

Armenia



**Demographic and
Health Survey**

2015-16

Key Indicators

Armenia

Demographic and Health Survey 2015-16

Key Indicators Report

National Statistical Service
Armenia, Yerevan

Ministry of Health
Armenia, Yerevan

The DHS Program
ICF International
Rockville, Maryland, USA

September 2016



The 2015-16 Armenia Demographic and Health Survey (2015-16 ADHS) was implemented by the National Statistical Service and the Ministry of Health from December 8, 2015, to April 5, 2016. The funding for the ADHS was provided by the United States Agency for International Development (USAID), the United Nations Population Fund (UNFPA), the Joint United Nations Programme on HIV/AIDS (UNAIDS), and the United Nations Children's Fund (UNICEF). ICF International provided technical assistance through The DHS Program, which assists countries in the collection of data to monitor and evaluate population, health, and nutrition programs.

Additional information about the 2015-16 ADHS may be obtained from the National Statistical Service of the Republic of Armenia, Republic Avenue, 3 Government House, 0010, Yerevan, Republic of Armenia; Telephone: 374-11-524-213; Fax: 374-11-521-921; E-mail: info@armstat.am; Internet: <http://www.armstat.am>.

Information about The DHS Program may be obtained from ICF International, 530 Gaither Road, Suite 500, Rockville, MD 20850, USA; Telephone: +1-301-407-6500; Fax: +1-301-407-6501; E-mail: info@DHSprogram.com; Internet: www.DHSprogram.com.

Suggested citation:

National Statistical Service [Armenia], Ministry of Health [Armenia], and ICF International. 2016. *Armenia Demographic and Health Survey 2015-16: Key Indicators*. Rockville, Maryland, USA: National Statistical Service (NSS), Ministry of Health (MOH), and ICF International

CONTENTS

TABLES AND FIGURES	v
FOREWORD	vii
1 INTRODUCTION	1
1.1 Survey Objectives	1
2 SURVEY IMPLEMENTATION	3
2.1 Sample Design	3
2.2 Questionnaires.....	3
2.3 Anthropometry and Anemia Testing.....	4
2.4 Pretest.....	5
2.5 Training of Field Staff.....	5
2.6 Fieldwork	6
2.7 Data Processing.....	7
3 KEY FINDINGS	9
3.1 Response Rates	9
3.2 Characteristics of Respondents	9
3.3 Fertility.....	10
3.4 Teenage Pregnancy and Motherhood.....	12
3.5 Fertility Preferences	13
3.6 Family Planning	14
3.7 Need and Demand for Family Planning	16
3.8 Early Childhood Mortality	19
3.9 Maternal Care.....	21
3.10 Child Health and Nutrition.....	24
3.11 Anemia Prevalence in Children and Women	33
3.12 HIV/AIDS Awareness, Knowledge, and Behavior.....	35
3.13 Knowledge of HIV Prevention among Young People	36
3.14 Coverage of HIV Testing Services.....	39
3.15 Domestic Violence.....	41
REFERENCES	45

TABLES AND FIGURES

Table 1	Results of the household and individual interviews	9
Table 2	Background characteristics of respondents	10
Table 3	Current fertility	11
Table 4	Current abortion rates.....	12
Table 5	Teenage pregnancy and motherhood.....	13
Table 6	Fertility preferences by number of living children.....	14
Table 7	Current use of contraception by background characteristics.....	16
Table 8	Need and demand for family planning among currently married women.....	18
Table 9	Early childhood mortality rates	20
Table 10	Maternal care indicators.....	23
Table 11	Vaccinations by background characteristics	26
Table 12	Treatment for acute respiratory infection, fever, and diarrhea	27
Table 13	Nutritional status of children.....	29
Table 14	Breastfeeding status by age.....	32
Table 15	Anemia among children and women.....	34
Table 16	Knowledge of HIV prevention methods	36
Table 17	Knowledge of HIV prevention among young people.....	37
Table 18	Multiple sexual partners in the past 12 months: Men	38
Table 19.1	Coverage of prior HIV testing: Women.....	40
Table 19.2	Coverage of prior HIV testing: Men	41
Table 20	Experience of domestic violence	42
Figure 1	Trends in total fertility rate, 2000-2016	11
Figure 2	Trends in unmet need, modern contraceptive use, and percentage of demand satisfied with modern methods, 2000-2016.....	19
Figure 3	Trends in childhood mortality, 2000-2016.....	21
Figure 4	Trends in maternal health care, 2000-2016	24
Figure 5	Nutritional status of children by age	30
Figure 6	Trends in children’s nutritional status, Armenia 2005-2016.....	31
Figure 7	Minimum acceptable diet by age, in months.....	33

FOREWORD

The 2015-16 Armenia Demographic and Health Survey (ADHS) was implemented by the National Statistical Service (NSS) and the Ministry of Health (MOH). The 2015-16 ADHS was the fourth DHS survey to be conducted in Armenia in collaboration with the worldwide Demographic and Health Surveys Program. This report, which presents key findings from the 2015-16 ADHS, is intended to provide policy makers and program managers with a first glimpse of the survey results. A more comprehensive, detailed report is scheduled for 2017.

The NSS and MOH wish to acknowledge the efforts of a number of organizations and individuals who contributed substantially to the success of the survey. First, we would like to acknowledge the financial assistance of the United States Agency for International Development (USAID). We would like to thank ICF International for technical backstopping throughout the survey. The survey also could not have been carried out successfully without the dedication of the staff of the NSS and MOH who planned, participated in, and oversaw the entire ADHS.

Finally, we are grateful to the survey respondents who generously gave their time to provide the information that forms the basis of this report.

National Statistical Service

Ministry of Health

1 INTRODUCTION

The 2015-16 Armenia Demographic and Health Survey (ADHS) is the fourth Demographic and Health Survey conducted in Armenia. It was implemented by the National Statistical Service (NSS) and the Ministry of Health (MOH). Data collection took place from December 8, 2015, to April 5, 2016. Funding for the ADHS was provided by the government of Armenia, the United States Agency for International Development (USAID), the United Nations Population Fund (UNFPA), the Joint United Nations Programme on HIV/AIDS (UNAIDS), and the United Nations Children's Fund (UNICEF). ICF International provided technical assistance through The DHS Program, which assists countries in the collection of data to monitor and evaluate population, health, and nutrition programs.

This key indicators report presents a first look at selected findings of the 2015-16 ADHS. A more comprehensive analysis of the data will be presented in a final report in 2017.

1.1 Survey Objectives

The primary objective of the 2015-16 ADHS project is to provide up-to-date estimates of key demographic and health indicators. Specifically, the ADHS collected information on fertility and abortion levels, marriage, fertility preferences, awareness and use of family planning methods, breastfeeding practices, nutrition, maternal and child health, childhood mortality, domestic violence against women, child discipline, awareness and behavior regarding HIV/AIDS and other sexually transmitted infections (STIs), and other health-related issues such as smoking, tuberculosis, and anemia. The 2015-16 ADHS is a follow-up survey to the 2000, 2005, and 2010 ADHS surveys and provides updated estimates of key demographic and health indicators.

The information collected through the ADHS is intended to assist policy makers and program managers in evaluating and designing programs and strategies for improving the health of the country's population.

2 SURVEY IMPLEMENTATION

2.1 Sample Design

The sampling frame used for the 2015-16 ADHS is the Armenia Population and Housing Census, which was conducted in 2011 (APHC 2011), by the National Statistical Service (NSS) of the Republic of Armenia. The NSS had information on 11,571 enumeration areas (EAs), which served as counting units for the census. This EA frame was created from the census database by summarizing the households at EA level. In rural areas, an EA is a natural village, or a segment of a large village, or a group of small villages; in urban areas, an EA is a street or a city block. Each EA appears with its identification information: administrative location and a measure of size, which is the number of residential households residing in the EA. Each EA is also classified into one of two types of residence, urban or rural. Each EA has accompanying cartographic materials. These delineate geographic locations, boundaries, main access, and landmarks in or outside the EA that help to identify the EA. The sampling frame excluded institutional populations such as persons in hotels, barracks, and prisons.

Armenia is divided into marzes (regions), which are subdivided into communities and then into settlements. There are in total 10 marzes and 914 communities. Among them, 48 are urban communities (including a few communities with mixed residence type), and 866 are rural communities. The capital city Yerevan is considered a special region, which is subdivided into 12 urban districts.

The 2015-16 ADHS followed a stratified two-stage sample design and was intended to allow estimates of key indicators at the national level, in urban and rural areas, and in each of the 10 marzes of Armenia, including Yerevan. The first stage involved selecting sample points (clusters) consisting of EAs. A total of 313 clusters was selected, 192 in urban areas and 121 in rural areas.

The second stage involved systematic sampling of households. A household listing operation was undertaken in all of the selected clusters, and a fixed number of 28 households per cluster were selected with an equal probability systematic selection process, for a total sample size of 8,749 households. During the household listing operation seven of the selected clusters were identified as being in a conflict area and were replaced by seven clusters in a nearby area that was outside the conflict zone. Because of the approximately equal sample size in each marz, the sample is not self-weighting at the national level, and weighting factors have been calculated, added to the data file, and applied so that results are representative at the national level.

All women age 15-49 who were either permanent residents of the selected households or visitors who stayed in the households the night before the survey were eligible to be interviewed. In half of the households, all men age 15-49 who were either residents of the selected households or visitors who stayed in the household the night before the survey were eligible to be interviewed. Anemia testing was performed in each household among eligible women age 15-49 years who consented to being tested. With the parent's or guardian's consent, children age 6-59 months were also tested for anemia in each household. Height and weight information was collected from eligible women and children age 0-59 months in all households. In addition, a subsample of one eligible woman in each household was randomly selected to be asked additional questions about domestic violence.

2.2 Questionnaires

Five questionnaires were used for the 2015-16 ADHS: the Household Questionnaire, the Woman's Questionnaire, the Man's Questionnaire, the Biomarker Questionnaire and the Fieldworker Questionnaire. These questionnaires, based on The DHS Program's standard Demographic and Health Survey questionnaires, were adapted to reflect the population and health issues relevant to Armenia. Input was solicited from various stakeholders representing government ministries and agencies, nongovernmental organizations, and international donors. After all questionnaires were finalized in English, the questionnaires were translated into Armenian.

The Household Questionnaire was used to list all of the members of and visitors to the selected households. Basic demographic information was collected on the characteristics of each person listed, including his or her age, sex, marital status, education, and relationship to the head of the household. For children under age 18, parents' survival status was determined. The data on age and sex of household members obtained in the Household Questionnaire were used to identify women and men who were eligible for individual interviews. The Household Questionnaire also collected information on child discipline about one randomly selected child age 1-14 years per household, as well as characteristics of the household's dwelling unit, such as source of water, type of toilet facilities, materials used for the floor of the dwelling unit, and ownership of various durable goods.

The Woman's Questionnaire was used to collect information from all women age 15-49. These women were asked questions on the following topics:

- Background characteristics (including age, education, and media exposure)
- Pregnancy history, reasons for any abortions, and child mortality
- Knowledge and use of family planning methods
- Fertility preferences
- Antenatal, delivery, and postnatal care
- Breastfeeding and infant feeding practices
- Vaccinations and childhood illnesses
- Women's work and husbands' background characteristics
- Knowledge, awareness, and behavior regarding HIV/AIDS and other sexually transmitted infections (STIs)
- Domestic violence
- Knowledge, attitudes, and behavior related to other health issues (e.g., tuberculosis, anemia, smoking)

The Man's Questionnaire was administered to all men age 15-49 in the subsample of households selected for the male survey (i.e., every second household). The Man's Questionnaire collected much of the same information found in the Woman's Questionnaire but was shorter because it did not contain a detailed reproductive history, or questions about child health or domestic violence.

In addition, the Biomarker Questionnaire was used to record the results of the informed consent procedures, as well as the anthropometry measurements and hemoglobin testing results, for consenting respondents.

For the first time, the Fieldworker Questionnaire was also used in the ADHS. The questionnaire was created to serve as a tool in conducting analyses of data quality. The questionnaire was distributed and collected by the NSS after final selection of fieldworkers was done and before fieldworkers enter the field. Fieldworkers filled out a 2-page self-administered questionnaire on their general background characteristics. No personal identifiers will be attached to the ADHS fieldworkers' data file.

2.3 Anthropometry and Anemia Testing

The 2015-16 ADHS incorporated two biomarkers: anthropometry and anemia testing. Data related to the coverage of the biomarker component, the anthropometric measures, and the result of the anemia testing was directly recorded in the Biomarker Questionnaire. The protocol for anemia testing was reviewed and approved by the National Center for AIDS Prevention of the Ministry of Health, and the Institutional Review Board of ICF International.

Anthropometry Measurements

In all households, height and weight measurements were recorded for children age 0-59 months and women age 15-49 years. Weight measurements were obtained using lightweight, electronic Seca scales with a digital screen and the mother/child function. Height measurements were carried out with measuring boards made by Shorr Productions. Children younger than age 24 months were measured lying down (recumbent) on the board, while standing height was measured for older children.

Anemia Testing

Blood specimens were collected for anemia testing from all children age 6-59 months and all women age 15-49 years who voluntarily consented to the testing. Blood samples consisted of a drop of blood taken from a finger prick (or a heel prick for young children with small fingers) and collected in a microcuvette. Hemoglobin analysis was carried out on site using a battery-operated portable HemoCue® analyzer, which produces a result in less than 1 minute. Results were given verbally and in writing. Parents of children with a hemoglobin level below 7 g/dl were instructed to take the child to a health facility for follow-up care. Likewise, nonpregnant women and pregnant women were referred for follow-up care if their hemoglobin level was below 7 g/dl and 9 g/dl, respectively. All households in which anthropometry and/or anemia testing was conducted were given a brochure explaining the causes and prevention of anemia.

2.4 Pretest

Eleven women and four men participated in a training to pretest the ADHS survey questionnaires over a three-week period from September 16 through October 7, 2015. Twelve days of classroom training was provided. The training was led in Armenian by the in-country ADHS core team and was supported by The DHS Program staff. Senior subject specialists from the MOH attended the sessions to provide technical background on topics such as immunization, family planning, reproductive health, child health, and HIV/AIDS. Guest speakers from the Ministry of Labor and Social Affairs and UNICEF were invited to speak on gender-based violence in Armenia.

In addition, seven women were recruited as health investigators for the pretest. Classroom training for these women was conducted at the National Institute of Health (NIH) from September 22-30, 2015. Biomarker training, led by staff from The DHS Program and the NIH, included classroom instruction on taking anthropometry measurements, testing for anemia, and recording of biomarker information on the Biomarker Questionnaire. The training was divided into three sessions following the DHS biomarker curriculum: classroom training on anthropometry and anemia, in-class standardization tests and practice sessions in polyclinics, and then the field practice with interviewers.

The pretest fieldwork was conducted on October 1-7, 2015. Interviewers and health investigators were divided into four teams. From October 1 through October 6, 2015, the teams worked in Ayntap (rural area), Masis (urban area), Abovyan (urban area), and Kotayk (rural area). A total of 87 interviews with households were completed, as well as 81 interviews of women and 24 interviews of men. All interviews were conducted in Armenian. Approximately 77 women and 55 children were measured and tested for anemia after obtaining informed consent. Following the pretest fieldwork, a debriefing session was held with the pretest field staff, and modifications to the questionnaires were made based on lessons drawn from the exercise.

2.5 Training of Field Staff

For the main survey, 104 people (85 women and 19 men) participated in the 3-week training session, which consisted of lectures, demonstrations, and practice interviews. An additional 15 health investigators (13 females and 2 males) were trained separately by the Armenian National Institute of Health (NIH).

Training for the interviewer candidates was conducted November 16 through December 6, 2015, and was led by the NSS and NIH technical staff hired for the ADHS and supported by trainers from The DHS Program. The training was conducted in Armenian and included discussion of the concepts, procedures, and methodology of conducting the survey. Participants were guided through the questionnaires. Also, senior subject specialists from the MOH and UNICEF attended the sessions to provide technical input on reproduction, family planning, pregnancy, postnatal care, immunization, child health, domestic violence, child discipline, HIV/AIDS, and other health issues. The training included presentations, lectures, hands-on exercises, mock interviews, role plays, group work, and quizzes. In-class exercises included probing for age, checking age consistency, filling dates of vaccinations, completing the reproductive calendar, and practicing interviews.

The biomarker portion of the training commenced on November 26, 2015, and continued through December 5, 2015. Biomarker training included classroom instruction focusing on anthropometry measurements, anemia testing, and recording of biomarker information in the Biomarker Questionnaire. The training was divided into three sessions following the DHS biomarker curriculum: classroom training on anthropometry and anemia, in-class standardization tests and practice sessions, and field practice with interviewers. Participants were trained on eligibility for biomarker collection, use of the Household and Biomarker Questionnaires to record data, appropriate procedures for obtaining informed consent, and how to pack and transport supplies. Collecting data of high quality was emphasized throughout the training. To give the biomarker training participants hands-on experience prior to field practice, the health investigators practiced skills on each other, other staff of the NIH, and interviewers after getting appropriate consent. Further, the trainees visited Arabkir Pediatric Polyclinic on December 2 and Heratsi Polyclinic on December 3 to practice measurement taking and anemia testing, especially on children less than age 2. Additionally, before going for the field practice, a standardization exercise for height and weight measurement was organized in the classroom in which trainees took repeated measurements on the same children. The resulting inter- and intra-observer variations were explained to the participants. The accuracy and precision of the measurements was also discussed during the standardization session.

The trainees were taken for field practice twice in nonsampled areas of the Kotayk marz, where they got an opportunity to implement the survey in a real world situation. On December 3, the practice for the interviewers took place in the village of Kanakeravan. For the field experience, each interviewer was expected to visit a minimum of two households, although a heavy snow storm complicated the field practice. On December 4, the interviewers and health investigators worked together in teams in the village of Zovuni. In total, teams completed 105 household interviews, 110 women's interviews, and 29 men's interviews. Approximately 40 women and 26 children were measured and tested for anemia after obtaining informed consent.

Participants were evaluated through in-class exercises, quizzes, and observations made during field practice. At the end of the training, the teams were formed by selecting supervisors, field editors, and interviewers. The supervisors and field editors received additional training in data quality control procedures, fieldwork coordination, and management. In addition, all supervisors and editors participated in a half day practice in a children's polyclinic in Yerevan. In the polyclinic, they copied immunization records from the MOH immunization form №63 and children's health cards to the questionnaires.

2.6 Fieldwork

Data collection was carried out by 13 field teams, each consisting of one team supervisor, one female field editor, four female interviewers, one male interviewer, and one health investigator. Fieldwork started on December 8, 2015, in most regions and stopped from December 31, 2015, until January 7, 2016, for the New Year and Orthodox Christmas holidays. Fieldwork resumed on January 8, 2016, and was completed by April 5. The 2015-16 winter was particularly snowy. Almost all of the survey teams complained about difficulties of data collection in the height of winter and in the midst of the H1N1 (swine) flu season. There was considerable apprehension among the general population and team members due to the swine flu

epidemic, as about 18 deaths in Armenia had been attributed to the H1N1 flu. Despite substantial challenges in the field during the height of winter, the ADHS field teams successfully completed the fieldwork.¹

Fieldwork monitoring was an integral part of the ADHS. Senior ADHS technical staff from NSS and NIH visited teams regularly to review the work and monitor data quality. Representatives from The DHS Program and USAID/Armenia also visited teams to monitor data collection and to observe the anemia testing and height and weight measurements of women and children under age 5. Senior ADHS and NIH technical staff provided teams with critical feedback to improve their performance. In addition, they used the ADHS field-check tables based on data from the completed clusters to illustrate problems specific to each team visited.

2.7 Data Processing

The processing of the 2015-16 ADHS data began simultaneously with the fieldwork. All completed questionnaires were edited immediately by field editors while still in the field and checked by the supervisors before being dispatched to the data processing center at the NSS central office in Yerevan. These completed questionnaires were edited and entered by 15 data processing personnel specially trained for this task. All data were entered twice for 100 percent verification. Data were entered using the CPro computer package. The concurrent processing of the data was an advantage because the senior ADHS technical staff were able to advise field teams of problems detected during the data entry. In particular, tables were generated to check various data quality parameters. Moreover, the double entry of data enabled easy comparison and identification of errors and inconsistencies. As a result, specific feedback was given to the teams to improve performance. The data entry and editing phase of the survey was completed in June 2016.

¹ NSS suggested that the ADHS main training and data collection be moved to February 2016 to avoid data collection during the winter. However, the ADHS data collection commenced in December 2015 in order to expeditiously provide the MOH with the ADHS anemia testing results. The MOH is planning to use data on anemia prevalence to advocate for a flour fortification program proposed to the parliament to prevent and control anemia in Armenia.

3 KEY FINDINGS

3.1 Response Rates

Table 1 shows response rates for the 2015-16 ADHS. A total of 8,749 households were selected for the sample, of which 8,205 were occupied. Of the occupied households, 7,893 were successfully interviewed, yielding a response rate of 96 percent.

In the interviewed households, 6,251 women age 15-49 were identified for individual interviews; interviews were completed with 6,116 women, yielding a response rate of 98 percent. In the subsample of households selected for the male survey, 2,856 men age 15-49 were identified and 2,755 men were successfully interviewed, yielding a response rate of 97 percent.

Table 1 Results of the household and individual interviews			
Number of households, number of interviews, and response rates, according to residence (unweighted), Armenia 2015-16			
Result	Residence		Total
	Urban	Rural	
Household interviews			
Households selected	5,369	3,380	8,749
Households occupied	5,017	3,188	8,205
Households interviewed	4,806	3,087	7,893
Household response rate ¹	95.8	96.8	96.2
Interviews with women age 15-49			
Number of eligible women	3,631	2,620	6,251
Number of eligible women interviewed	3,545	2,571	6,116
Eligible women response rate ²	97.6	98.1	97.8
Interviews with men age 15-49			
Number of eligible men	1,587	1,269	2,856
Number of eligible men interviewed	1,522	1,233	2,755
Eligible men response rate ²	95.9	97.2	96.5

¹ Households interviewed/households occupied.
² Respondents interviewed/eligible respondents.

The 2015-16 ADHS achieved a slightly higher response rate for households than the 2010 ADHS (NSS 2012). The increase is only notable for urban households (96 percent in 2015-16 compared with 94 percent in 2010). Response rates in all other categories are very close to what they were in 2010.

3.2 Characteristics of Respondents

Table 2 shows the distribution of women and men age 15-49 interviewed in the 2015-16 ADHS, by background characteristics. For the most part, the female and male populations represented in the sample are evenly distributed by age, but there are some noticeable exceptions. For example, there are higher proportions of women and men in their 20s and early 30s, and lower proportions of women and men in their late 30s and 40s, compared with older and younger age groups. There is a noticeable change in the age distribution since 2000. Although the proportion of women under age 30 has not changed since 2000 (46 percent in 2000 and 45 percent in 2015-16), the number of women age 15-19 has consistently declined over the last 15 years, from 18 percent in 2000 (NSS 2001) and 17 percent in 2005 (NSS 2006) to 15 percent in 2010 (NSS 2012) and 12 percent in 2015-16.

Nearly two-thirds of women (64 percent) and more than half of men (55 percent) are married or living together. Because men tend to marry later in life than women, 43 percent of the surveyed men age 15-49 have never married, compared with 30 percent of women age 15-49. Six percent of women are divorced, separated, or widowed as opposed to 2 percent of men. Compared with the results of the 2000 ADHS, the proportion of women married or living together has not changed much over the last 15 years (64 percent in 2000 and in 2015-16), while the proportion of men age 15-49 who are married or living together has

fluctuated considerably (65 percent in 2000, 56 percent in 2005, 54 percent in 2010, and 55 percent in 2015-16). There are few differences observed in the past five years; the proportion married or living together has increased among women (61 percent in 2010 to 64 percent in 2015-16) and remained stable among men (54 percent in 2010 and 55 percent in 2015-16).

Three-fifths of respondents live in urban areas, with the majority of the urban population living in Yerevan. There is considerable variation in the distribution of respondents by region. Almost one-third of women age 15-49 live in Yerevan compared with only 2 percent in Vayots Dzor.

Women and men in Armenia are universally well educated, with 93 percent of women and 87 percent of men age 15-49 having at least some secondary education. Thirty-one percent of women and 27 percent of men have some higher education.

Table 2 Background characteristics of respondents

Percent distribution of women and men age 15-49 by selected background characteristics, Armenia 2015-16

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	11.9	725	743	12.5	345	346
20-24	15.2	928	922	17.0	467	450
25-29	18.0	1,099	1,076	16.9	464	477
30-34	16.5	1,007	1,005	15.5	427	434
35-39	14.2	867	874	13.6	376	373
40-44	12.8	784	782	12.6	346	341
45-49	11.5	706	714	12.0	330	334
Marital status						
Never married	29.9	1,830	1,747	43.2	1,190	1,179
Married	63.3	3,870	3,973	49.4	1,361	1,368
Living together	0.4	25	25	5.3	145	159
Divorced/separated	4.3	262	244	2.0	56	46
Widowed	2.1	128	127	0.1	3	3
Residence						
Urban	59.8	3,657	3,545	56.5	1,558	1,522
Rural	40.2	2,459	2,571	43.5	1,197	1,233
Region						
Yerevan	32.7	2,001	1,055	30.2	833	440
Aragatsotn	5.2	315	453	5.8	159	228
Ararat	9.0	552	597	10.5	290	313
Armavir	9.6	586	642	9.7	268	284
Gegharkunik	7.8	478	551	8.5	235	268
Lori	5.8	355	337	6.7	184	164
Kotayk	11.1	678	659	10.8	299	288
Shirak	8.3	510	536	7.3	201	191
Syunik	3.9	238	383	3.8	104	174
Vayots Dzor	1.9	119	405	2.0	56	186
Tavush	4.6	283	498	4.6	126	219
Education						
No education	0.1	8	8	0.2	5	6
Basic	6.5	396	406	13.1	360	379
Secondary	40.0	2,444	2,579	45.4	1,250	1,293
Secondary special	22.2	1,359	1,443	14.6	403	422
Higher	31.2	1,909	1,680	26.7	736	655
Wealth quintile						
Lowest	17.7	1,081	1,137	19.0	523	536
Second	20.3	1,242	1,358	21.2	583	626
Middle	18.7	1,142	1,324	18.9	521	608
Fourth	21.0	1,287	1,293	20.5	566	565
Highest	22.3	1,365	1,004	20.4	562	420
Total 15-49	100.0	6,116	6,116	100.0	2,755	2,755

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

3.3 Fertility

All women who were interviewed in the 2015-16 ADHS were asked to give a complete reproductive history. In collecting these histories, each woman first was asked about the total number of her pregnancies that had ended in live births, stillbirths, induced abortions, and miscarriages. After obtaining these aggregate

data, an event-by-event pregnancy history was collected. For each pregnancy, the month and year of termination, and the result of the pregnancy were recorded. Information was collected about all pregnancies in chronological order from the first pregnancy to the most recent. For each live birth, information was collected on the child's sex, survival status, and current age (for surviving children) or age at death (for deceased children).

Table 3 shows age-specific fertility rates (ASFRs) among women by five-year age groups for the three-year period preceding the survey. Age-specific and total fertility rates were calculated directly from the pregnancy history data. The sum of age-specific fertility rates (known as the total fertility rate, or TFR) is a summary measure of the level of fertility. It can be interpreted as the number of children a woman would have by the end of her childbearing years if she were to pass through those years bearing children at the current observed age-specific rates. If fertility were to remain constant at current levels, a woman from Armenia would bear an average of 1.7 children in her lifetime. This is below replacement level fertility (which is slightly more than 2.0). Fertility is nearly the same among urban and rural women (1.7 and 1.8, respectively). Across the various age groups, fertility is higher among rural than urban women age 15-24, while among women age 30-34 and especially 35-39, fertility is higher among urban women than rural women.

Table 3 Current fertility

Age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the three years preceding the survey, by residence, Armenia 2015-16

Age group	Residence		Total
	Urban	Rural	
15-19	11	39	24
20-24	108	148	124
25-29	119	112	116
30-34	58	49	55
35-39	31	15	25
40-44	3	4	4
45-49	2	0	1
TFR (15-49)	1.7	1.8	1.7
GFR	62	67	64
CBR	12.7	13.2	12.9

Notes: Age-specific fertility rates are per 1,000 women. Rates for age group 45-49 may be slightly biased due to truncation. Rates are for the period 1-36 months prior to interview. TFR: Total fertility rate expressed per woman. GFR: General fertility rate expressed per 1,000 women age 15-44. CBR: Crude birth rate, expressed per 1,000 population

Figure 1 presents trends in the TFR since the 2000 ADHS. The 2015-16 ADHS rate of 1.7 is the same as the rate estimated by the 2000, 2005, and 2010 ADHS. Thus, there is no evidence of change in overall levels of fertility in Armenia over the last 15 years.

Figure 1 Trends in total fertility rate, 2000-2016

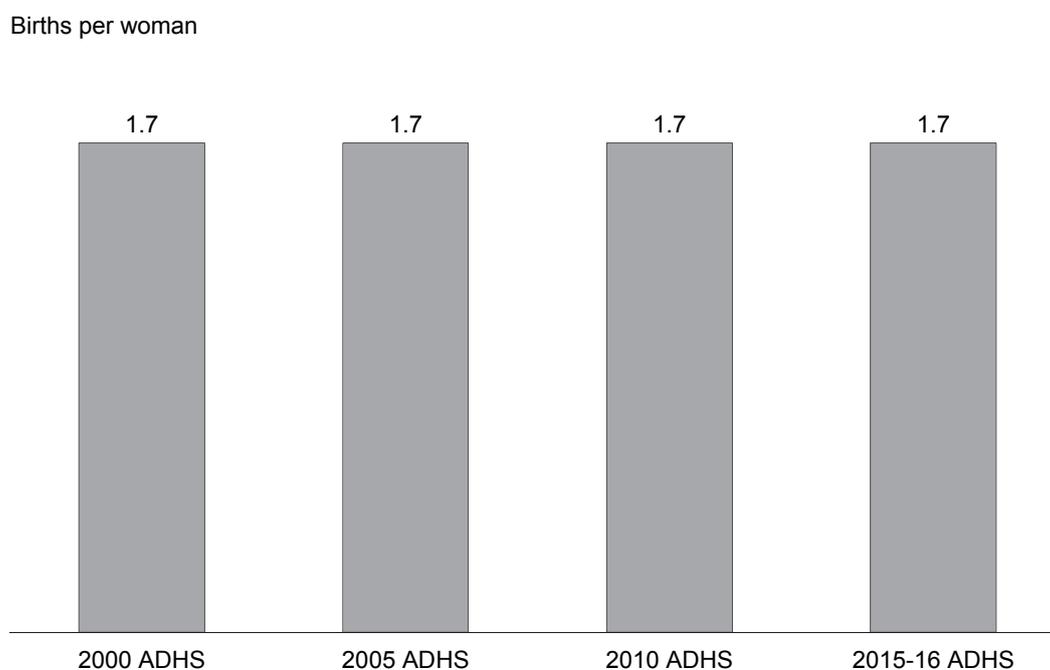


Table 4 shows age-specific abortion rates and total abortion rates (TAR) from the 2015-16 ADHS. These rates are calculated in a manner analogous to the calculation of fertility rates. The reported rates refer to the three-year period prior to the survey. The TAR is interpreted as the number of abortions a woman would have in her lifetime if she experienced the currently observed age-specific abortion rates during her childbearing years.

The total abortion rate for Armenia is 0.6 abortions per woman. This means that the average number of abortions an Armenian woman will have according to current abortion rates is nearly one-third of the number of births she will have (1.7). The age-specific rates of induced abortion peak among women age 25-29 and decline among women in older age groups.

The TAR has consistently declined over the last 15 years, from 2.6 in 2000 and 1.8 in 2005 to 0.8 in 2010 and 0.6 in 2015-16.

3.4 Teenage Pregnancy and Motherhood

The issue of adolescent fertility is important for both health and social reasons. Children born to very young mothers are at increased risk of sickness and death. Teenage mothers are more likely to experience adverse pregnancy outcomes and are more constrained in their ability to pursue educational opportunities than young women who delay childbearing.

Table 5 shows the percentage of women age 15-19 who have given birth or were pregnant with their first child at the time of the survey, according to background characteristics. Overall, 4 percent of women age 15-19 have begun childbearing: 3 percent had had a live birth and 1 percent were pregnant at the time of the interview. Young women do not start childbearing until age 16, but the proportion having children increases rapidly with age to reach 12 percent among women age 19. Rural teenagers and those residing in Armavir tend to start childbearing earlier than other teenagers. Teenagers in the highest wealth quintile are less likely to have started childbearing than those in other quintiles.

In terms of trends, at the national level there is little difference overall in adolescent fertility between the 2000, 2005, 2010, and 2015-16 ADHS surveys (6 percent in 2000, 5 percent in 2005 and 2010, and 4 percent in 2015-16).

Table 4 Current abortion rates

Age-specific and total abortion rates and the general abortion rate for the three years preceding the survey, by residence, Armenia 2015-16

Age group	Residence		Total
	Urban	Rural	
15-19	2	2	2
20-24	17	24	19
25-29	30	63	42
30-34	20	45	29
35-39	15	19	16
40-44	8	10	9
45-49	0	0	0
TAR	0.4	0.8	0.6
GAR	16	28	21

TAR: Total abortion rate for ages 15-49, expressed per woman

GAR: General abortion rate (the number of abortions divided by the number of women age 15-44, expressed per 1,000 women)

Table 5 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, by background characteristics, Armenia 2015-16

Background characteristic	Percentage of women age 15-19 who:		Percentage who have begun childbearing	Number of women
	Have had a live birth	Are pregnant with first child		
Age				
15	0.0	0.0	0.0	137
16	0.0	0.4	0.4	156
17	0.4	0.7	1.1	156
18	4.8	0.8	5.5	135
19	8.0	3.5	11.6	140
Residence				
Urban	0.9	0.3	1.2	386
Rural	4.4	2.0	6.3	339
Region				
Yerevan	1.0	0.5	1.5	216
Aragatsotn	(3.2)	(0.0)	(3.2)	31
Ararat	1.0	0.0	1.0	63
Armavir	8.1	3.8	11.8	72
Gegharkunik	4.0	0.0	4.0	78
Lori	(0.0)	(0.0)	(0.0)	37
Kotayk	1.1	1.1	2.2	82
Shirak	5.4	3.9	9.3	56
Syunik	0.0	0.0	0.0	35
Vayots Dzor	1.5	1.8	3.4	17
Tavush	4.0	1.5	5.6	39
Education				
Basic	2.3	1.8	4.1	133
Secondary	3.4	1.2	4.6	354
Secondary special	2.5	1.0	3.5	122
Higher	0.2	0.0	0.2	116
Wealth quintile				
Lowest	4.5	1.6	6.1	150
Second	3.1	1.8	4.9	154
Middle	3.2	0.7	3.9	138
Fourth	1.8	0.8	2.6	130
Highest	0.0	0.4	0.4	153
Total	2.5	1.1	3.6	725

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

3.5 Fertility Preferences

Information on fertility preferences is used to assess the potential demand for family planning services for the purposes of spacing or limiting future childbearing. To elicit information on fertility preferences, several questions were asked of currently married women (pregnant or not) regarding whether they wanted to have another child and, if so, how soon.

Table 6 shows that the majority of married Armenian women express a desire to control their future fertility. Over half of respondents (54 percent) do not want to have any more children or are sterilized. The desire to limit fertility markedly increases with number of living children. For example, most married women with no children want to have a child; 70 percent say that they want to have a child soon. On the other hand, 6 in 10 women with two children say that they want no more, as do 8 in 10 women with three children.

Table 6 Fertility preferences by number of living children

Percent distribution of currently married women age 15-49 by desire for children, according to number of living children, Armenia 2015-16

Desire for children	Number of living children ¹					Total
	0	1	2	3	4+	
Have another soon ²	69.7	26.3	5.3	0.9	0.0	11.2
Have another later ³	0.0	38.7	8.7	1.4	1.7	12.0
Have another, undecided when	2.5	7.2	2.4	1.4	0.6	3.0
Undecided	2.9	6.9	15.8	7.9	4.5	11.4
Want no more	3.0	8.8	60.4	80.1	77.9	52.8
Sterilized ⁴	0.0	0.7	0.4	1.2	2.8	0.7
Declare infecund	21.9	11.2	7.1	7.2	12.5	8.8
Missing	0.0	0.2	0.0	0.0	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	195	719	2,009	811	161	3,895

¹ The number of living children includes current pregnancy

² Wants next birth within 2 years

³ Wants to delay next birth for 2 or more years

⁴ Includes both female and male sterilization

The proportion of married women who say that they want to stop childbearing has decreased in the past 15 years, with a more rapid decrease during the past 10 years; the proportion who want no more children or are sterilized has declined from 74 percent in 2000 to 71 percent in 2005, to 58 percent in 2010, and to 54 percent in 2015-16. An increase is seen in the percentage of married women who say that they cannot conceive (3 percent in 2000, 4 percent in 2005, 8 percent in 2010, and 9 percent in 2015-16) or who are undecided about whether they want to have another child (4 percent in 2000, 3 percent in 2005, 9 percent in 2010, and 11 percent in 2015-16). There is a slight upward trend in the proportion of married women who want to have another child soon (8 percent in 2000, 9 percent in 2005, 10 percent in 2010, and 11 percent in 2015-16), although the difference is very small.

3.6 Family Planning

Family planning refers to a conscious effort by a person or a couple to limit or space the number of children they have through the use of contraceptive methods. Contraceptive methods are classified as modern or traditional. Modern methods include female sterilization, male sterilization, intrauterine contraceptive device (IUD), implants, injectables, the pill, condoms, emergency contraception, and lactational amenorrhea method (LAM). Methods such as rhythm, withdrawal, and folk methods are grouped as traditional.

Table 7 shows by age the percent distribution of currently married women by the family planning method they are using, according to background characteristics. Almost three in five married women of reproductive age are using a method of contraception. Among married women, use of traditional methods (29 percent) is more common than use of modern methods (28 percent). By far the most widely used method among currently married women is withdrawal (25 percent), followed by the male condom (15 percent), and the IUD (9 percent).

The use of any contraceptive method rises rapidly with age, peaking at 66 percent among currently married women in their 30s and then declining to 42 percent among those women age 45-49.

In general, women in Armenia do not begin to use contraception until they have had at least one child. The difference in the overall use of contraception among married women in urban and rural areas is negligible (57 percent and 58 percent, respectively). However, urban women are markedly more likely to be using a modern method than rural women (32 percent and 23 percent, respectively).

There is considerable variation in contraceptive use by region. Yerevan has the highest rate of use of modern methods (40 percent), followed by Aragatsotn and Ararat (35 percent each) compared with 13-27 percent of married women in other regions. Female sterilization is not common and appears to be most prevalent in Tavush (3 percent) and Ararat (2 percent each) compared with less than 1 percent in other

regions. Withdrawal, the most popular contraceptive method, is highest in Vayots Dzor and Gegharkunik where approximately half of married women use the method (54 and 48 percent, respectively), while in Syunik only 6 percent of women rely on withdrawal. The IUD is used by 13 percent of currently married women in Ararat and by 11 percent in Yerevan compared with 1 percent in Syunik. Condom use is reported by 22 percent of currently married women in Yerevan, 18 percent each in Aragatsotn and Ararat, and 15 percent in Armavir compared with only 3 percent to 5 percent of women in Lori and Gegharkunik. Nearly 8 in 10 married women in Syunik (79 percent), 6 in 10 women in Shirak (60 percent), and approximately 4 in 10 women in Armavir, Lori, Tavush, Yerevan, and Kotayk (40 to 44 percent) are not using any method of contraception.

As expected, use of modern contraceptive methods increases with educational attainment. Married women with higher levels of education are much more likely to use a modern method than women with only basic education (35 percent compared with 21 percent). This difference is due mainly to increased use of IUDs, the male condom, and pills. Wealth also correlates positively with women's contraceptive use; modern contraceptive use increases markedly as household wealth increases, from 21 percent among married women in the lowest wealth quintile to 37 percent among those in the highest wealth quintile.

Use of any contraceptive method declined from 61 percent of currently married women in 2000 to 53 percent in 2005, but then increased to 55 percent of women in 2010 and to 57 percent in 2015-16. There was a decrease in the use of traditional methods over the past 15 years (38 percent² in 2000 to 29 percent in 2015-16), particularly withdrawal (32 percent in 2000 to 25 percent in 2015-16). On the other hand, the proportion of currently married women who use modern contraceptive methods has increased from 22 percent in 2000 to 28 percent in 2015-16 (Figure 2). In particular, the percentage of women using male condoms has increased from 7 percent in 2000 to 15 percent in 2015-16 (not shown).

² This estimate differs from the 36.7 percent published in the 2000 ADHS final report. The difference occurs because "folk method" was not included in the "any traditional method" category in the 2000 report tabulation but was included in the 2005, 2010, and 2015 report tabulations.

Table 7. Current use of contraception by background characteristics

Percent distribution of currently married women age 15-49, by contraceptive method currently used, according to background characteristics, Armenia 2015-16

Background characteristic	Any method	Any modern method	Modern method							Any traditional method	Traditional method			Not currently using	Total	Number of women
			Female sterilization	IUD	Injectables	Pill	Male condom	LAM	Other		Rhythm	Withdrawal	Other			
Age																
15-19	(32.4)	(21.9)	(0.0)	(0.0)	(0.0)	(0.0)	(14.0)	(7.8)	(0.0)	(10.5)	(3.1)	(7.4)	(0.0)	(67.6)	100.0	33
20-24	42.5	22.4	0.0	3.9	0.0	2.1	13.2	3.2	0.0	20.1	1.6	18.2	0.4	57.5	100.0	365
25-29	55.0	28.8	0.1	7.7	0.0	2.1	17.3	1.1	0.4	26.1	4.2	21.8	0.1	45.0	100.0	761
30-34	66.4	36.0	0.6	11.8	0.6	2.9	19.5	0.6	0.1	30.4	3.6	26.3	0.6	33.6	100.0	826
35-39	66.2	32.2	1.0	11.8	0.0	3.7	15.5	0.0	0.1	34.0	4.2	29.3	0.6	33.8	100.0	709
40-44	60.9	26.6	0.8	10.3	0.4	2.9	12.1	0.1	0.0	34.4	6.3	27.7	0.4	39.1	100.0	639
45-49	41.7	15.4	1.7	4.6	0.0	1.9	7.2	0.0	0.0	26.4	2.1	24.3	0.0	58.3	100.0	562
Residence																
Urban	56.5	31.9	0.7	9.5	0.3	3.0	17.4	0.8	0.2	24.5	4.9	19.3	0.4	43.5	100.0	2,221
Rural	58.1	22.7	0.7	8.1	0.0	2.2	11.2	0.6	0.0	35.3	2.5	32.5	0.3	41.9	100.0	1,674
Region																
Yerevan	58.4	40.1	0.9	11.0	0.6	4.1	22.3	1.0	0.2	18.3	6.3	11.6	0.4	41.6	100.0	1,140
Aragatsotn	63.0	35.3	0.0	8.7	0.0	7.8	17.8	1.0	0.0	27.7	0.9	26.8	0.0	37.0	100.0	187
Ararat	66.1	34.7	1.8	13.4	0.0	0.8	18.1	0.5	0.0	31.4	4.4	26.9	0.1	33.9	100.0	360
Armavir	59.7	22.4	0.5	5.0	0.0	2.3	14.6	0.0	0.0	37.3	0.8	35.6	0.9	40.3	100.0	405
Gegharkunik	69.7	19.3	0.0	9.7	0.0	2.1	5.4	1.9	0.2	50.5	2.4	47.7	0.4	30.3	100.0	298
Lori	60.0	13.4	0.0	8.0	0.0	2.4	3.0	0.0	0.0	46.6	1.5	44.2	0.9	40.0	100.0	214
Kotayk	55.6	23.2	0.5	8.8	0.0	0.8	12.1	1.0	0.0	32.4	3.9	28.5	0.0	44.4	100.0	476
Shirak	40.6	18.7	0.0	7.1	0.0	2.6	8.7	0.3	0.0	22.0	6.5	15.5	0.0	59.4	100.0	349
Syunik	20.8	13.1	0.3	1.2	0.0	0.3	10.8	0.4	0.0	7.7	1.3	6.4	0.0	79.2	100.0	172
Vayots Dzor	68.5	13.4	0.3	4.8	0.0	0.3	7.6	0.4	0.0	55.1	0.7	54.4	0.0	31.5	100.0	87
Tavush	60.3	26.8	2.5	8.8	0.0	1.9	12.1	0.3	1.2	33.6	1.1	31.4	1.0	39.7	100.0	208
Education																
Basic	59.0	20.5	0.0	4.9	0.0	0.8	13.6	1.1	0.0	38.5	1.9	35.7	0.9	41.0	100.0	205
Secondary	58.1	24.0	1.0	7.5	0.1	2.3	12.4	0.8	0.1	34.1	2.7	31.1	0.3	41.9	100.0	1,669
Secondary special	56.4	28.5	0.6	11.1	0.2	2.0	13.9	0.2	0.3	27.9	3.8	23.6	0.5	43.6	100.0	952
Higher	55.8	35.2	0.5	9.8	0.2	4.1	19.3	1.1	0.2	20.6	6.0	14.4	0.2	44.2	100.0	1,063
Wealth quintile																
Lowest	58.6	21.1	0.7	7.5	0.0	2.2	10.2	0.5	0.0	37.6	2.5	34.7	0.4	41.4	100.0	695
Second	56.8	24.6	0.6	8.2	0.0	2.1	12.7	0.6	0.3	32.2	2.3	29.6	0.3	43.2	100.0	834
Middle	54.4	25.2	0.5	7.5	0.3	2.1	13.2	1.3	0.2	29.2	2.4	26.6	0.3	45.6	100.0	721
Fourth	55.2	30.3	0.6	9.0	0.0	2.5	17.3	0.8	0.1	24.9	4.9	19.6	0.4	44.8	100.0	790
Highest	60.4	37.2	1.0	11.8	0.5	4.2	19.2	0.5	0.0	23.2	6.7	16.2	0.4	39.6	100.0	855
Number of living children																
0	2.3	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	2.1	0.5	1.6	0.0	97.7	100.0	261
1-2	60.3	31.4	0.5	10.0	0.3	3.0	16.7	0.8	0.2	28.9	4.3	24.1	0.4	39.7	100.0	2,690
3-4	64.1	26.1	1.2	8.4	0.0	2.5	13.5	0.4	0.0	38.1	3.6	34.3	0.2	35.9	100.0	908
5+	(46.7)	(23.9)	(7.2)	(5.0)	(0.0)	(0.0)	(5.4)	(6.3)	(0.0)	(22.7)	(0.0)	(22.7)	(0.0)	(53.3)	100.0	36
Total	57.1	28.0	0.7	8.9	0.2	2.6	14.7	0.7	0.1	29.2	3.8	25.0	0.3	42.9	100.0	3,895

Note: If more than one method is used, only the most effective method is considered in this tabulation. Figures in parentheses are based on 25-49 unweighted cases. Total includes seven cases with no education that are not shown separately. LAM = Lactational amenorrhea method

3.7 Need and Demand for Family Planning

Unmet need for family planning refers to fecund women who are not using contraception but who wish to postpone their next birth (spacing) or stop childbearing altogether (limiting). An estimate of the size and composition of the population of women who have an unmet need for family planning services is useful for planning reproductive health programs.

The criteria used within the DHS program to identify women with an unmet need for family planning have recently been revised (Bradley et al. 2012). The revised definition was employed in determining which women have an unmet need for family planning (Table 8). Specifically, women are considered to have an unmet need for spacing if they are:

- At risk of becoming pregnant, not using contraception, and either do not want to become pregnant within the next 2 years or are unsure if or when they want to become pregnant
- Pregnant with a mistimed pregnancy

- Postpartum amenorrheic for up to 2 years following a mistimed birth and not using contraception

Women are considered to have an unmet need for limiting if they are:

- At risk of becoming pregnant, not using contraception, and want no (more) children
- Pregnant with an unwanted pregnancy
- Postpartum amenorrheic for up to two years following an unwanted birth and not using contraception

Women who are classified as infecund have no unmet need because they are not at risk of becoming pregnant.

Women using contraception are considered to have a met need. Women using contraception who say they want no (more) children are considered to have a met need for limiting, and women who are using contraception and say they want to delay having a child or are unsure if or when they want a (another) child are considered to have a met need for spacing.

Finally, total demand for family planning, percentage of demand satisfied, and percentage of demand satisfied by modern methods are defined as follows:

- **Total demand for family planning:** the sum of unmet need (for spacing and limiting) and total contraceptive use
- **Percentage of demand satisfied:** total contraceptive use divided by the sum of unmet need and total contraceptive use
- **Percentage of demand satisfied by modern methods:** use of modern contraceptive methods divided by the sum of unmet need and total contraceptive use

Table 8 presents data on unmet need, met need, and total demand for family planning services for currently married women. Overall, 13 percent of currently married women have an unmet need for family planning. Fifty-seven percent of married women have a met need for family planning—that is, they are currently using a contraceptive method. The total potential demand for family planning among currently married women is 70 percent, and the total demand satisfied is 82 percent. Thus, if all married women who said they want to space or limit their children were to use family planning methods, the contraceptive prevalence rate would increase from 57 percent to 70 percent.

The level of unmet need varies by background characteristics. Unmet need is highest among married women age 20-24 (20 percent). Total unmet need is slightly higher among rural than urban women (14 percent versus 11 percent), and it is highest in Shirak (22 percent) and lowest in Aragatsotn and Vayots Dzor (5-6 percent). Women with basic education and higher education (14 percent each) and those in the middle wealth quintile (14 percent) have a slightly higher unmet need than other women (12 percent to 13 percent); however, unmet need is remarkably stable across education and wealth quintiles.

Table 8 Need and demand for family planning among currently married women

Percentage of currently married women age 15-49 with unmet need for family planning, percentage with met need for family planning, percentage with met need for family planning who are using modern methods, percentage with demand for family planning, percentage of the demand for family planning that is satisfied, and percentage of the demand for family planning that is satisfied with modern methods, by background characteristics, Armenia 2015-16

Background characteristic	Met need for family planning (currently using)			Total demand for family planning ³	Percentage of demand satisfied ¹		Number of women
	Unmet need	All methods	Modern methods ²		All methods	Modern methods ²	
Age							
15-19	(9.3)	(32.4)	(21.9)	(41.7)	(77.7)	(52.5)	33
20-24	20.4	42.5	22.4	63.0	67.6	35.6	365
25-29	15.6	55.0	28.8	70.6	77.9	40.9	761
30-34	10.1	66.4	36.0	76.5	86.8	47.1	826
35-39	11.2	66.2	32.2	77.5	85.5	41.6	709
40-44	8.5	60.9	26.6	69.5	87.7	38.2	639
45-49	13.1	41.7	15.4	54.8	76.2	28.0	562
Residence							
Urban	13.6	56.5	31.9	70.1	80.5	45.6	2,221
Rural	11.0	58.1	22.7	69.0	84.1	32.9	1,674
Region							
Yerevan	13.1	58.4	40.1	71.5	81.6	56.1	1,140
Aragatsotn	4.5	63.0	35.3	67.4	93.4	52.4	187
Ararat	7.7	66.1	34.7	73.8	89.6	47.1	360
Armavir	11.2	59.7	22.4	70.8	84.2	31.6	405
Gegharkunik	7.5	69.7	19.3	77.3	90.3	24.9	298
Lori	12.0	60.0	13.4	72.1	83.3	18.6	214
Kotayk	15.0	55.6	23.2	70.6	78.7	32.9	476
Shirak	22.2	40.6	18.7	62.9	64.6	29.7	349
Syunik	17.3	20.8	13.1	38.1	54.6	34.3	172
Vayots Dzor	5.5	68.5	13.4	74.0	92.6	18.1	87
Tavush	11.8	60.3	26.8	72.2	83.6	37.1	208
Education							
Basic	13.5	59.0	20.5	72.5	81.4	28.3	205
Secondary	12.0	58.1	24.0	70.1	82.8	34.3	1,669
Secondary special	11.9	56.4	28.5	68.3	82.5	41.7	952
Higher	13.6	55.8	35.2	69.5	80.4	50.7	1,063
Wealth quintile							
Lowest	12.7	58.6	21.1	71.3	82.2	29.5	695
Second	11.7	56.8	24.6	68.5	82.9	35.9	834
Middle	13.6	54.4	25.2	68.0	80.0	37.0	721
Fourth	11.7	55.2	30.3	66.9	82.5	45.3	790
Highest	13.0	60.4	37.2	73.4	82.3	50.6	855
Total	12.5	57.1	28.0	69.6	82.1	40.2	3,895

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al. 2012. Figures in parentheses are based on 25-49 unweighted cases. Total includes seven cases with no education that are not shown separately.

¹ Percentage of demand satisfied is met need divided by total demand.

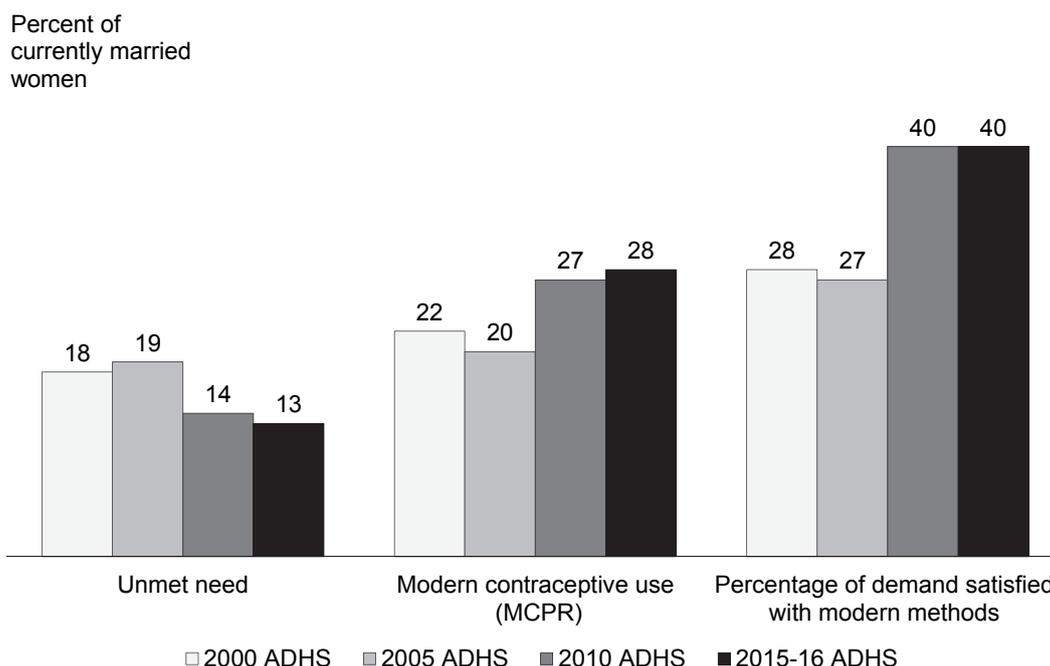
² Modern methods include female sterilization, IUD, implants, injectables, pill, male condom, emergency contraception, and lactational amenorrhea method (LAM).

³ Total demand is the sum of unmet need and met need (with all methods).

Figure 2 shows trends in unmet need, modern contraceptive use, and percentage of demand met with modern methods. Unmet need has declined from 18-19 percent in 2000 and 2005 to 13 percent in 2015-16. Use of modern contraceptive methods has increased to 28 percent in 2015-16, after an initial decline from 22 percent in 2000 to 20 percent in 2005. The percentage of demand satisfied with modern contraceptive methods has increased from 28 percent in 2000 to 40 percent in 2015-16.³

³ Because of differences in the way in which unmet need is defined, the estimates of need presented in Table 8 and Figure 2 are not directly comparable to the results from the 2010, 2005, and 2000 ADHS final reports. Data on unmet need for the previous surveys have been recalculated using the revised definition of unmet need described in Bradley et al. 2012 and available from The DHS Program STATcompiler (<http://beta.statcompiler.com>).

Figure 2 Trends in unmet need, modern contraceptive use, and percentage of demand satisfied with modern methods, 2000-2016



3.8 Early Childhood Mortality

Infant and child mortality rates are basic indicators of a country’s socioeconomic situation and quality of life (UNDP 2007). Information on infant and child mortality is useful in identifying segments of the population that are at high risk so that programs can be targeted to reduce it.

Data on infant and child mortality in the 2015-16 ADHS are derived from the reproductive history section of the Woman’s Questionnaire. The section begins with questions about the respondent’s childbearing experience, including the number of sons and daughters who live in the household, the number who live elsewhere, and the number who have died. In the pregnancy history, the woman is asked to report the outcome of each pregnancy, i.e., whether the pregnancy ended in a live birth, a stillbirth, a miscarriage, or an induced abortion. Using the standard international definition, a live birth was 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) (WHO 1993).

For each live birth reported in the pregnancy history, information was collected on the name, date of birth (month and year), sex, whether the birth was single or multiple, and survivorship. For living children, information was also collected on age at last birthday and whether the child resided with the mother. For children who had died, the respondent was asked to provide the age at death. Mortality rates for specific periods preceding the survey were calculated using direct estimation procedures.⁴

⁴ The rates are calculated using a synthetic cohort approach in which probabilities of dying are first calculated for small age segments, and the component probabilities are then combined to obtain the rate for the full age segment of interest. The advantage of this approach is that mortality rates can be calculated for time periods close to the survey date while still respecting the principle of correspondence; that is, if a child is included in the exposed-to-risk in the denominator, and he/she dies during the relevant time period, then his/her death must be included in the numerator corresponding to that period of risk. A more detailed explanation of this approach can be found in the *Guide to DHS Statistics* (Rutstein and Rojas 2006).

This information is used to directly estimate the following five mortality rates:

- Neonatal mortality:** the probability of dying within the first month of life
- Postneonatal mortality:** the difference between infant and neonatal mortality
- Infant mortality:** the probability of dying before the first birthday
- Child mortality:** the probability of dying between the first and the fifth birthday
- Under-5 mortality:** the probability of dying between birth and the fifth birthday

All rates are expressed per 1,000 live births, except for child mortality, which is expressed per 1,000 children surviving to age 12 months.

As shown in Table 9, during the 5 years immediately preceding the survey, the infant mortality rate was 4 deaths per 1,000 live births, with most deaths occurring during the neonatal period. The child mortality rate was 2 deaths per 1,000 children surviving to age 12 months, while the overall under-5 mortality rate was 6 deaths per 1,000 live births. Sixty-seven percent of all deaths among children under age 5 in Armenia take place before a child's first birthday, with 50 percent occurring during the first month of life.

Table 9 Early childhood mortality rates

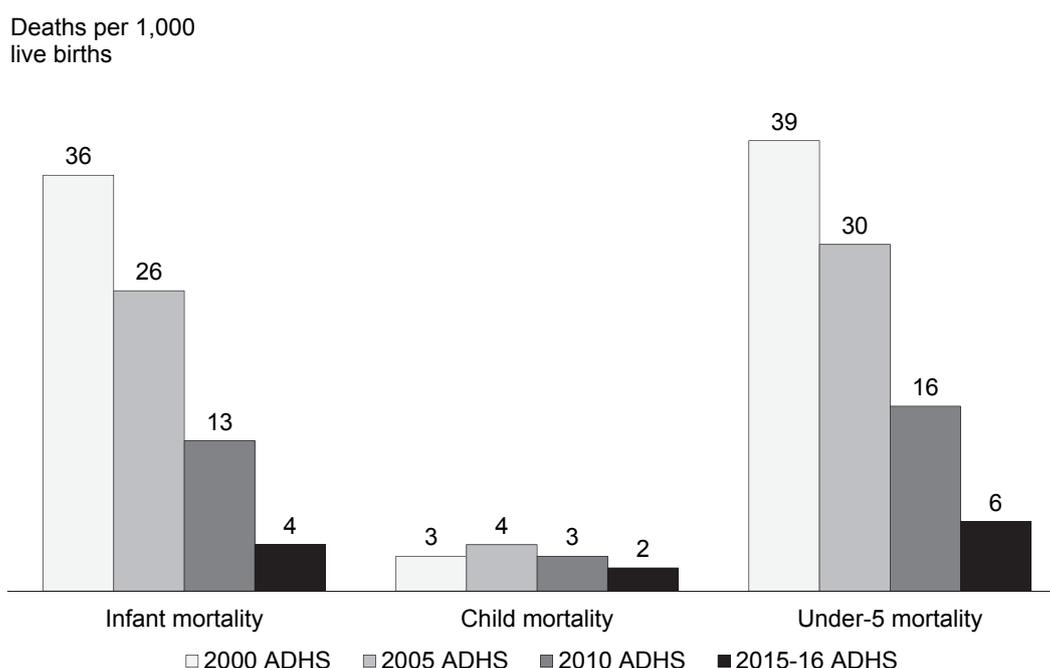
Neonatal, postneonatal, infant, child, and under-5 mortality rates for 5-year periods preceding the survey, Armenia 2015-16

Period preceding survey	Approximate time period of estimated rates	Mortality rates				
		Neonatal mortality (NN)	Postneonatal mortality (PNN) ¹	Infant mortality (iqo)	Child mortality (4q1)	Under-5 mortality (sqo)
0-4	2011-2015	3	1	4	2	6
5-9	2006-2010	8	5	12	2	15
10-14	2001-2005	10	7	17	2	19

¹ Computed as the difference between the infant and neonatal mortality rates

The 2015-16 ADHS documents a pattern of steady and consistent decline of under-5 mortality and infant mortality during the 15 years prior to the survey (Figure 3). Comparison of the results of the 2015-16 ADHS with those of the 2010, 2005, and 2000 ADHS suggests a substantial decline in childhood mortality. For example, infant mortality for the 5 years preceding the survey declined from 36 deaths per 1,000 live births in the 2000 ADHS to 26 deaths in 2005, 13 in 2010, and finally to 4 in 2015-16. The 2015-16 ADHS infant mortality estimate of 12 deaths per 1,000 live births for the 2006-2010 period is nearly the same as the 2010 ADHS estimate of 13 deaths for the same period. It should be noted however, that the 2015-16 ADHS infant mortality estimate of 17 deaths per 1,000 live births for the 2001-2005 period is lower than the 2010 and 2005 ADHS estimates for the same period (24 and 26, respectively; NSS, 2001; NSS, 2006 and NSS, 2012). This is expected, though, as it is well established that underreporting of deceased children by survey respondents is most likely for time periods more remote from the survey date. This decline in early childhood mortality rates will be explored in further detail in the final report when the confidence intervals and data quality tables will be available. Childhood mortality is difficult to measure in a low-fertility country such as Armenia because of the large number of births required to calculate an accurate estimate. Though the possibility of under-reporting of deaths of children cannot be ruled out, multiple factors, such as health interventions initiated by the MOH since 1994, including programs in the case management of diarrhea and acute respiratory infection (ARI) as well as programs in support of breastfeeding, may have also contributed to the observed mortality decline in Armenia.

Figure 3 Trends in childhood mortality, 2000-2016



3.9 Maternal Care

Proper care during pregnancy and delivery is important for the health of both the mother and the baby. In the 2015-16 ADHS, women who had given birth in the 5 years preceding the survey were asked a number of questions about maternal care. Mothers were asked whether they had obtained antenatal care during the pregnancy for their most recent live birth in the 5 years preceding the survey. For each live birth over the same period, mothers were also asked what type of assistance they received at the time of delivery. To assess the extent of postnatal care utilization, respondents were asked, for their last birth in the 5 years preceding the survey, whether they had received a checkup after delivery and the timing of the first checkup. Table 10 summarizes information on the coverage of these maternal health services.

Antenatal Care

Antenatal care (ANC) from a skilled provider is important to monitor pregnancy and reduce morbidity and mortality risks for the mother and child during pregnancy, at delivery, and during the postnatal period (within 42 days after delivery). In Armenia, skilled providers trained to assist during delivery include doctors, nurses, midwives, and *feldshers*.⁵

Table 10 shows that almost 100 percent of mothers reported seeing a health professional at least once for antenatal care for the most recent birth in the five-year period before the survey. Coverage is uniformly high among mothers regardless of background characteristics. Ninety-six percent of women had four or more ANC visits, a small increase from 93 percent in the 2010 ADHS. Urban women were somewhat more likely than rural women to have had four or more ANC visits (98 percent and 94 percent, respectively). Women from Gegharkunik are the least likely to have had four or more ANC visits (71 percent).

The proportion of women who have at least one antenatal care visit with a skilled provider has increased over the past 15 years, from 92 percent in 2000 to 100 percent in 2015-16. Specific regions show greater improvements. For example, ANC coverage in Gegharkunik, Aragatsotn, and Vayots Dzor has

⁵ A *feldsher* is a health professional trained in nursing and midwifery with extended training in clinical diagnosis and pharmacology. Feldshers are authorized to provide basic treatment and to prescribe a restricted number of drugs at *feldsher-accoucher* posts (FAPs) with no assigned doctor.

increased from 70, 80, and 86 percent, respectively in the 2000 ADHS to 97, 100 and 100 percent, respectively, in the 2015-16 ADHS.

Delivery Care

Access to proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that may lead to death or serious illness for the mother and/or baby (De Brouwere and Van Lerberghe 2001; WHO 2006). As shown in Table 10, assistance at delivery by a health professional is universal in Armenia, with 100 percent of the births in the five years preceding the survey having been delivered by a skilled provider, and 99 percent taking place in a health facility. There are no significant variations across groups of women.

Postnatal Care for the Mother

A large proportion of maternal and neonatal deaths occur during the first 48 hours after delivery. Thus, prompt postnatal care (PNC) for the mother is important to treat any complications arising from the delivery, as well as to provide the mother with important information on how to care for herself and her child. Safe motherhood programs recommend that all women receive a check of their health within 2 days after delivery.

Table 10 presents information on the timing of the first postnatal checkup after the most recent birth for women who gave birth in the two years preceding the survey. Data show that 92 percent of these women reported having received a PNC checkup in the first 2 days after birth. Overall, 8 percent of women did not receive postnatal care within the recommended period (two days after delivery). There are no significant variations across groups of women except that Table 10 shows some variations in the timing of postnatal care across regions. However, caution should be exercised in the analysis across regions because of the small number of women with recent births in some regions.

Table 10. Maternal care indicators

Among women age 15-49 who had a live birth in the 5 years preceding the survey, percentage who received antenatal care from a skilled provider for the last live birth and percentage with four or more ANC visits for the last live birth; among all live births in the 5 years before the survey, percentage delivered by a skilled provider and percentage delivered in a health facility; and among women age 15-49 who had a live birth in the 2 years preceding the survey, percentage who received a postnatal checkup in the first 2 days after the last live birth, by background characteristics, Armenia 2015-16

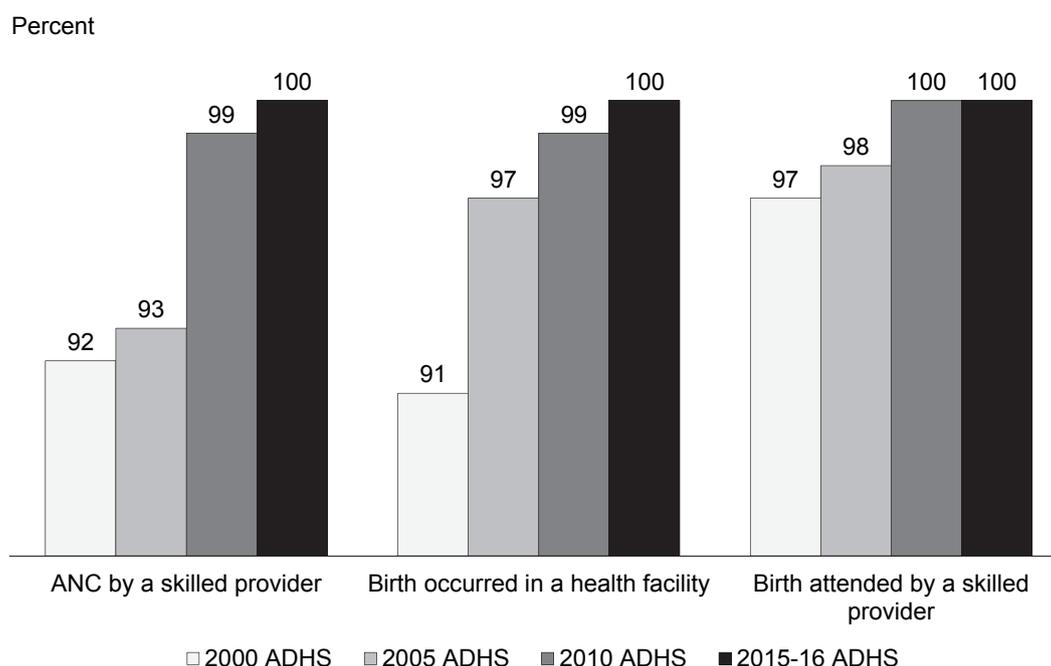
Background characteristic	Women who had a live birth in the 5 years preceding the survey			Live births in the 5 years preceding the survey			Women who had a live birth in the 2 years preceding the survey	
	Percentage with antenatal care from a skilled provider ¹	Percentage with 4+ ANC visits	Number of women	Percentage delivered by a skilled provider ¹	Percentage delivered in a health facility	Number of births	Percentage of women who had a postnatal checkup in the first 2 days after birth	Number of women
Mother's age at birth								
<20	100.0	94.8	63	100.0	98.8	99	(85.7)	40
20-34	99.6	96.2	1,207	99.8	99.3	1,475	92.6	603
35-49	100.0	94.3	92	100.0	100.0	98	(94.3)	55
Residence								
Urban	99.9	97.8	794	99.7	99.0	962	92.4	411
Rural	99.3	93.6	568	99.9	99.8	710	92.3	288
Region								
Yerevan	100.0	99.0	398	99.5	99.6	475	92.4	203
Aragatsotn	100.0	91.2	51	100.0	98.9	61	(88.9)	24
Ararat	98.5	87.3	140	100.0	100.0	168	94.0	69
Armavir	99.0	97.2	147	100.0	99.0	190	92.4	83
Gegharkunik	97.2	71.2	65	99.2	99.2	77	(91.6)	29
Lori	100.0	98.8	76	100.0	100.0	99	(88.7)	38
Kotayk	100.0	99.5	200	100.0	99.3	239	94.5	105
Shirak	100.0	98.3	130	100.0	97.6	168	87.1	67
Syunik	100.0	100.0	46	100.0	100.0	61	(97.1)	25
Vayots Dzor	100.0	98.3	30	99.0	99.0	37	(87.4)	13
Tavush	100.0	99.5	78	100.0	100.0	99	96.8	44
Mother's education								
Basic	98.0	91.5	70	100.0	100.0	95	(84.0)	46
Secondary	99.3	93.9	533	99.9	99.7	670	92.8	277
Secondary special	100.0	98.3	286	99.9	99.5	346	93.8	137
Higher	100.0	97.8	471	99.6	98.6	561	92.6	237
Wealth quintile								
Lowest	98.9	92.4	252	99.7	99.7	324	89.7	124
Second	100.0	94.7	275	100.0	99.6	338	94.8	146
Middle	99.2	96.0	253	100.0	98.6	305	94.3	129
Fourth	99.8	97.4	250	99.2	99.3	299	89.3	128
Highest	100.0	98.9	331	100.0	99.4	406	93.0	172
Total	99.6	96.0	1,361	99.8	99.3	1,672	92.4	699

Note: Figures in parentheses are based on 25-49 unweighted cases. Total includes one case with no education that is not shown separately.

¹ Skilled provider includes doctor, nurse/midwife, or feldsher.

Figure 4 shows trends in maternal health care. While these indicators changed little between 2010 and 2015-16, there have been some improvements since 2000.

Figure 4 Trends in maternal health care, 2000-2016



3.10 Child Health and Nutrition

The 2015-16 ADHS collected data on a number of key child health indicators, including vaccinations of young children, infant feeding practices, and treatment practices when a child is ill.

Vaccination of Children

Armenia’s Ministry of Health has adopted the World Health Organization (WHO) guidelines for childhood immunizations that call for all children to receive the following: a BCG vaccination against tuberculosis; three doses of DPT to prevent diphtheria, pertussis, and tetanus; three doses of polio vaccine; and a measles vaccine during the first year of life. In Armenia, protection against measles is given in the form of an MMR vaccination at 12 months to protect against not only measles but also mumps and rubella. In addition to these standard recommendations, since late 1999, the Ministry of Health has recommended that children receive three doses of the hepatitis B vaccine, with the first dose given at birth or at first clinical contact (MOH 2005). The pentavalent vaccine “DPT/Hep-B/HiB,” introduced in September 2009, has replaced the DPT vaccine and is supposed to be given according to the same schedule as DPT. The pentavalent vaccine contains, in addition to DPT, the hepatitis B vaccine (Hep-B) and a vaccine against Haemophilus influenzae type B (HiB). Additionally, the 2015-16 ADHS collected information on the coverage of three doses of pneumococcal vaccine introduced in the routine immunizations for children in Armenia in September 2014 and two doses of the rotavirus vaccine introduced in 2012.

Information on vaccination coverage was collected in the 2015-16 ADHS for all children under age 3. In Armenia, child health cards (MOH form 112) and vaccination forms (MOH form 63) are maintained in the local health care facilities. Vaccination certificates (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 a vaccination certificate, she was asked to recall her child’s immunizations. She was also asked for consent for survey personnel to obtain vaccination records for the child from the health facility where he/she received the vaccinations. After all the interviews in a cluster were completed, the supervisor visited the local clinic to record information from the health cards of the

children in the sample. Health facility cards or vaccination certificates were found for 93 percent of children age 18-29 months. Thus, while most of the data in Table 11 are based on health facility cards or vaccination certificates kept at home, in the case of children for whom a facility card or a vaccination certificate was not located, the data are based on the mother's recall.

Table 11 shows rates of vaccination coverage for children 18-29 months (i.e., the age by which children should be fully vaccinated). Overall, the data show that 89 percent of the children 18-29 months of age had received all basic WHO-recommended vaccinations by the date of the interview. Basic vaccination coverage has declined by 3 percentage points since the 2010 ADHS.

Almost all children (at least 97 percent) in the sample had received vaccinations for BCG, hepatitis B at birth, and the first doses of polio and pentavalent (DPT/Hep-B/HiB). The proportions of children receiving the second and third doses of polio and pentavalent (DPT/Hep-B/HiB) are slightly lower, as is the proportion receiving the measles (MMR) vaccine (94 percent). Ninety-three percent of children completed the required three doses of the pentavalent vaccine, and 95 percent completed the required three doses of the polio vaccine. Ninety-four percent of children received the first rotavirus vaccine and 28 percent received the first pneumococcal vaccine, which is expected since the vaccine was only introduced in September 2014. Differences in immunization coverage by sex are minimal; 90 percent of girls and 89 percent of boys have received all the basic WHO-recommended vaccinations. By residence, 88 percent of urban children have received all the basic vaccinations, compared with 92 percent of rural children. There is no clear association between either mother's education or household wealth quintile and vaccination status.

Table 11. Vaccinations by background characteristics

Percentage of children age 18-29 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card seen, by background characteristics, Armenia 2015-16

Background characteristic	Hepatitis B (birth dose)			DPT-HepB-Hib ¹			Polio			Measles (MMR)		All basic vaccinations ²		No vaccinations		Pneumococcal			Rotavirus		Percent-age with a vaccina-tion card ³	Number of children	
	BCG	1	2	3	1	2	3	1	2	3	1	2	1	2	1	2	1	2	1	2			
Sex																							
Male	99.7	99.3	97.0	96.0	98.2	98.2	93.2	94.7	88.6	0.3	34.2	30.1	22.2	93.5	87.4	89.3	193						
Female	98.9	97.3	97.9	95.9	99.6	98.0	97.5	92.6	90.4	0.0	20.3	19.7	16.5	94.3	92.7	96.9	169						
Residence																							
Urban	99.5	97.9	96.3	94.3	98.9	98.1	93.9	93.1	87.7	0.2	28.4	26.2	20.6	92.9	88.0	92.4	210						
Rural	99.2	99.0	98.9	98.2	98.8	98.1	96.9	94.6	91.8	0.0	26.8	23.9	18.2	95.2	92.5	93.5	151						
Mother's education																							
Basic	(100.0)	(95.4)	(96.3)	(94.1)	(97.8)	(97.8)	(95.5)	(93.3)	(87.7)	(0.0)	(35.0)	(35.0)	(24.5)	(93.7)	(93.7)	(88.5)	28						
Secondary	100.0	99.4	97.7	96.3	97.9	97.1	95.3	92.3	90.3	0.0	28.4	25.3	18.5	94.4	89.7	91.5	144						
Secondary special	98.1	96.7	95.6	91.5	99.2	99.2	93.0	94.2	87.3	0.8	20.8	16.6	16.6	92.2	90.7	93.7	65						
Higher	99.1	98.6	98.3	96.1	100.0	98.7	96.0	95.1	89.9	0.0	28.2	26.7	20.4	94.2	88.6	92.7	124						
Wealth quintile																							
Lowest	100.0	98.1	97.1	97.1	100.0	100.0	100.0	93.9	91.7	0.0	32.4	29.1	23.0	96.5	94.9	95.9	68						
Second	98.9	98.4	99.0	99.0	100.0	100.0	96.3	97.2	95.2	0.0	29.2	24.4	17.5	99.5	97.3	93.3	66						
Middle	99.2	96.1	96.4	95.4	96.3	95.3	90.0	92.4	86.3	0.8	18.9	15.9	15.3	87.9	84.3	94.6	65						
Fourth	100.0	100.0	94.7	90.2	99.1	95.5	94.3	89.8	86.3	0.0	19.7	19.0	14.7	91.9	91.9	89.9	59						
Highest	98.9	98.9	98.8	96.9	98.8	98.8	95.1	94.4	88.0	0.0	33.8	32.6	24.1	93.4	84.1	91.1	104						
Total	99.3	98.3	97.4	96.0	98.8	98.1	95.2	93.7	89.4	0.1	27.7	25.2	19.6	93.9	89.8	92.9	362						

Note: Figures in parentheses are based on 25-49 unweighted cases. Total includes one case with no education that is not shown separately.

¹ DPT-HepB-Hib is sometimes referred to as Pentavalent.

² BCG, three doses of DPT-HepB-Hib, three doses of oral polio vaccine, and one dose of measles, mumps and rubella (MMR)

³ Includes vaccination certificate kept by parent/guardian or at the health facility

Treatment of Childhood Illnesses

Pneumonia and other acute respiratory infections (ARIs), fever, and dehydration from diarrhea are important contributing causes of childhood morbidity and mortality in developing countries (WHO 2003). Prompt medical attention when a child has the symptoms of these illnesses is, therefore, crucial in reducing child deaths. To obtain information on health-seeking behaviors surrounding these common childhood illnesses, mothers were asked if any of their children under age 5 had experienced the following symptoms in the 2 weeks preceding the survey: cough with short, rapid breathing (symptoms of an acute respiratory infection, considered a proxy for pneumonia), fever, or diarrhea. Mothers who indicated their child had experienced such symptoms were then asked if treatment or advice was sought from a health facility or provider. For children with diarrhea, the mother was asked additional questions about treatment given to the child. Overall, 1 percent of children under age 5 showed symptoms of ARI, 9 percent exhibited fever, and 4 percent experienced diarrhea in the 2 weeks preceding the survey (data not shown). It should be noted that the morbidity data collected are subjective because they are based on a mother's perception of illnesses without validation by medical personnel.

Table 12 shows that treatment from a health facility or provider was sought for 92 percent of the children with ARI symptoms, 71 percent of the children with fever symptoms, and 41 percent of the children with diarrhea. Thirty-seven percent of children with diarrhea received fluid from an oral rehydration salt (ORS) packet, 4 percent were given zinc, and 2 percent were given both zinc and ORS.

Table 12 Treatment for acute respiratory infection, fever, and diarrhea

Among children under age 5 who had symptoms of acute respiratory infection (ARI) or had fever in the 2 weeks preceding the survey, percentage for whom advice or treatment was sought from a health facility or provider, and among children under age 5 who had diarrhea during the 2 weeks preceding the survey, percentage for whom advice or treatment was sought from a health facility or provider, percentage given a fluid made from oral rehydration salt (ORS) packets, percentage given zinc, and percentage given ORS and zinc, by background characteristics, Armenia 2015-16

Background characteristic	Children with symptoms of ARI ¹		Children with fever		Children with diarrhea				
	Percentage for whom treatment was sought from a health facility/provider ²	Number of children	Percentage for whom treatment was sought from a health facility/provider ²	Number of children	Percentage for whom treatment was sought from a health facility/provider ²	Percentage given fluid from ORS packet	Percentage given zinc	Percentage given ORS and zinc	Number of children
Sex									
Male	*	12	70.9	76	(40.1)	(33.3)	(2.6)	(0.0)	40
Female	*	11	70.8	77	(41.6)	(43.2)	(5.5)	(5.5)	23
Residence									
Urban	*	7	72.7	79	(34.3)	(54.2)	(9.1)	(5.0)	25
Rural	*	17	68.9	74	(44.9)	(25.3)	(0.0)	(0.0)	38
Total	(91.7)	23	70.9	153	40.6	36.9	3.7	2.0	63

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.

¹ Symptoms of ARI (cough accompanied by short, rapid breathing, which was chest-related, and/or by difficult breathing, which was chest-related)

² Excludes pharmacy, shop, and traditional practitioner

Differences by background characteristics cannot be analyzed as the estimates are based on very small numbers of children who were sick with symptoms of ARI, fever, or diarrhea.

Nutritional Status of Children

Malnutrition places children at increased risk of morbidity and mortality and is also shown to be related to impaired mental development. Anthropometry provides one of the most important indicators of children's nutritional status. In the 2015-16 ADHS, height and weight measurements were obtained for children under age 5. As recommended by WHO, evaluation of nutritional status in this report is based on a comparison of three indices for the children in this survey with indices reported for a reference population of well-nourished children (WHO Multicentre Growth Reference Study Group 2006). The height and weight data were used to compute three summary indices of nutritional status: height-for-age, weight-for-height, and weight-for-age. These three indices were expressed as standardized scores (Z-scores) or standard

deviation (SD) units from the median for the child growth standards recommended by WHO. 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. Overweight and obesity are becoming problems for some children in various countries. The percentage of children more than 2 SD above the median for weight-for-height indicates the level of this potential problem. The percentage of children more than two standard deviations above the median for weight-for-age is included here for comparison with other data sources that did not measure height.

A total of 1,739 children (unweighted) under age 5 were eligible for weight and height measurements. For some of the eligible children, however, complete and credible data on height, weight and/or age were not obtained. In this report, height-for-age is based on 92 percent of eligible children, weight-for-height is based on 90 percent of eligible children and weight-for-age is based on 93 percent of eligible children. Table 13 shows the nutritional status among children under age 5 by selected background characteristics.

Children whose height-for-age is less than two standard deviations below the median (-2 SD) of the reference population are considered stunted or short for their age. Stunting is the result of failure to receive adequate nutrition over an extended period, and may also be affected by recurrent or chronic illness. As shown in Table 13, about one in ten (9 percent) of Armenian children are stunted, while 4 percent are severely stunted. Analysis of stunting by age group shows that stunting is highest (17 percent) in children age 6-8 months and lowest (5 percent) in children 24-35 months. Children age 6-8 months also have the highest proportion of severe stunting (15 percent). Stunting levels are higher among boys (11 percent) than girls (8 percent), and higher among rural children (13 percent) than urban children (6 percent). By region, stunting ranges from 4 percent of children in Yerevan to 18 percent of those in Aragatsotn and 20 percent of those in Shirak. Children of mothers with more than a secondary education are less likely to be stunted (7-8 percent) compared with children whose mothers have basic education (17 percent). Stunting decreases with increasing wealth, from 12 percent of children in the lowest wealth quintile to 6 percent of those in the highest.

Children whose weight-for-height is below -2 SD units from the median of the reference population are considered wasted (or thin). Wasting represents the failure to receive adequate nutrition in the period immediately before the survey, and typically results from recent illness episodes, especially diarrhea, or rapid deterioration in food supplies. Four percent of Armenian children are wasted, and 2 percent are severely wasted. Wasting levels are highest for children under 6 months and 36-47 months (6 percent each). By region, wasting ranges from 0 percent in Tavush to 23 percent in Aragatsotn. Wasting does not vary greatly by residence or mothers' education, although children born to women with secondary-special education are the least likely to be wasted compared with children born to women with other levels of education. Wasting decreases with increasing wealth, affecting from 6 percent of children in the lowest wealth quintile to 2-3 percent of those in the highest two wealth quintiles.

Children whose weight-for-age is below -2 SD units from the median of the reference population are considered underweight. The measure reflects the effects of both acute and chronic malnutrition. As shown in Table 13, 3 percent of Armenian children are underweight, with 1 percent classified as severely underweight. Peak levels of low weight-for-age are found among children under 9 months. By region, low weight-for-age ranges from 0 percent in Gegharkunik and Lori to 14 percent in Aragatsotn. Weight-for-age does not vary greatly by sex, residence, or mothers' education. The proportion of children who are classified as underweight is highest among children in the lowest wealth quintile (5 percent) compared with 2-3 percent of children from wealthier households, although the difference is very small.

Fourteen percent of children under 5 are overweight (weight-for-height above +2 SD units. This indicates that overweight is more of a concern than underweight among Armenian children. Although differences are small, levels of overweight-for-height are higher among boys (15 percent) than girls (13 percent), and higher among rural children (16 percent) than urban children (12 percent). Children living in

Ararat (36 percent) are more likely to be overweight than children living in other regions (5-19 percent). Children born to mothers with only basic education are more likely to be overweight (24 percent) than children born to mothers with only secondary, secondary-special, or higher educational attainment (14, 14, and 11 percent, respectively). The proportion of children who are overweight declines steadily as wealth quintile increases.

Table 13 Nutritional status of children

Percentage of children under age 5 classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, Armenia 2015-16

Background characteristic	Height-for-age ¹				Weight-for-height					Weight-for-age				
	Percent-age below -3 SD	Percent-age below -2 SD ²	Mean Z-score (SD)	Number of children	Percent-age below -3 SD	Percent-age below -2 SD ²	Percent-age above +2 SD	Mean Z-score (SD)	Number of children	Percent-age below -3 SD	Percent-age below -2 SD ²	Percent-age above +2 SD	Mean Z-score (SD)	Number of children
Age in months														
<6	4.2	15.4	-0.3	150	1.7	6.3	11.2	0.3	153	1.9	7.5	4.3	-0.1	163
6-8	14.6	16.9	-0.0	75	0.0	1.6	12.2	0.7	75	2.4	7.8	8.1	0.4	80
9-11	7.5	11.8	-0.3	85	2.7	5.4	12.6	0.8	85	0.0	0.8	3.8	0.4	86
12-17	4.7	12.8	-0.1	161	0.0	2.1	16.7	0.9	159	0.0	0.4	12.2	0.7	167
18-23	4.2	9.5	-0.4	157	0.0	0.0	18.6	1.1	157	0.0	0.0	10.6	0.7	166
24-35	1.4	5.4	0.2	330	2.2	5.1	11.9	0.6	326	0.0	1.0	7.1	0.5	330
36-47	3.2	9.7	-0.3	304	2.1	6.1	14.8	0.6	299	0.8	4.0	4.5	0.3	305
48-59	2.0	6.2	-0.2	311	1.8	4.2	12.2	0.4	301	1.1	2.3	7.4	0.2	314
Sex														
Male	4.4	10.9	-0.2	833	1.2	3.6	14.5	0.7	822	1.0	3.2	7.7	0.3	854
Female	2.9	7.8	-0.0	740	1.9	5.0	12.7	0.6	733	0.4	2.0	6.5	0.4	755
Residence														
Urban	2.4	6.2	-0.1	876	1.5	3.3	11.5	0.6	877	0.5	2.3	5.4	0.4	907
Rural	5.3	13.4	-0.2	697	1.5	5.5	16.4	0.7	679	0.9	3.1	9.4	0.4	702
Region														
Yerevan	1.5	3.5	0.0	419	1.4	1.4	11.4	0.6	420	0.0	1.9	4.7	0.5	441
Aragatsotn	11.0	18.1	0.2	65	10.1	22.9	10.3	-0.4	61	4.4	14.3	6.5	-0.2	65
Ararat	7.9	13.7	0.8	161	2.7	13.4	35.9	1.0	147	1.1	2.8	34.8	1.2	164
Armavir	1.5	9.7	-0.4	185	0.7	2.2	13.1	0.7	187	1.0	4.8	1.7	0.2	191
Gegharkunik	6.7	9.9	0.6	75	3.5	10.6	12.3	0.2	73	0.0	0.0	11.7	0.6	74
Lori	0.0	5.6	-0.2	69	0.0	1.2	10.8	0.7	69	0.0	0.0	6.1	0.3	69
Kotayk	1.8	7.7	-0.5	245	0.0	1.1	4.9	0.6	244	0.0	1.2	0.8	0.1	246
Shirak	8.6	19.5	-0.7	169	1.7	5.1	18.4	0.7	170	1.1	2.4	4.3	0.1	172
Syunik	3.9	12.3	-0.5	62	1.1	2.6	12.2	0.4	62	2.0	4.4	1.5	-0.1	63
Vayots Dzor	3.8	11.5	-0.5	37	0.0	2.2	18.9	0.9	36	0.7	1.5	6.8	0.4	37
Tavush	1.8	7.4	-0.5	86	0.0	0.0	7.8	0.8	86	1.0	1.0	4.5	0.3	87
Mother's education³														
Basic	5.5	17.3	-0.3	91	1.2	5.7	24.4	0.8	89	0.0	3.1	7.7	0.2	91
Secondary	4.0	10.6	-0.2	640	1.3	5.9	14.2	0.6	632	0.7	2.7	7.9	0.3	650
Secondary special	3.8	8.2	-0.2	327	0.6	1.6	13.6	0.7	321	1.2	1.6	6.3	0.4	332
Higher	3.0	7.3	-0.1	510	2.4	3.7	11.0	0.6	509	0.4	3.1	6.5	0.4	531
Wealth quintile														
Lowest	3.2	12.0	-0.2	315	1.1	6.1	16.8	0.6	309	1.4	4.9	9.5	0.2	315
Second	3.9	11.5	-0.1	325	2.7	5.6	16.1	0.6	319	0.5	1.6	12.0	0.5	333
Middle	7.1	11.5	-0.3	300	1.0	4.3	15.1	0.7	293	0.3	1.8	6.3	0.4	302
Fourth	2.7	6.2	-0.2	264	0.6	2.3	12.5	0.7	266	0.8	2.0	3.7	0.4	274
Highest	1.9	5.9	-0.0	369	1.8	2.8	8.5	0.5	368	0.5	2.8	4.1	0.3	384
Total	3.7	9.4	-0.1	1,573	1.5	4.2	13.6	0.6	1,555	0.7	2.6	7.2	0.4	1,609

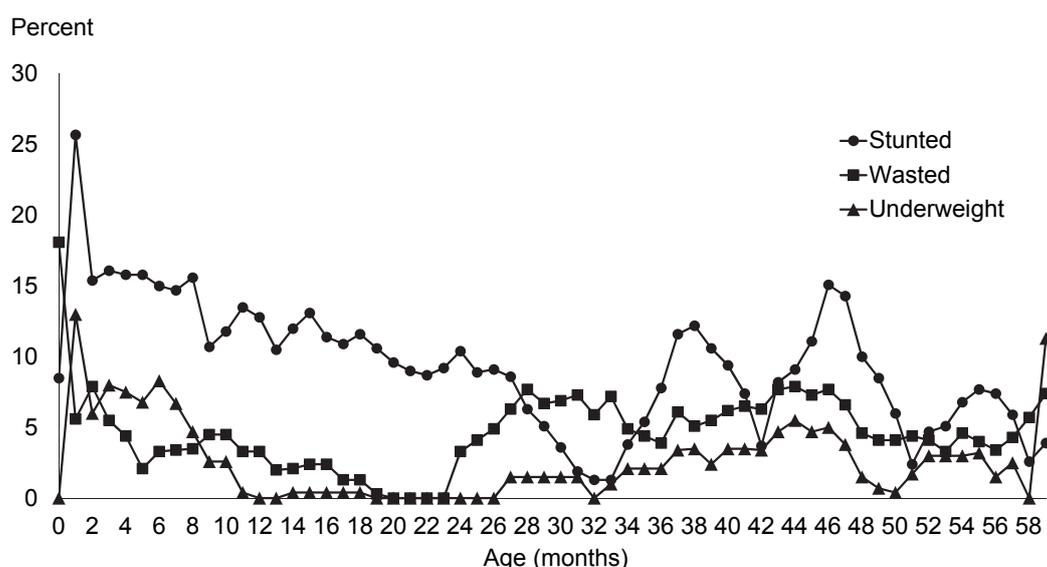
Note: Each of the indices is expressed in standard deviation (SD) units from the median of the WHO Child Growth Standards adopted in 2006. The indices in this table are NOT comparable to those based on the previously used 1977 NCHS/CDC/WHO Reference. This table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight. Total includes one case with no education that is not shown separately.

¹ Recumbent length is measured for children under age 2 or in the few cases when the age of the child is unknown and the child is less than 85 cm; standing height is measured for all other children

² Includes children who are below -3 SD units from the WHO Growth Standards population median

³ For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Figure 5 Nutritional status of children by age



Note: *Stunting* reflects chronic malnutrition; *wasting* reflects acute malnutrition; *underweight* reflects chronic or acute malnutrition or a combination of both. Plotted values are smoothed by a five-month moving average.

ADHS 2015-16

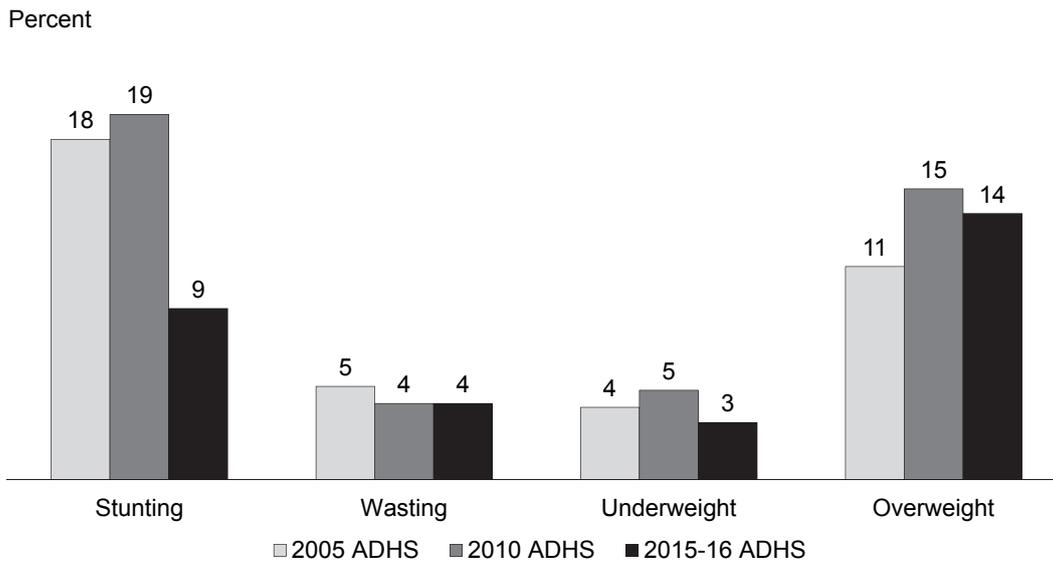
The nutritional status of children varies with age, as shown in Figure 5. After being fairly stable in the first 6-7 months of life at a high of 15-16 percent, the prevalence of stunting steadily declines with age from 8 months through the first 2 years of life before increasing again in the third and fourth years. The levels of wasting and underweight peak at about 6-10 months when complementary food in addition to breast milk is introduced. After about age 12 months both wasting and underweight levels remain low, until increasing again after the second year of age with little variation.

Figure 6 depicts trends in children's nutritional status between the 2005 and 2015-16 ADHSs, according to stunting, wasting, underweight, and overweight categories.⁶ Armenian children are more likely to experience stunting and overweight than to be underweight or wasted.

Stunting decreased dramatically, from 18-19 percent in 2005 and 2010, to 9 percent in 2015-16. Levels of wasting have hardly changed since 2005. The proportion of underweight children has decreased from 5 percent in 2010 to 3 percent in 2015-16. The proportion of overweight children (weight-for-height above +2 SD units) increased from 11 percent in 2005 to 15 percent in 2010, but has not changed much over the last 5 years (14 percent in 2015-16).

⁶ The 2000 ADHS data on children's nutritional status are not used in this trend analysis. In the 2000 ADHS, anthropometric measurements were restricted to children born to women who were interviewed. However, these data are not representative of all children, because they exclude children whose mothers were not in the household (either because they did not live there, or because they had died). Further, the older surveys did not include data on children whose mothers were not eligible for the individual interview (i.e., those under age 15 or age 50 and over) and children whose mothers were eligible but did not complete an individual interview. To overcome these biases, the 2005, 2010, and 2015 ADHS surveys included height and weight measurements of all children born in the 5 years preceding the survey and listed in the Household Questionnaire, irrespective of the interview status of their mother.

Figure 6 Trends in children’s nutritional status, Armenia 2005-2016



Note: For comparative purposes in Figure 6, data on children’s nutritional status from the 2005 ADHS survey were re-calculated according to the 2006 WHO Child Growth Standards and are different from those presented in the published 2005 ADHS final report that were determined according to the 1977 International Reference Population defined by the NCHS/CDC/WHO.

Infant and Young Child Feeding Practices

Breastfeeding is sufficient and beneficial for infant nutrition in the first 6 months of life. Breastfeeding immediately after birth also helps the uterus contract, hence reducing the mother’s postpartum blood loss. Giving any other foods and water (in addition to breast milk) before the child is age 6 months is discouraged because it may inhibit breastfeeding and expose the infant to illness. Infants older than 6 months need other food and drink while they continue to breastfeed until age 2 or older. Breast milk still is an important source of energy, protein, and nutrients such as vitamin A and iron. The food should include a variety of options, such as peeled, cooked, and mashed vegetables; grains, lentils, and fruit; some oil; and also meat, eggs, chicken, and dairy products to provide adequate nourishment (Pan American Health Organization 2002).

The 2015-16 ADHS collected data on infant and young child feeding (IYCF) practices for all children born in the 2 years preceding the survey. Table 14 shows breastfeeding practices by child’s age. Contrary to the recommendation that children under age 6 months be exclusively breastfed, just under half (45 percent) of the infants under age 6 months were found to be exclusively breastfed. In addition to breast milk, 12 percent of infants under 6 months consume plain water, 4 percent consume nonmilk liquids, 5 percent consume other milk, and 21 percent consume complementary foods. One-third (33 percent) of infants under age 6 months are fed using a bottle with a nipple, a practice that is discouraged because of the risk of illness to the child.

Sixty-three percent of children age 6-8 months receive timely complementary foods, and 74 percent of children age 18-23 months have been weaned.

Exclusive breastfeeding among children younger than age 6 months, as recommended by the Ministry of Health, has increased from 35 percent in 2010 to the current 45 percent, indicating a marked improvement since 2010. The proportion of children under 6 months receiving complementary foods in addition to breast milk has fluctuated from 20 percent in 2005 to 17 percent in 2010 to 21 percent in the current survey.

Table 14 Breastfeeding status by age

Percent distribution of youngest children under age 2 who are living with their mother, by breastfeeding status; the percentage currently breastfeeding; and the percentage of all children under age 2 using a bottle with a nipple, according to age in months, Armenia 2015-16

Age in months	Breastfeeding status							Total	Percentage currently breast-feeding	Number of youngest children under age 2 living with the mother	Percentage using a bottle with a nipple	Number of all children under age 2
	Not breast-feeding	Exclusively breast-feeding	Breast-feeding and consuming plain water only	Breast-feeding and consuming nonmilk liquids ¹	Breast-feeding and consuming other milk	Breast-feeding and consuming complementary foods						
0-1	(6.9)	(79.7)	(4.7)	(2.9)	(1.0)	(4.8)	(100.0)	(93.1)	41	(8.6)	42	
2-3	11.4	57.2	8.9	1.4	8.0	13.1	100.0	88.6	57	24.9	60	
4-5	22.3	14.8	17.8	5.6	4.0	35.5	100.0	77.7	73	53.6	75	
6-8	29.1	6.7	1.3	0.0	0.0	62.9	100.0	70.9	86	53.5	87	
9-11	29.1	0.7	0.0	0.7	0.0	69.5	100.0	70.9	91	66.6	94	
12-17	69.2	0.4	0.0	0.0	0.0	30.4	100.0	30.8	165	56.3	170	
18-23	73.6	0.0	0.0	0.0	0.0	26.4	100.0	26.4	148	50.1	169	
0-3	9.5	66.6	7.1	2.0	5.1	9.6	100.0	90.5	99	18.2	101	
0-5	15.0	44.5	11.7	3.5	4.6	20.7	100.0	85.0	172	33.3	177	
6-9	28.0	5.1	0.9	0.0	0.0	66.0	100.0	72.0	124	56.1	126	
12-15	64.0	0.6	0.0	0.0	0.0	35.4	100.0	36.0	109	56.9	113	
12-23	71.3	0.2	0.0	0.0	0.0	28.5	100.0	28.7	313	53.2	338	
20-23	78.4	0.0	0.0	0.0	0.0	21.6	100.0	21.6	82	44.7	97	

Note: Breastfeeding status refers to a "24-hour" period (yesterday and last night). Children who are classified as breastfeeding and consuming plain water only consumed no liquid or solid supplements. The categories of not breastfeeding, exclusively breastfeeding, breastfeeding and consuming plain water, nonmilk liquids, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus children who receive breast milk and nonmilk liquids and who do not receive other milk and who do not receive complementary foods are classified in the nonmilk liquid category even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well. Figures in parentheses are based on 25-49 unweighted cases.

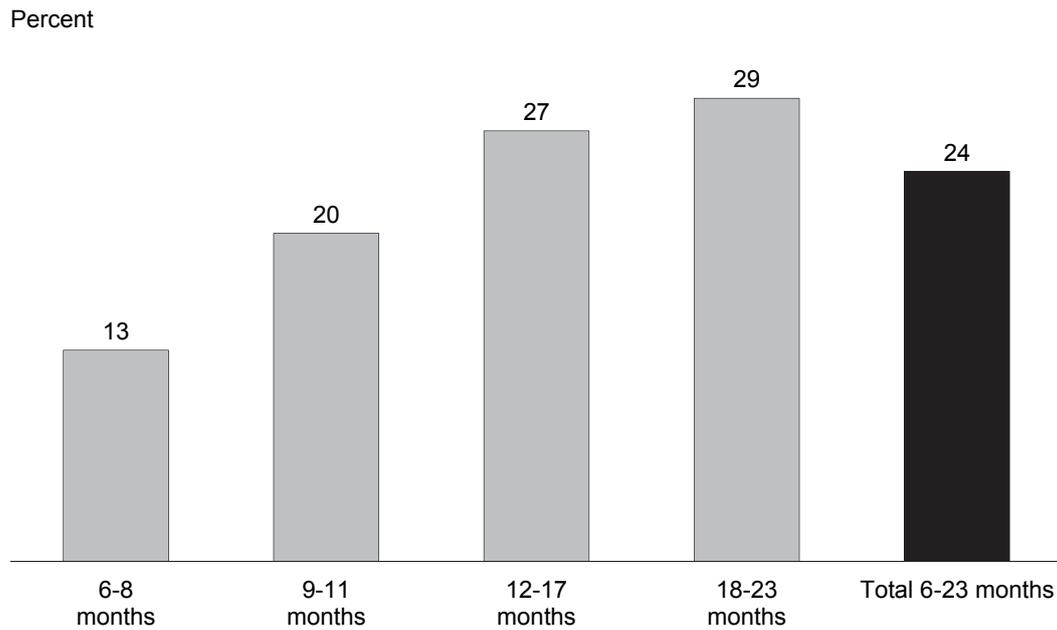
¹ Nonmilk liquids include juice, juice drinks, tea, coffee, clear broth, or other liquids.

The minimum acceptable diet indicator is used to assess the proportion of children age 6-23 months who meet minimum standards with respect to IYCF practices. Specifically, children age 6-23 months who have a minimum acceptable diet meet all three IYCF criteria below:

1. Breastfeeding, or not breastfeeding and receiving two or more feedings of commercial infant formula; fresh, tinned, or powdered animal milk; or yogurt.
2. Fed with foods from four or more of the following groups: a. infant formula, milk other than breast milk, and cheese, yogurt, or other milk products; b. foods made from grains, roots, and tubers, including porridge and fortified baby food from grains; c. vitamin A-rich fruits and vegetables (and red palm oil); d. other fruits and vegetables; e. eggs; f. meat, poultry, fish, and shellfish (and organ meats); and g. legumes and nuts.
3. Fed the minimum recommended number of times per day, according to their age and breastfeeding status:
 - a. For breastfed children, minimum meal frequency is receiving solid or semisolid food at least twice a day for infants age 6-8 months and at least three times a day for children age 9-23 months.
 - b. For nonbreastfed children age 6-23 months, minimum meal frequency is receiving solid or semisolid food or milk feeds at least four times a day.

Figure 7 shows the percentage of children being fed the minimum acceptable diet, by age. In total, only 24 percent of children age 6-23 months have met the criteria for a minimum acceptable diet. Children age 6-8 months (13 percent) are much less likely than children in other age groups to consume an acceptable diet (20-29 percent).

Figure 7 Minimum acceptable diet by age, in months



ADHS 2015-16

3.11 Anemia Prevalence in Children and Women

Anemia is a condition that is marked by low levels of hemoglobin in the blood. Iron is a key component of hemoglobin, and iron deficiency is estimated to be responsible for half of all anemia, globally. Other causes of anemia include malaria, hookworm and other helminths, other nutritional deficiencies, chronic infections, and genetic conditions. Anemia is a serious concern for children because it can impair cognitive development, stunt growth, and increase morbidity from infectious diseases.

The 2015-16 ADHS included direct measurement of hemoglobin levels using the HemoCue system. This system consists of a battery-operated photometer and a disposable microcuvette coated with a dried reagent that serves as the blood collection device. For the test, a drop of capillary blood taken from a child's fingertip or heel is drawn into the microcuvette. The blood in the microcuvette is analyzed using the photometer, which electronically displays the hemoglobin concentration.

Hemoglobin testing was carried out among children age 6-59 months and women age 15-49 years. During the fieldwork, parents or guardians were immediately given the results of their child's test. In cases where the hemoglobin reading was below 7.0 g/dL, the parent or guardian was referred to MOH facilities for follow-up. Eighty-eight percent of eligible children, and 95 percent of eligible women, were tested for anemia (data not shown).

Table 15 presents anemia levels for children 6-59 months and women age 15-49, by selected background characteristics. Children with hemoglobin levels below 11.0 g/dL were defined as anemic. Overall, 16 percent of children suffered from some degree of anemia. Eleven percent of children were classified as mildly anemic, 4 percent were moderately anemic, and less than 1 percent were severely anemic. Anemia is more prevalent among children less than age 24 months than among older children. Anemia prevalence varies by region, from a low of 7 percent in Armavir to a high of 49 percent in Gegharkunik.

The second panel in Table 15 presents anemia levels for women age 15-49 by selected background characteristics. Pregnant women with hemoglobin levels below 11.0 g/dL and nonpregnant women with hemoglobin levels below 12.0 g/dL were defined as having anemia. Overall, 13 percent of women in Armenia suffer from anemia. The majority (12 percent) are classified as mildly anemic, 1 percent are

moderately anemic, and 0.2 percent are severely anemic. By region, the prevalence of anemia ranges from 7 percent in Armavir to 39 percent in Gegharkunik. There is no clear association between wealth and anemia.

In 2015, anemia among both children and women was highest in Gegharkunik. Since anemia test results are adjusted for altitude and most of the region is around 2,000 meters above sea level, the effect of the altitude adjustments should be analyzed. The relatively high level of anemia reported among children in Lori could be due to the small number of children tested (56 unweighted children), with a relatively low response rate (65 percent).

A comparison of the data from the 2000, 2005 and 2015-16 ADHS surveys would suggest that anemia rates among children have decreased over the last fifteen years (mainly due to the decrease in moderate anemia during the last five years). According to the 2000 ADHS survey, 24 percent of Armenian children age 6-59 months had any anemia, compared to 37 percent in 2005 and 16 percent in 2015-16. During the last 5 years, the prevalence of anemia among women has decreased from 25 percent in 2005 to 13 percent in 2015-16, mainly due to a decrease in the level of mild anemia, reaching in 2015-16 the same prevalence of any anemia as in the 2000 ADHS (12 percent).

Table 15 Anemia among children and women

Percentage of children age 6-59 months and women age 15-49 years classified as having any, mild, moderate, and severe anemia, by background characteristics, Armenia 2015-16

Background characteristic	Percentage with anemia				Number
	Any anemia	Mild anemia	Moderate anemia	Severe anemia	
CHILDREN					
Sex					
Male	15.8	11.7	3.5	0.6	718
Female	15.4	10.2	4.9	0.3	631
Age in months					
6-11	30.0	18.4	11.6	0.0	143
12-23	26.3	17.9	7.3	1.1	296
24-35	13.0	10.4	2.3	0.3	309
36-47	10.4	8.6	1.8	0.0	299
48-59	6.3	3.8	1.8	0.7	301
Residence					
Urban	13.6	9.9	3.0	0.7	721
Rural	18.0	12.3	5.5	0.1	628
Region					
Yerevan	10.4	6.9	1.9	1.6	331
Aragatsotn	11.5	9.7	1.8	0.0	58
Ararat	10.3	9.7	0.0	0.5	159
Armavir	7.4	5.3	2.1	0.0	172
Gegharkunik	48.8	41.7	7.1	0.0	64
Lori	33.6	19.5	14.1	0.0	52
Kotayk	20.2	11.9	8.3	0.0	207
Shirak	21.4	13.5	7.9	0.0	153
Syunik	9.8	6.6	3.2	0.0	53
Vayots Dzor	15.1	10.6	4.5	0.0	34
Tavush	11.2	9.8	1.4	0.0	66
Wealth quintile					
Lowest	18.8	14.7	3.9	0.3	285
Second	14.4	8.6	5.8	0.0	292
Middle	19.9	12.8	6.2	0.8	250
Fourth	13.8	9.2	3.6	0.9	219
Highest	11.6	9.7	1.6	0.4	302
Total	15.6	11.0	4.2	0.4	1,349

Continued...

Table 15—Continued

Background characteristic	Percentage with anemia				Number
	Any anemia	Mild anemia	Moderate anemia	Severe anemia	
WOMEN					
Residence					
Urban	12.9	11.4	1.4	0.2	3,381
Rural	14.2	12.9	1.1	0.1	2,388
Region					
Yerevan	11.9	10.4	1.4	0.1	1,812
Aragatsotn	14.2	14.1	0.1	0.0	308
Ararat	9.0	8.9	0.1	0.0	539
Armavir	7.4	6.3	0.9	0.2	580
Gegharkunik	39.2	37.8	1.1	0.4	468
Lori	13.8	10.2	2.9	0.7	299
Kotayk	12.6	10.9	1.7	0.0	662
Shirak	11.3	9.8	1.4	0.2	504
Syunik	10.4	8.9	1.5	0.0	232
Vayots Dzor	9.6	7.5	1.1	1.1	113
Tavush	9.5	7.2	2.4	0.0	253
Wealth quintile					
Lowest	13.9	12.0	1.6	0.3	1,047
Second	14.4	13.1	1.2	0.1	1,196
Middle	14.1	12.4	1.6	0.2	1,092
Fourth	13.6	11.9	1.5	0.2	1,175
Highest	11.4	10.8	0.6	0.0	1,260
Total	13.4	12.0	1.3	0.2	5,769

Note: Table is based on children and women who stayed in the household the night before the interview. Prevalence of anemia, based on hemoglobin levels, is adjusted for altitude (for children and women) and smoking (for women) using CDC formulas (CDC 1998). Women and children with <7.0 g/dl of hemoglobin have severe anemia, women and children with 7.0-9.9 g/dl have moderate anemia, and nonpregnant women with 10.0-11.9 g/dl and children and pregnant women with 10.0-10.9 g/dl have mild anemia.

3.12 HIV/AIDS Awareness, Knowledge, and Behavior

Knowledge of ways to reduce HIV transmission is important in the fight against HIV/AIDS. HIV prevention programs focus their messages and efforts on several important aspects of behavior to avoid the spread of HIV, which include using condoms and limiting the number of sexual partners to one uninfected partner. To ascertain the depth of knowledge about modes of HIV prevention, the 2015-16 ADHS respondents were asked questions about these specific behaviors.

Knowledge of HIV prevention methods among women and men age 15-49 is presented in Table 16. The results show that knowledge is generally widespread throughout Armenia; 76 percent of women and 78 percent of men know that HIV can be prevented by using condoms during sexual intercourse. Seventy-nine percent of women and 77 percent of men say that limiting sexual intercourse to one uninfected partner can reduce the chances of getting HIV. Overall, 72 percent of women and 73 percent of men cited both these methods of HIV prevention. Knowledge of HIV prevention has slightly increased since the 2010 ADHS among women and decreased among men; in 2010, 69 percent of women and 80 percent of men cited both of these methods of HIV prevention.

Women and men age 15-19 have lower levels of knowledge of these HIV prevention methods than people age 20 and older. Similarly, knowledge of prevention methods is lower among women and men who have never had sex than among those who are married or living together with a partner; those who are divorced, separated, or widowed; or those who never married but have had sex. Urban women are more knowledgeable on each of the described HIV prevention methods than their rural counterparts. Similarly, urban men are more aware that HIV can be prevented by using condoms than rural men (81 percent and 75 percent, respectively); however, urban and rural men are both equally aware about limiting sexual intercourse to one uninfected partner and of both HIV prevention methods. Women in Kotayk and Yerevan and men in Kotayk and Armavir are most likely to know of both HIV prevention methods, while those in Syunik region are the least likely. As expected, women and men with higher levels of education are more likely than those with lower levels of education to be aware of HIV prevention methods. Similarly, women in households in higher wealth quintiles have more knowledge of HIV prevention methods than those in lower quintiles. Among men, those in the lowest wealth quintile are less aware that HIV can be prevented by using condoms compared with men in the highest wealth quintile, but knowledge about limiting sexual

intercourse to one uninfected partner in preventing HIV is nearly the same among the poorest and wealthiest men. In general, men in the lowest wealth quintile are less aware of both HIV prevention methods, compared with men in the highest wealth quintile (70 percent and 74 percent, respectively).

Some misconceptions about HIV transmission are still common in Armenia. Twenty-three percent of women and men age 15-49 say HIV can be transmitted through saliva by kissing a person who has HIV, 18 percent say HIV can be transmitted by mosquito bites, 8 percent say a person can become infected by sharing food with a person who has HIV, and 6 percent say HIV can be transmitted by shaking hands (data not shown).

Table 16 Knowledge of HIV prevention methods

Percentage of women and men age 15-49 who, in response to prompted questions, say that people can reduce the risk of getting HIV by using condoms every time they have sexual intercourse, and by having one sex partner who is not infected and has no other partners, by background characteristics, Armenia 2015-16

Background characteristic	Percentage of women who say HIV can be prevented by:			Number of women	Percentage of men who say HIV can be prevented by:			Number of men
	Using condoms ¹	Limiting sexual intercourse to one uninfected partner ²	Using condoms and limiting sexual intercourse to one uninfected partner ²		Using condoms ¹	Limiting sexual intercourse to one uninfected partner ²	Using condoms and limiting sexual intercourse to one uninfected partner ²	
Age								
15-24	65.4	69.0	61.1	1,653	62.3	58.4	55.3	813
15-19	52.6	56.5	47.5	725	55.4	49.2	46.9	345
20-24	75.4	78.8	71.6	928	67.3	65.2	61.5	467
25-29	80.8	84.4	78.0	1,099	84.2	85.1	82.1	464
30-39	79.8	82.6	75.8	1,874	85.6	84.2	79.6	802
40-49	78.9	81.6	75.1	1,490	84.8	84.3	78.8	676
Marital status								
Never married	67.7	70.5	63.3	1,830	67.2	65.4	61.7	1,190
Ever had sex	*	*	*	12	81.0	79.5	76.0	632
Never had sex	67.5	70.5	63.3	1,818	51.5	49.5	45.4	558
Married or living together	79.1	82.9	75.7	3,895	86.8	86.0	81.6	1,506
Divorced/separated/ widowed	82.4	80.2	76.8	390	(85.3)	(68.3)	(65.4)	59
Residence								
Urban	81.9	84.4	77.8	3,657	80.9	76.1	72.5	1,558
Rural	66.9	71.0	63.5	2,459	74.9	77.6	72.9	1,197
Region								
Yerevan	87.5	89.3	83.5	2,001	83.3	73.1	70.2	833
Aragatsotn	53.0	50.5	49.1	315	74.1	75.9	72.9	159
Ararat	84.1	81.5	77.6	552	72.1	79.8	68.9	290
Armavir	68.9	81.3	68.4	586	89.7	92.8	88.3	268
Gegharkunik	42.7	46.8	41.3	478	63.4	67.5	62.2	235
Lori	79.6	80.6	75.4	355	45.9	45.0	39.9	184
Kotayk	87.4	89.2	84.5	678	99.0	100.0	99.0	299
Shirak	70.3	75.8	66.1	510	86.0	85.9	84.4	201
Syunik	45.2	59.2	39.3	238	31.7	33.4	28.0	104
Vayots Dzor	78.9	82.1	74.2	119	78.5	80.9	76.7	56
Tavush	75.5	77.7	68.5	283	92.9	89.0	85.8	126
Education								
Basic	46.4	45.8	39.7	396	68.5	68.8	64.3	360
Secondary	67.5	71.3	62.9	2,444	75.4	73.7	69.7	1,250
Secondary special	80.9	84.2	77.7	1,359	81.8	76.7	73.2	403
Higher	89.2	92.2	86.5	1,909	86.3	86.2	81.7	736
Wealth quintile								
Lowest	62.8	66.7	58.1	1,081	72.1	76.8	70.0	523
Second	71.3	74.3	67.4	1,242	77.8	78.0	74.3	583
Middle	70.1	74.9	66.4	1,142	75.0	72.1	68.8	521
Fourth	84.5	86.4	80.9	1,287	82.7	78.8	75.4	566
Highest	87.0	89.5	83.7	1,365	83.2	77.7	74.4	562
Total 15-49	75.9	79.0	72.0	6,116	78.3	76.8	72.7	2,755

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. Total includes 8 cases with no education among women and 5 cases with no education among men that are not shown separately.

¹ Using condoms every time they have sexual intercourse

² Partner who has no other partners

3.13 Knowledge of HIV Prevention among Young People

Table 17 shows knowledge of HIV prevention among young people age 15-24. Knowledge of HIV prevention is defined as knowing that both condom use and limiting sexual intercourse to one uninfected

partner are HIV prevention methods, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about HIV transmission: that HIV can be transmitted by mosquito bites or by saliva through kissing a person with HIV. Knowledge of how HIV is transmitted is crucial to enabling people to avoid HIV infection, and this is especially true for young people, who are often at greater risk because they may have shorter relationships with more partners or engage in other risky behaviors.

Table 17 shows that 20 percent of young women and 13 percent of young men have knowledge of HIV prevention. Among both sexes, the proportion with comprehensive knowledge generally increases with age, educational attainment, and wealth. Urban young people are more likely than rural young people to have knowledge of HIV prevention. Young women from Yerevan and Vayots Dzor (31 percent and 24 percent) and young men from Tavush and Yerevan (26 and 23 percent) are the most knowledgeable about HIV prevention compared to young people from other regions.

Table 17 Knowledge about HIV prevention among young people

Percentage of young women and young men age 15-24 with knowledge about HIV prevention, by background characteristics, Armenia 2015-16

Background characteristic	Women age 15-24		Men age 15-24	
	Percentage with knowledge about HIV prevention ¹	Number of women	Percentage with knowledge about HIV prevention ¹	Number of men
Age				
15-19	14.7	725	8.9	345
15-17	11.9	450	7.2	261
18-19	19.3	275	14.1	85
20-24	24.5	928	15.2	467
20-22	23.0	506	13.1	247
23-24	26.4	422	17.5	221
Marital status				
Never married	20.5	1,249	12.5	756
Ever had sex	*	2	16.0	267
Never had sex	20.5	1,247	10.5	489
Ever married	19.4	405	13.3	56
Residence				
Urban	24.9	928	15.6	438
Rural	14.3	725	8.9	374
Region				
Yerevan	30.6	503	23.4	247
Aragatsotn	6.3	88	0.0	48
Ararat	16.3	146	8.7	73
Armavir	19.8	168	11.7	80
Gegharkunik	10.5	154	7.2	83
Lori	14.6	111	0.0	56
Kotayk	19.7	171	12.0	83
Shirak	14.9	145	2.1	57
Syunik	12.0	57	5.9	34
Vayots Dzor	23.5	35	0.0	18
Tavush	19.9	75	26.1	35
Education				
Basic	6.7	163	4.5	139
Secondary	10.7	651	8.9	354
Secondary special	26.1	272	9.1	109
Higher	32.2	567	25.8	209
Wealth quintile				
Lowest	12.9	309	4.2	153
Second	16.2	358	10.6	191
Middle	14.6	307	11.0	156
Fourth	26.8	341	13.8	154
Highest	29.6	340	23.2	158
Total 15-24	20.2	1,653	12.5	813

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Total includes one case with no education among men that is not shown separately.

¹ Knowledge about HIV prevention means knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chance of getting HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about transmission or prevention of HIV (mosquito bite and through saliva by kissing a person with HIV).

Table 18 Multiple sexual partners in the past 12 months: Men

Among all men age 15-49, the percentage who had sexual intercourse with two or more sexual partners in the past 12 months; among those having two or more partners in the past 12 months, percentage reporting that a condom was used at last intercourse; and mean number of sexual partners during their lifetime for men who ever had sexual intercourse, by background characteristics, Armenia 2015-16

Background characteristic	All men		Men who had 2+ partners in the past 12 months		Men who ever had sexual intercourse ¹	
	Percentage who had 2+ partners in the past 12 months	Number of men	Percentage who reported using a condom during last sexual intercourse	Number of men	Mean number of sexual partners in lifetime	Number of men
Age						
15-24	2.8	813	*	22	2.8	310
15-19	1.3	345	*	4	(2.6)	43
20-24	3.9	467	*	18	2.9	267
25-29	7.9	464	(77.9)	37	4.0	392
30-39	6.8	802	(52.6)	54	4.0	691
40-49	5.4	676	(43.6)	36	4.8	601
Marital status						
Never married	5.9	1,190	93.8	71	3.9	563
Married/living together	5.1	1,506	33.9	77	4.1	1,375
Divorced/separated/ widowed	(3.7)	59	*	2	(3.8)	56
Residence						
Urban	5.1	1,558	67.2	80	4.3	1,167
Rural	5.8	1,197	56.9	70	3.7	827
Region						
Yerevan	4.5	833	*	38	4.6	678
Aragatsotn	0.0	159	*	0	1.3	89
Ararat	3.9	290	*	11	3.9	226
Armavir	17.6	268	(52.3)	47	7.5	163
Gegharkunik	0.8	235	*	2	2.6	164
Lori	1.1	184	*	2	1.3	70
Kotayk	11.8	299	(42.2)	35	3.8	249
Shirak	5.4	201	*	11	5.7	177
Syunik	3.1	104	*	3	1.3	60
Vayots Dzor	0.0	56	*	0	1.6	36
Tavush	0.5	126	*	1	1.4	83
Education						
Basic	5.0	360	*	18	4.7	215
Secondary	4.8	1,250	50.2	60	3.8	868
Secondary special	5.9	403	*	24	4.3	310
Higher	6.5	736	(75.6)	48	4.0	599
Wealth quintile						
Lowest	6.4	523	(69.2)	33	4.0	358
Second	5.0	583	(46.8)	29	3.7	401
Middle	7.0	521	(65.1)	36	3.7	363
Fourth	4.0	566	*	22	4.3	414
Highest	5.0	562	*	28	4.4	457
Total 15-49	5.4	2,755	62.4	150	4.0	1,994

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. Total includes 5 cases with no education among all men and 3 cases with no education among men who ever had sexual intercourse that are not shown separately.

¹ Means are calculated excluding respondents who gave non-numeric responses.

Information on sexual behavior is important in designing and monitoring intervention programs to control the spread of HIV. The 2015-16 ADHS included questions on respondents' sexual partners during the 12 months preceding the survey and during their lifetime. Information was also collected on use of condoms at respondents' last sexual intercourse. These questions are sensitive, and it is recognized that some respondents may have been reluctant to provide information on recent sexual behavior. Results are shown in Table 18 for men. The data for women are not presented because very few women age 15-49 reported having had more than one partner in the past 12 months. The mean number of lifetime partners among all women who have ever had sexual intercourse is 1.1.

Just 5 percent of men age 15-49 reported that they had two or more partners in the past 12 months, and just under two-thirds of them (62 percent) reported using a condom during their last sexual intercourse. The mean number of lifetime partners among all men who have ever had sexual intercourse is 4.0. The mean

number of lifetime sexual partners is higher among men in Armavir (7.5), Shirak (5.7) and Yerevan (4.6) compared with 1.3-1.4 partners among men in Aragatsotn, Lori, Syunik and Tavush.

3.14 Coverage of HIV Testing Services

Knowledge of HIV status helps HIV-negative individuals make specific decisions to reduce risk and increase safer sex practices so that they can remain disease free. Among those who are HIV infected, knowledge of their status allows them to take action to protect their sexual partners, to access treatment, and to plan for the future.

To assess awareness and coverage of HIV testing services, ADHS respondents were asked whether they had ever been tested for HIV. If they said that they had been tested, they were asked whether they had received the results of their last test and where they had been tested. If they had never been tested, they were asked whether they knew a place where they could go to be tested.

Tables 19.1 and 19.2 show that nearly half (48 percent of women and 45 percent of men) knew of a place where they could get an HIV test. Younger respondents were less likely than those age 25 and older to know a place where they could go to be tested. Never-married respondents who had never had sex were less likely than others to know a place to get an HIV test. Knowledge of a place to get an HIV test increases with education and wealth quintile.

Tables 19.1 and 19.2 also show coverage of HIV testing services. Among respondents age 15-49, a large proportion of women (86 percent) and the vast majority of men (98 percent) had never been tested. Most of those who had been tested said that they had received the results of the last test they took. Overall, 12 percent of women and 1 percent of men had ever been tested and had received the results of their last test. The likelihood of having ever had an HIV test and receiving the results was highest in the 25-29 age group (22 percent of women and 2 percent of men), for respondents who are currently married (17 percent of women and 2 percent of men), and among women in urban areas (14 percent of women). Women from Yerevan, Armavir, Kotayk, and Shirak (15 percent each) and men from Shirak (6 percent), Armavir (4 percent) and Kotayk (4 percent) are more likely to have been tested and received the results than women and men in other regions. Among women, testing coverage generally increases with increasing education and wealth.

Four percent of women and less than 1 percent of men age 15-49 had been tested in the 12-month period preceding the survey and had been told the results of the last test they took. Among women, the highest HIV testing coverage in the past 12 months is observed in Kotayk (10 percent) and Syunik (7 percent).

Coverage of prior HIV testing has not changed since the 2010 ADHS. Among women, the percentage who were tested for HIV in the past 12 months and received the results has increased somewhat from 2 percent in 2010 to 4 percent in 2015-16. Among men, the percentage who were tested for HIV in the past 12 months and received the results has not changed and remains at less than 1 percent.

Table 19.1 Coverage of prior HIV testing: Women

Percentage of women age 15-49 who know where to get an HIV test, percent distribution of women age 15-49 by testing status and by whether they received the results of the last test, percentage ever tested, and percentage who were tested in the past 12 months and received the results of the last test, according to background characteristics, Armenia 2015-16

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of women by testing status and by whether they received the results of the last test			Total	Percentage ever tested	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of women
		Ever tested and received results	Ever tested, did not receive results	Never tested ¹				
Age								
15-24	35.6	7.0	2.3	90.7	100.0	9.5	3.6	1,653
15-19	25.9	1.5	0.2	98.3	100.0	2.0	0.9	725
20-24	43.2	11.3	4.0	84.7	100.0	15.3	5.7	928
25-29	57.2	21.9	4.7	73.3	100.0	27.5	6.4	1,099
30-39	53.6	14.5	3.0	82.4	100.0	18.1	3.6	1,874
40-49	48.5	6.0	1.0	93.0	100.0	7.0	2.5	1,490
Marital status								
Never married	36.5	1.5	0.0	98.5	100.0	1.6	0.8	1,830
Ever had sex	*	*	*	*	100.0	*	*	12
Never had sex	36.2	1.4	0.0	98.6	100.0	1.5	0.6	1,818
Married or living together	52.8	16.8	3.9	79.3	100.0	21.2	5.4	3,895
Divorced/separated/ widowed	55.7	9.3	2.1	88.7	100.0	11.9	2.7	390
Residence								
Urban	53.4	13.6	2.2	84.2	100.0	16.3	4.0	3,657
Rural	40.3	9.0	3.3	87.7	100.0	12.4	3.6	2,459
Region								
Yerevan	58.2	15.0	1.0	84.0	100.0	16.7	3.2	2,001
Aragatsotn	22.5	0.4	0.0	99.6	100.0	0.4	0.1	315
Ararat	59.6	12.5	7.1	80.4	100.0	19.7	4.1	552
Armavir	47.8	14.6	3.3	82.0	100.0	18.0	3.0	586
Gegharkunik	11.0	0.0	0.0	100.0	100.0	0.0	0.0	478
Lori	19.7	7.8	1.0	91.3	100.0	8.7	4.0	355
Kotayk	67.5	15.3	5.1	79.6	100.0	21.4	9.6	678
Shirak	46.0	14.8	0.8	84.5	100.0	15.5	5.2	510
Syunik	45.9	10.6	16.0	73.4	100.0	26.6	7.4	238
Vayots Dzor	27.9	4.5	0.3	95.2	100.0	4.8	1.6	119
Tavush	50.4	9.0	0.5	90.5	100.0	9.5	1.9	283
Education								
Basic	29.2	8.6	2.9	88.5	100.0	12.1	2.8	396
Secondary	37.7	8.2	3.0	88.7	100.0	11.5	3.0	2,444
Secondary special	50.9	12.8	2.1	85.0	100.0	15.4	4.3	1,359
Higher	63.6	16.2	2.5	81.4	100.0	19.0	4.8	1,909
Wealth quintile								
Lowest	32.8	8.7	3.0	88.3	100.0	11.7	2.8	1,081
Second	45.8	9.0	3.3	87.7	100.0	12.4	3.4	1,242
Middle	43.8	11.8	2.4	85.8	100.0	14.6	4.0	1,142
Fourth	52.6	12.6	2.2	85.2	100.0	15.4	5.0	1,287
Highest	61.8	15.8	2.4	81.8	100.0	18.8	3.8	1,365
Total	48.1	11.7	2.6	85.6	100.0	14.7	3.8	6,116

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Total includes 8 cases with no education that are not shown separately.

¹ Includes *don't know/missing*

Table 19.2 Coverage of prior HIV testing: Men

Percentage of men age 15-49 who know where to get an HIV test, percent distribution of men age 15-49 by testing status and by whether they received the results of the last test, percentage ever tested, and percentage who were tested in the past 12 months and received the results of the last test, according to background characteristics, Armenia 2015-16

Background characteristic	Percentage who know where to get an HIV test	Percent distribution of men by testing status and by whether they received the results of the last test			Total	Percentage ever tested	Percentage who have been tested for HIV in the past 12 months and received the results of the last test	Number of men
		Ever tested and received results	Ever tested, did not receive results	Never tested ¹				
Age								
15-24	31.9	0.7	0.4	98.9	100.0	1.2	0.3	813
15-19	25.9	0.2	0.0	99.8	100.0	0.2	0.2	345
20-24	36.3	1.1	0.6	98.3	100.0	2.0	0.3	467
25-29	51.2	2.2	0.3	97.5	100.0	2.7	0.5	464
30-39	49.5	1.7	0.1	98.2	100.0	1.8	0.4	802
40-49	52.4	1.3	0.1	98.6	100.0	1.4	0.6	676
Marital status								
Never married	37.1	0.9	0.1	99.0	100.0	1.0	0.2	1,190
Ever had sex	47.6	1.7	0.2	98.1	100.0	1.9	0.4	632
Never had sex	25.2	0.1	0.0	99.9	100.0	0.1	0.0	558
Married or living together	51.7	1.8	0.3	97.9	100.0	2.3	0.6	1,506
Divorced/separated/ widowed	(48.8)	(0.0)	(0.0)	(100.0)	100.0	(0.0)	(0.0)	59
Residence								
Urban	53.5	0.8	0.4	98.8	100.0	1.2	0.2	1,558
Rural	34.6	2.1	0.0	97.9	100.0	2.3	0.7	1,197
Region								
Yerevan	69.7	0.0	0.0	100.0	100.0	0.0	0.0	833
Aragatsotn	8.2	0.6	0.0	99.4	100.0	0.6	0.6	159
Ararat	58.1	0.0	0.0	100.0	100.0	0.0	0.0	290
Armavir	8.2	4.1	0.0	95.9	100.0	4.1	1.8	268
Gegharkunik	9.9	0.0	0.0	100.0	100.0	0.0	0.0	235
Lori	12.3	0.5	1.0	98.5	100.0	1.5	0.0	184
Kotayk	60.0	3.5	0.0	96.5	100.0	4.2	0.6	299
Shirak	46.1	6.4	1.1	92.5	100.0	7.5	1.8	201
Syunik	19.8	0.0	2.1	97.9	100.0	2.1	0.0	104
Vayots Dzor	24.3	1.7	0.0	98.3	100.0	1.7	0.0	56
Tavush	89.9	0.7	0.0	99.3	100.0	0.7	0.0	126
Education								
Basic	28.0	2.2	0.3	97.6	100.0	2.7	0.4	360
Secondary	35.6	1.2	0.3	98.5	100.0	1.6	0.5	1,250
Secondary special	51.1	1.8	0.2	97.9	100.0	2.1	0.3	403
Higher	67.4	1.1	0.1	98.8	100.0	1.2	0.4	736
Wealth quintile								
Lowest	27.5	1.1	0.0	98.9	100.0	1.1	0.4	523
Second	37.5	2.7	0.1	97.2	100.0	2.8	1.2	583
Middle	40.2	1.9	0.7	97.4	100.0	3.0	0.1	521
Fourth	54.6	0.6	0.3	99.0	100.0	1.0	0.4	566
Highest	65.4	0.6	0.0	99.4	100.0	0.6	0.0	562
Total 15-49	45.3	1.4	0.2	98.4	100.0	1.7	0.4	2,755

Note: Figures in parentheses are based on 25-49 unweighted cases. Total includes 5 cases with no education that are not shown separately.

¹ Includes *don't know/missing*

3.15 Domestic Violence

As part of the 2015-16 ADHS, selected women were asked a series of questions concerning domestic violence. Specifically, ever-married women were asked if their current or most recent spouse/partner ever physically harmed them, that is, by pushing, slapping, punching, kicking, or trying to strangle or burn them or threatening them with a weapon. They were also asked if their spouse/partner had ever physically forced them to have sexual intercourse or perform other sexual acts when they did not want to. Because of the sensitivity of these questions, if there was more than one eligible respondent in the household, the domestic violence section was administered to only one, randomly selected respondent. Interviewers were instructed to inform the selected respondent that she would be the only one asked these questions in that household. Interviewers were also trained on the importance of ensuring confidentiality of these questions and were instructed not to ask the questions if the interview could not be conducted in private. Data on the prevalence of domestic violence are presented for ever-married women age 15-49 in Table 20.

Table 20 Experience of domestic violence

Percentage of ever-married women age 15-49 who have experienced physical or sexual violence committed by their husband/partner ever and in the last year, by background characteristics, Armenia 2015-16

Background characteristic	Percentage who have experienced						Number of women
	Physical violence		Sexual violence		Physical or sexual violence		
	Ever ¹	In the past 12 months	Ever ¹	In the past 12 months	Ever ¹	In the past 12 months	
Age							
15-19	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	27
20-24	2.7	2.4	0.3	0.3	2.7	2.4	278
25-29	5.2	2.3	0.4	0.2	5.2	2.3	610
30-34	6.3	3.1	0.8	0.3	6.5	3.3	656
35-39	12.7	4.7	1.4	0.2	12.7	4.7	592
40-44	8.4	2.8	1.7	0.5	8.4	2.8	566
45-49	12.1	5.6	1.9	0.4	12.1	5.6	479
Marital status							
Married	5.4	2.5	0.5	0.2	5.4	2.5	2,902
Living together	*	*	*	*	*	*	21
Divorced/separated	46.0	17.4	8.3	1.6	46.5	17.9	179
Widowed	14.7	5.2	1.5	0.0	14.7	5.2	106
Residence							
Urban	7.4	3.0	1.0	0.3	7.4	3.1	1,872
Rural	9.3	4.1	1.2	0.3	9.3	4.1	1,337
Region							
Yerevan	6.8	3.0	0.7	0.3	6.9	3.1	995
Aragatsotn	28.2	21.9	5.6	0.9	28.2	21.9	146
Ararat	17.9	4.8	2.2	1.1	17.9	4.8	306
Armavir	2.9	0.9	0.3	0.0	2.9	0.9	336
Gegharkunik	6.7	1.7	0.5	0.2	6.7	1.7	236
Lori	15.8	8.1	3.0	0.5	15.8	8.1	132
Kotayk	7.8	1.5	1.5	0.2	7.8	1.5	393
Shirak	4.2	3.1	0.0	0.0	4.2	3.1	288
Syunik	0.0	0.0	0.0	0.0	0.0	0.0	141
Vayots Dzor	10.7	1.8	1.3	0.0	10.7	1.8	68
Tavush	1.3	0.9	0.1	0.1	1.3	0.9	168
Education							
Basic	14.7	3.5	3.1	0.6	14.7	3.5	175
Secondary	10.0	4.2	1.1	0.3	10.0	4.2	1,360
Secondary special	8.0	4.1	1.8	0.6	8.2	4.3	787
Higher	4.3	1.8	0.1	0.0	4.3	1.8	881
Wealth quintile							
Lowest	12.4	6.2	1.6	0.4	12.4	6.2	586
Second	7.9	2.6	1.3	0.5	7.9	2.6	664
Middle	11.2	4.5	1.5	0.2	11.3	4.6	608
Fourth	4.9	1.8	0.6	0.1	4.9	1.8	633
Highest	5.3	2.8	0.6	0.3	5.3	2.8	717
Total	8.2	3.5	1.1	0.3	8.2	3.5	3,208

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. Total includes 5 cases with no education that are not shown separately.

¹ Includes violence in the past 12 months

The data show that women are more likely to experience physical violence committed by their spouse/partner than sexual violence. Table 20 shows that 8 percent of ever-married women age 15-49 have ever experienced physical violence committed by their husband/partner, while 4 percent experienced violence in the 12 months prior to the survey. One percent of women have ever experienced sexual violence committed by a spouse/partner, while less than 1 percent of women experienced sexual violence by a spouse/partner in the past 12 months.

The data show that divorced, separated, and widowed women are more likely to report having experienced physical or sexual violence than their currently married counterparts, ever and in the past 12 months.

Women with a basic level of education were more likely to have experienced physical violence than women with more education. The data show that 15 percent of women with basic education have experienced physical violence, with 4 percent experiencing such violence in the 12 months preceding the survey; this compares with 4 percent and 2 percent of women with higher education. Women in the highest wealth

quintile were least likely to have experienced violence, although the relationship between household wealth and experience of violence is not straightforward.

Women in Aragatsotn, Ararat, and Lori regions reported higher levels of physical and sexual violence committed by a spouse/partner than women in other regions. In Aragatsotn more than one-quarter of ever-married women (28 percent) have ever experienced physical violence compared with 0 to 1 percent of women in Syunik and Tavush, respectively.

REFERENCES

- Bradley, S. E. K., T. N. Croft, J. D. Fishel, and C. F. Westoff. 2012. *Revising Unmet Need for Family Planning*. DHS Analytical Studies No. 25. Calverton, Maryland, USA: ICF International.
- Centers for Disease Control and Prevention. 1998. "Recommendations to Prevent and Control Iron Deficiency in the United States." *Morbidity and Mortality Weekly Report* 47 (RR-3): 1-29.
- De Brouwere, V. and W. Van Lerberghe, ed. 2001. "Safe Motherhood Strategies: A Review of the Evidence." *Studies in Health Services Organisation & Policy*, 17. ITG Press: Antwerp, Belgium.
- Ministry of Health (MOH) [Armenia] and United Nations Children's Fund (UNICEF) [Armenia]. 1999. *Evaluation of the National Immunization Program of the Republic of Armenia*. Yerevan, Armenia: MOH and UNICEF/Armenia.
- Ministry of Health (MOH) [Armenia]. 2005. *The National Immunization Program of the Republic of Armenia 2006-2010*. Appendix #1 according to decision #2119 dated by 2005 Nov 9 of RA. Yerevan, Armenia: MOH.
- National Statistical Service (NSS) [Armenia], Ministry of Health (MOH), and ORC Macro. 2001. *Armenia Demographic and Health Survey 2000*. Calverton, Maryland: NSS, MOH, and ORC Macro.
- National Statistical Service (NSS) [Armenia], Ministry of Health (MOH), and ORC Macro. 2006. *Armenia Demographic and Health Survey 2005*. Calverton, Maryland: NSS, MOH, and ORC Macro.
- National Statistical Service [Armenia], Ministry of Health [Armenia], and ICF International. 2012. *Armenia Demographic and Health Survey 2010*. Calverton, Maryland: National Statistical Service, Ministry of Health, and ICF International.
- Pan American Health Organization (PAHO). 2002. *Guiding Principles for Complementary Feeding of the Breastfed Child*. Washington, DC: PAHO.
- Rutstein, S. O., and G. Rojas. 2006. *Guide to DHS Statistics*. Calverton, Maryland, USA: ORC Macro.
- United Nations Development Programme (UNDP). 2007. *Measuring Human Development: A Primer*. New York: UNDP.
- World Health Organization (WHO). 1993. *International Classification of Diseases and Related Health Problems*, tenth revision. Geneva, Switzerland: WHO.
- World Health Organization (WHO). 2003. *World Health Report 2003*. Geneva: WHO.
- World Health Organization (WHO) Multicentre Growth Reference Study Group. 2006. *WHO Child Growth Standards: Length/Height-for-Age, Weight-for-Age, Weight-for-Height and Body Mass Index-for Age: Methods and Development*. Geneva, Switzerland: WHO.
- World Health Organization (WHO). 2006. *Standards for Maternal and Neonatal Care*. Geneva, Switzerland: WHO.