46.1	92.8	91.6	92.9	79.7	87.4	80.6	155
20-34	58.5	96.7	94.4	96.1	88.6	92.3	88.7	937
35-49	54.5	98.0	97.2	98.0	92.2	88.8	84.6	63
Birth order								
1	61.5	95.3	95.7	96.7	88.4	93.9	87.3	372
2-3	55.9	96.6	94.2	95.6	88.7	91.6	88.9	665
4+	45.9	97.4	89.3	93.6	79.1	82.4	79.2	118
Residence								
Urban	61.9	98.2	98.3	98.5	96.1	97.4	93.7	637
Rural	50.3	93.9	89.1	92.3	77.2	84.1	79.6	518
Region								
Yerevan	66.4	98.9	99.6	99.6	98.5	99.6	97.0	364
Aragatsotn	54.8	92.5	96.8	97.8	89.2	75.3	71.0	54
Ararat	51.6	93.0	92.2	96.1	82.0	89.8	79.7	146
Armavir	48.1	96.3	94.4	96.3	82.4	79.6	76.9	121
Gegharkunik	48.2	88.2	68.2	69.4	49.4	75.3	70.6	84
Lori	48.1	98.7	94.9	98.7	97.5	91.1	87.3	94
Kotayk	57.8	96.9	96.9	98.4	92.2	98.4	92.2	73
Shirak	61.8	97.1	91.2	92.6	89.7	92.6	91.2	85
Syunik	51.7	97.8	95.5	100.0	91.0	91.0	89.9	49
Vayots Dzor	57.5	95.4	94.3	95.4	78.2	90.8	92.0	21
Tavush	49.6	96.6	98.3	98.3	75.2	96.6	92.3	65
Education								
Primary/middle	37.2	91.8	90.5	94.1	71.1	74.3	70.8	86
Secondary	51.3	95.5	91.2	92.7	86.6	89.5	85.0	451
Secondary-special	59.4	97.4	96.4	98.4	89.2	94.4	90.5	403
Higher	70.4	97.6	97.7	98.0	93.4	96.8	93.3	216
Total	56.7	96.3	94.2	95.8	87.6	91.4	87.4	1,156

Note: For women with two or more live births in the five-year period, data refer to the most recent birth.

the five years years preceding the survey by background characteristics. These procedures are helpful in the early diagnosis of pregnancy complications, which are important sources of maternal and child mortality and morbidity.

Overall, approximately 90 percent of pregnant women received all of the specified care with the exception of information about pregnancy complications (57 percent). In particular, less than half of the mothers in Armavir, Gegharkunik, Lori, and Tavush report that they were informed of the signs of pregnancy complications. Urban women are more likely than rural women to have received all seven specified antenatal care procedures. Similarly, better educated women are more likely to receive all of the specified antenatal care services than woman with less education. The data show that overall, women in Gegharkunik are significantly less likely to receive high-quality antenatal care than women residing in other regions.

10.2 Assistance and Medical Care at Delivery

Hygienic conditions during delivery and supervision of delivery by trained medical staff reduce the risk of infections and ensure that complications of delivery are effectively handled. The ADHS collected information on the place of delivery for all children born in the five years preceding the survey and the type of medical staff assisting during delivery.

Table 10.4 indicates that most births (91 percent) occur at a health facility. Nine percent of births overall occur in the respondent's home, but the likelihood of this occurrence varies greatly by background characteristics. Whereas health facility deliveries are almost universal in urban areas (99 percent), in rural areas, 16 percent of deliveries occur at home. There is considerable variation

Table 10.4 Place of delivery

Percent distribution of live births in the five years preceding the survey by place of delivery, according to background characteristics, Armenia 2000

Background characteristic	Place of delivery: Health facility	At home	Don't know/ missing	Total	Number of births
Mother's age at birth					
<20	86.4	13.6	0.0	100.0	311
20-34	92.7	7.1	0.2	100.0	1,261
35-49	88.8	11.2	0.0	100.0	84
Birth order					
1	95.0	5.0	0.0	100.0	650
2-3	91.1	8.6	0.3	100.0	849
4+	77.8	22.2	0.0	100.0	158
Residence					
Urban	98.6	1.3	0.1	100.0	838
Rural	83.9	15.9	0.1	100.0	819
Region					
Yerevan	98.5	1.5	0.0	100.0	459
Aragatsotn	86.1	13.9	0.0	100.0	96
Ararat	91.8	7.7	0.5	100.0	207
Armavir	93.2	6.8	0.0	100.0	164
Gegharkunik	59.2	40.8	0.0	100.0	182
Lori	97.5	2.5	0.0	100.0	142
Kotayk	95.7	3.2	1.1	100.0	106
Shirak	91.5	8.5	0.0	100.0	117
Syunik	99.1	0.9	0.0	100.0	63
Vayots Dzor	97.8	1.5	0.0	100.0	33
Tavush	98.1	1.9	0.0	100.0	88
Mother's education					
Primary/middle	76.4	23.6	0.0	100.0	155
Secondary	88.8	11.0	0.2	100.0	669
Secondary-special	95.3	4.5	0.2	100.0	550
Higher	97.9	2.1	0.0	100.0	283
Antenatal care visits					
None	66.4	33.4	0.0	100.0	151
1-3	86.7	13.3	0.0	100.0	434
4+	97.0	2.8	0.2	100.0	1,019
Total	91.3	8.5	0.1	100.0	1,657

Note: Total includes 54 cases with missing data on antenatal care visits.

by region. Most striking are the data for Gegharkunik, where 41 percent of all births occur outside a health facility. This could be due to a variety of factors, including greater distances to health facilities and lack of money among the population, a significant percentage of whom are refugees from Azerbaijan. Aragatsotn also has more home deliveries than other regions (14 percent). It is important to note that 14 percent of women under age 20 have delivered what is probably their first birth at home.

As expected, one-third of women who had received no antenatal care delivered at home. The likelihood of a home delivery also increases with increasing birth order (from 5 percent of first births to 22 percent of births of fourth or higher order). There is also a strong positive correlation between education and place of delivery. Whereas only 2 percent of women with higher education delivered at home, almost one-quarter (24 percent) of women with a primary/middle school education delivered at home.

Assistance at delivery from a health professional is nearly universal in Armenia (Table 10.5). Ninety-seven percent of live births during the five years preceding the survey were attended by a doctor, nurse, or trained midwife. There are some significant variations by region. In Gegharkunik, for example, only half of births were assisted by a doctor. It is important to note that although more than nine in ten deliveries in Shirak and Tavush occurred in a health facility, the data show that a doctor did not always attend the delivery (65 percent and 75 percent, respectively).

10.3 Characteristics of Delivery

Table 10.6 presents information on the characteristics of the delivery. Seven percent of babies are delivered by caesarean section. Caesarean deliveries increase among older women and women with more education but decrease among higher birth orders. Delivery by caesarean section ranges from a low of less than 1 percent in Gegharkunik to a high of 11 percent in Shirak.

Information on birth weight was obtained for 96 percent of all births. Of those babies weighed, 94 percent were reported to have a weight of at least 2.5 kilograms. Given the high percentage of births occurring outside health facilities in Gegharkunik, it is not surprising that almost a quarter (23 percent) of newborns were not weighed. Among newborns in Gegharkunik for whom a weight was recorded, however, 15 percent weighed less than 2.5 kilograms, which is considered to be low birth weight. Newborns in rural areas, at higher birth orders, and with less educated mothers are more likely than other newborns to weigh less than 2.5 kilograms.

Table 10.5 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, according to background characteristics, Armenia 2000

Background characteristic	Doctor	Trained nurse/ midwife	Traditional birth attendant	Relative/ other	No one	Total	Number of births
Mother's age at birth							
<20	81.1	16.2	0.5	2.1	0.0	100.0	311
20-34	83.4	13.5	0.9	1.7	0.3	100.0	1,261
35-49	83.9	9.0	3.8	1.9	1.4	100.0	84
Birth order							
1	87.4	11.4	0.3	0.8	0.0	100.0	650
2-3	82.7	14.1	1.1	1.6	0.3	100.0	849
4+	66.6	21.6	2.7	7.4	1.7	100.0	158
Residence							
Urban	92.1	7.0	0.1	0.7	0.0	100.0	838
Rural	73.7	20.8	1.8	3.0	0.6	100.0	819
Region							
Yerevan	95.2	3.6	0.0	1.2	0.0	100.0	459
Aragatsotn	86.1	6.6	2.4	4.8	0.0	100.0	96
Ararat	80.8	18.7	0.0	0.0	0.0	100.0	207
Armavir	93.2	4.1	1.4	0.7	0.7	100.0	164
Gegharkunik	50.0	34.8	4.3	9.8	1.1	100.0	182
Lori	84.0	15.1	0.0	0.0	0.8	100.0	142
Kotayk	88.2	9.7	1.1	0.0	0.0	100.0	106
Shirak	64.9	33.0	1.1	1.1	0.0	100.0	117
Syunik	95.6	3.5	0.0	0.0	0.9	100.0	63
Vayots Dzor	89.7	9.6	0.7	0.0	0.0	100.0	33
Tavush	75.2	24.2	0.6	0.0	0.0	100.0	88
Mother's education							
Primary/middle	69.8	20.1	2.3	7.5	0.4	100.0	155
Secondary	82.9	13.8	1.0	1.8	0.3	100.0	669
Secondary-special	83.4	14.4	0.8	0.8	0.4	100.0	550
Higher	89.6	9.2	0.2	0.9	0.0	100.0	283
Antenatal care visits							
None	59.2	23.1	4.6	11.6	1.5	100.0	151
1-3	76.1	19.9	1.9	1.6	0.6	100.0	434
4+	90.4	8.7	0.1	0.6	0.0	100.0	1,019
Total	83.0	13.8	0.9	1.8	0.3	100.0	1,657

Note: If the respondent mentioned more than one person, only the most qualified person is considered in this tabulation. Missing responses not shown (0.1 percent). Total includes 54 cases with missing data on antenatal care visits.

Table 10.6 Delivery characteristics

Percentage of live births in the five years preceding the survey delivered by caesarean section, and percent distribution by birth weight, according to background characteristics, Armenia 2000

Background characteristic	Delivery by caesarean section	Birth weight: Not weighed	Less than 2.5 kg	2.5 kg or more	Don't know/ missing	Total	Number of births
Mother's age at birth							
<20	3.6	6.3	7.8	85.1	0.8	100.0	311
20-34	6.7	3.1	5.3	91.1	0.4	100.0	1,261
35-49	16.9	3.0	8.4	87.0	1.6	100.0	84
Birth order							
1	7.9	1.5	5.6	92.6	0.3	100.0	650
2-3	6.2	3.5	5.7	90.1	0.7	100.0	849
4+	3.6	13.9	9.0	76.4	0.7	100.0	158
Residence							
Urban	7.8	0.1	4.0	95.4	0.5	100.0	838
Rural	5.4	7.3	8.0	84.0	0.7	100.0	819
Region							
Yerevan	8.4	0.0	3.3	96.1	0.6	100.0	459
Aragatsotn	6.6	6.6	7.2	84.3	1.8	100.0	96
Ararat	6.0	2.7	8.2	87.9	1.1	100.0	207
Armavir	8.8	2.0	6.8	91.2	0.0	100.0	164
Gegharkunik	0.5	23.4	11.4	64.7	0.5	100.0	182
Lori	5.0	0.0	4.2	95.8	0.0	100.0	142
Kotayk	3.2	0.0	2.2	96.8	1.1	100.0	106
Shirak	10.6	2.1	7.4	90.4	0.0	100.0	117
Syunik	5.3	0.9	6.1	93.0	0.0	100.0	63
Vayots Dzor	8.8	0.0	5.9	94.1	0.0	100.0	33
Tavush	8.3	0.0	5.7	93.6	0.6	100.0	88
Mother's education							
Primary/middle	4.2	9.7	10.9	77.0	2.4	100.0	155
Secondary	5.2	5.4	6.3	88.0	0.3	100.0	669
Secondary-special	7.4	1.7	5.8	91.8	0.6	100.0	550
Higher	9.7	0.2	2.7	97.1	0.0	100.0	283
Total	6.6	3.7	6.0	89.8	0.6	100.0	1,657

10.4 Postnatal Care

The postnatal period is defined as the time between the delivery of the placenta and 42 days after delivery. Postnatal care is important both for the mother and for the child to treat complications arising from the delivery as well as to provide the mother with important information on how to care for herself and her child. Because most maternal and neonatal deaths occur during the first few days after delivery, the timing of postnatal care is important.

Table 10.7 presents information on postnatal care after the most recent birth for women who gave birth in the five years preceding the survey. Since it was assumed that women who delivered in health facilities would receive a routine postnatal examination, only women who delivered at home were asked about postnatal care. The data show that of the approximately

Table 10.7 Postnatal care by background characteristics

Among women who had a live birth during the five years preceding the survey, percentage who delivered in a health facility, and cumulative percentage who delivered ouside a health facility and had a postnatal checkup, by timing of checkup, according to background characteristics, Armenia 2000

Background characteristic	Delivered in a health facility	Timing of first postnatal checkup for mothers who delivered outside a health facility: Within 2 days of birth	Within 7 days of birth	Within 42 days of birth	Don't know/ missing	Did not receive postnatal care [1]	Number of births
Mother's age at birth							
<20	86.6	6.9	7.5	8.1	0.7	4.6	172
20-34	93.7	3.3	3.6	4.2	0.4	1.7	999
35+	88.9	4.4	5.1	5.1	0.0	5.9	77
Birth order							
1	96.5	2.3	2.6	2.6	0.3	0.6	384
2-3	92.9	3.2	3.3	4.0	0.5	2.6	723
4+	79.1	12.0	13.5	14.9	0.0	6.0	141
Residence							
Urban	98.8	0.7	0.7	0.7	0.1	0.4	664
Rural	85.3	7.5	8.2	9.4	0.7	4.7	583
Region							
Yerevan	98.5	0.7	0.7	0.7	0.0	0.7	374
Aragatsotn	84.6	5.1	6.8	7.7	1.7	6.0	68
Ararat	93.2	3.0	3.0	3.0	0.8	3.0	150
Armavir	93.9	1.7	1.7	3.5	0.9	1.7	129
Gegharkunik	63.6	23.1	25.6	28.9	0.0	7.4	120
Lori	97.7	1.2	1.2	1.2	0.0	1.2	103
Kotayk	95.6	1.5	1.5	1.5	0.0	2.9	77
Shirak	90.0	4.3	4.3	4.3	1.4	4.3	87
Syunik	98.9	1.1	1.1	1.1	0.0	0.0	49
Vayots Dzor	98.0	1.0	1.0	1.0	0.0	1.0	25
Tavush	98.3	1.7	1.7	1.7	0.0	0.0	67
Education							
Primary/middle	76.6	13.6	13.6	16.6	0.0	6.8	106
Secondary	90.3	4.6	5.3	5.8	0.8	3.1	490
Secondary-special	96.3	1.5	1.7	1.9	0.1	1.7	430
Higher	97.3	2.4	2.4	2.4	0.0	0.3	222
Total	92.5	3.9	4.2	4.8	0.4	2.4	1,248

Note: For women with two or more live births in the five-year period, data refer only to the most recent birth. Mothers who delivered in a health facility are assumed to have received a postnatal checkup.
[1] Includes women who received "postnatal care" more than 6 weeks after delivery

8 percent of deliveries that occurred outside of a health facility, postnatal care was received by half within the recommended two days. Approximately one-third of those deliveries occurring outside a health facility, however, received no postnatal care. As expected, deliveries of higher birth orders occurring to women with lower levels of educational attainment and occurring to rural dwellers are less likely to have received postnatal care than other deliveries. Of all the regions, women residing in Gegharkunik are the least likely to have received postnatal care.

10.5 Women's Status and Reproductive Health Care

A woman's status and level of self-respect can be major determinants of a woman's ability to obtain adequate health care for herself. The data in Table 10.8 indicate that there is a relationship between each of the selected indicators of women's status and women's utilization of

Table 10.8 Women's status and reproductive health care

Percentage of women who had a live birth in the five years preceding the survey, by antenatal care received, and percentage of births in the five years preceding the survey for which mothers received delivery care, according to indicators of women's status, Armenia 2000

Women's status indicator	Percentage of women with antenatal care from a health professional[1]	Number of women	Percentage of births assisted by a health professional[1]	Number of births
Number of decisions in which woman has final say[2]				
0	81.3	92	94.4	134
1-2	91.4	349	96.6	473
3-4	93.8	397	96.8	517
5	94.6	410	97.5	532
Number of reasons to refuse sex with husband				
0	85.7	54	90.3	79
1-2	91.2	117	95.5	151
3-4	92.9	1,077	97.3	1,427
Number of reasons wife beating justified				
0	96.2	791	99.0	1,019
1-2	89.6	266	96.3	359
3-4	80.8	158	89.8	226
5	(82.2)	33	87.5	52
Total	92.4	1,248	96.8	1,657

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Doctor, nurse, or midwife
[2] Either by herself or jointly with others

antenatal care and delivery care, suggesting that in Armenia, as women's status increases, so do their access to reproductive health care from a professional. For example, among women who have (or participate) in the final say in all of the five specified household decisions, 95 percent received antenatal care from a trained health professional, as opposed to 81 percent of women who had a final say in no decisions. Similarly, the percentage of women with antenatal care from a health professional increases with the number of reasons women feel justified in refusing sex with their husband. The last index operates in reverse so that the fewer reasons given to justify wife beating the higher the woman's status. As expected, the percentage of women with professional antenatal care declines as the number of reasons justifying wife beating increases.

Virtually all Armenian women receive delivery care from a health professional (97 percent), so there is less variation by women's status. It is particularly striking then that there is a strong relationship between delivery care from a health professional and the number of reasons to justify wife beating. Among the most empowered women (those who disagreed with all the specified circumstances under which a husband is justified in beating his wife), 99 percent received delivery care from a health professional. As the agreement with reasons to justify wife beating increases, the percentage of women with professional delivery care steadily decreases to 88 percent among those

women who agree with all of the specified reasons for a husband beating his wife. In summary, the data suggest that a woman's status and empowerment has a positive relationship with access to quality health care.

10.6 Vaccination Coverage

According to the vaccination schedule of the Ministry of Health, a child should have received a BCG vaccination to protect against tuberculosis; three doses of DPT to protect against diphtheria, pertussis, and tetanus; and three doses of the polio vaccine starting at 3 months and before 12 months of age, as well as a measles vaccination starting at 12 months and before 24 months of age.

Information on vaccination coverage was collected in the ADHS for all children under five years of age. In Armenia, child health cards are maintained in the local health care facilities. Immunization passports (cards kept by the guardian) were made available in 1995 (MOH and UNICEF, 1999). In this survey, data were collected from both sources, when available. In the event that the mother did not have an immunization passport, she was not asked to recall her child's immunizations. After all the interviews in a cluster were completed, the supervisor was in charge of going to the local clinic to record information from the health cards of the children in the sample.

Table 10.9 shows that immunization passports were found for approximately one-quarter of children under five years, as opposed to 92 percent of health clinic cards. The data indicate that immunization passports have become increasingly widespread during the last five years: 33 percent of children age 12-23 months have an immunization passport, as opposed to 17 percent of children age 48-59 months. More mothers in rural areas were able to show the interviewer an immunization passport than urban mothers (27 percent versus 22 percent). Furthermore, slightly more facility

Table 10.9 Availability of health card

Percentage of children age 12-59 months with a health card available at a health facility or at home, by age and urban-rural residence, Armenia 2000

Residence and child's age in months	Health card available: At health facility	At home and at health facility	At home only	Either at home or at health facility	No health card	Number of births
Urban	90.6	20.7	1.6	92.2	7.8	676
12-23	91.6	30.6	1.4	93.0	7.0	169
24-35	92.3	22.7	0.0	92.3	7.7	142
36-47	91.8	16.3	2.5	94.3	5.7	172
48-59	87.3	14.6	2.1	89.5	10.5	193
Rural	93.4	25.5	1.1	94.4	5.6	620
12-23	94.5	33.0	1.5	96.0	4.0	131
24-35	94.3	32.6	1.7	95.9	4.1	139
36-47	94.4	23.1	0.7	95.1	4.9	168
48-59	90.9	17.0	0.6	91.5	8.5	182
Total	91.9	23.0	1.3	93.3	6.7	1,296
12-23	92.9	31.7	1.5	94.3	5.7	300
24-35	93.3	27.6	0.8	94.1	5.9	281
36-47	93.1	19.6	1.6	94.7	5.3	340
48-59	89.1	15.8	1.4	90.5	9.5	375

health cards were found for rural children than for urban children (93 percent versus 91 percent). This is probably due to the fact that in urban areas where there are more health facilities, it was more difficult to locate a child's health card. Overall, health cards were found at a health facility or at home for 93 percent of all children under age five. The data in the following tables are based on the health facility cards, except in cases where no health facility card was located, but the mother was able to show the interviewer an immunization passport.

Table 10.10 shows rates of vaccination coverage for children 12-23 months of age (i.e., children who should be fully vaccinated). This table is based on vaccinations received at any time before the survey. According to the health cards, almost all children in the sample had received vaccinations for BCG, DPT 1, and polio 1 (96 percent, 99 percent, and 100 percent, respectively). Coverage was also high for the second and third doses of DPT (97 percent and 95 percent) and the second and third doses of polio (99 percent and 98 percent). Regarding measles, 79 percent of children had received the vaccination. According to the data gathered in the ADHS, measles coverage does vary by certain background characteristics: more females than males (85 percent versus 75 percent) and more urban than rural residents (82 percent versus 75 percent) had received the measles vaccination. Overall, the health card data show that 76 percent of children 12-23 months of age had received all WHO-recommended vaccinations by the date of the interview.

Table 10.10 Vaccinations by background characteristics

Percentage of children age 12-23 months who had received specific vaccinations at any time before the survey (based on health card at health facility or health card at home), by background characteristics, Armenia 2000

	Percentage of children who had received:									
		DPT			Polio					
Background characteristic	BCG	1	2	3+	1	2	3+	Measles	All[1]	Number of children
Sex of child										
Male	95.2	98.9	96.2	94.8	99.3	98.0	96.6	74.8	71.5	169
Female	97.3	98.8	98.8	95.6	100.0	100.0	99.0	84.6	81.9	114
Residence										
Urban	97.4	98.4	96.1	93.6	99.6	98.8	98.0	81.7	78.7	157
Rural	94.4	99.4	98.7	96.9	99.6	98.9	97.1	75.1	71.9	126
Education										
Primary/middle	(97.0)	(100.0)	(98.7)	(98.7)	(100.0)	(100.0)	(100.0)	(90.8)	(87.8)	20
Secondary	96.6	99.0	96.8	93.4	99.5	98.2	97.1	81.6	78.9	107
Secondary-special	95.7	98.5	96.8	94.5	99.5	98.7	96.5	71.2	69.1	109
Higher	(95.1)	(98.8)	(98.8)	(98.8)	(100.0)	(100.0)	(100.0)	(84.8)	(78.7)	47
Total	96.0	98.8	97.3	95.1	99.6	98.8	97.6	78.8	75.7	283

Note: The data in this table are based on the 93 percent of children for whom an immunization card was available; 98 percent of the information was obtained from health facilities. Figures in parentheses are based on 25-49 unweighted cases.

[1] Children who are fully vaccinated, i.e., those who have received BCG, measles, and three doses of DPT and polio vaccine (excluding polio vaccine at birth).

Table 10.11 shows the percentage of children age 12-59 months who received specific vaccinations during the first year of life, as recommended by the Ministry of Health. More than nine out of ten children had received BCG, DPT 1, and polio 1 and 2 by their first birthday. Coverage was lower for DPT 2 and 3 (88 percent and 76 percent, respectively) and polio 3 (83 percent). It should be noted that for each vaccine, rates among the youngest cohort (age 12-23 months) are significantly higher than among the oldest cohort (age 48-59 months). Furthermore, coverage for all of the specified vaccines was 79 percent among the youngest children, compared with 68 percent among the oldest children. The data indicate that there has been significant progress in timely vaccination coverage over the last five years.

Table 10.11 Vaccinations in first year of life

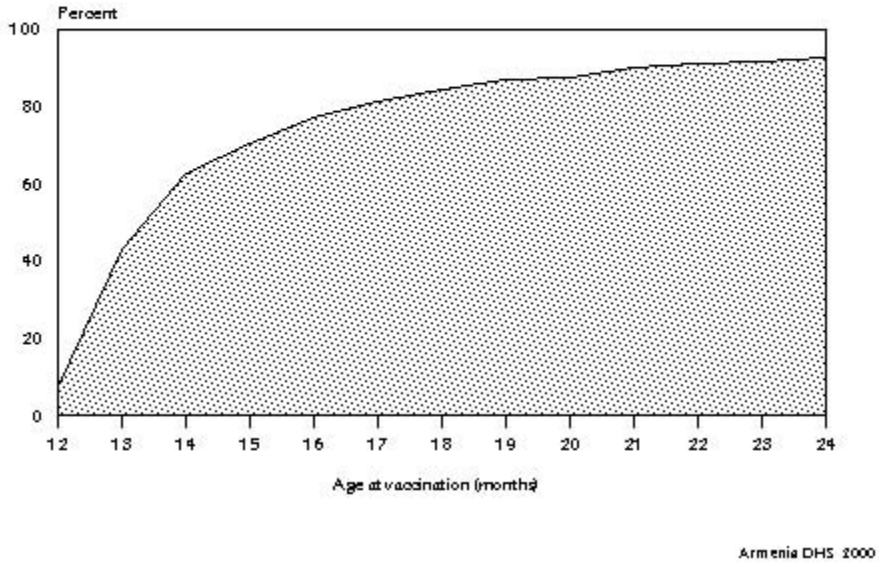
Among children age 12-59 months with a vaccination card, the percentage who had received specific vaccinations during the first year of life, by current age of child, Armenia 2000

	Percentage of children who had received:									
		DPT			Polio					
Child's age in months	BCG	1	2	3+	1	2	3+	All[1]	No vacci-nations	Number of children
12-23	94.9	97.8	93.4	83.6	99.2	96.2	90.9	78.9	0.0	283
24-35	92.4	94.4	91.3	77.6	96.5	95.2	85.4	72.4	1.3	264
36-47	90.3	90.8	84.4	68.2	94.3	91.9	76.9	62.0	2.7	322
48-59	91.2	91.7	85.5	73.9	95.2	92.2	79.8	67.6	1.4	340
Total	92.1	93.5	88.3	75.5	96.2	93.7	82.8	69.8	1.4	1,209

Note: The data in this table are based on the 93 percent of children for whom an immunization card was available; 98 percent of the information was obtained from health facilities.
[1] Children who are fully vaccinated, i.e., those who have received BCG and three doses of DPT and polio vaccine (excluding polio vaccine at birth). Measles is excluded since it is usually given after 12 months of age.

Figure 10.2 shows measles vaccination coverage among children age 24-35 months by timing of the vaccine. The data show that at 14 months of age, almost two-thirds of children had received the measles vaccine. At age 17 months, 82 percent of children had been immunized; more than nine in ten children had received the vaccine at age 21 months.

Figure 10.2 Measles Vaccination Coverage among Children 24-35 Months



10.7 Acute Respiratory Infection and Fever

In Armenia, one-quarter of all infant deaths are attributed to acute respiratory infection (MOHRA, 2000). Early diagnosis and treatment with antibiotics can prevent a large proportion of deaths caused by ARI. In the ADHS, the prevalence of ARI was estimated by asking mothers whether their children under age five had been ill with a cough accompanied by short, rapid breathing in the two weeks preceding the survey. These symptoms are consistent with ARI. It should be noted that the morbidity data collected are subjective in the sense that they are based on a mother's perception of illness without validation by medical personnel. Furthermore, prevalence of ARI is subject to seasonality; the fieldwork for the ADHS took place in October through December when rates tend to be high.

Table 10.12 shows that in the two weeks preceding the survey, 11 percent of children experienced symptoms of ARI and 17 percent had a fever. There is little significant variation by background characteristics, although the youngest children were the least likely to have these

Table 10.12 Prevalence and treatment of symptoms of ARI and fever

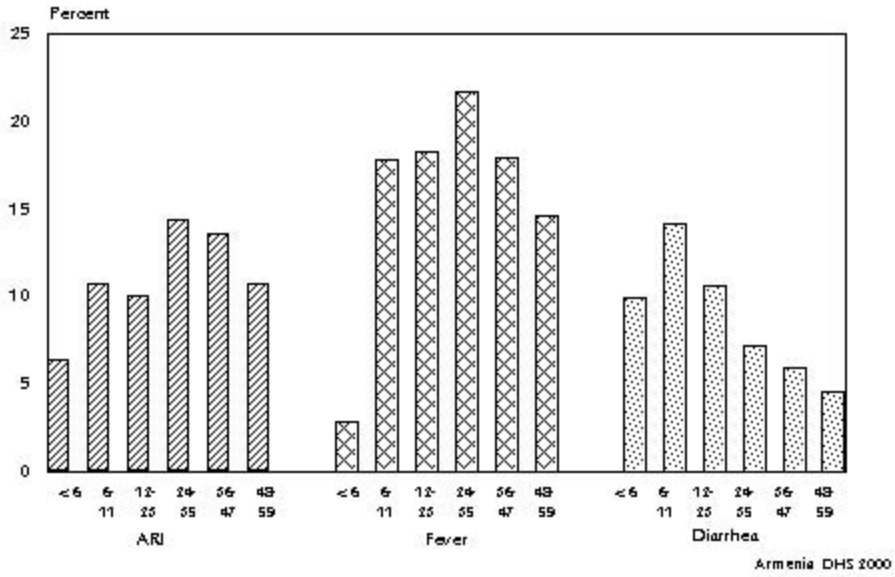
Percentage of children under five years who had a cough accompanied by short, rapid breathing (symptoms of ARI) and percentage of children who had fever in the two weeks preceding the survey, and percentage of children with symptoms of ARI and/or fever for whom treatment was sought from a health facility or provider, by background characteristics, Armenia 2000

	Prevalence of ARI and fever in past two weeks			Among children with symptoms of ARI and/or fever	
Background characteristic	Percentage of children with symptoms of ARI	Percentage of children with fever	Number	Percentage for whom treatment was sought from a health facility or provider[1]	Number
Child's age in months					
<6	6.4	2.8	149	*	12
6-11	10.7	17.8	151	(41.1)	34
12-23	10.0	18.3	300	22.9	75
24-35	14.4	21.7	281	23.4	81
36-47	13.6	17.9	340	18.2	81
48-59	10.7	14.6	375	26.2	76
Sex of child					
Male	11.2	16.0	910	20.6	200
Female	11.8	17.0	685	29.7	158
Residence					
Urban	11.5	18.6	819	29.0	195
Rural	11.4	14.2	777	19.4	164
Mother's education					
Primary/middle	13.1	15.1	146	(7.0)	32
Secondary	11.2	16.4	639	27.1	141
Secondary-special	12.9	16.4	530	23.6	128
Higher	8.3	17.4	280	31.0	57
Total	11.4	16.5	1,596	24.6	358

ARI = Acute respiratory infection
[1] Excludes pharmacy, shop, and traditional practitioner
Note: Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

symptoms (Figure 10.3). Among those children who experienced symptoms of ARI or fever, treatment was sought from a health facility or health care provider for one-quarter. Female children, children living in urban areas, and children of mothers with higher education were the more likely than other children to be taken to a health facility.

Figure 10.3 Prevalence of ARI Symptoms, Fever, and Diarrhea in the Two Weeks Preceding the Survey



10.8 Hand-Washing Materials in the Household

The connection between hand-washing and diarrhea is well established. Increasing the frequency of hand-washing and improving the quality of necessary materials, such as running water, soap/cleanser, and a basin, substantially decreases the occurrence of diarrhea in young children. Table 10.13 shows the percentage of households by the type of hand-washing facilities available in the house as seen by the interviewer. Overall, 62 percent of dwellings have all three hand-washing materials. Households with piped water and water in the dwelling are the most likely to have all three hand-washing materials. The availability of these materials ranges from a high in Yerevan (87 percent) to a low in Gegharkunik (25 percent). There is also a large difference between urban and rural areas (81 percent versus 32 percent). Overall, most households have water (88 percent) and a cleansing agent such as soap (90 percent), but less than two-thirds of all households have a basin.

Table 10.13 Hand-washing materials in the household

Percentage of households with hand-washing materials in the dwelling/yard/plot, by residence, region, source of water supply, time to water source, and presence in the household of a child with diarrhea in the two weeks preceding the survey, Armenia 2000

Background characteristic	Water	Soap or other cleansing agent	Basin	All three hand-washing materials[1]	Number of house-holds
Residence					
Urban	95.9	95.2	82.8	80.9	3,633
Rural	74.5	81.7	33.2	31.6	2,347
Region					
Yerevan	98.4	96.9	88.1	87.0	1,946
Aragatsotn	61.9	95.7	29.1	27.2	248
Ararat	84.7	96.9	56.9	56.1	580
Armavir	81.3	90.4	49.8	47.9	496
Gegharkunik	69.2	66.7	26.2	24.5	507
Lori	81.4	74.3	39.4	38.7	519
Kotayk	96.4	82.3	86.7	77.1	413
Shirak	79.7	89.8	57.4	56.5	602
Syunik	98.2	99.1	79.3	78.9	258
Vayots Dzor	82.7	83.4	49.5	46.8	111
Tavush	90.8	96.5	41.1	39.3	300
Source of water					
Piped	90.6	91.6	67.3	65.5	5,488
Surface	49.4	71.3	18.3	16.4	347
Tanker truck	63.5	87.2	24.5	22.8	68
Other	58.8	53.6	16.0	14.7	77
Time to water source					
In dwelling	91.4	92.5	69.2	67.3	5,262
<10 minutes	67.2	85.0	25.8	24.1	70
10+ minutes	57.6	69.0	19.8	18.9	643
Child with diarrhea					
Yes	85.9	92.8	64.9	62.7	116
No	87.5	89.8	63.3	61.5	5,864
Total	87.5	89.9	63.3	61.5	5,980

Note: Total includes five cases with missing information on time to water source.
[1] Water, soap, or ash or other cleansing agent, and basin

10.9 DIARRHEA

Dehydration caused by severe diarrhea is a major cause of morbidity among young children and an important cause of infant and child death. In Armenia, one-fifth of all infant deaths are attributed to diarrheal diseases (MOH, 2000). Table 10.14 indicates that 8 percent of children under five had diarrhea in the two weeks preceding the survey. The age pattern of diarrhea shows a peak at 6-11 months of age (i.e., around the time when a child begins to crawl and experience more exposure to the environment). Children of mothers with a primary/middle school education are more likely to have suffered from diarrhea than other children. Morbidity by region ranges from a high of 13 percent in Ararat to a low of 4 percent in Yerevan and Tavush.

Table 10.14 Prevalence of diarrhea

Percentage of children under five years with diarrhea in the two weeks preceding the survey, by background characteristics, Armenia 2000

Background characteristic	Diarrhea in the two weeks preceding the survey	Number of children
Child's age in months		
<6	9.9	149
6-11	14.1	151
12-23	10.6	300
24-35	7.1	281
36-47	5.9	340
48-59	4.5	375
Child's sex		
Male	8.6	910
Female	6.8	685
Residence		
Urban	7.8	819
Rural	7.8	777
Region		
Yerevan	4.3	451
Aragatsotn	10.3	90
Ararat	12.5	200
Armavir	9.9	159
Gegharkunik	9.4	168
Lori	10.7	134
Kotayk	7.9	101
Shirak	7.6	114
Syunik	5.4	61
Vayots Dzor	6.9	32
Tavush	3.9	85
Mother's education		
Primary/middle	11.7	146
Secondary	7.3	639
Secondary-special	8.4	530
Higher	5.8	280
Total	7.8	1,596

A prompt increase in a child's fluid intake is a simple and effective procedure to prevent diarrhea from developing into a life-threatening illness. Oral rehydration therapy may include the use of a solution prepared from packets of oral rehydration salts (ORS). In addition, it is recommended that food intake should not be decreased for children suffering from diarrhea.

To ascertain how widespread knowledge of ORS is in Armenia, respondents were asked if they knew about ORS packets. Table 10.15 shows that the majority of mothers know about ORS packets. The youngest mothers and mothers living in rural areas are the least likely to know about ORS. Knowledge ranges from a high of 82 percent in Yerevan to a low of 52 percent in Syunik and 55 percent in Vayots Dzor. Knowledge of ORS packets increases as the educational level of the mother increases.

Table 10.15 Knowledge of ORS packets

Percentage of mothers with births in the five years preceding the survey who know about ORS packets for treatment of diarrhea in children, by background characteristics, Armenia 2000

Background characteristic	Percentage of mothers who know about ORS packets	Number of mothers
Age		
15-19	56.5	51
20-24	70.2	433
25-29	78.2	413
30-34	75.0	204
35-49	73.4	147
Residence		
Urban	78.8	664
Rural	67.2	583
Region		
Yerevan	81.6	374
Aragatsotn	65.8	68
Ararat	75.8	150
Armavir	73.9	129
Gegharkunik	71.1	120
Lori	69.8	103
Kotayk	63.2	77
Shirak	71.4	87
Syunik	52.2	49
Vayots Dzor	55.4	25
Tavush	75.6	67
Education		
Primary/middle	55.9	106
Secondary	69.9	490
Secondary-special	75.9	430
Higher	84.9	222
Total	73.4	1,248

ORS = Oral rehydration salts

Table 10.16 provides insight into the use of ORS packets, as well as other kinds of treatment for diarrhea. Overall, 33 percent of mothers gave ORS packages to their children who were suffering from diarrhea. It is interesting to note that rural mothers were one-third more likely than urban mothers to give ORS packets to their sick children. On the other hand, urban mothers were two-thirds more likely to give increased fluids. Overall 60 percent of mothers gave either increased fluids or ORS to their sick children (oral rehydration therapy). Twenty-six percent of children suffering from diarrhea were taken to a health provider. Other treatments were given to sick children, with the most common being pills or syrup (30 percent). It is disturbing to note that 25 percent of all children suffering from diarrhea were neither taken to a provider, treated with oral rehydration therapy, or given any other kind of treatment.

Table 10.16 Diarrhea treatment

Percentage of children under five years of age who had diarrhea in the two weeks preceding the survey taken for treatment to a health provider, percentage who received oral rehydration therapy (ORT), and percentage given other treatments, according to residence, Armenia 2000

		Oral rehydration therapy (ORT)			Other treatments					
Residence	Percentage taken to a health provider[1]	ORS packets	In-creased fluids	ORS or in-creased fluids	Pill or syrup	Injec-tion	Intra-venous solution	Home remedy/ other	None	Number of children with diarrhea
Urban	25.2	28.2	63.7	65.3	29.5	1.9	1.9	19.0	20.1	64
Rural	27.0	38.0	38.5	53.9	29.8	2.3	1.9	10.1	29.1	61
Total	26.1	33.0	51.5	59.7	29.6	2.1	1.9	14.7	24.5	125

Note: Oral rehydration therapy (ORT) includes solution prepared from oral rehydration salt (ORS) packets or increased fluids.
[1] Excludes pharmacy, shop, and traditional practitioner

Besides being asked about what was done to treat children with diarrhea, mothers were specifically asked whether they gave the child more or less fluids and foods than usual. Table 10.17 provides information on feeding practices among children under five who had diarrhea in the two weeks before the survey. The data indicate that half of all sick children (52 percent) were given more liquids than usual. There is a significant difference between the prevalence of this practice by residence: 64 percent of urban mothers offered more liquids, as opposed to 39 percent of rural mothers. More important, almost one-quarter of rural mothers engaged in the dangerous practice of curtailing fluid intake when their children have diarrhea. Forty-six percent of all children were offered less than the usual amount to eat, which could exacerbate the child's illness. This practice was more common in urban areas (54 percent) than in rural areas (37 percent).

Table 10.17 Feeding practices during diarrhea

Percent distribution of children under five years who had diarrhea in the two weeks preceding the survey, by amount of liquids and food offered compared with normal practice, according to residence, Armenia 2000

	Residence		
Liquid/food offered	Urban	Rural	Total
Amount of liquid offered			
Same as usual	19.5	18.9	19.2
More	63.7	38.5	51.5
Somewhat less	2.1	14.9	8.3
Much less	7.6	5.5	6.6
None	0.9	3.9	2.3
Don't know/missing	6.2	18.2	12.0
Amount of food offered			
Same as usual	34.2	39.5	36.7
More	1.2	7.8	4.4
Somewhat less	34.1	30.8	32.5
Much less	19.7	6.6	13.4
Don't know/missing	10.8	15.3	13.0
Total	100.0	100.0	100.0
Number	64	61	125

NUTRITION OF WOMEN AND CHILDREN 11

K. Saribekyan, O. Inchikyan, R. Abrahamyan, G. Avagyan

This chapter covers two topics: infant feeding practices and the nutritional status of women and their children born in the five years preceding the survey. Infant feeding is described in terms of breastfeeding practices, supplementary feeding practices, and the use of bottles for supplementary feeding. Nutritional status is reported in terms of the height and weight of women and children and the prevalence of anemia.

11.1 Breastfeeding and Supplementation

The pattern of infant feeding has an important influence on the health of children. Feeding practices are the principal determinant of a young child's nutritional status, and poor nutritional status has been shown to increase the risk of illness and death among children. Breastfeeding practices also have an effect on the mother's fertility. Frequent breastfeeding for long durations is associated with longer periods of postpartum amenorrhea and thus longer birth intervals and lower fertility.

Optimal infant feeding is defined by WHO and UNICEF as follows (WHO/UNICEF, 1990; WHO, 1994):

- Initiation of breastfeeding within about 30 to 60 minutes of birth Frequent, on-demand feeding (including night feeds)
- Exclusive breastfeeding (defined as breast milk only and no other foods or liquids until the infant is about six months of age)
- Breastfeeding complemented with hygienically prepared, appropriate local foods at about six months of age
- Increased breastfeeding during illness and recovery Continued breastfeeding well into the second year of life and beyond.

The importance and necessity of breastfeeding is well known in Armenia, and in 1993, the Ministry of Health adopted a state program on breastfeeding. The program advises that children be exclusively breastfed until six months of age and breastfeeding be continued until two years of age with supplemental feeding. In conjunction with the state program, reforms have occurred in delivery hospitals, as part of the "Baby Friendly Hospital Initiative." Examples of these reforms include the immediate contact between mother and newborn, early initiation of breastfeeding (in the first 30 to 60 minutes), allowing the mother and newborn to stay in the same hospital room, feeding upon request, and other baby-friendly practices.

In the ADHS, for each child born in the last five years, mothers were asked whether they had breastfed the child and if so, how long after delivery breastfeeding was initiated. Women were also asked whether their children were still breastfeeding and the age at which supplemental feeding began. Finally, for children not currently breastfeeding, the age at which they stopped breast-feeding was obtained.

Initiation of breastfeeding

The early initiation of breastfeeding is important for a number of reasons. First, it takes advantage of the newborn's suckling reflex and alertness immediately postpartum. Early suckling also benefits mothers because it stimulates breast milk production and releases a hormone that helps the uterus to contract and reduce postpartum blood loss. The first breast milk contains colostrum, which is highly nutritious and has antibodies that protect the newborn from diseases. Early initiation of breastfeeding also fosters bonding between mother and child.

Table 11.1 shows that 88 percent of all children born in the five years before the survey were breastfed. There is little variation by background characteristics, with the exception of region. The percentage of children ever breastfed ranges from 96 percent in Lori to 80 percent in Shirak. Overall, 24 percent of children were breastfed within 1 hour of birth and 78 percent were breastfed within 24 hours of birth. In urban areas, children are more likely to start breastfeeding within one hour of birth than in rural areas (27 percent versus 21 percent). There is also significant variation by region. More than a third (35 percent) of children in Gegharkunik began breastfeeding within one hour of birth, as opposed to just 7 percent in Vayots Dzor.

Prelacteal feeding is the practice of giving other liquids to a child during the period after birth before the mother's milk is flowing freely. Overall, 14 percent of children were given a prelacteal meal. Region is strongly associated with this practice, ranging from a high of 27 percent in Vayots Dzor to a low of 3 percent in Aragatsotn. Although children in urban areas are more likely to begin breastfeeding within one hour of birth, they are also more likely to have a prelacteal meal than children in rural areas (17 percent versus 10 percent).

Breastfeeding patterns by age

Exclusive breastfeeding, defined as breast milk as the only source of infant food or liquid, meets nutritional requirements (Cohen et al., 1994) and protects against illness (Huffman and Combest, 1990) for about the first six months of life. Children who received only breast milk in the 24 hours before the survey are defined as being *exclusively breastfed,* and children who are *fully breastfed* received only plain water in addition to breast milk. Exclusive breastfeeding is recommended for the first six months of a child's life because breast milk is uncontaminated and contains all the nutrients necessary for children in the first few months of life. In addition, the mother's antibodies in breast milk provide immunity to disease. Early supplementation is discouraged for several reasons. First, it exposes infants to pathogens and increases their risk of infection, especially diarrheal disease. Second, it decreases infants' intake of breast milk and therefore suckling, which reduces breast milk production. Third, in a harsh socioeconomic environment, supplementary food is often nutritionally inferior.

To obtain information on feeding patterns, mothers were asked about the breastfeeding status of all children under the age of five in the 24-hour period before the survey and about what other liquids or solids (if any) had been given to the child during that period. Even though information on breastfeeding was collected for all children born in the five years preceding the survey, the tables on breastfeeding are restricted to children born in the three years before the survey because most children are weaned by age three.

Table 11.1 Initial breastfeeding

Percentage of children born in the five years preceding the survey who were ever breastfed, and among children ever breastfed, the percentage who started breastfeeding within one hour and within one day of birth, and percentage who received a prelacteal feed, by background characteristics, Armenia 2000

Background characteristic	Percentage of children ever breastfed	Number of children	Among children ever breastfed, percentage who started breastfeeding: Within 1 hour of birth	Within 1 day of birth[1]	Percentage of children who received a prelacteal feed[2]	Number of children
Child's sex						
Male	88.9	937	24.5	79.0	13.8	834
Female	87.1	719	23.7	75.4	13.8	626
Residence						
Urban	87.3	838	27.0	77.0	17.1	732
Rural	89.0	819	21.3	78.0	10.4	729
Region						
Yerevan	83.5	459	27.2	77.1	20.4	384
Aragatsotn	92.2	96	28.1	81.0	3.3	88
Ararat	84.6	207	18.8	75.3	14.9	175
Armavir	91.8	164	22.2	67.4	13.3	151
Gegharkunik	90.8	182	34.7	84.4	6.0	165
Lori	95.8	142	29.8	83.3	10.5	136
Kotayk	93.5	106	17.2	83.9	5.7	99
Shirak	79.8	117	20.0	81.3	20.0	93
Syunik	88.6	63	11.9	58.4	8.9	55
Vayots Dzor	93.4	33	7.1	86.6	26.8	31
Tavush	93.6	88	17.0	72.1	14.3	82
Mother's education						
Primary/middle	84.6	155	27.1	76.6	9.7	131
Secondary	88.0	669	23.3	78.3	12.6	588
Secondary-special	89.6	550	21.8	77.2	16.1	493
Higher	87.7	283	29.1	76.3	14.2	248
Assistance at delivery						
Health professional[3]	88.0	1,604	24.3	77.4	14.1	1,412
Other	92.3	46	(19.4)	(80.4)	(3.2)	42
No one	*	5	*	*	*	4
Place of delivery						
Health facility	88.6	1,513	24.5	76.9	14.8	1,340
At home	83.2	141	20.5	85.0	2.0	117
Total	88.1	1,657	24.1	77.5	13.8	1,460

Note: Table is based on all children whether living or dead. Total includes 2 children with missing information on place at delivery and 2 children with missing information on assistance at delivery. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.

[1] Includes children who started breastfeeding within one hour of birth

[2] Children given something other than breast milk during the first three days of life before the mother started breastfeeding regularly

[3] Doctor, nurse, or midwife

Table 11.2 describes infant feeding practices of Armenian mothers. Among children under four months of age, 95 percent are breastfed. Forty-five percent of children are exclusively breastfed. In addition to breast milk, 14 percent are given nonbreast milk, 29 percent are given water or other liquids, and 8 percent are given solid or mushy food. Although the majority of Armenian children continue to breastfeed through nine months of age, almost all receive supplements in addition to breast milk. Among children age 8-9 months, more than half (54 percent) are still breastfeeding. Among children age 10-11 months, this proportion drops to 35 percent. Only 12 percent of children age 20-23 months are still being breastfed (Figure 11.1).

Table 11.2 Breastfeeding status by child's age

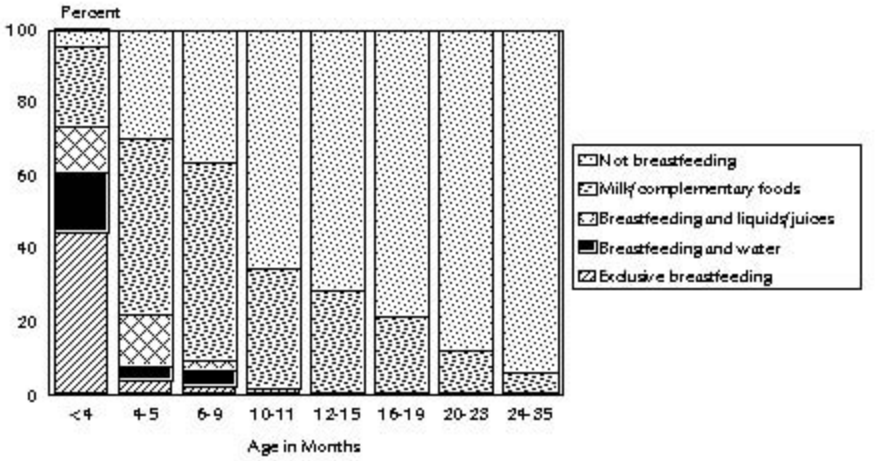
Percent distribution of all children by breastfeeding status, and percentage using a bottle with a nipple, according to child's age in months, Armenia 2000

			Breastfeeding and:						
Age in months	Not breast-feeding	Exclu-sively breast-fed	Plain water only	Water-based liquids/ juice	Other milk	Comple-mentary foods	Total	Using a bottle with a nipple	Number of living children
<2	(0.0)	(62.5)	(13.5)	(11.9)	(12.1)	(0.0)	(100.0)	(22.5)	36
2-3	7.8	33.8	18.4	12.8	14.5	12.7	100.0	40.5	59
4-5	29.8	4.1	3.7	14.3	16.8	31.3	100.0	58.6	54
6-7	(22.0)	(2.9)	(10.6)	(4.8)	(3.4)	(56.3)	(100.0)	(44.3)	40
8-9	46.1	2.5	0.0	1.0	3.4	47.0	100.0	46.6	57
10-11	65.3	2.1	0.0	0.0	1.0	31.6	100.0	43.1	53
12-15	71.2	0.0	0.0	0.0	0.0	28.8	100.0	46.1	110
16-19	78.3	0.0	0.0	0.0	0.0	21.7	100.0	50.0	90
20-23	87.5	0.0	0.0	0.0	0.0	12.5	100.0	24.7	99
24-35	94.0	0.4	0.0	0.0	0.0	5.6	100.0	17.7	281
<4	4.9	44.6	16.6	12.5	13.6	7.9	100.0	33.7	95
4 to 5	29.8	4.1	3.7	14.3	16.8	31.3	100.0	58.6	54
6 to 9	36.2	2.6	4.3	2.6	3.4	50.8	100.0	45.6	97

Note: Breastfeeding status refers to a 24-hour recall period (the day and night preceding the interview). Children classified as *breastfeeding and plain water only* receive no supplements. The categories of not breastfeeding, exclusively breastfeeding, breastfeeding and plain water, water-based liquids, non-breast milk, and complementary foods (solids and semisolids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus, a child who receives breast milk and water-based liquids and who does not receive complementary foods is classified in the water-based liquid category even though she/he may also get plain water. Any child who gets complementary food is classified in that category as long as she/he is breastfeeding as well. The percentages who use a bottle are based on all children. Figures in parentheses are based on 25-49 unweighted cases.

Use of bottles with nipples is rather high: among children under four months of age, one-third (34 percent) use a bottle, and among children age 4-5 months, the proportion increases to 59 percent. These data show that improvements must be made before Armenian children are breastfed according to international standards.

Figure 11.1 Distribution of Children by Breastfeeding Status, According to Age in Months



Armenia DHS 2000

Table 11.3 shows that the median duration of any breastfeeding is nine months; the duration of exclusive and predominant breastfeeding (breastfeeding plus plain water), however, is short (little more than one month and three months, respectively). These figures indicate that levels of complete breastfeeding in Armenia are lower than optimal. There is significant variation by background characteristics. Median duration of breastfeeding is ten months among children residing in urban areas and eight months among those in rural areas. Breastfeeding duration also varies by region, from a low of approximately 7 months in Kotayk and Syunik to almost 11 months in Yerevan and Lori. There is a strong relationship between education and breastfeeding: the higher a woman's educational attainment, the longer she is likely to breastfed her child. For example, a woman with a primary/middle school education breastfeeds for an average of six months, while women with higher education breastfeed for ten months.

Table 11.4 shows that 85 percent of all breastfeeding children were breastfed at least six times in the 24 hours preceding the survey. According to the ADHS, the mean number of daytime feeds is five and the mean number of nighttime feeds is three; the resulting total of eight feeds is considered sufficient for a 24-hour period.

Table 11.3 Median duration of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey, by background characteristics, Armenia 2000

Background characteristic	Median duration of breastfeeding in months			
	Any breast-feeding	Exclusive breast-feeding	Predo-minant breast-feeding[1]	Number of children
Child's sex				
Male	9.1	1.3	3.2	501
Female	9.1	1.7	2.9	378
Residence				
Urban	10.1	1.4	3.4	453
Rural	8.2	1.5	2.9	427
Region				
Yerevan	10.5	0.7	4.7	252
Aragatsotn	8.5	1.6	2.5	46
Ararat	8.3	2.2	2.2	114
Armavir	9.8	0.8	2.7	79
Gegharkunik	9.1	2.5	5.2	103
Lori	10.8	1.3	2.2	84
Kotayk	(6.5)	(1.9)	(2.5)	45
Shirak	(8.5)	(1.9)	(2.1)	60
Syunik	7.1	1.9	3.4	32
Vayots Dzor	7.8	0.6	2.2	19
Tavush	8.0	1.4	2.4	46
Mother's education				
Primary/middle	5.8	0.7	2.2	85
Secondary	9.5	1.7	3.3	339
Secondary-special	9.0	1.1	3.9	301
Higher	10.3	1.4	2.0	154
Total	9.1	1.4	3.1	880
Mean for all children	12.0	2.8	4.4	-

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

[1]Either exclusively breastfed or received breast milk and plain water, water-based liquids, and/or juice only (excludes milk other than breast milk)

Table 11.4 Frequency of breastfeeding

Percentage of breastfeeding children under six months of age who were breastfed six or more times in the 24 hours preceding the survey and mean number of feeds (day/night), by background characteristics, Armenia 2000

Background characteristic	Children under 6 months[1]			
	Percentage breastfed 6+ times in last 24 hours	Mean number of day feeds	Mean number of night feeds	Number of children
Child's sex				
Male	87.1	5.3	3.0	75
Female	82.2	4.9	2.9	53
Residence				
Urban	89.0	5.3	2.9	68
Rural	80.6	5.0	3.1	60
Total	85.0	5.1	3.0	128

Note: Means are based on current status.

[1] Excludes children for whom there is no valid answer on the number of times breastfed

Supplemental foods

The nutritional requirements of young children are more likely to be met if they are fed a variety of foods from 6 months of age. In the ADHS, interviewers read a list of specific foods and asked the mother to report the number of days during the last seven days that the child received each food. For any food consumed at least once in the last seven days, the mother was also asked for the number of times the child had consumed the food in the 24 hours preceding the survey. Tables 11.5 and 11.6 present information on the types of foods given to children during the 24-hour period before the survey. Table 11.7 shows the mean number of days children consumed specific foods in the seven days before the survey. The foods given to a child are not mutually exclusive; therefore, a child could be reported as receiving several types of food.

Table 11.5 shows that during the 24 hours preceding the interview, 9 percent of breastfeeding children under four months of age received infant formula, 11 percent received dairy products, and 27 percent received other liquids. Four percent received solid or semisolid food. Among breastfeeding children age four months and older, the percentage receiving complementary foods steadily increases. Overall, a majority of breastfeeding children receive liquids, grains such as porridge, and fruits and vegetables. These data indicate that breastfeeding practices in Armenia should be improved because giving supplemental foods to children under six months of age can be detrimental to the child's health.

Table 11.5 Foods consumed by children in preceding 24 hours

Percentage of children under three years of age living with the mother who consumed specific foods in the 24 hours preceding the interview, by breastfeeding status and child's age, Armenia 2000

Child's age in months	Infant formula	Other milk/ cheese/ yogurt	Other liquids[1]	Solid/semisolid foods: Grains/ bread/ cereal/ porridge	Fruits/ vege-tables	Beans/ legumes/ lentils	Meats/ fish/ poultry/ eggs	Other vegetables and starches[2]	Any solid or semi-solid food	Number of children
BREASTFEEDING CHILDREN										
<4	8.9	10.9	26.5	1.3	5.8	0.0	0.0	1.4	3.8	90
4-5	(19.8)	(37.6)	(75.8)	(31.8)	(27.3)	(0.0)	(3.2)	(20.0)	(24.9)	38
6-9	5.8	65.7	75.1	68.6	72.1	1.9	19.0	57.2	62.1	62
Total	7.7	47.5	62.0	50.5	51.7	3.6	20.2	39.9	47.2	289
NONBREASTFEEDING CHILDREN										
6-9	(17.1)	(92.9)	(91.2)	(84.9)	(89.7)	(3.5)	(28.4)	(64.2)	(88.0)	35
10-11	(22.6)	(96.0)	(96.0)	(75.4)	(89.1)	(3.3)	(40.7)	(62.4)	(76.3)	35
12-15	6.9	81.4	92.2	96.7	94.2	13.3	47.7	76.5	83.1	79
16-19	2.0	90.3	98.4	95.1	87.6	14.3	60.0	73.0	75.8	70
20-23	10.6	85.6	89.1	94.3	92.2	17.6	58.2	73.9	85.5	87
24-35	3.7	81.0	91.9	95.3	95.9	18.4	61.8	83.5	86.6	264
Total	7.4	84.5	92.5	91.7	91.5	14.9	54.0	75.6	82.2	590

Note: Breastfeeding status refers to a 24-hour recall period (the day and night preceding the interview). Percentages may sum to more than 100 because each child may have received more than one type of supplement. Figures in parentheses are based on 25-49 unweighted cases.
[1] Does not include plain water
[2] Includes foods rich in vitamin A, such as pumpkin and squash, and starches, such as potatoes

Among nonbreastfeeding children, nine out of every ten received liquids, grains, and fruits and vegetables during the 24-hour period preceding the interview. Eighty-five percent received dairy products, and 76 percent received other vegetables and starches, which may include vegetables that are high in vitamin A. A majority of nonbreastfeeding children (54 percent) also received a source of protein in the 24 hours preceding the interview.

Table 11.6 shows the frequency of complementary feeding by food type reported by mothers for children under age three during the 24 hours preceding the interview.

By age six months, children should be receiving solid foods in their diet in addition to breast milk. Various liquids and solid and semisolid foods are given to breastfeeding children starting late in the first year of life.

For children who are no longer breastfeeding, the need for varied and substantial nutritional inputs is even greater than before weaning. The ADHS data show that among children who are fully weaned, the food given most frequently is bread (more than two times per day). Fruits and vegetables containing vitamin A are, on average, given once a day, and other fruits and vegetables are given almost twice a day. Cheese or yogurt is given once a day, and so is other milk.

Table 11.6 Frequency of foods consumed by children in preceding 24 hours

Mean number of times specific foods were consumed by children under three years in the 24 hours preceding the interview, by breastfeeding status and child's age, Armenia 2000

Child's age in months	Infant formula	Powdered, tinned, or fresh milk	Fruit juice	Tea	Other liquids[1]	Food made from grain	Bread, food made from flour	Pumpkin, squash, yams, carrots, potatoes, cabbage	Green leafy vege-tables	Other fruits, vege-tables	Beans, legumes, lentils	Meats, poultry, eggs	Fish, shellfish, seafood	Cheese or yogurt	Number of children
BREASTFEEDING CHILDREN															
<4	0.2	0.2	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	90
4-5	(0.4)	(0.5)	(0.6)	(0.9)	(0.1)	(0.3)	(0.1)	(0.2)	(0.0)	(0.3)	(0.0)	(0.0)	(0.0)	(0.2)	38
6-9	0.1	0.8	0.8	0.7	0.8	0.5	1.1	0.6	0.1	0.9	0.0	0.2	0.0	0.6	62
Total	0.2	0.5	0.5	0.6	0.5	0.4	1.0	0.5	0.1	0.8	0.0	0.2	0.0	0.5	289
NONBREASTFEEDING CHILDREN															
6-9	(0.5)	(2.6)	(0.6)	(1.2)	(0.9)	(0.7)	(1.4)	(0.8)	(0.1)	(0.9)	(0.1)	(0.3)	(0.0)	(0.5)	35
10-11	(0.5)	(2.0)	(1.0)	(1.0)	(0.9)	(0.7)	(1.6)	(0.7)	(0.2)	(1.6)	(0.0)	(0.5)	(0.2)	(1.0)	35
12-15	0.2	1.6	0.7	1.3	1.1	0.9	2.6	0.9	0.1	1.7	0.1	0.5	0.1	0.9	79
16-19	0.0	1.1	0.5	1.3	1.2	0.7	2.4	1.0	0.2	1.8	0.2	0.7	0.1	1.0	70
20-23	0.2	0.9	0.6	1.3	1.2	0.6	2.6	1.2	0.2	1.9	0.2	0.7	0.1	1.2	87
24-35	0.1	0.6	0.6	1.2	1.0	0.7	2.6	1.1	0.3	2.0	0.2	0.6	0.2	1.2	264
Total	0.2	1.1	0.6	1.2	1.0	0.7	2.4	1.0	0.2	1.8	0.2	0.6	0.1	1.1	590

Note: Breastfeeding status refers to a 24-hour recall period (the day and night preceding the interview). Figures in parentheses are based on 25-49 unweighted cases.

Table 11.7 shows the frequency of foods consumed by children in the seven days preceding the survey. In general, breastfeeding children under four months of age consumed supplementary liquids and foods only infrequently. As expected, the frequency of liquids and foods consumed by children increases among children age 4-5 months and 6-9 months.

Among nonbreastfeeding children, tea, other milk, and other liquids are consumed most days of the week. Breads and cheese or yogurt are given most days (six days and five days, respectively), and so are foods rich in vitamin A such as carrots and squash and other fruits and vegetables (five days and six days, respectively).

Table 11.7 Frequency of foods consumed by children in preceding 7 days

Mean number of days specific foods were consumed by children under three years in the 7 days preceding the interview, by breastfeeding status and child's age, Armenia 2000

Child's age in months	Infant formula	Powdered, tinned, or fresh milk	Fruit juice	Tea	Other liquids[1]	Food made from grain	Bread, food made from flour	Pumpkin, squash, yams, carrots, potatoes, cabbage	Green leafy vege-tables	Other fruits, vege-tables	Beans, legumes, lentils	Meats, poultry, eggs	Fish, shellfish, seafood	Cheese or yogurt	Number of children
BREASTFEEDING CHILDREN															
<4	0.6	0.8	0.7	1.0	0.5	0.0	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.1	90
4-5	(1.4)	(1.2)	(3.9)	(3.7)	(0.6)	(1.6)	(0.4)	(1.3)	(0.0)	(1.6)	(0.0)	(0.3)	(0.0)	(1.2)	38
6-9	0.4	2.4	3.1	3.1	2.9	2.6	3.6	3.3	0.5	3.7	0.1	1.3	0.2	2.9	62
Total	0.5	1.6	2.3	2.8	2.2	2.1	3.0	2.5	0.4	3.1	0.3	1.2	0.1	2.4	289
NONBREASTFEEDING CHILDREN															
6-9	(1.2)	(5.6)	(3.0)	(5.0)	(3.9)	(3.5)	(4.5)	(3.9)	(0.4)	(4.0)	(0.2)	(1.4)	(0.1)	(3.7)	35
10-11	(1.7)	(5.5)	(3.8)	(4.2)	(3.4)	(3.4)	(4.7)	(3.9)	(1.1)	(5.5)	(0.1)	(2.7)	(0.4)	(4.5)	35
12-15	0.6	4.6	3.0	5.2	4.5	4.1	6.2	5.2	1.1	5.6	0.8	2.9	0.5	4.4	79
16-19	0.3	4.0	2.2	5.3	4.7	4.2	6.4	5.2	1.5	5.5	1.0	3.1	0.4	4.3	70
20-23	0.6	3.8	2.1	5.3	4.7	3.4	6.4	5.4	1.0	5.9	1.2	3.2	0.5	5.1	87
24-35	0.2	2.4	1.9	5.2	4.4	3.4	6.0	5.1	1.5	6.0	1.1	3.5	0.8	5.2	264
Total	0.5	3.6	2.4	5.1	4.3	3.5	5.8	4.9	1.2	5.6	0.9	3.0	0.6	4.7	590

Note: Breastfeeding status refers to a 24-hour recall period (the day and night preceding the interview). Figures in parentheses are based on 25-49 unweighted cases.

11.2 Iodine Intake

Insufficient iodine in the diet can lead to serious health deficiencies. Cooking salt in households was tested for the presence of iodine in the ADHS, using salt testing kits supplied by UNICEF. Salt that contains at least 15 parts per million (ppm) of iodine is considered adequately iodized. Salt testing was conducted in almost every household in the survey (99.9 percent).

Table 11.8 shows that most Armenian households have adequately iodized salt (84 percent). There is, however, considerable variation by region, ranging from a high of 95 percent of households in Ararat and Armavir to 59 percent of households in Tavush. This variation in iodine content is greater than expected given that there is only one salt plant in Armenia and the plant is reported to iodize salt and routinely check for adequate iodization. Based on the reports of interviewers, many respondents who lived in households with inadequately iodized salt showed packages of salt imported from other countries, such as the Ukraine and Iran. It is possible then that salt produced outside of Armenia (which tends to be cheaper) is more widely available and affordable in certain regions. Furthermore, exposure of iodized salt can also diminish the iodine content.

Table 11.8 Iodization of household salt

Percent distribution of households by level of iodine in salt (parts per million), according to background characteristics, Armenia 2000

Background characteristic	Level of iodine in household salt (ppm)				Total	Number of households tested [1]
	0	<15	15+	Missing		
Residence						
Urban	6.9	6.9	85.5	0.7	100.0	3,630
Rural	13.7	5.3	80.5	0.5	100.0	2,346
Region						
Yerevan	1.1	8.5	89.7	0.8	100.0	1,944
Aragatsotn	6.4	1.9	90.0	1.7	100.0	248
Ararat	2.1	2.5	95.2	0.2	100.0	580
Armavir	3.3	1.6	94.9	0.2	100.0	496
Gegharkunik	16.2	7.5	76.0	0.2	100.0	505
Lori	24.3	5.2	69.1	1.4	100.0	519
Kotayk	7.2	5.0	87.0	0.8	100.0	413
Shirak	27.3	4.5	68.2	0.0	100.0	602
Syunik	7.7	2.2	89.5	0.7	100.0	258
Vayots Dzor	10.9	12.5	76.1	0.5	100.0	111
Tavush	24.2	16.1	59.1	0.6	100.0	300
Total	9.6	6.3	83.6	0.6	100.0	5,976

[1] Ninety-nine percent of households were tested.

Table 11.9 shows that 83 percent of all children under three years of age are living in households where there is adequately iodized salt. Regional variation is similar to that found in Table 11.8.

11.3 Micronutrient Intake

A mother's nutritional status during pregnancy is important both for the child's intrauterine development and for protection against maternal morbidity and mortality. Night blindness is an indicator of severe vitamin A deficiency, and pregnant women are especially prone to suffer from it. Table 11.10 shows that less than 2 percent of women with a recent birth report that they experienced night blindness. After adjusting for women who also reported vision problems during the day, an estimated 1 percent of women suffered from night blindness. The small percentages make it impossible to examine variation among subgroups of Armenia's population.

Iron-deficiency anemia is a major threat to maternal health; it contributes to low birth weight, lowered resistance to infection, poor cognitive development, and decreased work capacity. Furthermore, anemia increases morbidity from infections because it adversely affects the body's immune response. The ADHS asked women who had a recent birth whether they received or purchased any iron tablets during the last pregnancy. If so, the woman was asked to report the number of days that the tablets were actually taken during that pregnancy. Table 11.10 shows that less than 2 percent of women reported taking iron supplements on at least 90 days during the pregnancy, which is the recommended supplementation.

Table 11.9 Children with access to iodized salt

Percentage of children under three years of age living in a household with adequately iodized household salt (15+ parts per million), by background characteristics, Armenia 2000

Background characteristic	Iodine in household salt 15+ ppm	Number of children
Child's age (months)		
<7	80.7	167
7-11	83.0	132
12-17	83.9	156
18-23	85.8	143
24-35	81.8	281
Child's sex		
Male	82.8	501
Female	82.8	378
Birth order		
1	83.9	363
2-3	82.7	433
4+	78.3	84
Mother's age		
15-19	80.1	60
20-24	81.5	395
25-29	88.0	258
30-34	78.5	94
35-39	77.0	49
40-44	(83.4)	22
45-49	*	1
Residence		
Urban	86.4	453
Rural	79.0	427
Region		
Yerevan	89.6	252
Aragatsotn	81.0	46
Ararat	96.0	114
Armavir	97.2	79
Gegharkunik	63.5	103
Lori	74.3	84
Kotayk	(87.5)	45
Shirak	(72.9)	60
Syunik	89.8	32
Vayots Dzor	71.4	19
Tavush	56.6	46
Total	82.8	880

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

Table 11.10 Micronutrient intake among mothers

Percentage of women who gave birth during the three years preceding the survey who suffered from night blindness during the pregnancy and who took iron supplements, by background characteristics, Armenia 2000

Background characteristic	Mother was night blind during pregnancy	Mother was night blind during pregnancy (adjusted)[1]	Mother took iron on 90+ days during pregnancy	Number of mothers
Birth order				
1	1.3	1.3	1.9	306
2-3	1.4	0.5	1.1	421
4+	1.7	1.7	1.4	82
Mother's age				
15-19	0.0	0.0	0.0	51
20-24	1.1	0.8	1.1	350
25-29	1.6	1.0	1.7	247
30-34	4.2	2.6	2.0	90
35-39	0.0	0.0	0.0	48
40-44	(0.0)	(0.0)	(7.7)	22
45-49	*	*	*	1
Residence				
Urban	1.9	1.3	1.4	427
Rural	0.8	0.6	1.5	382
Region				
Yerevan	2.9	1.7	0.6	241
Aragatsotn	0.0	0.0	1.4	42
Ararat	0.0	0.0	1.1	100
Armavir	3.0	3.0	0.0	74
Gegharkunik	2.2	1.1	0.0	89
Lori	0.0	0.0	3.1	76
Kotayk	(0.0)	(0.0)	(2.6)	44
Shirak	(0.0)	(0.0)	(7.0)	53
Syunik	0.0	0.0	1.9	29
Vayots Dzor	1.4	1.4	1.4	18
Tavush	0.0	0.0	1.3	43
Total	1.4	0.9	1.4	809

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

[1] Excludes women who reported night blindness and difficulty with vision during the day

11.4 Anemia

Anemia is a condition characterized by a decrease in the concentration of hemoglobin in the blood. Hemoglobin is necessary for transporting oxygen to tissues and organs in the body. The reduction in oxygen available to organs and tissues when hemoglobin levels are low is responsible for many of the symptoms experienced by anemic persons. The consequences of anemia include general body weakness, frequent tiredness, and lowered resistance to disease. Anemia can be a particularly serious problem for pregnant women, leading to premature delivery and low birth weight. It is of concern in children since anemia is associated with impaired mental and physical development. Overall, morbidity and mortality risks increase for individuals suffering from anemia.

Determining anemia levels among women and their children under five years of age was one component of the ADHS. Anemia levels were determined by measuring the level of hemoglobin in the blood, a decreased concentration of which characterizes anemia. For hemoglobin measurement, capillary blood was taken from the finger using HemoCue safety lancets (i.e., sterile, disposable instruments that allow a relatively painless skin puncture). Hemoglobin was measured in the blood using the HemoCue system. As described in Chapter 1, medically trained personnel assigned to each of the ADHS teams conducted the testing.

Prior to participating in the study, each respondent was informed of her right not to participate in the anemia testing and was asked to sign a consent form giving permission for the collection of a blood droplet from her and her children. Ninety-five percent of eligible women participated in the hemoglobin measurement. Out of 1,447 eligible children (age 6-59 months), hemoglobin measurements were obtained from 1,334 (93 percent).

Levels of anemia were classified as severe, moderate, and mild based on the hemoglobin concentration in the blood and according to criteria developed by the World Health Organization (DeMaeyer et al., 1989). Because hemoglobin levels vary by altitude, the measurements presented here have been adjusted based on altitude measurements taken in each cluster.

Table 11.11 presents the anemia rates for children under five years of age. Twenty-four percent of children suffer from anemia; 10 percent have moderate anemia, and less than 1 percent have severe anemia. There are substantial differences in anemia rates among children by residence. 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). The prevalence of anemia among children living in the regions ranges from a low of 11 percent in Vayots Dzor and Kotayk to a high of 39 percent in Tavush (Figure11.2). Table 11.11 also shows that as the educational level of mothers increases, their children are less likely to suffer from anemia.

Table 11.11 Prevalence of anemia in children

Percentage of children age 6-59 months with anemia, by background characteristics, Armenia 2000

Background characteristic	Percentage of children with anemia				Number of children
	Any anemia	Severe (below 7.0 g/dl)	Moderate (7.0-9.9 g/dl)	Mild (10.0-10.9 g/dl)	
Child's age (months)					
6-11	48.2	0.0	19.0	29.2	136
12-23	39.5	1.4	18.8	19.3	281
24-35	21.4	0.2	7.5	13.7	262
36-47	15.5	0.2	5.8	9.5	314
48-59	11.2	0.0	3.3	7.9	341
Child's sex					
Male	25.3	0.5	9.6	15.2	756
Female	22.2	0.2	9.6	12.4	579
Birth order					
1	23.2	0.5	9.2	13.5	528
2-3	24.5	0.2	9.8	14.5	684
4+	24.0	0.5	10.3	13.3	123
Birth interval					
First birth	23.3	0.5	9.4	13.4	530
<24 months	25.6	0.2	10.8	14.6	274
24-47 months	24.5	0.0	8.7	15.9	286
48+ months	22.7	0.7	9.8	12.3	243
Residence					
Urban	15.6	0.2	4.8	10.6	684
Rural	32.8	0.6	14.6	17.5	650
Region					
Yerevan	12.9	0.0	4.6	8.2	385
Aragatsotn	25.5	1.4	8.5	15.6	81
Ararat	30.7	0.0	15.7	15.0	159
Armavir	32.8	0.8	16.0	16.0	140
Gegharkunik	31.5	0.0	13.7	17.7	123
Lori	31.5	0.0	4.3	27.2	110
Kotayk	10.7	1.2	3.6	6.0	95
Shirak	27.6	0.0	13.2	14.5	94
Syunik	29.5	2.3	9.1	18.2	48
Vayots Dzor	10.6	0.0	1.9	8.7	26
Tavush	38.5	0.8	18.5	19.2	73
Mother's education					
Primary/middle	38.3	0.5	20.8	17.0	114
Secondary	24.3	0.3	9.9	14.1	530
Secondary-special	23.7	0.4	8.4	14.9	459
Higher	16.7	0.5	5.8	10.4	231
Total	23.9	0.4	9.6	14.0	1,334

Note: Prevalence is adjusted for altitude level using a formula in Dirren et al., 1994.

Figure 11.2 Prevalence of Anemia in Children Age 6-59 Months by Region

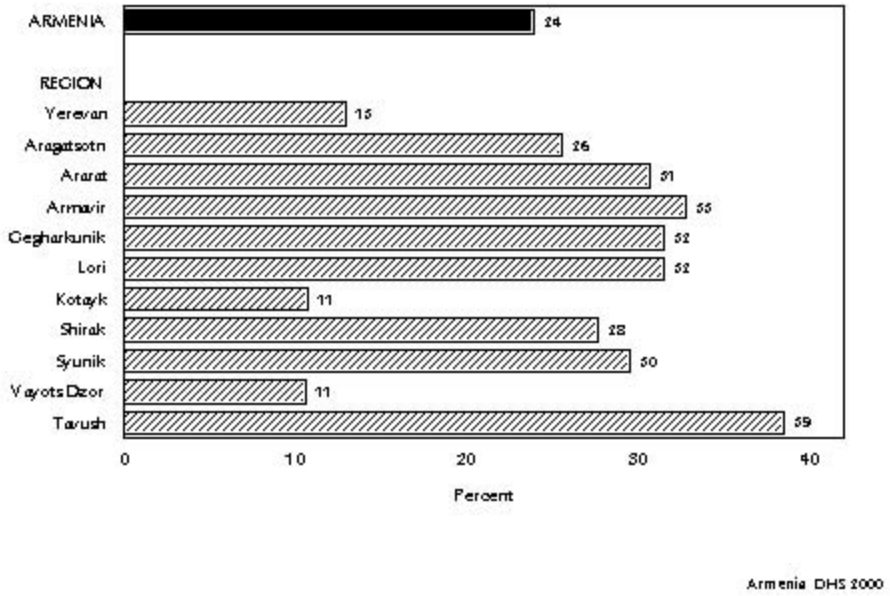


Table 11.12 presents the anemia rates for women. Twelve percent of Armenian women suffer from some degree of anemia; 2 percent have moderate anemia, and less than 1 percent have severe anemia. The prevalence of moderate anemia is higher among older women than among younger women. Higher rates of anemia are found among women residing in rural areas (17 percent) than among women residing in urban areas (10 percent). Six percent of women living in Yerevan have some degree of anemia. The prevalence in the other regions ranges from a low of 10 percent in Vayots Dzor to a high of 20 percent in Syunik. Anemia rates also vary by educational background: women with higher education have the lowest rates of anemia (9 percent versus 13 to14 percent).

Table 11.13 shows that there is no significant relationship between the prevalence of anemia in mothers and prevalence of anemia in their children.

Because rates of anemia vary according to the season, these results pertain only to the period of October through December when the fieldwork took place. It should be noted that because fieldwork followed the harvest season, it is possible that the anemia rates presented here are lower than at other times during the year. The results of the ADHS, therefore, are particularly striking when compared with the findings of a survey conducted in May 1998. According to this previous survey, only 12 percent of Armenian children age 6-59 months had mild or moderate anemia (Branca et al., 1998). A comparison of the data from these two surveys would suggest that anemia rates among children may have doubled over the last several years.

Table 11.12 Prevalence of anemia in women

Percentage of women age 15-49 with anemia, by background characteristics, Armenia 2000

Background characteristic	Percentage of women with anemia				Number of women
	Any anemia	Severe (below 7.0 g/dl)	Moderate (7.0-9.9 g/dl)	Mild (10.0-11.9 g/dl)	
Age					
15-19	8.9	0.0	0.9	8.0	1,103
20-24	11.3	0.2	1.7	9.4	952
25-29	14.4	0.2	1.7	12.5	730
30-34	10.9	0.0	1.2	9.7	739
35-39	14.7	0.1	2.3	12.2	922
40-44	13.1	0.6	3.1	9.4	902
45-49	15.0	0.6	3.4	11.0	789
Parity					
No births	9.2	0.1	1.3	7.8	1,984
1	11.3	0.5	2.0	8.8	613
2-3	13.9	0.2	2.2	11.5	2,907
4+	17.1	0.8	3.1	13.1	634
Pregnancy and breastfeeding					
Pregnant	12.0	0.0	4.6	7.4	169
Breastfeeding only	12.9	0.4	1.8	10.7	274
Neither	12.4	0.2	1.9	10.3	5,694
Using IUD					
Yes	15.5	0.0	1.3	14.2	375
No	12.2	0.3	2.0	9.9	5,762
Residence					
Urban	9.9	0.2	1.6	8.1	3,762
Rural	16.5	0.3	2.6	13.6	2,376
Region					
Yerevan	5.6	0.1	0.9	4.6	2,093
Aragatsotn	11.7	0.2	1.5	10.0	277
Ararat	16.3	0.4	2.7	13.3	601
Armavir	18.0	0.2	2.3	15.6	546
Gegharkunik	17.3	0.2	3.1	14.0	411
Lori	17.9	0.0	3.0	14.9	481
Kotayk	10.6	0.7	2.8	7.2	490
Shirak	17.2	0.2	1.4	15.5	608
Syunik	20.2	0.6	3.9	15.7	256
Vayots Dzor	10.2	0.2	3.9	6.0	106
Tavush	15.6	0.4	3.3	11.9	269
Education					
Primary/middle	14.4	0.4	2.4	11.6	562
Secondary	13.0	0.4	2.0	10.6	2,232
Secondary-special	13.3	0.1	1.9	11.3	2,196
Higher	8.8	0.2	1.9	6.7	1,146
Total	12.4	0.3	2.0	10.2	6,137

Note: Prevalence is adjusted for altitude using a formula in Dirren et al., 1994.

Table 11.13 Prevalence of anemia in children with anemic mothers

Percent distribution of children age 6-59 months by anemia status, according to severity of anemia in the mother, Armenia 2000

Severity of anemia of mother	Percentage of children with anemia			Percentage of children who are not anemic	Total	Number of children[1]
	Severe	Moderate	Mild			
Mother anemic						
Severe	*	*	*	*	*	5
Moderate	(0.0)	(11.1)	(25.7)	(63.2)	(100.0)	26
Mild	0.4	10.7	16.2	72.7	100.0	155
Mother not anemic	0.4	9.3	13.6	76.8	100.0	1,143
Total	0.4	9.5	14.0	76.1	100.0	1,328

Note: Prevalence is adjusted for altitude to sea level using formula of Dirren et al., 1994. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.

[1] Children with hemoglobin data born 6-59 months before the survey with mothers with hemoglobin data

11.5 Nutritional Status of Children

Anthropometry provides one of the most important indicators of children's nutritional status. Height and weight measurements were obtained for respondents' children who were born in the five-year period preceding the survey.[1] The data on height and weight were used to compute three summary indices of nutritional status: height-for-age, weight-for-height, and weight-for-age. These indices indicate children's susceptibility to diseases and their chances of survival.

The nutritional indices are expressed as standardized scores (Z-scores) or standard deviation units from the median for the international reference population recommended by the World Health Organization. Children who fall more than two standard deviations below the reference median are regarded as undernourished, while those who fall more than three standard deviations below the reference median are considered severely undernourished.

In the survey, children born to female respondents since January 1995 were eligible for height and weight measurements. Of the 1,596 children eligible for measurement (i.e., age 0-59 months at the time of the survey), 1,461 (92 percent) were measured and had consistent results. Table 11.14 shows the nutritional status for these children by selected demographic and background characteristics.

[1] Height was measured standing up for children age two years and above and lying down for children below two years, using specially designed portable measuring boards (Shorr Boards). Weight was measured using electronic Seca scales.

Table 11.14 Nutritional status of children

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by demographic and background characteristics, Armenia 2000

	Height-for-age (stunted)			Weight-for-height (wasted)			Weight-for-age (underweight)			
Characteristic	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Number of children
Child's age (months)										
<6	0.0	4.0	-0.1	0.0	3.7	0.5	0.4	1.6	0.4	132
6-11	1.8	5.9	-0.1	0.4	2.5	0.6	0.2	2.0	0.4	135
12-23	1.2	15.2	-0.7	0.8	3.7	0.6	0.4	2.8	0.0	276
24-35	1.9	11.6	-0.4	0.5	1.1	0.5	0.0	3.0	0.1	262
36-47	4.9	16.1	-0.9	0.0	0.4	0.6	0.4	2.3	-0.1	318
48-59	3.2	15.7	-0.9	0.0	1.9	0.5	0.0	3.0	-0.2	340
Child's sex										
Male	3.0	12.3	-0.7	0.4	2.2	0.6	0.2	2.4	0.0	837
Female	2.0	14.0	-0.6	0.1	1.7	0.5	0.2	2.8	0.0	626
Birth order										
1	1.7	9.6	-0.6	0.3	1.3	0.6	0.0	1.6	0.1	577
2-3	2.8	13.9	-0.7	0.3	2.5	0.6	0.4	2.7	0.0	750
4+	4.7	22.6	-1.0	0.0	1.7	0.4	0.0	6.1	-0.3	136
Birth interval										
First birth	1.7	9.6	-0.6	0.3	1.3	0.6	0.0	1.6	0.1	580
<24 months	3.0	15.9	-0.9	0.0	1.3	0.6	0.6	3.4	-0.1	299
24-47 months	3.4	16.1	-0.6	0.4	3.6	0.5	0.1	2.8	-0.0	318
48+ months	2.9	13.5	-0.6	0.5	2.3	0.5	0.4	3.5	-0.0	266
Residence										
Urban	1.6	10.1	-0.5	0.5	2.2	0.6	0.2	2.4	0.1	750
Rural	3.6	16.0	-0.8	0.1	1.7	0.5	0.3	2.8	-0.1	713
Region										
Yerevan	0.7	7.5	-0.3	0.3	2.3	0.6	0.0	0.7	0.2	422
Aragatsotn	0.7	8.8	-0.3	0.7	2.7	0.3	0.7	2.0	0.0	85
Ararat	2.7	15.3	-0.8	0.0	0.0	0.4	0.0	3.3	-0.2	171
Armavir	1.4	8.7	-0.6	0.0	0.0	0.6	0.7	1.4	0.1	154
Gegharkunik	8.6	32.1	-1.3	0.0	1.4	0.6	0.0	3.6	-0.3	139
Lori	5.7	12.3	-0.7	0.0	0.9	0.8	0.0	0.0	0.3	127
Kotayk	1.2	8.1	-0.5	2.3	10.5	0.0	1.2	9.3	-0.4	98
Shirak	3.5	22.4	-1.1	0.0	2.4	0.8	0.0	5.9	-0.1	106
Syunik	4.1	15.5	-0.8	0.0	0.0	0.7	0.0	5.2	0.0	53
Vayots Dzor	1.7	11.1	-0.7	0.0	1.7	0.5	0.9	4.3	-0.1	29
Tavush	0.7	10.4	-0.7	0.0	0.7	0.6	0.0	1.4	-0.0	81
Mother's education										
Primary/middle	4.8	21.0	-1.0	0.0	1.9	0.4	0.0	6.5	-0.3	126
Secondary	2.7	13.7	-0.7	0.0	2.3	0.5	0.3	2.4	-0.0	588
Secondary-special	2.7	12.8	-0.6	0.7	1.7	0.6	0.2	2.5	0.0	493
Higher	0.7	7.9	-0.3	0.2	1.7	0.6	0.0	1.2	0.2	255
Total	2.5	13.0	-0.7	0.3	2.0	0.6	0.2	2.6	0.0	1,463

Note: Table is based on children born 0-59 months preceding the survey whose mothers were interviewed. Each of the indices is expressed in standard deviation (SD) units from the median of the NCHS/CDC/WHO International Reference Population. The percentage of children who are more than three or more than two standard deviations below (i.e., away in the negative direction) the median of the International Reference Population (-3 SD and -2 SD) are shown according to demographic characteristics. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.

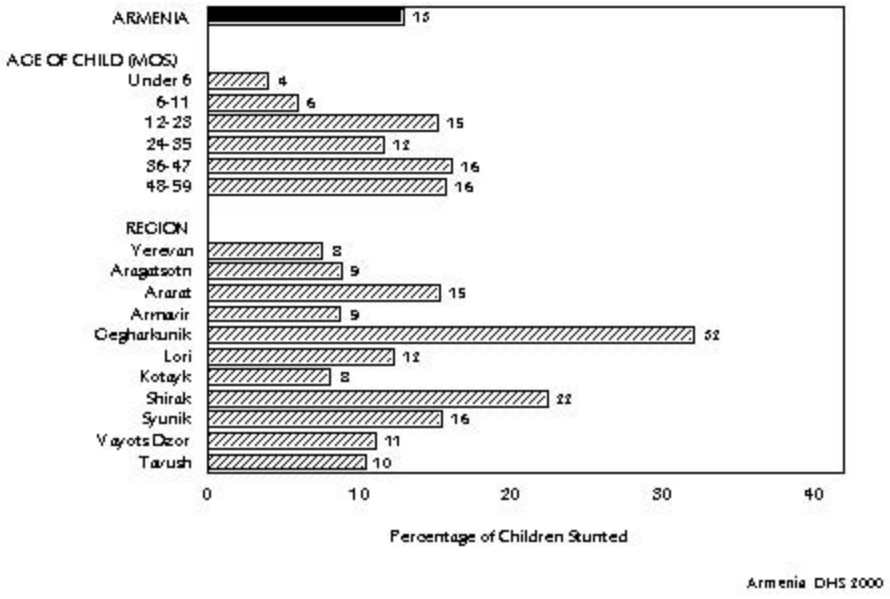
[1] Includes children who are below -3 standard deviations from the International Reference Population median

Children whose height-for-age is below minus two standard deviations from the median of the reference population are considered stunted or short for their age. This condition reflects chronic malnutrition. Overall, 13 percent of children under age five are stunted; 3 percent are severely stunted. In general, children of higher birth orders, children residing in rural areas, and children born to mothers with less education are more likely to be stunted. For example, the children of mothers with a primary/middle school education are almost three times as likely as the children of mothers with a higher education to be stunted (21 percent versus 8 percent). There is significant regional variation in the prevalence of stunted children ranging from a low of 8 percent in Kotayk and Yerevan to a high of 32 percent in Gegharkunik (Figure 11.3).

Children whose weight-for-height is below minus two standard deviations from the median of the reference population are considered wasted (or thin). This condition reflects an acute or recent nutritional deficit. Children whose weight-for-age is below minus two standard deviations from the median of the reference population are considered underweight. The weight-for-age index does not distinguish between chronic malnutrition (stunting) and acute malnutrition (wasting). A child can be underweight for age because of stunting, because of wasting, or because of both stunting and wasting. Weight-for-age is a good overall indicator of a population's general health.

Overall, 2 percent of children are wasted and 3 percent are underweight, signifying that Armenian children are no more likely to be wasted or underweight than the international reference population. The prevalence of wasted and underweight children does vary by region, however, and levels are markedly high in Kotayk, where 11 percent of the children are wasted and 9 percent are underweight. Children of higher birth orders (four and higher) are significantly more likely to be underweight than first-born children (6 percent versus 2 percent). Children of mothers with a primary/middle education are also more likely to be underweight than children of mothers with higher education (1 percent).

Figure 11.3 **Prevalence of Stunting by Age of Child and Region**



Information about children's nutritional status at the national level is available from another recent survey. According to a survey conducted in 1998, 12 percent of children under five years of age were stunted (versus 13 percent in ADHS) and 4 percent of children were wasted (versus 2 percent in ADHS) (Branca et al., 1998). When confidence intervals are considered, these figures do not vary significantly from the ADHS.

11.6 Nutritional Status of Women

The ADHS also collected anthropometric data from all women age 15-49. Women's nutritional status is important both as an indicator of overall health and as a predictor of pregnancy outcome for both mother and child. Two indices of women's nutritional status are presented in Table 11.15: height and body mass index (BMI).

Maternal height is a measure of past nutritional status and reflects in part the cumulative effect of social and economic outcomes on access to nutritional foods during childhood and adolescence. It can be used to predict the risks associated with difficult deliveries since small stature is often associated with small pelvis size and a greater likelihood of obstructed labor. Short stature is also correlated with low birth weight in infants, high risk of stillbirths, and high rates of miscarriage. The height below which a woman is considered to be at nutritional risk is in the range of 140 to 150 centimeters. In the ADHS, 96 percent of eligible women were measured. The mean height of Armenian women is 158 centimeters; only 1 percent of women are below 145 centimeters. The mean height varies little by background characteristics. Short stature appears to be the most prevalent in Vayots Dzor, however, where 5 percent of women are below 145 centimeters tall.

The BMI, which utilizes both height and weight and provides a better measure of thinness and obesity than weight alone, is defined as weight in kilograms divided by the square of the height in meters (kg/m^2). For the BMI, a cutoff of 18.5 has been recommended for indicating chronic energy deficiency among nonpregnant women. To avoid bias in the measurement of women's nutritional status, pregnant women and women who had given birth in the two months preceding the survey were excluded from the calculation of weight and body mass measures. Out of the remaining 6,210 eligible women, 96 percent were measured. Table 11.15 shows that less than 4 percent of Armenian women are undernourished or have a low BMI.

The BMI index can also be used to evaluate the percentage of the population of women who are overweight and obese. A cutoff point of 25.0 has been recommended for defining "overweight," while 30.0 is used as the cutoff point for defining "obese." According 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 strong relationship between age and high scores on the BMI index. For example, only 2 percent of women age 15-19 are obese, as opposed to one-third (33 percent) of women age 45-49. More important, more than half of all women age 35 and older are either overweight or obese; this indicates that the majority of older women do not have a healthy lifestyle and presents a serious public health challenge for Armenia.

Table 11.15 Nutritional status of women by background characteristics

Among women age 15-49, mean height and percentage under 145 cm, mean body mass index (BMI), and percent distribution of BMIs, mean ADHS Z-score, and percentage wasted, by background characteristics, Armenia 2000

	Height			Weight-for-height[1]						
					Percentage with BMI (kg/m^2)					
Background characteristic	Mean height in cm	Percentage below 145 cm	Number of women	Mean BMI	<18.5 (low)	18.5-24.9 (normal)	25.0-29.9 (overweight)	30.0+ (obese)	Total	Number of women
Age										
15-19	158.1	1.3	1,106	22.3	6.4	77.9	13.4	2.2	100.0	1,080
20-24	158.2	1.0	963	22.8	6.7	71.9	18.1	3.3	100.0	871
25-29	157.9	1.8	735	23.7	4.3	64.9	24.2	6.6	100.0	686
30-34	157.6	0.4	739	24.8	3.3	54.8	29.2	12.6	100.0	711
35-39	157.5	1.3	922	26.0	1.3	46.4	35.5	16.9	100.0	914
40-44	157.2	1.2	910	27.3	0.6	35.1	37.8	26.5	100.0	907
45-49	157.4	1.0	791	28.0	1.4	29.4	36.6	32.6	100.0	791
Residence										
Urban	158.5	0.8	3,783	24.8	4.1	55.0	27.5	13.3	100.0	3,698
Rural	156.5	1.7	2,383	25.1	2.6	54.9	27.1	15.3	100.0	2,264
Region										
Yerevan	159.1	0.9	2,103	24.6	4.3	57.3	25.8	12.6	100.0	2,061
Aragatsotn	156.9	1.5	278	24.8	2.9	56.3	27.5	13.4	100.0	263
Ararat	156.3	1.7	603	25.4	3.2	52.1	24.4	20.4	100.0	570
Armavir	157.3	0.4	550	25.7	3.0	49.7	28.5	18.8	100.0	522
Gegharkunik	156.9	2.6	415	24.5	3.0	61.1	23.7	12.2	100.0	397
Lori	157.0	1.2	479	24.8	4.6	51.2	30.7	13.6	100.0	467
Kotayk	156.6	0.9	493	25.4	3.3	50.2	30.0	16.5	100.0	481
Shirak	158.8	0.0	609	24.7	1.9	57.1	34.2	6.7	100.0	592
Syunik	155.7	2.3	258	25.1	4.0	52.6	26.4	17.0	100.0	249
Vayots Dzor	155.4	4.8	106	24.8	2.4	59.4	22.9	15.2	100.0	102
Tavush	156.0	1.4	273	25.3	2.6	54.3	26.8	16.2	100.0	259
Education										
Primary/middle	156.9	1.2	566	24.1	5.8	60.9	20.9	12.3	100.0	550
Secondary	157.3	1.1	2,244	25.0	4.0	54.7	26.4	14.9	100.0	2,157
Secondary-special	157.5	1.4	2,206	25.1	3.1	52.7	29.2	15.0	100.0	2,143
Higher	159.2	0.8	1,150	24.8	2.3	57.0	29.1	11.6	100.0	1,112
Total	157.7	1.1	6,166	24.9	3.5	55.0	27.4	14.1	100.0	5,962

[1] Excludes pregnant women and women with a birth in the preceding 2 months

HIV/AIDS AND SEXUALLY TRANSMITTED INFECTIONS

12

S. Grigoryan, K. Babayan, and S. Mondjyan

Acquired immune deficiency syndrome (AIDS) is caused by a human immunodeficiency virus (HIV) that weakens the immune system, making the body susceptible to and unable to recover from other diseases.

HIV/AIDS is a pandemic with cases reported from every country. The current estimate of the total number of cases of HIV infection among adults worldwide is approximately 36.1 million, including 1.4 million children. The United Nations Program on AIDS (UNAIDS) estimates that approximately 17.5 million adults and 4.3 million children infected with HIV have died since the beginning of the epidemic (UNAIDS/WHO, 2000).

Within the territory of Eastern Europe and the Former Soviet Union, there are 700,000 estimated cases of HIV infection. This region has one of the fastest growing rates of HIV infection in the world. In Armenia, there were 161 cases of HIV registered between 1988 and September 1, 2001. It is believed that the number of HIV-infected individuals residing in Armenia greatly exceeds the number of officially registered cases. According to the official data, however, it is possible to determine the following trends. The large majority of the HIV-infected population are adult males (75 percent) and transmission occurred primarily through injecting drug use and heterosexual contacts. Children constitute 2 percent of the total number of HIV-infected individuals in Armenia. The majority of the cases have been registered in Yerevan (NCAP, 2001).

By September 1, 2001, 28 HIV-infected individuals had been diagnosed with AIDS. Since the beginning of the epidemic, 18 patients with AIDS have died, including five in 2000 and three in 2001. The number of HIV infection cases reported within the last two and a half years exceed the number of the cases registered during the whole previous period of registration. Half of the AIDS cases and almost half of the death cases have also been registered during the last two and a half years (NCAP, 2001).

The ADHS collected information from women and men on HIV/AIDS and other sexually transmitted infections (STIs), such as syphilis, gonorrhea, and chlamydia, which are known to be important predisposing factors for HIV epidemics. This chapter summarizes information on knowledge, perceptions, and behaviors at the national level and within geographic and socioeconomic subgroups of the population.

12.1 Knowledge of HIV/AIDS and Methods of HIV Prevention

Table 12.1 shows the percentage of women and men who have heard of AIDS by background characteristics. Almost all of the respondents (94 percent of women and 97 percent of men) report that they have heard of HIV/AIDS. At least 9 in 10 women and men of all background characteristics have heard of HIV/AIDS with the exception of women and men with a primary/secondary education, women and men living in Gegharkunik and Vayots Dzor, and women in Aragatsotn and Lori.

Table 12.1 Knowledge of HIV/AIDS

Percentage of women and men who have heard of HIV/AIDS and percentage who believe there is a way to avoid getting HIV/AIDS, by background characteristics, Armenia 2000

Background characteristic	Women			Men		
	Has heard of HIV/AIDS	Believes there is a way to avoid HIV/AIDS	Number of women	Has heard of HIV/AIDS	Believes there is a way to avoid HIV/AIDS	Number of men
Age						
15-19	89.9	46.2	1,160	92.3	51.1	263
20-24	95.5	64.1	1,007	97.6	73.2	215
25-29	96.0	66.4	769	97.8	74.9	194
30-34	96.0	66.1	763	96.8	75.0	205
35-39	95.3	64.7	962	96.4	78.1	237
40-44	94.1	65.2	947	97.2	79.0	275
45-49	95.9	64.5	822	98.0	81.6	203
50-54	na	na	na	98.8	79.0	126
Marital status						
Never married	92.3	57.0	1,851	95.7	62.7	530
Currently married	95.6	63.5	4,125	97.0	77.9	1,161
Formerly married	92.6	63.9	455	(96.2)	(80.0)	28
Residence						
Urban	96.9	70.1	3,942	98.6	81.2	1,024
Rural	90.5	48.3	2,488	93.7	61.5	695
Region						
Yerevan	97.8	75.5	2,206	99.1	86.4	582
Aragatsotn	89.0	58.5	279	99.3	77.7	78
Ararat	98.6	62.8	642	100.0	69.8	177
Armavir	94.1	48.9	553	97.9	63.4	172
Gegharkunik	87.3	38.2	484	88.0	43.6	124
Lori	83.6	47.9	489	89.7	42.5	119
Kotayk	96.9	54.6	505	99.2	85.0	137
Shirak	95.7	66.5	611	94.2	77.7	161
Syunik	92.9	55.9	271	99.2	94.1	65
Vayots Dzor	86.7	55.9	113	88.1	47.5	25
Tavush	93.1	53.4	278	89.9	55.7	79
Education						
Primary/middle	79.9	30.2	593	89.3	49.7	245
Secondary	91.9	50.6	2,341	96.8	69.5	510
Secondary-special	98.1	69.3	2,295	97.7	75.8	588
Higher	99.5	84.2	1,201	99.3	89.5	376
Total	94.4	61.7	6,430	96.6	73.2	1,719

Note: Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable

To evaluate the level of knowledge about HIV/AIDS, respondents who had heard of the infection were asked whether there is anything a person can do to avoid getting infected with the virus that causes AIDS. The data show that although almost all women and men have heard of HIV/AIDS, only 62 percent of women and 73 percent of men believe there is a way to avoid HIV/AIDS. Young people, residents of rural areas, and never-married individuals are less likely to believe there is a way to avoid getting HIV/AIDS. There is a strong positive correlation between educational background and the belief that there is a way to avoid HIV/AIDS. Less than half of women living in Armavir, Gegharkunik and Lori, and men from Gegharkunik, Lori, and Vayots Dzor, believe that there are ways to prevent HIV/AIDS.

If respondents reported that HIV infection could be prevented, they were asked to indicate the ways of prevention. Two types of questions were asked about means to prevent HIV infection. First, an open-ended question was asked and respondents were allowed to indicate any means that they know without prompting. Next, women and men were asked specific questions on whether condom use and having only one sexual partner can reduce their chances of becoming infected with HIV.

Tables 12.2.1 and 12.2.2 show the percentage of all women and men who spontaneously mentioned specific ways to avoid contracting the disease. The most frequently reported means to prevent HIV/AIDS is condom use. More than half of all men (53 percent) and a quarter of all women (27 percent) mentioned condom use. Among women, the second most common answer was abstinence from sexual relations; this answer was also given by 8 percent of men. Among men, the second most common answer was to avoid sex with prostitutes (31 percent). Approximately one-quarter of both women and men mentioned having one sexual partner as a way to prevent HIV/AIDS (23 percent and 26 percent respectively). Limiting the number of sexual partners was cited by 7 percent of women and 13 percent of men.

Table 12.2.1 Knowledge of ways to avoid HIV/AIDS: women

Percentage of women who spontaneously mentioned ways to avoid HIV/AIDS, by background characteristics, Armenia 2000

Background characteristic	Does not know of AIDS or if AIDS can be avoided	Believes there is no way to avoid AIDS	Does not know specific way to avoid HIV/AIDS	Ways to avoid HIV/AIDS: Abstain from sexual relations	Use condoms [1]	Have only one sexual partner	Limit number of sex partners [1]	Avoid sex with person who has many partners	Avoid sex with prostitutes	Avoid sex with homosexuals	Avoid transfusions	Avoid injections	Avoid kissing	Other	Number of women
Age															
15-19	49.5	4.3	3.6	18.4	19.9	11.3	4.4	3.0	2.2	0.3	0.9	1.1	0.8	1.6	1,160
20-24	32.2	3.7	2.3	23.1	32.3	22.5	5.9	4.4	5.5	0.4	4.5	4.0	1.5	1.9	1,007
25-29	28.2	5.4	1.5	25.0	32.4	26.1	8.2	3.9	6.2	0.9	4.0	3.8	1.1	1.9	769
30-34	27.5	6.4	0.5	27.0	30.2	26.8	8.2	4.8	6.6	0.9	3.5	4.7	1.0	1.5	763
35-39	30.6	4.6	1.2	25.7	26.4	25.2	7.9	4.3	5.3	0.0	3.0	4.6	1.4	1.8	962
40-44	30.1	4.7	1.9	25.6	24.4	24.0	7.9	3.7	7.2	0.7	4.3	3.6	0.9	2.5	947
45-49	31.6	4.0	0.8	27.1	26.1	27.0	7.8	3.6	5.8	1.4	5.1	2.9	0.5	2.5	822
Marital status															
Never married	39.7	3.4	2.6	22.6	27.9	16.1	5.9	4.3	3.8	0.4	3.6	3.0	1.3	2.4	1,851
Currently married	31.3	5.2	1.5	24.8	26.0	25.4	7.6	3.8	6.2	0.7	3.4	3.8	1.0	1.8	4,125
Formerly married	30.8	5.3	1.4	25.9	32.1	23.7	6.7	3.0	4.5	0.2	3.7	2.4	1.0	1.8	455
Residence															
Urban	26.3	3.6	1.8	26.3	36.7	26.7	7.5	4.4	6.1	0.8	4.5	4.6	1.4	2.0	3,942
Rural	45.4	6.3	1.9	20.9	11.6	16.2	6.2	3.1	4.2	0.2	1.8	1.6	0.5	1.8	2,488
Region															
Yerevan	21.1	3.4	1.6	27.1	48.1	30.2	9.2	4.6	7.2	0.9	5.7	4.8	1.9	2.2	2,206
Aragatsotn	38.6	2.9	0.4	26.2	17.1	26.2	1.9	1.7	6.4	0.2	9.3	5.4	3.1	0.0	279
Ararat	30.9	6.4	1.8	30.3	10.3	21.1	14.0	4.3	3.7	0.7	0.9	1.2	0.0	2.8	642
Armavir	44.8	6.3	1.0	16.8	12.1	25.9	8.1	1.0	1.2	0.2	3.6	3.6	0.8	0.8	553
Gegharkunik	55.8	5.9	2.0	23.9	4.7	4.7	2.7	2.7	6.7	0.0	0.8	0.6	0.4	0.8	484
Lori	44.5	7.6	1.7	12.5	14.9	17.4	2.4	3.4	3.2	0.5	1.2	3.9	0.5	0.7	489
Kotayk	38.2	7.2	4.9	20.2	11.9	14.2	3.4	3.4	2.5	0.2	2.2	3.4	0.0	4.7	505
Shirak	31.7	1.8	1.4	29.9	37.2	22.4	7.1	7.3	4.5	0.8	2.0	3.7	0.6	1.8	611
Syunik	40.7	3.4	0.6	26.1	7.9	25.9	2.0	1.4	1.4	0.4	1.2	1.4	0.4	0.2	271
Vayots Dzor	40.0	4.1	3.1	15.9	21.8	18.8	8.7	10.3	11.1	1.1	1.5	1.5	2.2	3.9	113
Tavush	41.7	4.8	2.0	17.3	23.0	10.5	2.6	2.4	12.5	0.8	2.8	2.0	0.6	2.2	278
Education															
Primary/middle	64.2	5.5	2.5	12.9	7.9	9.7	3.8	1.3	2.5	0.2	1.2	1.2	0.5	2.1	593
Secondary	43.6	5.8	2.6	21.0	17.8	16.2	4.8	2.7	3.4	0.2	1.2	1.2	0.6	1.0	2,341
Secondary-special	26.2	4.5	1.3	27.5	30.6	25.8	8.2	4.7	6.3	0.7	4.3	4.1	1.2	2.4	2,295
Higher	13.3	2.5	0.9	29.9	47.5	35.5	10.6	6.0	8.8	1.4	7.6	7.7	2.1	2.8	1,201
Total	33.7	4.7	1.8	24.2	27.0	22.6	7.0	3.9	5.4	0.6	3.5	3.4	1.1	1.9	6,430

Note: Responses not shown were "sharing razor/blades" and "avoid mosquito bites" (each 0.2 percent or less).
[1] Spontaneous responses only. For both spontaneous and probed responses for condom use and limiting number of partners, see Table 12.3.1.

Table 12.2.2 Knowledge of ways to avoid HIV/AIDS: men

Percentage of men who spontaneously mentioned ways to avoid HIV/AIDS, by background characteristics, Armenia 2000

Background characteristic	Does not know of AIDS or if AIDS can be avoided	Believes there is no way to avoid AIDS	Does not know specific way to avoid HIV/AIDS	Ways to avoid HIV/AIDS: Abstain from sexual relations	Use condoms [1]	Have only one sexual partner	Limit number of sex partners [1]	Avoid sex with person who has many partners	Avoid sex with prostitutes	Avoid sex with homosexuals	Avoid transfusions	Avoid injections	Avoid kissing	Other	Number of men
Age															
15-19	43.4	5.5	0.9	3.8	40.6	15.0	4.9	0.9	19.3	0.2	1.0	0.2	0.4	3.1	263
20-24	21.3	5.5	1.9	3.5	57.1	20.4	16.9	1.9	30.1	2.8	1.3	0.8	0.5	5.4	215
25-29	16.6	8.5	1.2	9.1	57.4	26.4	16.5	4.6	26.0	2.2	2.5	4.4	1.3	7.2	194
30-34	17.5	7.6	0.0	8.2	51.0	30.7	17.4	2.2	26.1	1.5	3.7	4.2	0.0	8.6	205
35-39	15.5	6.4	0.0	13.0	56.1	30.0	6.2	2.6	30.4	2.3	2.6	2.4	0.5	5.6	237
40-44	15.3	5.6	0.4	11.8	58.2	23.8	14.4	3.6	36.7	1.5	3.5	2.2	0.0	4.3	275
45-49	13.6	4.7	0.9	9.1	51.5	33.6	15.7	1.8	39.4	0.9	1.9	1.3	0.0	4.5	203
50-54	16.3	4.7	0.0	4.2	46.2	32.6	13.8	4.0	44.1	2.3	1.6	2.5	0.0	7.0	126
Marital status															
Never married	30.8	6.4	0.9	4.7	49.9	18.4	12.9	1.7	24.3	1.9	1.4	1.9	0.9	5.2	530
Currently married	16.1	6.1	0.6	9.5	53.6	28.8	13.0	3.1	34.0	1.5	2.8	2.2	0.1	5.7	1,161
Formerly married	(20.0)	(0.0)	(0.0)	(13.8)	(55.5)	(38.8)	(4.0)	(0.0)	(16.6)	(0.0)	(0.0)	(4.6)	(0.0)	(2.0)	28
Residence															
Urban	14.7	4.1	0.3	5.9	59.9	28.6	16.4	3.1	35.4	2.4	2.9	2.5	0.6	7.1	1,024
Rural	29.5	9.0	1.2	11.3	41.5	21.6	7.6	1.9	23.9	0.5	1.4	1.7	0.0	3.1	695
Region															
Yerevan	10.9	2.7	0.0	4.9	65.8	34.4	19.0	1.6	33.9	2.9	3.8	2.7	0.2	7.8	582
Aragatsotn	15.8	6.5	1.4	1.4	71.2	0.0	0.0	0.7	36.7	3.6	0.7	0.7	0.0	2.2	78
Ararat	26.6	3.6	0.0	41.0	41.0	43.2	3.6	0.0	4.3	0.0	0.0	2.2	0.0	0.0	177
Armavir	26.9	9.7	4.1	13.1	55.9	42.1	15.2	4.1	17.2	1.4	0.0	3.4	0.7	2.1	172
Gegharkunik	41.9	14.5	0.9	0.9	18.8	8.5	0.9	3.4	28.2	0.0	1.7	0.0	0.9	6.8	124
Lori	32.2	25.3	0.0	0.0	23.0	1.1	0.0	0.0	24.1	0.0	0.0	0.0	0.0	3.4	119
Kotayk	14.2	0.8	0.0	1.6	80.3	15.7	23.6	3.1	34.6	0.0	0.8	1.6	0.0	2.4	137
Shirak	19.4	2.9	0.0	5.8	54.0	10.1	10.1	9.4	66.2	2.2	4.3	0.7	1.4	6.5	161
Syunik	5.0	0.8	3.4	0.0	24.4	36.1	34.5	2.5	14.3	0.0	1.7	4.2	0.0	19.3	65
Vayots Dzor	40.6	11.9	0.0	5.0	15.8	24.8	4.0	2.0	33.7	2.0	3.0	1.0	0.0	9.9	25
Tavush	39.9	4.4	0.0	0.6	34.8	19.0	5.7	2.5	37.3	2.5	6.3	6.3	0.0	3.2	79
Education															
Primary/middle	42.8	7.5	1.2	6.9	31.7	13.9	9.9	1.6	17.5	0.2	1.1	0.5	1.0	4.4	245
Secondary	24.2	6.3	0.9	7.0	50.4	24.9	10.8	1.2	27.7	0.7	2.0	2.9	0.2	3.8	510
Secondary-special	16.3	7.8	0.2	9.2	54.1	27.3	13.5	2.1	30.8	1.5	2.5	2.0	0.2	6.0	588
Higher	8.3	2.2	0.8	8.5	66.2	32.4	16.4	5.9	43.3	4.1	3.2	2.6	0.3	7.8	376
Total	20.7	6.1	0.7	8.1	52.5	25.8	12.8	2.6	30.7	1.6	2.3	2.2	0.3	5.5	1,719

Note: Responses not shown were "sharing razor/blades" (1.0 percent) and "avoid mosquito bites" (0.1 percent). Figures in parentheses are based on 25-49 unweighted cases.

[1] Spontaneous responses only. For both spontaneous and probed responses for condom use and limiting number of partners, see Table 12.3.2.

AIDS prevention programs focus their messages and efforts on three important aspects of behavior: condom use, limiting the number of sexual partners/staying faithful to one partner, and delaying the first sexual intercourse in young persons (i.e., abstinence). In the first three columns of Tables 12.3.1 and 12.3.2, the percentage of women and men who reported 0, 1, or 2-3 of these ways to avoid AIDS are shown. Overall, 61 percent of women and 72 percent of men were able to mention spontaneously or to recognize at least one programmatically important way to avoid HIV/AIDS (Figure 12.1).

Table 12.3.1 Knowledge of programmatically important ways to avoid HIV/AIDS: women

Percent distribution of women by knowledge of programmatically important ways to avoid HIV/AIDS, and percentage of women who know of two specific ways to avoid HIV/AIDS, according to background characteristics, Armenia, 2000

Background characteristic	Knowledge of programmatically important ways to avoid HIV/AIDS				Specific ways to avoid HIV/AIDS		Number of women
	None [1]	One way	Two or three ways	Total	Use condoms	Limit number of sexual partners [2]	
Age							
15-19	56.4	9.0	34.6	100.0	32.4	38.7	1,160
20-24	36.9	8.8	54.2	100.0	52.8	58.3	1,007
25-29	34.3	9.6	56.1	100.0	54.5	62.2	769
30-34	34.5	8.1	57.5	100.0	51.6	63.9	763
35-39	35.5	10.3	54.3	100.0	49.8	60.4	962
40-44	36.0	11.0	53.0	100.0	48.7	59.6	947
45-49	36.0	8.6	55.3	100.0	51.1	61.7	822
Marital status							
Never married	45.0	8.5	46.4	100.0	44.7	49.8	1,851
Currently married	37.1	9.9	53.0	100.0	49.0	59.7	4,125
Formerly married	36.5	8.2	55.2	100.0	51.2	59.5	455
Residence							
Urban	30.7	8.5	60.7	100.0	58.4	65.0	3,942
Rural	53.0	10.7	36.3	100.0	31.3	43.9	2,488
Region							
Yerevan	25.6	6.4	68.0	100.0	66.1	70.0	2,206
Aragatsotn	41.7	14.9	43.4	100.0	37.4	51.7	279
Ararat	39.0	11.9	49.1	100.0	40.4	59.2	642
Armavir	51.5	11.5	37.0	100.0	31.7	47.1	553
Gegharkunik	63.6	9.0	27.4	100.0	22.7	29.9	484
Lori	52.3	9.3	38.4	100.0	35.0	44.7	489
Kotayk	46.7	16.9	36.4	100.0	33.3	50.1	505
Shirak	34.3	5.1	60.6	100.0	58.3	62.2	611
Syunik	44.7	9.9	45.3	100.0	41.7	52.4	271
Vayots Dzor	46.1	14.4	39.5	100.0	40.0	47.8	113
Tavush	47.2	11.9	40.9	100.0	42.9	47.6	278
Education							
Primary/middle	71.9	7.7	20.5	100.0	17.4	25.5	593
Secondary	50.8	10.1	39.1	100.0	35.3	45.3	2,341
Secondary-special	31.6	10.2	58.2	100.0	54.9	64.4	2,295
Higher	15.9	7.2	76.9	100.0	74.2	80.2	1,201
Total	39.4	9.4	51.3	100.0	47.9	56.8	6,430

Note: Programmatically important ways are abstaining from sex, using condoms, and limiting the number of sexual partners. Abstinence from sex is measured from a spontaneous response only, and using condoms and limiting the number of sexual partners is measured from spontaneous and probed responses.

[1] Those who have not heard of HIV/AIDS or do not know of any programmatically important ways to avoid HIV/AIDS.

[2] Refers to limiting the number of sexual partners and limiting sex to one partner/staying faithful to one partner.

Table 12.3.2 Knowledge of programmatically important ways to avoid HIV/AIDS: men

Percent distribution of men by knowledge of programmatically important ways to avoid HIV/AIDS, and percentage of men who know of two specific ways to avoid HIV/AIDS, according to background characteristics, Armenia, 2000

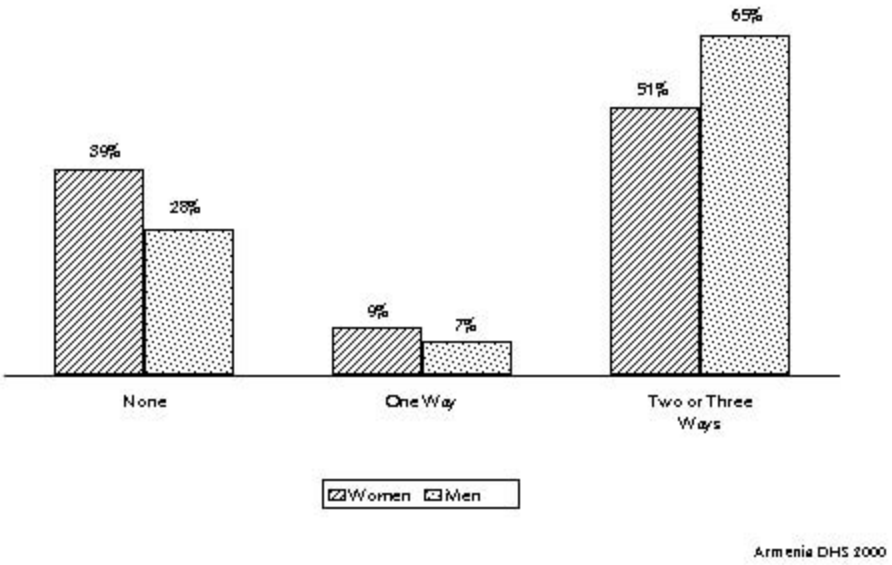
	Knowledge of programmatically important ways to avoid HIV/AIDS				Specific ways to avoid HIV/AIDS		
Background characteristic	None [1]	One way	Two or three ways	Total	Use condoms	Limit number of sexual partners[2]	Number of men
Age							
15-19	50.2	3.0	46.8	100.0	48.1	47.1	263
20-24	28.4	9.3	62.3	100.0	66.5	66.2	215
25-29	26.8	5.4	67.8	100.0	68.1	68.9	194
30-34	25.7	3.9	70.3	100.0	70.4	72.4	205
35-39	23.8	8.3	67.9	100.0	66.8	73.1	237
40-44	22.2	6.9	70.9	100.0	72.8	73.0	275
45-49	20.1	9.6	70.2	100.0	70.4	77.3	203
50-54	22.9	7.5	69.5	100.0	68.5	77.1	126
Marital status							
Never married	38.7	4.8	56.5	100.0	58.4	58.4	530
Currently married	23.6	7.4	68.9	100.0	69.4	72.9	1,161
Formerly married	(20.0)	(9.2)	(70.8)	(100.0)	(66.2)	(75.4)	28
Residence							
Urban	19.7	5.4	74.9	100.0	76.1	78.2	1,024
Rural	40.8	8.5	50.7	100.0	51.0	54.2	695
Region							
Yerevan	13.6	2.2	84.2	100.0	84.6	85.9	582
Aragatsotn	23.0	5.0	71.9	100.0	74.1	74.1	78
Ararat	30.2	11.5	58.3	100.0	49.6	59.0	177
Armavir	37.2	3.4	59.3	100.0	61.4	57.9	172
Gegharkunik	67.5	15.4	17.1	100.0	24.8	23.9	124
Lori	63.2	11.5	25.3	100.0	33.3	28.7	119
Kotayk	15.0	0.8	84.3	100.0	84.3	85.0	137
Shirak	23.0	13.7	63.3	100.0	65.5	74.8	161
Syunik	6.7	10.9	82.4	100.0	83.2	92.4	65
Vayots Dzor	57.4	14.9	27.7	100.0	24.8	41.6	25
Tavush	44.3	5.7	50.0	100.0	50.0	55.7	79
Education							
Primary/middle	51.9	5.1	42.9	100.0	43.5	45.3	245
Secondary	32.3	5.6	62.0	100.0	62.2	65.1	510
Secondary-special	25.6	8.1	66.3	100.0	67.4	70.3	588
Higher	11.4	6.8	81.8	100.0	83.6	85.1	376
Total	28.2	6.7	65.1	100.0	66.0	68.5	1,719

Note: Programmatically important ways are abstaining from sex, using condoms, and limiting the number of sexual partners. Abstinence from sex is measured from a spontaneous response only, and using condoms and limiting the number of sexual partners is measured from spontaneous and probed responses. Figures in parentheses are based on 25-49 unweighted cases.

[1] Those who have not heard of HIV/AIDS or do not know of any programmatically important ways to avoid HIV/AIDS.

[2] Refers to limiting the number of sexual partners and limiting sex to one partner/staying faithful to one partner.

Figure 12.1 Knowledge of Programmatically Important Ways to Avoid HIV/AIDS



The table shows the level of awareness of ways to prevent HIV/AIDS by education and by place of residence. There is a strong relationship between education and knowledge of ways to prevent HIV. More urban than rural residents are aware of the practices of safer sexual behavior.

Respondents who had heard of HIV/AIDS were asked a number of questions on their knowledge of HIV/AIDS-related issues. The information is presented in Tables 12.4.1 and 12.4.2. When asked whether a healthy-looking person can have the AIDS virus, 56 percent of women and 58 percent of men responded yes. Young women and men, residents of rural areas, and individuals with lower levels of education were less likely to respond to this question correctly. There is significant variation by region, but the variation is not consistent between women and men. In Tavush, for example, 67 percent of women said that a healthy-looking person can have HIV, but only 29 percent of men gave the same answer. It is important to note that more than a quarter of all respondents said that they did not know whether a healthy-looking person could have HIV.

The ADHS asked respondents whether they thought the AIDS virus can be transmitted from mother to child during pregnancy and (in separate questions) during delivery and during breastfeeding. The results indicate that about two-thirds of both women and men responded yes, that they are aware of each of these three modes of mother-to-child transmission. Again, young, rural, or less educated women and men were least likely to be informed about this important AIDS-related issue.

Table 12.4.1 Knowledge of HIV/AIDS-related issues: women

Percent distribution and percentages of women by responses to questions on various HIV/AIDS-related issues, according to background characteristics, Armenia 2000

Background characteristic	Can a healthy-looking person have the AIDS virus?				Ways HIV/AIDS can be transmitted from mother to child						Number of women
	Yes	No	Don't know[1]	Total	There is no way	During pregnancy	During delivery	By breast-feeding	Other way	Don't know if there is a way[1]	
Age											
15-19	46.6	16.3	37.0	100.0	4.4	51.9	44.4	45.3	1.5	38.9	1,160
20-24	60.3	14.8	24.9	100.0	2.9	73.5	65.7	60.8	1.0	20.9	1,007
25-29	60.1	17.8	22.1	100.0	2.2	77.7	69.4	62.9	0.5	16.9	769
30-34	58.5	18.3	23.3	100.0	3.1	79.9	71.0	65.9	0.4	15.7	763
35-39	56.3	16.3	27.4	100.0	2.4	76.6	70.5	64.9	0.4	18.5	962
40-44	55.7	15.6	28.7	100.0	2.1	76.9	73.0	66.2	0.5	18.1	947
45-49	56.0	16.7	27.3	100.0	2.2	76.6	70.0	65.2	1.1	18.6	822
Marital status											
Never married	53.2	16.2	30.6	100.0	3.8	61.9	54.1	51.1	1.3	30.8	1,851
Currently married	57.1	16.7	26.2	100.0	2.4	76.7	69.9	64.9	0.7	18.0	4,125
Formerly married	54.5	15.1	30.4	100.0	2.7	73.2	68.2	63.3	0.3	22.5	455
Residence											
Urban	59.2	16.7	24.1	100.0	2.6	76.0	69.4	62.1	0.8	18.6	3,942
Rural	50.4	15.9	33.7	100.0	3.1	66.2	58.7	58.8	0.8	27.4	2,488
Region											
Yerevan	61.4	15.6	22.9	100.0	2.1	78.6	74.1	64.1	0.6	17.1	2,206
Aragatsotn	57.9	14.5	27.7	100.0	4.1	70.7	62.4	63.0	1.0	21.7	279
Ararat	61.7	14.2	24.1	100.0	0.7	84.0	77.3	76.8	0.9	13.7	642
Armavir	56.8	14.9	28.3	100.0	3.4	65.9	56.2	58.4	1.2	26.1	553
Gegharkunik	39.7	14.5	45.8	100.0	3.3	62.8	55.6	55.0	1.4	30.9	484
Lori	49.9	14.7	35.5	100.0	2.4	63.3	56.7	53.3	1.5	28.6	489
Kotayk	52.4	24.0	23.6	100.0	4.5	69.9	63.4	58.9	0.4	22.5	505
Shirak	44.1	26.2	29.7	100.0	5.1	61.6	46.7	40.0	0.2	30.7	611
Syunik	55.5	9.1	35.4	100.0	2.2	67.8	66.0	64.2	1.2	26.5	271
Vayots Dzor	48.5	17.7	33.8	100.0	2.8	71.8	69.7	69.4	0.9	22.1	113
Tavush	66.9	10.1	23.0	100.0	3.4	72.8	62.1	66.5	0.6	21.0	278
Education											
Primary/middle	34.5	12.8	52.6	100.0	2.6	43.5	38.4	41.3	1.4	50.5	593
Secondary	49.5	16.6	33.9	100.0	3.4	65.9	59.0	58.4	0.9	27.0	2,341
Secondary-special	58.9	18.4	22.7	100.0	2.3	79.6	72.7	66.4	0.9	15.6	2,295
Higher	72.4	14.1	13.5	100.0	2.7	84.6	76.7	64.6	0.3	10.3	1,201
Total	55.8	16.4	27.8	100.0	2.8	72.2	65.3	60.8	0.8	22.0	6,430

[1] Includes women who do not know of HIV/AIDS

Table 12.4.2 Knowledge of HIV/AIDS-related issues: men

Percent distribution and percentages of men by responses to questions on various HIV/AIDS-related issues, according to background characteristics, Armenia 2000

Background characteristic	Can a healthy-looking person have the AIDS virus?				Ways HIV/AIDS can be transmitted from mother to child						Number of men
	Yes	No	Don't know[1]	Total	There is no way	During pregnancy	During delivery	By breast-feeding	Other way	Don't know if there is a way[1]	
Age											
15-19	38.2	20.0	41.8	100.0	1.7	50.3	48.0	40.4	5.2	39.5	263
20-24	59.4	18.4	22.3	100.0	2.8	71.5	67.1	62.3	1.1	22.0	215
25-29	57.5	22.1	20.3	100.0	2.9	75.5	72.7	69.2	1.2	20.0	194
30-34	59.8	16.9	23.3	100.0	1.7	81.2	75.8	67.6	0.8	15.2	205
35-39	62.3	18.9	18.8	100.0	1.7	79.6	74.3	69.7	1.3	15.5	237
40-44	62.5	17.3	20.2	100.0	1.0	86.1	85.4	78.1	0.1	10.4	275
45-49	64.3	19.1	16.5	100.0	2.3	85.4	83.3	78.5	0.9	9.7	203
50-54	62.9	14.6	22.6	100.0	1.0	85.3	81.4	79.0	0.0	12.2	126
Marital status											
Never married	49.7	19.2	31.1	100.0	1.7	61.9	59.0	52.2	3.0	30.5	530
Currently married	61.1	18.5	20.3	100.0	2.0	81.9	78.8	73.3	0.8	13.7	1,161
Formerly married	(67.1)	(9.2)	(23.7)	(100.0)	(0.0)	(96.2)	(82.6)	(87.0)	(0.0)	(3.8)	28
Residence											
Urban	66.0	17.3	16.7	100.0	1.2	80.5	77.0	69.5	1.2	15.3	1,024
Rural	45.5	20.5	34.0	100.0	2.9	69.3	66.4	63.4	1.8	23.7	695
Region											
Yerevan	76.3	15.2	8.5	100.0	1.3	85.7	85.9	78.6	0.9	11.2	582
Aragatsotn	62.6	16.5	20.9	100.0	5.0	69.8	59.7	68.3	2.2	14.4	78
Ararat	56.8	18.7	24.5	100.0	1.4	79.9	76.3	74.8	1.4	15.8	177
Armavir	28.3	35.2	36.6	100.0	4.8	66.9	66.9	50.3	0.0	28.3	172
Gegharkunik	45.3	11.1	43.6	100.0	0.9	64.1	64.1	64.1	0.9	34.2	124
Lori	59.8	17.2	23.0	100.0	3.4	59.8	48.3	54.0	1.1	31.0	119
Kotayk	73.2	6.3	20.5	100.0	0.0	85.0	79.5	77.2	6.3	7.9	137
Shirak	20.9	34.5	44.6	100.0	0.7	64.7	54.7	36.0	0.7	28.8	161
Syunik	83.2	9.2	7.6	100.0	0.0	86.6	79.8	75.6	4.2	5.9	65
Vayots Dzor	48.5	20.8	30.7	100.0	5.0	41.6	40.6	35.6	1.0	45.5	25
Tavush	28.5	19.0	52.5	100.0	3.2	74.1	72.8	72.8	0.6	21.5	79
Education											
Primary/middle	41.2	18.6	40.1	100.0	3.9	53.7	52.5	45.5	1.9	38.6	245
Secondary	51.0	20.1	28.9	100.0	2.1	71.7	67.8	63.2	1.8	23.1	510
Secondary-special	61.8	17.9	20.3	100.0	1.4	80.8	77.0	72.8	1.8	13.8	588
Higher	71.2	17.6	11.2	100.0	1.0	88.6	85.9	77.1	0.1	7.6	376
Total	57.7	18.6	23.7	100.0	1.9	76.0	72.7	67.0	1.5	18.7	1,719

Note: Figures in parentheses are based on 25-49 unweighted cases.
[1] Includes men who do not know of HIV/AIDS

12.2 Social Aspects of HIV/AIDS

Social aspects of HIV/AIDS include, among others, negative attitudes toward people living with AIDS. The stigma is related to the public's perception of HIV/AIDS as associated with marginalized groups such as injecting drug users, sex workers, and homosexuals. The stigma is sometimes expressed by open discrimination, which is of concern because it affects HIV/AIDS prevention efforts.

Table 12.5 shows that only 10 percent of women and 13 percent of men think that an HIV-positive teacher should be allowed to continue teaching. There is some variation by background characteristics. For example, approximately one-fifth of men and women with higher education think that an HIV-positive should be allowed to continue teaching, as do more than half of men in Armavir (contrasting with just 7 percent of women in the region). Shirak is another notable region: 21 percent of men claimed to be unsure whether an HIV-positive teacher should be allowed to continue teaching.

Table 12.5.1 Social aspects of HIV/AIDS: women

Percent distribution of women by responses to questions on various social aspects of HIV/AIDS, according to background characteristics, Armenia 2000

Background characteristic	Should an HIV-positive teacher be allowed to keep teaching?				Should children age 12-14 years be taught to use condoms?				Number of women who have heard of AIDS
	Yes	No	Don't know	Total	Yes	No	Don't know	Total	
Age									
15-19	11.3	79.4	9.3	100.0	38.8	33.3	27.8	100.0	1,043
20-24	13.4	81.0	5.6	100.0	46.2	36.6	17.2	100.0	962
25-29	10.0	86.0	4.0	100.0	50.0	37.6	12.5	100.0	738
30-34	10.1	86.9	2.9	100.0	47.4	39.7	12.9	100.0	733
35-39	7.1	88.9	4.0	100.0	42.3	42.5	15.2	100.0	917
40-44	9.4	87.8	2.8	100.0	41.4	41.9	16.7	100.0	891
45-49	6.7	89.2	4.1	100.0	43.6	41.5	14.9	100.0	788
Marital status									
Never married	13.7	78.1	8.3	100.0	46.2	31.3	22.6	100.0	1,709
Currently married	8.3	88.2	3.5	100.0	42.8	42.1	15.1	100.0	3,942
Formerly married	8.0	87.8	4.2	100.0	44.6	39.6	15.8	100.0	421
Residence									
Urban	11.5	83.2	5.3	100.0	47.9	36.5	15.6	100.0	3,820
Rural	6.9	88.9	4.2	100.0	37.0	42.9	20.1	100.0	2,252
Region									
Yerevan	12.9	80.5	6.6	100.0	52.3	30.1	17.6	100.0	2,156
Aragatsotn	4.6	93.5	1.9	100.0	45.5	37.4	17.2	100.0	249
Ararat	9.4	85.3	5.4	100.0	53.6	25.5	20.9	100.0	632
Armavir	6.9	88.6	4.5	100.0	34.1	51.1	14.8	100.0	521
Gegharkunik	4.0	91.6	4.4	100.0	28.6	47.3	24.1	100.0	423
Lori	10.5	86.3	3.2	100.0	41.2	49.4	9.4	100.0	409
Kotayk	8.1	87.2	4.6	100.0	41.5	40.8	17.6	100.0	489
Shirak	13.2	84.5	2.3	100.0	35.5	52.0	12.5	100.0	585
Syunik	2.6	94.8	2.6	100.0	39.2	42.0	18.7	100.0	252
Vayots Dzor	4.3	91.4	4.3	100.0	40.3	33.2	26.4	100.0	98
Tavush	9.3	85.3	5.4	100.0	26.8	56.1	17.1	100.0	259
Education									
Primary/middle	2.4	89.7	7.9	100.0	27.6	40.6	31.8	100.0	474
Secondary	6.6	88.4	5.0	100.0	37.6	42.5	19.9	100.0	2,152
Secondary-special	8.4	87.6	4.0	100.0	45.9	39.3	14.8	100.0	2,250
Higher	21.1	73.7	5.2	100.0	57.9	30.7	11.4	100.0	1,195
Total	9.8	85.3	4.9	100.0	43.9	38.8	17.3	100.0	6,072

HIV/AIDS prevention strategies may include educating young people, before they become sexually active, about the risks of unprotected sexual intercourse. Table 12.5 shows that 44 percent of women and 51 percent of men believe that children age 12-14 should be taught to use condoms. Urban dwellers and respondents with higher education are more likely than rural residents and respondents with lower levels of education to accept the idea of children being taught to use condoms. There is significant variation by region, ranging from 27 percent of women in Tavush to 54 percent in Ararat and from 27 percent of men in Armavir to 76 percent in Kotayk. It is notable that 17 percent of women overall said that they are not sure.

Table 12.5.2 Social aspects of HIV/AIDS: men

Percent distribution of men by responses to questions on various social aspects of HIV/AIDS, according to background characteristics, Armenia 2000

Background characteristic	Should an HIV-positive teacher be allowed to keep teaching?				Should children age 12-14 years be taught to use condoms?				Number of men who have heard of AIDS
	Yes	No	Don't know	Total	Yes	No	Don't know	Total	
Age									
15-19	9.4	78.6	12.0	100.0	56.4	35.2	8.5	100.0	243
20-24	12.1	81.2	6.7	100.0	51.7	41.9	6.4	100.0	210
25-29	13.9	79.5	6.6	100.0	58.9	31.5	9.6	100.0	190
30-34	16.7	79.2	4.1	100.0	48.4	43.2	8.4	100.0	198
35-39	13.6	83.9	2.4	100.0	47.7	44.8	7.5	100.0	229
40-44	14.5	82.6	2.9	100.0	49.3	46.0	4.7	100.0	267
45-49	14.7	79.7	5.6	100.0	47.6	45.9	6.4	100.0	199
50-54	12.7	82.0	5.3	100.0	48.1	45.3	6.6	100.0	125
Marital status									
Never married	13.6	76.5	9.8	100.0	57.3	35.2	7.5	100.0	507
Currently married	13.2	82.8	4.0	100.0	48.0	45.0	7.0	100.0	1,127
Formerly married	(18.9)	(81.1)	(0.0)	(100.0)	(68.2)	(22.0)	(9.8)	(100.0)	27
Residence									
Urban	12.9	80.7	6.5	100.0	60.3	33.2	6.6	100.0	1,009
Rural	14.3	81.2	4.6	100.0	36.9	54.8	8.2	100.0	651
Region									
Yerevan	11.7	83.1	5.2	100.0	65.3	28.8	5.9	100.0	577
Aragatsotn	0.7	97.8	1.4	100.0	28.3	67.4	4.3	100.0	77
Ararat	7.9	89.2	2.9	100.0	34.5	56.8	8.6	100.0	177
Armavir	54.9	38.0	7.0	100.0	26.8	70.4	2.8	100.0	169
Gegharkunik	6.8	90.3	2.9	100.0	37.9	49.5	12.6	100.0	109
Lori	9.0	83.3	7.7	100.0	48.7	38.5	12.8	100.0	107
Kotayk	0.8	98.4	0.8	100.0	76.2	19.8	4.0	100.0	136
Shirak	14.5	64.9	20.6	100.0	55.0	29.0	16.0	100.0	151
Syunik	11.0	89.0	0.0	100.0	29.7	69.5	0.8	100.0	65
Vayots Dzor	3.4	88.8	7.9	100.0	47.2	41.6	11.2	100.0	22
Tavush	0.0	97.9	2.1	100.0	48.6	47.9	3.5	100.0	71
Education									
Primary/middle	5.7	83.6	10.7	100.0	44.5	47.8	7.7	100.0	219
Secondary	13.0	81.8	5.2	100.0	46.4	43.9	9.7	100.0	494
Secondary-special	12.4	84.4	3.2	100.0	50.4	44.4	5.2	100.0	574
Higher	19.9	72.7	7.4	100.0	62.3	30.9	6.8	100.0	374
Total	13.4	80.9	5.7	100.0	51.1	41.7	7.2	100.0	1,661

Note: Figures in parentheses are based on 25-49 unweighted cases.

Discussing HIV prevention with one's partner is an important aspect of preventive behavior. The data in Tables 12.6.1 and 12.6.2 show that 28 percent of married women and 31 percent of married men report having discussed with their partner how to prevent HIV infection. Higher levels of education and urban residence are associated with prevalence of discussion. The youngest and oldest women are the least likely to have discussed HIV prevention with their partners than women of other age groups.

All respondents also were asked "If a member of your family got infected with the virus that causes AIDS, would you want it to remain secret or not?" Only 16 percent of women and 26 percent of men thought that the HIV-positive status of a family member should be kept confidential. Fear of being stigmatized has been implicated as an important barrier to HIV-testing and programs aimed at assisting persons living with AIDS and their families.

Table 12.6.1 Communication and confidentiality issues concerning HIV/AIDS: women

Percent distribution of women by responses to questions about HIV/AIDS communication and confidentiality issues, according to background characteristics, Armenia 2000

Background characteristic	Did woman discuss with partner how to prevent HIV/AIDS?					Should the HIV-positive status of a family member be kept confidential?				
	Yes	No/ unsure	Has not heard of AIDS	Total	Number of married women	Yes	No	Don't know/ missing	Total	Number of women who have heard of AIDS
Age										
15-19	13.7	72.1	14.3	100.0	99	17.3	69.2	13.5	100.0	1,043
20-24	23.5	71.8	4.7	100.0	511	14.6	76.1	9.3	100.0	962
25-29	32.7	63.2	4.1	100.0	625	14.6	77.9	7.5	100.0	738
30-34	32.5	63.5	4.0	100.0	660	12.9	81.0	6.1	100.0	733
35-39	30.6	65.6	3.9	100.0	816	17.5	75.8	6.7	100.0	917
40-44	27.0	68.0	5.0	100.0	773	16.6	74.9	8.5	100.0	891
45-49	25.0	71.6	3.4	100.0	640	16.9	73.1	10.0	100.0	788
Marital status										
Never married	na	na	na	na	na	16.9	71.3	11.8	100.0	1,709
Currently married	28.4	67.2	4.4	100.0	4,125	15.6	76.4	8.0	100.0	3,942
Formerly married	na	na	na	na	na	14.4	78.3	7.2	100.0	421
Residence										
Urban	30.5	67.3	2.2	100.0	2,391	16.0	74.0	10.0	100.0	3,820
Rural	25.5	67.0	7.6	100.0	1,733	15.7	77.0	7.3	100.0	2,252
Region										
Yerevan	33.0	65.4	1.6	100.0	1,291	15.9	71.7	12.4	100.0	2,156
Aragatsotn	31.9	59.4	8.7	100.0	193	7.7	88.9	3.5	100.0	249
Ararat	36.7	62.8	0.5	100.0	449	9.0	82.0	9.0	100.0	632
Armavir	21.3	73.7	5.1	100.0	373	24.9	66.7	8.4	100.0	521
Gegharkunik	15.4	75.1	9.6	100.0	341	10.8	78.9	10.3	100.0	423
Lori	26.3	59.6	14.1	100.0	323	18.4	75.7	5.8	100.0	409
Kotayk	31.3	67.3	1.4	100.0	316	9.3	87.0	3.7	100.0	489
Shirak	20.5	76.3	3.2	100.0	388	25.3	68.6	6.2	100.0	585
Syunik	20.9	75.0	4.1	100.0	173	4.8	86.1	9.2	100.0	252
Vayots Dzor	39.4	49.4	11.3	100.0	79	14.9	71.3	13.9	100.0	98
Tavush	28.0	65.5	6.5	100.0	198	29.4	65.6	5.0	100.0	259
Education										
Primary/middle	10.1	71.9	18.0	100.0	276	15.2	70.2	14.6	100.0	474
Secondary	20.2	73.1	6.7	100.0	1,537	15.2	76.5	8.3	100.0	2,152
Secondary-special	32.1	66.1	1.8	100.0	1,603	14.8	76.4	8.8	100.0	2,250
Higher	44.9	54.9	0.2	100.0	708	19.5	72.1	8.4	100.0	1,195
Total	28.4	67.2	4.4	100.0	4,125	15.9	75.1	9.0	100.0	6,072

na = Not applicable

Table 12.6.2 Communication and confidentiality issues concerning HIV/AIDS: men

Percent distribution of men by responses to questions about HIV/AIDS communication and confidentiality issues, according to background characteristics, Armenia 2000

Background characteristic	Did man discuss with partner how to prevent HIV/AIDS?					Should the HIV-positive status of a family member be kept confidential?				
	Yes	No/ unsure	Has not heard of AIDS	Total	Number of married men	Yes	No	Don't know/ missing	Total	Number of men who have heard of AIDS
Age										
15-19	*	*	*	*	4	27.8	48.5	23.7	100.0	243
20-24	30.5	63.7	5.7	100.0	57	31.0	59.4	9.6	100.0	210
25-29	29.7	67.1	3.2	100.0	120	33.2	59.0	7.8	100.0	190
30-34	29.8	66.5	3.7	100.0	177	21.6	67.8	10.6	100.0	198
35-39	25.2	71.3	3.5	100.0	219	22.6	69.9	7.5	100.0	229
40-44	30.6	66.5	2.9	100.0	266	20.9	69.5	9.6	100.0	267
45-49	37.4	60.5	2.1	100.0	196	26.3	67.0	6.8	100.0	199
50-54	30.4	68.3	1.3	100.0	123	20.5	71.8	7.7	100.0	125
Marital status										
Never married	na	na	na	na	na	28.9	53.3	17.8	100.0	507
Currently married	30.5	66.5	3.0	100.0	1,161	24.1	68.1	7.8	100.0	1,127
Formerly married	na	na	na	na	na	(20.3)	(74.8)	(4.9)	(100.0)	27
Residence										
Urban	35.2	62.9	1.8	100.0	683	27.2	59.4	13.5	100.0	1,009
Rural	23.7	71.6	4.7	100.0	478	23.0	70.3	6.7	100.0	651
Region										
Yerevan	40.5	58.1	1.4	100.0	378	29.5	55.4	15.1	100.0	577
Aragatsotn	9.5	89.5	1.1	100.0	53	8.0	89.1	2.9	100.0	77
Ararat	21.0	79.0	0.0	100.0	127	15.1	79.1	5.8	100.0	177
Armavir	47.4	49.5	3.1	100.0	115	68.3	24.6	7.0	100.0	169
Gegharkunik	5.9	85.9	8.2	100.0	90	1.0	94.2	4.9	100.0	109
Lori	12.3	80.0	7.7	100.0	89	10.3	87.2	2.6	100.0	107
Kotayk	29.3	70.7	0.0	100.0	88	0.8	92.1	7.1	100.0	136
Shirak	29.3	65.2	5.4	100.0	106	26.0	53.4	20.6	100.0	151
Syunik	41.3	57.5	1.3	100.0	44	68.6	27.1	4.2	100.0	65
Vayots Dzor	37.5	54.7	7.8	100.0	16	15.7	65.2	19.1	100.0	22
Tavush	31.5	62.0	6.5	100.0	54	7.7	75.4	16.9	100.0	71
Education										
Primary/middle	11.3	78.6	10.1	100.0	118	25.0	58.9	16.2	100.0	219
Secondary	25.7	71.3	3.0	100.0	297	25.3	62.7	12.1	100.0	494
Secondary-special	28.0	69.6	2.4	100.0	474	21.8	69.5	8.6	100.0	574
Higher	48.4	50.7	0.9	100.0	273	31.9	58.7	9.4	100.0	374
Total	30.5	66.5	3.0	100.0	1,161	25.5	63.7	10.8	100.0	1,661

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable

All men and women who knew of AIDS were asked to report whether they thought it was acceptable for AIDS-related messages to be broadcast on television and radio and to be published in newspapers. Table 12.7 shows that more than 90 percent of both women and men reported that it is acceptable for AIDS to be discussed in the three mass media.

Table 12.7.1 Discussion of AIDS in the media: women

Among women who have heard of AIDS, percentage who think that discussion of AIDS in the media is acceptable, by media type, and background characteristics, Armenia 2000

Background characteristic	Discussion of AIDS is acceptable: On radio	On TV	In news-paper	Number of women who have heard of AIDS
Age				
15-19	87.9	87.3	87.8	1,043
20-24	94.3	94.2	94.2	962
25-29	95.0	95.6	95.3	738
30-34	95.1	95.5	95.8	733
35-39	93.4	93.3	93.4	917
40-44	93.0	92.6	93.3	891
45-49	93.0	92.9	93.1	788
Marital status				
Never married	90.9	90.6	90.7	1,709
Currently married	93.7	93.7	94.0	3,942
Formerly married	92.9	93.7	93.2	421
Residence				
Urban	93.9	93.8	94.2	3,820
Rural	91.1	91.1	91.0	2,252
Region				
Yerevan	94.7	94.3	95.0	2,156
Aragatsotn	92.6	92.3	92.1	249
Ararat	93.3	93.9	93.5	632
Armavir	91.4	91.6	91.8	521
Gegharkunik	82.4	82.7	82.4	423
Lori	94.4	95.0	94.7	409
Kotayk	89.6	88.9	89.8	489
Shirak	93.8	93.8	93.6	585
Syunik	95.2	95.0	95.2	252
Vayots Dzor	96.0	96.2	96.0	98
Tavush	95.0	95.5	94.8	259
Education				
Primary/middle	82.8	82.3	82.5	474
Secondary	90.6	90.5	90.7	2,152
Secondary-special	94.7	94.8	94.8	2,250
Higher	97.7	97.4	98.0	1,195
Total	92.9	92.8	93.0	6,072

Table 12.7.2 Discussion of AIDS in the media: men

Among men who have heard of AIDS, percentage who think that discussion of AIDS in the media is acceptable, by media type and background characteristics, Armenia 2000

Background characteristic	Discussion of AIDS is acceptable: On radio	On TV	In news-paper	Number of men who have heard of AIDS
Age				
15-19	90.2	91.4	90.3	243
20-24	94.1	93.5	94.1	210
25-29	94.9	95.6	95.6	190
30-34	93.8	93.8	93.8	198
35-39	93.2	94.2	93.7	229
40-44	93.0	93.5	93.0	267
45-49	95.0	94.4	95.6	199
50-54	94.1	95.0	95.0	125
Marital status				
Never married	93.1	93.4	93.1	507
Currently married	93.5	93.9	93.9	1,127
Formerly married	(95.1)	(95.1)	(95.1)	27
Residence				
Urban	93.8	94.2	94.3	1,009
Rural	92.7	93.1	92.7	651
Region				
Yerevan	97.1	97.1	97.1	577
Aragatsotn	92.8	93.5	92.8	77
Ararat	89.2	89.9	89.2	177
Armavir	96.5	98.6	97.9	169
Gegharkunik	88.3	88.3	88.3	109
Lori	80.8	80.8	80.8	107
Kotayk	99.2	99.2	99.2	136
Shirak	87.0	87.8	88.5	151
Syunik	94.1	94.1	94.1	65
Vayots Dzor	97.8	97.8	98.9	22
Tavush	94.4	94.4	94.4	71
Education				
Primary/middle	88.9	90.9	89.5	219
Secondary	92.7	92.9	92.7	494
Secondary-special	92.6	93.5	92.8	574
Higher	98.0	97.1	98.7	374
Total	93.4	93.8	93.7	1,661

Note: Figures in parentheses are based on 25-49 unweighted cases.

12.3 Testing for the AIDS Virus

ADHS respondents were asked whether they had ever been tested for HIV. If they said that they had not, respondents were then asked whether they would like to be tested. If they said they would like to be tested, respondents were asked whether they knew of a specific place where they could go to get the test for the AIDS virus. It should be understood that responses to these questions do not necessarily represent experiences with voluntary counseling and testing (VCT) services. Furthermore, it is not known from the survey data whether respondents received the results of the tests that were reported to have occurred. Last, the data on desire to be tested do not necessarily reflect a person's likelihood of actually pursuing HIV testing options. Table 12.8 shows that 7 percent of women and 4 percent of men reported that they had already been tested for HIV. Among those not tested, the vast majority do not want to be tested. Slightly more than one-third

of both men and women who had not been tested knew a source for testing.

Table 12.8.1 Testing for the AIDS virus: women

Percent distribution of women by status of testing for the AIDS virus and preference for testing if not tested, and among those not tested, percentage who know a source, according to background characteristics, Armenia 2000

Background characteristic	Tested for the AIDS virus	Has not been tested: Wants to be tested	Has not been tested: Doesn't want to be tested	Has not been tested: Doesn't know[1]	Total	Not tested but knows source	Number of women
Age							
15-19	0.8	7.4	72.2	19.6	100.0	29.7	1,160
20-24	4.9	8.0	76.3	10.7	100.0	40.1	1,007
25-29	11.6	8.9	66.9	12.6	100.0	39.6	769
30-34	11.2	8.2	70.2	10.5	100.0	39.5	763
35-39	10.3	7.1	71.8	10.8	100.0	37.2	962
40-44	5.2	5.6	76.1	13.1	100.0	39.7	947
45-49	4.6	4.5	81.7	9.1	100.0	42.4	822
Marital status							
Never married	0.9	6.8	76.0	16.3	100.0	37.4	1,851
Currently married	9.1	7.4	72.6	11.0	100.0	38.1	4,125
Formerly married	6.9	5.4	74.5	13.2	100.0	37.9	455
Residence							
Urban	7.9	4.9	77.3	10.0	100.0	41.7	3,942
Rural	4.4	10.5	68.0	17.0	100.0	31.8	2,488
Region							
Yerevan	9.9	4.6	76.2	9.3	100.0	41.6	2,206
Aragatsotn	4.1	15.7	67.1	13.0	100.0	40.1	279
Ararat	6.6	13.7	66.0	13.8	100.0	52.3	642
Armavir	8.1	11.3	66.5	14.1	100.0	33.3	553
Gegharkunik	1.2	7.0	75.1	16.8	100.0	23.9	484
Lori	6.6	12.5	53.5	27.4	100.0	29.6	489
Kotayk	6.5	5.2	77.3	11.0	100.0	28.5	505
Shirak	0.8	1.0	90.9	7.3	100.0	34.3	611
Syunik	2.6	2.0	84.2	11.1	100.0	50.2	271
Vayots Dzor	8.5	6.8	64.6	20.1	100.0	43.9	113
Tavush	3.8	7.1	74.8	14.3	100.0	30.8	278
Education							
Primary/middle	1.6	7.1	61.8	29.5	100.0	20.2	593
Secondary	5.0	7.8	71.3	15.9	100.0	30.8	2,341
Secondary-special	7.7	7.4	76.6	8.3	100.0	42.4	2,295
Higher	9.8	4.9	78.7	6.6	100.0	51.8	1,201
Total	6.5	7.1	73.7	12.7	100.0	37.9	6,430

Note: Among women who were tested, 98 percent were tested in a public facility. Among women who were not tested but know source for test, more than 99 percent know of a public source.
[1] Includes those who have never heard of HIV/AIDS.

Table 12.8.2 Testing for the AIDS virus: men

Percent distribution of men by status of testing for the AIDS virus and preference for testing if not tested, and among those not tested, percentage who know a source, according to background characteristics, Armenia 2000

Background characteristic	Tested for the AIDS virus	Has not been tested: Wants to be tested	Has not been tested: Doesn't want to be tested	Has not been tested: Doesn't know[1]	Total	Not tested but knows source	Number of men
Age							
15-19	0.0	8.2	78.3	13.5	100.0	22.8	263
20-24	3.0	10.8	77.3	8.9	100.0	36.9	215
25-29	5.2	13.3	74.4	7.1	100.0	28.7	194
30-34	6.5	10.4	76.2	6.9	100.0	34.9	205
35-39	1.8	10.5	82.4	5.3	100.0	42.8	237
40-44	7.0	9.6	78.4	5.1	100.0	41.3	275
45-49	3.7	6.8	82.5	7.1	100.0	45.5	203
50-54	3.0	6.8	86.9	3.3	100.0	38.1	126
Marital status							
Never married	1.7	11.0	76.7	10.6	100.0	30.7	530
Currently married	4.7	8.9	80.4	6.0	100.0	38.8	1,161
Formerly married	(6.6)	(15.6)	(74.0)	(3.8)	(100.0)	(33.3)	28
Residence							
Urban	3.5	7.0	83.2	6.3	100.0	42.6	1,024
Rural	4.1	13.5	73.3	9.0	100.0	26.8	695
Region							
Yerevan	4.5	8.3	78.8	8.5	100.0	44.0	582
Aragatsotn	0.0	31.7	61.2	7.2	100.0	48.9	78
Ararat	4.3	11.5	83.5	0.7	100.0	22.3	177
Armavir	6.9	16.6	70.3	6.2	100.0	32.4	172
Gegharkunik	0.9	0.9	85.5	12.8	100.0	16.2	124
Lori	10.3	13.8	65.5	10.3	100.0	33.3	119
Kotayk	0.0	1.6	95.3	3.1	100.0	48.8	137
Shirak	2.2	8.6	82.7	6.5	100.0	28.1	161
Syunik	2.5	9.2	87.4	0.8	100.0	73.1	65
Vayots Dzor	1.0	15.8	63.4	19.8	100.0	21.8	25
Tavush	0.6	0.6	83.5	15.2	100.0	10.8	79
Education							
Primary/middle	2.1	6.6	73.5	17.9	100.0	23.2	245
Secondary	2.4	10.8	78.3	8.5	100.0	31.5	510
Secondary-special	3.8	9.7	82.5	4.1	100.0	38.2	588
Higher	6.7	9.9	79.0	4.3	100.0	47.9	376
Total	3.8	9.6	79.2	7.4	100.0	36.2	1,719

Note: Among men who were tested, 82 percent were tested in a public facility. Among men who were not tested but know source for test, more than 99 percent know of a public source. Figures in parentheses are based on 25-49 unweighted cases.

[1] Includes those who have have never heard of HIV/AIDS

12.4 Knowledge of Symptoms of Sexually Transmitted Infections

Sexually transmitted infections are important predisposing factors of HIV/AIDS transmission. As such, the presence of STIs in a population increases the likelihood of the occurrence of HIV. AIDS prevention programs should therefore also address the prevention and treatment of STIs. Additional questions were included in the ADHS to assess the level of awareness of STIs and knowledge of the symptoms of STIs among both men and women.

Table 12.9 shows that 42 percent of women and 15 percent of men had no knowledge of sexually transmitted infections. As expected, the youngest respondents, never-married individuals, rural residents, and women and men with lower levels of education are more likely than others to know nothing about STIs. Approximately half of women who knew about STIs were able to name at least one symptom of an STI in a man; almost two-thirds were able to name at least one symptom of an STI in a woman. Similarly, men were more knowledgeable about symptoms of an STI in a man than in a woman: among men who knew about STIs, 81 percent mentioned at least one male symptom, whereas 42 percent mentioned at least one female symptom.

Table 12.9.1 Knowledge of symptoms of STIs: women

Percent distribution of women by knowledge of symptoms associated with sexually transmitted infections (STIs) in men and women, according to background characteristics, Armenia 2000

	Knowledge of symptoms of STIs in a man					Knowledge of symptoms of STIs in a woman					
Background characteristic	No knowledge of STIs	No symptoms mentioned	Mentioned one symptom	Mentioned two or more symptoms	Total	No knowledge of STIs	No symptoms mentioned	Mentioned one symptom	Mentioned two or more symptoms	Total	Number of women
Age											
15-19	75.7	17.5	3.7	3.2	100.0	75.7	16.2	4.5	3.6	100.0	1,160
20-24	42.9	31.0	11.4	14.7	100.0	42.9	25.4	13.0	18.7	100.0	1,007
25-29	33.1	33.4	13.4	20.1	100.0	33.1	28.0	13.8	25.0	100.0	769
30-34	32.6	28.6	12.6	26.2	100.0	32.6	23.0	13.2	31.2	100.0	763
35-39	33.4	27.8	14.8	24.0	100.0	33.4	21.9	15.5	29.2	100.0	962
40-44	32.9	27.6	14.2	25.3	100.0	32.9	22.7	15.1	29.3	100.0	947
45-49	29.3	26.4	13.8	30.6	100.0	29.3	20.0	14.9	35.8	100.0	822
Marital status											
Never married	60.1	23.5	6.9	9.6	100.0	60.1	20.4	7.9	11.6	100.0	1,851
Currently married	34.7	28.3	13.7	23.4	100.0	34.7	23.0	14.4	27.9	100.0	4,125
Formerly married	31.5	29.6	12.5	26.3	100.0	31.5	21.2	14.6	32.7	100.0	455
Residence											
Urban	33.5	28.6	13.4	24.5	100.0	33.5	22.6	14.6	29.4	100.0	3,942
Rural	55.0	24.4	8.7	11.9	100.0	55.0	21.5	9.2	14.3	100.0	2,488
Region											
Yerevan	30.0	28.1	12.9	28.9	100.0	30.0	21.9	14.0	34.0	100.0	2,206
Aragatsotn	59.5	20.9	4.5	15.1	100.0	59.5	16.9	4.5	19.0	100.0	279
Ararat	37.2	40.1	7.1	15.6	100.0	37.2	35.8	7.6	19.3	100.0	642
Armavir	53.7	24.4	8.9	12.9	100.0	53.7	20.2	9.7	16.4	100.0	553
Gegharkunik	58.5	23.3	11.7	6.5	100.0	58.5	21.3	10.8	9.4	100.0	484
Lori	45.2	32.3	11.7	10.8	100.0	45.2	28.1	12.2	14.4	100.0	489
Kotayk	57.5	23.1	12.1	7.2	100.0	57.5	20.2	13.5	8.8	100.0	505
Shirak	30.7	16.7	17.9	34.8	100.0	30.7	12.0	18.5	38.8	100.0	611
Syunik	50.6	28.5	10.7	10.1	100.0	50.6	21.7	13.0	14.8	100.0	271
Vayots Dzor	52.4	23.6	6.8	17.2	100.0	52.4	18.6	9.2	19.9	100.0	113
Tavush	51.8	25.4	12.3	10.5	100.0	51.8	20.4	15.1	12.7	100.0	278
Education											
Primary/middle	79.0	13.9	3.9	3.2	100.0	79.0	12.1	4.7	4.3	100.0	593
Secondary	54.7	26.6	8.7	10.0	100.0	54.7	23.4	9.2	12.7	100.0	2,341
Secondary-special	31.3	30.0	13.4	25.4	100.0	31.3	23.0	15.1	30.7	100.0	2,295
Higher	18.4	28.3	17.7	35.5	100.0	18.4	23.2	17.9	40.5	100.0	1,201
Total	41.8	27.0	11.6	19.6	100.0	41.8	22.2	12.5	23.5	100.0	6,430

Table 12.9.2 Knowledge of symptoms of STIs: men

Percent distribution of men by knowledge of symptoms associated with sexually transmitted infections (STIs) in men and women, according to background characteristics, Armenia 2000

Background characteristic	Knowledge of symptoms of STIs in a man					Knowledge of symptoms of STIs in a woman					Number of men
	No knowledge of STIs	No symptoms mentioned	Mentioned one symptom	Mentioned two or more symptoms	Total	No knowledge of STIs	No symptoms mentioned	Mentioned one symptom	Mentioned two or more symptoms	Total	
Age											
15-19	48.0	21.7	13.6	16.7	100.0	48.0	40.2	4.8	6.9	100.0	263
20-24	12.6	19.8	23.2	44.4	100.0	12.6	57.8	8.9	20.6	100.0	215
25-29	12.3	14.9	22.0	50.8	100.0	12.3	48.4	9.4	29.9	100.0	194
30-34	11.4	16.2	21.4	51.0	100.0	11.4	50.4	9.8	28.3	100.0	205
35-39	7.1	15.7	22.5	54.7	100.0	7.1	59.3	9.6	24.0	100.0	237
40-44	9.2	9.8	22.8	58.2	100.0	9.2	45.8	11.1	33.9	100.0	275
45-49	5.9	14.8	17.8	61.4	100.0	5.9	47.4	10.2	36.4	100.0	203
50-54	7.1	15.3	18.6	59.0	100.0	7.1	48.0	12.0	32.9	100.0	126
Marital status											
Never married	29.3	18.9	17.6	34.3	100.0	29.3	45.8	7.0	17.9	100.0	530
Currently married	9.4	14.4	21.3	54.9	100.0	9.4	50.9	10.1	29.6	100.0	1,161
Formerly married	(0.0)	(29.4)	(26.5)	(44.1)	(100.0)	(0.0)	(61.6)	(15.9)	(22.5)	(100.0)	28
Residence											
Urban	9.0	13.7	17.2	60.1	100.0	9.0	48.9	10.0	32.1	100.0	1,024
Rural	24.7	19.4	24.7	31.1	100.0	24.7	50.5	8.2	16.6	100.0	695
Region											
Yerevan	7.1	8.7	15.4	68.7	100.0	7.1	43.5	12.1	37.3	100.0	582
Aragatsotn	23.7	20.1	36.7	19.4	100.0	23.7	66.9	5.8	3.6	100.0	78
Ararat	23.7	10.1	51.1	15.1	100.0	23.7	40.3	25.2	10.8	100.0	177
Armavir	6.2	33.1	0.7	60.0	100.0	6.2	33.1	0.7	60.0	100.0	172
Gegharkunik	20.5	30.8	3.4	45.3	100.0	20.5	75.2	2.6	1.7	100.0	124
Lori	40.2	34.5	11.5	13.8	100.0	40.2	50.6	8.0	1.1	100.0	119
Kotayk	12.6	11.0	43.3	33.1	100.0	12.6	85.0	0.8	1.6	100.0	137
Shirak	10.8	8.6	4.3	76.3	100.0	10.8	42.4	2.2	44.6	100.0	161
Syunik	5.0	19.3	46.2	29.4	100.0	5.0	60.5	16.8	17.6	100.0	65
Vayots Dzor	38.6	33.7	10.9	16.8	100.0	38.6	50.5	3.0	7.9	100.0	25
Tavush	38.0	6.3	27.2	28.5	100.0	38.0	34.8	12.7	14.6	100.0	79
Education											
Primary/middle	38.5	21.3	14.1	26.1	100.0	38.5	41.4	5.0	15.0	100.0	245
Secondary	20.8	19.7	21.1	38.5	100.0	20.8	50.7	8.3	20.2	100.0	510
Secondary-special	10.1	15.3	24.1	50.5	100.0	10.1	56.1	9.9	23.9	100.0	588
Higher	1.2	8.8	17.1	72.9	100.0	1.2	42.8	12.4	43.6	100.0	376
Total	15.3	16.0	20.2	48.4	100.0	15.3	49.5	9.3	25.9	100.0	1,719

Note: Figures in parentheses are based on 25-49 unweighted cases.

12.5 Prevalence and Treatment of Sexually Transmitted Infections

Respondents were asked whether they had a sexually transmitted infection or had experienced symptoms of an STI in the 12 months preceding the survey. It is important to note that these data are likely to underestimate the true prevalence of STIs for a number of reasons. First, if symptoms are not obvious or prolonged, they may not be recognized as an STI. Furthermore, health care may not be sought for STIs because of the embarrassment or the presumed stigma associated with such infections and may go undiagnosed. Even if an individual knows she/he has an STI, there may be a reluctance to report the infection during an interview.

Table 12.10 shows that less than 1 percent of both women and men reported an STI in the past 12 months, which suggests underreporting of STIs. However, when asked whether they had experienced an abnormal genital discharge in the last 12 months, 23 percent of women reported that they had. To the extent that women may report normal genital discharge as abnormal, this may be an overestimate of any serious STI. However, 9 percent of women reported a genital sore or ulcer, which is of concern in the context of evidence that sores or ulcers (whether a frank STI or not) may facilitate transmission of HIV, especially if left untreated. Prevalence of genital sores or ulcers is particularly high among women in their 20s (Figure 12.2). Virtually no men reported abnormal genital discharge or a genital sore or ulcer.

Table 12.10.1 Self-reporting of sexually transmitted infections and STI symptoms: women

Among women who ever had sex, the percentage self-reporting an STI and/or associated symptoms in the 12 months preceding the survey, by background characteristics, Armenia 2000

Background characteristic	Percentage with an STI	Percentage with genital discharge	Percentage with genital sore or ulcer	Percentage with STI, or discharge, or sore/ulcer	Number of women
Age					
15-19	1.4	24.4	3.5	24.9	100
20-24	1.0	34.0	13.0	35.3	529
25-29	0.3	31.7	14.8	35.9	666
30-34	0.7	27.5	11.5	30.8	725
35-39	0.6	19.4	8.4	22.3	908
40-44	0.6	15.4	5.1	17.0	887
45-49	0.3	13.9	3.5	15.4	776
Marital status					
Never married	*	*	*	*	13
Currently married	0.6	23.1	9.2	25.7	4,124
Formerly married	0.1	17.7	4.8	18.9	455
Residence					
Urban	0.5	19.4	7.6	22.0	2,717
Rural	0.7	27.2	10.4	29.3	1,874
Region					
Yerevan	0.4	17.6	6.8	20.0	1,475
Aragatsotn	0.3	17.9	11.5	22.4	206
Ararat	0.5	24.8	12.6	28.1	478
Armavir	0.3	28.8	11.2	30.4	419
Gegharkunik	0.0	31.1	8.6	33.2	366
Lori	1.0	26.1	7.7	27.1	370
Kotayk	3.3	34.5	15.8	39.1	345
Shirak	0.3	10.8	1.7	11.6	439
Syunik	0.0	25.1	11.7	28.4	197
Vayots Dzor	0.0	24.4	11.9	28.2	85
Tavush	0.8	24.9	7.7	26.2	212
Education					
Primary/middle	0.3	27.3	8.2	27.9	325
Secondary	0.6	24.7	9.1	26.7	1,668
Secondary-special	0.5	22.3	10.0	25.7	1,806
Higher	0.8	16.7	5.5	18.5	793
Total	0.6	22.6	8.8	24.9	4,592

Note: The percentage of cases with missing values was as follows: had an STI (0.3 percent), abnormal genital discharge (0.2 percent), genital sore or ulcer (3.4 percent), STI/discharge/sore/ulcer (1.5 percent). An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

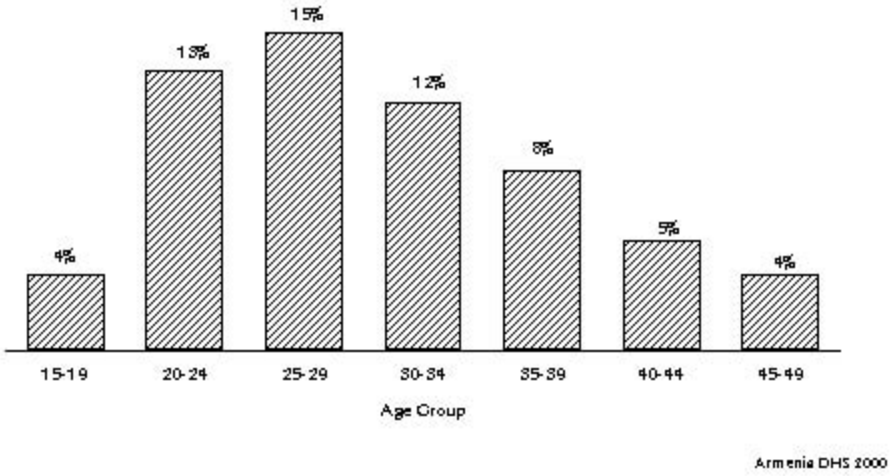
Table 12.10.2 Self-reporting of sexually transmitted infections and STI symptoms: men

Among men who ever had sex, the percentage self-reporting an STI and/or associated symptoms in the 12 months preceding the survey, by background characteristics, Armenia 2000

Background characteristic	Percentage with an STI	Percentage with genital discharge	Percentage with genital sore or ulcer	Percentage with STI, or discharge, or sore/ulcer	Number of men
Age					
15-19	0.0	3.0	0.0	3.0	38
20-24	0.0	0.7	0.0	0.7	156
25-29	0.6	0.9	0.0	0.9	177
30-34	0.2	0.2	0.0	0.2	202
35-39	0.0	0.0	0.0	0.0	237
40-44	0.2	0.2	0.0	0.2	275
45-49	0.0	0.5	0.0	0.5	201
50-54	0.0	0.0	0.0	0.0	126
Marital status					
Never married	0.2	1.0	0.0	1.0	224
Currently married	0.1	0.3	0.0	0.3	1,161
Formerly married	(0.0)	(0.0)	(0.0)	(0.0)	28
Residence					
Urban	0.1	0.4	0.0	0.4	858
Rural	0.2	0.4	0.0	0.4	556
Region					
Yerevan	0.0	0.0	0.0	0.0	504
Aragatsotn	0.9	0.9	0.0	0.9	64
Ararat	0.0	0.0	0.0	0.0	151
Armavir	0.0	0.0	0.0	0.0	145
Gegharkunik	0.0	2.0	0.0	2.0	106
Lori	0.0	0.0	0.0	0.0	100
Kotayk	0.0	0.0	0.0	0.0	90
Shirak	0.0	0.9	0.0	0.9	122
Syunik	1.0	1.9	0.0	1.9	57
Vayots Dzor	0.0	0.0	0.0	0.0	16
Tavush	1.8	1.8	0.0	1.8	57
Education					
Primary/middle	0.0	0.0	0.0	0.0	148
Secondary	0.3	0.3	0.0	0.3	383
Secondary-special	0.1	0.3	0.0	0.3	541
Higher	0.1	1.0	0.0	1.0	342
Total	0.1	0.4	0.0	0.4	1,413

Note: The percentage of cases with missing values was as follows: had an STI (0.2 percent), abnormal genital discharge (0.3 percent), genital sore or ulcer (0.4 percent), STI/discharge/sore/ulcer (0.3 percent). Figures in parentheses are based on 25-49 unweighted cases.

Figure 12.2 Self-reporting of Genital Sores or Ulcers in the 12 Months Preceding Survey among Women 15-49 Who Have Ever Had Sex, by Age Group



When all reports of sores or ulcers, discharges, and STIs are combined into one index, the ADHS finds that less than 1 percent of men reported an STI or symptoms in the last 12 months, but one-quarter of all women suffered from an STI or symptoms. Women in their twenties, women residing in rural areas, and women with less than higher education were more likely than other women to complain of an STI or STI symptoms. There is significant regional variation from a low of 12 percent in Shirak to 39 percent in Kotayk.

If respondents reported an STI or STI symptoms (i.e. discharge or sore or ulcer) in the past 12 months, they were asked questions on their actions in response to the illness or symptom. Due to the small number of men reporting an STI or STI symptoms, only the data on women are analyzed here. Half of the women who reported an STI or STI symptoms in the past 12 months sought advice or treatment. Women who did seek treatment were most likely to go to a medical facility or doctor. Almost half of women who sought treatment received advice or medicine from a pharmacy or shop. It is notable that 18 percent of all women with an STI or STI symptoms solicited advice from friends or relatives (see Table 12.11).

Table 12.11 Source of treatment of STIs among women

Percentage of women who self-reported a sexually transmitted infection (STI) and/or associated symptoms in the 12 months preceding the survey, by source of treatment and background characteristics, Armenia 2000

Background characteristic	Source of treatment of STI[1]						Number of women with an STI [2]
	Medical facility or doctor	Traditional healer	Advice or medicine from pharmacy or shop	Advice from friends or relatives	Advice or treatment from any source	No advice or treatment	
Age							
15-19	(38.7)	(5.5)	(17.9)	(12.3)	(38.7)	(61.3)	25
20-24	51.3	3.2	24.0	23.4	56.7	43.3	187
25-29	49.6	2.7	25.6	18.7	54.5	45.0	239
30-34	47.5	5.8	25.9	19.1	54.9	45.1	223
35-39	43.8	4.0	24.2	19.5	50.0	49.3	203
40-44	35.5	4.3	12.3	14.8	42.3	57.7	151
45-49	32.9	2.5	16.6	11.0	38.3	61.2	119
Marital status							
Currently married	46.1	3.8	23.1	18.9	51.9	47.8	1,059
Formerly married	26.9	4.2	12.4	10.1	34.6	65.4	86
Residence							
Urban	46.3	3.8	25.4	21.1	55.1	44.4	597
Rural	42.8	4.0	19.0	15.1	45.5	54.5	550
Region							
Yerevan	50.7	5.6	36.3	27.4	63.3	35.8	296
Aragatsotn	53.7	6.2	21.2	18.7	57.5	42.5	46
Ararat	49.2	5.1	34.7	11.9	51.7	48.3	134
Armavir	38.6	6.1	17.5	22.8	43.9	56.1	127
Gegharkunik	35.8	1.6	14.6	15.4	36.6	63.4	122
Lori	36.9	3.6	21.4	9.5	42.9	57.1	100
Kotayk	47.1	0.8	3.4	14.3	50.4	49.6	135
Shirak	(24.4)	(4.9)	(2.4)	(12.2)	(31.7)	(68.3)	51
Syunik	53.9	0.0	28.4	23.5	56.9	42.2	56
Vayots Dzor	41.2	0.0	19.6	11.3	43.3	56.7	24
Tavush	45.5	2.0	7.1	8.1	47.5	52.5	55
Education							
Primary/middle	25.2	2.5	11.7	7.4	29.0	71.0	91
Secondary	40.8	4.3	19.8	20.4	47.8	52.2	445
Secondary-special	47.6	3.6	23.9	16.1	52.2	47.0	464
Higher	58.9	4.4	31.4	25.1	66.4	33.6	146
STI or symptom in last 12 months							
STI	(74.7)	(14.2)	(36.5)	(36.1)	(74.7)	(25.3)	27
Genital discharge	43.7	3.8	23.0	18.4	50.1	49.6	1,035
Genital sore/ulcer	60.7	4.6	27.1	24.0	65.2	34.4	403
Total	44.6	3.9	22.3	18.2	50.5	49.2	1,147

Note: Total includes one never-married woman. Figures in parentheses are based on 25-49 unweighted cases.
[1] Respondents were able to report more than one source of treatment.
[2] Includes women reporting having had an STI, genital discharge, ulcer, or sore in the preceding 12 months.

Table 12.12 shows that 68 percent of women reporting an STI or an STI symptom in the past year said that they had informed their partner. Respondents reporting an STI were also asked whether they had done something to avoid infecting their partner. The results indicate that 29 percent of women took some action. When asked what action they took, the most frequently mentioned action was use of medicines (24 percent). Sixteen percent of women mentioned abstinence from sex. Only 5 percent of women said that they used condoms to prevent infecting their partner.

Table 12.12 Protection of partner by women with STIs

Percentage of women who had an STI and/or associated symptom in the 12 months preceding the survey, by actions taken to protect partner and background characteristics, Armenia 2000

Background characteristic	Action taken to protect partner[1]							Number of women with an STI[2]
	Informed partner of STI or symptoms	Avoided sexual relations	Used condoms	Used medicine	Any action	No action	Partner already infected	
Age								
15-19	(73.2)	(0.0)	(0.0)	(16.0)	(16.0)	(78.5)	(5.5)	25
20-24	74.3	13.9	7.8	26.6	30.0	68.0	2.0	187
25-29	72.2	19.4	6.3	29.6	33.5	66.0	0.0	239
30-34	69.8	21.4	9.2	24.7	34.8	64.6	0.0	223
35-39	68.8	16.0	2.8	23.0	25.8	73.0	0.3	203
40-44	56.7	11.5	1.3	17.5	22.4	76.8	0.8	151
45-49	56.0	14.9	0.0	21.1	24.3	74.5	0.0	119
Marital status								
Currently married	72.7	17.6	5.3	26.0	31.0	67.7	0.6	1,059
Formerly married	6.9	1.3	1.6	1.3	2.9	97.1	0.0	86
Residence								
Urban	70.8	20.1	7.2	26.5	32.9	65.9	0.5	597
Rural	64.4	12.2	2.7	21.7	24.8	74.1	0.7	550
Region								
Yerevan	72.1	30.7	11.6	33.5	44.2	54.0	0.9	296
Aragatsotn	77.5	30.0	6.2	41.2	43.7	55.0	0.0	46
Ararat	64.4	11.9	7.6	30.5	35.6	64.4	0.0	134
Armavir	73.7	15.8	0.0	17.5	19.3	80.7	0.0	127
Gegharkunik	62.6	10.6	1.6	12.2	17.1	82.9	0.0	122
Lori	54.8	4.8	1.2	13.1	13.1	83.3	2.4	100
Kotayk	74.8	12.6	2.5	30.3	32.8	65.5	0.8	135
Shirak	(53.7)	(0.0)	(2.4)	(14.6)	(14.6)	(85.4)	(0.0)	51
Syunik	72.5	9.8	2.0	9.8	10.8	89.2	0.0	56
Vayots Dzor	76.3	16.5	1.0	32.0	37.1	60.8	0.0	24
Tavush	53.5	5.1	2.0	12.1	16.2	82.8	1.0	55
Education								
Primary/middle	52.8	6.5	1.1	15.9	17.0	83.0	0.0	91
Secondary	65.8	12.7	3.9	19.3	23.1	75.5	0.8	445
Secondary-special	71.0	18.7	4.9	27.4	32.9	66.0	0.7	464
Higher	73.0	26.2	11.4	34.3	42.4	56.8	0.0	146
STI or symptom in last 12 months								
STI	(87.1)	(43.4)	(9.4)	(39.3)	(43.4)	(41.6)	(14.9)	27
Genital discharge	67.2	16.3	5.3	24.3	29.0	70.0	0.5	1,035
Genital sore/ulcer	80.3	17.6	5.6	26.8	31.9	66.9	0.6	403
Total	67.8	16.4	5.0	24.2	29.0	69.9	0.6	1,147

Note: Total includes one never-married woman who reported abnormal genital discharge. Figures in parentheses are based on 25-49 unweighted cases.

[1] Respondents could give more than one answer.

[2] Includes women reporting having had an STI, genital discharge, ulcer, or sore in the preceding 12 months

12.6 Sexual Behavior

Promoting safe sexual behavior has been the primary focus of HIV/AIDS prevention programs. This component of prevention programs includes encouraging lifelong, mutually monogamous relationships; reducing the overall number of sexual contacts outside marriage; and using condoms, especially with partners other than spouses. Thus, information on sexual behavior is important in designing and monitoring a program that is aimed at preventing the spread of HIV/AIDS and other STIs. It should be noted, however, that accurate data are difficult to obtain because many people are reluctant to discuss their experiences.

According to Table 12.13, almost all married women (96 percent) claim to have had only one sexual partner in the 12 months preceding the survey. Four percent report no sexual partner. Virtually no married women (0.1 percent) report having more than one sexual partner. It should be noted that among married women who claimed to have only one sexual partner, the partner mentioned was not necessarily the woman's spouse. Nonetheless, overall, the ADHS data reveal that almost no married women admit to having multiple sexual relationships. Furthermore, the data indicate that virtually no unmarried women had a sexual partner (or admitted to having one) in the 12 months preceding the survey.

Married men were more likely than married women to have multiple partners. Five percent of married men reported having two or more sexual partners in the 12 months preceding the survey. Men in Syunik were significantly more likely than other men to report multiple partners. Men residing in Yerevan were the most likely to refuse to answer the question (13 percent). Overall, the average number of sexual partners among married men is 1.l, varying by background characteristics from 1.0 to 1.2. Again, it should be noted that married men who mentioned only one sexual partner may not have been referring to their wife.

More than one-third of all unmarried men reported having at least one sexual partner in the 12 months preceding the survey. More than half of unmarried men residing in Yerevan and men with higher education reported one or more sexual partners. The mean number of sexual partners among unmarried men ranges from a low of 0.3 among rural residents and men with a primary/middle education to a high of 1.5 among residents of Yerevan and 1.6 among men with higher education. The mean number of sexual partners among all unmarried men is 0.8.

Table 12.13.1 Number of sexual partners among women

Percent distribution of women by number of persons with whom they had sexual intercourse in the past 12 months, according to background characteristics, Armenia 2000

Background characteristic	Number of sexual partners 0	1	2+	Total	Mean number of sexual partners	Number of women
CURRENTLY MARRIED WOMEN						
Age						
15-19	0.0	100.0	0.0	100.0	1.0	99
20-24	1.3	98.7	0.0	100.0	1.0	511
25-29	2.9	97.1	0.0	100.0	1.0	625
30-34	3.5	96.1	0.4	100.0	1.0	660
35-39	3.5	96.5	0.0	100.0	1.0	816
40-44	5.1	94.9	0.0	100.0	0.9	773
45-49	7.7	92.3	0.0	100.0	0.9	640
Residence						
Urban	4.7	95.1	0.1	100.0	1.0	2,391
Rural	3.0	97.0	0.0	100.0	1.0	1,733
Region						
Yerevan	4.0	95.7	0.2	100.0	1.0	1,291
Aragatsotn	3.3	96.7	0.0	100.0	1.0	193
Ararat	2.8	97.2	0.0	100.0	1.0	449
Armavir	2.7	97.3	0.0	100.0	1.0	373
Gegharkunik	2.9	97.1	0.0	100.0	1.0	341
Lori	3.7	96.3	0.0	100.0	1.0	323
Kotayk	6.1	93.9	0.0	100.0	0.9	316
Shirak	7.7	92.3	0.0	100.0	0.9	388
Syunik	2.5	97.5	0.0	100.0	1.0	173
Vayots Dzor	2.8	97.2	0.0	100.0	1.0	79
Tavush	3.4	96.6	0.0	100.0	1.0	198
Education						
Primary/middle	4.1	95.9	0.0	100.0	1.0	276
Secondary	3.5	96.5	0.0	100.0	1.0	1,537
Secondary-special	5.1	94.8	0.1	100.0	0.9	1,603
Higher	2.5	97.3	0.2	100.0	1.0	708
Total	4.0	95.9	0.1	100.0	1.0	4,125
UNMARRIED WOMEN						
Total	99.2	0.8	0.0	100.0	0.0	2,305

Table 12.13.2 Number of sexual partners among men

Percent distribution of men by number of persons with whom they had sexual intercourse in the past 12 months, according to background characteristics, Armenia 2000

Background characteristic	Number of sexual partners: 0	1	2+	Don't know/ missing	Total	Mean number of sexual partners	Number of men
CURRENTLY MARRIED MEN							
Age							
15-19	*	*	*	*	*	*	4
20-24	0.0	90.0	3.2	6.8	100.0	1.0	57
25-29	0.0	92.1	3.6	4.3	100.0	1.1	120
30-34	0.7	90.9	4.8	3.7	100.0	1.1	177
35-39	0.0	89.0	7.4	3.6	100.0	1.2	219
40-44	2.7	87.2	5.8	4.3	100.0	1.0	266
45-49	2.8	88.7	3.0	5.6	100.0	1.0	196
50-54	5.6	86.6	1.4	6.4	100.0	1.0	123
Residence							
Urban	1.9	87.4	3.3	7.3	100.0	1.0	683
Rural	1.6	91.2	6.5	0.7	100.0	1.1	478
Region							
Yerevan	1.0	83.5	2.4	13.1	100.0	1.0	378
Aragatsotn	1.1	90.5	6.3	2.1	100.0	1.1	53
Ararat	3.0	88.0	7.0	2.0	100.0	1.1	127
Armavir	2.1	93.8	4.1	0.0	100.0	1.0	115
Gegharkunik	0.0	94.1	5.9	0.0	100.0	1.1	90
Lori	4.6	86.2	9.2	0.0	100.0	1.2	89
Kotayk	2.4	95.1	2.4	0.0	100.0	1.0	88
Shirak	2.2	92.4	5.4	0.0	100.0	1.0	106
Syunik	1.3	86.3	12.5	0.0	100.0	1.2	44
Vayots Dzor	0.0	95.3	1.6	3.1	100.0	1.0	16
Tavush	1.9	97.2	0.9	0.0	100.0	1.0	54
Education							
Primary/middle	4.3	87.3	1.8	6.6	100.0	1.1	118
Secondary	1.1	87.2	5.8	5.9	100.0	1.1	297
Secondary-special	2.1	91.0	3.9	3.0	100.0	1.0	474
Higher	0.9	88.1	5.7	5.2	100.0	1.1	273
Total	1.8	89.0	4.6	4.6	100.0	1.1	1,161
UNMARRIED MEN							
Marital status							
Never married	64.6	20.3	15.1	0.0	100.0	0.8	530
Formerly married	(55.1)	(34.0)	(10.9)	(0.0)	(100.0)	(0.6)	28
Residence							
Urban	55.2	25.4	19.4	0.0	100.0	1.1	341
Rural	78.1	14.0	7.9	0.0	100.0	0.3	217
Region							
Yerevan	45.2	28.0	26.8	0.0	100.0	1.5	204
Education							
Primary/middle	81.7	13.0	5.4	0.0	100.0	0.3	127
Secondary	69.4	18.8	11.8	0.0	100.0	0.6	213
Secondary-special	55.1	25.5	19.4	0.0	100.0	1.0	115
Higher	41.7	30.3	28.0	0.0	100.0	1.6	103
Total	64.1	21.0	14.9	0.0	100.0	0.8	558

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

12.7 Knowledge and Use of Condoms

Because of the important role that the condom plays in combating the transmission of HIV, respondents were asked where condoms could be obtained. If the respondent reported knowing a source and could cite a specific source, the respondent was asked whether she/he could actually get a condom, if desired. This last question was intended to ascertain the level of personal access to condoms as opposed to having passing knowledge.

Table 12.14 shows that 79 percent of women and 91 percent of men could cite a place where they could obtain a condom. Knowledge of a source for condoms follows expected patterns by background characteristics. Virtually all women who know a source for condoms cite a public source. Almost all men, on the other hand, mention a pharmacy. Sixty-six percent of women and 85 percent of men say that they themselves could obtain condoms.

Table 12.14.1 Knowledge of source for male condoms: women

Among women who know of HIV/AIDS and who have had sexual intercourse, percentage who know a source for male condoms, and percentage who could get a condom themselves, by background characteristics, Armenia 2000

Background characteristic	Knows source for condom			Could get a condom herself	Does not know a source for condoms	Number of women
	Public source	Private pharmacy	Other source			
Age						
15-19	52.2	1.6	2.8	41.8	45.0	85
20-24	71.2	3.6	2.3	62.2	24.4	503
25-29	79.7	3.1	3.0	70.8	15.6	638
30-34	78.5	2.9	3.3	70.4	17.8	696
35-39	76.6	3.8	2.0	68.7	18.9	869
40-44	73.9	3.3	2.1	64.5	22.2	841
45-49	71.7	3.7	0.4	61.9	25.0	743
Marital status						
Never married	*	*	*	*	*	13
Currently married	75.5	3.3	2.4	66.7	20.5	3,941
Formerly married	68.7	3.8	0.1	58.8	27.3	421
Residence						
Urban	80.1	4.8	2.8	70.8	14.3	2,648
Rural	66.9	1.2	1.1	58.7	31.4	1,727
Region						
Yerevan	82.5	6.1	3.3	73.4	10.5	1,445
Aragatsotn	64.2	0.0	0.3	56.6	35.5	189
Ararat	85.8	2.2	0.7	76.7	12.3	473
Armavir	78.2	0.3	0.8	71.8	21.5	396
Gegharkunik	54.2	0.0	2.4	41.3	44.6	330
Lori	63.5	11.7	1.5	62.4	22.9	318
Kotayk	67.1	1.7	2.0	52.7	31.2	338
Shirak	69.7	0.6	2.6	66.5	29.4	426
Syunik	69.6	0.6	2.6	43.9	28.1	188
Vayots Dzor	76.3	0.0	1.3	70.1	22.7	75
Tavush	78.8	0.8	0.8	73.4	19.8	198
Education						
Primary/middle	49.6	1.9	1.4	40.4	47.1	263
Secondary	67.3	2.6	1.3	58.0	29.3	1,550
Secondary-special	80.0	3.7	1.9	69.5	15.7	1,772
Higher	87.0	4.5	4.4	82.5	8.3	790
Total	74.9	3.4	2.1	66.0	21.1	4,376

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Table 12.14.2 Knowledge of source for male condoms: men

Among men who know of HIV/AIDS and who have had sexual intercourse, percentage who know a source for male condoms, and percentage who could get a condom themselves, by background characteristics, Armenia 2000

Background characteristic	Knows source for condom				Could get condom himself	Does not know a source for condoms	Number of men
	Public source	Private Source	Private pharmacy	Other source			
Age							
15-19	(3.0)	(6.8)	(93.8)	(22.6)	(91.1)	(3.1)	38
20-24	5.2	4.3	90.1	9.6	93.1	5.0	151
25-29	12.1	4.5	86.7	20.7	87.4	9.3	174
30-34	7.8	2.0	82.9	16.5	87.9	8.7	196
35-39	11.9	1.7	80.7	13.9	83.7	10.7	229
40-44	11.4	2.5	80.2	8.1	84.9	8.2	267
45-49	11.1	2.6	83.6	10.3	80.8	10.6	197
50-54	11.3	3.1	77.0	8.0	77.4	13.1	125
Marital status							
Never married	7.2	4.7	90.4	16.3	92.6	3.9	223
Currently married	10.4	2.7	81.4	11.8	83.5	10.4	1,127
Formerly married	(19.0)	(0.0)	(95.7)	(19.7)	(98.1)	(0.0)	27
Residence							
Urban	11.1	4.6	87.7	15.3	90.9	3.6	844
Rural	8.5	0.3	75.9	8.6	76.2	17.9	532
Region							
Yerevan	5.7	7.8	95.6	20.3	92.4	1.0	499
Aragatsotn	0.0	0.0	88.5	5.3	83.2	11.5	63
Ararat	0.8	0.0	85.7	16.0	85.7	12.6	151
Armavir	0.8	0.8	91.6	0.0	92.4	6.7	142
Gegharkunik	0.0	0.0	50.0	29.3	48.9	48.9	97
Lori	0.0	0.0	68.7	6.0	67.2	29.9	92
Kotayk	0.0	0.0	100.0	3.6	98.8	0.0	90
Shirak	67.3	0.0	30.7	0.0	98.0	2.0	117
Syunik	1.0	0.0	93.2	13.6	77.7	3.9	56
Vayots Dzor	23.3	1.7	85.0	0.0	73.3	15.0	15
Tavush	46.7	0.0	91.6	1.9	57.9	4.7	54
Education							
Primary/middle	6.9	1.9	75.5	7.4	72.9	19.3	134
Secondary	9.7	2.5	81.6	13.6	82.8	11.3	374
Secondary-special	9.1	2.4	83.1	12.5	84.7	9.6	528
Higher	13.3	4.6	87.9	14.1	93.8	1.9	339
Total	10.1	2.9	83.2	12.7	85.2	9.1	1,376

Note: Figures in parentheses are based on 25-49 unweighted cases.

Overall, 7 percent of cohabiting women say that they used a condom during the last sexual intercourse with their partner (Table 12.15.1). Women residing in urban areas, living in Yerevan or Tavush, with higher education, or age 25-34 are significantly more likely than other women to have used condoms. Seven percent of men also state that they used a condom during the last sexual intercourse with their spouse or cohabiting partner (Table 12.15.2). The likelihood of using a condom increases more than sixfold if a man had sex with a noncohabiting partner (43 percent).

Table 12.15.1 Use of condoms with cohabiting partner: women

Among women who had sexual intercourse in the past year, percentage who used a condom during last sexual intercourse with spouse or cohabiting partner, by background characteristics, Armenia 2000

Background characteristic	Percentage who used condom during last sex	Number of women
Age		
15-19	1.2	98
20-24	8.0	504
25-29	11.1	605
30-34	10.2	636
35-39	6.8	777
40-44	4.8	723
45-49	2.0	583
Marital status		
Currently married	7.0	3,906
Residence		
Urban	9.0	2,253
Rural	4.2	1,674
Region		
Yerevan	12.1	1,216
Aragatsotn	2.4	189
Ararat	6.2	438
Armavir	3.1	362
Gegharkunik	2.1	330
Lori	3.1	313
Kotayk	3.9	291
Shirak	7.4	350
Syunik	3.6	169
Vayots Dzor	3.5	77
Tavush	10.5	191
Education		
Primary/middle	1.3	263
Secondary	3.9	1,480
Secondary-special	7.4	1,511
Higher	14.8	673
Total	7.0	3,927

Note: The total includes 21 formerly married women who had a cohabiting partner in the preceding 12 months but were not in union at the time of the survey.

Table 12.15.2 Use of condoms with partner: men

Among men who had sexual intercourse in the past year, percentage who used a condom during last sexual intercourse, by type of partner and background characteristics, Armenia 2000

Background characteristic	Spouse or cohabiting partner: Percentage who used condom during last sex	Spouse or cohabiting partner: Number of men	Noncohabiting partner: Percentage who used condom during last sex	Noncohabiting partner: Number of men
Marital status				
Never married	na	na	46.3	185
Currently married	7.0	1,079	35.7	60
Formerly married	*	3	*	12
Residence				
Urban	9.8	615	54.3	179
Rural	3.6	467	18.6	79
Region				
Yerevan	13.0	321	60.0	123
Education				
Primary/middle	3.0	105	*	24
Secondary	6.0	276	41.5	83
Secondary-special	7.8	449	39.8	70
Higher	8.9	251	48.9	81
Total	7.1	1,082	43.3	257

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = Not applicable

ADULT HEALTH 13

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From an epidemiological point of view, Armenia has features of both developed and developing countries. The average life expectancy at birth is over 70 years for both men and women. The major causes of death are similar to those of industrialized countries: cardiovascular disease, cancer, and accidents. At the same time, there is a rising incidence of certain infectious diseases, such as tuberculosis (MOS and UNDP, 1998).

This chapter presents information on various aspects of adult health in Armenia, including women's health care access and barriers to care, visits to the gynecologist, breast examinations, smoking, and knowledge of tuberculosis.

13.1 Women's Access to and Utilization of Health Care Services

Utilization of health care services in Armenia declined during the 1990s (GOA, UNICEF, and SCF, 1999). The ADHS asked questions to examine utilization of health care and to identify barriers to health care access. All women age 15-49 were asked about their experiences utilizing health care in the 12 months preceding the survey. First, respondents were asked whether in the 12 months preceding the survey they had a medical problem that deserved medical attention. Women who said that they did have such a problem were asked whether they saw a medical professional. Respondents who had not consulted with a doctor were asked why they did not seek medical attention.

Table 13.1 shows that almost half of all women reported that they had a medical problem during the 12 months preceding the survey (45 percent). The majority of these women reported that they visited a medical professional for the problem. Forty percent of these women, however, reported that they had a medical problem but did not go to a health professional. Almost all of these women cited lack of money as the primary barrier to accessing care.

Although lack of money is the primary barrier to care, it is interesting to note that women have other concerns about accessing health care. In addition to the questions about her own experiences during the year preceding the survey, each woman was asked about *perceived* barriers to care (data not shown). Getting money for treatment was the most common response, but 41 percent of women believe that not wanting to go to a consultation alone would be a "big problem," and 31 percent believe that the lack of a female provider would be a "big problem." Furthermore, 15 percent of women are concerned about not knowing where to go.

Table 13.1 Utilization of health care and barriers to care

Percent distribution of women by utilization of health care and barriers to care during the 12 months preceding the survey, according to background characteristics, Armenia 2000

Background characteristic	Did not have medical problem in past year	Visited health profes-sional in past year	Reason for not visiting a health professional among women who reported they had a medical problem in the preceding 12 months								Total	Number of women
			Lack of money	Lack of transpor-tation	Facility too far	Lack of time	Family objec-tions	Does not trust doctors	Other	Missing		
Age												
15-19	80.2	12.2	5.1	0.0	0.1	0.4	0.3	0.4	0.9	0.3	100.0	1,168
20-24	65.8	24.8	6.3	0.1	0.0	0.8	0.8	0.5	0.8	0.1	100.0	991
25-29	49.8	32.6	14.8	0.0	0.1	1.4	0.3	0.7	0.3	0.0	100.0	763
30-34	47.4	33.6	16.4	0.1	0.1	0.7	0.3	0.4	0.3	0.8	100.0	764
35-39	44.9	29.6	21.7	0.3	0.0	1.1	0.5	0.6	0.9	0.3	100.0	972
40-44	44.5	29.2	23.4	0.1	0.1	0.8	0.7	0.4	0.5	0.2	100.0	966
45-49	37.8	31.3	26.6	0.1	0.1	0.7	1.1	0.2	1.4	0.6	100.0	806
Residence												
Urban	57.5	26.1	13.6	0.0	0.0	0.7	0.4	0.6	0.8	0.4	100.0	3,545
Rural	50.7	27.4	18.4	0.2	0.2	1.0	0.8	0.3	0.7	0.2	100.0	2,885
Region												
Yerevan	60.0	25.6	11.8	0.0	0.0	0.7	0.2	0.4	0.8	0.5	100.0	1,604
Aragatsotn	48.6	27.3	23.1	0.4	0.0	0.2	0.0	0.0	0.0	0.4	100.0	484
Ararat	47.3	30.1	16.8	0.4	0.2	2.7	1.4	0.4	0.7	0.0	100.0	564
Armavir	49.9	28.5	19.0	0.0	0.0	0.8	1.0	0.6	0.2	0.0	100.0	495
Gegharkunik	46.8	31.5	18.8	0.2	0.2	0.6	0.6	0.2	0.4	0.6	100.0	489
Lori	55.3	24.9	16.4	0.0	0.2	0.7	0.7	0.5	0.5	0.7	100.0	409
Kotayk	48.3	25.8	21.8	0.4	0.0	0.9	0.4	1.1	1.1	0.0	100.0	445
Shirak	70.9	14.0	12.4	0.0	0.0	0.8	0.0	1.0	0.6	0.2	100.0	492
Syunik	55.9	25.3	16.0	0.0	0.2	0.4	0.6	0.8	0.6	0.2	100.0	494
Vayots Dzor	50.2	32.3	14.4	0.0	0.2	1.3	0.9	0.2	0.4	0.0	100.0	458
Tavush	53.6	30.2	11.7	0.0	0.0	0.2	1.2	0.0	2.6	0.4	100.0	496
Education												
Primary/secondary	56.2	24.8	16.2	0.1	0.1	0.6	0.6	0.5	0.6	0.2	100.0	3,087
Secondary-special	50.8	28.6	17.8	0.1	0.0	0.8	0.6	0.4	0.5	0.4	100.0	2,271
Higher	57.3	28.0	9.9	0.1	0.1	1.5	0.7	0.6	1.6	0.4	100.0	1,072
Total	54.5	26.7	15.7	0.1	0.1	0.8	0.6	0.5	0.7	0.3	100.0	6,430

13.2 Women's Health Care

Visits to the gynecologist

Regular gynecological examinations are an important part of a woman's reproductive health. In a routine exam, the doctor checks for abnormalities in the uterus, vagina, ovaries, fallopian tubes, bladder, and rectum. In Western Europe and the United States, yearly routine gynecological exams are recommended for women in the reproductive ages.

Although 29 percent of all women have never visited a gynecologist, virtually all ever-married women have had a consultation (Table 13.2). There is little significant difference by residence or region; however, women with lower levels of education are less likely to have visited a gynecologist.

Table 13.2 Last visit to a gynecologist

Percent distribution of women by time since last visit to a gynecologist, according to background characteristics, Armenia 2000

Background characteristic	Never visited gyne-cologist	Time since last visit to a gynecologist: 0-11 months ago	12-23 months ago	24-35 months ago	36-59 months ago	5+ years ago	Missing	Total	Number of women
Age									
15-19	91.1	6.1	1.6	0.7	0.5	0.0	0.0	100.0	1,160
20-24	47.6	31.7	9.3	6.7	3.5	1.1	0.1	100.0	1,007
25-29	14.2	38.9	18.0	10.5	11.2	7.2	0.0	100.0	769
30-34	5.6	31.9	15.4	11.7	14.4	20.7	0.2	100.0	763
35-39	5.9	20.3	13.7	11.7	13.8	34.7	0.0	100.0	962
40-44	6.6	15.0	9.2	8.3	11.7	49.0	0.2	100.0	947
45-49	6.0	9.4	7.2	8.0	10.5	58.9	0.0	100.0	822
Marital status									
Never married	93.7	1.5	1.1	1.2	0.8	1.6	0.1	100.0	1,851
Currently married	2.5	30.7	14.3	10.8	12.1	29.5	0.1	100.0	4,125
Formerly married	4.8	11.2	7.3	7.7	11.6	57.2	0.1	100.0	455
Residence									
Urban	31.0	19.2	9.4	8.0	9.0	23.5	0.0	100.0	3,942
Rural	25.6	23.8	11.1	7.5	8.6	23.4	0.1	100.0	2,488
Region									
Yerevan	32.3	19.6	9.2	7.8	8.5	22.6	0.1	100.0	2,206
Aragatsotn	27.9	25.6	10.1	7.4	8.3	20.7	0.0	100.0	279
Ararat	26.8	26.4	10.5	8.0	9.2	19.0	0.2	100.0	642
Armavir	25.9	26.5	12.1	5.3	9.3	21.0	0.0	100.0	553
Gegharkunik	26.2	22.5	10.4	6.1	8.6	26.2	0.0	100.0	484
Lori	24.7	19.8	9.5	8.8	11.2	25.7	0.2	100.0	489
Kotayk	29.7	17.5	11.0	9.0	10.3	22.5	0.0	100.0	505
Shirak	29.9	14.4	7.5	9.3	7.1	31.7	0.0	100.0	611
Syunik	28.3	18.2	13.4	7.7	8.1	24.1	0.2	100.0	271
Vayots Dzor	26.0	21.2	11.1	8.7	6.3	26.6	0.0	100.0	113
Tavush	24.2	25.4	12.1	8.7	8.9	20.8	0.0	100.0	278
Education									
Primary/middle	47.1	14.2	8.0	5.1	6.3	19.2	0.0	100.0	593
Secondary	29.8	20.1	9.6	7.4	8.6	24.5	0.0	100.0	2,341
Secondary-special	21.5	23.4	11.1	8.5	9.7	25.7	0.1	100.0	2,295
Higher	32.4	21.2	9.9	8.6	8.8	19.0	0.1	100.0	1,201
Total	28.9	20.9	10.0	7.8	8.8	23.4	0.1	100.0	6,430

Overall, one-fifth of women had visited a gynecologist during the 12 months preceding the survey. Currently married women were most likely to have visited a gynecologist (31 percent). There is considerable variation by region, ranging from 14 percent in Shirak to 27 percent in Armavir.

A little more than half of all women have not been seen by a gynecologist in the past five years. Of women who are no longer married, 62 percent have not been to a gynecologist in the past five years. This suggests that many women are not visiting the gynecologist for routine exams. Given the high incidence of abortion in Armenia, it is likely that many of the visits to the gynecologists are for this purpose.

Breast examinations

Breast cancer is the most common type of cancer among Armenian women. Although the exact causes of breast cancer have not been identified, it is known that the risk of breast cancer increases as a woman ages. Breast self-examinations (BSEs), physical examinations of the breasts performed by medical professionals, and mammography are methods for the early detection of breast cancer.

BSE is a simple procedure that can be performed monthly by a woman to check for any changes in her breasts. Until recently, there has been little information among the general Armenian public about the importance of BSE. Even gynecologists were not trained in the techniques for BSE (GOA, UNICEF, and SCF 1999). In the past few years, however, there have been various public health initiatives targeted at increasing awareness of BSE techniques.

According to Table 13.3, 85 percent of Armenian women do not know how to perform BSE. Among those women who reported that they know how to give themselves a breast examination, the majority had not performed a BSE recently. Only 6 percent of women overall gave themselves a breast examination during the three months preceding the survey. Knowledge of BSE and the likelihood of having recently performed a BSE increases as women's age and educational attainment increases. It is interesting to note that there are no significant differences between urban and rural residence.

Fewer than one in ten women reported that a health care provider had given them a breast exam. It should be noted that although 21 percent of women reported that they had visited a gynecologist during the 12 months preceding the survey (Table 13.3), only 3 percent of women reported that a health care provider had given them a breast exam during the same period.

Table 13.3 Last breast examination

Percent distribution of women by time since last breast self-exam (BSE) and time since last breast exam by health provider, according to background characteristics, Armenia 2000

Background characteristic	Does not know about self-exam	Last time performed BSE: Never	Within last 3 months	3+ months ago	Don't know/ missing	Total	Time since last exam by a health provider: Never	Within last year	More than one year ago	Don't know/ missing	Total	Number of women
Age												
15-19	95.6	2.6	1.0	0.8	0.0	100.0	98.2	1.1	0.7	0.0	100.0	1,160
20-24	87.2	6.7	4.6	1.4	0.1	100.0	92.2	3.7	4.1	0.1	100.0	1,007
25-29	83.1	6.4	6.9	3.4	0.3	100.0	89.2	4.2	6.6	0.0	100.0	769
30-34	83.9	4.9	7.8	3.1	0.3	100.0	89.7	3.1	5.7	1.6	100.0	763
35-39	79.5	8.5	7.6	3.9	0.4	100.0	90.0	3.6	5.4	1.0	100.0	962
40-44	82.1	7.0	8.5	2.1	0.2	100.0	90.7	2.5	4.6	2.2	100.0	947
45-49	77.7	9.6	9.2	3.3	0.1	100.0	90.9	3.3	4.5	1.3	100.0	822
Marital status												
Never married	91.7	5.0	2.3	0.8	0.1	100.0	98.1	1.0	0.9	0.0	100.0	1,851
Currently married	81.8	7.0	7.9	3.0	0.2	100.0	89.2	3.8	5.8	1.2	100.0	4,125
Formerly married	82.7	6.1	7.0	3.9	0.3	100.0	91.1	3.1	4.3	1.5	100.0	455
Residence												
Urban	83.0	7.8	6.3	2.6	0.3	100.0	92.0	2.9	4.3	0.7	100.0	3,942
Rural	87.4	4.1	6.2	2.2	0.1	100.0	91.7	3.0	4.2	1.1	100.0	2,488
Region												
Yerevan	84.8	7.4	4.8	2.9	0.1	100.0	91.0	3.1	5.3	0.6	100.0	2,206
Aragatsotn	81.6	2.1	12.4	3.5	0.4	100.0	90.9	3.5	4.8	0.8	100.0	279
Ararat	82.1	4.4	9.0	4.4	0.0	100.0	87.8	4.3	6.9	1.1	100.0	642
Armavir	87.1	4.4	6.3	1.6	0.6	100.0	90.5	3.4	4.2	1.8	100.0	553
Gegharkunik	88.5	6.1	2.5	2.7	0.2	100.0	93.0	2.2	3.7	1.0	100.0	484
Lori	88.3	4.6	5.4	1.0	0.7	100.0	95.8	1.5	1.7	1.0	100.0	489
Kotayk	88.1	5.2	5.8	0.9	0.0	100.0	91.7	2.9	4.0	1.3	100.0	505
Shirak	76.2	11.6	10.6	1.6	0.0	100.0	97.4	1.8	0.8	0.0	100.0	611
Syunik	85.8	7.5	4.0	2.4	0.2	100.0	91.7	2.8	3.8	1.6	100.0	271
Vayots Dzor	86.2	9.0	2.4	2.4	0.0	100.0	94.1	2.6	2.4	0.9	100.0	113
Tavush	86.7	3.0	7.7	2.4	0.2	100.0	91.3	3.6	4.4	0.6	100.0	278
Education												
Primary/middle	95.5	1.4	2.1	1.0	0.0	100.0	95.8	1.6	1.7	0.9	100.0	593
Secondary	89.5	4.3	4.4	1.7	0.1	100.0	93.8	2.1	3.5	0.6	100.0	2,341
Secondary-special	82.2	7.0	7.2	3.3	0.3	100.0	91.0	2.9	5.0	1.1	100.0	2,295
Higher	74.9	11.7	10.0	3.0	0.4	100.0	88.1	5.4	5.6	0.9	100.0	1,201
Total	84.7	6.4	6.2	2.5	0.2	100.0	91.9	2.9	4.3	0.9	100.0	6,430

13.3 Use of Smoking Tobacco

Smoking tobacco has a negative impact on the smoker's health status. Increased levels of lung cancer, emphysema, and other respiratory illnesses are caused by tobacco use. Regarding lung cancer, it is the most prevalent type of cancer among Armenian males. Furthermore, smoking is believed to contribute to the risk of cardiovascular diseases (GOA, UNICEF, and SCF, 1999). It may also have an impact on individuals who are exposed to secondhand smoke. For example, inhaling secondhand smoke may adversely affect children's growth and cause childhood illness, especially respiratory diseases.

Table 13.4 shows that, overall, very few women reported that they currently smoke (3 percent). It is possible that some female respondents were reluctant to report that they smoke because of the traditional Armenian prohibition against women smoking. Urban dwellers, more educated women, and formerly married women are the most likely to smoke.[1] The likelihood that a woman currently smokes increases as her age increases.

Table 13.4 Use of smoking tobacco

Percentage of women and men who report current use of smoking tobacco, by background characteristics, Armenia 2000

	Women		Men	
Background characteristic	Currently smokes	Number	Currently smokes	Number
Age				
15-19	0.6	1,160	20.0	263
20-24	1.5	1,007	71.9	215
25-29	2.6	769	74.8	194
30-34	3.9	763	80.4	205
35-39	2.4	962	80.7	237
40-44	5.5	947	80.1	275
45-49	6.1	822	70.6	203
50-54	na	na	69.9	126
Marital status				
Never married	1.5	1,851	44.7	530
Currently married	2.8	4,125	77.5	1,161
Formerly married	11.2	455	(84.8)	28
Residence				
Urban	4.6	3,942	69.4	1,024
Rural	0.6	2,488	64.8	695
Education				
Primary/middle	1.7	593	60.8	245
Secondary	1.1	2,341	65.8	510
Secondary-special	3.2	2,295	75.5	588
Higher	7.3	1,201	61.7	376
Total	3.1	6,430	67.5	1,719

Note: Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable

Smoking is considerably more common among men. Approximately two-thirds of men report that they are smokers. As with women, the likelihood that a man is a smoker increases with age. There is no significant difference by residence.

[1] Further insight into the relationship between smoking and education might be provided by multivariate analysis.

13.4 TUBERCULOSIS

Tuberculosis (TB) is caused by bacteria called *Mycobacterium tuberculosis*. The disease usually affects the lungs, although in up to one-third of cases, other organs are involved. If properly treated, tuberculosis caused by drug-susceptible strains is curable in virtually all cases. If untreated, more than half the cases may be fatal within five years. Transmission is usually airborne through the spread of droplets produced when patients with infectious pulmonary tuberculosis cough.

Tuberculosis is a major global health problem; it kills 3 million people each year (WHO, 1998). The breakdown in health services, the spread of HIV/AIDS, and the emergence of multidrug-resistant TB contribute to the worsening impact of this disease. In 1993, the World Health Organization (WHO, 1993) took the unprecedented step of declaring tuberculosis a global emergency. If the spread of this disease is not curtailed, it is estimated that between the years 2000 and 2020, nearly 1 billion people will be newly infected, 200 million people will get sick, and 70 million people will die from TB (WHO, 2000).

The prevalence of tuberculosis, particularly its multidrug-resistant forms, is increasing throughout the Commonwealth of Independent States (CIS) and is of great concern to public health officials. In Armenia, prevalence overall is lower than in some of the other CIS countries, such as Russia. Nonetheless, the TB infection rate increased by approximately two-thirds between 1990 and 1997 (MOS and UNDP, 1998).

In the ADHS, women and men were asked a series of questions about their knowledge of TB symptoms, its mode of transmission, and proper treatment of TB. This chapter summarizes the information at the national level and for geographic and socioeconomic subgroups of the population.

Knowledge of tuberculosis transmission and exposure to tuberculosis

In the ADHS, women and men were asked questions on whether they had heard of an illness called tuberculosis, and if so, how they perceive the illness is transmitted from person to person. Respondents were also asked whether they, anyone in their family, or anyone with whom they have frequent contact had ever had tuberculosis.

Tables 13.5.1 and 13.5.2 show that approximately eight out of ten women and men have heard of tuberculosis. Overall, recognition of tuberculosis has a positive relationship with age and education. Urban dwellers are more likely than rural dwellers to have heard of tuberculosis.

Among those respondents who had heard of tuberculosis, approximately two-thirds were able to correctly identify the mode of tuberculosis transmission (through the air when coughing).

Overall, few respondents have had a family member with tuberculosis or have been in frequent contact with someone who had tuberculosis.

Table 13.5.1 Knowledge of and exposure to tuberculosis: women

Percentage of women with knowledge of tuberculosis (TB), knowledge of way TB is transmitted, and experience with exposure to tuberculosis, by background characteristics, Armenia 2000

Background characteristic	Has heard of tuber-culosis	Perceived way TB is transmitted: Through the air when person coughs	Perceived way TB is transmitted: Other way	Perceived way TB is transmitted: Does not know how TB is transmitted	Exposure to TB: Has family member who has had TB	Exposure to TB: Had frequent contact with someone who had TB	Number of women
Age							
15-19	69.4	34.9	21.0	21.0	1.0	2.6	1,160
20-24	81.9	50.8	20.2	16.2	1.3	3.0	1,007
25-29	85.4	54.6	21.1	12.4	2.1	5.6	769
30-34	84.0	52.3	24.4	11.8	2.1	3.6	763
35-39	85.4	53.0	26.2	9.8	2.4	6.0	962
40-44	86.8	55.5	25.8	8.9	1.9	4.4	947
45-49	91.5	58.3	27.3	7.9	2.7	4.4	822
Marital status							
Never married	77.1	45.4	20.1	17.2	1.2	3.2	1,851
Currently married	84.8	52.3	25.3	11.1	1.9	4.5	4,098
Formerly married	87.3	55.1	22.4	13.2	4.0	5.0	455
Residence							
Urban	86.5	56.3	21.0	11.9	1.9	4.3	3,942
Rural	76.9	41.5	27.7	14.7	1.8	3.9	2,488
Region							
Yerevan	87.8	57.9	18.9	13.0	1.7	4.4	2,206
Aragatsotn	64.3	46.5	17.1	8.5	2.3	3.1	279
Ararat	94.3	62.1	18.1	15.2	2.8	6.0	642
Armavir	84.2	36.4	34.5	17.8	2.6	5.5	553
Gegharkunik	76.3	31.5	36.0	19.0	1.0	4.5	484
Lori	63.6	35.2	35.7	6.4	1.7	1.7	489
Kotayk	78.2	25.6	44.3	16.0	1.8	5.6	505
Shirak	93.5	77.4	10.6	5.5	1.0	1.8	611
Syunik	71.9	58.5	8.1	7.9	2.2	2.4	271
Vayots Dzor	71.2	49.1	5.7	18.8	1.5	0.7	113
Tavush	77.2	36.7	28.8	17.9	2.6	6.0	278
Education							
Primary/middle	60.2	28.2	25.8	19.3	1.5	2.5	593
Secondary	76.4	40.7	25.4	16.3	2.1	3.8	2,341
Secondary-special	88.6	56.3	23.9	10.9	1.9	4.9	2,295
Higher	95.2	69.7	18.4	7.4	1.6	4.4	1,201
Total	82.8	50.5	23.6	13.0	1.9	4.2	6,430

Table 13.5.2 Knowledge of and exposure to tuberculosis: men

Percentage of men with knowledge of tuberculosis (TB), knowledge of way TB is transmitted, and experience with exposure to tuberculosis, by background characteristics, Armenia 2000

Background characteristic	Has heard of tuber-culosis	Perceived way TB is transmitted: Through the air when person coughs	Perceived way TB is transmitted: Other way	Perceived way TB is transmitted: Does not know how TB is transmitted	Exposure to TB: Has family member who has had TB	Exposure to TB: Had frequent contact with someone who had TB	Number of men
Age							
15-19	54.9	24.8	16.5	23.3	0.8	0.0	266
20-24	72.2	37.2	15.2	26.0	2.2	3.6	223
25-29	75.0	50.0	12.5	18.8	4.7	1.6	192
30-34	78.7	46.0	20.3	18.8	1.0	0.5	202
35-39	85.2	51.5	19.0	20.3	0.8	3.0	237
40-44	85.9	55.6	17.0	17.8	1.5	2.2	270
45-49	87.1	62.2	15.3	11.0	2.9	2.4	209
50-54	87.5	66.7	15.0	10.0	5.0	1.7	120
Marital status							
Never married	64.8	35.0	15.0	22.8	2.4	1.9	534
Currently married	82.9	53.0	17.3	17.3	1.9	1.8	1,159
Formerly married	(92.3)	(73.1)	(15.4)	(7.7)	(3.8)	(3.8)	26
Residence							
Urban	83.0	57.6	13.9	15.3	1.9	2.1	943
Rural	70.6	35.7	19.7	23.3	2.3	1.5	776
Region							
Yerevan	85.5	65.6	8.0	14.7	2.5	2.0	448
Aragatsotn	92.1	41.0	25.2	29.5	0.7	2.2	139
Ararat	78.4	61.2	3.6	17.3	2.9	0.7	139
Armavir	90.3	66.2	1.4	24.8	2.8	1.4	145
Gegharkunik	41.9	16.2	33.3	12.8	0.9	3.4	117
Lori	52.9	14.9	40.2	14.9	4.6	1.1	87
Kotayk	77.2	37.0	17.3	32.3	0.0	0.0	127
Shirak	80.6	59.7	12.9	11.5	2.2	1.4	139
Syunik	97.5	58.0	31.1	10.1	1.7	3.4	119
Vayots Dzor	58.4	21.8	14.9	22.8	2.0	2.0	101
Tavush	63.3	22.2	25.3	24.1	2.5	2.5	158
Education							
Primary/middle	54.3	23.0	19.8	23.9	1.2	2.5	243
Secondary	71.9	41.3	16.7	19.8	2.2	1.5	540
Secondary-special	82.5	49.2	17.5	21.1	2.1	1.4	583
Higher	93.5	72.0	12.5	10.5	2.5	2.8	353
Total	77.4	47.7	16.5	18.9	2.1	1.9	1,719

Note: Figures in parentheses are based on 25-49 unweighted cases.

Treatment of tuberculosis

Respondents were also asked about treatment of tuberculosis. Tables 13.6.1 and 13.6.2 show that more than two-thirds of both men and women who have heard of tuberculosis know that it can be cured completely. Almost all women and men perceive hospitalization as the appropriate way to treat tuberculosis. It is notable that there is very little significant variation among background characteristics.

Table 13.6.1 Knowledge of treatment of tuberculosis: women

Among women who have heard of tuberculosis, percentage with knowledge that TB can be completely cured, and percent distribution by perceived appropriate treatment for person with TB, according to background characteristics, Armenia 2000

		Perceived appropriate treatment for person with TB						
Background characteristic	Knows that TB can be completely cured	Hospi-talized	Treated at home	Initially hospitalized followed by home treatment	Other	Does not know	Total	Number of women
Age								
15-19	61.9	88.7	1.2	7.6	0.0	2.4	100.0	805
20-24	68.5	90.8	0.5	6.8	0.0	2.0	100.0	825
25-29	72.8	91.0	1.9	4.9	0.4	1.8	100.0	656
30-34	71.3	91.1	1.9	5.6	0.4	0.9	100.0	641
35-39	75.0	91.4	1.6	6.1	0.1	0.8	100.0	822
40-44	73.9	89.2	1.5	7.2	0.0	2.1	100.0	822
45-49	76.1	91.3	1.8	5.3	0.0	1.5	100.0	752
Marital status								
Never married	67.7	89.2	1.2	7.4	0.0	2.1	100.0	1,427
Currently married	72.5	91.0	1.5	5.9	0.2	1.4	100.0	3,498
Formerly married	73.8	90.0	1.7	5.5	0.3	2.3	100.0	397
Residence								
Urban	72.1	89.5	1.7	7.3	0.1	1.4	100.0	3,410
Rural	69.7	92.1	1.0	4.5	0.2	2.2	100.0	1,913
Region								
Yerevan	70.1	90.4	2.2	6.0	0.1	1.2	100.0	1,936
Aragatsotn	69.8	92.6	1.3	4.5	0.3	1.3	100.0	179
Ararat	74.1	95.3	0.9	2.8	0.0	0.9	100.0	605
Armavir	67.9	88.2	0.7	7.2	0.5	3.4	100.0	466
Gegharkunik	64.6	88.5	2.9	4.3	0.0	4.3	100.0	369
Lori	75.0	94.6	1.9	3.1	0.0	0.4	100.0	311
Kotayk	56.3	90.8	0.3	6.3	0.0	2.6	100.0	395
Shirak	85.4	83.3	0.2	15.2	0.2	1.1	100.0	572
Syunik	80.8	92.4	0.6	5.1	0.0	1.7	100.0	195
Vayots Dzor	71.8	95.1	0.9	3.1	0.0	0.9	100.0	80
Tavush	69.7	92.4	1.3	4.2	0.0	2.1	100.0	214
Education								
Primary/middle	64.0	89.9	1.1	5.3	0.0	3.7	100.0	357
Secondary	66.9	89.6	1.4	6.5	0.2	2.3	100.0	1,788
Secondary-special	73.5	91.8	1.4	5.3	0.1	1.5	100.0	2,033
Higher	76.4	89.6	1.8	8.0	0.1	0.5	100.0	1,143
Total	71.3	90.4	1.5	6.3	0.1	1.7	100.0	5,322

Table 13.6.2 Knowledge of treatment of tuberculosis: men

Among men who have heard of tuberculosis, percentage with knowledge that TB can be completely cured, and percent distribution by perceived appropriate treatment for person with TB, according to background characteristics, Armenia 2000

Background characteristic	Knows that TB can be completely cured	Perceived appropriate treatment for person with TB: Hospitalized	Treated at home	Initially hospitalized followed by home treatment	Other	Does not know	Total	Number of men
Age								
15-19	63.0	88.4	1.4	4.1	0.0	6.2	100.0	146
20-24	62.7	87.0	2.5	6.8	0.0	3.7	100.0	161
25-29	68.1	91.0	1.4	3.5	0.0	4.2	100.0	144
30-34	71.1	88.7	2.5	6.9	0.0	1.9	100.0	159
35-39	67.3	89.6	3.0	6.9	0.0	0.5	100.0	202
40-44	72.8	85.8	2.2	7.3	0.0	4.7	100.0	232
45-49	71.4	89.6	2.2	4.4	0.5	3.3	100.0	182
50-54	69.5	87.6	2.9	6.7	0.0	2.9	100.0	105
Current marital status								
Never married	64.5	88.4	1.4	5.8	0.0	4.3	100.0	346
Currently married	70.6	88.1	2.6	6.1	0.0	3.1	100.0	961
Formerly married	(45.8)	(95.8)	(0.0)	(0.0)	(4.2)	(0.0)	(100.0)	24
Residence								
Urban	69.1	87.7	1.8	8.2	0.1	2.2	100.0	783
Rural	67.7	89.2	2.9	2.7	0.0	5.1	100.0	548
Region								
Yerevan	68.9	92.4	0.5	3.4	0.3	3.4	100.0	383
Aragatsotn	64.1	99.2	0.0	0.0	0.0	0.8	100.0	128
Ararat	67.9	95.4	0.9	0.0	0.0	3.7	100.0	109
Armavir	81.7	92.4	0.8	0.0	0.0	6.9	100.0	131
Gegharkunik	42.9	98.0	0.0	2.0	0.0	0.0	100.0	49
Lori	58.7	76.1	4.3	10.9	0.0	8.7	100.0	46
Kotayk	59.2	98.0	0.0	1.0	0.0	1.0	100.0	98
Shirak	78.6	64.3	0.0	34.8	0.0	0.9	100.0	112
Syunik	62.1	95.7	3.4	0.9	0.0	0.0	100.0	116
Vayots Dzor	59.3	74.6	1.7	16.9	0.0	6.8	100.0	59
Tavush	84.0	64.0	19.0	9.0	0.0	8.0	100.0	100
Education								
Primary/middle	62.1	87.1	1.5	3.0	0.0	8.3	100.0	132
Secondary	66.0	89.7	2.3	4.1	0.0	3.9	100.0	388
Secondary-special	67.4	90.2	2.1	4.2	0.2	3.3	100.0	481
Higher	75.8	84.5	2.7	11.8	0.0	0.9	100.0	330
Total	68.5	88.4	2.3	5.9	0.1	3.4	100.0	1,331

Note: Figures in parentheses are based on 25-49 unweighted numbers.

Knowledge of symptoms of tuberculosis

In the ADHS, women and men were asked the following questions: "what signs or symptoms would lead you to think that a person has tuberculosis" and "what are the symptoms of tuberculosis that would convince you to seek medical assistance?" The results showing knowledge of symptoms of tuberculosis are presented in Tables 13.7.1 and 13.7.2.

Table 13.7.1 Knowledge of symptoms of tuberculosis: women

Among women who have heard of tuberculosis (TB), percentage with knowledge of specific symptoms of TB, by background characteristics, Armenia 2000

	Symptoms of tuberculosis												
Background characteristic	Coughing	Coughing more than 3 weeks	Coughing with sputum	Blood in sputum	Fever	Loss of appetite	Night sweating	Pain in chest	Tiredness/ fatigue	Weight loss	Lethargy	Don't know	Number of women
Age													
15-19	44.5	5.1	13.9	10.6	18.7	3.4	1.4	2.9	3.6	5.5	0.8	41.3	805
20-24	53.3	5.7	20.5	18.0	26.9	2.9	2.1	5.1	8.8	8.7	1.4	26.1	825
25-29	56.8	6.7	22.6	16.4	26.8	3.6	2.0	5.1	5.3	6.8	2.0	24.4	656
30-34	56.6	7.1	24.6	17.4	30.9	3.8	2.8	6.1	7.8	6.3	2.3	23.2	641
35-39	56.4	6.0	24.0	14.2	30.5	4.6	2.0	5.5	6.4	9.6	1.7	23.4	822
40-44	59.9	6.2	23.6	18.2	35.0	3.3	3.6	5.6	7.7	9.5	1.6	20.3	822
45-49	62.1	6.1	24.2	18.8	38.3	5.6	2.9	4.5	9.6	9.8	1.2	16.0	752
Marital status													
Never married	51.7	6.1	17.4	15.5	26.3	4.1	2.4	4.3	6.6	7.5	1.5	30.7	1,427
Currently married	56.5	6.1	23.0	15.9	30.5	3.6	2.4	5.1	7.3	8.4	1.5	23.5	3,498
Formerly married	61.6	6.1	26.5	20.5	32.6	5.8	2.3	6.0	5.8	7.6	1.8	19.0	397
Residence													
Urban	61.2	7.5	21.3	18.2	35.8	4.7	3.3	5.4	6.9	8.9	1.8	21.3	3,410
Rural	45.5	3.6	22.6	12.6	18.5	2.5	0.8	4.2	7.3	6.7	1.0	32.0	1,913
Region													
Yerevan	64.7	8.5	20.5	17.8	41.6	5.6	4.2	5.3	7.0	11.1	2.1	22.5	1,936
Aragatsotn	63.0	7.4	15.8	24.8	33.8	3.2	1.6	3.5	6.1	1.0	1.0	27.7	179
Ararat	29.9	5.1	33.5	15.0	16.9	2.3	0.6	2.8	9.6	9.8	0.9	33.3	605
Armavir	47.5	1.2	26.9	12.2	25.7	2.6	1.9	5.0	8.2	12.5	1.7	35.3	466
Gegharkunik	49.1	4.8	8.3	7.5	9.4	0.8	0.0	1.9	4.0	2.4	0.5	33.8	369
Lori	61.2	0.4	15.0	16.5	25.4	0.8	1.5	7.7	13.8	4.2	1.5	18.1	311
Kotayk	51.1	3.7	11.8	8.6	17.5	1.4	0.0	4.3	6.3	4.9	0.9	33.6	395
Shirak	59.6	9.1	35.2	27.2	34.3	6.3	2.6	8.0	3.9	2.0	1.7	6.1	572
Syunik	65.4	11.8	22.0	17.2	22.0	5.4	3.7	4.2	2.8	7.3	1.4	18.0	195
Vayots Dzor	36.5	2.1	22.1	8.3	21.5	3.1	1.5	8.0	6.1	9.8	1.2	35.3	80
Tavush	55.6	0.3	9.7	7.6	21.1	3.1	1.3	2.3	7.6	11.2	1.3	34.5	214
Education													
Primary/middle	41.8	7.1	13.7	7.2	16.3	2.2	0.4	1.8	2.5	4.7	0.0	44.2	357
Secondary	47.7	4.0	18.5	11.9	20.9	2.5	1.7	3.5	4.7	5.7	0.8	34.0	1,788
Secondary-special	58.9	6.2	23.6	18.1	33.3	4.4	2.1	6.1	8.0	8.2	1.8	20.5	2,033
Higher	66.3	8.8	26.2	22.3	40.5	5.8	4.6	6.1	10.4	12.8	2.6	13.5	1,143
Total	55.6	6.1	21.8	16.2	29.5	3.9	2.4	5.0	7.0	8.1	1.5	25.1	5,322

Table 13.7.2 Knowledge of symptoms of tuberculosis: men

Among men who have heard of tuberculosis (TB), percentage with knowledge of specific symptoms of TB, by background characteristics, Armenia 2000

Background characteristic	Symptoms of tuberculosis												Number of men
	Coughing	Coughing more than 3 weeks	Coughing with sputum	Blood in sputum	Fever	Loss of appetite	Night sweating	Pain in chest	Tiredness/ fatigue	Weight loss	Lethargy	Don't know	
Age													
15-19	13.0	14.4	15.1	11.6	13.7	0.7	0.7	0.7	1.4	0.0	0.0	61.6	146
20-24	20.5	24.8	29.2	10.6	22.4	2.5	1.2	5.6	1.2	10.6	0.6	39.8	161
25-29	27.1	29.9	34.7	15.3	23.6	3.5	4.2	7.6	2.8	13.2	0.7	29.2	144
30-34	23.9	23.3	39.0	10.1	22.6	1.3	0.0	5.0	3.1	8.2	3.8	31.4	159
35-39	27.7	25.7	33.2	13.4	30.2	2.5	2.5	4.0	4.5	10.9	2.0	24.8	202
40-44	23.7	23.3	37.9	18.1	20.7	2.2	1.7	5.6	4.7	8.6	3.0	28.9	232
45-49	31.9	23.1	41.8	19.2	25.8	3.8	3.8	4.4	2.2	12.1	1.1	23.1	182
50-54	30.5	33.3	38.1	17.1	23.8	3.8	1.9	3.8	3.8	12.4	1.9	23.8	105
Marital status													
Never married	18.5	23.1	25.7	11.8	20.8	1.7	1.2	2.6	1.4	6.6	0.6	44.8	346
Currently married	26.8	24.8	37.0	15.7	23.6	2.7	2.4	5.4	3.7	10.0	2.2	28.2	961
Formerly married	(33.3)	(25.0)	(29.2)	(8.3)	(33.3)	(4.2)	(0.0)	(4.2)	(0.0)	(29.2)	(0.0)	(16.7)	24
Residence													
Urban	27.6	26.8	36.8	16.7	30.7	2.6	2.9	5.5	3.3	10.0	2.6	25.3	783
Rural	20.8	20.8	29.9	11.5	12.2	2.4	0.7	3.5	2.7	8.8	0.5	42.3	548
Region													
Yerevan	34.2	27.9	36.6	13.8	32.6	1.8	3.4	6.3	2.3	10.4	4.7	21.4	383
Aragatsotn	8.6	25.8	32.0	6.3	14.8	0.8	0.0	2.3	2.3	9.4	0.0	40.6	128
Ararat	31.2	10.1	14.7	11.0	8.3	3.7	0.0	0.9	1.8	5.5	0.0	45.9	109
Armavir	6.1	50.4	55.0	22.1	9.2	6.1	2.3	4.6	0.8	12.2	1.5	44.3	131
Gegharkunik	32.7	22.4	22.4	18.4	12.2	4.1	2.0	2.0	6.1	16.3	0.0	24.5	49
Lori	23.9	4.3	4.3	2.2	8.7	0.0	0.0	6.5	4.3	6.5	6.5	67.4	46
Kotayk	1.0	12.2	51.0	3.1	4.1	0.0	0.0	0.0	1.0	0.0	0.0	46.9	98
Shirak	9.8	42.9	19.6	46.4	69.6	6.3	5.4	7.1	5.4	11.6	0.0	10.7	112
Syunik	44.0	12.1	47.4	4.3	11.2	0.9	0.0	3.4	6.0	6.0	0.0	27.6	116
Vayots Dzor	32.2	16.9	22.0	15.3	13.6	1.7	6.8	8.5	10.2	22.0	0.0	33.9	59
Tavush	37.0	10.0	30.0	13.0	29.0	2.0	0.0	7.0	1.0	8.0	0.0	35.0	100
Education													
Primary/middle	15.2	12.1	21.2	6.8	14.4	0.8	0.8	1.5	0.8	3.0	0.0	58.3	132
Secondary	22.7	22.9	33.8	11.3	17.0	1.8	1.3	3.6	2.6	4.1	0.0	38.1	388
Secondary-special	27.9	22.5	34.5	13.3	21.6	2.3	1.2	3.5	2.5	11.0	2.1	31.2	481
Higher	26.7	33.6	38.5	23.3	35.8	4.2	4.5	8.8	5.5	16.1	3.9	16.7	330
Total	24.8	24.3	34.0	14.6	23.1	2.5	2.0	4.7	3.1	9.5	1.7	32.3	1,331

Note: Figures in parentheses are based on 25-49 unweighted cases.

Without prompting, 56 percent of women mentioned coughing and 22 percent mentioned coughing with sputum. Six percent mentioned coughing for more than three weeks. Among men, one-third mentioned coughing with sputum and almost one-quarter each mentioned coughing, coughing for more than three weeks, and fever.

The percentage of respondents who cited specific symptoms of tuberculosis that would convince them to seek medical assistance is presented in Tables 13.8.1 and 13.8.2. The listing of such symptoms follows the same pattern as the listing of symptoms that are known to the respondents. For example, coughing was cited by the majority of women (64 percent) as the symptom convincing them to seek medical assistance, while the most commonly cited symptom among men was coughing with sputum (49 percent).

Table 13.8.1 Symptoms of tuberculosis that would prompt women to seek medical assistance

Among women who know one or more symptoms of tuberculosis, the percentage who cite specific symptoms that would prompt them to seek medical care, by background characteristics, Armenia 2000

	Symptoms of tuberculosis that would prompt woman to seek medical care										
Background characteristic	Cough-ing	Cough-ing more than 3 weeks	Cough-ing with sputum	Blood in sputum	Fever	Loss of appetite	Night sweating	Pain in chest	Tired-ness/ fatigue	Don't know	Number of women
Age											
15-19	66.4	13.7	22.0	16.0	29.7	4.4	1.5	3.4	5.1	3.2	473
20-24	64.5	11.7	27.6	20.8	37.8	3.0	1.9	7.3	9.8	2.1	609
25-29	63.6	12.8	29.8	19.5	35.8	4.8	2.6	4.3	5.4	2.3	496
30-34	59.2	16.0	30.9	20.0	36.2	3.4	2.5	5.2	9.3	2.9	492
35-39	65.4	12.2	30.0	16.6	41.2	3.9	1.8	6.0	6.2	1.6	629
40-44	64.7	13.3	27.9	21.3	41.8	2.7	2.4	5.5	7.6	2.7	655
45-49	65.9	11.2	26.8	20.9	45.0	4.8	3.6	4.8	9.6	2.5	632
Marital status											
Never married	64.8	13.2	24.1	19.7	37.4	4.7	2.4	5.1	7.6	2.2	989
Currently married	64.3	12.6	29.1	19.3	38.9	3.4	2.3	5.4	7.8	2.4	2,675
Formerly married	63.9	14.1	29.8	19.5	41.4	5.0	2.2	5.2	6.9	3.6	321
Residence											
Urban	66.0	14.8	25.3	20.5	42.5	4.5	2.9	5.2	7.1	1.8	2,684
Rural	61.0	8.8	33.3	17.1	31.0	2.3	1.1	5.6	8.9	3.7	1,301
Region											
Yerevan	66.5	19.0	23.5	17.9	46.9	4.9	3.8	4.1	7.1	2.0	1,500
Aragatsotn	75.1	12.0	21.3	31.6	42.2	1.8	0.9	3.6	5.3	0.9	130
Ararat	42.5	13.0	49.6	19.7	39.7	2.3	1.7	7.9	14.1	1.7	404
Armavir	67.0	1.1	39.6	16.3	44.1	2.6	1.9	8.1	8.1	4.4	302
Gegharkunik	65.2	10.1	16.2	12.1	16.6	1.2	0.0	1.2	3.2	4.5	244
Lori	69.0	0.9	15.5	16.0	26.3	0.0	0.0	9.9	10.8	4.2	254
Kotayk	59.3	13.0	17.7	13.9	29.9	1.3	0.4	5.2	10.8	6.9	262
Shirak	63.4	12.5	38.4	31.7	38.0	7.4	2.5	6.5	4.4	0.5	537
Syunik	77.0	14.8	27.8	23.0	23.0	4.1	2.7	3.1	4.1	0.0	160
Vayots Dzor	55.0	3.3	33.2	14.7	33.6	3.8	1.9	9.5	9.5	1.9	52
Tavush	80.5	2.4	13.9	10.0	33.9	4.0	1.2	2.0	9.2	1.6	140
Education											
Primary/middle	68.7	14.7	23.3	9.6	28.9	3.8	1.4	2.1	5.1	4.3	199
Secondary	65.8	11.3	28.4	15.5	33.7	2.5	1.8	4.8	6.1	3.2	1,181
Secondary-special	64.0	11.7	29.3	21.5	40.4	4.3	1.9	6.2	8.9	1.8	1,617
Higher	62.5	16.2	26.0	22.5	44.0	4.6	3.9	5.1	8.1	2.2	989
Total	64.4	12.9	27.9	38.7	19.4	3.8	2.3	5.3	7.7	2.4	3,986

Table 13.8.2 Symptoms of tuberculosis that would prompt men to seek medical assistance

Among men who know one or more symptoms of tuberculosis, the percentage who cite specific symptoms that would prompt them to seek medical care, by background characteristics, Armenia 2000

	Symptoms of tuberculosis that would prompt man to seek medical care										
Background characteristic	Cough-ing	Cough-ing more than 3 weeks	Cough-ing with sputum	Blood in sputum	Fever	Loss of appetite	Night sweating	Pain in chest	Tired-ness/ fatigue	Don't know	Number of men
Age											
15-19	25.0	32.1	41.1	28.6	30.4	0.0	1.8	3.6	3.6	5.4	56
20-24	24.7	38.1	48.5	17.5	36.1	5.2	3.1	8.2	5.2	5.2	97
25-29	28.4	32.4	53.9	19.6	38.2	2.9	6.9	8.8	3.9	3.9	102
30-34	17.4	31.2	53.2	15.6	32.1	0.9	0.0	4.6	3.7	4.6	109
35-39	24.3	29.6	44.1	17.8	38.2	2.6	3.3	5.3	3.9	5.9	152
40-44	25.5	30.3	50.9	26.1	29.7	3.0	1.8	7.9	5.5	2.4	165
45-49	29.3	31.4	52.1	22.1	32.1	2.9	2.9	3.6	1.4	0.7	140
50-54	25.0	40.0	45.0	13.8	33.8	6.3	3.8	6.3	2.5	6.3	80
Marital status											
Never married	23.6	36.6	47.1	21.5	37.2	2.6	2.6	5.2	2.6	4.2	191
Currently married	25.4	31.3	50.0	20.1	33.0	3.0	3.0	6.4	4.2	3.8	690
Formerly married	*	*	*	*	*	*	*	*	*	*	20
Residence											
Urban	24.8	31.1	47.2	20.0	40.0	2.2	3.4	7.5	3.2	3.9	585
Rural	25.6	35.1	52.8	20.6	22.5	4.4	1.9	3.5	4.7	4.1	316
Region											
Yerevan	30.6	26.2	40.5	13.3	39.5	1.3	3.7	6.6	2.0	6.3	301
Aragatsotn	15.8	43.4	53.9	10.5	25.0	1.3	0.0	3.9	5.3	0.0	76
Ararat	52.5	18.6	28.8	22.0	16.9	6.8	0.0	3.4	1.7	5.1	59
Armavir	13.7	86.3	95.9	37.0	20.5	9.6	6.8	5.5	2.7	1.4	73
Gegharkunik	(43.2)	(29.7)	(29.7)	(24.3)	(16.2)	(5.4)	(2.7)	(0.0)	(8.1)	(0.0)	37
Lori	*	*	*	*	*	*	*	*	*	*	15
Kotayk	0.0	30.8	98.1	19.2	5.8	0.0	0.0	0.0	0.0	0.0	52
Shirak	8.0	52.0	26.0	48.0	80.0	8.0	5.0	7.0	6.0	0.0	100
Syunik	42.9	16.7	65.5	7.1	13.1	0.0	1.2	7.1	7.1	1.2	84
Vayots Dzor	(15.4)	(15.4)	(48.7)	(17.9)	(20.5)	(2.6)	(5.1)	(12.8)	(10.3)	(10.3)	39
Tavush	13.8	9.2	41.5	20.0	49.2	0.0	1.5	6.2	0.0	7.7	65
Education											
Primary/middle	29.1	32.7	47.3	14.5	29.1	0.0	1.8	3.6	1.8	9.1	55
Secondary	25.8	29.6	54.2	17.5	30.4	2.1	2.5	5.4	3.3	3.8	240
Secondary-special	26.9	29.0	48.6	20.8	30.8	3.0	1.8	4.2	3.9	3.0	331
Higher	21.5	39.3	45.8	22.9	41.5	4.4	4.7	9.5	4.4	4.4	275
Total	25.1	32.5	49.2	20.2	33.9	3.0	2.9	6.1	3.8	4.0	901

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

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SAMPLE DESIGN APPENDIX A

A.1 SAMPLE SIZE AND ALLOCATION

The Armenia Demographic and Health Survey (ADHS) required a nationally representative sample of women age 15-49 and men age 15-54. The sample was designed to provide estimates of most survey indicators (including fertility, abortion and contraceptive prevalence) for Armenia as a whole, for three residence categories (Yerevan, other urban and rural areas) and for each of ten administrative regions (marz). The design also called for estimates of infant and child mortality at the national level and for the three residence categories (Yerevan, other urban and rural areas).

The target sample size of 6,500 completed interviews with women in the childbearing ages was allocated as follows: 1,500 to Yerevan, and 500 to each of the ten regions. Within each region, the sample was allocated between urban and rural strata in proportion to the population size. This yielded 21 sample strata. Table A.1. Overall, the sample allocation resulted in 1,500 female respondents in Yerevan, 2,300 in other urban areas and 2,700 in the rural areas.

A two-stage sample design was used. The first stage selected 260 area units (i.e., sample clusters) from the sampling frame provided by the National Statistical Service. The second stage selected households in which all women 15-49 were eligible to be interviewed. The sample was developed to yield, on average, 25 female respondents from each sample cluster. Additional description of the sampling frame and the two stages of selection are provided below.

Interviews were completed with 6,430 women. Men age 15-54 were interviewed in every third household; this yielded 1,719 completed interviews.

A.2 AREA FRAME

The frame consisted of the list of the area units in the 1996 Data Base of Addresses and Households, a household listing carried out by the National Statistical Service in 1996 covering the whole country. There were a total of 1,023 areas demarcated in the frame. Except for the two largest cities, which were divided into sectors, each area listed in the frame corresponded to a whole town or village. The frame provided identification information for each region, subregion (if applicable), and locality, as well as urban-rural classification and the altitude of the area (classified into three categories: <1,300 meters, 1,300-1,700 meters and >1,700 meters).

The measures of size in urban areas were the 1996 population counts of individual areas. In rural areas, the measures of size were defined as the number of households in the village, multiplied by the average household size in the rural part of the region in which the village was located. The reason for this decision was some uncertainty in the population figures for individual villages, while the information on the number of households appeared more reliable. Note that, when summed over the rural sector of a region, the total rural measure of size remained equal to the total population count of the 1966 Data Base, so that the figures in Table 1 were not affected.

Table A.1 Sample allocation by region and by residence

Region/ residence	Residence	Number of households (1996)	Population (1996)	Target sample	Number of primary sampling units
Region					
Yerevan	1	252,840	1,036,279	1500	60
Aragatsotn	1	9,918	44,046	146	6
	2	30,794	107,263	354	14
Ararat	1	18,981	81,071	142	6
	2	57,525	204,999	358	14
Armavir	1	22,648	105,795	178	8
	2	62,048	191,602	322	12
Gegharkunik	1	22,937	92,369	179	8
	2	48,641	165,544	321	12
Lori	1	53,578	201,767	315	12
	2	34,222	118,516	185	8
Kotayk	1	41,321	172,026	296	12
	2	29,394	118,324	204	8
Shirak	1	61,399	233,853	338	14
	2	29,671	111,746	162	6
Syunik	1	25,988	101,178	338	14
	2	14,415	48,554	162	6
Vayots Dzor	1	6,179	26,316	198	8
	2	11,537	40,104	302	12
Tavush	1	14,015	57,599	192	8
	2	26,761	92,729	308	12
Residence					
Yerevan		252,840	1,036,279	1,500	60
Other urban		276,964	1,116,020	2,321	96
Rural		345,008	1,199,381	2,679	104
Armenia		874,812	3,351,680	6,500	260

1 = Urban
2 = Rural

For the selection of the sample, areas were arranged according to the following five variables, in the order specified:

1. Region (i.e. marz) (00-10)
2. Urban-rural (1-2)
3. Altitude (1-3)
4. Subregion (where specified)
5. Population (i.e. measure of size) of the area.

The first two variables were used to define the explicit strata for the purpose of selection (i.e. for each region a pre-specified number of urban and rural primary sampling units (PSUs) were selected independently. The remaining three variables provided implicit ordering of the list for systematic selection.

A.3 Selection of Primary Sampling Units

The initial phase of the selection of PSUs required two steps: first the selection of area units from the 1,023 areas in the sampling frame by systematic sampling with probability proportional to size (PPS). A total of 211 areas were selected.

However, 25 of the selected areas were particular large (i.e., self-representing and were selected more than once by the systematic PPS sampling), so it was necessary to select more than one PSU from those 25 areas. From those 25 areas, a total of 74 PSUs were created. Overall, these 74 PSUs and the 186 (211-25) non self-representing PSUs provided a total of 260 PSUs.

At this point, the overall sampling probability for each region (f) and an initial first stage sampling probability for each selected PSU (f_1) were known.

A.4 Secondary Sampling Units and Segmentation

From the perspective of cost and the availability of resources, most of the 260 PSUs were too large to perform a complete household listing operation. Accordingly almost all PSUs were subdivided into a pre-specified number a of secondary sampling units (SSUs). The creation of SSUs, when possible, was done in the office based on the boundaries and landmarks shown in the mapping materials from the 1996 database. The created SSUs had clearly identifiable boundaries and a known measure of size.

One of the created SSUs was selected with PPS, i.e. with probability

$$p_i = \frac{M_i}{M} \qquad with \quad M = \sum_{i=1}^{a} M_i$$

where M_i is the measure of size for the ith SSU.

The task of household listing was further reduced by segmentation. Each SSU was divided into 8 segments. The segment boundaries were identified in the field. The segments were grouped to form 4 pairs, grouping the largest segment with the smallest, the next largest with the next smallest, etc. Measure of size, s_{ij}, for every pair of segments was obtained either from the 1996 Data Base or from a quick count done in the field. Let s_{ij} be the measure of population size for pair j within SSUi. One of the pairs was selected with PPS, i.e. with probability

$$p_{ij} = s_{ij} / s_i \quad \text{with} \quad s_i = \sum_i s_{ij}$$

After segmentation, the first stage sampling probability of the selected PSUs was:

$$f'_1 = p_i \cdot p_{ij} \cdot f_1 \ , \quad (p_i \cdot p_{ij} < 1)$$

A.5 Household Listing and Selection

A complete household listing was conducted within the selected pairs of segments in order to construct the sampling frame for the selection of households.

The required household stage sampling rate was:

$$f_2 = (f)/(f_1')$$

In all PSUs the sampling rate for the selection of households within listed segments was close to one in eight (i.e., 0.125). This outcome was by design. The number of SSUs created in each PSU was set to obtain this result. A relatively similar sampling rate across sample segments meant a variable take from each although, on average, the target number of completed interviews with female respondents remained 25 per PSU.

A.6 Adjustment of Household Sampling Rate after Listing

Since there was some doubt about the population size measures in the 1996 database, the second stage sampling rates were adjusted so as to control the final sample size. This was an overall adjustment, the same for the whole sample, so as not to affect the planned relative sampling rates. For each PSU (sample area k in domain j), let:

L_{jk} = the number of households listed in the selected PSU (the selected pair of segments as defined above or the whole area if not segmented).

$f_2'_{jk}$ = the second stage sampling fraction for the household selection in a PSU.

This means that the number of households expected to be selected is

$$h_{jk} = L_{jk} \cdot f_2'_{jk}$$

Let X_j be the conversion factor from households to completed women interviews in domain j:

$$X_j = H_j . W_j . r_j$$

where H_j is the average household size, W_j is the proportion of the population who are women age 15-49 (i.e., the expected number of eligible women per person in the population) and r_j the expected response rate in the domain. Overall country-level figures were used: $H_j = 3.84$, $W_j = 0.278$ and $r_j = 0.94$ (6 percent non-response).

This gives the expected number of completed interviews as

$$n = \sum_j \sum_k X_j . O_k / L_{jk} . f_2'_{jk}$$

summed over all PSUs (segments or localities) in the sample.

To achieve the required sample size $n = 6{,}500$ completed interviews, the second stage sampling fractions was adjusted throughout by the factor $/n/n = 6500/5403 = 1.200$, i.e. modified in each area as

$$f_2''_{jk} = \frac{n}{n} . f_2'_{jk} .$$

On the basis of the final sampling fractions, households were selected systematically from geographically ordered household listings.

A.7 Response Rates

Tables A.1 and A.2 present detailed information on the results of the household and individual interviews. Household interviews were completed for 97 percent of the occupied households. A total of 6,685 eligible women from these households and 1,913 eligible men from every third household were identified for the individual interviews. Of the eligible women identified, 96 percent were successfully interviewed; of the eligible men, 90 percent were successfully interviewed. The principal reason for non-response among eligible women and men was the failure to find them at home despite repeated visits to the household. The refusal rate was low. There is no difference by urban-rural residence in the response rates for eligible women and men.

Table A.2 Sample Implementation: women

Percent distribution of households and eligible women in the DHS sample by result of the interview and household, eligible women and overall response rates, according to region and urban rural Area, Armenia 2000

Result of interview and response rate	Urban	Rural	Total
Household interviews			
Completed (C)	89.8	94.0	91.7
No competent respondent (HP)	2.2	1.1	1.7
Refused (R)	1.2	0.4	0.8
Dwelling not found (DNF)	0.1	0.0	0.1
Absent (A)	5.6	4.1	4.9
Dwelling vacant (DV)	1.1	0.4	0.8
Total percent	100.0	100.0	100.0
Number	3,629	2,895	6,524
Response rate (HRR)[1]	96.3	98.4	97.2
Women interviews			
Completed (EWC)	95.8	96.6	96.2
Not at home (EWNH)	2.5	1.9	2.2
Refused (EWR)	1.2	0.6	1.0
Partly completed (EWPC)	0.1	0.2	0.1
Incapacitated (EWI)	0.4	0.6	0.5
Total percent (EWO)	100.0	100.0	100.0
Number	3,699	2,986	6,685
Response rate (EWRR [2]	95.8	96.6	96.2
Overall response rate (ORR)[3]	92.3	95.1	93.5

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 \times C}{C + HP + R + DNF}$$

[2] Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{100 \times EWC}{EWC + EWNH + EWR + EWPC + EWI + EWO}$$

[3] The overall response rate (ORR) is calculated as:

$$ORR = HRR * EWRR/100$$

Table A.3 Sample Implementation: men

Percent distribution of households and eligible men in the DHS sample by result of the interview and household, eligible men and overall response rates, according to region and urban rural Area, Armenia 2000

Result of interview and response rate	Urban	Rural	Total
Household interviews			
Completed (C)	89.4	92.3	90.7
No competent respondent (HP)	2.4	1.7	2.1
Refused (R)	1.3	0.4	0.9
Dwelling not found (DNF)	0.2	0.0	0.1
Absent (A)	6.0	5.0	5.6
Dwelling vacant (DV)	0.7	0.5	0.6
Total percent	100.0	100.0	100.0
Number	1,224	967	2,191
Response rate (HRR)[1]	95.9	97.8	96.7
Men interviews			
Completed (EMC)	90.2	89.4	89.9
Not at home (EMNH)	7.0	8.1	7.5
Refused (EMR)	1.8	1.3	1.6
Partly completed (EMPC)	0.1	0.0	0.1
Incapacitated (EMI)	0.9	1.3	1.0
Total percent (EMO)	100.0	100.0	100.0
Number	1,045	868	1,913
Response rate (EMRR)[2]	90.2	89.4	89.9
Overall response rate (ORR)[3]	86.5	87.4	86.9

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{100 \times C}{C + HP + R + DNF}$$

[2] Using the number of eligible men falling into specific response categories, the eligible man response rate (EMRR) is calculated as:

$$\frac{100 \times EMC}{EMC + EMNH + EMR + EMPC + EMI + EMO}$$

[3] The overall response rate (ORR) is calculated as:

$$ORR = HRR * EMRR/100$$

ESTIMATES OF SAMPLING ERRORS *APPENDIX* ***B***

The estimates from a sample survey are affected by two types of errors: (1) nonsampling errors, and (2) sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the 2000 Armenia Demographic and Health Survey (ADHS) to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the ADHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

A sampling error is usually measured in terms of the *standard error* for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the ADHS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for the ADHS is the ISSA Sampling Error Module. This module used the Taylor linearization method of variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance:

$$SE^2(r) \mid \mathrm{var}(r) \mid \frac{1}{x^2} \frac{H}{h \mid 1} \left(\frac{(1 4 f_h) m_h}{m_h 4 1} \frac{®^{m_h}}{©_{TM_{i \mid 1}}} z_{hi}^2 4 \frac{z_h^2}{m_h} \right) \Bigg\}$$

in which

$$z_{hi} = y_{hi} - r.x_{hi}, \text{ and } z_h = y_h - r.x_h$$

where h represents the stratum which varies from 1 to H,
m_h is the total number of clusters selected in the hth stratum,
y_{hi} is the sum of the weighted values of variable y in the ith cluster in the hth stratum,
x_{hi} is the sum of the weighted number of cases in the ith cluster in the hth stratum, and
f is the overall sampling fraction, which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers *all but one* clusters in the calculation of the estimates. Pseudo-independent replications are thus created. In the ADHS, there were 260 non-empty clusters. Hence, 260 replications were created. The variance of a rate r is calculated as follows:

$$SE^2(r) \mid \text{var}(r) \mid \frac{1}{k(k\ 4\ 1)} \frac{k}{i \mid 1} (r_i\ 4\ r)^2$$

in which

$$r_i = k\,r - (\,k - 1\,)\,r_{(i)}$$

where r is the estimate computed from the full sample of 260 clusters,
$r_{(i)}$ is the estimate computed from the reduced sample of 259 clusters (i^{th} cluster excluded), and
k is the total number of clusters.

In addition to the standard error, ISSA computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. ISSA also computes the relative error and confidence limits for the estimates.

Sampling errors for the ADHS are calculated for selected variables considered to be of primary interest. The results are presented in this appendix for the country as a whole, urban and rural areas separately, Yerevan, and for each of the 10 regions. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B.2 to B.19 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R"2SE), for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1). In the case of the total fertility rate, the number of unweighted cases is not relevant, as there is no known unweighted value for woman-years of exposure to child-bearing. Sampling errors for childhood mortality rates are presented only for the whole country, and for urban and rural areas.

The confidence interval (e.g., as calculated for *Children ever born to women aged 15-49*) can be interpreted as follows: the overall average from the national sample is 1.694 and its standard error is 0.018. Therefore, to obtain the 95 percent confidence limits, one adds and subtracts twice the standard error to the sample estimate, i.e.,. 1.694"2H0.018. There is a high probability (95 percent) that the *true* average number of children ever born to all women aged 15 to 49 is between 1.657 and 1.731.

Sampling errors are analyzed for the national woman sample and for two separate groups of estimates: (1) means and proportions, and (2) complex demographic rates. The relative standard errors (SE/R) for the means and proportions range between 0.2 percent and 26.1 percent with an average of 4.9 percent; the highest relative standard errors are for estimates of very low values (e.g., *Women currently using pill*). If estimates of very low values (less than 10 percent) were removed, then the average would drop to 3.1 percent. So in general, the relative standard errors for most estimates for the country as a whole is small, except for estimates of very small proportions. The relative standard error for the total fertility rate is small, 7.0 percent. However, for the mortality rates, the average relative standard error is much higher, 21.5 percent.

There are differentials in the relative standard error for the estimates of sub-populations. For example, for the variable *Never married*, the relative standard errors as a percent of the estimated mean for the whole country, urban and rural areas, and for Aragatsotn are 2.0 percent, 1.4 percent, 1.1 percent, and 9.6 percent respectively.

For the total sample, the value of the design effect (DEFT), averaged over all variables, is 1.18 which means that, due to multi-stage clustering of the sample, the average standard error is increased by a factor of 1.18 over that in an equivalent simple random sample.

Table B.1 List of selected variables for sampling errors, Armenia 2000

Variable	Estimate	Base population
Urban residence	Proportion	All women 15-49
Primary education	Proportion	All women 15-49
Secondary education	Proportion	All women 15-49
Secondary-special education	Proportion	All women 15-49
Higher education	Proportion	All women 15-49
Net attendance ratio	Proportion	All women 15-49
Never married	Proportion	All women 15-49
Currently married	Proportion	All women 15-49
Married before age 20	Proportion	Women 25-49
Had first sexual intercourse before age 18	Proportion	Women 25-49
Currently pregnant	Proportion	All women 15-49
Children ever born	Mean	All women 15-49
Children surviving	Mean	All women 15-49
Children ever born to women age 40-49	Mean	Women 40-49
Knows any contraceptive method	Proportion	Currently married women 15-49
Ever used any contraceptive method	Proportion	Currently married women 15-49
Currently using any contraceptive method	Proportion	Currently married women 15-49
Currently using any modern method	Proportion	Currently married women 15-49
Currently using pill	Proportion	Currently married women 15-49
Currently using IUD	Proportion	Currently married women 15-49
Currently using condom	Proportion	Currently married women 15-49
Currently using female sterilization	Proportion	Currently married women 15-49
Currently using periodic abstinence	Proportion	Currently married women 15-49
Currently using withdrawal	Proportion	Currently married women 15-49
Obtained method in public source	Proportion	Current users of modern methods
Wants no more children	Proportion	Currently married women 15-49
Wants to delay birth at least 2 years	Proportion	Currently married women 15-49
Ideal family size	Mean	All women 15-49
Medical assistance at delivery	Proportion	Children under 5
Had diarrhea in two weeks before survey	Proportion	Children under 5
Treated with ORS packets	Proportion	Children under 5 with diarrhea in last 2 weeks
Taken to a health provider	Proportion	Children under 5 with diarrhea in last 2 weeks
Child immunization card at facility	Proportion	Children 12-23 months
Child immunization card at home	Proportion	Children 12-23 months
Received BCG	Proportion	Children 12-23 months
Received DPT (3 doses)	Proportion	Children 12-23 months
Received Polio (3 doses)	Proportion	Children 12-23 months
Received Measles	Proportion	Children 12-23 months
Fully immunized	Proportion	Children 12-23 months
Weight-for-height 2SD below the median	Proportion	Children under 5 who were measured
Height-for-age 2SD below the median	Proportion	Children under 5 who were measured
Weight-for-age 2SD below the median	Proportion	Children under 5 who were measured
Prevalence of anemia in children	Proportion	Children under 5 who were tested
Prevalence of anemia in women	Proportion	Women 15-49 who were tested
Body mass index below 18.5	Proportion	Women 15-49 whe were measured
Pregnancy outcome is induced abortion	Proportion	Terminated pregnancies, 3 years prior to survey
Ever had an abortion	Proportion	All women 15-49
Knows about condoms	Proportion	Women 15-49
Knows about limiting partners	Proportion	Women 15-49
Prevalence of STIs or STI symptoms	Proportion	Women 15-49
Total fertility rate	Rate	Woman-years of exposure to child-bearing
Total abortion rate	Rate	Woman-years of exposure to child-bearing
Perinatal mortality rate	Rate	Number of births
Neonatal mortality rate	Rate	Number of births
Postneonatal mortality rate	Rate	Number of births
Infant mortality rate	Rate	Number of births
Child mortality rate	Rate	Number of births
Under-five mortality rate	Rate	Number of births

Table B.2 Sampling errors for the total population

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals R-2SE	Confidence intervals R+2SE
Urban residence	0.613	0.011	6430	6430	1.890	0.019	0.590	0.636
Primary education	0.092	0.005	6430	6430	1.507	0.059	0.081	0.103
Secondary education	0.364	0.008	6430	6430	1.295	0.021	0.348	0.380
Secondary-special education	0.357	0.009	6430	6430	1.459	0.024	0.339	0.374
Higher education	0.187	0.008	6430	6430	1.609	0.042	0.171	0.202
Net attendance ratio	0.945	0.005	2370	2307	1.085	0.006	0.935	0.955
Never married	0.288	0.006	6430	6430	1.038	0.020	0.276	0.300
Currently married	0.641	0.006	6430	6430	1.017	0.009	0.629	0.654
Married before age 20	0.444	0.009	4271	4263	1.168	0.020	0.426	0.462
Had first sexual intercourse before age 18	0.159	0.007	4271	4263	1.293	0.046	0.144	0.173
Currently pregnant	0.029	0.002	6430	6430	1.071	0.077	0.024	0.033
Children ever born	1.694	0.018	6430	6430	0.999	0.011	1.657	1.731
Children surviving	1.587	0.016	6430	6430	0.967	0.010	1.554	1.619
Children ever born to women age 40-49	2.618	0.036	1772	1769	1.105	0.014	2.546	2.690
Knows any contraceptive method	0.988	0.002	4198	4125	1.391	0.002	0.983	0.992
Ever used any contraceptive method	0.815	0.008	4198	4125	1.325	0.010	0.799	0.831
Currently using any contraceptive method	0.605	0.009	4198	4125	1.218	0.015	0.587	0.624
Currently using any modern method	0.223	0.008	4198	4125	1.204	0.035	0.207	0.238
Currently using pill	0.011	0.002	4198	4125	1.173	0.171	0.007	0.015
Currently using IUD	0.094	0.005	4198	4125	1.197	0.057	0.084	0.105
Currently using condom	0.069	0.005	4198	4125	1.183	0.067	0.060	0.078
Currently using female sterilization	0.027	0.003	4198	4125	1.101	0.103	0.021	0.032
Currently using periodic abstinence	0.048	0.004	4198	4125	1.118	0.077	0.041	0.056
Currently using withdrawal	0.319	0.008	4198	4125	1.103	0.025	0.303	0.335
Obtained method in public source	0.882	0.012	809	850	1.084	0.014	0.858	0.907
Wants no more children	0.717	0.009	4198	4125	1.267	0.012	0.699	0.735
Wants to delay birth at least 2 years	0.085	0.005	4198	4125	1.098	0.056	0.076	0.095
Ideal family size	2.676	0.017	6336	6333	1.214	0.006	2.642	2.709
Medical assistance at delivery	0.968	0.006	1726	1657	1.186	0.006	0.956	0.980
Had diarrhea in two weeks before survey	0.078	0.008	1659	1596	1.147	0.105	0.062	0.095
Treated with ORS packets	0.330	0.046	129	125	1.034	0.139	0.238	0.421
Taken to a health provider	0.261	0.040	129	125	0.971	0.154	0.181	0.341
Child immunization card at facility	0.929	0.015	305	300	0.985	0.016	0.899	0.958
Child immunization card at home	0.331	0.032	305	300	1.178	0.098	0.266	0.396
Received BCG	0.960	0.012	287	283	1.005	0.012	0.937	0.984
Received DPT (3 doses)	0.951	0.012	287	283	0.899	0.012	0.928	0.974
Received Polio (3 doses)	0.976	0.008	287	283	0.919	0.009	0.959	0.993
Received Measles	0.788	0.029	287	283	1.170	0.036	0.731	0.845
Fully immunized	0.757	0.028	287	283	1.101	0.037	0.701	0.813
Weight-for-height 2SD below the median	0.020	0.005	1517	1463	1.314	0.261	0.009	0.030
Height-for-age 2SD below the median	0.130	0.012	1517	1463	1.270	0.092	0.106	0.154
Weight-for-age 2SD below the median	0.026	0.004	1517	1463	0.962	0.159	0.018	0.034
Prevalence of anemia in children	0.239	0.012	1384	1334	0.996	0.049	0.216	0.263
Prevalence of anemia in women	0.124	0.005	6137	6137	1.216	0.041	0.114	0.135
Body mass index below 18.5	0.035	0.003	5944	5962	1.080	0.073	0.030	0.040
Pregnancy outcome is induced abortion	0.550	0.014	2496	2423	1.121	0.025	0.523	0.578
Ever had an abortion	0.468	0.007	6430	6430	1.071	0.014	0.455	0.481
Knows about condoms	0.479	0.010	6430	6430	1.593	0.021	0.459	0.499
Knows about limiting partners	0.568	0.010	6430	6430	1.543	0.017	0.549	0.587
Prevalence of STIs or STI symptoms	0.250	0.008	4643	4592	1.274	0.032	0.234	0.266

Table B.3 Sampling errors for the urban population

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals R-2SE	Confidence intervals R+2SE
Primary education	0.064	0.005	3545	3942	1.186	0.076	0.054	0.073
Secondary education	0.294	0.010	3545	3942	1.280	0.033	0.274	0.314
Secondary-special education	0.386	0.011	3545	3942	1.299	0.028	0.365	0.407
Higher education	0.256	0.012	3545	3942	1.619	0.046	0.233	0.280
Net attendance ratio	0.945	0.007	1119	1234	1.059	0.008	0.930	0.960
Never married	0.314	0.008	3545	3942	1.065	0.026	0.297	0.330
Currently married	0.607	0.008	3545	3942	1.034	0.014	0.590	0.624
Married before age 20	0.377	0.011	2358	2621	1.084	0.029	0.355	0.398
Had first sexual intercourse before age 18	0.121	0.008	2358	2621	1.247	0.069	0.104	0.138
Currently pregnant	0.019	0.002	3545	3942	1.053	0.126	0.014	0.024
Children ever born	1.500	0.023	3545	3942	1.003	0.015	1.455	1.546
Children surviving	1.418	0.021	3545	3942	1.006	0.015	1.375	1.460
Children ever born to women age 40-49	2.383	0.042	1052	1160	1.081	0.018	2.299	2.466
Knows any contraceptive method	0.991	0.003	2173	2391	1.538	0.003	0.985	0.997
Ever used any contraceptive method	0.808	0.012	2173	2391	1.366	0.014	0.785	0.831
Currently using any contraceptive method	0.591	0.013	2173	2391	1.228	0.022	0.565	0.617
Currently using any modern method	0.245	0.011	2173	2391	1.208	0.046	0.223	0.267
Currently using pill	0.012	0.003	2173	2391	1.173	0.233	0.006	0.017
Currently using IUD	0.098	0.007	2173	2391	1.101	0.072	0.084	0.113
Currently using condom	0.090	0.007	2173	2391	1.162	0.079	0.075	0.104
Currently using female sterilization	0.023	0.004	2173	2391	1.153	0.161	0.016	0.031
Currently using periodic abstinence	0.064	0.005	2173	2391	1.050	0.086	0.053	0.074
Currently using withdrawal	0.264	0.010	2173	2391	1.109	0.040	0.243	0.285
Obtained method in public source	0.842	0.018	469	547	1.082	0.022	0.805	0.878
Wants no more children	0.703	0.013	2173	2391	1.370	0.019	0.676	0.730
Wants to delay birth at least 2 years	0.091	0.007	2173	2391	1.120	0.076	0.077	0.104
Ideal family size	2.619	0.021	3497	3889	1.201	0.008	2.576	2.661
Medical assistance at delivery	0.991	0.006	758	838	1.363	0.006	0.980	1.002
Had diarrhea in two weeks before survey	0.078	0.012	740	819	1.184	0.157	0.054	0.103
Treated with ORS packets	0.282	0.061	60	64	1.003	0.217	0.159	0.404
Taken to a health provider	0.252	0.056	60	64	0.908	0.221	0.141	0.364
Child immunization card at facility	0.916	0.023	150	169	1.006	0.025	0.870	0.961
Child immunization card at home	0.321	0.035	150	169	0.914	0.110	0.250	0.391
Received BCG	0.974	0.013	139	157	0.959	0.013	0.948	1.000
Received DPT (3 doses)	0.936	0.018	139	157	0.896	0.020	0.900	0.973
Received Polio (3 doses)	0.980	0.012	139	157	1.050	0.013	0.955	1.005
Received Measles	0.817	0.040	139	157	1.216	0.049	0.738	0.896
Fully immunized	0.787	0.038	139	157	1.103	0.049	0.711	0.864
Weight-for-height 2SD below the median	0.022	0.009	672	750	1.405	0.386	0.005	0.039
Height-for-age 2SD below the median	0.101	0.015	672	750	1.273	0.152	0.070	0.132
Weight-for-age 2SD below the median	0.024	0.006	672	750	1.015	0.250	0.012	0.035
Prevalence of anemia in children	0.156	0.014	611	684	0.979	0.092	0.127	0.184
Prevalence of anemia in women	0.099	0.005	3374	3762	1.071	0.056	0.088	0.110
Body mass index below 18.5	0.041	0.004	3309	3698	1.078	0.091	0.033	0.048
Pregnancy outcome is induced abortion	0.539	0.019	1094	1202	1.084	0.035	0.501	0.577
Ever had an abortion	0.450	0.009	3545	3942	1.112	0.021	0.432	0.469
Knows about condoms	0.584	0.011	3545	3942	1.343	0.019	0.562	0.606
Knows about limiting partners	0.650	0.011	3545	3942	1.320	0.016	0.629	0.671
Prevalence of STIs or STI symptoms	0.220	0.010	2463	2717	1.240	0.047	0.199	0.240

Table B.4 Sampling errors for the rural population

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals R-2SE	Confidence intervals R+2SE
Primary education	0.138	0.011	2885	2488	1.777	0.083	0.115	0.160
Secondary education	0.475	0.012	2885	2488	1.287	0.025	0.451	0.499
Secondary-special education	0.311	0.015	2885	2488	1.710	0.047	0.281	0.340
Higher education	0.077	0.006	2885	2488	1.137	0.074	0.065	0.088
Net attendance ratio	0.945	0.007	1251	1073	1.123	0.008	0.931	0.960
Never married	0.247	0.007	2885	2488	0.828	0.027	0.234	0.260
Currently married	0.697	0.008	2885	2488	0.916	0.011	0.681	0.712
Married before age 20	0.552	0.015	1913	1642	1.290	0.027	0.523	0.582
Had first sexual intercourse before age 18	0.219	0.013	1913	1642	1.377	0.059	0.193	0.245
Currently pregnant	0.044	0.004	2885	2488	1.128	0.098	0.035	0.053
Children ever born	2.000	0.028	2885	2488	0.944	0.014	1.944	2.057
Children surviving	1.855	0.023	2885	2488	0.843	0.012	1.809	1.900
Children ever born to women age 40-49	3.065	0.068	720	609	1.248	0.022	2.930	3.200
Knows any contraceptive method	0.983	0.004	2025	1733	1.275	0.004	0.976	0.991
Ever used any contraceptive method	0.824	0.010	2025	1733	1.196	0.012	0.804	0.844
Currently using any contraceptive method	0.625	0.012	2025	1733	1.159	0.020	0.600	0.650
Currently using any modern method	0.192	0.010	2025	1733	1.154	0.053	0.172	0.212
Currently using pill	0.010	0.003	2025	1733	1.137	0.246	0.005	0.016
Currently using IUD	0.089	0.008	2025	1733	1.333	0.095	0.072	0.106
Currently using condom	0.040	0.005	2025	1733	1.074	0.117	0.031	0.050
Currently using female sterilization	0.031	0.004	2025	1733	1.029	0.127	0.023	0.039
Currently using periodic abstinence	0.027	0.004	2025	1733	1.207	0.161	0.018	0.036
Currently using withdrawal	0.395	0.011	2025	1733	1.053	0.029	0.372	0.418
Obtained method in public source	0.955	0.010	340	304	0.927	0.011	0.935	0.976
Wants no more children	0.736	0.010	2025	1733	1.013	0.013	0.716	0.756
Wants to delay birth at least 2 years	0.078	0.006	2025	1733	1.029	0.079	0.066	0.090
Ideal family size	2.766	0.028	2839	2444	1.250	0.010	2.711	2.822
Medical assistance at delivery	0.945	0.010	968	819	1.208	0.011	0.924	0.966
Had diarrhea in two weeks before survey	0.078	0.011	919	777	1.118	0.140	0.056	0.100
Treated with ORS	0.380	0.068	69	61	1.086	0.178	0.245	0.516
Taken to a health provider	0.270	0.058	69	61	1.063	0.215	0.154	0.387
Child immunization card at facility	0.945	0.016	155	131	0.886	0.017	0.913	0.978
Child immunization card at home	0.345	0.059	155	131	1.516	0.170	0.228	0.462
Received BCG	0.944	0.021	148	126	1.093	0.022	0.902	0.985
Received DPT (3 doses)	0.969	0.013	148	126	0.883	0.013	0.944	0.994
Received Polio (3 doses)	0.971	0.011	148	126	0.757	0.011	0.950	0.992
Received Measles	0.751	0.041	148	126	1.139	0.054	0.669	0.832
Fully immunized	0.719	0.042	148	126	1.128	0.058	0.635	0.803
Weight-for-height 2SD below the median	0.017	0.005	845	713	1.122	0.320	0.006	0.028
Height-for-age 2SD below the median	0.160	0.018	845	713	1.282	0.111	0.125	0.196
Weight-for-age 2SD below the median	0.028	0.006	845	713	0.931	0.201	0.017	0.040
Prevalence of anemia in children	0.328	0.016	773	650	0.970	0.050	0.295	0.361
Prevalence of anemia in women	0.165	0.010	2763	2376	1.377	0.059	0.146	0.185
Body mass index below 18.5	0.026	0.003	2635	2264	0.993	0.118	0.020	0.033
Pregnancy outcome is induced abortion	0.561	0.019	1402	1220	1.173	0.034	0.523	0.600
Ever had an abortion	0.495	0.009	2885	2488	0.950	0.018	0.478	0.513
Knows about condoms	0.313	0.016	2885	2488	1.866	0.051	0.281	0.345
Knows about limiting partners	0.439	0.015	2885	2488	1.626	0.034	0.409	0.469
Prevalence of STIs or STI symptoms	0.293	0.013	2180	1874	1.331	0.044	0.267	0.319

Table B.5 Sampling errors for Yerevan

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals R-2SE	Confidence intervals R+2SE
Urban residence	1.000	0.000	1604	2206	na	0.000	1.000	1.000
Primary education	0.062	0.007	1604	2206	1.107	0.108	0.048	0.075
Secondary education	0.275	0.014	1604	2206	1.232	0.050	0.247	0.302
Secondary-special education	0.358	0.016	1604	2206	1.298	0.043	0.327	0.389
Higher education	0.305	0.019	1604	2206	1.656	0.062	0.267	0.344
Net attendance ratio	0.944	0.010	447	612	0.929	0.011	0.924	0.964
Never married	0.335	0.013	1604	2206	1.097	0.039	0.309	0.361
Currently married	0.585	0.013	1604	2206	1.071	0.023	0.559	0.612
Married before age 20	0.339	0.014	1060	1458	0.982	0.042	0.310	0.367
Had first sexual intercourse before age 18	0.115	0.013	1060	1458	1.279	0.109	0.090	0.140
Currently pregnant	0.018	0.003	1604	2206	0.965	0.178	0.012	0.025
Children ever born	1.375	0.036	1604	2206	1.116	0.026	1.303	1.447
Children surviving	1.312	0.034	1604	2206	1.117	0.026	1.244	1.379
Children ever born to women age 40-49	2.228	0.069	456	627	1.240	0.031	2.090	2.366
Knows any contraceptive method	0.984	0.006	939	1291	1.400	0.006	0.973	0.995
Ever used any contraceptive method	0.782	0.019	939	1291	1.382	0.024	0.744	0.819
Currently using any contraceptive method	0.571	0.020	939	1291	1.241	0.035	0.531	0.611
Currently using any modern method	0.281	0.017	939	1291	1.149	0.060	0.247	0.315
Currently using pill	0.014	0.004	939	1291	1.132	0.312	0.005	0.022
Currently using IUD	0.099	0.010	939	1291	0.999	0.098	0.080	0.119
Currently using condom	0.117	0.010	939	1291	0.989	0.089	0.096	0.138
Currently using female sterilization	0.023	0.006	939	1291	1.191	0.251	0.012	0.035
Currently using periodic abstinence	0.066	0.008	939	1291	1.005	0.123	0.050	0.082
Currently using withdrawal	0.208	0.016	939	1291	1.211	0.077	0.176	0.240
Obtained method in public source	0.820	0.027	244	336	1.095	0.033	0.766	0.874
Wants no more children	0.684	0.022	939	1291	1.435	0.032	0.640	0.727
Wants to delay birth at least 2 years	0.101	0.011	939	1291	1.096	0.107	0.080	0.123
Ideal family size	2.544	0.033	1585	2180	1.292	0.013	2.478	2.611
Medical assistance at delivery	0.988	0.009	334	459	1.292	0.010	0.969	1.007
Had diarrhea in two weeks before survey	0.043	0.011	328	451	0.998	0.261	0.020	0.065
Treated with ORS packets	0.286	0.124	14	19	1.028	0.434	0.037	0.534
Taken to a health provider	0.286	0.112	14	19	0.926	0.391	0.062	0.509
Child immunization card at facility	0.917	0.036	60	83	0.995	0.039	0.846	0.988
Child immunization card at home	0.233	0.051	60	83	0.890	0.220	0.131	0.336
Received BCG	1.000	0.000	55	76	na	0.000	1.000	1.000
Received DPT (3 doses)	0.927	0.026	55	76	0.755	0.029	0.874	0.980
Received Polio (3 doses)	0.982	0.018	55	76	1.017	0.019	0.945	1.018
Received Measles	0.818	0.050	55	76	0.965	0.062	0.717	0.919
Fully immunized	0.800	0.045	55	76	0.838	0.057	0.709	0.891
Weight-for-height 2SD below the median	0.023	0.012	307	422	1.201	0.508	0.000	0.046
Height-for-age 2SD below the median	0.075	0.016	307	422	1.109	0.220	0.042	0.108
Weight-for-age 2SD below the median	0.007	0.005	307	422	0.999	0.703	0.000	0.016
Prevalence of anemia in children	0.129	0.020	280	385	1.003	0.156	0.088	0.169
Prevalence of anemia in women	0.056	0.007	1522	2093	1.191	0.126	0.042	0.070
Body mass index below 18.5	0.043	0.006	1499	2061	1.089	0.132	0.032	0.055
Pregnancy outcome is induced abortion	0.527	0.027	455	626	1.012	0.052	0.473	0.582
Ever had an abortion	0.441	0.014	1604	2206	1.101	0.031	0.413	0.468
Knows about condoms	0.661	0.015	1604	2206	1.309	0.023	0.631	0.692
Knows about limiting partners	0.700	0.016	1604	2206	1.412	0.023	0.668	0.732
Prevalence of STIs or STI symptoms	0.200	0.016	1073	1475	1.293	0.079	0.169	0.232

na = Not applicable

Table B.6 Sampling errors for Aragatsotn

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals R-2SE	Confidence intervals R+2SE
Urban residence	0.244	0.028	484	279	1.451	0.116	0.187	0.301
Primary education	0.105	0.038	484	279	2.703	0.358	0.030	0.181
Secondary education	0.465	0.037	484	279	1.611	0.079	0.392	0.538
Secondary-special education	0.320	0.025	484	279	1.173	0.078	0.270	0.370
Higher education	0.110	0.027	484	279	1.869	0.242	0.056	0.163
Net attendance ratio	0.949	0.018	216	127	1.245	0.019	0.912	0.986
Never married	0.260	0.025	484	279	1.253	0.096	0.210	0.310
Currently married	0.692	0.021	484	279	0.981	0.030	0.651	0.733
Married before age 20	0.495	0.047	325	188	1.698	0.095	0.401	0.590
Had first sexual intercourse before age 18	0.194	0.031	325	188	1.423	0.161	0.131	0.256
Currently pregnant	0.045	0.007	484	279	0.697	0.145	0.032	0.059
Children ever born	1.955	0.057	484	279	0.789	0.029	1.841	2.068
Children surviving	1.826	0.055	484	279	0.842	0.030	1.716	1.937
Children ever born to women age 40-49	2.966	0.144	118	68	1.072	0.049	2.678	3.254
Knows any contraceptive method	0.982	0.006	335	193	0.824	0.006	0.970	0.994
Ever used any contraceptive method	0.839	0.028	335	193	1.400	0.034	0.782	0.895
Currently using any contraceptive method	0.630	0.025	335	193	0.939	0.039	0.580	0.679
Currently using any modern method	0.146	0.015	335	193	0.757	0.100	0.117	0.176
Currently using pill	0.006	0.004	335	193	1.027	0.725	0.000	0.015
Currently using IUD	0.078	0.019	335	193	1.311	0.247	0.039	0.116
Currently using condom	0.024	0.004	335	193	0.511	0.179	0.015	0.032
Currently using female sterilization	0.021	0.010	335	193	1.296	0.485	0.001	0.041
Currently using periodic abstinence	0.039	0.012	335	193	1.149	0.313	0.015	0.063
Currently using withdrawal	0.442	0.016	335	193	0.600	0.037	0.409	0.474
Obtained method in public source	0.955	0.035	44	25	1.092	0.036	0.885	1.024
Wants no more children	0.758	0.023	335	193	0.980	0.030	0.712	0.804
Wants to delay birth at least 2 years	0.063	0.014	335	193	1.021	0.216	0.036	0.090
Ideal family size	2.818	0.065	484	279	1.118	0.023	2.688	2.948
Medical assistance at delivery	0.928	0.024	166	96	1.231	0.026	0.880	0.976
Had diarrhea in two weeks before survey	0.103	0.021	156	90	0.679	0.201	0.061	0.144
Treated with ORS packets	0.250	0.173	16	9	1.358	0.690	0.000	0.595
Taken to a health provider	0.250	0.173	16	9	1.283	0.690	0.000	0.595
Child immunization card at facility	0.846	0.050	26	15	0.701	0.059	0.747	0.946
Child immunization card at home	0.192	0.081	26	15	1.052	0.423	0.029	0.355
Received BCG	0.913	0.057	23	13	0.972	0.063	0.799	1.027
Received DPT (3 doses)	0.913	0.057	23	13	0.972	0.063	0.799	1.027
Received Polio (3 doses)	0.913	0.057	23	13	0.972	0.063	0.799	1.027
Received Measles	0.696	0.112	23	13	1.161	0.160	0.473	0.919
Fully immunized	0.609	0.112	23	13	1.102	0.184	0.384	0.833
Weight-for-height 2SD below the median	0.027	0.016	147	85	1.175	0.576	0.000	0.059
Height-for-age 2SD below the median	0.088	0.014	147	85	0.558	0.155	0.061	0.116
Weight-for-age 2SD below the median	0.020	0.014	147	85	1.245	0.707	0.000	0.049
Prevalence of anemia in children	0.255	0.030	141	81	0.903	0.119	0.194	0.316
Prevalence of anemia in women	0.117	0.018	480	277	1.217	0.153	0.081	0.152
Body mass index below 18.5	0.029	0.008	455	263	0.983	0.269	0.013	0.044
Pregnancy outcome is induced abortion	0.606	0.036	269	155	1.048	0.060	0.534	0.678
Ever had an abortion	0.514	0.025	484	279	1.098	0.049	0.465	0.564
Knows about condoms	0.374	0.050	484	279	2.253	0.133	0.275	0.473
Knows about limiting partners	0.517	0.043	484	279	1.888	0.083	0.431	0.602
Prevalence of STIs or STI symptoms	0.224	0.012	357	206	0.559	0.055	0.199	0.249

Table B.7 Sampling errors for Ararat

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals R-2SE	Confidence intervals R+2SE
Urban residence	0.199	0.036	564	642	2.127	0.180	0.127	0.270
Primary education	0.101	0.019	564	642	1.472	0.185	0.064	0.138
Secondary education	0.429	0.023	564	642	1.093	0.053	0.383	0.475
Secondary-special education	0.379	0.019	564	642	0.951	0.051	0.341	0.418
Higher education	0.090	0.012	564	642	1.030	0.138	0.066	0.115
Net attendance ratio	0.928	0.010	237	262	0.629	0.011	0.907	0.949
Never married	0.255	0.014	564	642	0.752	0.054	0.228	0.283
Currently married	0.700	0.017	564	642	0.874	0.024	0.667	0.734
Married before age 20	0.579	0.029	366	416	1.124	0.050	0.521	0.637
Had first sexual intercourse before age 18	0.221	0.017	366	416	0.801	0.079	0.187	0.256
Currently pregnant	0.048	0.008	564	642	0.934	0.176	0.031	0.065
Children ever born	1.897	0.064	564	642	1.014	0.034	1.769	2.026
Children surviving	1.791	0.055	564	642	0.940	0.031	1.681	1.901
Children ever born to women age 40-49	2.922	0.150	128	146	1.233	0.051	2.623	3.221
Knows any contraceptive method	0.997	0.002	395	449	0.974	0.002	0.993	1.002
Ever used any contraceptive method	0.856	0.020	395	449	1.135	0.023	0.816	0.896
Currently using any contraceptive method	0.663	0.024	395	449	0.999	0.036	0.616	0.711
Currently using any modern method	0.258	0.025	395	449	1.139	0.097	0.208	0.308
Currently using pill	0.010	0.006	395	449	1.213	0.604	0.000	0.022
Currently using IUD	0.114	0.020	395	449	1.246	0.175	0.074	0.154
Currently using condom	0.053	0.015	395	449	1.344	0.286	0.023	0.084
Currently using female sterilization	0.061	0.011	395	449	0.894	0.177	0.039	0.082
Currently using periodic abstinence	0.043	0.012	395	449	1.166	0.277	0.019	0.067
Currently using withdrawal	0.357	0.019	395	449	0.793	0.054	0.319	0.395
Obtained method in public source	0.958	0.019	95	108	0.901	0.019	0.921	0.995
Wants no more children	0.694	0.021	395	449	0.919	0.031	0.651	0.736
Wants to delay birth at least 2 years	0.073	0.006	395	449	0.448	0.080	0.062	0.085
Ideal family size	2.637	0.042	543	618	1.101	0.016	2.553	2.721
Medical assistance at delivery	0.995	0.005	182	207	0.953	0.005	0.984	1.005
Had diarrhea in two weeks before survey	0.125	0.036	176	200	1.378	0.286	0.054	0.196
Treated with ORS packets	0.455	0.073	22	25	0.662	0.161	0.309	0.601
Taken to a health provider	0.273	0.063	22	25	0.651	0.231	0.147	0.399
Child immunization card at facility	0.926	0.047	27	31	0.922	0.050	0.833	1.019
Child immunization card at home	0.370	0.088	27	31	0.941	0.236	0.195	0.545
Received BCG	0.962	0.033	26	30	0.876	0.034	0.895	1.028
Received DPT (3 doses)	0.962	0.033	26	30	0.876	0.034	0.895	1.028
Received Polio (3 doses)	0.962	0.033	26	30	0.876	0.034	0.895	1.028
Received Measles	0.731	0.065	26	30	0.747	0.089	0.601	0.861
Fully immunized	0.731	0.065	26	30	0.747	0.089	0.601	0.861
Weight-for-height 2SD below the median	0.000	0.000	150	171	na	na	0.000	0.000
Height-for-age 2SD below the median	0.153	0.035	150	171	1.059	0.225	0.084	0.222
Weight-for-age 2SD below the median	0.033	0.010	150	171	0.680	0.299	0.013	0.053
Prevalence of anemia in children	0.307	0.036	140	159	0.937	0.118	0.235	0.379
Prevalence of anemia in women	0.163	0.015	528	601	0.960	0.095	0.132	0.194
Body mass index below 18.5	0.032	0.007	501	570	0.944	0.233	0.017	0.047
Pregnancy outcome is induced abortion	0.520	0.032	252	287	0.864	0.062	0.456	0.584
Ever had an abortion	0.500	0.013	564	642	0.627	0.026	0.474	0.526
Knows about condoms	0.404	0.036	564	642	1.721	0.088	0.333	0.475
Knows about limiting partners	0.592	0.033	564	642	1.604	0.056	0.526	0.659
Prevalence of STIs or STI symptoms	0.281	0.025	420	478	1.127	0.088	0.231	0.330

na = Not applicable

Table B.8 Sampling errors for Armavir

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals R-2SE	Confidence intervals R+2SE
Urban residence	0.287	0.025	495	553	1.241	0.088	0.236	0.337
Primary education	0.162	0.033	495	553	2.019	0.207	0.095	0.228
Secondary education	0.422	0.022	495	553	1.006	0.053	0.378	0.467
Secondary-special education	0.305	0.029	495	553	1.404	0.095	0.247	0.363
Higher education	0.111	0.011	495	553	0.772	0.098	0.089	0.133
Net attendance ratio	0.956	0.014	204	236	0.807	0.014	0.928	0.983
Never married	0.248	0.008	495	553	0.417	0.033	0.232	0.265
Currently married	0.675	0.015	495	553	0.720	0.022	0.644	0.705
Married before age 20	0.494	0.027	328	367	0.963	0.054	0.441	0.547
Had first sexual intercourse before age 18	0.207	0.029	328	367	1.305	0.141	0.149	0.266
Currently pregnant	0.042	0.009	495	553	1.023	0.219	0.024	0.061
Children ever born	1.875	0.040	495	553	0.578	0.021	1.795	1.954
Children surviving	1.741	0.034	495	553	0.542	0.020	1.673	1.810
Children ever born to women age 40-49	2.805	0.113	128	143	0.838	0.040	2.579	3.030
Knows any contraceptive method	1.000	0.000	334	373	na	0.000	1.000	1.000
Ever used any contraceptive method	0.844	0.025	334	373	1.242	0.029	0.795	0.894
Currently using any contraceptive method	0.653	0.018	334	373	0.680	0.027	0.617	0.688
Currently using any modern method	0.180	0.015	334	373	0.692	0.081	0.151	0.209
Currently using pill	0.012	0.004	334	373	0.721	0.359	0.003	0.021
Currently using IUD	0.093	0.013	334	373	0.814	0.139	0.067	0.119
Currently using condom	0.033	0.007	334	373	0.723	0.215	0.019	0.047
Currently using female sterilization	0.015	0.006	334	373	0.921	0.410	0.003	0.027
Currently using periodic abstinence	0.048	0.012	334	373	0.997	0.244	0.025	0.071
Currently using withdrawal	0.380	0.023	334	373	0.855	0.060	0.335	0.426
Obtained method in public source	0.945	0.016	55	61	0.524	0.017	0.913	0.978
Wants no more children	0.674	0.026	334	373	1.028	0.039	0.621	0.726
Wants to delay birth at least 2 years	0.072	0.016	334	373	1.109	0.218	0.040	0.103
Ideal family size	2.804	0.080	474	530	1.255	0.028	2.645	2.963
Medical assistance at delivery	0.973	0.018	147	164	1.382	0.019	0.936	1.010
Had diarrhea in two weeks before survey	0.099	0.021	142	159	0.770	0.217	0.056	0.141
Treated with ORS packets	0.429	0.184	14	16	1.218	0.429	0.061	0.796
Taken to a health provider	0.357	0.173	14	16	1.169	0.485	0.011	0.703
Child immunization card at facility	0.958	0.036	24	27	0.876	0.037	0.887	1.030
Child immunization card at home	0.500	0.138	24	27	1.353	0.276	0.224	0.776
Received BCG	0.913	0.068	23	26	1.151	0.074	0.778	1.048
Received DPT (3 doses)	1.000	0.000	23	26	na	0.000	1.000	1.000
Received Polio (3 doses)	1.000	0.000	23	26	na	0.000	1.000	1.000
Received Measles	0.870	0.093	23	26	1.327	0.107	0.683	1.056
Fully immunized	0.826	0.104	23	26	1.311	0.126	0.619	1.034
Weight-for-height 2SD below the median	0.000	0.000	138	154	na	na	0.000	0.000
Height-for-age 2SD below the median	0.087	0.020	138	154	0.735	0.231	0.047	0.127
Weight-for-age 2SD below the median	0.014	0.010	138	154	0.961	0.672	0.000	0.034
Prevalence of anemia in children	0.328	0.035	125	140	0.847	0.106	0.258	0.398
Prevalence of anemia in women	0.180	0.021	488	546	1.192	0.115	0.139	0.222
Body mass index below 18.5	0.030	0.007	467	522	0.873	0.230	0.016	0.044
Pregnancy outcome is induced abortion	0.640	0.042	267	299	1.175	0.065	0.557	0.724
Ever had an abortion	0.511	0.016	495	553	0.718	0.032	0.479	0.543
Knows about condoms	0.317	0.038	495	553	1.801	0.119	0.242	0.393
Knows about limiting partners	0.471	0.035	495	553	1.541	0.074	0.401	0.540
Prevalence of STIs or STI symptoms	0.304	0.030	375	419	1.253	0.098	0.244	0.364

na = Not applicable

Table B.9 Sampling errors for Gegharkunik

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals R-2SE	Confidence intervals R+2SE
Urban residence	0.307	0.027	489	484	1.295	0.088	0.253	0.361
Primary education	0.155	0.020	489	484	1.232	0.130	0.115	0.196
Secondary education	0.479	0.020	489	484	0.867	0.041	0.439	0.518
Secondary-special education	0.303	0.031	489	484	1.511	0.104	0.240	0.366
Higher education	0.063	0.014	489	484	1.269	0.221	0.035	0.091
Net attendance ratio	0.952	0.018	231	226	1.288	0.019	0.916	0.988
Never married	0.243	0.012	489	484	0.592	0.047	0.220	0.266
Currently married	0.706	0.017	489	484	0.845	0.025	0.671	0.740
Married before age 20	0.623	0.025	318	315	0.926	0.040	0.572	0.673
Had first sexual intercourse before age 18	0.270	0.049	318	315	1.952	0.180	0.173	0.368
Currently pregnant	0.037	0.009	489	484	1.094	0.253	0.018	0.055
Children ever born	2.198	0.062	489	484	0.779	0.028	2.074	2.322
Children surviving	1.982	0.045	489	484	0.647	0.023	1.892	2.071
Children ever born to women age 40-49	3.473	0.176	129	128	1.334	0.051	3.122	3.824
Knows any contraceptive method	0.991	0.005	345	341	1.016	0.005	0.981	1.001
Ever used any contraceptive method	0.858	0.015	345	341	0.796	0.017	0.828	0.888
Currently using any contraceptive method	0.562	0.034	345	341	1.265	0.060	0.495	0.630
Currently using any modern method	0.183	0.024	345	341	1.176	0.134	0.134	0.232
Currently using pill	0.006	0.004	345	341	1.012	0.715	0.000	0.014
Currently using IUD	0.081	0.022	345	341	1.472	0.267	0.038	0.125
Currently using condom	0.029	0.008	345	341	0.931	0.291	0.012	0.046
Currently using female sterilization	0.035	0.009	345	341	0.928	0.264	0.016	0.053
Currently using periodic abstinence	0.026	0.010	345	341	1.178	0.388	0.006	0.046
Currently using withdrawal	0.345	0.019	345	341	0.723	0.054	0.308	0.382
Obtained method in public source	0.926	0.036	54	53	0.989	0.038	0.855	0.997
Wants no more children	0.733	0.020	345	341	0.838	0.027	0.693	0.773
Wants to delay birth at least 2 years	0.087	0.018	345	341	1.181	0.206	0.051	0.123
Ideal family size	2.730	0.064	485	480	1.043	0.024	2.601	2.859
Medical assistance at delivery	0.848	0.035	184	182	1.046	0.041	0.778	0.918
Had diarrhea in two weeks before survey	0.094	0.033	170	168	1.420	0.353	0.028	0.161
Treated with ORS packets	0.250	0.148	16	16	1.340	0.593	0.000	0.546
Taken to a health provider	0.250	0.091	16	16	0.824	0.364	0.068	0.432
Child immunization card at facility	0.906	0.047	32	32	0.917	0.052	0.812	1.001
Child immunization card at home	0.219	0.095	32	32	1.294	0.433	0.029	0.408
Received BCG	1.000	0.000	29	29	na	0.000	1.000	1.000
Received DPT (3 doses)	0.966	0.035	29	29	1.028	0.036	0.896	1.035
Received Polio (3 doses)	1.000	0.000	29	29	na	0.000	1.000	1.000
Received Measles	0.828	0.086	29	29	1.221	0.104	0.656	0.999
Fully immunized	0.793	0.092	29	29	1.225	0.116	0.609	0.978
Weight-for-height 2SD below the median	0.014	0.011	140	139	1.124	0.788	0.000	0.037
Height-for-age 2SD below the median	0.321	0.053	140	139	1.282	0.166	0.215	0.428
Weight-for-age 2SD below the median	0.036	0.012	140	139	0.798	0.349	0.011	0.061
Prevalence of anemia in children	0.315	0.041	124	123	0.913	0.130	0.233	0.396
Prevalence of anemia in women	0.173	0.020	415	411	1.077	0.115	0.133	0.214
Body mass index below 18.5	0.030	0.008	401	397	0.925	0.263	0.014	0.046
Pregnancy outcome is induced abortion	0.557	0.060	287	284	1.492	0.107	0.438	0.677
Ever had an abortion	0.538	0.021	489	484	0.914	0.038	0.497	0.579
Knows about condoms	0.227	0.031	489	484	1.647	0.138	0.165	0.289
Knows about limiting partners	0.299	0.025	489	484	1.206	0.084	0.249	0.349
Prevalence of STIs or STI symptoms	0.332	0.023	370	366	0.957	0.071	0.285	0.379

na = Not applicable

Table B.10 Sampling errors for Lori

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals R-2SE	Confidence intervals R+2SE
Urban residence	0.535	0.051	409	489	2.056	0.095	0.434	0.637
Primary education	0.090	0.014	409	489	0.972	0.153	0.063	0.118
Secondary education	0.403	0.039	409	489	1.601	0.096	0.326	0.481
Secondary-special education	0.374	0.031	409	489	1.298	0.083	0.312	0.436
Higher education	0.132	0.021	409	489	1.273	0.162	0.089	0.175
Net attendance ratio	0.929	0.027	140	171	1.159	0.029	0.874	0.983
Never married	0.244	0.020	409	489	0.918	0.080	0.205	0.284
Currently married	0.660	0.023	409	489	0.998	0.035	0.613	0.707
Married before age 20	0.470	0.037	279	333	1.236	0.079	0.396	0.544
Had first sexual intercourse before age 18	0.129	0.020	279	333	0.972	0.151	0.090	0.168
Currently pregnant	0.017	0.007	409	489	1.049	0.393	0.004	0.031
Children ever born	1.731	0.069	409	489	1.016	0.040	1.594	1.868
Children surviving	1.619	0.063	409	489	1.013	0.039	1.493	1.744
Children ever born to women age 40-49	2.600	0.094	115	137	0.807	0.036	2.412	2.788
Knows any contraceptive method	0.996	0.004	270	323	1.015	0.004	0.989	1.004
Ever used any contraceptive method	0.870	0.028	270	323	1.370	0.032	0.814	0.926
Currently using any contraceptive method	0.681	0.028	270	323	0.980	0.041	0.626	0.737
Currently using any modern method	0.211	0.029	270	323	1.152	0.136	0.154	0.268
Currently using pill	0.007	0.005	270	323	1.006	0.710	0.000	0.018
Currently using IUD	0.119	0.022	270	323	1.126	0.187	0.074	0.163
Currently using condom	0.037	0.010	270	323	0.856	0.266	0.017	0.057
Currently using female sterilization	0.019	0.008	270	323	1.009	0.448	0.002	0.035
Currently using periodic abstinence	0.041	0.009	270	323	0.787	0.233	0.022	0.060
Currently using withdrawal	0.419	0.032	270	323	1.048	0.075	0.355	0.482
Obtained method in public source	0.942	0.034	52	62	1.036	0.036	0.875	1.010
Wants no more children	0.711	0.029	270	323	1.044	0.041	0.653	0.769
Wants to delay birth at least 2 years	0.100	0.019	270	323	1.015	0.186	0.063	0.137
Ideal family size	2.546	0.075	403	481	1.620	0.029	2.396	2.696
Medical assistance at delivery	0.992	0.009	119	142	1.039	0.009	0.974	1.009
Had diarrhea in two weeks before survey	0.107	0.029	112	134	0.859	0.271	0.049	0.165
Treated with ORS packets	0.167	0.098	12	14	0.883	0.589	0.000	0.363
Taken to a health provider	0.083	0.073	12	14	0.990	0.874	0.000	0.229
Child immunization card at facility	0.966	0.031	29	35	0.922	0.032	0.903	1.028
Child immunization card at home	0.483	0.103	29	35	1.074	0.213	0.277	0.689
Received BCG	0.931	0.045	29	35	0.956	0.048	0.841	1.021
Received DPT (3 doses)	1.000	0.000	29	35	na	0.000	1.000	1.000
Received Polio (3 doses)	1.000	0.000	29	35	na	0.000	1.000	1.000
Received Measles	0.690	0.126	29	35	1.437	0.182	0.439	0.941
Fully immunized	0.655	0.121	29	35	1.345	0.185	0.413	0.897
Weight-for-height 2SD below the median	0.009	0.010	106	127	1.045	1.024	0.000	0.029
Height-for-age 2SD below the median	0.123	0.037	106	127	1.021	0.300	0.049	0.196
Weight-for-age 2SD below the median	0.000	0.000	106	127	na	na	0.000	0.000
Prevalence of anemia in children	0.315	0.041	92	110	0.854	0.131	0.232	0.398
Prevalence of anemia in women	0.179	0.019	403	481	0.980	0.105	0.141	0.216
Body mass index below 18.5	0.046	0.005	391	467	0.512	0.118	0.035	0.057
Pregnancy outcome is induced abortion	0.413	0.054	143	171	1.209	0.131	0.305	0.520
Ever had an abortion	0.386	0.032	409	489	1.312	0.082	0.323	0.450
Knows about condoms	0.350	0.040	409	489	1.680	0.113	0.270	0.429
Knows about limiting partners	0.447	0.035	409	489	1.416	0.078	0.378	0.517
Prevalence of STIs or STI symptoms	0.271	0.032	310	370	1.283	0.120	0.206	0.336

na = Not applicable

Table B.11 Sampling errors for Kotayk

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals R-2SE	Confidence intervals R+2SE
Urban residence	0.544	0.036	445	505	1.503	0.065	0.473	0.615
Primary education	0.106	0.014	445	505	0.953	0.132	0.078	0.133
Secondary education	0.344	0.034	445	505	1.487	0.097	0.277	0.411
Secondary-special education	0.425	0.034	445	505	1.452	0.080	0.357	0.493
Higher education	0.126	0.021	445	505	1.351	0.169	0.083	0.168
Net attendance ratio	0.925	0.018	134	153	0.848	0.020	0.889	0.962
Never married	0.317	0.013	445	505	0.588	0.041	0.291	0.343
Currently married	0.625	0.015	445	505	0.637	0.023	0.595	0.654
Married before age 20	0.503	0.043	286	325	1.462	0.086	0.417	0.590
Had first sexual intercourse before age 18	0.147	0.021	286	325	0.987	0.141	0.105	0.188
Currently pregnant	0.022	0.011	445	505	1.559	0.488	0.001	0.044
Children ever born	1.697	0.048	445	505	0.676	0.028	1.601	1.792
Children surviving	1.616	0.036	445	505	0.545	0.022	1.544	1.688
Children ever born to women age 40-49	2.695	0.084	128	145	0.734	0.031	2.528	2.863
Knows any contraceptive method	0.996	0.004	278	316	1.010	0.004	0.989	1.004
Ever used any contraceptive method	0.827	0.025	278	316	1.090	0.030	0.778	0.877
Currently using any contraceptive method	0.525	0.028	278	316	0.936	0.053	0.469	0.581
Currently using any modern method	0.140	0.026	278	316	1.262	0.188	0.088	0.193
Currently using pill	0.000	0.000	278	316	na	na	0.000	0.000
Currently using IUD	0.076	0.023	278	316	1.449	0.305	0.030	0.122
Currently using condom	0.040	0.018	278	316	1.499	0.444	0.004	0.075
Currently using female sterilization	0.014	0.007	278	316	0.922	0.459	0.001	0.028
Currently using periodic abstinence	0.025	0.012	278	316	1.324	0.495	0.000	0.050
Currently using withdrawal	0.349	0.036	278	316	1.244	0.102	0.278	0.420
Obtained method in public source	0.833	0.067	36	41	1.065	0.081	0.699	0.968
Wants no more children	0.773	0.021	278	316	0.837	0.027	0.731	0.815
Wants to delay birth at least 2 years	0.079	0.014	278	316	0.843	0.173	0.052	0.106
Ideal family size	2.887	0.033	441	501	0.625	0.012	2.820	2.953
Medical assistance at delivery	0.978	0.017	93	106	1.106	0.017	0.945	1.012
Had diarrhea in two weeks before survey	0.079	0.041	89	101	1.452	0.520	0.000	0.160
Treated with ORS packets	0.286	0.141	7	8	0.827	0.495	0.003	0.568
Taken to a health provider	0.143	0.071	7	8	0.534	0.495	0.001	0.284
Child immunization card at facility	1.000	0.000	16	18	na	0.000	1.000	1.000
Child immunization card at home	0.625	0.092	16	18	0.757	0.147	0.441	0.809
Received BCG	0.875	0.067	16	18	0.812	0.077	0.741	1.009
Received DPT (3 doses)	0.938	0.058	16	18	0.952	0.062	0.822	1.053
Received Polio (3 doses)	1.000	0.000	16	18	na	0.000	1.000	1.000
Received Measles	0.813	0.126	16	18	1.286	0.155	0.561	1.064
Fully immunized	0.688	0.113	16	18	0.977	0.165	0.461	0.914
Weight-for-height 2SD below the median	0.105	0.045	86	98	1.265	0.434	0.014	0.195
Height-for-age 2SD below the median	0.081	0.031	86	98	1.046	0.378	0.020	0.143
Weight-for-age 2SD below the median	0.093	0.034	86	98	1.079	0.364	0.025	0.161
Prevalence of anemia in children	0.107	0.021	84	95	0.650	0.192	0.066	0.148
Prevalence of anemia in women	0.106	0.011	432	490	0.757	0.106	0.084	0.129
Body mass index below 18.5	0.033	0.010	424	481	1.170	0.308	0.013	0.053
Pregnancy outcome is induced abortion	0.637	0.041	157	178	0.949	0.064	0.555	0.719
Ever had an abortion	0.494	0.017	445	505	0.722	0.035	0.460	0.529
Knows about condoms	0.333	0.028	445	505	1.260	0.085	0.276	0.389
Knows about limiting partners	0.501	0.017	445	505	0.729	0.035	0.467	0.536
Prevalence of STIs or STI symptoms	0.391	0.033	304	345	1.162	0.083	0.326	0.457

na = Not applicable

Table B.12 Sampling errors for Shirak

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals R-2SE	Confidence intervals R+2SE
Urban residence	0.638	0.037	492	611	1.689	0.057	0.565	0.711
Primary education	0.061	0.016	492	611	1.501	0.266	0.029	0.093
Secondary education	0.358	0.025	492	611	1.134	0.069	0.309	0.407
Secondary-special education	0.362	0.037	492	611	1.709	0.102	0.288	0.436
Higher education	0.220	0.018	492	611	0.960	0.082	0.184	0.255
Net attendance ratio	0.945	0.023	199	259	1.430	0.024	0.899	0.990
Never married	0.283	0.019	492	611	0.952	0.068	0.244	0.321
Currently married	0.634	0.019	492	611	0.878	0.030	0.596	0.672
Married before age 20	0.404	0.023	339	421	0.862	0.057	0.358	0.450
Had first sexual intercourse before age 18	0.130	0.011	339	421	0.617	0.087	0.107	0.152
Currently pregnant	0.028	0.008	492	611	1.041	0.275	0.013	0.044
Children ever born	1.703	0.065	492	611	0.948	0.038	1.574	1.832
Children surviving	1.555	0.049	492	611	0.845	0.032	1.456	1.653
Children ever born to women age 40-49	2.517	0.103	149	185	0.874	0.041	2.310	2.724
Knows any contraceptive method	0.968	0.014	312	388	1.396	0.014	0.940	0.996
Ever used any contraceptive method	0.811	0.017	312	388	0.784	0.021	0.776	0.846
Currently using any contraceptive method	0.654	0.031	312	388	1.153	0.048	0.592	0.716
Currently using any modern method	0.237	0.025	312	388	1.024	0.104	0.188	0.287
Currently using pill	0.026	0.009	312	388	1.021	0.357	0.007	0.044
Currently using IUD	0.119	0.015	312	388	0.834	0.129	0.088	0.149
Currently using condom	0.067	0.017	312	388	1.196	0.253	0.033	0.101
Currently using female sterilization	0.019	0.008	312	388	0.980	0.397	0.004	0.034
Currently using periodic abstinence	0.058	0.013	312	388	0.992	0.227	0.031	0.084
Currently using withdrawal	0.340	0.024	312	388	0.890	0.070	0.292	0.388
Obtained method in public source	0.875	0.028	72	89	0.710	0.032	0.819	0.931
Wants no more children	0.760	0.027	312	388	1.119	0.036	0.705	0.814
Wants to delay birth at least 2 years	0.071	0.016	312	388	1.111	0.229	0.038	0.103
Ideal family size	2.843	0.048	491	610	0.976	0.017	2.748	2.939
Medical assistance at delivery	0.979	0.015	94	117	0.991	0.015	0.949	1.008
Had diarrhea in two weeks before survey	0.076	0.033	92	114	1.204	0.436	0.010	0.143
Treated with ORS packets	0.429	0.158	7	9	0.844	0.369	0.112	0.745
Taken to a health provider	0.429	0.206	7	9	1.101	0.481	0.016	0.841
Child immunization card at facility	0.913	0.057	23	29	0.961	0.062	0.800	1.026
Child immunization card at home	0.391	0.144	23	29	1.414	0.368	0.103	0.679
Received BCG	0.955	0.044	22	27	0.979	0.046	0.867	1.042
Received DPT (3 doses)	0.955	0.046	22	27	1.027	0.048	0.863	1.046
Received Polio (3 doses)	0.955	0.046	22	27	1.027	0.048	0.863	1.046
Received Measles	0.864	0.076	22	27	1.039	0.088	0.711	1.016
Fully immunized	0.864	0.076	22	27	1.039	0.088	0.711	1.016
Weight-for-height 2SD below the median	0.024	0.017	85	106	1.028	0.706	0.000	0.057
Height-for-age 2SD below the median	0.224	0.076	85	106	1.715	0.339	0.072	0.375
Weight-for-age 2SD below the median	0.059	0.028	85	106	0.956	0.484	0.002	0.116
Prevalence of anemia in children	0.276	0.035	76	94	0.695	0.128	0.206	0.347
Prevalence of anemia in women	0.172	0.020	489	608	1.191	0.118	0.131	0.212
Body mass index below 18.5	0.019	0.005	476	592	0.822	0.272	0.009	0.029
Pregnancy outcome is induced abortion	0.581	0.033	148	184	0.677	0.057	0.514	0.648
Ever had an abortion	0.459	0.018	492	611	0.813	0.040	0.423	0.496
Knows about condoms	0.583	0.026	492	611	1.160	0.044	0.532	0.635
Knows about limiting partners	0.622	0.018	492	611	0.835	0.029	0.585	0.659
Prevalence of STIs or STI symptoms	0.116	0.019	353	439	1.105	0.163	0.078	0.154

Table B.13 Sampling errors for Syunik

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals R-2SE	Confidence intervals R+2SE
Urban residence	0.662	0.028	494	271	1.297	0.042	0.607	0.717
Primary education	0.075	0.010	494	271	0.831	0.132	0.055	0.095
Secondary education	0.372	0.033	494	271	1.532	0.090	0.306	0.439
Secondary-special education	0.431	0.027	494	271	1.202	0.062	0.378	0.485
Higher education	0.121	0.020	494	271	1.375	0.167	0.081	0.162
Net attendance ratio	0.989	0.008	189	107	1.039	0.008	0.974	1.005
Never married	0.273	0.022	494	271	1.086	0.080	0.230	0.317
Currently married	0.640	0.022	494	271	1.017	0.034	0.596	0.684
Married before age 20	0.474	0.034	323	177	1.221	0.072	0.406	0.542
Had first sexual intercourse before age 18	0.161	0.016	323	177	0.775	0.099	0.129	0.193
Currently pregnant	0.030	0.009	494	271	1.136	0.289	0.013	0.048
Children ever born	1.891	0.051	494	271	0.710	0.027	1.788	1.993
Children surviving	1.757	0.048	494	271	0.726	0.027	1.661	1.853
Children ever born to women age 40-49	3.042	0.086	144	79	0.789	0.028	2.870	3.213
Knows any contraceptive method	0.981	0.006	316	173	0.796	0.006	0.969	0.993
Ever used any contraceptive method	0.658	0.038	316	173	1.405	0.057	0.583	0.733
Currently using any contraceptive method	0.497	0.046	316	173	1.637	0.093	0.405	0.589
Currently using any modern method	0.127	0.019	316	173	1.001	0.148	0.089	0.164
Currently using pill	0.003	0.003	316	173	1.000	1.000	0.000	0.009
Currently using IUD	0.057	0.016	316	173	1.234	0.283	0.025	0.089
Currently using condom	0.044	0.015	316	173	1.284	0.336	0.015	0.074
Currently using female sterilization	0.009	0.005	316	173	0.931	0.536	0.000	0.020
Currently using periodic abstinence	0.054	0.013	316	173	1.012	0.239	0.028	0.080
Currently using withdrawal	0.304	0.050	316	173	1.942	0.166	0.203	0.404
Obtained method in public source	0.889	0.049	36	20	0.926	0.055	0.791	0.987
Wants no more children	0.807	0.023	316	173	1.040	0.029	0.761	0.853
Wants to delay birth at least 2 years	0.089	0.010	316	173	0.596	0.108	0.070	0.108
Ideal family size	2.693	0.029	489	268	0.592	0.011	2.636	2.751
Medical assistance at delivery	0.991	0.008	114	63	0.942	0.008	0.975	1.008
Had diarrhea in two weeks before survey	0.054	0.026	112	61	1.214	0.484	0.002	0.105
Treated with ORS packets	0.167	0.130	6	3	0.855	0.782	0.000	0.427
Taken to a health provider	0.000	0.000	6	3	na	na	0.000	0.000
Child immunization card at facility	0.850	0.086	20	11	1.078	0.101	0.678	1.022
Child immunization card at home	0.250	0.075	20	11	0.774	0.300	0.100	0.400
Received BCG	0.941	0.060	17	9	1.053	0.064	0.821	1.061
Received DPT (3 doses)	0.882	0.077	17	9	0.983	0.087	0.729	1.036
Received Polio (3 doses)	1.000	0.000	17	9	na	0.000	1.000	1.000
Received Measles	0.882	0.077	17	9	0.983	0.087	0.729	1.036
Fully immunized	0.824	0.118	17	9	1.270	0.143	0.588	1.059
Weight-for-height 2SD below the median	0.000	0.000	97	53	na	na	0.000	0.000
Height-for-age 2SD below the median	0.155	0.031	97	53	0.823	0.202	0.092	0.217
Weight-for-age 2SD below the median	0.052	0.023	97	53	1.048	0.447	0.005	0.098
Prevalence of anemia in children	0.295	0.039	88	48	0.837	0.134	0.217	0.374
Prevalence of anemia in women	0.202	0.029	466	256	1.575	0.145	0.143	0.260
Body mass index below 18.5	0.040	0.011	454	249	1.190	0.275	0.018	0.061
Pregnancy outcome is induced abortion	0.560	0.043	166	91	1.005	0.077	0.474	0.646
Ever had an abortion	0.462	0.024	494	271	1.065	0.052	0.414	0.509
Knows about condoms	0.417	0.015	494	271	0.690	0.037	0.386	0.448
Knows about limiting partners	0.524	0.023	494	271	1.003	0.043	0.479	0.569
Prevalence of STIs or STI symptoms	0.284	0.018	359	197	0.762	0.064	0.248	0.320

na = Not applicable

Table B.14 Sampling errors for Vayots Dzor

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals R-2SE	Confidence intervals R+2SE
Urban residence	0.345	0.038	458	113	1.716	0.111	0.269	0.421
Primary education	0.081	0.012	458	113	0.905	0.143	0.058	0.104
Secondary education	0.528	0.025	458	113	1.062	0.047	0.479	0.578
Secondary-special education	0.303	0.020	458	113	0.916	0.065	0.264	0.343
Higher education	0.087	0.011	458	113	0.832	0.126	0.065	0.109
Net attendance ratio	0.963	0.015	190	48	1.066	0.015	0.934	0.992
Never married	0.249	0.012	458	113	0.579	0.047	0.225	0.272
Currently married	0.699	0.017	458	113	0.776	0.024	0.665	0.732
Married before age 20	0.455	0.018	314	77	0.637	0.039	0.420	0.491
Had first sexual intercourse before age 18	0.159	0.018	314	77	0.884	0.115	0.123	0.196
Currently pregnant	0.031	0.007	458	113	0.911	0.240	0.016	0.045
Children ever born	1.987	0.046	458	113	0.594	0.023	1.894	2.080
Children surviving	1.847	0.045	458	113	0.640	0.024	1.758	1.937
Children ever born to women age 40-49	2.993	0.102	141	35	0.877	0.034	2.788	3.198
Knows any contraceptive method	0.966	0.008	320	79	0.781	0.008	0.950	0.982
Ever used any contraceptive method	0.763	0.016	320	79	0.655	0.020	0.731	0.794
Currently using any contraceptive method	0.659	0.025	320	79	0.927	0.037	0.610	0.709
Currently using any modern method	0.150	0.022	320	79	1.103	0.147	0.106	0.194
Currently using pill	0.006	0.004	320	79	1.002	0.708	0.000	0.015
Currently using IUD	0.025	0.009	320	79	1.017	0.356	0.007	0.043
Currently using condom	0.038	0.009	320	79	0.891	0.253	0.019	0.056
Currently using female sterilization	0.063	0.011	320	79	0.836	0.181	0.040	0.085
Currently using periodic abstinence	0.028	0.010	320	79	1.118	0.368	0.007	0.049
Currently using withdrawal	0.475	0.029	320	79	1.023	0.060	0.418	0.532
Obtained method in public source	0.953	0.030	43	11	0.919	0.031	0.894	1.013
Wants no more children	0.656	0.034	320	79	1.289	0.052	0.588	0.725
Wants to delay birth at least 2 years	0.084	0.018	320	79	1.161	0.214	0.048	0.121
Ideal family size	2.806	0.053	448	110	0.979	0.019	2.699	2.912
Medical assistance at delivery	0.993	0.007	136	33	0.974	0.007	0.978	1.007
Had diarrhea in two weeks before survey	0.069	0.020	130	32	0.840	0.296	0.028	0.110
Treated with ORS packets	0.556	0.131	9	2	0.726	0.235	0.294	0.817
Taken to a health provider	0.556	0.141	9	2	0.782	0.253	0.274	0.837
Child immunization card at facility	0.900	0.067	20	5	0.993	0.074	0.767	1.033
Child immunization card at home	0.350	0.124	20	5	1.162	0.354	0.102	0.598
Received BCG	0.947	0.049	19	5	0.957	0.052	0.849	1.046
Received DPT (3 doses)	0.895	0.098	19	5	1.393	0.110	0.698	1.091
Received Polio (3 doses)	0.947	0.049	19	5	0.957	0.052	0.849	1.046
Received Measles	0.579	0.131	19	5	1.155	0.226	0.317	0.841
Fully immunized	0.579	0.131	19	5	1.155	0.226	0.317	0.841
Weight-for-height 2SD below the median	0.017	0.011	117	29	0.954	0.667	0.000	0.040
Height-for-age 2SD below the median	0.111	0.041	117	29	1.334	0.367	0.030	0.193
Weight-for-age 2SD below the median	0.043	0.012	117	29	0.642	0.277	0.019	0.066
Prevalence of anemia in children	0.106	0.031	104	26	0.972	0.297	0.043	0.169
Prevalence of anemia in women	0.102	0.013	433	106	0.860	0.123	0.077	0.127
Body mass index below 18.5	0.024	0.008	414	102	1.106	0.346	0.007	0.041
Pregnancy outcome is induced abortion	0.422	0.041	154	38	0.895	0.096	0.341	0.503
Ever had an abortion	0.419	0.024	458	113	1.024	0.056	0.372	0.466
Knows about condoms	0.400	0.027	458	113	1.193	0.068	0.345	0.454
Knows about limiting partners	0.478	0.023	458	113	0.980	0.048	0.432	0.524
Prevalence of STIs or STI symptoms	0.282	0.023	344	85	0.966	0.083	0.235	0.329

Table B.15 Sampling errors for Tavush

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence intervals R-2SE	Confidence intervals R+2SE
Urban residence	0.321	0.021	496	278	1.005	0.066	0.278	0.363
Primary education	0.123	0.014	496	278	0.959	0.115	0.095	0.151
Secondary education	0.411	0.031	496	278	1.388	0.075	0.350	0.473
Secondary-special education	0.317	0.021	496	278	1.023	0.068	0.274	0.359
Higher education	0.149	0.015	496	278	0.960	0.103	0.118	0.180
Net attendance ratio	0.951	0.010	183	105	0.615	0.010	0.931	0.970
Never married	0.238	0.017	496	278	0.865	0.070	0.205	0.271
Currently married	0.714	0.016	496	278	0.773	0.022	0.682	0.745
Married before age 20	0.426	0.051	333	186	1.876	0.119	0.325	0.528
Had first sexual intercourse before age 18	0.177	0.031	333	186	1.459	0.173	0.116	0.238
Currently pregnant	0.044	0.009	496	278	0.932	0.194	0.027	0.062
Children ever born	1.847	0.072	496	278	1.084	0.039	1.702	1.991
Children surviving	1.754	0.068	496	278	1.091	0.039	1.618	1.890
Children ever born to women age 40-49	2.669	0.102	136	76	0.981	0.038	2.464	2.874
Knows any contraceptive method	0.992	0.006	354	198	1.249	0.006	0.979	1.004
Ever used any contraceptive method	0.839	0.012	354	198	0.618	0.014	0.815	0.863
Currently using any contraceptive method	0.638	0.030	354	198	1.159	0.046	0.579	0.698
Currently using any modern method	0.218	0.028	354	198	1.267	0.128	0.162	0.273
Currently using pill	0.011	0.006	354	198	1.013	0.504	0.000	0.023
Currently using IUD	0.065	0.016	354	198	1.182	0.239	0.034	0.096
Currently using condom	0.105	0.016	354	198	0.979	0.152	0.073	0.136
Currently using female sterilization	0.031	0.010	354	198	1.115	0.331	0.010	0.052
Currently using periodic abstinence	0.025	0.006	354	198	0.753	0.248	0.013	0.038
Currently using withdrawal	0.384	0.026	354	198	1.007	0.068	0.332	0.436
Obtained method in public source	0.949	0.025	78	44	0.996	0.026	0.899	0.999
Wants no more children	0.780	0.027	354	198	1.242	0.035	0.725	0.834
Wants to delay birth at least 2 years	0.065	0.016	354	198	1.221	0.247	0.033	0.097
Ideal family size	2.716	0.054	493	276	1.096	0.020	2.608	2.824
Medical assistance at delivery	0.994	0.006	157	88	0.973	0.006	0.981	1.006
Had diarrhea in two weeks before survey	0.039	0.021	152	85	1.332	0.539	0.000	0.082
Treated with ORS packets	0.333	0.261	6	3	1.353	0.782	0.000	0.854
Taken to a health provider	0.333	0.261	6	3	1.353	0.782	0.000	0.854
Child immunization card at facility	1.000	0.000	28	16	na	0.000	1.000	1.000
Child immunization card at home	0.107	0.062	28	16	1.056	0.577	0.000	0.231
Received BCG	1.000	0.000	28	16	na	0.000	1.000	1.000
Received DPT (3 doses)	0.929	0.055	28	16	1.130	0.059	0.818	1.039
Received Polio (3 doses)	0.893	0.039	28	16	0.670	0.044	0.814	0.971
Received Measles	0.679	0.068	28	16	0.764	0.099	0.544	0.814
Fully immunized	0.679	0.068	28	16	0.764	0.099	0.544	0.814
Weight-for-height 2SD below the median	0.007	0.007	144	81	0.957	0.950	0.000	0.020
Height-for-age 2SD below the median	0.104	0.038	144	81	1.269	0.363	0.029	0.180
Weight-for-age 2SD below the median	0.014	0.009	144	81	0.921	0.645	0.000	0.032
Prevalence of anemia in children	0.385	0.055	130	73	1.293	0.142	0.275	0.494
Prevalence of anemia in women	0.156	0.018	481	269	1.096	0.116	0.120	0.192
Body mass index below 18.5	0.026	0.005	462	259	0.695	0.198	0.016	0.036
Pregnancy outcome is induced abortion	0.480	0.038	198	111	0.883	0.079	0.404	0.556
Ever had an abortion	0.494	0.027	496	278	1.205	0.055	0.440	0.548
Knows about condoms	0.429	0.023	496	278	1.055	0.055	0.382	0.476
Knows about limiting partners	0.476	0.025	496	278	1.131	0.053	0.425	0.527
Prevalence of STIs or STI symptoms	0.262	0.027	378	212	1.211	0.105	0.207	0.317

na = Not applicable

Table B.16 Sampling errors for fertility rates for the total population by residence and region

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
Residence								
Urban	1.451	0.082	10025	11160	1.202	0.056	1.287	1.614
Rural	2.121	0.115	8112	7009	1.214	0.054	1.891	2.350
Region								
Yerevan	1.421	0.110	4539	6241	1.116	0.078	1.200	1.642
Aragatsotn	2.038	0.217	1354	781	0.991	0.107	1.604	2.473
Ararat	1.926	0.210	1596	1815	1.171	0.109	1.506	2.347
Armavir	1.706	0.215	1413	1580	1.093	0.126	1.275	2.136
Gegharkunik	2.542	0.322	1383	1368	1.214	0.127	1.897	3.186
Lori	2.101	0.325	1162	1388	1.257	0.155	1.451	2.751
Kotayk	1.261	0.196	1255	1424	1.156	0.155	0.870	1.653
Shirak	1.387	0.222	1387	1724	1.073	0.160	0.944	1.831
Syunik	1.568	0.279	1378	756	1.451	0.178	1.010	2.127
Vayots Dzor	2.387	0.298	1258	309	1.313	0.125	1.792	2.982
Tavush	2.247	0.251	1398	782	1.095	0.112	1.745	2.749
Total	1.708	0.070	18104	18170	1.283	0.041	1.567	1.848

Table B.17 Sampling errors for the abortion rates for the total population by residence and region

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Variable	Value (R)	Standard error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
Residence								
Urban	2.130	0.117	10025	11160	1.017	0.055	1.89	2.364
Rural	3.391	0.209	8112	7009	1.353	0.062	2.97	3.810
Region								
Yerevan	1.920	0.150	4539	6241	0.921	0.078	1.61	2.221
Aragatsotn	4.091	0.580	1354	781	1.483	0.142	2.93	5.251
Ararat	2.715	0.282	1596	1815	1.009	0.104	2.15	3.280
Armavir	4.129	0.387	1413	1580	0.937	0.094	3.35	4.904
Gegharkunik	4.276	0.666	1383	1368	1.357	0.156	2.94	5.608
Lori	1.811	0.419	1162	1388	1.487	0.231	0.97	2.650
Kotayk	3.111	0.513	1255	1424	1.257	0.165	2.08	4.138
Shirak	2.415	0.311	1387	1724	0.908	0.129	1.79	3.037
Syunik	2.484	0.290	1378	756	1.051	0.117	1.90	3.064
Vayots Dzor	1.868	0.213	1258	309	0.857	0.114	1.44	2.294
Tavush	2.455	0.307	1398	782	1.006	0.125	1.84	3.068
Total	2.649	0.122	18104	18170	1.315	0.046	2.40	2.893

Table B.18 Sampling errors for mortality rates for the total population

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Mortality rate	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
Mortality rates 0-4 years before the survey								
Perinatal	28.917	4.727	1755	1681	1.028	0.163	19.463	38.370
Neonatal	19.474	3.936	1779	1705	0.987	0.202	11.601	27.347
Postneonatal	16.662	3.808	1779	1705	1.184	0.229	9.046	24.279
Infant	36.136	5.426	1779	1705	1.081	0.150	25.285	46.988
Child	3.005	1.209	1783	1710	1.032	0.402	0.587	5.423
Under-five	39.033	5.613	1783	1710	1.100	0.144	27.807	50.258
Mortality rates 5-9 years before the survey								
Infant	50.462	5.966	2327	2225	1.226	0.118	38.531	62.393
Mortality rates 10-14 years before the survey								
Infant	45.563	4.997	2739	2641	1.078	0.110	35.568	55.557

Table B.19 Sampling errors for mortality rates for the total population by residence

Value of the estimate, standard error, design effect, relative error and confidence intervals, Armenia 2000

Mortality rate	Value (R)	Standard error (SE)	Number of cases: Unweighted (N)	Number of cases: Weighted (WN)	Design effect (DEFT)	Relative error (SE/R)	Confidence limits: R-2SE	Confidence limits: R+2SE
Mortality rates 0-4 years preceding the survey								
Perinatal (total)	28.917	4.727	1755	1681	1.028	0.163	19.463	38.370
Urban	19.512	5.392	768	849	0.976	0.276	8.729	30.296
Rural	38.507	7.735	987	833	1.103	0.201	23.036	53.977
Mortality rates 0-9 years preceding the survey								
Neonatal (total)	17.904	2.511	4002	3835	1.148	0.141	12.866	22.935
Urban	12.795	3.228	1799	1963	1.158	0.255	6.223	19.177
Rural	23.255	3.799	2203	1872	1.166	0.163	15.744	30.962
Postneonatal (total)	26.240	3.130	3998	3832	1.046	0.120	20.186	32.882
Urban	23.144	4.525	1798	1962	1.104	0.196	14.598	33.348
Rural	29.486	4.292	2200	1870	1.004	0.146	20.713	37.727
Infant (total)	44.144	4.195	4002	3835	1.149	0.095	35.982	52.840
Urban	35.939	5.458	1799	1963	1.124	0.152	25.500	47.812
Rural	52.741	6.247	2203	1872	1.185	0.118	40.128	64.955
Child (total)	3.995	1.049	4005	3837	1.065	0.258	2.111	6.624
Urban	1.385	0.898	1799	1963	1.072	0.652	0.000	3.517
Rural	6.848	1.941	2206	1874	1.117	0.276	3.290	11.397
Under-five (total)	47.963	4.236	4009	3841	1.128	0.088	39.491	56.436
Urban	37.274	5.533	1800	1964	1.126	0.148	26.208	48.339
Rural	59.228	6.190	2209	1877	1.126	0.105	46.84	71.608

DATA QUALITY TABLES

APPENDIX C

Table C.1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Armenia 2000

	Male		Female			Male		Female	
Age	Number	Percentage	Number	Percentage	Age	Number	Percentage	Number	Percentage
0	180	1.6	134	1.0	36	167	1.5	198	1.5
1	184	1.6	125	1.0	37	170	1.5	203	1.5
2	160	1.4	144	1.1	38	164	1.5	228	1.7
3	227	2.0	143	1.1	39	163	1.4	206	1.6
4	215	1.9	182	1.4	40	207	1.8	225	1.7
5	176	1.6	189	1.4	41	180	1.6	209	1.6
6	231	2.1	182	1.4	42	175	1.5	205	1.6
7	181	1.6	194	1.5	43	180	1.6	183	1.4
8	259	2.3	218	1.7	44	141	1.3	175	1.3
9	229	2.0	247	1.9	45	160	1.4	201	1.5
10	242	2.1	242	1.8	46	148	1.3	202	1.5
11	267	2.4	202	1.5	47	114	1.0	170	1.3
12	243	2.2	253	1.9	48	133	1.2	173	1.3
13	276	2.4	271	2.1	49	133	1.2	118	0.9
14	282	2.5	245	1.9	50	114	1.0	162	1.2
15	252	2.2	256	2.0	51	108	1.0	144	1.1
16	235	2.1	258	2.0	52	88	0.8	114	0.9
17	237	2.1	263	2.0	53	91	0.8	121	0.9
18	120	1.1	226	1.7	54	81	0.7	87	0.7
19	67	0.6	215	1.6	55	54	0.5	76	0.6
20	146	1.3	237	1.8	56	53	0.5	50	0.4
21	162	1.4	208	1.6	57	41	0.4	53	0.4
22	180	1.6	222	1.7	58	65	0.6	77	0.6
23	145	1.3	190	1.4	59	82	0.7	107	0.8
24	173	1.5	205	1.6	60	119	1.1	176	1.3
25	160	1.4	176	1.3	61	110	1.0	130	1.0
26	148	1.3	159	1.2	62	106	0.9	172	1.3
27	159	1.4	161	1.2	63	113	1.0	178	1.4
28	136	1.2	163	1.2	64	103	0.9	145	1.1
29	124	1.1	150	1.1	65	102	0.9	142	1.1
30	127	1.1	168	1.3	66	79	0.7	76	0.6
31	126	1.1	144	1.1	67	91	0.8	101	0.8
32	133	1.2	181	1.4	68	97	0.9	123	0.9
33	130	1.2	159	1.2	69	68	0.6	100	0.8
34	121	1.1	156	1.2	70+	675	6.0	1,036	7.9
35	163	1.5	170	1.3	Total	11,271	100.0	13,101	100.0

Table C.2 1 Age distribution of eligible and interviewed women

Five year age distribution of the de facto household population of women aged 10-54, five year age distribution of interviewed women aged 15-49, and percentage of eligible women who were interviewed (weighted), Armenia 2000

	Household		Women interviewed		
Age	Number	Percent-age	Number	Percent-age	Percentage interviewed
10-14	1,212	-	-	-	-
15-19	1,220	18.0	1,172	18.1	96.1
20-24	1,062	15.7	1,021	15.8	96.2
25-29	809	12.0	770	11.9	95.1
30-34	807	11.9	773	11.9	95.8
25-39	1,004	14.9	970	15.0	96.5
40-44	996	14.7	951	14.7	95.5
45-49	864	12.8	829	12.8	95.9
50-54	628	-	-	-	-
15-49	6,760	-	6,485	-	95.9

Note: The de facto population includes all residents and non-residents who slept in the household the night before interview.

Table C.2.2 Age distribution of eligible and interviewed men

Five year age distribution of the de facto household population of men aged 10-59, five year age distribution of interviewed men aged 15-54, and percentage of eligible men who were interviewed (weighted), Armenia 2000

	Household		Men interviewed		
Age	Number	Percent-age	Number	Percent-age	Percentage interviewed
10-14	432	-	-	-	-
15-19	292	15.0	270	15.5	92.2
20-24	244	12.6	219	12.6	89.8
25-29	223	11.5	198	11.4	88.9
30-34	230	11.8	201	11.6	87.5
25-39	278	14.3	239	13.7	86.1
40-44	294	15.2	277	15.9	94.2
45-49	236	12.2	207	11.9	87.6
50-54	144	7.4	129	7.4	89.8
55-59	105	-	-	-	-
15-54	1,943	-	1,741	-	89.6

Note: The de facto population includes all residents and non-residents who slept in the household the night before interview.

Table C.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions, Armenia 2000

Subject	Reference group	Percentage of reference group with missing information	Number
Birth Date	Last 15 years		
Month only		0.0	6,175
Month and year		0.0	6,175
Age at death	Last 15 years	0.0	298
Age/date at first union[1]	Ever-married respondents	0.0	4,579
Respondent's education	All respondents	0.0	6,430
Child's size at birth	Births in last 1-59 months	0.6	1,596
Anthropometry[2]	Living children age 1-59 months		
Child's weight		6.9	1,596
Child's height		6.9	1,596
Weight and height		6.9	1,596
Diarrhea in last 2 weeks	Living children age 1-59 months	0.3	1,596
Anemia test			
Children	Living children age 6-59 months	7.8	1,447
Women	Respondents 15-49	0.0	6,137

[1] Both year and age missing
[2] Child not measured

Table C.4 Births by calendar year since birth

Distribution of births by calendar years since birth for living, dead, and all children, according to reporting completeness, sex ratio at birth, and ratio of births by calendar year, Armenia 2000

	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar ratio[3]			Male			Female		
Year	Living	Dead	All	Living	Dead	All	Living	Dead	All	Living	Dead	All	Living	Dead	All	Living	Dead	All
2000	261	7	268	100.0	100.0	100.0	144.9	33.7	139.8	-	-	-	154	2	156	107	5	112
1999	302	7	309	100.0	100.0	100.0	144.1	43.2	140.1	109.3	64.4	107.6	178	2	180	124	5	129
1998	291	16	307	100.0	100.0	100.0	113.6	62.3	110.2	92.7	144.8	94.5	155	6	161	136	10	146
1997	326	14	340	100.0	100.0	100.0	167.9	145.2	166.9	98.2	92.7	98.0	204	9	213	122	6	128
1996	373	15	388	100.0	100.0	100.0	114.0	92.2	113.0	110.9	131.0	111.6	199	7	206	174	8	182
1995	346	9	355	100.0	100.0	100.0	94.0	162.3	95.3	89.6	51.0	87.9	168	6	173	178	3	182
1994	399	20	420	100.0	100.0	100.0	117.8	189.5	120.5	113.1	110.7	113.0	216	13	229	183	7	190
1993	360	28	388	100.0	100.0	100.0	100.4	163.2	103.9	87.4	106.2	88.5	180	17	198	180	10	190
1992	425	32	457	100.0	100.0	100.0	104.3	135.9	106.2	106.0	124.4	107.1	217	18	235	208	13	221
1991	442	23	465	100.0	100.0	100.0	96.9	128.5	98.3	-	-	-	217	13	231	224	10	235
1996-00	1,552	60	1,612	100.0	100.0	100.0	134.4	76.6	131.6	-	-	-	890	26	916	662	34	696
1991-95	1,972	112	2,085	100.0	100.0	100.0	102.5	151.1	104.7	-	-	-	999	68	1,066	974	45	1,018
1986-90	2,289	122	2,411	100.0	100.0	100.0	109.2	134.5	110.3	-	-	-	1,195	70	1,265	1,094	52	1,146
1981-85	2,161	153	2,314	100.0	100.0	100.0	98.4	120.7	99.7	-	-	-	1,072	84	1,155	1,089	69	1,158
< 1981	2,229	240	2,469	99.9	99.2	99.9	101.5	142.0	104.8	-	-	-	1,123	141	1,263	1,106	99	1,205
All	10,203	687	10,890	100.0	99.7	100.0	107.1	129.7	108.4	-	-	-	5,278	388	5,666	4,926	299	5,225

[1]Both year and month of birth given

[2]$(B_m/B_f)*100$, where B_m and B_f are the numbers of male and female births, respectively

[3]$[2B_x/(B_{x-1}+B_{x+1})]*100$, where B_x is the number births in calendar year x

Table C.5 Reporting of age at death in days

Distribution of reported deaths under 1 month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five year periods of birth preceding the survey, Armenia 2000

	Number of years preceding the survey				
Age	0-4	5-9	10-14	15-19	Total 0-19
0	7	11	6	9	32
1	10	10	17	9	46
2	3	10	10	5	29
3	0	6	6	5	17
4	2	4	4	1	12
5	3	0	2	1	5
6	0	2	0	1	3
7	0	3	5	2	10
8	0	1	1	0	3
9	0	0	0	1	1
10	6	4	3	1	14
11	1	0	0	0	1
12	0	2	0	0	2
13	0	1	0	0	1
15	0	2	0	1	3
16	0	1	1	1	3
17	0	1	1	1	4
18	0	1	0	0	1
20	0	2	4	2	8
25	0	1	0	0	1
26	1	0	0	0	1
28	0	1	0	0	1
30	2	1	0	0	3
31+	0	2	0	1	2
% Early neonatal [1]	68.9	67.2	74.7	75.4	71.5
Total 0-30	35	64	61	42	201

[1] 0-6 days/0-30 days

Table C.6 Reporting of age at death in months

Distribution of reported deaths under 2 years of age by age at death in months and the percentage of infant deaths reported to occur at ages under one month, for five-year periods of birth preceding the survey, Armenia 2000

Age at death (in months)	Number of years preceding the survey				Total
	0-4	5-9	10-14	15-19	0-19
< 1 month [1]	35	64	61	42	202
1	4	7	4	10	25
2	5	11	5	14	34
3	4	5	9	17	35
4	5	4	7	13	29
5	3	3	5	7	18
6	2	5	8	9	24
7	0	2	3	3	8
8	0	0	1	6	7
9	0	0	0	4	4
10	1	0	1	1	3
11	1	1	3	1	5
12	0	0	0	3	3
15	0	1	1	1	2
18	0	0	1	0	1
20	0	0	1	0	1
22	0	0	1	0	1
1 Year	0	3	2	1	5
Percent Neonatal [2]	57.4	64.0	56.6	33.7	51.3
Total 0-11	61	103	107	126	394

[1] <1 includes deaths under 1 month reported in days
[2] Percent neonatal= under 1 month/under 1 year

PERSONS INVOLVED IN THE 2000 ARMENIA DEMOGRAPHIC AND HEALTH SURVEY

Appendix ***D***

National Director
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Artak Zeynalyan, Former Deputy Minister of Health

Technical Director
Hrachya Petrosyan, Member of the State Council on Statistics

Technical Director for Medical Affairs
Karineh Saribekyan, Director of the Mother and Child Health Department, Ministry of Health

Deputy Technical Director
Julietta Magluchants, Chief of Household Survey Division, National Statistical Service

Deputy Director for Medical Affairs
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QUESTIONNAIRES

APPENDIX E

2000 ARMENIA DEMOGRAPHIC AND HEALTH SURVEY
HOUSEHOLD QUESTIONNAIRE

REPUBLIC OF ARMENIA
NATIONAL STATISTICAL SERVICE
MINISTRY OF HEALTH

IDENTIFICATION[1]

PLACE NAME _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . .

HOUSEHOLD NUMBER . . . . . .

REGION . . . . . .

LARGE CITY/SMALL CITY/TOWN/COUNTRYSIDE (LARGE CITY=1, SMALL CITY=2, TOWN=3, COUNTRYSIDE=4) . . . . . .

URBAN/RURAL (URBAN=1, RURAL=2) . . . . . .

HOUSEHOLD ELIGIBLE FOR MEN'S QUESTIONNAIRE? (YES = 1, NO = 2) . . . . . .

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY MONTH YEAR 2 0 0
INTERVIEWER'S NAME	_____	_____	_____	NAME
RESULT*	_____	_____	_____	RESULT
NEXT VISIT: DATE	_____	_____		TOTAL NO. OF VISITS
TIME	_____	_____		

*RESULT CODES:

1 COMPLETED
2 NO HOUSEHOLD MEMBER AT HOME OR NO COMPETENT RESPONDENT AT HOME AT TIME OF VISIT
3 ENTIRE HOUSEHOLD ABSENT FOR EXTENDED PERIOD OF TIME
4 POSTPONED
5 REFUSED
6 DWELLING VACANT OR ADDRESS NOT A DWELLING
7 DWELLING DESTROYED
8 DWELLING NOT FOUND
9 OTHER _____ (SPECIFY)

TOTAL PERSONS IN HOUSEHOLD

TOTAL ELIGIBLE WOMEN

TOTAL ELIGIBLE MEN

LINE NO. OF RESP. TO HOUSEHOLD SCHEDULE

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

HOUSEHOLD SCHEDULE

Now we would like some information about the people who usually live in your household or who are staying with you now.

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE					AGE	ELIGIBILITY	
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household.	What is the relationship of (NAME) to the head of the household?*	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	For how long has (NAME) been absent from the household?	When do you expect (NAME) to return to the household?	Where is name currently staying?**	How old is (NAME)?	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-54
(1)	(2)	(3)	(4)	(5)	(6)	(6A)	(6B)	(6C)	(7)	(8)	(9)
			M F	YES NO	YES NO				IN YEARS		
1			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			1	1
2			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			2	2
3			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			3	3
4			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			4	4
5			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			5	5
6			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			6	6
7			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			7	7
8			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			8	8
9			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			9	9
10			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			10	10

* CODES FOR Q.3
RELATIONSHIP TO HEAD OF HOUSEHOLD:
01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
10 = OTHER RELATIVE
11 = ADOPTED/FOSTER/ STEPCHILD
12 = NOT RELATED
98 = DON'T KNOW

**CODES FOR Q6C
WHERE CURRENTLY STAYING:
1=ARMENIA
2=RUSSIA
3=OTHER NIS
4=EUROPE
5=USA/CANADA
6=OTHER
8=DON'T KNOW

LINE NO.	PARENTAL SURVIVORSHIP AND RESIDENCE FOR PERSONS LESS THAN 15 YEARS OLD**				EDUCATION						
	Is (NAME)'s natural mother alive?	IF ALIVE	Is (NAME)'s natural father alive?	IF ALIVE	IF AGE 6 YEARS OR OLDER		IF AGE 6-29 YEARS				
		Does (NAME)'s natural mother live in this household? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER		Does (NAME)'s natural father live in this household? IF YES: What is his name? RECORD FATHER'S LINE NUMBER	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended?*** What is the highest grade (NAME) completed at that level?***	Is (NAME) currently attending school?	During the current school year, did (NAME) attend school at any time?	During the current school year, what level and grade [is/was] (NAME) attending?	During the previous school year , did (NAME) attend school at any time?	During that school year, what level and grade did (NAME) attend?
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	YES NO DK		YES NO DK		YES NO	LEVEL GRADE	YES NO	YES NO	LEVEL GRADE	YES NO	LEVEL GRADE
1	1 2 8 ↓ GO TO 12		1 2 8 ↓ GO TO 14		1 2 NEXT LINE		1 2 ▼ GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
2	1 2 8 ↓ GO TO 12		1 2 8 ↓ GO TO 14		1 2 NEXT LINE		1 2 ▼ GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
3	1 2 8 ↓ GO TO 12		1 2 8 ↓ GO TO 14		1 2 NEXT LINE		1 2 ▼ GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
4	1 2 8 ↓ GO TO 12		1 2 8 ↓ GO TO 14		1 2 NEXT LINE		1 2 ▼ GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
5	1 2 8 ↓ GO TO 12		1 2 8 ↓ GO TO 14		1 2 NEXT LINE		1 2 ▼ GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
6	1 2 8 ↓ GO TO 12		1 2 8 ↓ GO TO 14		1 2 NEXT LINE		1 2 ▼ GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
7	1 2 8 ↓ GO TO 12		1 2 8 ↓ GO TO 14		1 2 NEXT LINE		1 2 ▼ GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
8	1 2 8 ↓ GO TO 12		1 2 8 ↓ GO TO 14		1 2 NEXT LINE		1 2 ▼ GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
9	1 2 8 ↓ GO TO 12		1 2 8 ↓ GO TO 14		1 2 NEXT LINE		1 2 ▼ GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
10	1 2 8 ↓ GO TO 12		1 2 8 ↓ GO TO 14		1 2 NEXT LINE		1 2 ▼ GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	

** Q.10 THROUGH Q.13
THESE QUESTIONS REFER TO THE BIOLOGICAL PARENTS OF THE CHILD.
IN Q.11 AND Q.13, RECORD '00' IF PARENT NOT LISTED IN HOUSEHOLD SCHEDULE.

***CODES FOR Qs. 15, 18 AND 20
EDUCATION LEVEL:
1 = PRIMARY
2 =SECONDARY
3 =SECONDARY SPECIAL
4=UNDERGRADUATE
5=GRADUATE SCHOOL
8 = DON'T KNOW

EDUCATION GRADE:
00 = LESS THAN 1 YEAR COMPLETED
98 = DON'T KNOW

LINE NO.	USUAL RESIDENTS AND VISITORS	RELATIONSHIP TO HEAD OF HOUSEHOLD	SEX	RESIDENCE					AGE	ELIGIBILITY	
	Please give me the names of the persons who usually live in your household and guests of the household who stayed here last night, starting with the head of the household.	What is the relationship of (NAME) to the head of the household?*	Is (NAME) male or female?	Does (NAME) usually live here?	Did (NAME) stay here last night?	For how long has (NAME) been absent from the household?	When do you expect (NAME) to return to the household?	Where is name currently staying?**	How old is (NAME)?	CIRCLE LINE NUMBER OF ALL WOMEN AGE 15-49	CIRCLE LINE NUMBER OF ALL MEN AGE 15-54
(1)	(2)	(3)	(4)	(5)	(6)	(6A)	(6B)	(6C)	(7)	(8)	(9)
			M F	YES NO	YES NO				IN YEARS		
11			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			11	11
12			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			12	12
13			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			13	13
14			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			14	14
15			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			15	15
16			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			16	16
17			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			17	17
18			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			18	18
19			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			19	19
20			1 2	1 2	1 2 ▼ GO TO 7	DAYS .... 1 MONTHS . 2	DAYS ..... 1 MONTHS ... 2 DON'T KNOW 998			20	20

* CODES FOR Q.3
RELATIONSHIP TO HEAD OF HOUSEHOLD:
01 = HEAD
02 = WIFE OR HUSBAND
03 = SON OR DAUGHTER
04 = SON-IN-LAW OR DAUGHTER-IN-LAW
05 = GRANDCHILD
06 = PARENT
07 = PARENT-IN-LAW
08 = BROTHER OR SISTER
10 = OTHER RELATIVE
11 = ADOPTED/FOSTER/ STEPCHILD
12 = NOT RELATED
98 = DON'T KNOW

**CODES FOR Q6C
WHERE CURRENTLY STAYING:
1=ARMENIA
2=RUSSIA
3=OTHER NIS
4=EUROPE
5=USA/CANADA
6=OTHER
8=DON'T KNOW

LINE NO.	PARENTAL SURVIVORSHIP AND RESIDENCE FOR PERSONS LESS THAN 15 YEARS OLD**				EDUCATION						
	Is (NAME)'s natural mother alive?	IF ALIVE	Is (NAME)'s natural father alive?	IF ALIVE	IF AGE 6 YEARS OR OLDER		IF AGE 6-29 YEARS				
		Does (NAME)'s natural mother live in this household? IF YES: What is her name? RECORD MOTHER'S LINE NUMBER		Does (NAME)'s natural father live in this household? IF YES: What is his name? RECORD FATHER'S LINE NUMBER	Has (NAME) ever attended school?	What is the highest level of school (NAME) has attended?*** What is the highest grade (NAME) completed at that level?***	Is (NAME) currently attending school?	During the current school year, did (NAME) attend school at any time?	During the current school year, what level and grade [is/was] (NAME) attending?	During the previous school year, did (NAME) attend school at any time?	During that school year, what level and grade did (NAME) attend?
	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
	YES NO DK		YES NO DK		YES NO	LEVEL GRADE	YES NO	YES NO	LEVEL GRADE	YES NO	LEVEL GRADE
11	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
12	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
13	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
14	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
15	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
16	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
17	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
18	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
19	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	
20	1 2 8		1 2 8		1 2 NEXT LINE		1 2 GO TO 18	1 2 GO TO 19		1 2 NEXT LINE	

** Q.10 THROUGH Q.13
THESE QUESTIONS REFER TO THE BIOLOGICAL PARENTS OF THE CHILD.
IN Q.11 AND Q.13, RECORD '00' IF PARENT NOT LISTED IN HOUSEHOLD SCHEDULE.

***CODES FOR Qs. 15, 18 AND 20
EDUCATION LEVEL:
1 = PRIMARY
2 =SECONDARY
3 =SECONDARY SPECIAL
4=UNDERGRADUATE
5=GRADUATE SCHOOL
8 = DON'T KNOW

EDUCATION GRADE:
00 = LESS THAN 1 YEAR COMPLETED
98 = DON'T KNOW

TICK HERE IF CONTINUATION SHEET USED ☐

Just to make sure that I have a complete listing:

1) Are there any other persons such as small children or infants that we have not listed? YES ☐ → ENTER EACH IN TABLE NO ☐

2) In addition, are there any other people who may not be members of your family, such as domestic servants, lodgers or friends who usually live here? YES ☐ → ENTER EACH IN TABLE NO ☐

3) Are there any guests or temporary visitors staying here, or anyone else who slept here last night, who have not been listed? YES ☐ → ENTER EACH IN TABLE NO ☐

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
21	What is the main source of drinking water for members of your household?	PIPED WATER PIPED INTO DWELLING . . . . . 11 PIPED INTO YARD/PLOT . . . . . 12 PUBLIC TAP . . . . . 13 WATER FROM OPEN WELL OPEN WELL IN DWELLING . . . . . 21 OPEN WELL IN YARD/PLOT . . . . . 22 OPEN PUBLIC WELL . . . . . 23 WATER FROM COVERED WELL OR PROTECTED BOREHOLE PROTECTED WELL IN DWELLING . . 31 PROTECTED WELL IN YARD/PLOT . . 32 PROTECTED PUBLIC WELL . . . . . 33 SURFACE WATER SPRING . . . . . 41 RIVER/STREAM . . . . . 42 POND/LAKE . . . . . 43 DAM . . . . . 44 RAINWATER . . . . . 51 TANKER TRUCK . . . . . 61 BOTTLED WATER . . . . . 71 OTHER _____ 96 (SPECIFY)	 → 23 → 23 → 23 → 23 → 23 → 23 → 23 → 23
22	How long does it take you to go there, get water, and come back?	MINUTES . . . . . [ ][ ][ ] ON PREMISES 996	
23	What kind of toilet facilitlies does your household have?	FLUSH TOILET . . . . . 11 PIT TOILET/LATRINE TRADITIONAL PIT TOILET . . . . . 21 VENTILATED IMPROVED PIT (VIP) LATRINE . . . . . 22 NO FACILITY/BUSH/FIELD . . . . . 31 OTHER _____ 96 (SPECIFY)	 → 25
24	Do you share this facility with other households?	YES . . . . . 1 NO 2	
25	Does your household have the following working items: Electricity? A radio? A television? A telephone? A refrigerator?	YES NO ELECTRICITY . . . . . 1 2 RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 TELEPHONE . . . . . 1 2 REFRIGERATOR 1 2	
26	What type of fuel does your household mainly use for cooking?	ELECTRICITY . . . . . 01 LPG/NATURAL GAS . . . . . 02 LIQUID GAS . . . . . 03 KEROSENE . . . . . 04 COAL, LIGNITE . . . . . 05 CHARCOAL . . . . . 06 FIREWOOD, STRAW . . . . . 07 TEZEK . . . . . 08 OTHER _____ 96 (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
27	MAIN MATERIAL OF THE FLOOR. RECORD OBSERVATION.	NATURAL FLOOR EARTH/SAND . . . . . 11 RUDIMENTARY FLOOR WOOD PLANKS . . . . . 21 FINISHED FLOOR PARQUET OR POLISHED WOOD . . . . 31 LYNOLEUM . . . . . 32 CEMENT . . . . . 34 CARPET . . . . . 35 OTHER _____ 96 (SPECIFY)	
28	Does any member of your household own: A bicycle? A motorcycle or motor scooter? A car or truck?	YES NO BICYCLE . . . . . 1 2 MOTORCYCLE/SCOOTER . . . . . 1 2 CAR/TRUCK 1 2	
29	How many drams did the household spend last month on all its expenditures?	DRAMS [ ][ ][ ][ ][ ][ ] DON'T KNOW 999998	
30	How many drams did the household spend last month on food?	DRAMS [ ][ ][ ][ ][ ][ ] DON'T KNOW 999998	
33	Where do you usually wash your hands?	IN DWELLING/YARD/PLOT . . . . . 1 SOMEWHERE ELSE . . . . . 2 NOWHERE 3	→35 →35
34	ASK TO SEE THE PLACE USED MOST OFTEN AND OBSERVE IF THE FOLLOWING ITEMS ARE PRESENT.	YES NO WATER/TAP . . . . . 1 2 SOAP OR OTHER CLEANSING AGENT . . . . . 1 2 BASIN 1 2	
35	ASK RESPONDENT FOR A TEASPOONFUL OF SALT. TEST SALT FOR IODINE. RECORD PPM (PARTS PER MILLION).	0 PPM (NO IODINE) . . . . . 1 7 PPM . . . . . 2 15 PPM 3	
35A	Where do you usually keep your salt?	IN THE CLOSED PACKAGE/AWAY FROM PLACE OF COOKING/ IN DARK PLACE . . . . . 1 IN THE OPENED PACKAGE/NEAR TO PLACE OF COOKING/ IN THE LIGHT 2	
35B	Do you know that you can use iodized salt in food to prevent some diseases?	YES . . . . . 1 NO 2	
36	Does anybody in your household own a dacha, or have access to a garden from which you obtain fruits and vegetables during the growing season?	YES . . . . . 1 NO . . . . . 2 OTHER _____ 6 (SPECIFY)	
37	Does anybody in your household have livestock or poultry?	YES . . . . . 1 NO . . . . . 2 OTHER _____ 6 (SPECIFY)	

2000 ARMENIA DEMOGRAPHIC AND HEALTH SURVEY
INDIVIDUAL WOMAN'S QUESTIONNAIRE

REPUBLIC OF ARMENIA
NATIONAL STATISTICAL SERVICE

REPUBLIC OF ARMENIA
MINISTRY OF HEALTH

IDENTIFICATION

PLACE NAME

NAME OF HOUSEHOLD HEAD

CLUSTER NUMBER . . . . . .

HOUSEHOLD NUMBER . . . . . .

REGION . . . . . .

LARGE CITY/SMALL CITY/TOWN/COUNTRYSIDE (LARGE CITY=1, SMALL CITY=2, TOWN=3, COUNTRYSIDE=4) . . . . . .

URBAN/RURAL (URBAN=1, RURAL=2) . . . . . .

NAME AND LINE NUMBER OF WOMAN_____

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY ☐☐
				MONTH ☐☐
				YEAR 2 0 0
INTERVIEWER'S NAME	_____	_____	_____	NAME ☐☐
RESULT*	_____	_____	_____	RESULT ☐
NEXT VISIT: DATE	_____	_____		TOTAL NO. OF VISITS ☐
TIME	_____	_____		

* RESULT CODES:

1 COMPLETED
2 NOT AT HOME
3 POSTPONED
4 REFUSED
5 PARTLY COMPLETED
6 INCAPACITATED
7 OTHER _____ (SPECIFY)

	ARMENIAN	RUSSIAN	OTHER
1. LANGUAGE OF INTERVIEW	1	2	3
2. NATIVE LANGUAGE OF RESPONDENT	1	2	3
	YES	NO	
3. WHETHER TRANSLATOR USED	1	2	

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____ ☐☐	NAME _____ ☐☐	☐☐	☐☐
DATE _____	DATE _____		

SECTION 1. RESPONDENT'S BACKGROUND

INFORMED CONSENT

Hello. My name is_____ and I am working with the National Statistical Service and the Ministry of Health of the Republic of Armenia. We are conducting a national survey about the health of women and children. We would very much appreciate your participation in this survey. I would like to ask you about your health (and the health of your children). This information will help the government of Armenia to plan health services. The survey usually takes between 30 and 60 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other people.

Participation in this survey is voluntary and you can choose not to answer any individual question or all of the questions. However, we hope that you will participate in this survey since your views are important.

At this time, do you want to ask me anything about the survey?
May I begin the interview now?

Signature of interviewer: _____Date: _____2000

RESPONDENT AGREES TO BE INTERVIEWED.....1 RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . . . 2 →END

▼

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	First I would like to ask some questions about you and your household. For most of the time until you were 12 years old, did you live in a city, in a town, or in the countryside?	CITY . . . . . 1 TOWN . . . . . 2 COUNTRYSIDE 3	
103	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . [ ][ ] ALWAYS . . . . . 95 VISITOR 96	 →105

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
104	Just before you moved here, did you live in a city, in a town, or in the countryside?	CITY . . . . . 1 TOWN . . . . . 2 COUNTRYSIDE 3	
105	In what month and year were you born?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	
106	How old were you at your last birthday?	AGE IN COMPLETED YEARS . [ ][ ]	
107	Have you ever attended school?	YES . . . . . 1 NO 2	 →110
108	What is the highest level of school you attended: primary, secondary, secondary-special, undergraduate, or graduate?	SCHOOL (PRIMARY/SECOND) . . . . . 1 SECONDARY-SPECIAL . . . . . 2 UNDERGRADUATE . . . . . 3 GRADUATE 4	
109	What is the highest (class/course) that you completed at that level?	CLASS/COURSE . . . . . [ ][ ]	
110	Do you read a newspaper or magazine almost every day, at least once a week, occasionally, or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 OCCASIONALLY . . . . . 3 NOT AT ALL 4	
111	Do you listen to the radio almost every day, at least once a week, occasionally, or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 OCCASIONALLY . . . . . 3 NOT AT ALL 4	
112	Do you watch television almost every day, at least once a week, occasionally, or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 OCCASIONALLY . . . . . 3 NOT AT ALL 4	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
113	What is your religion?	CHRISTIAN . . . . . 1 MUSLIM . . . . . 2 OTHER _____ 6 (SPECIFY) NOT RELIGIOUS . . . . . 7 DON`T KNOW 8	
114	What is your nationality?	ARMENIAN . . . . . 1 RUSSIAN . . . . . 2 OTHER_____ 6 (SPECIFY) DON`T KNOW 8	
120	**During the last 12 months did you need to see a doctor for a personal medical problem?**	**YES . . . . . 1** **NO 2**	→**125**
121	**Did you visit a medical professional for the last such problem?**	**YES . . . . . 1** **NO 2**	→**125**
122	**What is the reason you did not see a medical professional?**	**LACK OF MONEY . . . . . 01** **LACK OF TRANSPORTATION . 02** **TOO FAR . . . . . 03** **LACK OF TIME . . . . . 04** **RELIGIOUS OPPOSITION . . . . 05** **FAMILY OBJECTIONS . . . . . 06** **DOESN'T TRUST DOCTORS . . . 07** **OTHER _____ 96** **(SPECIFY)**	
125	**During the past 12 months, about how many drams did you spend for your own medical care?**	**DRAMS** [ ][ ][ ][ ][ ][ ]	
128	**Now I would like to ask you a few questions about your health. Have you ever had . . .** **Anaemia?**	**YES . . . . . 1** **NO . . . . . 2** **DON`T KNOW 8**	→**130**
129	**When were you first told that you had anaemia?**	**LESS THAN 12 MOS. AGO. . . . . 1** **MORE THAN 12 MOS AGO 2**	

130	**High blood pressure?**	**YES . . . . . 1** **NO . . . . . 2** **DON`T KNOW 8**	**131A**
131	**When were you first told that you had high blood pressure?**	**LESS THAN 12 MOS. AGO. . . . . 1** **MORE THAN 12 MOS AGO 2**	
131 A	**A heart problem?**	**YES . . . . . 1** **NO . . . . . 2** **DON`T KNOW 8**	**131C**
131 B	**When were you first told that you had a heart problem?**	**LESS THAN 12 MOS. AGO. . . . . 1** **MORE THAN 12 MOS AGO 2**	
131 C	**Goiter?** **IF YES, PROBE: Were you told you had goiter or some other kind of thyroid gland problem?**	**YES . . . . . 1** **NO . . . . . 2** **DON`T KNOW 8**	**132**
131 D	**When were you first told that you had goiter?**	**LESS THAN 12 MOS. AGO. . . . . 1** **MORE THAN 12 MOS AGO 2**	
132	**Diabetes?**	**YES . . . . . 1** **NO . . . . . 2** **DON`T KNOW 8**	**134**
133	**When were you first told that you had sugar diabetes?**	LESS THAN 12 MOS. AGO. . . . . 1 MORE THAN 12 MOS AGO 2	
134	**Kidney disease?**	**YES . . . . . 1** **NO . . . . . 2** **DON`T KNOW 8**	**136**
135	**When were you first told that you had kidney disease?**	**LESS THAN 12 MOS. AGO. . . . . 1** **MORE THAN 12 MOS AGO 2**	
136	**Hepatitis or Botkin's disease?**	**YES . . . . . 1** **NO . . . . . 2** **DON`T KNOW 8**	**145A**
137	**When were you first told that you had hepatitis?**	**LESS THAN 12 MOS. AGO. . . . . 1** **MORE THAN 12 MOS AGO 2**	

145 A	**Do you know how to give yourself a breast exam?**	**YES . . . . . 1** **NO 2**	→**145C**
145 B	**Have you ever given yourself a breast exam?** **IF YES: When was the last time that you gave yourself a breast exam?**	MONTHS AGO . . . . . [ ][ ] NEVER GAVE EXAM 95	
145 C	**Has a health care provider ever given you a breast exam?** **IF YES: When was the last time a health care provider gave you a breast exam?**	MONTHS AGO . . . . . [ ][ ] NEVER RECEIVED EXAM 95	
145 D	**Have you ever visited a gynecologist?**	**YES . . . . . 1** **NO 2**	→**146**
145 E	**When was the last time you visited the gynecologist?**	**DAYS AGO . . . . . 1** [ ][ ] **WEEKS AGO . . . . . 2** [ ][ ] **MONTHS AGO . . . . . 3** [ ][ ] **YEARS AGO . . . . . 4** [ ][ ]	
145 F	**CHECK 145E** **FIVE YEARS OR LESS** [ ] ▼	**MORE THAN FIVE YEARS** [ ]	→**146**

145 G	Why did you visit the gynecologist?	ROUTINE VISITS ROUTINE EXAMINATION . . . . A FAMILY PLANNING . . . . . B PRENATAL CARE . . . . . C POSTNATAL CARE . . . . . D DELIVERY . . . . . E OTHER ROUTINE _____ F (SPECIFY) MEDICAL PROBLEMS GENITAL DISCHARGES . . . . G GENITAL SORES/ULCERS . . . H GENITAL WARTS . . . . . I OPERATIONS . . . . . J STERILITY . . . . . K OTHER PROBLEM _____ L (SPECIFY) OTHER _____ X (SPECIFY) DOESN'T REMEMBER . . . . . Z	
146	Have you heard of illness called tuberculosis?	YES . . . . . 1 NO 2	→201
147	Did you know that tuberculosis can be completely cured with proper medication?	YES . . . . . 1 NO 2	
148	Have you or anyone in your family ever had tuberculosis?	YES . . . . . 1 NO 2	
149	Other than your family, is there anyone with whom you have frequent contact (neighbors, colleagues, or close friends) who has ever had tuberculosis?	YES . . . . . 1 NO 2	

150	**What signs or symptoms would lead you think that a person has tuberculosis?**	**COUGHING . . . . . A** **COUGHING WITH SPUTUM . . . B** **COUGHING MORE THAN 3 WEEKS C** **FEVER . . . . . D** **BLOOD IN SPUTUM . . . . . E** **LOSS OF APPETITE . . . . . F** **NIGHTSWEATING . . . . . G** **PAIN IN CHEST . . . . . H** **TIREDNESS/FATIGUE . . . . . I** **WEIGHT LOSS . . . . . K** **LETHARGY . . . . . L** **OTHER _____ X** **(SPECIFY)** **DON'T KNOW . . . . . Z**	**152**
151	**What are the symptoms of tuberculosis which would convince you to seek medical assistance?**	**COUGHING . . . . . A** **COUGHING WITH SPUTUM . . . B** **COUGHING MORE THAN 3 WEEKS C** **FEVER . . . . . D** **BLOOD IN SPUTUM . . . . . E** **LOSS OF APPETITE . . . . . F** **NIGHTSWEATING . . . . . G** **PAIN IN CHEST . . . . . H** **TIREDNESS/FATIGUE . . . . . I** **WEIGHT LOSS . . . . . K** **LETHARGY . . . . . L** **OTHER _____ X** **(SPECIFY)** **DON'T KNOW . . . . . Z**	
152	When a person first discovers that he or she has tuberculosis, how should that person be treated initially: hospitalized, treated at home, or both?	HOSPITALIZED . . . . . 1 TREATED AT HOME . . . . . 2 INITIALLY HOSPITALIZED FOLLOWED BY HOME TREATMENT . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
153	How does tuberculosis spread from one person to another?	THROUGH THE AIR WHEN COUGHING . . . . . 1 OTHER_____ 6 (SPECIFY) DON'T KNOW 8	

154	Where would you go for help if you thought you or your child had tuberculosis?	PUBLIC SECTOR HOSPITAL . . . . . 11 POLYCLINIC . . . . . 12 REPUBLICAN ANTI-TB DISPENSARY . . . . . 13 YEREVAN CITY ANTI-TB DISPENSARY . . . . 14 FAP . . . . . 15 OTHER PUBLIC _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE. HOSPITAL/CLINIC . . . . . 21 PRIVATE. DOCTOR . . . . . 22 OTHER PRIVATE MEDICAL_____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
155	After a family member has completed the hospital treatment for tuberculosis, would you be willing to accept him or her into your home during further treatment?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/DEPENDS 8	

SECTION 2: REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about all the births you have had during your life. Have you ever given birth?	YES . . . . . 1 NO 2	 →206
202	Do you have any sons or daughters to whom you have given birth who are now living with you?	YES . . . . . 1 NO 2	 →204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME . . . . . [ ][ ] DAUGHTERS AT HOME . . . . . [ ][ ]	
204	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES . . . . . 1 NO 2	 →206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE . . . . . [ ][ ] DAUGHTERS ELSEWHERE . . [ ][ ]	
206	Have you ever given birth to a boy or girl who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but died soon after childbirth?	YES . . . . . 1 NO 2	 →208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
208	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL. IF NONE, RECORD '00'.	TOTAL . . . . . [ ][ ]	
209	CHECK 208: Just to make sure that I have this right: you have had in TOTAL _____ live births during your life. Is that correct? YES [ ] ↓ NO [ ] → PROBE AND CORRECT 201-208 AS NECESSARY.		

209A	In total how many induced abortions have you had?	TOTAL ABORTIONS	
209B	How many miscarriages?	TOTAL MISCARRIAGES	
209C	How many stillbirths?	TOTAL STILLBIRTHS	
209D	SUM ANSWERS TO 208, 209A, 209B,209C, AND ENTER TOTAL. IF NO PREGNANCIES, RECORD '00'	TOTAL	
209E	CHECK 209A, 209B, 209C: ONE OR MORE PREGNANCY TERMINATIONS ▼ IF ZERO PREGNANCY TERMINATIONS		→210
209F	How many of your pregnancies were terminated by a self-induced abortion? (This is an abortion which you performed yourself, without the help of a medical professional.)	SELF-INDUCED ABORTIONS .	
210	CHECK 209D: ONE OR MORE PREGNANCIES ▼ NO PREGNANCIES		→228

211 Now I want to talk to you about each of your pregnancies, including those which ended in a live birth, an induced abortion, a self-induced abortion, a miscarriage, and a stillbirth. Starting with your last pregnancy, please tell me the following information

212 When did your (last/next-to-last/etc.) pregnancy end? In what month and year?	213 Did this pregnancy end in a live birth, an induced abortion, a self-induced abortion, a miscarriage, or a stillbirth?	213A At the time this pregnancy ended, how long had you been pregnant?	214 WAS THERE ANY OTHER PREGNANCY BETWEEN THIS AND THE PREVIOUSLY MENTIONED PREGNANCY ?	215 CHECK 213: RECORD SAME RESPONSE	216 Was this a single or a multiple birth?	217 What name was given to this child?	218 Is (NAME) a boy or girl?	219 Is (NAME) still alive?	220 How old was (NAME) on his/her last birthday? RECORD AGE IN COMPLETED YEARS	221 Is (NAME) living with you?	222 RECORD HOUSEHOLD LINE NUMBER OF CHILD. RECORD '00' IF CHILD NOT LISTED IN HOUSEHOLD	222A In what month and year did (NAME) die?	223 How old was (NAME) when he/she died? If '1 YR.', PROBE: How many months old was (NAME)? RECORD DAYS IF LESS THAN 1 MONTH; MONTHS IF LESS THAN TWO YEARS.
01 MONTH . . . YEAR ..	LIVE BIRTH . . . . . 1 INDUCED ABORT . . 2 SELF-INDUC ABORT3 MISCARRIAGE . . . . 4 STILLBIRTH 5	WEEKS . . .		LIVE BIRTH . . . . . 1 ABORTION . . . . . 2 SELF-IND ABORT 3 MISCARRIAGE . . 4 STILLBIRTH . . . . 5 NEXT PREGNANCY	SING . . 1 MULT . 2	NAME	BOY . . . 1 GIRL . . . 2	YES . . . 1 NO . . . . 2 → 222A	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER → NEXT PREGNANCY	MONTH . . . . . . YEAR	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS . . . . . 3 → NEXT PREGNANCY
02 MONTH . . . YEAR ...	LIVE BIRTH . . . . . 1 INDUCED ABORT . . 2 SELF-INDUC ABORT3 MISCARRIAGE . . . . 4 STILLBIRTH 5	WEEKS . . .	YES . . . . . 1 NO 2	LIVE BIRTH . . . . . 1 ABORTION . . . . . 2 SELF-IND ABORT 3 MISCARRIAGE . . 4 STILLBIRTH . . . . 5 NEXT PREGNANCY	SING . . 1 MULT . . 2	NAME	BOY . . . 1 GIRL . . . 2	YES . . . 1 NO . . . . 2 → 222A	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER → NEXT PREGNANCY	MONTH . . . . . . YEAR	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS . . . . . 3 → NEXT PREGNANCY
03 MONTH . . . YEAR ...	LIVE BIRTH . . . . . 1 INDUCED ABORT . . 2 SELF-INDUC ABORT3 MISCARRIAGE . . . . 4 STILLBIRTH 5	WEEKS . . .	YES . . . . . 1 NO 2	LIVE BIRTH . . . . . 1 ABORTION . . . . . 2 SELF-IND ABORT 3 MISCARRIAGE . . 4 STILLBIRTH . . . . 5 NEXT PREGNANCY	SING . . 1 MULT . . 2	NAME	BOY . . . 1 GIRL . . . 2	YES . . . 1 NO . . . . 2 → 222A	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER → NEXT PREGNANCY	MONTH . . . . . . YEAR	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS . . . . . 3 → NEXT PREGNANCY

04 MONTH . . . YEAR . . .	LIVE BIRTH . . . . . 1 INDUCED ABORT . . 2 SELF-INDUC ABORT3 MISCARRIAGE . . . . 4 STILLBIRTH 5	WEEKS . . .	YES . . . . . 1 NO 2	LIVE BIRTH . . . . . 1 ABORTION . . . . . 2 SELF-IND ABORT 3 MISCARRIAGE . . 4 STILLBIRTH . . . . 5 NEXT PREGNANCY	SING . . 1 MULT . . 2	NAME	BOY . . . 1 GIRL . . . 2	YES . . . 1 NO 2 222A	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER NEXT PREGNANCY	MONTH . . . . . . YEAR	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS . . . . . 3 NEXT PREGNANCY
05 MONTH . . . YEAR . . .	LIVE BIRTH . . . . . 1 INDUCED ABORT . . 2 SELF-INDUC ABORT3 MISCARRIAGE . . . . 4 STILLBIRTH 5	WEEKS . . .	YES . . . . . 1 NO 2	LIVE BIRTH . . . . . 1 ABORTION . . . . . 2 SELF-IND ABORT 3 MISCARRIAGE . . 4 STILLBIRTH . . . . 5 NEXT PREGNANCY	SING . . 1 MULT . . 2	NAME	BOY . . . 1 GIRL . . . 2	YES . . . 1 NO 2 222A	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER NEXT PREGNANCY	MONTH . . . . . . YEAR	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS . . . . . 3 NEXT PREGNANCY
06 MONTH . . . YEAR . . .	LIVE BIRTH . . . . . 1 INDUCED ABORT . . 2 SELF-INDUC ABORT3 MISCARRIAGE . . . . 4 STILLBIRTH 5	WEEKS . . .	YES . . . . . 1 NO 2	LIVE BIRTH . . . . . 1 ABORTION . . . . . 2 SELF-IND ABORT 3 MISCARRIAGE . . 4 STILLBIRTH . . . . 5 NEXT PREGNANCY	SING . . 1 MULT . . 2	NAME	BOY . . . 1 GIRL . . . 2	YES . . . 1 NO 2 222A	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER NEXT PREGNANCY	MONTH . . . . . . YEAR	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS . . . . . 3 NEXT PREGNANCY
07 MONTH . . . YEAR . . .	LIVE BIRTH . . . . . 1 INDUCED ABORT . . 2 SELF-INDUC ABORT3 MISCARRIAGE . . . . 4 STILLBIRTH 5	WEEKS . . .	YES . . . . . 1 NO 2	LIVE BIRTH . . . . . 1 ABORTION . . . . . 2 SELF-IND ABORT 3 MISCARRIAGE . . 4 STILLBIRTH . . . . 5 NEXT PREGNANCY	SING . . 1 MULT . . 2	NAME	BOY . . . 1 GIRL . . . 2	YES . . . 1 NO 2 222A	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER NEXT PREGNANCY	MONTH . . . . . . YEAR	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS . . . . . 3 NEXT PREGNANCY

08 MONTH . . . YEAR . . .	LIVE BIRTH . . . . . 1 INDUCED ABORT . . 2 SELF-INDUC ABORT3 MISCARRIAGE . . . . 4 STILLBIRTH 5	WEEKS . . .	YES . . . . . 1 NO 2	LIVE BIRTH . . . . . 1 ABORTION . . . . . 2 SELF-IND ABORT 3 MISCARRIAGE . . 4 STILLBIRTH . . . . 5 NEXT PREGNANCY	SING . . 1 MULT . . 2	NAME	BOY . . . 1 GIRL . . . 2	YES . . . 1 NO 2 222A	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER NEXT PREGNANCY	MONTH . . . . . . YEAR	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS . . . . . 3 NEXT PREGNANCY
09 MONTH . . . YEAR . . .	LIVE BIRTH . . . . . 1 INDUCED ABORT . . 2 SELF-INDUC ABORT3 MISCARRIAGE . . . . 4 STILLBIRTH 5	WEEKS . . .	YES . . . . . 1 NO 2	LIVE BIRTH . . . . . 1 ABORTION . . . . . 2 SELF-IND ABORT 3 MISCARRIAGE . . 4 STILLBIRTH . . . . 5 NEXT PREGNANCY	SING . . 1 MULT . . 2	NAME	BOY . . . 1 GIRL . . . 2	YES . . . 1 NO 2 222A	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER NEXT PREGNANCY	MONTH . . . . . . YEAR	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS . . . . . 3 NEXT PREGNANCY
10 MONTH . . . YEAR . . .	LIVE BIRTH . . . . . 1 INDUCED ABORT . . 2 SELF-INDUC ABORT3 MISCARRIAGE . . . . 4 STILLBIRTH 5	WEEKS . . .	YES . . . . . 1 NO 2	LIVE BIRTH . . . . . 1 ABORTION . . . . . 2 SELF-IND ABORT 3 MISCARRIAGE . . 4 STILLBIRTH . . . . 5 NEXT PREGNANCY	SING . . 1 MULT . . 2	NAME	BOY . . . 1 GIRL . . . 2	YES . . . 1 NO 2 222A	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER NEXT PREGNANCY	MONTH . . . . . . YEAR	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS . . . . . 3 NEXT PREGNANCY
11 MONTH . . . YEAR . . .	LIVE BIRTH . . . . . 1 INDUCED ABORT . . 2 SELF-INDUC ABORT3 MISCARRIAGE . . . . 4 STILLBIRTH 5	WEEKS . . .	YES . . . . . 1 NO 2	LIVE BIRTH . . . . . 1 ABORTION . . . . . 2 SELF-IND ABORT 3 MISCARRIAGE . . 4 STILLBIRTH . . . . 5 NEXT PREGNANCY	SING . . 1 MULT . . 2	NAME	BOY . . . 1 GIRL . . . 2	YES . . . 1 NO 2 222A	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER NEXT PREGNANCY	MONTH . . . . . . YEAR	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS . . . . . 3 NEXT PREGNANCY

12 MONTH . . . YEAR . . .	LIVE BIRTH . . . . . 1 INDUCED ABORT . . 2 SELF-INDUC ABORT3 MISCARRIAGE . . . . 4 STILLBIRTH 5	WEEKS . . .	YES . . . . . 1 NO 2	LIVE BIRTH . . . . . 1 ABORTION . . . . . 2 SELF-IND ABORT 3 MISCARRIAGE . . 4 STILLBIRTH . . . . 5 NEXT PREGNANCY	SING . . 1 MULT . . 2	NAME	BOY . . . 1 GIRL . . . 2	YES . . . 1 NO 2 222A	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER NEXT PREGNANCY	MONTH . . . . . . YEAR	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS . . . . . 3 NEXT PREGNANCY
13 MONTH . . . YEAR . . .	LIVE BIRTH . . . . . 1 INDUCED ABORT . . 2 SELF-INDUC ABORT3 MISCARRIAGE . . . . 4 STILLBIRTH 5	WEEKS . . .	YES . . . . . 1 NO 2	LIVE BIRTH . . . . . 1 ABORTION . . . . . 2 SELF-IND ABORT 3 MISCARRIAGE . . 4 STILLBIRTH . . . . 5 NEXT PREGNANCY	SING . . 1 MULT . . 2	NAME	BOY . . . 1 GIRL . . . 2	YES . . . 1 NO 2 222A	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER NEXT PREGNANCY	MONTH . . . . . . YEAR	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS . . . . . 3 NEXT PREGNANCY
14 MONTH . . . YEAR . . .	LIVE BIRTH . . . . . 1 INDUCED ABORT . . 2 SELF-INDUC ABORT3 MISCARRIAGE . . . . 4 STILLBIRTH 5	WEEKS . . .	YES . . . . . 1 NO 2	LIVE BIRTH . . . . . 1 ABORTION . . . . . 2 SELF-IND ABORT 3 MISCARRIAGE . . 4 STILLBIRTH . . . . 5 NEXT PREGNANCY	SING . . 1 MULT . . 2	NAME	BOY . . . 1 GIRL . . . 2	YES . . . 1 NO 2 222A	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER NEXT PREGNANCY	MONTH . . . . . . YEAR	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS . . . . . 3 NEXT PREGNANCY
15 MONTH . . . YEAR . . .	LIVE BIRTH . . . . . 1 INDUCED ABORT . . 2 SELF-INDUC ABORT3 MISCARRIAGE . . . . 4 STILLBIRTH 5	WEEKS . . .	YES . . . . . 1 NO 2	LIVE BIRTH . . . . . 1 ABORTION . . . . . 2 SELF-IND ABORT 3 MISCARRIAGE . . 4 STILLBIRTH . . . . 5 NEXT PREGNANCY	SING . . 1 MULT . . 2	NAME	BOY . . . 1 GIRL . . . 2	YES . . . 1 NO 2 222A	AGE IN YEARS	YES . 1 NO . . 2	LINE NUMBER NEXT PREGNANCY	MONTH . . . . . . YEAR	DAYS . . . . . 1 MONTHS . . . . . 2 YEARS . . . . . 3 NEXT PREGNANCY

225	COMPARE 209D WITH NUMBER OF PREGNANCIES IN HISTORY ABOVE AND MARK: NUMBERS ARE SAME ☐ NUMBERS ARE DIFFERENT ☐ → (PROBE AND RECONCILE) CHECK: FOR EACH PREGNANCY: YEAR OF PREGNANCY ENDED IS RECORDED. ☐ FOR EACH LIVING CHILD: CURRENT AGE IS RECORDED. ☐ FOR EACH DEAD CHILD: AGE AT DEATH IS RECORDED. ☐ FOR AGE AT DEATH 12 MONTHS OR 1 YR.: PROBE TO DETERMINE EXACT NUMBER OF MONTHS. ☐
226	CHECK 212 AND 213, AND ENTER THE NUMBER OF PREGNANCIES IN JANUARY 1995 OR LATER. IF NONE, RECORD '0'. ☐
227	FOR EACH PREGNANCY THAT ENDED IN JANUARY 1995 OR LATER IN COLUMN 1 OF THE CALENDAR ENTER THE CODE OF THE PREGNANCY OUTCOME IN THE MONTH OF PREGNANCY ENDED: • **'B'** FOR LIVE BIRTHS, • **'S'** FOR STILLBIRTH , • **'M'** FOR MISCARRIAGE, • '**D**' FOR INDUCED ABORTION • '**R**' FOR SELF-INDUCED ABORTION THEN ASK THE NUMBER OF MONTHS THAT EACH PREGNANCY LASTED. RECORD **"P"** IN EACH OF THE PRECEDING MONTHS OF CALENDAR ACCORDING TO THE DURATION OF PREGNANCY. (NOTE: THE NUMBER OF 'P's MUST BE ONE LESS THAN THE NUMBER OF MONTHS THAT THE PREGNANCY LASTED.) FINALLY, FOR EACH BIRTH **WRITE THE NAME OF THE CHILD** TO THE LEFT OF THE 'B' CODE.. FOR EACH ABORTION ASK: WHERE ABORTION WAS PERFORMED AND IN COLUMN 5 ENTER THE CODE FOR THE FACILITY.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
228	Are you pregnant now?	YES . . . . . 1 NO . . . . . 2 UNSURE 8	▸231
229	How many months pregnant are you? RECORD NUMBER OF COMPLETED MONTHS. ENTER 'P's IN COLUMN 1 OF CALENDAR, BEGINNING WITH THE MONTH OF INTERVIEW AND FOR TOTAL NUMBER OF COMPLETED MONTHS.	MONTHS . . . . . [ ][ ]	
230	At the time you became pregnant did you want to become pregnant then, did you want to wait until later, or did you not want to have any (more) children at all?	THEN . . . . . 1 LATER . . . . . 2 NOT AT ALL 3	
231	When did your last menstrual period start? _____ (DATE, IF GIVEN)	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ] IN MENOPAUSE . . . . . 994 BEFORE LAST BIRTH . . . . . 995 NEVER MENSTRUATED 996	
232	From one menstrual period to the next, is there a time when a woman is more likely to become pregnant if she has sexual relations?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	▸301
233	Is this time just before her period begins, during her period, right after her period has ended, or half way between two periods?	JUST BEFORE HER PERIOD BEGINS . . . . . 1 DURING HER PERIOD . . . . . 2 RIGHT AFTER HER PERIOD HAS ENDED . . . . . 3 HALF WAY BETWEEN PERIODS . . . . . 4 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	

SECTION 3. CONTRACEPTION

Now I would like to talk about family planning - the various ways or methods that a couple can use to delay or avoid a pregnancy.
CIRCLE CODE 1 IN 301 FOR EACH METHOD MENTIONED SPONTANEOUSLY. THEN PROCEED DOWN COLUMN 301, READING THE NAME AND DESCRIPTION OF EACH METHOD NOT MENTIONED SPONTANEOUSLY. CIRCLE CODE 1 IF METHOD IS RECOGNIZED, AND CODE 2 IF NOT RECOGNIZED. THEN, FOR EACH METHOD WITH CODE 1 CIRCLED IN 301, ASK 302.

301	Which ways or methods have you heard about? FOR METHODS NOT MENTIONED SPONTANEOUSLY, ASK: Have you ever heard of (METHOD)?		302 Have you ever used (METHOD)?
01	Female Sterilization Women can have an operation to avoid becoming pregnant.	YES . . . . . 1 NO 2	Have you ever had an operation to avoid having any more children? YES . . . . . 1 NO 2
02	Male Sterilization Men can have an operation to avoid becoming pregnant.	YES . . . . . 1 NO 2	Have you ever had a partner who had an operation to avoid having children? YES . . . . . 1 NO 2
03	Pill Women can take a pill every day to avoid pregnancy.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
04	IUD Women can have a loop or coil placed inside them by a doctor or a nurse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
05	Injections Women can have an injection by a doctor or nurse which stops them from becoming pregnant for several months.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
06	Implants Women can have several small rods placed under the skin in their upper arm by a doctor or nurse which can prevent pregnancy for several years.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
07	Condom Men can put a rubber sheath on their penis before sexual intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
08	Female Condom Women can place a rubber sheath in their vagina before intercourse	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
09	Diaphragm Women can place a rubber cap in their vagina before intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2

10	Foam/Jelly/Cream Women can place a suppository, jelly or cream in their vagina before intercourse.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
11	Lactational Amenorrhea Method (LAM) Women can use a specially taught method of pregnancy avoidance to delay the return of the menstrual period by feeding their child nothing but breast milk for up to six months after a birth.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
12	Calendar Method or Periodic Abstinence Every month that a woman is sexually active she can avoid having sexual intercourse on the days of the month she is most likely to get pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
13	Withdrawal Men can be careful and pull out before climax.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
14	Emergency Contraception Women can take pills the day after sexual intercourse to avoid becoming pregnant.	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
15	Have you heard of any other ways or methods that women or men can use to avoid pregnancy?	YES . . . . . 1 _____ (SPECIFY) _____ (SPECIFY) NO 2	YES . . . . . 1 NO . . . . . 2 YES . . . . . 1 NO 2

303	CHECK 302: NOT A SINGLE "YES"(NEVER USED)	AT LEAST ONE "YES" (EVER USED)	▸307
304	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES . . . . . 1 NO 2	▸306
305	ENTER '0' IN COLUMN 1 OF CALENDAR IN EACH BLANK MONTH.		▸327
306	What have you used or done? CORRECT 302 AND 303 (AND 301 IF NECESSARY).		

307	Now I would like to ask you about the first time that you did something or used a method to avoid getting pregnant. How many living children did you have at that time, if any? IF NONE, RECORD '00'.	NUMBER OF CHILDREN ..... [ ][ ]	
308	CHECK 302 (01): WOMAN STERILIZED [ ] ▼	WOMAN NOT STERILIZED [ ] ----------	▸309
308A	Was the sterilization done with the purpose of medical indications or family planning ?	MEDICAL INDICATIONS ..... 1 FAMILY PLANNING ..... 2 DON`T KNOW 8	▸311A
309	CHECK 228: NOT PREGNANT OR UNSURE [ ] ▼	PREGNANT [ ]	▸319
310	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES ..... 1 NO 2	 ▸319
311

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
312	May I see the package of pills you are now using? RECORD NAME OF BRAND IF PACKAGE IS SEEN	PACKAGE SEEN . . . . . 1 BRAND NAME _____ [ ][ ] PACKAGE NOT SEEN 2	→312B
312A	Do you know the brand name of the pills you are now using? RECORD NAME OF BRAND.	BRAND NAME _____ [ ][ ] DON''T KNOW 98	
312B	How much does one packet of pills cost you?	COST IN DRAMS . . . . . [ ][ ][ ][ ] FREE . . . . . 9996 DON''T KNOW 9998	→318
312C	May I see the package of condoms you are now using? RECORD NAME OF BRAND IF PACKAGE IS SEEN	PACKAGE SEEN . . . . . 1 BRAND NAME _____ [ ][ ] PACKAGE NOT SEEN 2	→312E
312D	Do you know the brand name of the condoms you are now using? RECORD NAME OF BRAND.	BRAND NAME _____ [ ][ ] DON''T KNOW 98	
312E	How much does one packet of condoms cost you?	COST IN DRAMS . . . . . [ ][ ][ ][ ] FREE . . . . . 9996 DON''T KNOW 9998	→318

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
313	Where did the sterilization take place? IF SOURCE IS HOSPITAL OR POLYCLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR HOSPITAL/DELIVERY HOUSE ..... 11 POLYCLINIC ..... 12 WOMEN'S CONSULTATION CLINIC ..... 14 OTHER PUBLIC _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRV. HOSPITAL/CLINIC ..... 21 PRV. DOCTOR ..... 23 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
314	Before the sterilization operation, were (you/your husband/your partner) told that you would not be able to have any (more) children?	YES ..... 1 NO 2	
316	In what month and year was the sterilization performed?	MONTH ..... [ ][ ] YEAR ..... [ ][ ][ ][ ]	
317	CHECK 316: STERILIZED BEFORE JANUARY 1995 ENTER CODE FOR STERILIZATION IN MONTH OF INTERVIEW IN COLUMN 1 OF THE CALENDAR AND EACH MONTH BACK TO JANUARY 1995 THEN SKIP TO ——→320	STERILIZED IN JANUARY 1995 OR LATER ENTER CODE FOR STERILIZATION IN MONTH OF INTERVIEW IN COLUMN 1 OF THE CALENDAR AND IN EACH MONTH BACK TO THE DATE OF THE OPERATION. ENTER METHOD SOURCE CODE IN COLUMN 2 OF CALENDAR IN MONTH OF DATE OF OPERATION. THEN SKIP TO ——→319	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
318	ENTER CONTRACEPTIVE METHOD CODE FROM 311 IN CURRENT MONTH IN COLUMN 1 OF CALENDAR. THEN DETERMINE WHEN SHE STARTED USING METHOD THIS TIME. ENTER METHOD CODE IN EACH MONTH OF USE. IF CURRENT METHOD STARTED IN JANUARY 1995 OR LATER, ENTER METHOD SOURCE CODE IN COLUMN 2 OF CALENDAR IN THE SAME MONTH THAT USE OF CURRENT METHOD BEGAN. ILLUSTRATIVE QUESTIONS: • When did you start using this method continuously? • How long have you been using this method continuously? • When you started using this method, where did you obtain it?		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
319	I would like to ask you some questions about the times you or your partner may have used a contraceptive method to avoid getting pregnant during the last few years. USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE, STARTING WITH MOST RECENT USE, BACK TO JANUARY 1995. USE NAMES OF CHILDREN, DATES OF BIRTH, AND PERIODS OF PREGNANCY AS REFERENCE POINTS. **IN COLUMN 1**, ENTER METHOD USE CODE OR '0' FOR NONUSE IN EACH BLANK MONTH. ILLUSTRATIVE QUESTIONS: COLUMN 1: • When was the last time you used a contraceptive method? Which method was that? • When did you start using that method? How long after the birth of (NAME)? • How long did you use the method then? **IN COLUMN 2**, ENTER METHOD SOURCE CODE IN FIRST MONTH OF EACH USE. ILLUSTRATIVE QUESTIONS: COLUMN 2: • Where did you obtain the method when you started using it? • Where did you get advice on how to use the method [for LAM, rhythm, or withdrawal]? **IN COLUMN 3**, ENTER CODES FOR DISCONTINUATION NEXT TO LAST MONTH OF USE. NUMBER OF CODES IN COLUMN 3 MUST BE SAME AS NUMBER OF INTERRUPTIONS OF METHOD USE IN COLUMN 1. ASK WHY SHE STOPPED USING THE METHOD. IF A PREGNANCY FOLLOWED, ASK WHETHER SHE BECAME PREGNANT UNINTENTIONALLY WHILE USING THE METHOD OR DELIBERATELY STOPPED TO GET PREGNANT. ILLUSTRATIVE QUESTIONS: COLUMN 3: • Why did you stop using the (METHOD)? • Did you become pregnant while using (METHOD), or did you stop to get pregnant, or did you stop for some other reason? IF DELIBERATELY STOPPED TO BECOME PREGNANT, ASK: • How many months did it take you to get pregnant after you stopped using (METHOD)? AND ENTER '0' IN EACH SUCH MONTH IN COLUMN 1.		

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
320	CHECK 311/311A: CIRCLE METHOD CODE:	NOT ASKED . . . . . 00 FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTIONS . . . . . 05 IMPLANTS . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY/CREAM/SUPPOSITORY . . . . . 10 LACTATIONAL AMEN. METHOD . . . . . 11 CALENDAR METHOD/PERIODIC ABSTINENCE . . . . . 12 WITHDRAWAL . . . . . 13 OTHER METHOD 96	▸327 ▸325 ▸325 ▸324 ▸324 ▸324 ▸324 ▸325 ▸325 ▸325
321	CHECK COLUMN 1 OF CALENDAR FOR LENGTH OF USE OF CURRENT METHOD: STARTED USING AFTER JANUARY 1995 ☐ ▼	STARTED USING IN JANUARY 1995 OR BEFORE ☐	▸325
322	You first obtained (CURRENT METHOD) from (SOURCE OF METHOD FROM CALENDAR) on (DATE). At that time, were you told about side effects or problems you might have with the method?	YES . . . . . 1 NO 2	 ▸324
323	Were you told what to do if you experienced side effects?	YES . . . . . 1 NO 2	
324	When you were given the (CURRENT METHOD), were you told about other methods of family planning which you could use?	YES . . . . . 1 NO 2	
325	CHECK 311/311A: CIRCLE METHOD CODE:	NOT ASKED . . . . . 00 FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTIONS . . . . . 05 IMPLANTS . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY/CREAM/SUPPOSITORY . . . . . 10 LACTATIONAL AMEN. METHOD . . . . . 11 CALENDAR METHOD/ PERIODIC ABSTINENCE . . . . . 12 WITHDRAWAL . . . . . 13 OTHER METHOD 96	▸327 ▸401 ▸401 ▸329 ▸329 ▸329 ▸329

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
326	Where did you obtain (CURRENT METHOD) the last time? IF SOURCE IS HOSPITAL, POLYCLINIC, FGP, OR WOMEN`S CONSULTING CENTER, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR HOSPITAL/DELIVERY HOUSE ..... 11 POLYCLINIC ..... 12 FGP ..... 13 WOMEN`S CONSULTING CENTER ..... 14 PHARMACY ..... 15 OTHER PUBLIC _____16 (SPECIFY) PRIVATE MEDICAL SECTOR PRV. HOSPITAL/CLINIC ..... 21 PHARMACY ..... 22 PRV. DOCTOR ..... 23 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER _____96 (SPECIFY) DON'T KNOW 98	→329
327	Do you know of a place where you can obtain a method of family planning?	YES ..... 1 NO 2	→329
328	Where is that? IF SOURCE IS HOSPITAL, POLYCLINIC, FGP, OR WOMEN`S CONSULTING CENTER, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR HOSPITAL/DELIVERY HOUSE ..... 11 POLYCLINIC ..... 12 FGP ..... 13 WOMEN`S CONSULTING CENTER ..... 14 PHARMACY ..... 15 OTHER PUBLIC _____16 (SPECIFY) PRIVATE MEDICAL SECTOR PRV. HOSPITAL/CLINIC ..... 21 PHARMACY ..... 22 PRV. DOCTOR ..... 23 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER _____96 (SPECIFY) DON'T KNOW 98	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
329	In the last 12 months, were you visited by a field worker who talked to you about family planning?	YES . . . . . 1 NO 2	
330	In the last 12 months, have you attended a health facility for care for yourself (or your children)?	YES . . . . . 1 NO 2	►333
331	Did any staff member at the health facility speak to you about family planning methods?	YES . . . . . 1 NO 2	
333	CHECK 301 '1' CIRCLED IN AT LEAST ONE ROW CODE '2' CIRCLED IN ALL ROWS		►346
334	In your opinion, are some methods of contraception more reliable than other methods?	YES . . . . . 1 NO 2	►336
335	In your opinion, which method of contraception is the most reliable?	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B PILL . . . . . C IUD . . . . . D INJECTIONS . . . . . E IMPLANTS . . . . . F CONDOM . . . . . G FEMALE CONDOM . . . . . H DIAPHRAGM . . . . . I FOAM/JELLY/CREAM/SUPPOSITORY . . . . . J LACT. AMEN. METHOD . . . . . K CALENDAR METHOD/ PERIODIC ABSTINENCE . . . . . L WITHDRAWAL . . . . . M OTHER _____ X (SPECIFY)	
336	In your opinion, are some methods of contraception safer for health than other methods?	YES . . . . . 1 NO 2	►346

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
337	In your opinion, which method of contraception is the safest for health?	FEMALE STERILIZATION . . . . . A MALE STERILIZATION . . . . . B PILL . . . . . C IUD . . . . . D INJECTIONS . . . . . E IMPLANTS . . . . . F CONDOM . . . . . G FEMALE CONDOM . . . . . H DIAPHRAGM . . . . . I FOAM/JELLY/CREAM/SUPPOSITORY . . . . . J LACT. AMEN. METHOD . . . . . K CALENDAR METHOD/ PERIODIC ABSTINENCE . . . . . L WITHDRAWAL . . . . . M OTHER _____ X (SPECIFY)	
346	Now let`s talk about induced abortion, which as you know is one of the methods of controlling fertility.		
	If a woman decided to have an abortion, how easy would it be for her to get one ? Would it be easy or difficult?	DIFFICULT . . . . . 1 EASY . . . . . 2 DON`T KNOW 8	→348
347	What would be the main difficulty ?	_____ _____ _____ _____	
348	Do you think that there are health problems or side effects with induced abortions which would prevent you from having an abortion?	YES . . . . . 1 NO . . . . . 2 DON`T KNOW 8	
349	Is there any monetary cost to having an abortion that would be a problem?	YES . . . . . 1 NO . . . . . 2 DON`T KNOW 8	
350	Do you approve or disapprove of a woman having an abortion ?	APPROVE . . . . . 1 DISAPPROVE . . . . . 2 DEPENDS ON SITUATION . . . . . 3 DON`T KNOW 8	
351	Would you have an abortion if you unintentionally become pregnant sometime in the future ?	YES . . . . . 1 NO . . . . . 2 DON`T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
352	Would you prefer to use a contraceptive method in the future or rely on abortion, or do neither ?	PREFER TO USE A METHOD . . . . . 1 RELY ON ABORTION . . . . . 2 PREFER TO DO NEITHER . . . . . 3 DON`T KNOW 8	

SECTION 4: PLANNING STATUS OF PREGNANCIES

401	CHECK 226: ONE OR MORE PREGNANCIES IN JAN. 1995 OR LATER ☐ ▼		NO PREGNANCY IN JAN. 1995 OR LATER ☐ _____	→487
402	ENTER THE LINE NUMBER OF EACH PREGNANCY SINCE JANUARY 1995 IN THE TABLE. ASK THE QUESTIONS ABOUT ALL OF THESE PREGNANCIES. BEGIN WITH THE LAST PREGNANCY. Now I would like to ask you some questions about the pregnancies you have had in the last five years. (We will talk about each separately)			
403	LINE NUMBER FROM 212	LAST PREGNANCY LINE NUMBER ..... ☐☐	NEXT--TO-LAST PREGNANCY LINE NUMBER ..... ☐☐	NEXT-TO-NEXT-TO-LASTPREGNANCY LINE NUMBER ..... ☐☐
403A	FROM 213 AND 217 OUTCOME OF PREGNANCY OR THE NAME OF THE CHILD	OUTCOME OR NAME _____	OUTCOME OR NAME _____	OUTCOME OR NAME _____
404	At the time you became pregnant with (NAME), did you want to become pregnant then, did you want to wait until later, or did you want no (more) children at all?	THEN ..... 1 (SKIP TO NEXT COLUMN; IF NO MORE PREGNANCIES SKIP TO406A) LATER ..... 2 NO MORE ..... 3 (SKIP TO NEXT COLUMN; IF NO MORE PREGNANCIES SKIP TO406A)	THEN ..... 1 (SKIP TO NEXT COLUMN; IF NO MORE PREGNANCIES SKIP TO406A) LATER ..... 2 NO MORE ..... 3 (SKIP TO NEXT COLUMN; IF NO MORE PREGNANCIES SKIP TO406A)	THEN ..... 1 (SKIP TO NEXT COLUMN; IF NO MORE PREGNANCIES SKIP TO406A) LATER ..... 2 NO MORE ..... 3 (SKIP TO NEXT COLUMN; IF NO MORE PREGNANCIES SKIP TO406A)
404A	How much longer would you like to have waited?	MONTHS ..... 1 ☐☐ YEARS ..... 2 ☐☐ DON'T KNOW 998	MONTHS ..... 1 ☐☐ YEARS ..... 2 ☐☐ DON'T KNOW 998	MONTHS ..... 1 ☐☐ YEARS ..... 2 ☐☐ DON'T KNOW 998
405	At the time you became pregnant, were you using a method of contracpetion? IF YES: Which method? AFTER RECORDING THE RESPONSE, COMPARE TO CALENDAR. IF INCONSISTENT, PROBE AND RECONCILE	YES ..... 1 NO ..... 2 _____ ☐☐	YES ..... 1 NO ..... 2 _____ ☐☐	YES ..... 1 NO ..... 2 _____ ☐☐
405A		GO BACK TO 403 IN NEXT COLUMN; OR, IF NO MORE PREGNANCIES, GO TO 406A.	GO BACK TO 403 IN NEXT COLUMN; OR, IF NO MORE PREGNANCIES, GO TO 406A.	GO BACK TO 403 IN NEXT COLUMN; OR, IF NO MORE PREGNANCIES, GO TO 406A.

SECTION 4A. PREGNANCY, POSTNATAL CARE AND BREASTFEEDING

406A	CHECK 226:		
	ONE OR MORE BIRTHS IN JAN. 1995 OR LATER ☐	NO BIRTHS IN JAN. 1995 OR LATER ☐	→487
406B	ENTER THE LINE NUMBER, NAME, AND SURVIVAL STATUS OF EACH BIRTH SINCE JANUARY 1995 IN THE TABLE. ASK THE QUESTIONS ABOUT ALL OF THESE BIRTHS. BEGIN WITH THE LAST BIRTH. Now I would like to ask you some questions about the health of all your children born in the last five years. (We will talk about each separately)		

		LAST BIRTH	NEXT--TO-LAST BIRTH	NEXT-TO-NEXT-TO-LAST BIRTH
406C	LINE NUMBER FROM 212	LINE NUMBER ..... ☐☐	LINE NUMBER ..... ☐☐	LINE NUMBER ..... ☐☐
406D	FROM 217 AND 219	NAME_____ ALIVE ☐ DEAD ☐	NAME _____ ALIVE ☐ DEAD ☐	NAME _____ ALIVE ☐ DEAD ☐
407	Did you see anyone for antenatal care for this pregnancy? IF YES: Whom did you see? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS SEEN.	HEALTH PROFESSIONAL DOCTOR ..... A NURSE/MIDWIFE ..... C OTHER PERSON TRADITIONAL BIRTH ATTENDANT ..... D OTHER _____ X (SPECIFY) NO ONE ..... Y (SKIP TO 416)		
408	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS ..... ☐☐ DON'T KNOW 98		
409	How many times did you receive antenatal care during this pregnancy?	NO. OF TIMES ..... ☐☐ DON'T KNOW 98		

		LAST BIRTH NAME_____	NEXT-TO-LAST BIRTH NAME _____	NEXT-TO-NEXT-TO-LAST BIRTH NAME _____
410	CHECK 409: NUMBER OF TIMES RECEIVED ANTENATAL CARE	ONCE ☐ (SKIP TO 412) MORE THAN ONCE OR DON'T KNOW ☐		
411	How many months pregnant were you the last time you received antenatal care?	MONTHS ..... ☐☐ DON'T KNOW 98		
412	During this pregnancy, were any of the following done at least once?	YES NO WEIGHT ..... 1 2 HEIGHT ..... 1 2 BLOOD PRESSURE ..... 1 2 VAGINAL EXAM ..... 1 2 URINE SAMPLE ..... 1 2 BLOOD SAMPLE ..... 1 2 (SKIP TO 413)		
412A	Do you know why the blood sample was taken?	GENERAL ..... A SYPHILIS ..... B AIDS ..... C OTHER _____ X (SPECIFY) DON'T KNOW ..... Z		
413	Were you told about the signs of pregnancy complications?	YES ..... 1 NO ..... 2 (SKIP TO 416) DON'T KNOW 8		

		LAST BIRTH NAME_____	NEXT-TO-LAST BIRTH NAME _____	NEXT-TO-NEXT-TO-LAST BIRTH NAME _____
413A	Were you told about the following complications: High blood pressure? Fever? Haemorrhage? Swelling?	YES NO HIGH BLOOD PRESSURE . . . 1 2 FEVER . . . . . 1 2 HAEMORRHAGE . . . . . 1 2 SWELLING 1 2		
414	Were you told where to go if you had these complications?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
416	During this pregnancy, were you given or did you buy any iron tablets? SHOW TABLET.	YES . . . . . 1 NO . . . . . 2 (SKIP TO 418) DON'T KNOW 8		
417	During the whole pregnancy, for how many days did you take the tablets?	NUMBER OF DAYS . . . . . [ ][ ][ ] DON'T KNOW 998		
418	During this pregnancy, did you ever smoke cigarettes?	YES . . . . . 1 NO 2		
419	During this pregnancy, did you have difficulty with your vision during the daylight?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
420	During this pregnancy, did you suffer from night blindness?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8		
422	When (NAME) was born, was he/she: very large, larger than average, average, smaller than average, or very small?	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8	VERY LARGE . . . . . 1 LARGER THAN AVERAGE . . . . . 2 AVERAGE . . . . . 3 SMALLER THAN AVERAGE . . . . . 4 VERY SMALL . . . . . 5 DON'T KNOW 8

		LAST BIRTH NAME_____	NEXT-TO-LAST BIRTH NAME _____	NEXT-TO-NEXT-TO-LAST BIRTH NAME _____
423	Was (NAME) weighed at birth?	YES ..... 1 NO ..... 2 (SKIP TO 425) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 425) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 425) DON'T KNOW 8
424	How much did (NAME) weigh? RECORD WEIGHT FROM HEALTH CARD, IF AVAILABLE.	GRAMS FROM CARD ..... 1 [ ][ ][ ][ ] GRAMS FROM RECALL ..... 2 [ ][ ][ ][ ] DON'T KNOW 99998	GRAMS FROM CARD ..... 1 [ ][ ][ ][ ] GRAMS FROM RECALL ..... 2 [ ][ ][ ][ ] DON'T KNOW 99998	GRAMS FROM CARD ..... 1 [ ][ ][ ][ ] GRAMS FROM RECALL ..... 2 [ ][ ][ ][ ] DON'T KNOW 99998
425	Who assisted with the delivery of (NAME)? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS ASSISTING.	HEALTH PROFESSIONAL DOCTOR ..... A NURSE/MIDWIFE ..... C OTHER PERSON TRADITIONAL BIRTH ATTENDANT ..... D RELATIVE/FRIEND ..... E OTHER _____ X (SPECIFY) NO ONE ..... Y	HEALTH PROFESSIONAL DOCTOR ..... A NURSE/MIDWIFE ..... C OTHER PERSON TRADITIONAL BIRTH ATTENDANT ..... D RELATIVE/FRIEND ..... E OTHER _____ X (SPECIFY) NO ONE ..... Y	HEALTH PROFESSIONAL DOCTOR ..... A NURSE/MIDWIFE ..... C OTHER PERSON TRADITIONAL BIRTH ATTENDANT ..... D RELATIVE/FRIEND ..... E OTHER _____ X (SPECIFY) NO ONE ..... Y

		LAST BIRTH NAME_____	NEXT-TO-LAST BIRTH NAME _____	NEXT-TO-NEXT-TO-LAST BIRTH NAME _____
426	Where did you give birth to (NAME)?	HOME YOUR HOME ..... 11 (SKIP TO 427A) OTHER HOME ..... 12 PUBLIC SECTOR HOSPITAL ..... 21 DELIVERY HOSPITAL ..... 22 FAP ..... 23 OTHER PUBLIC _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC ..... 31 OTHER PVT. MEDICAL _____ 36 (SPECIFY) OTHER _____ 96 (SPECIFY) (SKIP TO 428)	HOME YOUR HOME ..... 11 (SKIP TO 427A) OTHER HOME ..... 12 PUBLIC SECTOR HOSPITAL ..... 21 DELIVERY HOSPITAL ..... 22 FAP ..... 23 OTHER PUBLIC _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC ..... 31 OTHER PVT. MEDICAL _____ 36 (SPECIFY) OTHER_____ 96 (SPECIFY) (SKIP TO 428)	HOME YOUR HOME ..... 11 (SKIP TO 427A) OTHER HOME ..... 12 PUBLIC SECTOR HOSPITAL ..... 21 DELIVERY HOSPITAL ..... 22 FAP ..... 23 OTHER PUBLIC _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC ..... 31 OTHER PVT. MEDICAL _____ 36 (SPECIFY) OTHER_____ 96 (SPECIFY) (SKIP TO 428)
426A	When you delivered (NAME) how many nights did you stay in the hospital?	NIGHTS ..... [ ][ ]	NIGHTS ..... [ ][ ]	NIGHTS ..... [ ][ ]
427	Was (NAME) delivered by caesarian section?	YES ..... 1 (SKIP TO 432C) NO 2	YES ..... 1 (SKIP TO 434) NO 2	YES ..... 1 (SKIP TO 434) NO 2
427A	Why did you give birth to (NAME) at home?	SUDDEN BIRTH ..... A FINANCIAL PROBLEMS ..... B TRANSPORTATION PROBLEMS ..... C FAMILY PROBLEMS ..... D OTHER_____ X (SPECIFY)	SUDDEN BIRTH ..... A FINANCIAL PROBLEMS ..... B TRANSPORTATION PROBLEMS ..... C FAMILY PROBLEMS ..... D OTHER_____ X (SPECIFY)	SUDDEN BIRTH ..... A FINANCIAL PROBLEMS ..... B TRANSPORTATION PROBLEMS ..... C FAMILY PROBLEMS ..... D OTHER_____X (SPECIFY)

		LAST BIRTH NAME_____	NEXT-TO-LAST BIRTH NAME _____	NEXT-TO-NEXT-TO-LAST BIRTH NAME _____
428	After (NAME) was born, did a health professional or a traditional birth attendant check on your health?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 432)	YES . . . . . 1 (SKIP TO 434) NO 2	YES . . . . . 1 (SKIP TO 434) NO 2
429	How many days or weeks after the delivery did the first check take place? RECORD '00' DAYS IF SAME DAY.	DAYS AFTER DELIVERY . . . . . 1 [ ][ ] WEEKS AFTER DELIVERY . . . . . 2 [ ][ ] DON'T KNOW 998		
430	Who checked on your health at that time? Anyone else?	HEALTH PROFESSIONAL DOCTOR . . . . . A NURSE/MIDWIFE . . . . . C OTHER PERSON TRADITIONAL BIRTH ATTENDANT . . . . . D OTHER_____ X (SPECIFY)		

		LAST BIRTH NAME_____	NEXT-TO-LAST BIRTH NAME _____	NEXT-TO-NEXT-TO-LAST BIRTH NAME _____
431	Where did this first check take place?	HOME YOUR HOME . . . . . 11 OTHER HOME . . . . . 12 PUBLIC SECTOR HOSPITAL/DELIVERY HOSPITAL . . . . . 21 POLYCLINIC . . . . . 22 FGP . . . . . 23 WOMEN`S CONSULTING CENTER . . . . . 24 FAP . . . . . 25 OTHER PUBLIC _____ 26 (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . 31 OTHER PVT. MEDICAL _____ 36 (SPECIFY) OTHER_____ 96 (SPECIFY)		
432	Has (NAME'S) birth been registered?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 432B) DON'T KNOW . . . . . 8 (SKIP TO 432C)		
432A	How much time passed between the birth of (NAME) and the registration?	DAYS . . . . . 1 [ ][ ] →432C MONTHS . . . . . 2 [ ][ ] →432C YEARS . . . . . 3 [ ][ ] →432C		

		LAST BIRTH NAME_____	NEXT-TO-LAST BIRTH NAME _____	NEXT-TO-NEXT-TO-LAST BIRTH NAME _____
432B	Why is (NAME'S) birth not registered?	COSTS TOO MUCH . . . . . A MUST TRAVEL TOO FAR . . . . . B DIDN'T KNOW IT SHOULD BE REGISTERED . C DOESN'T KNOW HOW TO REGISTER . . . . . D DOESN'T KNOW WHERE TO REGISTER . . . . E OTHER_____ X (SPECIFY)		
432C	For the first 40 days of (NAME'S) life, was he/she ever in the same room as someone who smoked?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 433)		
432D	Approximately how many hours per day was (NAME) in the same room as someone who smoked?	HOURS . . . . . [ ][ ]		
433	Has your period returned since the birth of (NAME)?	YES . . . . . 1 (SKIP TO 435) NO . . . . . 2 (SKIP TO 436)		
434	Did your period return between the birth of (NAME) and your next pregnancy?		YES . . . . . 1 NO . . . . . 2 (SKIP TO 438)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 438)
435	For how many months after the birth of (NAME) did you not have a period?	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98
436	CHECK 228: RESPONDENT PREGNANT?	NOT PREG-NANT [ ] PREGNANT OR UNSURE [ ] (SKIP TO 438)		
437	Have you resumed sexual relations since the birth of (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 439)		
438	For how many months after the birth of (NAME) did you not have sexual relations?	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98	MONTHS . . . . . [ ][ ] DON'T KNOW 98

		LAST BIRTH NAME_____	NEXT-TO-LAST BIRTH NAME _____	NEXT-TO-NEXT-TO-LAST BIRTH NAME _____
439	Did you ever breastfeed (NAME)?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 444)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 444)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 444)
440	How long after birth did you first put (NAME) to the breast? IF LESS THAN 1 HOUR, RECORD '00' HOURS. IF LESS THAN 24 HOURS, RECORD HOURS. OTHERWISE, RECORD DAYS.	IMMEDIATELY . . . . . 000 HOURS . . . . . 1 [ ][ ] DAYS . . . . . 2 [ ][ ]	IMMEDIATELY . . . . . 000 HOURS . . . . . 1 [ ][ ] DAYS . . . . . 2 [ ][ ]	IMMEDIATELY . . . . . 000 HOURS . . . . . 1 [ ][ ] DAYS . . . . . 2 [ ][ ]

440A	In the first three days after delivery, before your milk began flowing regularly, was (NAME) given anything to drink other than breast milk?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 441)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 441)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 441)
440B	What was (NAME) given to drink before your milk began flowing regularly? Anything else? RECORD ALL LIQUIDS MENTIONED.	MILK (OTHER THAN BREAST MILK) . . . . . A PLAIN WATER . . . . . B SUGAR OR GLUCOSE WATER . . . . . C GRIPE WATER . . . . . D SUGAR-SALT-WATER SOLUTION . . . . . E FRUIT JUICE . . . . . F INFANT FORMULA . . . . . G TEA/INFUSIONS . . . . . H HONEY . . . . . I OTHER X (SPECIFY)	MILK (OTHER THAN BREAST MILK) . . . . . A PLAIN WATER . . . . . B SUGAR OR GLUCOSE WATER . . . . . C GRIPE WATER . . . . . D SUGAR-SALT-WATER SOLUTION . . . . . E FRUIT JUICE . . . . . F INFANT FORMULA . . . . . G TEA/INFUSIONS . . . . . H HONEY . . . . . I OTHER X (SPECIFY)	MILK (OTHER THAN BREAST MILK) . . . . . A PLAIN WATER . . . . . B SUGAR OR GLUCOSE WATER . . . . . C GRIPE WATER . . . . . D SUGAR-SALT-WATER SOLUTION . . . . . E FRUIT JUICE . . . . . F INFANT FORMULA . . . . . G TEA/INFUSIONS . . . . . H HONEY . . . . . I OTHER X (SPECIFY)
441	CHECK 406D: CHILD ALIVE?	ALIVE ☐ DEAD ☐ (SKIP TO 443)	ALIVE ☐ DEAD ☐ (SKIP TO 443)	ALIVE ☐ DEAD ☐ (SKIP TO 443)
442	Are you still breastfeeding (NAME)?	YES . . . . . 1 (SKIP TO 445) NO 2	YES . . . . . 1 (SKIP TO 445) NO 2	YES . . . . . 1 (SKIP TO 445) NO 2
443	For how many months did you breastfeed (NAME)?	MONTHS . . . . . ☐☐ DON'T KNOW 98	MONTHS . . . . . ☐☐ DON'T KNOW 98	MONTHS . . . . . ☐☐ DON'T KNOW 98
444	CHECK 406D: CHILD ALIVE?	ALIVE ☐ (SKIP TO 447) DEAD ☐ (GO BACK TO 406C IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 451)	ALIVE ☐ (SKIP TO 447) DEAD ☐ (GO BACK TO 406C IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 451)	ALIVE ☐ (SKIP TO 447) DEAD ☐ (GO BACK TO 406C IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 451)
445	How many times did you breastfeed last night between sunset and sunrise? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF NIGHTTIME FEEDINGS . . . . . ☐☐	NUMBER OF NIGHTTIME FEEDINGS . . . . . ☐☐	NUMBER OF NIGHTTIME FEEDINGS . . . . . ☐☐

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	NEXT-TO-NEXT-TO-LAST BIRTH NAME_____
446	How many times did you breastfeed yesterday during the daylight hours? IF ANSWER IS NOT NUMERIC, PROBE FOR APPROXIMATE NUMBER.	NUMBER OF DAYLIGHT FEEDINGS . . . . . [ ][ ]	NUMBER OF DAYLIGHT FEEDINGS . . . . . [ ][ ]	NUMBER OF DAYLIGHT FEEDINGS . . . . . [ ][ ]
447	Did (NAME) drink anything from a bottle with a nipple yesterday or last night?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8

		LAST BIRTH NAME _____		NEXT-TO-LAST BIRTH NAME _____		NEXT-TO-NEXT-TO-LAST BIRTH NAME_____	
448	Now I would like to ask you about the types of foods [NAME] has been fed over the last seven days, including yesterday. How many days during last seven days was [NAME] given each of the following? FOR EACH ITEM GIVEN AT LEAST ONCE IN LAST SEVEN DAYS, ASK: How many times yesterday or last night was [NAME] given [ITEM]?	LAST 7 DAYS NUMBER OF DAYS	YESTERDAY & LAST NIGHT NUMBER OF TIMES	LAST 7 DAYS NUMBER OF DAYS	YESTERDAY & LAST NIGHT NUMBER OF TIMES	LAST 7 DAYS NUMBER OF DAYS	YESTERDAY & LAST NIGHT NUMBER OF TIMES
	Plain water?						
	Tea?						
	Commercially prepared baby formula?						
	Any other milk such as tinned, powdered, or fresh animal milk?						
	Fruit juice?						
	Any other liquids such as sugar water, tea, coffee, or thin soup?						
	Bread, food made of flour?						
	Any food made from grains [e.g. wheat, porridge, rice, millet]?						
	Pumpkin, squash, red or yellow yams, carrots, potatoes, or cabbage?						
	Candies, sweets?						
	Any green leafy vegetables?						
	Any other fruits and vegetables [e.g. apples/sauce, pears, tomatoes]?						
	Meat, poultry, or eggs?						
	Fish, shellfish and other seafood?						
	Any food made from legumes [e.g. lentils, beans, soybeans, pulses, or peanuts]?						
	Cheese, kefir, matzum (narine, curds, yogurt)?						
	IF 7 OR MORE TIMES, RECORD '7'. IF DON'T KNOW, RECORD '8'.						
449	How many times was (NAME) fed solid or semi-solid (mashed or pureed) food yesterday or last night? IF 7 OR MORE TIMES, RECORD '7'.	NUMBER OF TIMES . . . . . . DON'T KNOW 8		NUMBER OF TIMES . . . . . . DON'T KNOW 8		NUMBER OF TIMES . . . . . . DON'T KNOW 8	

450		GO BACK TO 406D IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 451.	GO BACK TO 406D IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 451.	GO BACK TO 406D IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 451.

SECTION 4B. IMMUNIZATION AND HEALTH

451	ENTER THE NAME AND LINE NUMBER OF EACH LIVING CHILD BORN SINCE JANUARY 01 1995 IN THE TABLE. ASK THE QUESTIONS ABOUT ALL OF THESE CHILDREN. BEGIN WITH THE YOUNGEST CHILD.			
452	LINE NUMBER FROM 212	LAST CHILD LINE NUMBER . . . . . [ ][ ]	NEXT-TO-LAST CHILD LINE NUMBER . . . . . [ ][ ]	NEXT-TO- NEXT-TO-LAST CHILD LINE NUMBER . . . . . [ ][ ]
453	FROM 217 AND 219	NAME _____ ALIVE [ ] DEAD [ ] (GO TO 453 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 481)	NAME _____ ALIVE [ ] DEAD [ ] (GO TO 453 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 481)	NAME _____ ALIVE [ ] DEAD [ ] (GO TO 453 IN NEXT COLUMN OR, IF NO MORE BIRTHS, GO TO 481)
455	Do you have a card where (NAME'S) vaccinations are written down? IF YES: May I see it please?	YES, SEEN . . . . . 1 (SKIP TO 457) YES, NOT SEEN . . . . . 2 (SKIP TO 463) NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 457) YES, NOT SEEN . . . . . 2 (SKIP TO 463) NO CARD 3	YES, SEEN . . . . . 1 (SKIP TO 457) YES, NOT SEEN . . . . . 2 (SKIP TO 463) NO CARD 3
456	Did you ever have a vaccination card for (NAME)?	YES . . . . . 1 (SKIP TO 463) NO 2	YES . . . . . 1 (SKIP TO 463) NO 2	YES . . . . . 1 (SKIP TO 463) NO 2

457	(1) COPY VACCINATION DATE FOR EACH VACCINE FROM THE CARD. (2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.			
		DAY MONTH YEAR	DAY MONTH YEAR	DAY MONTH YEAR
A	BCG	BCG	BCG	BCG
C	POLIO 1	P1	P1	P1
D	POLIO 2	P2	P2	P2
E	POLIO 3	P3	P3	P3
G	DPT 1	D1	D1	D1
H	DPT 2	D2	D2	D2
I	DPT 3	D3	D3	D3
K	DPT 4	D4	D4	D4
L	MEASLES	MEA	MEA	MEA
M	PARTUSIS	PRT	PRT	PRT
N	HEPATITIS **B** (B1) VACCINE	HEP **B** (B1)	HEP **B** (B1)	HEP **B** (B1)
O	HEPATITIS **B** (B2) VACCINE	HEP **B** (B2)	HEP **B** (B2)	HEP **B** (B2)
P	HEPATITIS **B** (B3) VACCINE	HEP **B** (B3)	HEP **B** (B3)	HEP **B** (B3)
458	Has (NAME) received any vaccinations that are not recorded on this card, including vaccinations received in a national immunization day campaign? RECORD 'YES' ONLY IF RESPONDENT MENTIONS BCG, POLIO 1-3, DPT 1-3, AND/OR MEASLES VACCINE(S).	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 457) NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 457) NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 (PROBE FOR VACCINATIONS AND WRITE '66' IN THE CORRESPONDING DAY COLUMN IN 457) NO . . . . . 2 DON'T KNOW 8
463	Now I would like to ask you about your child's health during the recent period. Has (NAME) been ill with a fever at any time in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	NEXT-NEXT-TO-LAST BIRTH NAME _____
464	Has (NAME) had an illness with a cough at any time in the last 2 weeks?	YES ..... 1 NO ..... 2 (SKIP TO 466) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 466) DON'T KNOW 8	YES ..... 1 NO ..... 2 (SKIP TO 466) DON'T KNOW 8
465	When (NAME) had an illness with a cough, did he/she breathe faster than usual with short, fast breaths?	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8	YES ..... 1 NO ..... 2 DON'T KNOW 8
466	CHECK 463 AND 464: FEVER OR COUGH?	"YES" IN 463 OR 464 ☐ ▼ NO OR DK ☐ ▼ (SKIP TO 472)	"YES" IN 463 OR 464 ☐ ▼ NO OR DK ☐ ▼ (SKIP TO 472)	"YES" IN 463 OR 464 ☐ ▼ NO OR DK ☐ ▼ (SKIP TO 472)
467	Did you seek advice or treatment for the illness?	YES ..... 1 NO ..... 2 (SKIP TO 472)	YES ..... 1 NO ..... 2 (SKIP TO 472)	YES ..... 1 NO ..... 2 (SKIP TO 472)
467A	What signs or symptoms led you to seek advice or treatment? Anything else?	WHEN HE/SHE: HAS BLOCKED NOSE ..... A HAS TROUBLE SLEEPING/EATING ..... B HAS A FEVER ..... C IS BREATHING FAST ..... D IS ILL FOR A LONG TIME ..... E OTHER_____ X (SPECIFY) DON`T KNOW ..... Z	WHEN HE/SHE: HAS BLOCKED NOSE ..... A HAS TROUBLE SLEEPING/EATING ..... B HAS A FEVER ..... C IS BREATHING FAST ..... D IS ILL FOR A LONG TIME ..... E OTHER_____ X (SPECIFY) DON`T KNOW ..... Z	WHEN HE/SHE: HAS BLOCKED NOSE ..... A HAS TROUBLE SLEEPING/EATING ..... B HAS A FEVER ..... C IS BREATHING FAST ..... D IS ILL FOR A LONG TIME ..... E OTHER_____ X (SPECIFY) DON`T KNOW ..... Z
467B	For how long was (NAME) ill before you sought advice or treatment?	DAYS ..... 1 ☐☐ WEEKS ..... 2 ☐☐	DAYS ..... 1 ☐☐ WEEKS ..... 2 ☐☐	DAYS ..... 1 ☐☐ WEEKS ..... 2 ☐☐

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	NEXT-NEXT-TO-LAST BIRTH NAME _____
468	Where did you seek advice or treatment? Anywhere else? RECORD ALL MENTIONED.	PUBLIC SECTOR HOSPITAL . . . . . A POLYCLINIC . . . . . B PHARMACY . . . . . E OTHER PUBLIC_____ F (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . G PHARMACY . . . . . H PVT. DOCTOR . . . . . I OTHER PVT. MEDICAL _____J (SPECIFY) OTHER SOURCE TRAD. PRACTITIONER . . . . . K OTHER _____ X (SPECIFY)	PUBLIC SECTOR HOSPITAL . . . . . A POLYCLINIC . . . . . B PHARMACY . . . . . E OTHER PUBLIC_____F (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . G PHARMACY . . . . . H PVT. DOCTOR . . . . . I OTHER PVT. MEDICAL _____ J (SPECIFY) OTHER SOURCE TRAD. PRACTITIONER . . . . . K OTHER _____ X (SPECIFY)	PUBLIC SECTOR HOSPITAL . . . . . A POLYCLINIC . . . . . B PHARMACY . . . . . E OTHER PUBLIC_____F (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . G PHARMACY . . . . . H PVT. DOCTOR . . . . . I OTHER PVT. MEDICAL _____ J (SPECIFY) OTHER SOURCE TRAD. PRACTITIONER . . . . . K OTHER _____ X (SPECIFY)
472	Has (NAME) had diarrhea in the last 2 weeks?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 480) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 480) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 480) DON'T KNOW 8
473	Now I would like to know how much (NAME) was offered to drink during the diarrhea. Was he/she offered less than usual to drink, about the same amount, or more than usual to drink? IF LESS PROBE: Was he/she offered much less than usual to drink or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 SAME . . . . . 3 MORE . . . . . 4 NOTHING TO DRINK . . . . . 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 SAME . . . . . 3 MORE . . . . . 4 NOTHING TO DRINK . . . . . 5 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 SAME . . . . . 3 MORE . . . . . 4 NOTHING TO DRINK . . . . . 5 DON'T KNOW 8
474	When (NAME) had diarrhea, was he/she offered less than usual to eat, about the same amount, or more than usual to eat? IF LESS PROBE: Was he/she offered much less than usual to eat or somewhat less?	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 SAME . . . . . 3 MORE . . . . . 4 STOPPED FOOD . . . . . 5 NEVER GAVE FOOD . . . . . 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 SAME . . . . . 3 MORE . . . . . 4 STOPPED FOOD . . . . . 5 NEVER GAVE FOOD . . . . . 6 DON'T KNOW 8	MUCH LESS . . . . . 1 SOMEWHAT LESS . . . . . 2 SAME . . . . . 3 MORE . . . . . 4 STOPPED FOOD . . . . . 5 NEVER GAVE FOOD . . . . . 6 DON'T KNOW 8
475	Was he/she given any of the following to drink: A fluid, made from a special packed powder called Rehydron? Water?	YES NO DK REHYDRON . . . . . 1 2 8 WATER 1 2 8	YES NO DK REHYDRON . . . . . 1 2 8 WATER 1 2 8	YES NO DK REHYDRON . . . . . 1 2 8 WATER 1 2 8

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	NEXT-NEXT-TO-LAST BIRTH NAME _____
	Milk or Infant formula? Soup? Matzun, Narine? Coca cola/Pepsi Cola/Sprite/Fanta? Other fluids?	MILK/INFANT FORMULA . . . . . 1 2 8 SOUP . . . . . 1 2 8 MATZUN/NARINE . . . . . 1 2 8 SOFT DRINK . . . . . 1 2 8 OTHER FLUIDS 1 2 8	MILK/INFANT FORMULA . . . . . 1 2 8 SOUP . . . . . 1 2 8 MATZUN/NARINE . . . . . 1 2 8 SOFT DRINK . . . . . 1 2 8 OTHER FLUIDS 1 2 8	MILK/INFANT FORMULA . . . . . 1 2 8 SOUP . . . . . 1 2 8 MATZUN/NARINE . . . . . 1 2 8 SOFT DRINK . . . . . 1 2 8 OTHER FLUIDS 1 2 8
476	Was anything (else) given to treat the diarrhea?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 478) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 478) DON'T KNOW 8	YES . . . . . 1 NO . . . . . 2 (SKIP TO 478) DON'T KNOW 8
477	What was given to treat the diarrhea? Anything else? RECORD ALL MENTIONED	PILL OR SYRUP . . . . . A INJECTION . . . . . B (I.V.) INTRAVENOUS . . . . . C HOME REMEDIES/HERBAL MEDICINE . . . . . D OTHER_____X (SPECIFY)	PILL OR SYRUP . . . . . A INJECTION . . . . . B (I.V.) INTRAVENOUS . . . . . C HOME REMEDIES/HERBAL MEDICINE . . . . . D OTHER_____X (SPECIFY)	PILL OR SYRUP . . . . . A INJECTION . . . . . B (I.V.) INTRAVENOUS . . . . . C HOME REMEDIES/HERBAL MEDICINE . . D OTHER_____X (SPECIFY)
478	Did you seek advice or treatment for the diarrhea?	YES . . . . . 1 NO . . . . . 2 (SKIP TO 480)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 480)	YES . . . . . 1 NO . . . . . 2 (SKIP TO 480)
479	Where did you seek advice or treatment? Anywhere else? RECORD ALL MENTIONED.	PUBLIC SECTOR HOSPITAL . . . . . A POLYCLINIC . . . . . B PHARMACY . . . . . E OTHER PUBLIC _____F (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . G PHARMACY . . . . . H PVT. DOCTOR . . . . . I OTHER PVT. MEDICAL _____J (SPECIFY) OTHER SOURCE TRAD. PRACTITIONER . . . . . K OTHER _____X (SPECIFY)	PUBLIC SECTOR HOSPITAL . . . . . A POLYCLINIC . . . . . B PHARMACY . . . . . E OTHERPUBLIC_ _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . G PHARMACY . . . . . H PVT. DOCTOR . . . . . I OTHER PVT. MEDICAL _____J (SPECIFY) OTHER SOURCE TRAD. PRACTITIONER . . . . . K OTHER _____X (SPECIFY)	PUBLIC SECTOR HOSPITAL . . . . . A POLYCLINIC . . . . . B PHARMACY . . . . . E OTHER PUBLIC _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . G PHARMACY . . . . . H PVT. DOCTOR . . . . . I OTHER PVT. MEDICAL _____J (SPECIFY) OTHER SOURCE TRAD. PRACTITIONER . . . . . K OTHER _____X (SPECIFY)

		LAST BIRTH NAME _____	NEXT-TO-LAST BIRTH NAME _____	NEXT-NEXT-TO-LAST BIRTH NAME _____
480		GO BACK TO 453 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 481.	GO BACK TO 453 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 481.	GO BACK TO 453 IN NEXT COLUMN; OR, IF NO MORE BIRTHS, GO TO 481.

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
481	CHECK 453, ALL COLUMNS: NUMBER OF LIVING CHILDREN BORN SINCE JANUARY 1995 ONE OR MORE ☐ ▼	NONE ☐	→486
484	What usually happens with your child(ren)'s stools when they do not use any toilet facility?	CHILD ALWAYS USES TOILET/LATRINE ..... 01 THROW IN THE TOILET/LATRINE ..... 02 THROW OUTSIDE THE DWELLING ..... 03 THROW OUTSIDE THE YARD ..... 04 BURY IN THE YARD ..... 05 RINSE AWAY ..... 06 USE DISPOSABLE DIAPERS ..... 07 USE WASHABLE DIAPERS ..... 08 NOT DISPOSED OF ..... 09 OTHER _____ 96 (SPECIFY)	
485	CHECK 475, ALL COLUMNS: NO CHILD RECEIVED REHYDRON ☐ ▼	ANY CHILD RECEIVED REHYDRON ☐	→487
486	Have you ever heard of a special product called "Rehydron" which can be taken during diarrhea?	YES ..... 1 NO 2	
487	CHECK 221: HAS ONE OR MORE CHILDREN LIVING WITH HER ☐ ▼	HAS NO CHILDREN LIVING WITH HER ☐	→490
488	When (your child/one of your children) is seriously ill, can you decide by yourself whether the child should be taken for medical treatment? IF SAYS NO CHILD EVER SERIOUSLY ILL, ASK: If (your child/one of your children) became seriously ill, could you decide by yourself whether the child should be taken for medical treatment?	YES ..... 1 NO ..... 2 DEPENDS 3	

490	Now I would like to ask you some questions about medical care for you yourself.			
	Many different factors can prevent women from getting medical advice or treatment for themselves. When you are sick and want to get medical advice or treatment, is each of the following a big problem or not?	BIG PROBLEM	NOT A BIG PROBLEM	
	Knowing where to go.	1	2	
	Getting permission to go.	1	2	
	Getting money needed for treatment.	1	2	
	The distance to the health facility.	1	2	
	Having to take transport.	1	2	
	Not wanting to go alone.	1	2	
	Concern that there may not be a female health provider.	1	2	
495	The last time you prepared a meal for your family, before starting did you wash your hands?	YES . . . . . 1 NO . . . . . 2 NEVER PREPARED MEAL 3		

SECTION 5. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
501	Are you currently married or living with a man?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A MAN . . . . . 2 NO, NOT IN UNION 3	→505
502	Have you ever been married or lived with a man?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A MAN . . . . . 2 NO 3	→504 →509
503	ENTER '0' IN COLUMN 4 OF CALENDAR IN THE MONTH OF INTERVIEW, AND IN EACH MONTH BACK TO JANUARY 1995		→516
504	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	→509
505	Is your (husband/partner) living with you now or is he staying elsewhere?	LIVING WITH HER . . . . . 1 STAYING ELSEWHERE 2	→506
505A	Where is he staying?	ARMENIA . . . . . 1 RUSSIA . . . . . 2 OTHER NIS COUNTRY . . . . . 3 EUROPE . . . . . 4 USA/CANADA . . . . . 5 OTHER _____ 6 (SPECIFY)	
505B	Do you expect him to return?	YES . . . . . 1 NO 2	
505C	When do you expect him to return?	DAYS . . . . . 1 [ ][ ] MONTHS . . . . . 2 [ ][ ] YEARS . . . . . 3 [ ][ ] DON'T KNOW 998	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
506	RECORD THE HUSBAND'S/PARTNER'S NAME AND LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE. IF HE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME _____ LINE NUMBER . . . . . [ ][ ]	
509	Have you been married or lived with only one man, or more than one man?	ONCE . . . . . 1 MORE THAN ONCE 2	
510	CHECK 509: MARRIED/LIVED WITH ONLY ONE MAN → In what month and year did you start living with your (husband/partner)? MARRIED/LIVED WITH MORE THAN ONE MAN → Now we will talk about your first husband/partner. In what month and year did you start living with him?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	→512
511	How old were you when you started living with him?	AGE . . . . . [ ][ ]	
512	DETERMINE MONTHS MARRIED OR LIVING WITH A MAN SINCE JANUARY 1995. ENTER 'X' IN COLUMN 4 OF CALENDAR FOR EACH MONTH MARRIED OR LIVING WITH A MAN, AND ENTER '0' FOR EACH MONTH NOT MARRIED/NOT LIVING WITH A MAN, SINCE JANUARY 1995. FOR WOMEN WITH MORE THAN ONE UNION: PROBE FOR DATE WHEN CURRENT UNION STARTED AND, IF APPROPRIATE, FOR STARTING AND TERMINATION DATES OF ANY PREVIOUS UNIONS. FOR WOMEN NOT CURRENTLY IN UNION: PROBE FOR DATE WHEN LAST UNION STARTED AND FOR TERMINATION DATE AND, IF APPROPRIATE, FOR THE STARTING AND TERMINATION DATES OF ANY PREVIOUS UNIONS.		
513	CHECK 501: CURRENTLY MARRIED OR LIVING WITH A MAN → NOT CURRENTLY MARRIED AND NOT CURRENTLY LIVING WITH A MAN →		→516
514	CHECK 311/311A: ANY CODE CIRCLED → NOT ASKED (NO CODE CIRCLED) →		→516

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
515	You have told me that you are using contraception. Would you say that using contraception is mainly your decision, mainly your (husband's/partner's) decision or did you both decide together?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 JOINT DECISION . . . . . 3 OTHER _____ 6 (SPECIFY)	
516	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some family life issues. How old were you when you first had sexual intercourse (if ever)?	NEVER . . . . . 00 AGE IN YEARS . . . . . [ ][ ] FIRST TIME WHEN MARRIED 96	→526
517	When was the last time you had sexual intercourse? IF MORE THAN 11 MONTHS, ENTER NUMBER OF YEARS AND FOLLOW SKIP.	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ]	→526
518	The last time you had sexual intercourse, was a condom used?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE 8	→519
518A	What was the main reason you used a condom on that occasion?	OWN CONCERN, TO PREVENT STD/HIV . . . . . 1 OWN CONCERN, TO PREVENT PREGNANCY . . . . . 2 OWN CONCERN TO PREVENT BOTH STD/HIV AND PREGNANCY . . . . . 3 DID NOT TRUST PARTNER/FEELS PARTNER HAS OTHER PARTNERS . . 4 PARTNER INSISTED . . . . . 5 OTHER _____6 (SPECIFY) DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
519	What is your relationship to the man with whom you last had sex? IF MAN IS "BOYFRIEND" OR "FIANCÉ," ASK: Was your boyfriend/fiancé living with you when you last had sex with him? IF YES, CIRCLE '01.' IF NO, CIRCLE '02.'	SPOUSE/COHABITING PARTNER . . . . . 01 BOY FRIEND/FIANCE . . . . . 02 OTHER FRIEND . . . . . 03 CASUAL ACQUAINTANCE . . . . . 04 RELATIVE . . . . . 05 COMMERCIAL SEX CUSTOMER . . . . . 06 OTHER _____ 96 (SPECIFY)	→521
520	For how long have you had a sexual relationship with this man?	DAYS . . . . . 1 [ ][ ] WEEKS . . . . . 2 [ ][ ] MONTHS . . . . . 3 [ ][ ] YEARS . . . . . 4 [ ][ ]	
521	Have you had sex with any other man in the last 12 months?	YES . . . . . 1 NO 2	→526
522	The last time you had sexual intercourse with this other man, was a condom used?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/NOT SURE 8	→523
522A	What was the main reason you used a condom on that occasion?	OWN CONCERN, TO PREVENT STD/HIV . . . . . 1 OWN CONCERN, TO PREVENT PREGNANCY . . . . . 2 OWN CONCERN TO PREVENT BOTH STD/HIV AND PREGNANCY . . . . . 3 DID NOT TRUST PARTNER/FEELS PARTNER HAS OTHER PARTNERS . . 4 PARTNER INSISTED . . . . . 5 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
523	What is your relationship to this man? IF MAN IS "BOYFRIEND" OR "FIANCÉ," ASK: Was your boyfriend/fiancé living with you when you last had sex with him? IF YES, CIRCLE '01.' IF NO, CIRBLE '02.'	SPOUSE/COHABITING PARTNER . . . . . 01 BOY FRIEND/FIANCE . . . . . 02 OTHER FRIEND . . . . . 03 CASUAL ACQUAINTANCE . . . . . 04 RELATIVE . . . . . 05 COMMERCIAL SEX CUSTOMER . . . . . 06 OTHER _____ 9 6 (SPECIFY)	→525
524	For how long have you had a sexual relationship with this man?	DAYS . . . . . 1 [ ][ ] WEEKS . . . . . 2 [ ][ ] MONTHS . . . . . 3 [ ][ ] YEARS . . . . . 4 [ ][ ]	
525	Altogether, with how many different men have you had sex in the last 12 months?	NUMBER OF PARTNERS . . . . . [ ][ ]	
526	Do you know of a place where one can get condoms?	YES . . . . . 1 NO 2	→601

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
527	Where is that? IF SOURCE IS POLYCLINIC, FGP, FAP, WOMEN`S CONSULTING CENTER (WCC), WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR HOSPITAL . . . . . 11 POLYCLINIC . . . . . 12 FGP . . . . . 13 WOMEN'S CONSULTING CLINIC . . . . . 14 PHARMACY . . . . . 15 OTHER PUBLIC _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PVT. HOSPITAL/CLINIC . . . . . 20 PHARMACY . . . . . 21 PVT. DOCTOR . . . . . 22 OTHER PVT. MEDICAL _____ 26 (SPECIFY) OTHER SOURCE SHOP . . . . . 30 RELIGIOUS ORGANIZATION . . . . . 31 FRIENDS/RELATIVES . . . . . 32 OTHER _____ 36 (SPECIFY)	
528	If you wanted to, could you yourself get a condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	

SECTION 6. FERTILITY PREFERENCES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
601	CHECK 311/311A: NEITHER STERILIZED ☐ ▼ HE OR SHE STERILIZED ☐		→614
602	CHECK 228: NOT PREGNANT OR UNSURE ☐ ▼ Now I have some questions about the future. Would you like to have (a/another) child, or would you prefer not to have any (more) children? PREGNANT ☐ ▼ Now I have some questions about the future. After the child you are expecting now, would you like to have another child, or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD . . . . . 1 NO MORE/NONE . . . . . 2 SAYS SHE CAN'T GET PREGNANT . . . . . 3 UNDECIDED/DON'T KNOW AND PREGNANT . . . . . 4 AND NOT PREGNANT/UNSURE . . . 5	 →604 →614 →610 →608
603	CHECK 228: NOT PREGNANT OR UNSURE ☐ ▼ How long would you like to wait from now before the birth of (a/another) child? PREGNANT ☐ ▼ After the birth of the child you are expecting now, how long would you like to wait before the birth of another child?	MONTHS . . . . . 1 ☐☐ YEARS . . . . . 2 ☐☐ SOON/NOW . . . . . 993 SAYS SHE CAN'T GET PREGNANT . . . . . 994 AFTER MARRIAGE . . . . . 995 OTHER _____ 996 (SPECIFY) DON'T KNOW 998	 →609
604	CHECK 228: NOT PREGNANT OR UNSURE ☐ ▼ PREGNANT ☐		→610

605 CHECK 310: USING A METHOD?

NOT ASKED ☐ ▼

NOT CURRENTLY USING ☐ ▼

CURRENTLY USING ☐ → 608

606 CHECK 603:

NOT ASKED ☐ ▼

24 OR MORE MONTHS OR 02 OR MORE YEARS ☐ ▼

00-23 MONTHS OR 00-01 YEAR ☐ → 610

607 CHECK 602:

WANTS A/ANOTHER CHILD ☐ ▼

You have said that you do not want (a/another) child soon, but you are not using any method to avoid pregnancy.
Can you tell me why?

WANTS NO (MORE) CHILDREN ☐ ▼

You have said that you do not want any (more) children, but you are not using any method to avoid pregnancy.
Can you tell me why?

NOT MARRIED . . . . . A

FERTILITY-RELATED REASONS
- NOT HAVING SEX . . . . . B
- INFREQUENT SEX C
- MENOPAUSAL/HYSTERECTOMY. . . . . D
- SUBFECUND/INFECUND . . . . . E
- POSTPARTUM AMENORRHEIC . . . . . F
- BREASTFEEDING . . . . . G
- FATALISTIC . . . . . H

OPPOSITION TO USE
- RESPONDENT OPPOSED I
- HUSBAND OPPOSED . . . . . J
- OTHERS OPPOSED . . . . . K
- RELIGIOUS PROHIBITION L

LACK OF KNOWLEDGE
- KNOWS NO METHOD . . . . . M
- KNOWS NO SOURCE . . . . . N

METHOD-RELATED REASONS
- HEALTH CONCERNS . . . . . O
- FEAR OF SIDE EFFECTS . . . . . P
- LACK OF ACCESS/TOO FAR . . . . . Q
- COST TOO MUCH . . . . . R
- INCONVENIENT TO USE . . . . . S
- INTERFERES WITH BODY'S NATURAL PROCESSES . . . . . T

OTHER _____ X
(SPECIFY)

DON'T KNOW . . . . . Z

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
608	In the next few weeks, if you discovered that you were pregnant, would that be a big problem, a small problem, or no problem for you?	BIG PROBLEM . . . . . 1 SMALL PROBLEM . . . . . 2 NO PROBLEM . . . . . 3 SAYS SHE CAN'T GET PREGNANT 4	
609	CHECK 310: USING A METHOD? NOT ASKED ☐ ▼ NOT CURRENTLY USING ☐ ▼ CURRENTLY USING ☐		→614
610	Do you think you will use a method to delay or avoid pregnancy at any time in the future?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→612
611	Which contraceptive method would you prefer to use?	FEMALE STERILIZATION . . . . . 01 MALE STERILIZATION . . . . . 02 PILL . . . . . 03 IUD . . . . . 04 INJECTIONS . . . . . 05 IMPLANTS . . . . . 06 CONDOM . . . . . 07 FEMALE CONDOM . . . . . 08 DIAPHRAGM . . . . . 09 FOAM/JELLY/CREAM/SUPPOSITORY . . . . . 10 LACT. AMEN. METHOD . . . . . 11 CALENDAR METHOD/PER. ABSTINENCE . . . 12 WITHDRAWAL . . . . . 13 OTHER _____ 96 (SPECIFY) UNSURE 98	→614

612	What is the main reason that you think you will not use a contraceptive method at any time in the future?	NOT CURRENTLY MARRIED . . . . . 11 FERTILITY-RELATED REASONS INFREQUENT SEX . . . . . 22 MENOPAUSAL/HYSTERECTOMY . . . . . 23 SUBFECUND/INFECUND . . . . . 24 WANTS AS MANY CHILDREN AS POSSIBLE 26 OPPOSITION TO USE RESPONDENT OPPOSED . . . . . 31 HUSBAND OPPOSED . . . . . 32 OTHERS OPPOSED . . . . . 33 RELIGIOUS PROHIBITION . . . . . 34 LACK OF KNOWLEDGE KNOWS NO METHOD . . . . . 41 KNOWS NO SOURCE . . . . . 42 METHOD-RELATED REASONS HEALTH CONCERNS . . . . . 51 FEAR OF SIDE EFFECTS . . . . . 52 LACK OF ACCESS/TOO FAR . . . . . 53 COST TOO MUCH . . . . . 54 INCONVENIENT TO USE . . . . . 55 INTERFERES WITH BODY'S NORMAL PROCESSES . . . . . 56 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	→614
613	Would you ever use a method if you were married?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
614	CHECK 219: HAS LIVING CHILDREN ☐ ▼ If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be? NO LIVING CHILDREN ☐ ▼ If you could choose exactly the number of children to have in your whole life, how many would that be? PROBE FOR A NUMERIC RESPONSE.	NUMBER . . . . . ☐☐ OTHER _____ 96 (SPECIFY)	→616

615	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter?	BOYS NUMBER . . . . . [ ][ ] OTHER _____ 96 (SPECIFY) GIRLS NUMBER . . . . . [ ][ ] OTHER _____ 96 (SPECIFY) EITHER NUMBER . . . . . [ ][ ] OTHER _____ 96 (SPECIFY)	
616	Would you say that you approve or disapprove of couples using a method to avoid getting pregnant?	APPROVE . . . . . 1 DISAPPROVE . . . . . 2 DON'T KNOW/UNSURE 8	
617	In the last few months have you heard about family planning: On the radio? On the television? In a newspaper or magazine?	YES NO RADIO . . . . . 1 2 TELEVISION . . . . . 1 2 NEWSPAPER OR MAGAZINE 1 2	
619	In the last few months, have you discussed the practice of family planning with your friends, neighbors, or relatives?	YES . . . . . 1 NO 2	→621
620	With whom? Anyone else? RECORD ALL MENTIONED.	HUSBAND/PARTNER . . . . . A MOTHER . . . . . B FATHER . . . . . C SISTER(S) . . . . . D BROTHER(S) . . . . . E DAUGHTER . . . . . F SON . . . . . G MOTHER-IN-LAW . . . . . H FRIENDS/NEIGHBORS . . . . . I OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
621	CHECK 501: YES, CURRENTLY MARRIED ☐ ▼ YES, LIVING WITH A MAN ☐ ▼ NO, NOT IN UNION ☐		→625
622	Now I want to ask you about your husband's/partner's views on family planning. Do you think that your husband/partner approves or disapproves of couples using a method to avoid pregnancy?	APPROVES . . . . . 1 DISAPPROVES . . . . . 2 DON'T KNOW 8	
623	How often have you talked to your husband/partner about family planning in the past year?	NEVER . . . . . 1 ONCE OR TWICE . . . . . 2 MORE OFTEN 3	
623A	CHECK 311/311A: NEITHER STERILIZED ☐ ▼ HE OR SHE STERILIZED ☐		→625
624	Do you think your husband/partner wants the same number of children that you want, or does he want more or fewer than you want?	SAME NUMBER . . . . . 1 MORE CHILDREN . . . . . 2 FEWER CHILDREN . . . . . 3 DON'T KNOW 8	
625	Husbands and wives do not always agree on everything. Please tell me if you think a wife is justified in refusing to have sex with her husband when:		

	YES	NO	DK
She knows her husband has a sexually transmitted disease? HAS STD	1	2	8
She knows her husband has sex with other women? OTHER WOMEN	1	2	8
She has recently given birth? RECENT BIRTH	1	2	8
She is tired or not in the mood? TIRED/MOOD	1	2	8

SECTION 7. HUSBAND'S BACKGROUND AND WOMAN'S WORK

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	CHECK 501 AND 502: CURRENTLY MARRIED/ LIVING WITH A MAN ▼	FORMERLY MARRIED/ LIVED WITH A MAN NEVER MARRIED AND NEVER LIVED WITH A MAN	→703 →707
702	How old was your husband/partner on his last birthday?	AGE IN COMPLETED YEARS	
703	Did your (last) husband/partner ever attend school?	YES . . . . . 1 NO 2	→706
704	What was the highest level of school he attended: primary, secondary, secondary-special, undergraduate, or graduate?	SCHOOL (PRIMARY/SECOND) . . . . . 1 SECONDARY-SPECIAL . . . . . 2 UNDERGRADUATE . . . . . 3 GRADUATE . . . . . 4 DON'T KNOW 8	→706
705	What was the highest (class/course) he completed at that level?	CLASS/COURSE . . . . . . DON'T KNOW 98	
706	CHECK 701: CURRENTLY MARRIED/ LIVING WITH A MAN ▼ What is your husband's/partner's occupation? That is, what kind of work does he mainly do? FORMERLY MARRIED/ LIVED WITH A MAN ▼ What was your (last) husband's/ partner's occupation? That is, what kind of work did he mainly do?	_____ _____ _____ _____	
707	Aside from your own housework, are you currently working?	YES . . . . . 1 NO 2	→710
708	As you know, some women take up jobs for which they are paid in cash or kind. Others sell things, have a small business or work on the family farm or in the family business. Are you currently doing any of these things or any other work?	YES . . . . . 1 NO 2	→710

709	Have you done any regular or temporary work in the last 12 months?	YES . . . . . 1 NO 2	→719
710	What is your occupation, that is, what kind of work do you mainly do?	☐☐ _____ _____ _____ _____	
710A	Do you have a specialization?	YES . . . . . 1 NO 2	→711
710B	What is your specialization?	☐☐ _____ _____ _____ _____	
711	CHECK 710: WORKS IN AGRICULTURE ☐ ↓ DOES NOT WORK IN AGRICULTURE ☐ _____		→713
712	Do you work mainly on your own land or on family land, or do you rent land or do you work on someone else's land?	OWN LAND . . . . . 1 FAMILY LAND . . . . . 2 RENTED LAND . . . . . 3 SOMEONE ELSE'S LAND 4	
713	Do you do this work for a member of your family, for someone else, or are you self-employed?	FOR FAMILY MEMBER . . . . . 1 FOR SOMEONE ELSE . . . . . 2 SELF-EMPLOYED 3	
714	Do you usually work throughout the year, or do you work seasonally, or only once in a while?	THROUGHOUT THE YEAR . . . . . 1 SEASONALLY/PART OF THE YEAR . . . . . 2 ONCE IN A WHILE 3	
715	Are you paid in cash or kind for this work or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	→718

716	Who mainly decides how the money you earn will be used?	RESPONDENT . . . . . 1 HUSBAND/PARTNER . . . . . 2 RESPONDENT AND HUSBAND/PARTNER JOINTLY . . . . . 3 SOMEONE ELSE . . . . . 4 RESPONDENT AND SOMEONE ELSE JOINTLY 5	
717	On average, how much of your household's expenditures do your earnings pay for: almost none, less than half, about half, more than half, or all?	ALMOST NONE . . . . . 1 LESS THAN HALF . . . . . 2 ABOUT HALF . . . . . 3 MORE THAN HALF . . . . . 4 ALL . . . . . 5 NONE, HER INCOME IS ALL SAVED. 6	
718	Do you usually work at home or away from home?	HOME . . . . . 1 AWAY 2	
719	Who in your family usually has the final say on the following decisions:	RESPONDENT = 1 HUSBAND/PARTNER = 2 RESP. & HUSBAND/PARTNER JOINTLY = 3 SOMEONE ELSE = 4 RESPONDENT & SOMEONE ELSE JOINTLY = 5	
	Your own health care?	1 2 3 4 5	
	Making large household purchases?	1 2 3 4 5	
	Making household purchases for daily needs?	1 2 3 4 5	
	Visits to family, friends, or relatives?	1 2 3 4 5	
	What food should be cooked each day?	1 2 3 4 5	
720	PRESENCE OF OTHERS AT THIS POINT (PRESENT AND LISTENING, PRESENT BUT NOT LISTENING OR NOT PRESENT)	PRES/ LISTEN. PRES/ NOT LISTEN. NOT PRS CHILDREN <10 . . . . . 1 2 3 HUSBAND . . . . . 1 2 3 OTHER MALES . . . . . 1 2 3 OTHER FEMALES 1 2 3	

721	Sometimes a husband is annoyed or angered by things which his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations:		YES	NO	DK
	If she goes out without telling him?	GOES OUT	1	2	8
	If she neglects the children?	NEGL. CHILDREN	1	2	8
	If she argues with him?	ARGUES	1	2	8
	If she refuses sex with him?	REFUSES SEX	1	2	8
	If she burns the food?	BURNS FOOD	1	2	8

SECTION 8A: AIDS AND OTHER SEXUALLY TRANSMITTED DISEASES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
801	Now I would like to talk about something else. Have you ever heard of an illness called AIDS or the virus HIV?	YES . . . . . 1 NO 2	→818
802	Is there anything a person can do to avoid getting AIDS or the virus that causes AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→810
803	What can a person do? Anything else? RECORD ALL MENTIONED.	ABSTAIN FROM SEX . . . . . A USE CONDOMS . . . . . B LIMIT SEX TO ONE PARTNER/STAY FAITHFUL TO ONE PARTNER . . . . . C LIMIT NUMBER OF SEXUAL PARTNERS D AVOID SEX WITH PROSTITUTES . . . . . E AVOID SEX WITH PERSONS WHO HAVE MANY PARTNERS . . . . . F AVOID SEX WITH HOMOSEXUALS . . . . G AVOID SEX WITH PERSONS WHO INJECT DRUGS INTRAVENOUSLY . . . . . H AVOID BLOOD TRANSFUSIONS . . . . . I AVOID INJECTIONS . . . . . J AVOID KISSING . . . . . K AVOID MOSQUITO BITES . . . . . L SEEK PROTECTION FROM TRADITIONAL HEALER . . . . . M AVOID SHARING RAZORS, BLADES . . . N OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
804	Can people reduce their chances of getting the AIDS virus by having just one sex partner who has no other sexual partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
805	Can people get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
806	Can people reduce their chances of getting the AIDS virus by using a condom every time they have sex?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
807	Can people get the AIDS virus by sharing food with a person who has AIDS?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
810	Is it possible for a healthy-looking person to have the AIDS virus?	YES ..... 1 NO ..... 2 DON'T KNOW 8	
811	Do you know someone personally who has the virus that causes AIDS or someone who died from AIDS?	YES ..... 1 NO 2	
812	Can the virus that causes AIDS be transmitted from a mother to a child?	YES ..... 1 NO ..... 2 DON'T KNOW 8	→814
813	When can the virus that causes AIDS be transmitted from a mother to a child? Can it be transmitted...	YES / NO / DK	
	During pregnancy?	1 / 2 / 8	
	During delivery?	1 / 2 / 8	
	By breastfeeding?	1 / 2 / 8	
814	CHECK 501: CURRENTLY MARRIED/ LIVING WITH A MAN ☐ NOT CURRENTLY MARRIED/ NOT LIVING WITH A MAN ☐		→815A
815	Have you ever talked about ways to prevent getting the virus that causes AIDS with (your husband/the man you are living with)?	YES ..... 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
815A	In your opinion, is it acceptable or unacceptable for AIDS to be discussed:	ACCEPT. UNACCEPT. DK/NOT SURE	
	on the radio?	1 2 8	
	on the TV?	1 2 8	
	In newspapers?	1 2 8	
816	If a person learns that he/she is infected with the virus that causes AIDS, should the person be allowed to keep this fact private or should this information be available to the community?	CAN BE KEPT PRIVATE . . . . . 1 AVAILABLE TO COMMUNITY . . . . . 2 DK/NOT SURE 8	
817	If a member of your family got infected with the virus that causes AIDS, would you want it to remain a secret or not?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
817b	If a female teacher has the AIDS virus, should she be allowed to continue teaching in the school?	CAN CONTINUE . . . . . 1 SHOULD NOT CONTINUE . . . . . 2 DK/NOT SURE/DEPENDS 8	
817c	Should children aged 12-14 be taught about using a condom to avoid AIDS?	YES . . . . . 1 NO . . . . . 2 DK/NOT SURE/DEPENDS 8	
817d	Have you ever been tested to see if you have the AIDS virus?	YES . . . . . 1 NO 2	→817gx
817e	Would you want to be tested for the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 3	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
817f	Do you know a place where you could go to get an AIDS test?	YES . . . . . 1 NO 2	 —▸818
817g 817gx	Where can you go for the test? Where did you go for the test? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR HOSPITAL . . . . . 11 POLYCLINIC . . . . . 12 FGP CLINIC . . . . . 13 DIAGNOSTIC CENTER . . . . . 14 VENERIC DISEASE CLINIC . . . . . 15 OTHER PUBLIC . . . . . 16 _____ (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . 21 PHARMACY . . . . . 22 PRIVATE DOCTOR . . . . . 23 OTHER PRIVATE MEDICAL_____ 26 (SPECIFY) OTHER SOURCE SHOP . . . . . 31 RELIGIOUS ORGANIZATIONS . . . . . 32 FRIENDS/RELATIVES . . . . . 33 OTHER_____ 96 (SPECIFY)	
818	Apart from AIDS, have you heard about (other) infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	 —▸823
818A	Which venereal or sexually transmitted infections have you heard of?	SYPHLIS . . . . . A GONORRHEA . . . . . B CLAMYDIA . . . . . C HERPES . . . . . D OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
819	If a man has a venereal or sexually transmitted disease, what symptoms might he have? Any others? RECORD ALL SYMPTOMS MENTIONED.	ABDOMINAL PAIN . . . . . A GENITAL DISCHARGE/DRIPPING . . . . . B FOUL SMELLING DISCHARGE . . . . . C BURNING PAIN ON URINATION . . . . . D REDNESS/INFLAMMATION IN GENITAL AREA . . . . . E SWELLING IN GENITAL AREA . . . . . F GENITAL SORES/ULCERS . . . . . G GENITAL WARTS . . . . . H BLOOD IN URINE . . . . . I LOSS OF WEIGHT . . . . . J IMPOTENCE . . . . . K NO SYMPTOMS . . . . . L OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
820	If a woman has a venereal or sexually transmitted disease, what symptoms might she have?	ABDOMINAL PAIN . . . . . A GENITAL DISCHARGE/DRIPPING . . . . . B FOUL SMELLING DISCHARGE . . . . . C BURNING PAIN ON URINATION . . . . . D REDNESS/INFLAMMATION IN GENITAL AREA . . . . . E SWELLING IN GENITAL AREA . . . . . F GENITAL SORES/ULCERS . . . . . G GENITAL WARTS . . . . . H BLOOD IN URINE . . . . . I LOSS OF WEIGHT . . . . . J NO SYMPTOMS . . . . . L OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
822	During the last 12 months, have you had a venereal or sexually-transmitted disease?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
823	Now I would like to ask you some questions about your health in the last 12 months. Sometimes, women experience a genital discharge. During the last 12 months, have you had a genital discharge?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
824	Sometimes, women experience a genital sore or ulcer. During the last 12 months, have you had a genital sore or ulcer?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
825	CHECK 822, 823, and 824: HAS HAD AN INFECTION (AT LEAST ONE "YES") ▼ HAS NOT HAD AN INFECTION (OTHER)		▸835
826	The last time you had (INFECTION FROM 822/823/824), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	▸828
827	The last time you had (INFECTION FROM 822/823/824) did you do any of the following? Did you....	**YES** / **NO**	
	Seek advice from a health worker in a clinic or hospital?	1 / 2	
	Seek advice or medicine from a traditional healer?	1 / 2	
	Seek advice or buy medicines in a shop or pharmacy?	1 / 2	
	Ask for advice from friends or relatives?	1 / 2	
828	When you had (INFECTION FROM 822/823/824), did you inform the persons with whom you were having sex?	YES . . . . . 1 NO . . . . . 2 SOME/ NOT ALL 3	
829	When you had (INFECTION FROM 822/823/824) did you do something to avoid infecting your sexual partner(s)?	YES . . . . . 1 NO . . . . . 2 PARTNER ALREADY INFECTED 3	▸835
830	What did you do to avoid infecting your partner? Did you....	**YES** / **NO**	
	Stop having sex?	1 / 2	
	Use a condom when having sex?	1 / 2	
	Take medicine?	1 / 2	

SECTION 8B: LIFESTYLE

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
835	Have you ever smoked cigarettes, pipes, or another kind of tobacco?	YES . . . . . 1 NO 2	 →844
836	Over the course of your entire life, have you smoked at least 100 cigarettes or other tobacco products?	YES . . . . . 1 NO 2	
837	At the present time, do you smoke daily, from time to time, or never?	DAILY . . . . . 1 TIME TO TIME . . . . . 2 NEVER 3	→840
838	Was there ever a time when you smoked daily?	YES . . . . . 1 NO 2	 →844
839	How long ago did you smoke on a daily basis?	SMOKE AT THE PRESENT . . . . . 100 MONTHS AGO . . . . . 2 [ ][ ] YEARS AGO . . . . . 3 [ ][ ] DON'TREMEMBER 898	
840	For how many years (have you smoked/did you smoke) on a daily basis?	YEARS . . . . . [ ][ ] DON'T KNOW 98	
841	How many cigarrettes or other tobacco products do (did) you smoke each day?	NO. OF CIGARETTES . . . . . [ ][ ] DON'T KNOW 98	
842	How old were you when you started smoking daily?	AGE . . . . . [ ][ ] DON'T KNOW 98	
843	Have you tried to quit smoking?	YES . . . . . 1 NO 2	
844	Do you live in a household in which other people smoke on a daily basis?	YES . . . . . 1 NO 2	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
845	Do people smoke daily in your place of work?	YES . . . . . 1 NO . . . . . 2 DOESN'T WORK 3	
846	Have you ever consumed alcoholic beverages?	YES . . . . . 1 NO 2	→854
847	Do you presently drink alcoholic beverages?	YES . . . . . 1 NO 2	→854
848	On average, how many grams of alcoholic drinks do you have in a week?	NO. OF GRAMS . . . . . [ ][ ] DON'T KNOW 98	
849	On average, how many grams of alcoholic drinks do you have on weekends?	NO. OF GRAMS . . . . . [ ][ ] DON'T KNOW 98	
854	Have you had any injections in the past 3 months?	YES . . . . . 1 NO 2	→858
855	How many time have you had injections in the past 3 months?	TIMES . . . . . [ ][ ] EVERY DAY 95	
856	Who administered the last injection that you had?	HEALTH WORKER . . . . . 1 PHARMACIST . . . . . 2 TRADITIONAL HEALER . . . . . 3 FRIEND/RELATIVE . . . . . 4 SELF . . . . . 5 OTHER _____ 6 (SPECIFY)	
858	RECORD THE TIME OF THE END OF THE INTERVIEW	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	

SECTION 9. HEIGHT AND WEIGHT

IN 901 AND 902, RECORD THE HEIGHT AND WEIGHT OF THE RESPONDENT.

NO.	QUESTIONS AND FILTERS		CODING CATEGORIES
901	RESPONDENT'S HEIGHT (IN CENTIMETERS)	[ ][ ][ ].[ ]	
902	RESPONDENT'S WEIGHT (IN KILOGRAMS)	[ ][ ][ ].[ ]	
903	RESULT	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER 6 (SPECIFY)	
904	CHECK 215 AND 219: ONE OR MORE LIVING CHILDREN BORN IN JAN. 1995 OR LATER [ ] ▼	NO LIVING CHILDREN BORN IN JAN. 1995 OR LATER [ ] → 1001	

IN 905 AND 906 RECORD THE LINE NUMBER AND NAME OF EACH CHILD BORN SINCE JANUARY 1995 AND STILL ALIVE. IN 908 AND 910 RECORD HEIGHT AND WEIGHT OF CHILDREN.

		1) YOUNGEST LIVING CHILD	2) NEXT-TO-YOUNGEST LIVING CHILD	3) NEXT-TO-NEXT-TO-YOUNGEST LIVING CHILD
905	LINE NO. FROM 212	[ ][ ]	[ ][ ]	[ ][ ]
906	NAME FROM 217	(NAME) _____	(NAME) _____	(NAME) _____
907	CHILD'S DATE OF BIRTH	DAY [ ][ ] MONTH [ ][ ] YEAR [ ][ ][ ][ ]	DAY [ ][ ] MONTH [ ][ ] YEAR [ ][ ][ ][ ]	DAY [ ][ ] MONTH [ ][ ] YEAR [ ][ ][ ][ ]
908	HEIGHT (IN CENTIMETERS)	[ ][ ][ ].[ ]	[ ][ ][ ].[ ]	[ ][ ][ ].[ ]

909	WAS LENGTH/HEIGHT OF CHILD MEASURED LYING DOWN OR STANDING UP?	LYING ..... 1 STANDING 2	LYING ..... 1 STANDING 2	LYING ..... 1 STANDING 2
910	WEIGHT (IN KILOGRAMS)	.	.	.
911	DATE WEIGHED AND MEASURED	DAY ..... MONTH ..... YEAR 2 0	DAY ..... MONTH ..... YEAR 2 0	DAY ..... MONTH ..... YEAR 2 0
912	RESULT OF WEIGHING AND MEASURING	MEASURED ..... 1 CHILD SICK ..... 2 CHILD NOT PRESENT ..... 3 CHILD REFUSED ..... 4 MOTHER REFUSED ..... 5 OTHER _____ 6 (SPECIFY)	MEASURED ..... 1 CHILD SICK ..... 2 CHILD NOT PRESENT ..... 3 CHILD REFUSED ..... 4 MOTHER REFUSED ..... 5 OTHER _____ 6 (SPECIFY)	MEASURED ..... 1 CHILD SICK ..... 2 CHILD NOT PRESENT ..... 3 CHILD REFUSED ..... 4 MOTHER REFUSED ..... 5 OTHER _____ 6 (SPECIFY)
913	NAME OF MEASURER : _____	NAME OF ASSISTANT : _____		

SECTION 10. HEMOGLOBIN MEASUREMENT IN THE BLOOD

1000: READ TO THE RESPONDENT THE FOLLOWING INFORMATION ABOUT ANEMIA AND REQUEST HER PARTICIPATION IN THE ANEMIA TESTING PART OF THE SURVEY. IF THE RESPONDENT AGREES TO PARTICIPATE, ASK HER TO SIGN AND DATE THE RESPONDENT CONSENT FORM. THEN RECORD THE OUTCOME OF THIS REQUEST BY CIRCLING THE APPROPRIATE CODE ON THE NEXT PAGE.

REPUBLIC OF ARMENIA
NATIONAL STATISTICAL SERVICE

REPUBLIC OF ARMENIA
MINISTRY OF HEALTH

Dear Respondent:

The National Statistical Service and the Ministry of Health of the Republic of Armenia are conducting a Demographic and Health Survey in Armenia. As part of this program we study the prevalence of anemia among women and their children. We ask you to participate in this program, which will assist the Ministry of Health to develop specific measures to prevent and treat anemia.

Anemia is a disease, which is characterized by a low count of red blood cells. It results from poor nutrition and can be especially damaging to the health of pregnant and breastfeeding women.

Today, it is possible to rapidly (within a few minutes) diagnose this disease. A low level of hemoglobin can be determined by a Hemocue machine on the basis of a single drop of blood.

If you decide to participate in this program, we will ask you to provide a drop of blood from your finger for the analysis. Also, if you have a child of age 5 or less, please let our doctor to obtain a drop of blood from him/her. The procedure will be done by sterile, single-use instruments. The blood will be analysed using new sophisticated American equipment called Hemocue. The result of the analysis will be available to you right after the blood is taken and assessed by Hemocue. We will also keep the results confidential.

If you decide to participate in this program, please sign at the bottom of this form that you agree to provide a drop of blood from you and your child.

If you decide not to participate, it is your right, and we will respect your choice.

I _____
Last name, First name Middle name
agree to donate a drop of blood for the purpose of anemia diagnosis. I also allow a drop of blood to be taken from my child(children) _____for the purposes of anemia diagnosis.

Signature: _____ Date: _____2000

S

1001	RESPONDENT AGREES TO TESTING OF HERSELF AND/OR HER CHILD(REN) . . . . . 1 ↓ 1002	RESPONDENT DOES NOT AGREE TO TESTING . . . . . 2 ↓ END

1002	RESPONDENT'S HEMOGLOBIN LEVEL (G/DL)	.
1002A	ADJUSTMENT FACTOR	--- .
1002B	RESPONDENT'S ADJUSTED HEMOGLOBIN LEVEL (G/DL)	.
1003	RESULT	MEASURED . . . . . 1 NOT PRESENT . . . . . 2 REFUSED . . . . . 3 OTHER _____ 6 (SPECIFY)
1004	CHECK 212 AND 219: ONE OR MORE LIVING CHILDREN BORN IN JAN. 1995 OR LATER ☐ ▼ NO LIVING CHILDREN BORN IN JAN. 1995 OR LATER ☐ ► 1009	

IN 1005 AND1006 RECORD THE LINE NUMBER AND NAME OF EACH CHILD BORN IN JANUARY 1995 OR LATER AND STILL ALIVE. IN 1007 RECORD THE HEMOGLOBIN LEVEL IN THE BLOOD OF THE LIVING CHILDREN.

		1) YOUNGEST LIVING CHILD	2) NEXT-TO-YOUNGEST LIVING CHILD	3) NEXT-TO-NEXT-TO-YOUNGEST LIVING CHILD
1005	LINE NO. FROM 212			
1006	NAME FROM 217	(NAME) _____	(NAME) _____	(NAME) _____
1007	HEMOGLOBIN LEVEL IN THE BLOOD (G/DL)	.	.	.
1007A	ADJUSTMENT FACTOR	--- .	--- .	--- .
1007B	RESPONDENT'S ADJUSTED HEMOGLOBIN LEVEL (G/DL)	.	.	.

1008	RESULT	MEASURED . . . . . 1 CHILD SICK . . . . . 2 CHILD NOT PRESENT . . . . . 3 CHILD REFUSED . . . . . 4 MOTHER REFUSED . . . . . 5 OTHER _____ 6 (SPECIFY)	MEASURED . . . . . 1 CHILD SICK . . . . . 2 CHILD NOT PRESENT . . . . . 3 CHILD REFUSED . . . . . 4 MOTHER REFUSED . . . . . 5 OTHER _____ 6 (SPECIFY)	MEASURED . . . . . 1 CHILD SICK . . . . . 2 CHILD NOT PRESENT . . . . . 3 CHILD REFUSED . . . . . 4 MOTHER REFUSED . . . . . 5 OTHER _____ 6 (SPECIFY)
1009	NAME OF HEMOGLOBIN MEASURER:_____			
1010	CHECK 1002B AND 1007B: NO VALUES BELOW 7 G/DL	→ GIVE MOTHER RESULT OF HEMOGLOBIN MEASUREMENT AND END THE INTERVIEW		
	ONE OR MORE VALUES BELOW 7 G/DL	→ GIVE MOTHER RESULT OF HEMOGLOBIN MEASUREMENT AND CONTINUE WITH 1011.		
1011	CHECK HOUSEHOLD QUESTIONNAIRE Q5: RESPONDENT IS USUAL RESIDENT		RESPONDENT IS VISITOR → END	

1012

Dear Respondent:

We detected a low level of hemoglobin in your (your child`s) blood. This indicates that you (your child) have developed severe anemia, which is serious health problem. We would like to inform about the doctor at the health care facility in your area about (your/your child's) condition. This will assist you in obtaining appropriate treatment for the condition.

If you agree with this please sign at the bottom of this form.

Thank you for your cooperation.

I _____
Last name, First name Middle name
agree that the information about the level of hemoglobin in my (my child _____'s) blood will be disclosed to the doctor at the local health care facility.

Signature _____

Date " _____" _____2000

	RESPONDENT AGREES TO REFERRAL OF HERSELF AND/OR HER CHILD(REN) . . . . . 1 ↓	RESPONDENT DOES NOT AGREE TO REFERRAL . . . . . 2 ↓ END
1013	RECORD NAMES OF WOMEN AND CHILD(REN) WITH HEMOGLOBIN LEVEL LESS THAN 7G/DL ON REFERRAL FORM	

INTERVIEWER'S OBSERVATIONS

TO BE FILLED IN AFTER COMPLETING INTERVIEW

COMMENTS ABOUT RESPONDENT:

COMMENTS ON SPECIFIC QUESTIONS:

ANY OTHER COMMENTS:

SUPERVISOR'S OBSERVATIONS

NAME OF THE SUPERVISOR:_____ DATE: _____

EDITOR'S OBSERVATIONS

NAME OF EDITOR:_____ DATE: _____

DATA FROM CLINICS

		LAST BIRTH	NEXT-TO-LAST BIRTH	NEXT-TO-NEXT-TO-LAST BIRTH
		NAME_____	NAME _____	NAME _____
424Z	RECORD BIRTHWEIGHT FROM HEALTH CARD, IF AVAILABLE.	GRAMS FROM CARD . . . . . 1 [ ][ ][ ][ ] NO CARD AVAILABLE 99998	GRAMS FROM CARD . . . . . 1 [ ][ ][ ][ ] NO CARD AVAILABLE 99998	GRAMS FROM CARD . . . . . 1 [ ][ ][ ][ ] NO CARD AVAILABLE 99998

457Z (1) COPY VACCINATION DATE FOR EACH VACCINE FROM THE CARD.

(2) WRITE '44' IN 'DAY' COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN, BUT NO DATE IS RECORDED.

		NO CARD AVAILABLE 99999998				NO CARD AVAILABLE 99999998				NO CARD AVAILABLE 99999998				
			DAY	MONTH	YEAR		DAY	MONTH	YEAR		DAY	MONTH	YEAR	
A	BCG	BCG				BCG				BCG				
C	POLIO 1	P1				P1				P1				
D	POLIO 2	P2				P2				P2				
E	POLIO 3	P3				P3				P3				
G	DPT 1	D1				D1				D1				
H	DPT 2	D2				D2				D2				
I	DPT 3	D3				D3				D3				
K	DPT 4	D4				D4				D4				
L	MEASLES	MEA				MEA				MEA				
M	PARTUSIS	PRT				PRT				PRT				
N	HEPATITIS **B** (B1) VACCINE	HEP **B** (B1)				HEP **B** (B1)				HEP **B** (B1) . .				
O	HEPATITIS **B** (B2) VACCINE	HEP **B** (B2)				HEP **B** (B2)				HEP **B** (B2) . .				
P	HEPATITIS **B** (B3) VACCINE	HEP **B** (B3)				HEP **B** (B3)				HEP **B** (B3) . .				

CALENDAR

INSTRUCTIONS: ONLY ONE CODE SHOULD APPEAR IN ANY BOX. FOR COLUMNS 1 AND 4, ALL MONTHS SHOULD BE FILLED IN. INFORMATION TO BE CODED FOR EACH COLUMN

COL.1: BIRTHS, PREGNANCIES, PREGNANCY TERMINATIONS, CONTRACEPTIVE USE

- B BIRTHS
- P PREGNANCIES
- S STILLBIRTH
- M MISCARRIAGE
- D INDUCED ABORTIONS
- R SELF-INDUCED ABORTION

- 0 NO METHOD OF CONTRACEPTION
- 1 FEMALE STERILIZATION
- 2 MALE STERILIZATION
- 3 PILL
- 4 IUD
- 5 INJECTIONS
- 6 IMPLANTS
- 7 CONDOM
- 8 FEMALE CONDOM
- 9 DIAPHRAGM
- F FOAM/JELLY/CREAM/SUPPOSITORY
- L LACTATIONAL AMENORRHEA METHOD
- A CALENDAR METHOD/ PERIODIC ABSTINENCE
- W WITHDRAWAL
- X OTHER _____ (SPECIFY)

COL 2: SOURCE OF CONTRACEPTION

- 1 HOSPITAL
- 2 POLYCLINIC
- 3 WOMEN'S CONSULTING CENTER
- 4 FGP
- 5 FAP
- 6 OTHER PUBLIC
- 7 PVT. HOSPITAL/CLINIC
- 8 PHARMACY
- 9 PRIVATE DOCTOR
- A NON GOVT. MOBILE CLINIC
- B NON GOVT. FIELD WORKER
- C OTHER PRIVATE MEDICAL
- D SHOP
- E RELIGIOUS ORGANIZATION
- F FRIENDS/RELATIVES
- X OTHER _____ (SPECIFY)

NAME OF CHILD	DATA		1	2	3	4	5	DATA		
	12 DEC	1						1	12 DEC	
	11 NOV	2						2	11 NOV	
	10 OCT	3						3	10 OCT	
	09 SEP	4						4	09 SEP	
_____	2000 08 AUG	5						5	08 AUG	2000
	07 JUL	6						6	07 JUL	
	06 JUN	7						7	06 JUN	
	05 MAY	8						8	05 MAY	
	04 APR	9						9	04 APR	
	03 MAR	1						1	03 MAR	
	02 FEB	1						1	02 FEB	
	01 JAN	1						1	01 JAN	
	12 DEC	13						13	12 DEC	
	11 NOV	14						14	11 NOV	
	10 OCT	15						15	10 OCT	
	09 SEP	16						16	09 SEP	
_____	1999 08 AUG	17						17	08 AUG	1999
	07 JUL	18						18	07 JUL	
	06 JUN	19						19	06 JUN	
	05 MAY	20						20	05 MAY	
	04 APR	21						21	04 APR	
	03 MAR	22						22	03 MAR	
	02 FEB	23						23	02 FEB	
	01 JAN	24						24	01 JAN	
	12 DEC	25						25	12 DEC	
	11 NOV	26						26	11 NOV	
	10 OCT	27						27	10 OCT	
	09 SEP	28						28	09 SEP	
_____	1998 08 AUG	29						29	08 AUG	1998
	07 JUL	30						30	07 JUL	
	06 JUN	31						31	06 JUN	
	05 MAY	32						32	05 MAY	
	04 APR	33						33	04 APR	
	03 MAR	34						34	03 MAR	
	02 FEB	35						35	02 FEB	
	01 JAN	36						36	01 JAN	

COL 3: DISCONTINUATION OF CONTRACEPTIVE USE

0 INFREQUENT SEX/HUSBAND AWAY
1 BECAME PREGNANT WHILE USING
2 WANTED TO BECOME PREGNANT
3 HUSBAND DISAPPROVED
4 WANTED MORE EFFECTIVE METHOD
5 HEALTH CONCERNS
6 SIDE EFFECTS
7 LACK OF ACCESS/TOO FAR
8 COST TOO MUCH
9 INCONVENIENT TO USE
F FATALISTIC
A DIFFICULT TO GET PREGNANT/MENOPAUSAL
D MARITAL DISSOLUTION/SEPARATION
X OTHER _____
(SPECIFY)
Z DON'T KNOW

COL.4: MARRIAGE/UNION
X IN UNION (MARRIED OR LIVING TOGETHER)
0 NOT IN UNION

Col 5 PLACE OF ABORTION

1 DELIVERY HOSPITAL
2 HOSPITAL
3 FGP
4 PRIVATE CLINIC
5 WOMEN'S CONSULTING CENTER
6 OTHER _____
(SPECIFY)

NAME OF CHILD	DATA		1	2	3	4	5	DATA		
_____	12 DEC	37						37	12 DEC	1997
	11 NOV	38						38	11 NOV	
	10 OCT	39						39	10 OCT	
	09 SEP	40						40	09 SEP	
	08 AUG	41						41	08 AUG	
	07 JUL	42						42	07 JUL	
	06 JUN	43						43	06 JUN	
	05 MAY	44						44	05 MAY	
	04 APR	45						45	04 APR	
	03 MAR	46						46	03 MAR	
	02 FEB	47						47	02 FEB	
	01 JAN	48						48	01 JAN	
_____	12 DEC	49						49	12 DEC	1996
	11 NOV	50						50	11 NOV	
	10 OCT	51						51	10 OCT	
	09 SEP	52						52	09 SEP	
	08 AUG	53						53	08 AUG	
	07 JUL	54						54	07 JUL	
	06 JUN	55						55	06 JUN	
	05 MAY	56						56	05 MAY	
	04 APR	57						57	04 APR	
	03 MAR	58						58	03 MAR	
	02 FEB	59						59	02 FEB	
	01 JAN	60						60	01 JAN	
_____	12 DEC	61						61	12 DEC	1995
	11 NOV	62						62	11 NOV	
	10 OCT	63						63	10 OCT	
	09 SEP	64						64	09 SEP	
	08 AUG	65						65	08 AUG	
	07 JUL	66						66	07 JUL	
	06 JUN	67						67	06 JUN	
	05 MAY	68						68	05 MAY	
	04 APR	69						69	04 APR	
	03 MAR	70						70	03 MAR	
	02 FEB	71						71	02 FEB	
	01 JAN	72						72	01 JAN	

ARMENIA DEMOGRAPHIC AND HEALTH SURVEY
MEN'S QUESTIONNAIRE

REPUBLIC OF ARMENIA
NATIONAL STATISTICAL SERVICE
MINISTRY OF HEALTH

IDENTIFICATION

PLACE NAME _____

NAME OF HOUSEHOLD HEAD _____

CLUSTER NUMBER . . . . . .

HOUSEHOLD NUMBER . . . . . .

REGION . . . . . .

URBAN/RURAL (URBAN=1, RURAL=2) . . . . . .

LARGE CITY/SMALL CITY/TOWN/COUNTRYSIDE . . . . . .
(large city=1, small city=2, town=3, countryside=4)

NAME AND LINE NUMBER OF MAN _____

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE	_____	_____	_____	DAY MONTH YEAR
INTERVIEWER'S NAME	_____	_____	_____	NAME
RESULT*	_____	_____	_____	RESULT
NEXT VISIT: DATE	_____	_____		TOTAL NO. OF VISITS
TIME	_____	_____		

*RESULT CODES:

1	COMPLETED	4	REFUSED		
2	NOT AT HOME	5	PARTLY COMPLETED	7	OTHER _____ (SPECIFY)
3	POSTPONED	6	INCAPACITATED		

	ARMENIAN	RUSSIAN	OTHER
1. LANGUAGE OF INTERVIEW	1	2	3
2. NATIVE LANGUAGE OF RESPONDENT	1	2	3
	YES	NO	
3. WHETHER TRANSLATOR USED	1	2	

SUPERVISOR	FIELD EDITOR	OFFICE EDITOR	KEYED BY
NAME _____	NAME _____		
DATE _____	DATE _____		

SECTION 1. RESPONDENT'S BACKGROUND

INFORMED CONSENT

Hello. My name is _____ and I am working with the National Statistical Service and the Ministry of Health of the Republic of Armenia. We are conducting a national survey about the health of men, women and children. We would very much appreciate your participation in this survey. I would like to ask you some questions about yourself and your family. This information will help the government to plan health services. The survey usually takes about 20 to 30 minutes to complete. Whatever information you provide will be kept strictly confidential and will not be shown to other persons.

Participation in this survey is voluntary and you can choose not to answer any individual question or all of the questions. However, we hope that you will participate in this survey since your views are important.

At this time, do you want to ask me anything about the survey?

May I begin the interview now?

Signature of interviewer: _____ Date: _____

RESPONDENT AGREES TO BE INTERVIEWED . . . . . 1 ▼ RESPONDENT DOES NOT AGREE TO BE INTERVIEWED . . . . . 2 →END

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
101	RECORD THE TIME.	HOUR . . . . . [ ][ ] MINUTES . . . . . [ ][ ]	
102	First I would like to ask some questions about you and your household. For most of the time until you were 12 years old, did you live in a city, in a town, or in the countryside?	CITY . . . . . 1 TOWN . . . . . 2 COUNTRYSIDE 3	
103	How long have you been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)? IF LESS THAN ONE YEAR, RECORD '00' YEARS.	YEARS . . . . . [ ][ ] ALWAYS . . . . . 95 VISITOR 96	→105
104	Just before you moved here, did you live in a city, in a town, or in the countryside?	CITY . . . . . 1 TOWN . . . . . 2 COUNTRYSIDE 3	
105	In the last 12 months, have you ever traveled away from your home community and slept away?	YES . . . . . 1 NO 2	→108
106	In the last 12 months, on how many separate occasions have you traveled away from your home community and slept away?	NUMBER OF TRIPS AWAY . . . . . [ ][ ]	
107	In the last 12 months, have you been away from your home community for more than 1 month at a time?	YES . . . . . 1 NO 2	
108	In what month and year were you born?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	→110
109	How old were you at your last birthday? COMPARE AND CORRECT 108 AND/OR 109 IF INCONSISTENT.	AGE IN COMPLETED YEARS . . . . . [ ][ ]	
110	Have you ever attended school?	YES . . . . . 1 NO 2	→117
111	What is the highest level of school you attended: primary, secondary, secondary-special, undergraduate, or graduate?	SCHOOL (PRIMARY/SECOND) . . . . . 1 SECONDARY-SPECIAL . . . . . 2 UNDERGRADUATE . . . . . 3 GRADUATE 4	
112	What is the highest (class/course) that you completed at that level?	CLASS /COURSE . . . . . [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
117	Do you read a newspaper or magazine almost every day, at least once a week, occasionally, or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 OCCASIONALLY . . . . . 3 NOT AT ALL 4	
118	Do you listen to the radio almost every day, at least once a week, occasionally, or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 OCCASIONALLY . . . . . 3 NOT AT ALL 4	
119	Do you watch television almost every day, at least once a week, occasionally, or not at all?	ALMOST EVERY DAY . . . . . 1 AT LEAST ONCE A WEEK . . . . . 2 OCCASIONALLY . . . . . 3 NOT AT ALL 4	
120	Are you currently working?	YES . . . . . 1 NO 2	→123
121	Have you done any work in the last 12 months?	YES . . . . . 1 NO 2	→123
122	What have you been doing for most of the time over the last 12 months?	GOING TO SCHOOL/STUDYING . . . . . 1 LOOKING FOR WORK . . . . . 2 INACTIVE . . . . . 3 COULD NOT WORK/HANDICAPPED . . . . . 4 OTHER _____ 6 (SPECIFY)	→129
123	What is your occupation, that is, what kind of work do you mainly do?	_____ [ ][ ] _____ _____	
124	CHECK 123: WORKS IN AGRICULTURE [ ] ▼ DOES NOT WORK IN AGRICULTURE [ ] _____		→126
125	Do you work mainly on your own land or on family land, or do you work on land that you rent from someone else, or do you work on someone else's land?	OWN LAND . . . . . 1 FAMILY LAND . . . . . 2 RENTED LAND . . . . . 3 SOMEONE ELSE'S LAND 4	
126	During the last 12 months, how many months did you work?	NUMBER OF MONTHS . . . . . [ ][ ]	
127	Are you paid in cash or kind for this work, or are you not paid at all?	CASH ONLY . . . . . 1 CASH AND KIND . . . . . 2 IN KIND ONLY . . . . . 3 NOT PAID 4	→129
128	On average, how much of your household's expenditures do your earnings pay for: almost none, less than half, about half, more than half, or all?	ALMOST NONE . . . . . 1 LESS THAN HALF . . . . . 2 ABOUT HALF . . . . . 3 MORE THAN HALF . . . . . 4 ALL . . . . . 5 NONE, HIS INCOME IS ALL SAVED 6	
129	What is your religion?	CHRISTIAN . . . . . 1 MUSLIM . . . . . 2 OTHER _____ 6 (SPECIFY) NOT RELIGIOUS . . . . . 7 DON'T KNOW 8	
130	What is your nationality?	ARMENIAN . . . . . 1 RUSSIAN . . . . . 2 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	

SECTION 2. REPRODUCTION

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
201	Now I would like to ask about any children you have had. I am interested only in the children that are biologically yours. Have you ever fathered any children with any woman?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→206
202	Do you have any sons or daughters that you have fathered who are now living with you?	YES . . . . . 1 NO 2	→204
203	How many sons live with you? And how many daughters live with you? IF NONE, RECORD '00'.	SONS AT HOME . . . . . [ ][ ] DAUGHTERS AT HOME . . . . . [ ][ ]	
204	Do you have any sons or daughters you have fathered who are alive but do not live with you?	YES . . . . . 1 NO 2	→206
205	How many sons are alive but do not live with you? And how many daughters are alive but do not live with you? IF NONE, RECORD '00'.	SONS ELSEWHERE . . . . . [ ][ ] DAUGHTERS ELSEWHERE . . . . . [ ][ ]	
206	Have you ever fathered a son or a daughter who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but died soon after childbirth?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	→208
207	How many boys have died? And how many girls have died? IF NONE, RECORD '00'.	BOYS DEAD . . . . . [ ][ ] GIRLS DEAD . . . . . [ ][ ]	
208	(In addition to the children that you have just told me about), have you ever fathered a) any sons or daughters who are alive but who are not legally yours or do not have your last name? b) any sons or daughters who died who were not legally yours or who did not have your last name? NO TO BOTH [ ] ▼ OTHER [ ] → PROBE AND CORRECT 201-207 AS NECESSARY.		
209	SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL IF NONE, RECORD '00'.	TOTAL CHILDREN . . . . . [ ][ ]	

SECTION 3. CONDOMS

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIPCHE
301	Have you ever heard of condoms? IF NO, PROBE: Men can put a condom (a rubber sheath) on their penis before sexual intercourse.	YES . . . . . 1 NO 2	→401
302	Have you ever used a condom?	YES . . . . . 1 NO 2	→323
312	How old were you when you used a condom for the first time?	AGE AT FIRST USE . . . . . [ ][ ] DOES NOT REMEMBER 98	
313	Why did you use a condom that first time? PROBE: Any other reason? RECORD ALL REASONS MENTIONED.	TO AVOID PREGNANCY . . . . . A TO AVOID GETTING AIDS/HIV . . . . . B TO AVOID GETTING AN STD . . . . . C TO AVOID INFECTING PARTNER . . . . . D TO EXPERIMENT/TRY A CONDOM . . . . . E OTHER _____ X (SPECIFY)	
314	Now when you have sex, do you use a condom every time, sometimes, or not at all?	EVERY TIME . . . . . 1 SOMETIMES . . . . . 2 NOT AT ALL . . . . . 3 NOT HAVING SEX 4	→316 →316
315	When do you use a condom? PROBE: Any other times? RECORD ALL SITUATIONS MENTIONED.	ON PARTNER'S FERTILE DAYS . . . . . A DURING WIFE'S/PARTNER'S MENSTRUATION . . . . . B WHEN NOT USING SOME OTHER METHOD . C WITH A STRANGER . . . . . D WITH A COMMERCIAL SEX WORKER . . . . . E WITH ANYONE OTHER THAN WIFE/REGULAR PARTNER . . . . . F WITH WIFE/REGULAR PARTNER . . . . . G OTHER _____ X (SPECIFY)	
316	Have you ever experienced any problems with using condoms? IF YES: What problems have you experienced? PROBE: Any other problems? RECORD ALL PROBLEMS MENTIONED.	TOO EXPENSIVE . . . . . A EMBARRASSING TO BUY/OBTAIN . . . . . B DIFFICULT TO DISPOSE OF . . . . . C DIFFICULT TO PUT ON/TAKE OFF . . . . . D SPOILS THE MOOD . . . . . E DIMINISHES PLEASURE . . . . . F WIFE PARTNER OBJECTS/DOES NOT LIKE . . . . . G WIFE/PARTNER GOT PREGNANT . . . . . H INCONVENIENT TO USE/MESSY . . . . . I CONDOM BROKE . . . . . J OTHER _____ X (SPECIFY) NO PROBLEM . . . . . Y	
317	CHECK 314: CURRENT USE OF CONDOMS[1] EVERY TIME OR SOMETIMES [ ] ▼ NOT AT ALL/ NOT HAVING SEX [ ] _____		→323

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIPCHE
319	From where do you usually obtain the condoms? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE)	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . 11 GOVERNMENT HEALTH CENTER . . . . . 12 FAMILY PLANNING CLINIC . . . . . 13 MOBILE CLINIC . . . . . 14 FIELD WORKER . . . . . 15 OTHER PUBLIC _____ 16 (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . 21 PHARMACY . . . . . 22 PRIVATE DOCTOR . . . . . 23 MOBILE CLINIC . . . . . 24 FIELD WORKER . . . . . 25 OTHER PRIVATE MEDICAL _____ 26 (SPECIFY) OTHER SOURCE SHOP . . . . . 31 CHURCH . . . . . 32 FRIEND/RELATIVE . . . . . 33 SCHOOL . . . . . 34 OTHER _____ 96 (SPECIFY)	
320	How much do you usually pay for a packet of condoms?	COST PER PACKET . . . . . [ ][ ][ ] FREE . . . . . 995 DON'T KNOW 998	→323
321	How many condoms are in each packet?	NUMBER . . . . . [ ][ ]	
322	Do you think that at this price condoms are inexpensive, just affordable, or too expensive?[1]	INEXPENSIVE . . . . . 1 JUST AFFORDABLE . . . . . 2 TOO EXPENSIVE 3	
323	I will now read you some statements about condom use that other men have made. Please tell me if you agree or disagree with each. a) Condoms diminish a man's sexual pleasure. b) A condom is very inconvenient to use. c) A condom can be reused. d) A condom protects against disease. e) A woman has no right to tell a man to use a condom.	AGREE / DISAGREE / DK a) 1 2 8 b) 1 2 8 c) 1 2 8 d) 1 2 8 e) 1 2 8	

SECTION 4. MARRIAGE AND SEXUAL ACTIVITY

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
401	Are you currently married or living with a woman?	YES, CURRENTLY MARRIED . . . . . 1 YES, LIVING WITH A WOMAN . . . . . 2 NO, NOT IN UNION 3	 →405 →405
401A	Do you currently have a regular sexual partner, an occasional sexual partner, or no sexual partner?	REGULAR PARTNER(S) ONLY . . . . . 1 OCCASIONAL PARTNER(S) ONLY . . . . . 2 REGULAR AND OCCASIONAL PARTNERS . . . . . 3 NO SEXUAL PARTNER 4	 →401C →401C →401C
401B	Do you have one or more than one regular partner?	ONE REGULAR PARTNER . . . . . 1 MORE THAN ONE REGULAR PARTNER 2	
401C	Have you ever been married or lived with a woman?	YES, FORMERLY MARRIED . . . . . 1 YES, LIVED WITH A WOMAN . . . . . 2 NO 3	 →411 →416
404	What is your marital status now: are you widowed, divorced, or separated?	WIDOWED . . . . . 1 DIVORCED . . . . . 2 SEPARATED 3	 →411
405	Is your wife/partner living with you now or is she staying elsewhere?	LIVING WITH HIM . . . . . 1 STAYING ELSEWHERE 2	
406	RECORD THE WIFE'S/PARTNER'S NAME AND LINE NUMBER FROM THE HOUSEHOLD QUESTIONNAIRE. IF SHE IS NOT LISTED IN THE HOUSEHOLD, RECORD '00'.	NAME _____ LINE NUMBER . . . . . [ ][ ]	
411	Have you been married or lived with a woman only once, or more than once?	ONCE . . . . . 1 MORE THAN ONCE 2	 →414
413	In total, how many women have you been married to or lived with as if married in your whole life?	NUMBER OF WOMEN . . . . . [ ][ ]	
414	CHECK 411: ONLY ONE WIFE/ PARTNER → In what month and year did you start living with your wife/partner? MORE THAN ONE → Now we will talk about your first wife/partner. In what month and year did you start living with her?	MONTH . . . . . [ ][ ] DON'T KNOW MONTH . . . . . 98 YEAR . . . . . [ ][ ][ ][ ] DON'T KNOW YEAR 9998	 →416
415	How old were you when you started living with her?	AGE . . . . . [ ][ ]	
416	Now I need to ask you some questions about sexual activity in order to gain a better understanding of some family life issues. How old were you when you first had sexual intercourse with a woman (if ever)?	NEVER . . . . . 00 AGE IN YEARS . . . . . [ ][ ] FIRST TIME WHEN STARTED LIVING WITH (FIRST) WIFE/PARTNER 95	→448
417	When was the last time you had sexual intercourse with a woman? RECORD 'YEARS AGO' ONLY IF LAST INTERCOURSE WAS ONE OR MORE YEARS AGO. IF 12 MONTHS OR MORE, ANSWER MUST BE RECORDED IN YEARS.	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ]	 →448
418	The last time you had sexual intercourse with a woman, was a condom used?	YES . . . . . 1 NO 2	 →424

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
419	What was the main reason you used a condom on that occasion?	RESPONDENT WANTED TO PREVENT STD/HIV . . . . . 1 RESPONDENT WANTED TO PREVENT PREGNANCY . . . . . 2 RESPONDENT WANTEDTO PREVENT BOTH STD/HIV AND PREGNANCY . . . . . 3 DID NOT TRUST PARTNER/FELT SHE HAD OTHER PARTNERS . . . . . 4 PARTNER REQUESTED/INSISTED . . . . . 5 OTHER _____ 6 (SPECIFY)	→424
424	What is your relationship to the woman with whom you last had sex? IF WOMAN IS "GIRLFRIEND" OR "FIANCÉE", ASK: Was your girlfriend/fiancée living with you when you last had sex with her? IF YES, CIRCLE '01'. IF NO, CIRCLE '02'.	SPOUSE/COHABITING PARTNER . . . . . 01 WOMAN IS GIRLFRIEND/FIANCÉE . . . . . 02 OTHER FRIEND . . . . . 03 CASUAL ACQUAINTANCE . . . . . 04 RELATIVE . . . . . 05 COMMERCIAL SEX CUSTOMER . . . . . 06 OTHER _____ 96 (SPECIFY)	→426
425	For how long have you had sexual relations with this woman?	DAYS . . . . . 1 [ ][ ] WEEKS . . . . . 2 [ ][ ] MONTHS . . . . . 3 [ ][ ] YEARS . . . . . 4 [ ][ ]	
426	Have you had sex with any other woman in the last 12 months?	YES . . . . . 1 NO 2	→445
427	The last time you had sexual intercourse with another woman, was a condom used?	YES . . . . . 1 NO 2	→433
428	What was the main reason you used a condom on that occasion?	RESPONDENT WANTED TO PREVENT STD/HIV . . . . . 1 RESPONDENT WANTED TO PREVENT A PREGNANCY . . . . . 2 RESPONDENT WANTED TO PREVENT BOTH STD/HIV AND PREGNANCY . . . . . 3 DID NOT TRUST PARTNER/FELT SHE HAD OTHER PARTNERS . . . . . 4 PARTNER REQUESTED/INSISTED . . . . . 5 OTHER_____ 6 (SPECIFY)	→433
433	What is your relationship to this woman? IF WOMAN IS "GIRLFRIEND" OR "FIANCÉE", ASK: Was your girlfriend/fiancée living with you when you last had sex with her? IF YES, CIRCLE '01' IF NO, CIRCLE '02'	SPOUSE/COHABITING PARTNER . . . . . 01 WOMAN IS GIRLFRIEND/FIANCÉE . . . . . 02 OTHER FRIEND . . . . . 03 CASUAL ACQUAINTANCE . . . . . 04 RELATIVE . . . . . 05 COMMERCIAL SEX CUSTOMER . . . . . 06 OTHER _____ 96 (SPECIFY)	→435
434	For how long have you had sexual relations with this woman?	DAYS . . . . . 1 [ ][ ] WEEKS . . . . . 2 [ ][ ] MONTHS . . . . . 3 [ ][ ] YEARS . . . . . 4 [ ][ ]	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
435	Other than these two women, have you had sex with any other woman in the last 12 months?	YES . . . . . 1 NO 2	→445
436	The last time you had sexual intercourse with this third woman, was a condom used?	YES . . . . . 1 NO 2	→442
437	What was the main reason you used a condom on that occasion?	RESPONDENT WANTED TO PREVENT STD/HIV . . . . . 1 RESPONDENT WANTED TO PREVENT A PREGNANCY . . . . . 2 RESPONDENT WANTED TO PREVENT BOTH STD/HIV AND PREGNANCY . . . . . 3 DID NOT TRUST PARTNER/FELT SHE HAD OTHER PARTNERS . . . . . 4 PARTNER REQUESTED/INSISTED . . . . . 5 OTHER _____ 6 (SPECIFY)	→442
442	What is your relationship to this woman? IF WOMAN IS "GIRLFRIEND" OR "FIANCÉE", ASK: Was your girlfriend/fiancée living with you when you last had sex with her? IF YES, CIRCLE '01' IF NO, CIRCLE '02'	SPOUSE/COHABITING PARTNER . . . . . 01 WOMAN IS GIRLFRIEND/FIANCÉE . . . . . 02 OTHER FRIEND . . . . . 03 CASUAL ACQUAINTANCE . . . . . 04 RELATIVE . . . . . 05 COMMERCIAL SEX CUSTOMER . . . . . 06 OTHER _____ 96 (SPECIFY)	→444
443	For how long have you had sexual relations with this woman?	DAYS . . . . . 1 [ ][ ] WEEKS . . . . . 2 [ ][ ] MONTHS . . . . . 3 [ ][ ] YEARS . . . . . 4 [ ][ ]	
444	In total, with how many different women have you had sex in the last 12 months?	NUMBER OF PARTNERS . . . . . [ ][ ]	
445	Have you ever paid for sex?	YES . . . . . 1 NO 2	→448
446	How long ago was the last time you paid for sex?	DAYS AGO . . . . . 1 [ ][ ] WEEKS AGO . . . . . 2 [ ][ ] MONTHS AGO . . . . . 3 [ ][ ] YEARS AGO . . . . . 4 [ ][ ]	
447	The last time that you paid for sex, was a condom used on that occasion?	YES . . . . . 1 NO 2	
448	CHECK 319: SOURCE OF CONDOMS SOURCE NOT CIRCLED [ ] ▼ SOURCE CIRCLED [ ] _____		→450
449	Do you know of a place where a person can get condoms?	YES . . . . . 1 NO 2	→631

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
450	What places do you know of where a person can get condoms? IF SOURCE IS HOSPITAL, HEALTH CENTER OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) PROBE: Any other place? RECORD ALL PLACES MENTIONED.	PUBLIC SECTOR GOVERNMENT HOSPITAL. . . . . A GOVERNMENT HEALTH CENTER . . . . . B FAMILY PLANNING CLINIC. . . . . C MOBILE CLINIC . . . . . D FIELD WORKER . . . . . E OTHER PUBLIC _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . G PHARMACY . . . . . H PRIVATE DOCTOR . . . . . I MOBILE CLINIC . . . . . J FIELD WORKER . . . . . K OTHER PRIVATE MEDICAL _____ L (SPECIFY) OTHER SOURCE SHOP . . . . . M CHURCH . . . . . N FRIENDS/RELATIVES . . . . . O OTHER _____ X (SPECIFY)	
451	If you wanted to, could you yourself get a condom?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE 8	

SECTION 6: HEALTH

631	ASK 631, THEN FOLLOW SKIP PATTERN TO 632 AND 633 FOR EACH ILLNESS Now tell me about your own health. Have you ever, at any time in your life, had...		632 Have you ever sought treatment for (NAME OF PROBLEM) ?	633 Have you had (NAME OF PROBLEM) in the last 3 months?
631A	Tuberculosis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
631B	Asthma?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
631C	Diabetes?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
631D	High blood pressure?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
631E	Heart problem?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
631F	Malaria?	YES . . . . . 1→ NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
631G	Hepatitis or Botkins Disease?	YES . . . . . 1→ NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2
631H	Kidney disease	YES . . . . . 1→ NO . . . . . 2 DON'T KNOW 8	YES . . . . . 1 NO 2	YES . . . . . 1 NO 2

634	CHECK 633 (HEALTH PROBLEMS IN THE LAST 3 MONTHS): AT LEAST ONE YES ☐ OTHER ☐	→638A
635	At any time during the last 3 months, did (this/these) health problem(s) prevent you from doing your work or other regular activities?	YES . . . . . 1 NO . . . . . 2 →637
636	For how many days in the last 3 months were you unable to do your work or regular activities due to this (these) health problem(s)?	NUMBER OF DAYS . . . . . ☐☐

637	CHECK 632 (TREATMENT FOR ALL HEALTH PROBLEMS): AT LEAST ONE YES ☐ ▼	OTHER ☐	→638A
638	Where did you go for treatment for this (these) health problem(s)? IF SOURCE IS HOSPITAL, HEALTH CENTER OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) PROBE: Did you go anywhere else for treatment? RECORD ALL PLACES MENTIONED.	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . A GOVERNMENT HEALTH CENTER . . . . . B GOVERNMENT HEALTH POST . . . . . C MOBILE CLINIC . . . . . D FIELD WORKER . . . . . E OTHER PUBLIC _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . G PHARMACY . . . . . H PRIVATE DOCTOR . . . . . I MOBILE CLINIC . . . . . J FIELD WORKER . . . . . K OTHER PRIVATE MEDICAL _____ L (SPECIFY) OTHER SOURCE SHOP . . . . . M TRADITIONAL PRACTITIONER . . . . . N OTHER _____ X (SPECIFY)	
638A	CHECK 631A (EVER HAD TB): CODE '1' NOT CIRCLED ☐ ▼	CODE '1' CIRCLED ☐	→638C
638B	Have you heard of an illness called tuberculosis?	YES . . . . . 1 NO 2	→639
638C	Has anyone in your family ever had tuberculosis?	YES . . . . . 1 NO 2	
638D	Other than your family, is there anyone with whom you have frequent contact (neighbors, colleagues or close friends) who has ever had tuberculosis?	YES . . . . . 1 NO 2	
638E	What signs or symptoms would lead you to think that a person has tuberculosis?	COUGHING . . . . . A COUGHING FOR EXTENDED PERIOD OF TIME . . . . B COUGHING WITH SPUTUM . . . . . C BLOOD IN SPUTUM . . . . . D FEVER . . . . . E LOSS OF APPETITE . . . . . F NIGHTSWEATS . . . . . G PAIN IN CHEST . . . . . H TIREDNESS/FATIGUE . . . . . I WEIGHT LOSS . . . . . J LETHARGY . . . . . K OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	→638G

638F	What are the symptoms of tuberculosis which would convince you to seek medical assistance?	COUGHING . . . . . A COUGHING FOR EXTENDED PERIOD OF TIME . . . . B COUGHING WITH SPUTUM . . . . . C BLOOD IN SPUTUM . . . . . D FEVER . . . . . E LOSS OF APPETITE . . . . . F NIGHTSWEATS . . . . . G PAIN IN CHEST . . . . . H TIREDNESS/FATIGUE . . . . . I WEIGHT LOSS . . . . . J LETHARGY . . . . . K OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
638G	Did you know that tuberculosis can be completely cured with proper medication?	YES . . . . . 1 NO 2	
638H	When a person first discovers that he or she had tuberculosis, how should that person be treated initially: hospitalized, treated at home, or both?	HOSPITALIZED . . . . . 1 TREATED AT HOME . . . . . 2 INITIALLY HOSPITALIZED, THEN AT HOME . . . . . 3 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
638I	How does turberculosis spread from one person to another?	THROUGH AIR WHEN COUGHING . . . . . 1 OTHER _____ 6 (SPECIFY) DON'T KNOW 8	
639	Now I would like to ask you some other questions. Have you had any kind of injection in the last 3 months?	YES . . . . . 1 NO 2	→642
640	How many injections have you had in the last 3 months?	NUMBER OF INJECTIONS . . . . . [ ][ ] EVERY DAY 95	
641	The last time you had an injection, who was the person who gave you the injection?	DOCTOR/HEALTH PROFESSIONAL . . . . . 1 PHARMACIST . . . . . 2 TRADITIONAL PRACTITIONER . . . . . 3 FRIEND/RELATIVE . . . . . 4 SELF . . . . . 5 OTHER _____ 6 (SPECIFY)	
642	Do you currently smoke cigarettes or tobacco? IF YES: What type of tobacco do you smoke? RECORD ALL TYPES MENTIONED.	YES, CIGARETTES . . . . . A YES, PIPE . . . . . B YES, OTHER TOBACCO . . . . . C NO . . . . . Y	
643	CHECK 642: CODE 'A' CIRCLED [ ] ▼ CODE 'A' NOT CIRCLED [ ] _____		→645
644	In the last 24 hours, how many cigarettes did you smoke?	CIGARETTES . . . . . [ ][ ]	
645	Have you ever drunk an alcohol-containing beverage?	YES . . . . . 1 NO 2	→701
646	In the last 3 months, on how many days did you drink an alcohol-containing beverage? IF EVERY DAY, RECORD '90'.	NUMBER OF DAYS . . . . . [ ][ ] NONE 95	
647	Have you ever gotten "drunk" from drinking an alcohol-containing beverage?	YES . . . . . 1 NO 2	→701

648	CHECK 646: DRANK ALCOHOL ON AT LEAST ONE DAY ☐ ▼	NONE ☐	→701
649	In the last 3 months, on how many occasions did you get "drunk"?	NUMBER OF TIMES . . . . . ☐☐ NONE 95	

SECTION 7. AIDS AND OTHER SEXUALLY TRANSMITTED DISEASES

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
701	Now I would like to talk about something else. Have you ever heard of an illness called AIDS or the virus HIV?	YES . . . . . 1 NO 2	 →724
702	Is there anything a person can do to avoid getting AIDS or the virus that causes AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	 →709
703	What can a person do? Anything else? RECORD ALL WAYS MENTIONED.	ABSTAIN FROM SEX . . . . . A USE CONDOMS . . . . . B LIMIT SEX TO ONE PARTNER/STAY FAITHFUL TO ONE PARTNER . . . . . C LIMIT NUMBER OF SEXUAL PARTNERS . . . . . D AVOID SEX WITH PROSTITUTES . . . . . E AVOID SEX WITH PERSONS WHO HAVE MANY PARTNERS . . . . . F AVOID SEX WITH HOMOSEXUALS . . . . . G AVOID SEX WITH PERSONS WHO INJECT DRUGS INTRAVENOUSLY . . . . . H AVOID BLOOD TRANSFUSIONS . . . . . I AVOID INJECTIONS . . . . . J AVOID SHARING RAZORS/BLADES . . . . . K AVOID KISSING . . . . . L AVOID MOSQUITO BITES . . . . . M SEEK PROTECTION FROM TRADITIONAL PRACTITIONER . . . . . N OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) DON'T KNOW . . . . . Z	
704	Can people reduce their chances of getting the AIDS virus by having just one sex partner who has no other partners?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
705	Can a person get the AIDS virus from mosquito bites?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
706	Can people reduce their chances of getting the AIDS virus by using a condom every time they have sex?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
707	Can a person get the AIDS virus by sharing food with a person who has AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
709	Is it possible for a healthy-looking person to have the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
710	Do you know someone personally who has the virus that causes AIDS or someone who died of AIDS?	YES . . . . . 1 NO 2	
711	Can the virus that causes AIDS be transmitted from a mother to a child?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	 →713
712	Can the virus that causes AIDS be transmitted from a mother to her child... During pregnancy? During delivery? By breastfeeding?	YES NO DK DURING PREGNANCY . . . . . 1 2 8 DURING DELIVERY . . . . . 1 2 8 BY BREASTFEEDING 1 2 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
713	CHECK 401: YES, CURRENTLY MARRIED/LIVING WITH A WOMAN ☐ ▼	NO, NOT IN UNION ☐ _____	→715
714	Have you ever talked with (your wife/the woman you are living with) about ways to prevent getting the virus that causes AIDS? IF MORE THAN ONE WIFE/PARTNER, ASK ABOUT ANY OF HIS WIVES/PARTNERS.	YES . . . . . 1 NO 2	
715	In your opinion, is it acceptable or unacceptable for AIDS to be discussed: on the radio? on the TV? in newspapers?	ACCEPT-ABLE / NOT ACCEPT-ABLE ON THE RADIO . . . . . 1 2 ON THE TV . . . . . 1 2 IN NEWSPAPERS 1 2	
716	If a member of your family got infected with the virus that causes AIDS, would you want it to remain a secret?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE/DEPENDS 8	
717	If a relative of yours became sick with the virus that causes AIDS, would you be willing to care for her or him in your own household?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE/DEPENDS 8	
718	If a female teacher has the AIDS virus, should she be allowed to continue teaching in the school?	CAN CONTINUE . . . . . 1 SHOULD NOT CONTINUE . . . . . 2 DON'T KNOW/UNSURE/DEPENDS 8	
719	Should children age 12-14 years be taught about using a condom to avoid AIDS?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE/DEPENDS 8	
720	Have you ever been tested to see if you have the AIDS virus?	YES . . . . . 1 NO 2	 →723A
721	Would you want to be tested for the AIDS virus?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW/UNSURE/DEPENDS 8	
722	Do you know a place where you could go to get an AIDS test?	YES . . . . . 1 NO 2	 →724
723 723A	Where can you go for the test? Where did you go for the test? IF SOURCE IS HOSPITAL, HEALTH CENTER, OR CLINIC, WRITE THE NAME OF THE PLACE. PROBE TO IDENTIFY THE TYPE OF SOURCE AND CIRCLE THE APPROPRIATE CODE. _____ (NAME OF PLACE) PROBE: Any other place? RECORD ALL PLACES MENTIONED.	PUBLIC SECTOR GOVERNMENT HOSPITAL . . . . . A GOVERNMENT HEALTH CENTER . . . . . B FAMILY PLANNING CLINIC . . . . . C MOBILE CLINIC . . . . . D FIELD WORKER . . . . . E OTHER PUBLIC _____ F (SPECIFY) PRIVATE MEDICAL SECTOR PRIVATE HOSPITAL/CLINIC . . . . . G PHARMACY . . . . . H PRIVATE DOCTOR . . . . . I MOBILE CLINIC . . . . . J FIELD WORKER . . . . . K OTHER PRIVATE MEDICAL _____ L (SPECIFY) OTHER SOURCE SHOP . . . . . M CHURCH . . . . . N FRIENDS/RELATIVES . . . . . O OTHER _____ X (SPECIFY)	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
724	(Apart from AIDS), have you heard about (other) infections that can be transmitted through sexual contact?	YES . . . . . 1 NO 2	→727
724A	Which venereal or sexually transmitted infections have you heard of?	SYPHLIS . . . . . A GONORRHEA . . . . . B CLAMYDIA . . . . . C HERPES . . . . . D OTHER _____ X (SPECIFY)	
725	If a man has a venereal or sexually transmitted disease, what symptoms might he have? Any others? RECORD ALL SYMPTOMS MENTIONED.	ABDOMINAL PAIN . . . . . A GENITAL DISCHARGE/DRIPPING . . . . . B FOUL SMELLING DISCHARGE . . . . . C BURNING PAIN ON URINATION . . . . . D REDNESS/INFLAMMATION IN GENITAL AREA . E SWELLING IN GENITAL AREA . . . . . F GENITAL SORES/ULCERS . . . . . G GENITAL WARTS . . . . . H GENITAL ITCHING . . . . . I BLOOD IN URINE . . . . . J LOSS OF WEIGHT . . . . . L IMPOTENCE . . . . . M OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) NO SYMPTOMS . . . . . Y DON'T KNOW . . . . . Z	
726	If a woman has a venereal or sexually transmitted disease, what symptoms might she have? Any others? RECORD ALL SYMPTOMS MENTIONED.	ABDOMINAL PAIN . . . . . A GENITAL DISCHARGE . . . . . B FOUL SMELLING DISCHARGE . . . . . C BURNING PAIN ON URINATION . . . . . D REDNESS/INFLAMMATION IN GENITAL AREA . E SWELLING IN GENITAL AREA . . . . . F GENITAL SORES/ULCERS . . . . . G GENITAL WARTS . . . . . H GENITAL ITCHING . . . . . I BLOOD IN URINE . . . . . J LOSS OF WEIGHT . . . . . K HARD TO GET PREGNANT/HAVE A CHILD . . . . . L OTHER _____ W (SPECIFY) OTHER _____ X (SPECIFY) NO SYMPTOMS . . . . . Y DON'T KNOW . . . . . Z	
727	CHECK 416: HAS HAD SEXUAL INTERCOURSE ☐ ▼ HAS NOT HAD SEXUAL INTERCOURSE ☐ _____		→801
728	Now I would like to ask you some questions about your health in the last 12 months. During the last 12 months, have you had a sexually-transmitted disease?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
729	Sometimes, men experience an abnormal discharge from their penis. During the last 12 months, have you had a discharge from your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	
730	Sometimes men have a sore or ulcer on or near their penis. During the last 12 months, have you had a sore or ulcer on or near your penis?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 8	

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES	SKIP
731	CHECK 728/729/730: HAS HAD AN INFECTION ☐ ▼ HAS NOT HAD AN INFECTION ☐		→801
732	The last time you had (PROBLEM(S) FROM 728/729/730), did you seek any kind of advice or treatment?	YES . . . . . 1 NO 2	→734
733	The last time you had (PROBLEM(S) FROM 728/729/730), did you do any of the following? Did you....	YES NO	
	a) Seek advice from a health worker in a clinic or hospital?	CLINIC/HOSPITAL 1 2	
	b) Seek advice or medicine from a traditional healer?	TRADITIONAL HEALER 1 2	
	c) Seek advice or buy medicine in a shop or pharmacy?	SHOP/PHARMACY 1 2	
	d) Ask for advice from friends or relatives?	FRIENDS/RELATIVES 1 2	
734	When you had (PROBLEM(S) FROM 728/729/730), did you inform the person(s) with whom you were having sex?	YES . . . . . 1 NO . . . . . 2 SOME/ NOT ALL . . . . . 3 DID NOT HAVE A PARTNER 4	→801
735	When you had (PROBLEM(S) FROM 728/729/730), did you do anything to avoid infecting your sexual partner(s)?	YES . . . . . 1 NO . . . . . 2 PARTNER(S) ALREADY INFECTED 3	→801
736	What did you do to avoid infecting your partner(s)? Did you....	YES NO	
	Use medicine?	USE MEDICINE 1 2	
	Stop having sex?	STOP SEX 1 2	
	Use a condom when having sex?	USE CONDOM 1 2	

SECTION 8. ATTITUDES TOWARD WOMEN

NO.	QUESTIONS AND FILTERS	CODING CATEGORIES					SKIP
801	In a couple, who do you think should have the greater say in each of the following decisions: the husband, the wife or both equally:		HUSB-AND	WIFE	BOTH	DON'T KNOW/ DEPENDS	
	a) making large household purchases?	a)	1	2	3	8	
	b) making small daily household purchases?	b)	1	2	3	8	
	c) deciding when to visit family, friends or relatives?	c)	1	2	3	8	
	d) deciding what to do with the money she earns for her work?	d)	1	2	3	8	
	e) deciding how many children to have and when to have them?	e)	1	2	3	8	
802	Sometimes a husband is annoyed or angered by things that his wife/partner does. In your opinion, is a husband justified in hitting or beating his wife in the following situations...			YES	NO	DON'T KNOW/ DEPENDS	
	a) If she goes out without telling him?	f)		1	2	8	
	b) If she neglects the children?	g)		1	2	8	
	c) If she argues with him?	h)		1	2	8	
	d) If she refuses to have sex with him?	i)		1	2	8	
	e) If she burns the food?	j)		1	2	8	
803	Husbands and wives do not always agree on everything. Please tell me if you think a wife is justified in refusing to have sex with her husband if...			YES	NO	DON'T KNOW/ DEPENDS	
	a) She is tired and not in the mood?	a)		1	2	8	
	b) She has recently given birth?	b)		1	2	8	
	c) She knows her husband has sex with other women?	c)		1	2	8	
	d) She knows her husband has a sexually transmitted disease?	d)		1	2	8	
804	Do you think that if a woman refuses to have sex with her husband when he wants her to, he has the right to...			YES	NO	DON'T KNOW/ DEPENDS	
	a) Get angry and reprimand her?	a)		1	2	8	
	b) Refuse to give her money or other means of financial support?	b)		1	2	8	
	c) Use force and have sex with her even if she doesn't want to?	c)		1	2	8	
	d) Go and have sex with another woman?	d)		1	2	8	
805	RECORD THE TIME.	HOUR . . . . . [ ][ ]					
		MINUTES . . . . . [ ][ ]					

UNICEF WORLD SUMMIT FOR CHILDREN: END-DECADE INDICATORS

APPENDIX F

World Summit for Children, End-Decade Indicators: Armenia 2000

	BASIC INDICATORS	
Childhood mortality	Under-five mortality rate (per 1,000 births)	39.0
	Infant mortality rate (per 1,000 births)	36.1
Maternal mortality	Maternal mortality ratio (deaths per 100,000 live births)	NA
Childhood malnutrition	Percent underweight (children under 5 years)	2.6
	Percent stunted (children under 5 years)	13.0
	Percent wasted (children under 5 years)	2.0
Clean water supply	Percent of household residents with safe water supply	91.8
Sanitary excreta disposal	Percent of household residents with latrine or toilet	99.9
Basic education	Percentage of children entering first grade of primary school who reach grade 5	99.3
	Percentage of primary-school age children currently attending primary school	94.5
	Proportion of 7 year olds entering primary school	68.1
	SUPPORTING INDICATORS	
Family planning	Contraceptive prevalence (married women)	60.5
	Contraceptive prevalence (all women)	39.0
Safe motherhood	Percent of births with medical prenatal care [1]	92.4
	Percent of births with medical assistance at delivery[2]	96.8
Low birth weight	Percent of births at low birth weight (below 2500 grams)	6.5
Micronutrient intake	Percent of households with iodised salt	83.6
	Percent of women who had night blindness while pregnant with last child[1]	1.4
Breastfeeding	Percent of infants less than 4 months of age exclusively breastfed	44.6
	Percent of infants 12-15 months still breastfeeding	28.8
	Percent of infants 20-23 months still breastfeeding	12.5
	Percent of infants 6-9 months receiving breast milk and complementary foods	50.8
Vaccinations	Percent of children 12-23 months receiving tuberculosis vaccine before 1st birthday	96.0
	Percent of children 12-23 months receiving DPT vaccine	95.1
	Percent of children 12-23 months receiving polio vaccine	97.6
	Percent of children 12-23 months receiving measles vaccine	78.8
Diarrhea treatment	Percent of children with diarrhea in preceding 2 weeks who received ORT[3]	33.0
	Percent of children with diarrhea in preceding 2 weeks who received more fluids and continued eating somewhat less/the same/or more food	39.7
Acute respiratory infection	Percent of children with acute respiratory infection taken to a health facility	26.2
Childcare	Percent of children 0-14 years not living with both biological parents	10.1
	Percent of children 0-14 years who are orphans (either parent dead)	3.9
HIV/AIDS	Percent of women who had knowledge of 2 correct ways of avoiding HIV infection	43.9
	Percent of women who identified 3 misconceptions about HIV/AIDS	11.7
	Percent of women who correctly identified all 3 means of mother-to-child HIV transmission	55.1
	Percent of women expressing a discriminatory attitude towards people with HIV or AIDS	9.3
	Percent of women who stated knowledge of a place to be tested for HIV	44.4
	Percent of women who reported being tested for HIV	6.5

[1] Refers to last birth in the five years preceding the survey
[2] Refers to all births in the five years preceding the survey
[3] Includes ORS and/or increased fluids
na = Not applicable