THE HASHEMITE KINGDOM OF JORDAN

Jordan Population and Family Health Survey 2017-18

Key Indicators Report

Department of Statistics
Amman, Jordan

The DHS Program
ICF
Rockville, Maryland, USA

June 2018

Suggested citation:

Department of Statistics (DOS) and ICF. 2018. *Jordan Population and Family and Health Survey 2017-18: Key Indicators.* Amman, Jordan, and Rockville, Maryland, USA: DOS and ICF.

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PREFACE

The 2017-18 Jordan Population and Family Health Survey (JPFHS) is the seventh Demographic and Health Survey to be conducted in Jordan. Like the first six JPFHS surveys, conducted respectively in 1990, 1997, 2002, 2007, 2009, and 2012, the 2017-18 JPFHS was carried out by the Department of Statistics (DOS). The main objective of the survey is to provide comprehensive data on fertility and mortality, family planning, and maternal and child health and nutrition. The information will be used as a tool to evaluate existing population and health policies and programs.

The survey sample is nationally representative and has been designed to produce estimates of major survey variables for the country as a whole, urban and rural areas, three regions (Central, North and South), twelve governorates, and Jordanian, Syrian, and other nationalities. More than 19,000 households, 14,870 ever-married women age 15-49, and 6,640 men age 15-59 were interviewed between October 2017 and January 2018.

The 2017-18 JPFHS was funded by the Government of Jordan, with additional funding provided by the U.S. Agency for International Development (USAID), the United Nations Population Fund (UNFPA), and the United Nations Children's Fund (UNICEF). ICF provided technical assistance through the DHS Program.

The objective of the 2017-18 JPFHS is to facilitate important government policies and programs that promote maternal and child health. The survey will be useful to those interested in the fields of population studies and family planning.

This report provides preliminary findings of the 2017-18 JPFHS. Detailed findings will be presented in the main survey report to be released in the first quarter of 2019.

The DOS would like to express its thanks and appreciation to the individuals and organizations that contributed to the success of the survey. The timely, quality data are the result of hard work from all survey staff. Thanks go to all households interviewed during the survey for their time and willingness to provide the required information. Acknowledgment also goes to the Ministry of Health for its technical and logistical assistance. Thanks are also due to the USAID, UNFPA and UNICEF missions in Amman, for its financial support, and to the DHS team for its technical support.

Dr. Qasem Said Alzoubi

Director General

SUSTAINABLE DEVELOPMENT GOAL INDICATORS

Sustainable Development Goal Indicators - Jordan 2017-18

Indicator	Sex		Total
	Male	Female	
5. Gender equality			
5.6.1 Proportion of women aged 15-49 years who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care[1]	na	58.2	na

na = Not applicable
[1] Data are available for currently married women who are not pregnant only

MAIN INDICATORS: JPFHS 1990, 1997, 2002, 2007, 2009, 2012, AND 2017-18

Indicator	JPFHS						
	1990	1997	2002	2007	2009	2012	2017-18
Sample							
Number of households interviewed	16,296	7,335	7,825	14,564	13,577	15,190	18,802
Household response rate (%)	97	97	99	99	97	97	98
Number of ever-married women interviewed	6,461	5,548	6,006	10,876	10,109	11,352	14,689
Woman response rate (%)	89	96	98	98	97	97	99
Number of men interviewed	-	-	-	-	-	-	6,429
Man response rate (%)	-	-	-	-	-	-	97
Background Characteristics of Ever-Married Women							
Urban (%)	74	84	80	85	84	83	90
Ever-married women age 15-29 years (%)	43	39	34	32	32	31	30
Educational level attended (%)							
No education	24	9	6	4	3	2	2
Elementary			12	8	7	8	7
Preparatory	23	15	21	16	16	15	13
Secondary	44	53	37	44	43	45	42
Higher	11	22	25	29	32	31	36
Fertility							
Total fertility rate (expressed per woman)	**5.6**	**4.4**	**3.7**	**3.6**	**3.8**	**3.5**	**2.7**
Place of Residence							
Urban	5.2	4.2	3.5	3.6	3.8	3.4	2.7
Rural	6.9	5.0	4.2	3.7	4.0	3.9	3.1
Region							
Central	-	4.1	3.5	3.5	3.8	3.4	2.5
North	-	4.9	3.9	3.8	4.0	3.8	3.4
South	-	4.8	4.0	3.6	4.1	3.7	2.6
Governorate							
Amman	-	-	-	3.4	3.7	3.2	2.3
Balqa	-	-	-	3.7	3.9	3.8	2.6
Zarqa	-	-	-	3.8	3.9	3.6	2.7
Madaba	-	-	-	3.6	3.6	3.5	3.1
Irbid	-	-	-	3.8	3.8	3.6	3.1
Mafraq	-	-	-	4.0	4.2	4.1	4.1
Jarash	-	-	-	3.8	4.5	4.3	3.5
Ajloun	-	-	-	3.7	4.0	3.8	3.5
Karak	-	-	-	3.2	3.8	3.5	2.3
Tafiela	-	-	-	3.7	4.3	3.9	3.1
Ma'an	-	-	-	4.0	4.3	4.1	2.6
Aqaba	-	-	-	4.1	4.2	3.7	2.6
Badia Areas							
Badia	-	-	-	4.2	4.5	4.4	-
Non-Badia	-	-	-	3.5	3.8	3.4	-
Camp Areas							
Camps	-	-	-	-	-	3.7	-
Non Camps	-	-	-	-	-	3.5	-
Nationality							
Jordanian	-	-	-	-	-	-	2.6
Syrian	-	-	-	-	-	-	4.7
Other nationality	-	-	-	-	-	-	1.9
Contraception (current use %)							
Modern method	27	38	41	42	42	42	37
Place of Residence							
Urban	30	39	43	43	43	43	38
Rural	17	31	36	36	36	40	35
Region							
Central	-	34	43	44	44	43	38
North	-	40	39	38	40	42	37
South	-	31	33	39	36	40	34
Governorate							
Amman	-	-	-	44	44	42	38
Balqa	-	-	-	39	42	42	32
Zarqa	-	-	-	46	44	47	40
Madaba	-	-	-	39	45	42	37
Irbid	-	-	-	38	42	44	38
Mafraq	-	-	-	34	33	37	32
Jarash	-	-	-	40	40	43	43
Ajloun	-	-	-	42	41	41	41
Karak	-	-	-	40	35	40	36
Tafiela	-	-	-	42	38	42	40
Ma'an	-	-	-	34	28	31	25
Aqaba	-	-	-	38	40	43	32
Badia Areas							
Badia	-	-	-	33	33	37	-
Non-Badia	-	-	-	43	43	43	-
Camp Areas							
Camps	-	-	-	-	-	45	-
Non Camps	-	-	-	-	-	42	-

Indicator	JPFHS						
	1990	**1997**	**2002**	**2007**	**2009**	**2012**	**2017-18**
Nationality							
Jordanian	-	-	-	-	-	-	38
Syrian	-	-	-	-	-	-	32
Other nationality	-	-	-	-	-	-	32
Maternal and Child Health %							
Antenatal care from health provider (%)	80	96	99	99	-	99	98
Skilled delivery assistance (%)	87	97	99	99	-	100	100
Delivery at a health facility (%)	79	93	97	99	-	99	98
Nutrition							
Breastfeeding **(%)**							
Children 0-5 months exclusively breastfed	-	-	27	22	-	23	26
Children 6-9 months breastfed and receiving complementary food	-	-	70	66	-	66	48
Child Mortality							
Infant mortality	34	29	22	19	23	17	17
Child mortality	5	6	5	2	5	4	3
Under-five mortality	39	34	27	21	28	21	19

(-) Data not available

ACRONYMS

ANC	antenatal care
ARI	acute respiratory infection
BCG	Bacillus Calmette-Guérin (vaccine)
CAPI	Computer-Assisted Personal Interview
CPR	contraceptive prevalence rate
CSPro	Census Survey Program
DOS	Department of Statistics
DPT	diphtheria pertussis tetanus (vaccine)
HepB	hepatitis B (vaccine)
Hib	*Haemophilus influenzae* type B (vaccine)
IFSS	internet file streaming system
IUD	intra-uterine device
IYCF	infant and young child feeding
JPFHS	Jordan Population and Family Health Survey
JPHC	Jordan Population Housing Census
LAM	lactational amenorrhoea method
ORS	oral rehydration salts
ORT	oral rehydration therapy
PCV	pneumococcal conjugate vaccine
PMTCT	prevention of mother-to-child transmission
PNC	postnatal care
PSU	primary sampling unit
RV1	rotavirus vaccine
SDM	standard days method
STI	Sexually transmitted infection
TFR	Total fertility rate
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
USAID	United States Agency for International Development

1   INTRODUCTION

The 2017-18 Jordan Population and Family Health Survey (JPFHS) is the seventh Population and Family Health Survey conducted in Jordan. It was implemented by the Department of Statistics (DOS), and data collection took place from early October 2017 to January 2018. The survey protocol, including biomarker collection, was reviewed and approved by the Institutional Review Board of ICF.

Financial support for the 2017-18 JPFHS was provided by the government of Jordan, the United States Agency for International Development (USAID), the United Nations Children's Fund (UNICEF), and the United Nations Population Fund (UNFPA). ICF provided technical assistance through The DHS Program, which is funded by USAID and offers support and technical assistance for the implementation of population, and health surveys in countries worldwide.

This key indicators report presents selected findings of the 2017-18 JPFHS. A comprehensive analysis of the data will be presented in a final report to be published in the first quarter of 2019.

1.1   SURVEY OBJECTIVES

As in the previous JPFHS surveys in Jordan, the primary objective of the 2017-18 JPFHS is to provide up-to-date estimates of key demographic and health indicators.

More specifically, the 2017-18 JPFHS:

▪ Collected data at the national level that allowed the calculation of key demographic indicators

▪ Explored the direct and indirect factors that determine the levels and trends of fertility and childhood mortality

▪ Measured the levels of contraceptive knowledge and practice

▪ Collected data on key aspects of family health, including immunization coverage among children, prevalence and treatment of diarrhoea and other diseases among children under age 5, and maternity care indicators, including antenatal visits and assistance at delivery among ever-married women

▪ Obtained data on child feeding practices, including breastfeeding, and collected anthropometric measures to assess the nutritional status of children under age 5 and ever-married women age 15-49

▪ Conducted haemoglobin testing on children age 6-59 months and ever-married women age 15-49 to provide information on the prevalence of anaemia among these groups

▪ Collected data on knowledge and attitudes of ever-married women and men about sexually-transmitted diseases and HIV/AIDS

▪ Obtained data on ever-married women's experience of emotional, physical, and sexual violence.

▪ Obtained data on household health expenditures

The 2017-18 JPFHS is the seventh to be conducted in Jordan, and follows the 1990, 1997, 2002, 2007, 2009, and 2012 JPFHS surveys. The survey will provide valuable information on trends in key demographic and health indicators over time. The collected information is intended to assist policy makers and programme managers in evaluating and designing programmes and strategies for improving the health of the country's population.

Additionally, for the first time in Jordan, the 2017-18 JPFHS included a male survey. The survey collected information on men's basic demographic and social characteristics, on their knowledge and use of family planning methods, and on their knowledge and attitudes towards HIV and other sexually transmitted infections (STIs).

2 SURVEY IMPLEMENTATION

2.1 SAMPLE DESIGN

The sampling frame used for the 2017-18 JPFHS is the same frame used in 2015 by the Department of Statistics (DOS) to conduct the Jordan population and housing census (JPHC). The current survey is designed to produce results representative of the country as a whole, of urban and rural areas separately, of 12 administrative governorates, and of 3 national groups: Jordanians, Syrians, and a group combined from various nationalities.

Each of the 12 governorates of Jordan is divided into progressively smaller districts, sub-districts, localities, areas, and sub-areas. In addition to these administrative units, in the recent population census each sub-area was divided into convenient area units called census blocks. An electronic file contains a complete list of all census blocks, with information on households, populations, geographical locations, and socioeconomic characteristics of each block. The census blocks are regrouped to form a general statistical unit of moderate size, called a cluster, which is widely used in various surveys as the primary sampling unit (PSU).

The sample for the 2017-18 JPFHS is a stratified sample selected in two stages from the 2015 census frame. Stratification was achieved by separating each governorate into urban and rural areas. Each of the Syrian camps in the governorates of Zarqa and Mafraq formed their own sampling stratum. In total, 26 sampling strata were constructed. Samples were selected independently in each sampling stratum, by a two-stage selection process, according to the sample allocation. Before the sample selection, the sampling frame was sorted by district and sub-district within each sampling stratum. By using a probability proportional-to-size selection for the first stage of selection, an implicit stratification and proportional allocation were achieved at each of the lower administrative levels.

In the first stage, 970 clusters were selected with probability proportional to cluster size, with the cluster size being the number of residential households enumerated in the 2015 JPHC. The sample allocation took into account the precision consideration at governorate level and at the level of each of the three special domains. After selecting PSUs and clusters, a household listing operation was carried out in all selected clusters. The resulting household lists served as the sampling frame for selecting households in the second stage. A fixed number of 20 households per cluster were selected with an equal probability systematic selection from the newly created household listing.

All ever-married women age 15-49, who were either residents of the selected households or visitors who stayed in the households the night before the survey, were eligible for interview. In all households, all children under age 5 were weighed and measured for anthropometric indicators; all children age 6-59 months were tested for anaemia. In a subsample consisting of half of the households, all women age 15-49 were similarly tested. Also in this subsample, a child discipline module was applied to one child age 2-14 selected randomly from each household. In the remaining half of the households, all men age 15-59 who were usual residents of the selected households or who slept in the households the night before the survey were eligible for interview. Also in this subsample, a domestic violence module was applied to one ever-married woman age 15-49 selected randomly from each household.

2.2 QUESTIONNAIRES

Four questionnaires were used for the 2017-18 JPFHS: the Household Questionnaire, the Woman's Questionnaire, the Man's Questionnaire, and the Biomarker Questionnaire. These questionnaires, based on The DHS Program's standard Demographic and Health Survey questionnaires, were adapted to reflect population and health issues relevant to Jordan. After all questionnaires were finalised in English, they were translated into Arabic.

The Household Questionnaire listed all members of and visitors to selected households. Basic demographic information was collected on characteristics of each person listed, including age, sex, marital status, education, and relationship to the head of household. For children under age 18, their parents' survival status was determined. The data on age and sex of household members were used to identify women and men eligible for individual interview. The Household Questionnaire also collected information on characteristics of the household's dwelling unit, such as source of water, type of toilets, flooring materials, presence of various durable goods, household health expenditures, and diagnosis of diabetes among household members.

The Woman's Questionnaire gathered information from ever-married women age 15-49. These women were asked questions on the following topics:

- Background characteristics (including age, education, and media exposure)
- Birth history and childhood mortality
- Family planning including knowledge, use, and sources of contraceptive methods
- Fertility preferences
- Antenatal, delivery, and postnatal care
- Breastfeeding and infant feeding practices
- Vaccinations and childhood illnesses
- Early childhood development
- Women's work and husbands' background characteristics
- Knowledge and awareness of HIV/AIDS
- Knowledge, attitudes, and behaviours related to other health issues (e.g., smoking)
- Domestic violence

The Man's Questionnaire was administered to men age 15-59. It collected much of the same information elicited for the Woman's Questionnaire but was shorter because it did not contain a detailed reproductive history, questions on maternal and child health, or questions on domestic violence.

The Biomarker Questionnaire was used to record biomarker data collected from respondents by biomarker measurers.

The 2017-18 JPFHS interviewers used tablet computers to record responses during the interviews, as well as anthropometry and anaemia testing results. The tablets were equipped with Bluetooth technology to enable remote electronic transfer of files (transfer of assignment sheets from team supervisors to interviewers and back from interviewers to supervisors). The computer-assisted personal interviewing (CAPI) data collection system employed in the 2017-18 JPFHS was developed by The DHS Program using the mobile version of CSPro. The CSPro software was developed jointly by the U.S. Census Bureau, The DHS Program, and Serpro S.A.

2.3   ANTHROPOMETRY AND ANAEMIA TESTING

The 2017-18 JPFHS incorporated anthropometry and anaemia testing. Biomarker data were collected in all households.

Anthropometry. Height and weight measurements were recorded for children age 0-59 months and for women age 15-49.

Anaemia testing. Blood specimens for anaemia testing were collected from women age 15-49 who voluntarily consented to be tested and from children age 6-59 months upon consent from their parents or other adults responsible for them. Blood samples were drawn from a drop of blood taken from a finger prick (or a heel prick in the case of children age 6-11 months) and collected in a microcuvette. Haemoglobin analysis was carried out on-site using a battery-operated portable HemoCue analyser. Results were provided verbally and in writing. Parents or responsible adults of children whose

haemoglobin level fell below 7 g/dl were instructed to take the child to a health facility for follow-up care. Likewise, non-pregnant women and pregnant women were referred for follow-up care if their haemoglobin levels were below 7 g/dl and 9 g/dl, respectively. All households in which anaemia testing was conducted were given a brochure explaining the causes of anaemia and its prevention.

2.4   PRETEST

The pretest training for the 2017-18 JPFHS was conducted from July 2-26, 2017, in Amman, Jordan, with 56 trainees. It consisted of training on paper questionnaire and CAPI, and a biomarker training on how to measure height and weight and how to collect blood to test for anaemia. Pretest fieldwork was also conducted in rural and urban clusters throughout Amman from July 27-30. These clusters were not included in the 2017-18 JPFHS, however. In general, interviewers and supervisors displayed proficiency in all four questionnaires as well as in the use of tablets for data collection. Following field practice, a debriefing session was held with the pretest field staff, and questionnaires were modified based on lessons drawn from the exercise.

2.5   TRAINING OF FIELD STAFF

The Department of Statistics (DOS) recruited and trained 153 people to serve as team supervisors, interviewers, and biomarker measurers for the main fieldwork. The training was conducted in three phases from August 13, 2017, to September 26, 2017, in Amman. The first phase of the training taught how to collect biomarker data by taking height and weight measurements and by taking blood samples to measure haemoglobin levels. Forty individuals participated in the biomarker training from August 13 to 20, 2017, which consisted of lectures, demonstrations of biomarker measurement or testing procedures, and field practice with children.

The second phase of the main training, conducted from August 20, 2017 to September 26, 2017, was administered to 153 potential staff recruited by DOS. Interviewer training focused on interviewing techniques and field procedures, questionnaire content, how to administer paper questionnaires, and conducting mock interviews between participants in the classroom. The interviewer training also included presentations given by various specialists from the Ministry of Health, who covered Jordan-specific policies and programmes on family planning and immunization.

The third phase of the main training emphasized CAPI training and mainly focused on the CAPI menus and how to conduct interviews using tablets. During this phase of the training, some interviewing techniques, as well as questionnaire content, were again reviewed. Finally, a field practice, conducted from September 27 to 29, 2017, was organised for 26 non-PFHS clusters throughout Amman to practice biomarker testing, interviews, and supervisory procedures in the field. The aim of this additional hands-on experience was to provide trainees with more practice before actual fieldwork.

2.6   FIELDWORK

Data collection took place over a 4-month period, from early October 2017, to January 2018. Fieldwork was carried out by 27 field teams, each consisting of one team supervisor, three female interviewers, one male interviewer, one biomarker measurer, and one driver. Electronic data files were transferred to the DOS central office in Amman every few days via the secured internet file streaming system (IFSS). Staff from DOS, and specialists from The DHS Program, coordinated and supervised fieldwork activities.

2.7   DATA PROCESSING

All electronic data files for the 2017-18 JPFHS were transferred via IFSS to the DOS central office in Amman, where they were stored on a password-protected computer. The data processing operation included secondary editing, which required resolution of computer-identified inconsistencies and coding of open-ended questions. Data editing was accomplished using CSPro software. During the duration of

fieldwork, tables were generated to check various data quality parameters, and specific feedback was given to the teams to improve performance. Secondary editing and data processing were initiated in October 2017 and completed in February 2018.

3 KEY FINDINGS

3.1 RESPONSE RATES

T able 1 shows response rates for the 2017-18 JPFHS. A total of 19,384 households were selected for the sample, of which 19,136 were found to be occupied at the time of the fieldwork. Of the occupied households, 18,802 were successfully interviewed, yielding a response rate of 98%.

In the interviewed households, 14,870 women were identified as eligible for individual interview; interviews were completed with 14,689 women, yielding a response rate of 99%. A total of 6,640 eligible men were identified in the sampled households and 6,429 were successfully interviewed, yielding a response rate of 97%. Response rates for both women and men were similar across urban and rural areas.

Table 1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Jordan DHS 2017-18

	Residence		
Result	Urban	Rural	Total
Household interviews			
Households selected	15,380	4,004	19,384
Households occupied	15,199	3,937	19,136
Households interviewed	14,944	3,858	18,802
Household response rate[1]	98.3	98.0	98.3
Interviews with women age 15-49			
Number of eligible women	11,885	2,985	14,870
Number of eligible women interviewed	11,745	2,944	14,689
Eligible women response rate[2]	98.8	98.6	98.8
Overall women response rate (EWRR)[3]	97.1	96.6	97.1
Interviews with men age 15-59			
Number of eligible men	5,218	1,422	6,640
Number of eligible men interviewed	5,056	1,373	6,429
Eligible men response rate[2]	96.9	96.6	96.8
Overall men response rate (EMRR)[3]	95.3	94.7	95.2

[1] Households interviewed/households occupied
[2] Respondents interviewed/eligible respondents
[3] Households response rate*eligible respondents response rate/100

3.2 CHARACTERISTICS OF RESPONDENTS

Table 2 shows by respondent background characteristics the weighted and unweighted numbers and the weighted percent distributions of ever-married women and men age 15-49. Because the survey only includes ever-married women, young women represent a low percentage of the interviewed women. Only 30% of ever-married women are age 15-29, while 70% of ever-married women are age 30-49. The low percentage of ever-married women in the 15-29 year age group, which was also observed in the 2012 JPFHS, is mainly the consequence of an increasing age at first marriage. In contrast, the proportion of ever-married women who are age 30-49 has increased steadily from 66% in 2002 to 70% in 2017-18.

For the 2017-18 JPFHS, all men age 15-59 were eligible for interview, regardless of their marital status. For this reason, we observe a much younger population among men. Roughly, 60% of men are under age 30, and a bit more than 40% are age 30-49.

In 2017-18, 90% of ever-married women and 89% of all men live in urban areas. Less than two-thirds of both women and men live in the Central region, 28% live in the North region, and only 9% to 10% live in the South region.

Table 2 Background characteristics of respondents

Percent distribution of ever-married women age 15-49 and men age 15-49 by selected background characteristics, Jordan DHS 2017-18

	Women	Men

Background characteristic	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	2.5	370	427	19.7	1,110	1,187
20-24	10.5	1,536	1,640	22.2	1,247	1,187
25-29	16.9	2,479	2,612	15.1	847	872
30-34	18.6	2,730	2,748	12.2	688	706
35-39	18.0	2,638	2,545	12.1	678	657
40-44	17.1	2,516	2,386	9.9	556	546
45-49	16.5	2,420	2,331	8.8	496	529
Marital status						
Never married	0.0	0	0	59.1	3,324	3,250
Married	92.7	13,616	13,734	40.3	2,269	2,405
Divorced/separated	4.5	666	552	0.4	25	27
Widowed	2.8	407	403	0.1	6	2
Residence						
Urban	89.9	13,200	11,745	89.1	5,011	4,452
Rural	10.1	1,489	2,944	10.9	612	1,232
Region						
Central	62.4	9,171	5,244	63.3	3,560	2,107
North	28.0	4,119	5,128	27.6	1,550	1,988
South	9.5	1,398	4,317	9.1	513	1,589
Governorate						
Amman	40.8	5,997	1,768	41.2	2,316	691
Balqa	5.1	752	985	6.1	345	453
Zarqa	14.3	2,094	1,474	13.7	768	532
Madaba	2.2	329	1,017	2.3	132	431
Irbid	17.4	2,549	1,309	17.3	970	520
Mafraq	5.8	849	1,505	5.5	312	564
Jarash	2.8	410	1,147	2.8	159	479
Aljun	2.1	312	1,167	1.9	109	425
Karak	3.7	544	1,055	3.7	207	393
Tafiela	1.5	221	1,207	1.3	73	421
Ma'an	1.7	250	962	1.8	103	392
Aqaba	2.6	383	1,093	2.3	129	383
Nationality						
Jordanian	86.9	12,764	12,390	88.7	4,989	4,949
Syrian	8.6	1,257	1,703	5.8	327	429
Other nationalities	4.5	668	596	5.5	307	306
Education						
None	2.2	327	556	1.5	84	128
Elementary	7.0	1,029	1,176	6.2	347	398
Preparatory	12.9	1,892	2,042	13.3	746	842
Secondary	42.0	6,176	6,055	46.5	2,612	2,798
Higher	35.8	5,265	4,860	32.6	1,834	1,518
Wealth quintile						
Lowest	20.0	2,936	4,312	16.8	946	1,422
Second	20.7	3,039	3,668	18.9	1,063	1,347
Middle	21.0	3,083	3,089	20.0	1,122	1,198
Fourth	20.5	3,009	2,261	21.2	1,190	1,001
Highest	17.9	2,623	1,359	23.2	1,303	716
Total 15-49	100.0	14,689	14,689	100.0	5,623	5,684
50-59	na	na	na	na	806	745
Total 15-59	na	na	na	na	6,429	6,429

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

The distribution of ever-married women by governorate is comparable to the distribution of the total population in the 2012 JPFHS. About 40% of women and men live in Amman, 14% live in Zarqa, and 17% live in Irbid governorate. Table 2 also presents the weighted and unweighted numbers of women and men in the sample. The unweighted numbers of women and men in the largest governorates are smaller than the weighted numbers. The opposite is true for all other governorates because of oversampling. For example, in Ma'an governorate, although the weighted number of women is 250, in reality data were collected from 962 women: Ma'an governorate was oversampled to obtain a sufficient sample of women to yield statistically reliable estimates.

For the first time in a Jordan DHS survey, a request was made of all respondents to self-declare their nationalities. Among women, 87% identified themselves as Jordanians, 9% as Syrians, and 5% as other

nationalities, which includes Egyptians, Iraqis, and other Arab and non-Arab nationalities. Among men, 89% are Jordanians, 6% are Syrians, and another 6% are other nationalities.

The overall level of education among women has continued to improve since the 2012 JPFHS. The percentage of ever-married women age 15-49 who had no schooling is 2%, unchanged since 2012. However, the percentage who have attended school beyond the secondary level has increased from 25% in 2002, to 31% in 2012, and to 36% in 2017-18. Women and men have comparable rates of attendance in elementary and preparatory schools. However, relative to women, men have a higher percentage in attendance in secondary school, and a slightly lower percentage in attendance at a higher-than-secondary level of schooling.

3.3 FERTILITY

Ever-married women who were interviewed in the 2017-18 JPFHS were asked to report the total number of sons and daughters they had given birth to during their lifetime. To ensure complete reporting, women were asked separately about children living at home, those living elsewhere, and children who had died. A complete birth history was obtained from each respondent, including information on the sex, date of birth, and survival status of each child. Age-specific and total fertility rates (TFRs) were calculated directly from the birth history data.[1]

The age-specific fertility rates and TFRs shown in Table 3 are for the 3-year period before the survey, covering approximately the years 2014-2017. The TFR is the sum of the age-specific rates and is a useful measure of the level of recent fertility. It represents the average number of children a woman would have by the end of her reproductive life if she were to bear children at the currently observed age-specific fertility rates. The TFR indicates that, if fertility rates were to remain constant at the level prevailing during the 3 years before the survey, a woman in Jordan would bear on average 2.7 children during her lifetime. Fertility is higher in rural areas than urban areas (3.1 versus 2.7 births per woman).

Table 3 Current Fertility

Age-specific and total fertility rates, general fertility rate, and the crude birth rate for the 3 years preceding the survey, according to residence, Jordan DHS 2017-18

	Residence		
Age group	Urban	Rural	Total
15-19	28	20	27
20-24	111	101	109
25-29	153	183	156
30-34	135	151	137
35-39	83	128	88
40-44	27	28	27
45-49	[1]	[5]	[2]
TFR (15-49)	2.7	3.1	2.7
GFR (15-44)	89	97	90
CBR	21.3	23.7	21.6

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

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[1] Numerators for age-specific fertility rates are calculated by summing the number of live births that occurred in the period 1-36 months preceding the survey (determined by the date of interview and the date of birth of the child) and classifying them by the age of the mother (in 5-year groups) at the time of birth (determined by the mother's date of birth). The denominators for the rates are the number of woman-years lived in each of the specified 5-year age groups during the period 1-36 months preceding the survey. Because only women who had ever married were interviewed in the JPFHS, the number of women in the denominator of the rates was inflated by factors calculated from information in the Household Questionnaire on the proportions ever married to produce a count of all women. Never-married women are presumed not to have given birth.

Figure 1 Differentials in total fertility rates, 2017-18
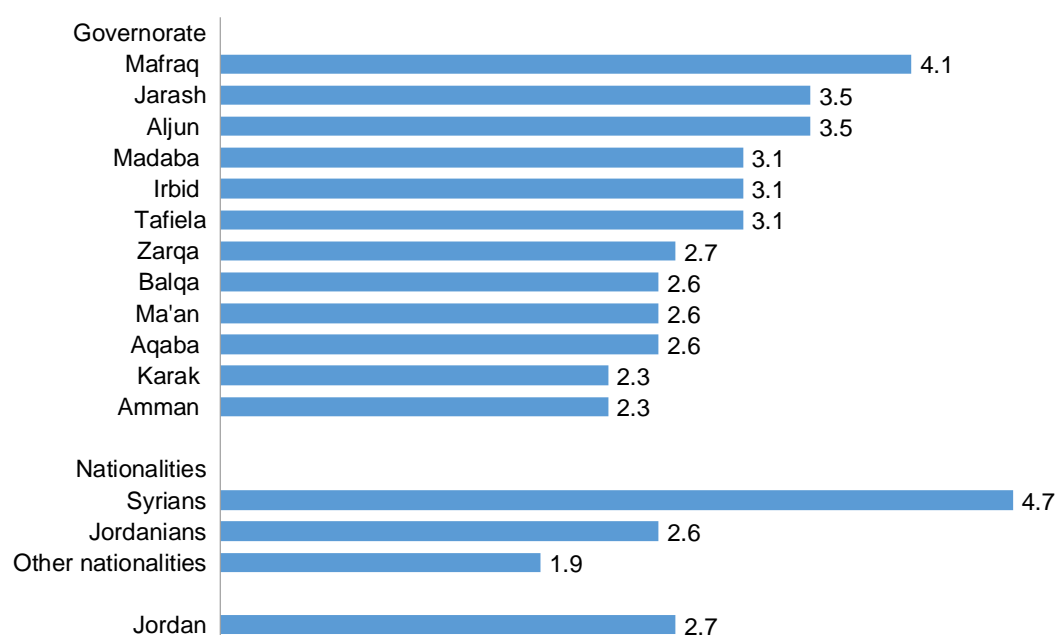
Jordan 2017-18

Differentials in fertility by governorate, and nationalities are shown in Figure 1. As mentioned above, women in rural areas give birth to an average of half a child more than urban women. There are still some sizeable differentials in fertility levels by governorate; the TFR ranges from 2.3 in Amman and Karak to 4.1 in Mafraq. The largest differential in fertility exists between Syrian nationalities and others, for example, fertility is higher among Syrian women than Jordanian women (4.7 versus 2.6 children per woman, respectively).

According to the age-specific fertility rates shown in Table 3, on average, a woman in Jordan will give birth to less than one child (0.7) by age 25[2] and, less than two children (1.5) between the ages of 25 and 34 years. In the age group 15-19, fertility rates are quite low (27 births per 1,000 women). Rates then increase dramatically to reach a maximum of 156 births per 1,000 women in the age group 25-29. Above age 29, rates show a gradual but steady decline. Fertility is higher in rural areas for every age group except 15-24.

The general fertility rate (GFR), and the crude birth rate (CBR) are also presented in Table 3. The GFR is defined as the annual number of births per 1,000 women age 15-44, and the CBR refers to the total number of births occurring in a given year per 1,000 population. The GFR is 90 births per 1,000 women age 15-44, and the CBR is 21.6 births per 1,000 population.

Figure 2 shows trends in fertility since 1990. The total fertility rate for Jordan declined rapidly in the 1990s, from 5.6 in 1990 to 3.7 in 2002 to 3.5 in 2012. Fertility also has markedly declined between 2012 and 2017-18, from 3.5 to 2.7.

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[2] Calculated as the sum of age-specific rates in the age groups 15-19 and 20-24, times 5 (to take into account the 5-year age group), divided by 1,000.

Figure 2 Trends in total fertility rate, 1990-2017

Births per woman
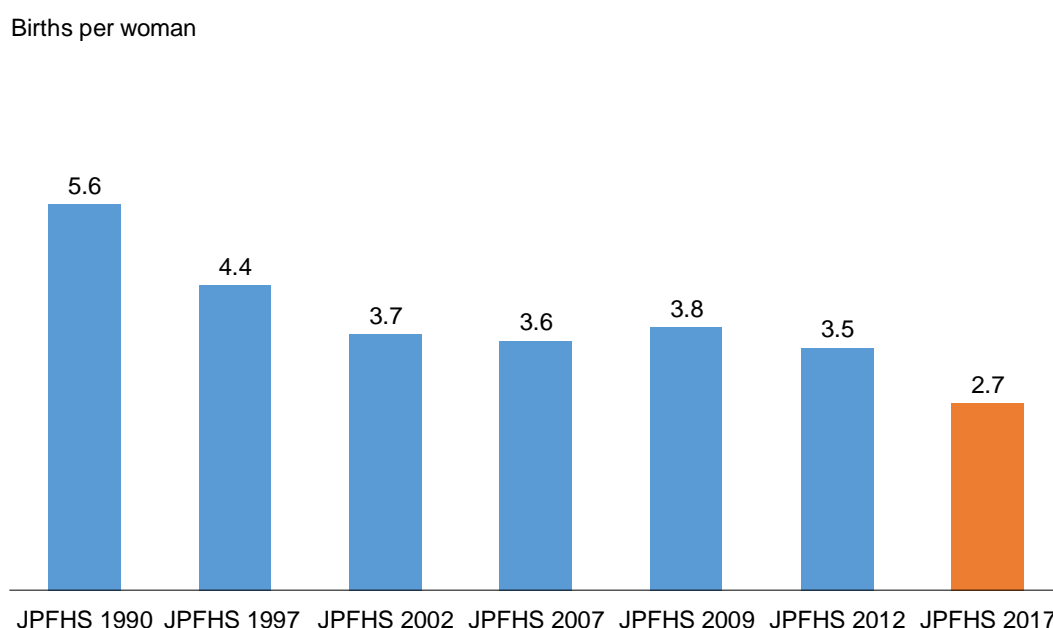
3.4   TEENAGE PREGNANCY AND MOTHERHOOD

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 4 shows that 5% of women age 15-19 in Jordan have begun childbearing: 3% have had a live birth, and 2% were pregnant with their first child at the time of interview. As expected, the proportion of women age 15-19 who have begun childbearing rises rapidly with age, from 5% among women age 17 to 11% among those age 19. Teenage childbearing is more common among women in the Mafraq governorate (13%) and Syrian women (28%). The proportion of women who have started childbearing decreases with increasing level of education: more than 1 in 4 women age 15-19 with elementary education (27%) have begun childbearing compared with 8% of women who have attained preparatory education and 4% of those who have attained secondary education. Teenage childbearing also appears to decrease with wealth: 13% of women age 15-19 and women from the lowest wealth quintile have begun childbearing compared with 4% of those in the middle quintile.

Table 4 Teenage pregnancy and motherhood

Percentage of ever-married women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, according to background characteristics, Jordan DHS 2017-18

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	*	*	*	966
16	(0.9)	(0.8)	(1.7)	905
17	3.4	2.0	5.4	1,048
18	4.8	2.5	7.4	921
19	7.7	3.3	11.0	868
Residence				
Urban	3.5	1.9	5.4	4,181
Rural	2.1	1.5	3.6	534
Region				
Central	2.7	1.7	4.4	2,804
North	5.1	2.4	7.5	1,476
South	1.8	1.2	3.0	348
Governorate				
Amman	(2.1)	(1.7)	(3.8)	1,762
Balqa	*	*	*	240
Zarqa	4.2	2.0	6.2	708
Madaba	(4.9)	(1.2)	(6.1)	99
Irbid	(3.9)	(2.2)	(6.1)	942
Mafraq	9.8	3.5	13.3	297
Jarash	(4.3)	(2.5)	(6.8)	137
Aljun	(3.1)	(1.2)	(4.3)	103
Karak	*	*	*	183
Tafilh	*	*	*	71
Ma'an	*	*	*	58
Aqaba	*	*	*	104
Nationality				
Jordanian	1.9	1.2	3.1	4,135
Syrian	18.9	8.9	27.8	389
Other nationalities	*	*	*	83
Education				
None	*	*	*	63
Elementary	18.3	9.0	27.3	149
Preparatory	5.6	2.0	7.6	1,263
Secondary	2.0	1.7	3.8	2,600
Higher	*	*	*	621
Wealth quintile				
Lowest	8.6	4.4	13.0	978
Second	3.8	3.0	6.8	859
Middle	(2.6)	(1.2)	(3.8)	856
Fourth	*	*	*	1,002
Highest	*	*	*	1,016
Total	3.3	1.9	5.2	4,708

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.

3.5   FERTILITY PREFERENCES

In the 2017-18 JPFHS, currently married women and men were asked about their fertility preferences, including the desire for additional children and spacing preferences. The survey findings are presented in Table 5.

Overall, 49% of married women in Jordan do not want to have any more children at any time in the future, including two percent of women who have been sterilized. An additional 18% of married women want to delay having another child for at least 2 years. Summing these two figures implies that 67% of married women in Jordan may have a potential need for family planning services for either limiting or spacing births.

The desire for a child strongly relates to the number of living children the woman has. Close to 70% of currently-married women who had not yet begun childbearing at the time of the survey want a birth soon. Among those with one child, 74% also express a desire to have another, although most of them want to

wait to have the next child. The desire to cease childbearing rises rapidly with the number of children, from 1% among women with no children to 86% among women with six or more children (including 5% who have been sterilized).

Table 5 Fertility preferences by number of living children

Percent distribution of currently married women and men age 15-49 by desire for children, according to number of living children, Jordan DHS 2017-18

Desire for children	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
	WOMEN							
Have another soon[2]	68.6	31.6	21.0	13.1	6.1	4.0	1.9	17.4
Have another later[3]	10.0	41.9	30.6	19.4	8.1	5.0	1.2	17.7
Have another, undecided when	1.2	3.1	3.4	1.7	0.8	0.8	0.3	1.7
Undecided	2.9	7.7	10.0	8.8	7.6	5.9	2.8	7.1
Want no more	1.4	8.1	30.1	51.1	69.0	75.5	80.9	47.7
Sterilized[4]	0.0	0.2	0.1	0.6	1.8	3.0	5.3	1.5
Declared infecund	15.9	7.4	4.8	5.3	6.5	5.8	7.5	6.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	1,011	1,902	2,295	2,653	2,460	1,637	1,657	13,616
	MEN[5]							
Have another soon[2]	51.1	46.1	31.5	20.2	11.9	14.3	8.9	25.1
Have another later[3]	0.8	18.0	13.0	9.9	6.9	2.6	2.0	8.5
Have another, undecided when	9.7	6.1	7.3	5.8	3.9	1.2	4.3	5.4
Undecided	24.1	22.2	33.2	34.7	36.6	31.2	31.2	31.4
Want no more	4.8	4.9	13.3	27.0	39.7	48.8	49.2	26.7
Sterilized[4]	0.3	2.5	0.1	1.4	0.2	1.4	1.3	1.0
Declared infecund	9.2	0.2	1.7	1.0	0.9	0.4	3.1	1.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	198	296	412	475	389	272	226	2,269

[1] The number of living children includes the 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
[5] The number of living children includes one additional child if respondent's wife is pregnant (or if any wife is pregnant for men with more than one current wife).

3.6 FAMILY PLANNING

Table 6 shows that 52% of currently married women in Jordan use a method of family planning: 37% use modern contraceptive methods and 14% use traditional methods. Prevalence of contraception by any method increased in the 1990s, from 40% in 1990 to 56% in 2002. Prevalence increased from 56% in 2002 to 61% in 2012 but dropped to 52% in 2017-18. The recent decrease, however, has been almost entirely in use of the male condom and traditional methods. Use of female sterilization, the pill, IUD, injectables, and implants are all similar to the 2012 levels.

The most popular modern method is the IUD, used by 21% of married women. The next-most-popular modern methods are the pill (8%) and the male condom (5%). Two percent of married women have been sterilized, while less than 1% each uses an injectable or implant. As for traditional methods, withdrawal is used by 13% of currently married women, and rhythm (periodic abstinence) is used by about 1%.

Differentials in contraceptive use according to background characteristics are also shown in Table 6. In general, women who have three or more children, married women age 25-44, those with more than elementary education, and those living in the second to the highest wealth quintiles are more likely to use family planning than other women. Interestingly, there is little difference by urban-rural residence in the proportion of married women who are using any method. However, urban women are slightly more likely to use a modern method than rural women, while rural women are more likely to use a traditional method than urban women. The contraceptive prevalence rate ranges from 39% in Ma'an governorate to 58% in Jarash and Aljun governorates. In addition, Jordanian women (53%) are more likely to use contraception than Syrian women (45%) or women of other nationalities (42%).

Table 6 Current use of contraception according to background characteristics

Percent distribution of currently married women age 15-49, by contraceptive method currently used, according to background characteristics, Jordan DHS 2017-18

Background characteristic	Any method	Any modern method	Modern method								Any tradi-tional method	Traditional method			Total	Number of women
			Female sterili-zation	Pill	IUD	Inject-ables	Implants	Male condom	LAM		Rhythm	With-drawal	Not currently using		
Number of living children																
0	0.9	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.6	0.2	0.4	99.1	100.0	1,496
1-2	43.2	28.5	0.2	8.2	12.3	0.5	0.2	5.4	1.7	14.7	1.1	13.6	56.8	100.0	3,986
3-4	64.9	47.8	1.2	9.8	29.0	0.8	0.3	5.6	1.1	17.1	1.9	15.3	35.1	100.0	4,971
5+	66.2	50.0	4.3	8.0	28.4	1.5	0.5	6.4	0.8	16.2	1.4	14.8	33.8	100.0	3,163
Age																
15-19	16.9	9.7	0.0	2.9	2.3	0.1	0.0	1.6	2.8	7.2	0.0	7.2	83.1	100.0	356
20-24	35.4	23.8	0.0	7.6	8.7	0.7	0.1	4.1	2.6	11.6	0.2	11.4	64.6	100.0	1,457
25-29	50.3	35.7	0.1	10.9	17.5	0.4	0.4	4.4	2.1	14.6	1.0	13.6	49.7	100.0	2,323
30-34	52.9	36.9	0.1	9.9	19.0	1.0	0.6	5.3	1.0	16.0	1.3	14.7	47.1	100.0	2,569
35-39	60.4	46.3	1.5	9.1	26.7	1.3	0.2	6.8	0.7	14.1	1.2	13.0	39.6	100.0	2,442
40-44	62.0	45.8	3.6	6.6	28.9	0.5	0.1	5.7	0.3	16.1	2.4	13.8	38.0	100.0	2,306
45-49	48.6	34.9	3.8	3.1	22.6	0.8	0.2	4.3	0.0	13.7	1.8	11.9	51.4	100.0	2,164
Residence																
Urban	51.7	37.7	1.5	7.7	21.2	0.8	0.3	5.2	1.1	14.0	1.4	12.6	48.3	100.0	12,214
Rural	53.1	35.4	1.7	9.5	17.1	0.8	0.4	4.6	1.2	17.7	1.0	16.7	46.9	100.0	1,402
Region																
Central	51.4	38.1	1.3	7.5	22.3	0.7	0.3	5.2	0.8	13.3	1.5	11.8	48.6	100.0	8,410
North	54.1	37.4	1.7	8.3	19.4	0.9	0.3	5.1	1.6	16.7	1.2	15.5	45.9	100.0	3,880
South	48.0	33.6	2.1	9.1	15.3	0.8	0.4	4.4	1.4	14.4	0.7	13.7	52.0	100.0	1,326
Governorate																
Amman	51.4	38.4	1.2	6.9	23.0	0.7	0.3	5.6	0.7	13.1	1.9	11.2	48.6	100.0	5,459
Balqa	43.5	32.1	1.4	8.9	16.9	0.5	0.5	3.5	0.5	11.4	0.5	10.9	56.5	100.0	688
Zarqa	54.7	39.7	1.6	8.3	22.8	0.7	0.1	4.8	1.3	15.0	0.7	14.3	45.3	100.0	1,955
Madaba	47.1	36.5	1.8	9.0	19.5	0.9	0.1	4.6	0.4	10.6	1.3	9.3	52.9	100.0	307
Irbid	53.8	37.7	1.6	9.1	19.1	0.8	0.3	5.4	1.3	16.1	1.3	14.8	46.2	100.0	2,403
Mafraq	51.5	32.3	1.3	7.7	14.3	1.4	0.2	5.0	2.4	19.1	1.1	18.1	48.5	100.0	792
Jarash	57.9	42.5	2.7	6.9	25.5	1.0	0.2	4.7	1.4	15.4	1.3	14.1	42.1	100.0	389
Aljun	58.1	41.1	2.1	5.0	27.2	0.4	0.6	4.3	1.5	17.1	1.0	16.1	41.9	100.0	297
Karak	51.3	36.1	2.0	9.9	14.9	1.1	0.3	6.0	1.7	15.2	0.9	14.3	48.7	100.0	523
Tafilh	57.0	39.5	3.8	8.8	19.2	1.0	0.2	5.0	1.5	17.5	1.0	16.6	43.0	100.0	206
Ma'an	39.4	24.7	1.2	7.3	10.1	0.8	0.5	4.6	0.4	14.7	0.1	14.7	60.6	100.0	232
Aqaba	43.7	32.3	1.8	9.2	17.1	0.5	0.5	1.7	1.6	11.4	0.6	10.8	56.3	100.0	365
Nationality																
Jordanian	53.0	38.3	1.6	8.1	21.4	0.8	0.3	5.2	1.0	14.8	1.4	13.3	47.0	100.0	11,854
Syrian	44.5	31.9	0.6	7.7	16.3	0.5	0.0	4.4	2.4	12.7	0.7	11.9	55.5	100.0	1,159
Other nationalities	42.0	31.7	1.4	4.0	18.1	1.1	1.2	4.6	1.0	10.4	0.4	10.0	58.0	100.0	603
Education																
None	30.4	22.0	3.1	6.0	8.7	2.6	0.0	1.2	0.4	8.4	1.8	6.6	69.6	100.0	278
Elementary	42.6	31.6	2.3	7.5	15.8	1.1	0.1	3.3	1.4	11.0	0.4	10.6	57.4	100.0	934
Preparatory	49.4	36.3	3.1	6.1	20.5	1.0	0.0	3.9	1.3	13.2	0.7	12.4	50.6	100.0	1,743
Secondary	55.7	40.8	1.5	9.0	22.6	0.8	0.3	5.3	1.1	14.9	0.9	14.0	44.3	100.0	5,711
Higher	51.2	36.0	0.7	7.3	20.5	0.4	0.4	5.8	0.9	15.2	2.2	13.0	48.8	100.0	4,950
Wealth quintile																
Lowest	47.7	34.7	2.1	8.2	18.1	1.2	0.4	2.9	1.6	13.0	0.7	12.3	52.3	100.0	2,698
Second	51.5	37.0	1.5	8.5	19.3	1.3	0.4	5.2	0.9	14.6	0.9	13.6	48.5	100.0	2,868
Middle	55.0	38.5	0.7	9.0	20.7	0.4	0.3	5.6	1.6	16.5	1.1	15.4	45.0	100.0	2,848
Fourth	54.3	38.6	1.3	7.5	21.5	0.3	0.3	6.9	0.8	15.7	1.3	14.4	45.7	100.0	2,835
Highest	50.1	38.5	2.2	5.7	25.1	0.6	0.0	4.7	0.4	11.6	2.8	8.8	49.9	100.0	2,367
Total	51.8	37.4	1.5	7.8	20.8	0.8	0.3	5.1	1.1	14.4	1.3	13.0	48.2	100.0	13,616

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

The IUD is the most popular method across all age groups except among 15-19-year-olds. This method is used by 27%-29% of women age 35-44, and by almost one in five women age 25-34. Withdrawal is the most commonly used method among the youngest married women age 15-19, followed by the pill, LAM, and the IUD. Among those age 20-24, withdrawal is the most common method, followed by the IUD and the pill. Use of female sterilization is positively associated with the woman's age; older women are more likely to use this method to terminate childbearing. Four percent of married women 40-49 have been sterilized.

Urban women are more likely than rural women to use the IUD (21% and 17%, respectively), while rural women are slightly more likely than urban women to use the pill (10% and 8%, respectively) and withdrawal (17% and 13%, respectively). The proportion of married women using contraception rises steadily with increasing education from 30% among women with no education up to 56% of those with at least some secondary education, after which it decreases to 51% among those with higher education.

Forty-three percent of women with one or two children are using family planning, mainly withdrawal, IUD, and the pill. The contraceptive prevalence rate is highest among those with five or more children (66%), and is, as expected, low (less than 1%) among childless women.

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). This section discusses the size and composition of the population of women who have an unmet need for family planning services. This information is useful for planning reproductive health programmes.

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 amenorrheaic 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 amenorrheaic for up to 2 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 7 presents data on unmet need, met need, and total demand for family planning among currently married women. Among these women, 14% have an unmet need for family planning services. As

mentioned, 52% of married women are currently using a contraceptive method; that is, they have a met need for family planning. Altogether 66% of currently married women in Jordan have a demand for family planning. If all married women who said they want to space or limit their children were to use family planning methods, the CPR would increase from the current level of 52% to 66%. At present, 78% of this total demand is satisfied, and 57% of the total demand for family planning is being met by modern methods.

Table 7 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, according to background characteristics, Jordan DHS 2017-18

Background characteristic	Unmet need for family planning	Met need for family planning (currently using)		Total demand for family planning[3]	Number of women	Percentage of demand satisfied[1]	
		All methods	Modern methods[2]			All methods	Modern methods[2]
Age							
15-19	14.4	16.9	9.7	31.3	356	54.0	31.1
20-24	15.6	35.4	23.8	51.0	1,457	69.4	46.6
25-29	15.2	50.3	35.7	65.4	2,323	76.8	54.5
30-34	14.2	52.9	36.9	67.1	2,569	78.8	55.0
35-39	15.2	60.4	46.3	75.6	2,442	79.9	61.2
40-44	13.1	62.0	45.8	75.1	2,306	82.5	61.0
45-49	12.5	48.6	34.9	61.0	2,164	79.6	57.1
Residence							
Urban	14.4	51.7	37.7	66.1	12,214	78.2	57.1
Rural	13.1	53.1	35.4	66.2	1,402	80.2	53.4
Region							
Central	14.3	51.4	38.1	65.7	8,410	78.2	58.0
North	14.5	54.1	37.4	68.6	3,880	78.8	54.4
South	12.8	48.0	33.6	60.8	1,326	78.9	55.2
Governorate							
Amman	14.2	51.4	38.4	65.7	5,459	78.3	58.4
Balqa	14.8	43.5	32.1	58.3	688	74.6	55.0
Zarqa	13.9	54.7	39.7	68.5	1,955	79.8	57.9
Madaba	17.4	47.1	36.5	64.5	307	73.0	56.6
Irbid	15.1	53.8	37.7	69.0	2,403	78.1	54.7
Mafraq	16.5	51.5	32.3	68.0	792	75.7	47.6
Jarash	10.5	57.9	42.5	68.4	389	84.7	62.2
Ajlun	9.9	58.1	41.1	68.1	297	85.5	60.4
Karak	12.1	51.3	36.1	63.3	523	81.0	57.0
Tafilh	10.0	57.0	39.5	67.0	206	85.1	58.9
Ma'an	15.4	39.4	24.7	54.8	232	71.9	45.1
Aqaba	13.9	43.7	32.3	57.6	365	75.8	56.1
Nationality							
Jordanian	13.6	53.0	38.3	66.6	11,854	79.6	57.5
Syrian	18.6	44.5	31.9	63.1	1,159	70.6	50.5
Other nationalities	18.6	42.0	31.7	60.6	603	69.3	52.2
Education							
None	20.3	30.4	22.0	50.7	278	59.9	43.3
Elementary	17.3	42.6	31.6	60.0	934	71.1	52.7
Preparatory	14.9	49.4	36.3	64.3	1,743	76.9	56.4
Secondary	12.9	55.7	40.8	68.6	5,711	81.2	59.4
Higher	14.6	51.2	36.0	65.8	4,950	77.8	54.7
Wealth quintile							
Lowest	16.8	47.7	34.7	64.4	2,698	74.0	53.8
Second	13.7	51.5	37.0	65.2	2,868	79.0	56.7
Middle	13.2	55.0	38.5	68.3	2,848	80.6	56.5
Fourth	12.9	54.3	38.6	67.2	2,835	80.7	57.4
Highest	14.8	50.1	38.5	64.9	2,367	77.2	59.3
Total	14.2	51.8	37.4	66.1	13,616	78.4	56.7

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al. 2012.
[1] Percentage of demand satisfied is met need divided by total demand.
[2] Modern methods include female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, emergency contraception, standard days method (SDM), lactational amenorrhea method (LAM), and other modern methods.
[3] Total demand is the sum of unmet need and met need.

Figure 3 presents trends among currently married women in unmet need, modern contraceptive use, and percentage of total demand satisfied with modern methods. These indicators help evaluate the extent to which family planning programmes in Jordan meet the demand for services. The unmet need estimates in

Figure 3 for the JPFHS surveys prior to 2012 have been recalculated using the revised definition of unmet need (Bradley et al. 2012). The percentage of married women with unmet need for family planning has been declining over time, from 27% in 1990 to 12% in 2012, and slightly increases again to 14% in 2017-18. At the same time, the proportion of married women using modern contraceptive methods has remained constant over the last few surveys.

Figure 3 Trends in unmet need, modern contraceptive use, and percentage of demand satisfied with modern methods, 1990-2017

Percent of
currently married
women

Unmet need · Modern contraceptive use (MCPR) · Percentage of demand satisfied with modern methods

■ JPFHS 1990   ■ JPFHS 1997   ■ JPFHS 2002   ■ JPFHS 2007
■ JPFHS 2009   ■ JPFHS 2012   ■ JPFHS 2017
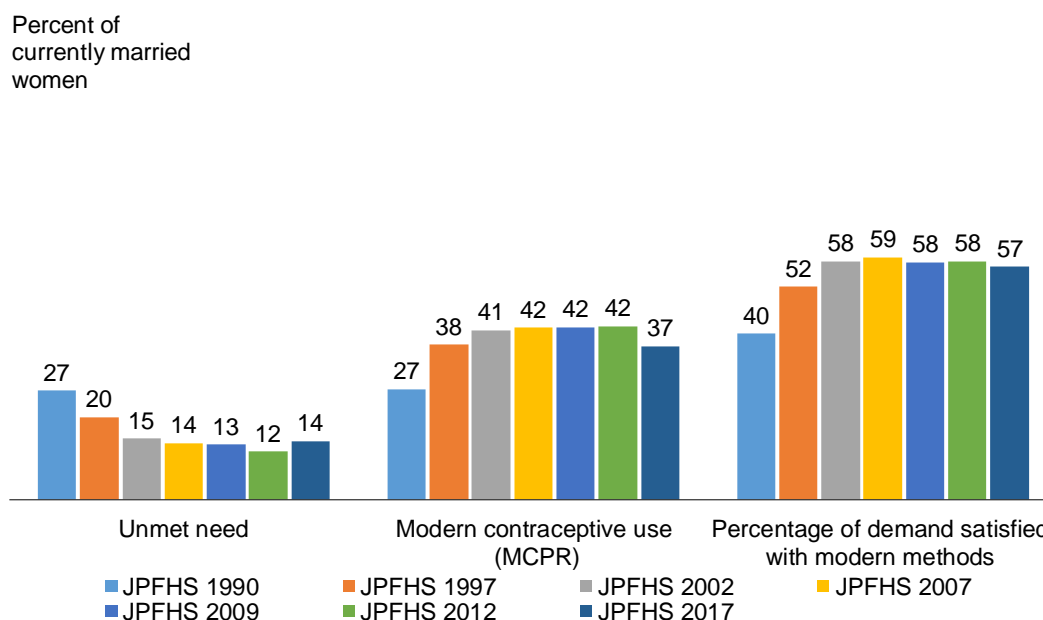
3.8   EARLY CHILDHOOD MORTALITY

Infant and child mortality rates are basic indicators of a country's socioeconomic situation and quality of life (UNDP 2007). Estimates of childhood mortality are based on information collected in the birth history section of the Woman's Questionnaire, which includes questions about women's childbearing experience including the number of sons and daughters who live with their mother, the number who live elsewhere, and the number who have died. For each live birth reported in the birth 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 and are shown in Table 8.

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 probability of dying after the first month of life but before the first birthday (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.

Table 8 presents early childhood mortality rates for the 15 years preceding the survey. Under-5 mortality for the period 0-4 years before the survey (which corresponds approximately to the calendar years 2013-2017) is 19 deaths per 1,000 births. Most of the mortality occurs during the first year of life since the infant mortality rate is 17 deaths per 1,000 births, while mortality between the first and the fifth birthday is 3 deaths per 1,000 children surviving to the first birthday. As expected, mortality during the first month (neonatal mortality), is higher than postneonatal mortality (11 deaths per 1,000 births versus 6 deaths per 1,000 births) and accounts for 65% of the overall infant mortality.

The results in Table 8 can be used to explore the trend in early childhood mortality in Jordan. It should be noted, however, that the rates in the table derive from retrospective data in the 2017-18 JPFHS. Thus, they are subject to errors of omission and misreporting of date of birth and age at death; these mistakes are usually more common for events further back in time. Trends for childhood mortality in Jordan are consistent with some stagnation over the past 10 years.

Another way to look at trends in mortality levels involves the comparison of estimates from surveys conducted at different points in time. Results from the 2017-18 JPFHS and the previous six JPFHS surveys are presented in Figure 4. Except for rates from the 2009 survey, trends from the other surveys indicate a decline in infant and under-5 mortality that has slowed in recent years.

Table 8 Early childhood mortality rates

Neonatal, postneonatal, infant, child. and under-5 mortality rates for 5-year periods preceding the survey, Jordan DHS 2017-18

	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality (1q0)	Child mortality (4q1)	Under-5 mortality (5q0)
Years preceding the survey					
0-4 (2013-2017)	11	6	17	3	19
5-9 (2008-2012)	8	5	13	1	14
10-14 (2003-2007)	8	5	13	3	16

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

Figure 4 Trends in childhood mortality, 1990-2017

Deaths per 1,000

JPFHS 1990 · JPFHS 1997 · JPFHS 2002 · JPFHS 2007 · JPFHS 2009 · JPFHS 2012 · JPFHS 2017
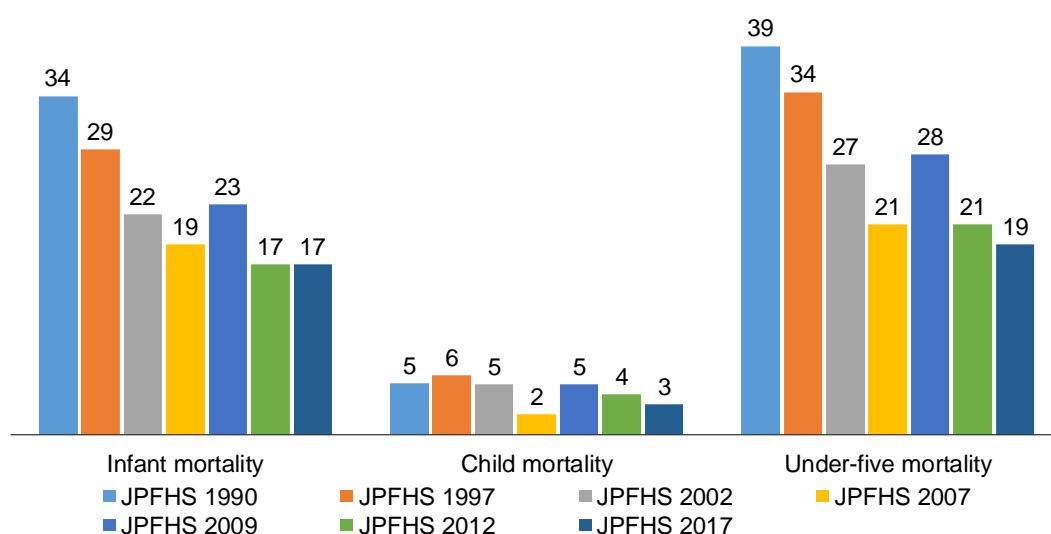
3.9 MATERNAL CARE

The 2017-18 JPFHS contained a number of questions on maternal health care for women who had given birth to at least one child in the 5 years before the survey. For the most recent birth in that period, women were asked from whom they had obtained antenatal care during pregnancy and whether they had received a tetanus toxoid injection. For all births in the 5 years before the survey, mothers were asked who assisted with the delivery of the child and where they delivered. Questions were asked about postnatal care for the most recent birth. Results are shown in Table 9.

3.9.1 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, delivery, and the immediate postnatal period (within 2 days after delivery). In Jordan, antenatal care is almost universal: 98% of women received antenatal care from a skilled provider (doctor, nurse, or midwife) during the pregnancy for their most recent birth in the 5 years preceding the survey (Table 9). Antenatal coverage varies little by mother's characteristics.

As shown in Figure 5, the percentage of women receiving antenatal care from a skilled provider has increased from 82% in 1990 to 98% in 2017-18.

3.9.2 Tetanus Toxoid Vaccination

Tetanus toxoid injections are given to women during pregnancy to protect infants from neonatal tetanus, a cause of infant death due primarily to unsanitary conditions at childbirth. Full protection is considered to be provided to an infant if the mother received two injections during the pregnancy of her last birth, or two or more injections (the last within 3 years of the last live birth), or three or more injections (the last within 5 years of the last birth), or four or more injections (the last within 10 years of the last live birth), or five or more injections prior to the last birth. Only 28% of women received the number of tetanus toxoid injections required to provide full protection at their most recent birth in the 5 years preceding the survey. Women in urban areas are more likely to receive full protection against tetanus than are women in rural areas. Similarly, women in Aljun and Balqa governorates are more likely than other women to have received the required number of tetanus injections to protect their most recent birth. Women in the North region and Syrian women have higher levels of tetanus toxoid protection than women in other areas.

3.9.3 Delivery Care

Access to proper medical attention and hygienic conditions during delivery can reduce complications and infections that may lead to death or serious illness for the mother, baby, or both (Van Lerberghe and De Brouwere 2001; WHO 2006).

Table 9 indicates that health professionals assisted at the delivery of almost all births in the 5-year period preceding the survey, probably because 98% of all births occurred in a health facility. Assistance at delivery and place of delivery vary little by mother's background characteristics. However, non-Jordanian mothers, mothers with no education, and mothers living in the lowest wealth quintile are slightly less likely to have delivered in a health facility.

3.9.4 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 both the mother and the child 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 programmes recommend that all women receive a check of their health within 2 days after delivery.

More than 8 in 10 women with a birth in the 2 years preceding the survey received postnatal care within two days after delivery. As shown in Table 9, there is no difference of women in receiving timely postnatal care between rural and urban women. Nine in ten women in Balqa governorate and 87% of women in Zarqa governorate received postnatal care within two days of delivery, as did 86% of women in the Central region. The proportion of women who received postnatal care within two days after delivering varies by nationality, from 85% among Jordanian women to 76% among Syrian women. The proportion also varies with increasing education, from only 68% for women with no education to 87% of those with higher than secondary education. Similar patterns are observed by household wealth.

Table 9 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 most recent live birth, percentage with seven or more ANC visits for the most recent live birth, and percentage whose most recent live birth was protected against neonatal tetanus; 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 check during the first 2 days after giving birth, according to background characteristics, Jordan DHS 2017-18

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 receiving antenatal care from a skilled provider[1]	Percentage with 7+ ANC visits	Percentage whose most recent live birth was protected against neonatal tetanus[2]	Number of women	Percentage delivered by a skilled provider[1]	Percentage delivered in a health facility	Number of births	Percentage of women with a postnatal check during the first 2 days after birth[3]	Number of women
Mother's age at birth									
<20	98.4	78.7	25.9	353	99.1	97.0	659	77.1	231
20-34	97.5	79.4	27.3	5,052	99.7	98.0	7,332	82.9	2,610
35-49	97.6	77.6	29.7	1,380	99.9	98.7	1,631	87.7	631
Residence									
Urban	97.5	79.3	29.0	6,023	99.7	97.9	8,515	83.3	3,052
Rural	98.0	76.5	17.7	763	99.9	99.4	1,107	84.1	421
Region									
Central	96.9	81.7	26.9	3,960	99.8	97.7	5,519	85.5	1,908
North	98.6	76.2	32.3	2,189	99.6	98.3	3,210	80.9	1,228
South	97.8	71.6	16.7	636	99.9	99.4	894	80.7	337
Governorate									
Amman	97.1	82.9	23.7	2,560	99.7	97.3	3,512	84.9	1,162
Balqa	93.7	73.6	37.0	342	99.6	98.8	486	89.6	178
Zarqa	97.6	81.3	32.1	884	100.0	98.8	1,262	86.9	477
Madaba	97.0	82.4	28.3	175	99.2	96.8	259	78.3	91
Irbid	99.3	79.5	33.6	1,306	99.7	98.2	1,862	83.3	708
Mafraq	97.2	67.1	28.5	493	99.3	97.6	767	72.3	295
Jarash	98.0	75.3	25.2	221	99.8	99.2	335	84.3	134
Aljun	97.7	78.0	42.2	169	99.9	99.6	246	85.0	91
Karak	98.3	72.8	14.6	237	100.0	99.3	327	80.3	124
Tafilh	98.7	77.9	21.0	111	99.8	99.8	155	77.1	58
Ma'an	94.7	66.8	16.1	114	99.8	99.4	169	81.0	69
Aqaba	98.5	69.1	17.4	174	99.8	99.4	242	83.5	86
Nationality									
Jordanian	97.8	81.5	27.5	5,760	99.8	99.1	8,064	84.7	2,926
Syrian	96.5	61.7	30.0	747	99.5	92.1	1,191	75.8	428
Other nationalities	96.1	73.7	26.3	278	98.3	93.6	368	79.4	119
Mother's education									
None	91.5	54.9	13.4	100	95.9	90.1	153	67.6	51
Elementary	94.9	63.9	24.8	443	99.3	91.9	686	79.3	206
Preparatory	96.8	72.5	31.5	785	99.5	97.2	1,157	76.5	387
Secondary	97.8	79.2	29.0	2,798	99.8	99.2	3,903	83.4	1,433
Higher	98.1	84.1	26.2	2,660	99.9	98.6	3,722	86.6	1,395
Wealth quintile									
Lowest	96.4	68.5	31.1	1,675	99.5	96.0	2,569	79.2	904
Second	97.6	77.0	28.2	1,579	99.6	99.0	2,310	82.7	842
Middle	98.7	81.5	26.1	1,474	99.8	99.2	2,058	84.3	823
Fourth	98.3	86.4	24.0	1,275	100.0	99.1	1,702	87.9	573
Highest	96.5	88.6	28.4	782	99.9	97.0	984	86.8	330
Total	97.6	79.0	27.7	6,785	99.7	98.1	9,622	83.4	3,472

Note: If more than one source of assistance was mentioned, only the provider with the highest qualifications is considered in this tabulation.
[1] Skilled provider includes doctor, nurse/midwife.
[2] Includes mothers with two injections during the pregnancy of her most recent live birth, or two or more injections (the last within 3 years of the most recent live birth), or three or more injections (the last within 5 years of the most recent live birth), or four or more injections (the last within 10 years of the most recent live birth), or five or more injections at any time prior to the last live birth
[3] Includes women who received a check from a doctor, midwife, nurse, community health worker, or traditional birth attendant

Figure 5 Trends in maternal health care, 1990-2017

Percent

	ANC by a skilled provider	Birth occurred in a health facility	Birth attended by a skilled provider
JPFHS 1990	82	79	87
JPFHS 1997	96	93	97
JPFHS 2002	99	97	98
JPFHS 2002	99	99	99
JPFHS 2007	99	99	99
JPFHS 2012	99	99	100
JPFHS 2017	98	98	100

- ■ JPFHS 1990
- ■ JPFHS 1997
- ■ JPFHS 2002
- ■ JPFHS 2002
- ■ JPFHS 2007
- ■ JPFHS 2012
- ■ JPFHS 2017
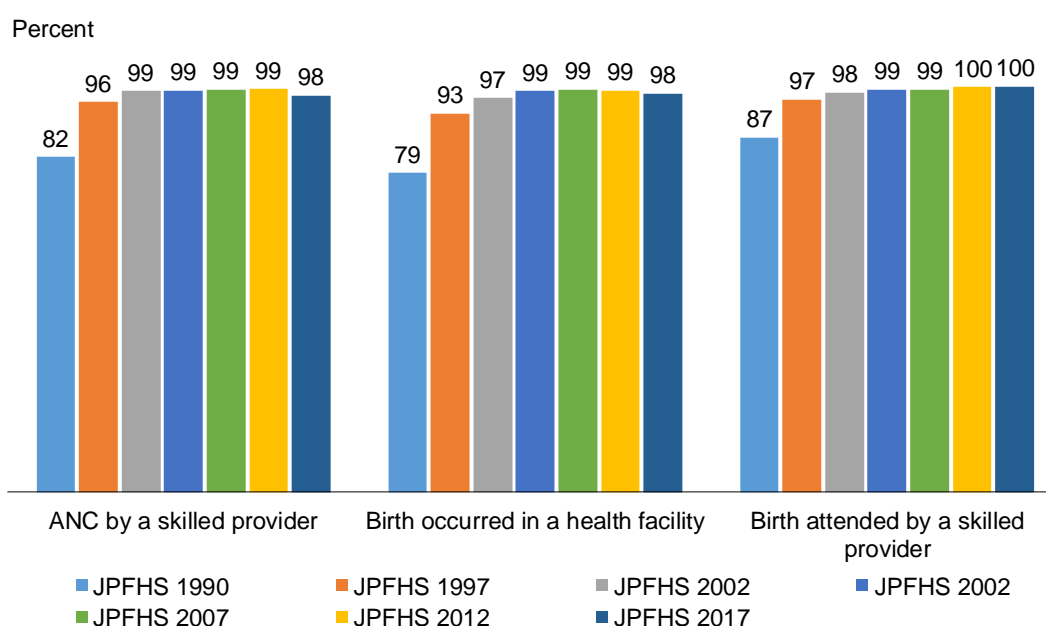
3.10   CHILD HEALTH

The 2017-18 JPFHS 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.

3.10.1 Vaccination of Children

Universal immunisation of children against six common vaccine-preventable diseases, namely tuberculosis, diphtheria, whooping cough (pertussis), tetanus, polio, and measles, is crucial to reducing infant and child mortality. Other childhood vaccines given in Jordan protect against hepatitis B, and *Haemophilus influenzae* type b (Hib). The government of Jordan introduced the monovalent human rotavirus vaccine (RV1) into the national's infant immunisation programme in March 2015. Rotavirus is a virus that causes gastroenteritis, an inflammation of the stomach and intestines. If left untreated, it can lead to severe dehydration and death.

According to the guidelines developed by the World Health Organization, children are considered to have received all basic vaccinations when they have received a vaccination against tuberculosis (also known as BCG), three doses each of the diphtheria, pertussis, tetanus (also known as DPT) vaccine, polio vaccines, Hib, and a vaccination against measles. The BCG vaccine is usually given at birth or at first clinical contact, while the DPT, polio, and Hib vaccines are given at approximately age 8, 12, and 16 weeks. Measles vaccinations should be given at or soon after age 9 months. The Jordanian immunisation programme considers a child age 12-23 months to be fully vaccinated if the child has received all basic vaccinations, three doses of the oral polio vaccine, three doses of hepatitis B vaccine, and three doses of the rotavirus vaccine (given at age 8 and 12, and 16 weeks).

A child age 24-35 months has received all age-appropriate vaccinations if the child has received two doses of mumps, measles and rubella (MMR) vaccines given at 12-23 months in addition to all of the age-appropriate vaccinations relevant for a child age 12-23 months.

In the 2017-18 JPFHS, information on vaccinations was collected for all children born in the 3 years before the survey. For each of these children, mothers were asked whether they had a health card for the child, and if so, whether the interviewer could see it. When a mother was able to show the health card to the interviewer, the dates of vaccinations received were copied from the card to the questionnaire. If a child never received a health card or if the mother was unable to show the card to the interviewer, the

mother was asked specific questions about whether the child had received each vaccine. In the 2017-18 JPFHS, the health card was observed for 73% of the children age 12-23 months and 67% of the children age 23-35 months for whom vaccination data were obtained (data not shown). Thus, the information presented below on vaccination coverage is based on both the information taken from the health cards and the information obtained from the mothers' reports.

Table 10 presents data on vaccination coverage by background characteristics among children age 12-23 months and 24-35 months. Children age 12-23 months are the youngest cohort to have reached the age by which a child should be fully immunised. Data show that 86% of children age 12-23 months have received all basic vaccinations, while 81% have received all age appropriate vaccines according to the Jordanian immunization schedule. Seven percent of children in this age group have not received any vaccinations. Ninety-three percent of children have received the BCG, 93% received the first dose of pentavalent (DPT-IPV-Hib), 93% the first dose of oral polio, 93% the first dose of HepB, and 91% the first dose of rotavirus vaccine. Eighty-eight percent of children have received a measles vaccination. Coverage rates decline for subsequent doses of oral polio, HepB, and rotavirus, with 84% of children receiving the recommended three doses of oral polio, 90% the three doses of the HepB vaccine, and 89% the three doses of the rotavirus vaccine.

There are no substantial differences in vaccination coverage by background characteristics. However, children of mothers living in the South region, mothers living in Madaba, Ma'an, and Aqaba governorates; and mothers not from Jordan are less likely to be fully vaccinated than other children.

Table 10 Vaccinations by background characteristics

Percentage of children age 12-23 months and children age 24-35 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), percentage with all basic vaccinations, and percentage with all age appropriate vaccinations, according to background characteristics, Jordan DHS 2017-18

Background characteristic	BCG	DPT-IPV-Hib[1] 1	2	3	Polio 1	2	3	Hepatitis B 1	2	3	Rotavirus 1	2	3	Measles	All basic vaccin-ations[2]	All age appro-priate vaccin-ations[3]	No vaccin-ations	Number of children	Children age 24-35 months: MMR 1	MMR 2	All age appro-priate vaccin-ations[4]	Number of children
Sex																						
Male	91.7	91.2	90.1	88.4	91.3	89.5	83.6	91.1	90.4	88.7	89.7	88.8	86.9	87.4	84.7	80.5	8.0	917	89.2	83.0	71.6	947
Female	94.0	94.2	92.8	92.0	94.0	91.5	85.0	94.2	92.3	91.6	92.8	91.8	90.7	88.4	87.0	80.5	5.6	772	90.0	83.3	70.7	945
Birth order																						
1	89.7	89.7	88.5	87.4	89.5	86.9	82.3	89.7	88.4	87.6	88.1	87.0	85.9	85.1	83.5	79.2	10.1	472	90.3	84.8	72.2	453
2-3	93.6	93.0	90.9	89.3	93.0	90.5	84.2	93.0	91.1	89.6	90.9	89.7	87.7	87.6	84.7	77.8	5.9	640	89.8	82.2	69.6	834
4-5	93.6	93.9	93.4	92.4	93.8	92.4	86.0	93.7	93.2	92.4	93.1	92.4	91.5	89.4	88.0	84.4	6.1	442	89.1	83.5	70.3	436
6+	96.4	96.4	96.2	95.1	97.0	96.1	85.7	96.4	96.2	93.6	96.2	96.0	93.3	93.7	91.3	84.9	3.0	135	88.2	82.7	78.2	169
Vaccination card																						
Seen	99.6	99.7	99.3	98.6	99.5	98.4	93.1	99.6	99.2	98.5	98.3	97.8	96.6	95.6	95.1	90.4	0.0	1,237	98.3	95.2	84.4	1,266
Not seen/none	74.1	73.1	69.5	66.4	73.6	68.7	60.0	73.1	69.7	67.0	71.5	69.3	66.7	66.7	60.2	53.5	25.7	452	72.0	58.8	44.5	626
Residence																						
Urban	92.6	92.2	90.9	89.7	92.3	90.3	84.1	92.2	91.0	89.8	91.0	90.1	88.6	87.7	85.6	80.7	7.2	1,490	89.5	83.3	71.5	1,675
Rural	94.0	95.2	94.2	92.6	94.5	91.7	85.2	94.8	93.2	92.2	92.1	90.6	88.7	89.2	86.8	79.1	4.5	200	90.7	82.0	68.5	217
Region																						
Central	92.7	92.1	91.3	90.0	92.2	90.2	84.7	92.1	90.9	89.6	90.8	90.2	88.7	87.3	85.6	80.9	7.2	953	89.7	84.9	74.1	1,109
North	93.7	94.5	92.4	91.3	94.2	92.2	84.9	94.4	93.1	92.2	93.1	91.7	90.3	90.2	87.5	81.5	5.5	581	89.7	80.2	65.5	615
South	89.1	88.5	87.1	85.3	88.4	85.1	78.7	88.3	86.6	84.9	85.7	84.5	82.2	82.4	80.1	74.2	10.3	155	89.1	82.6	72.7	167
Governorate																						
Amman	91.7	91.0	91.0	90.1	91.4	90.3	84.6	91.0	90.2	88.9	89.3	89.3	87.4	86.1	84.8	80.2	8.3	575	87.0	83.8	72.2	715
Balqa	97.3	97.3	95.5	91.8	97.3	94.3	91.3	97.3	94.2	91.5	97.3	94.2	92.8	91.9	89.1	85.8	2.7	81	90.2	75.9	67.4	103
Zarqa	93.4	92.4	90.3	89.2	92.4	89.5	83.7	92.4	91.4	90.8	91.8	90.8	90.3	88.2	86.0	82.0	6.6	252	97.8	92.8	84.6	239
Madaba	93.7	93.8	92.6	90.5	93.0	86.8	79.4	93.8	90.9	87.7	93.3	91.1	89.0	90.5	86.9	75.7	5.1	45	88.3	80.7	65.5	52
Irbid	93.8	93.8	90.8	89.9	93.8	91.6	84.6	93.8	92.2	91.3	92.7	91.1	89.6	90.0	87.0	80.9	6.2	310	90.7	81.4	64.6	354
Mafraq	92.7	95.4	93.9	92.2	94.3	91.7	82.3	94.9	93.6	92.9	92.6	90.8	89.3	90.6	87.4	77.3	4.6	157	87.1	76.2	60.9	151
Jarash	93.0	93.9	93.9	92.7	93.5	93.5	88.3	93.9	93.9	92.7	93.7	93.7	92.5	89.5	87.8	87.6	6.1	70	90.9	84.1	73.9	59
Aljun	97.2	97.2	96.5	95.7	97.2	95.7	91.1	97.2	96.5	95.7	96.5	95.8	95.0	91.1	91.1	91.1	2.8	44	89.0	79.8	75.6	51
Karak	97.8	97.8	97.8	95.7	97.8	94.8	87.4	97.8	97.8	94.9	92.9	92.9	90.0	89.2	87.9	81.0	2.2	52	94.8	89.9	73.7	60
Tafilh	95.8	96.5	94.4	92.8	95.5	93.7	89.8	95.6	92.4	91.3	95.0	94.0	93.0	94.0	90.7	87.9	3.0	28	93.2	88.0	85.1	30
Ma'an	78.6	73.9	73.4	70.3	76.6	71.4	62.8	73.9	72.9	70.2	74.7	73.4	69.1	67.4	64.3	61.3	20.5	33	77.5	67.5	58.5	29
Aqaba	82.2	82.9	79.7	79.4	81.5	78.0	73.1	82.9	79.7	79.7	79.1	76.3	75.6	77.7	75.7	66.8	17.1	42	86.2	79.1	72.3	47
Nationality																						
Jordanian	93.7	93.6	92.6	91.5	93.6	91.8	86.0	93.5	92.5	91.7	92.4	91.8	90.4	89.7	87.7	82.5	6.0	1,412	90.2	83.9	72.2	1,593
Syrian	90.0	89.3	87.3	84.3	89.3	85.5	76.4	89.3	87.3	84.2	85.7	83.5	82.0	79.6	75.8	70.2	8.8	216	85.2	76.9	63.3	245
Other nationalities	80.5	80.5	76.2	75.7	80.5	76.2	71.7	80.5	76.0	71.8	80.2	76.0	71.9	75.7	75.2	71.0	19.5	61	91.9	90.8	77.7	53

Table 10–*Continued*

Background characteristic	BCG	DPT-IPV-Hib[1]			Polio			Hepatitis B			Rotavirus			Measles	All basic vaccinations[2]	All age appropriate vaccinations[3]	No vaccinations	Number of children	MMR 1	MMR 2	All age appropriate vaccinations[4]	Number of children
		1	2	3	1	2	3	1	2	3	1	2	3									
Education																						
None	(64.1)	(64.1)	(62.8)	(53.4)	(63.5)	(54.0)	(47.2)	(64.1)	(63.5)	(54.1)	(53.7)	(53.0)	(52.5)	(48.5)	(47.3)	(46.6)	(35.9)	24	54.4	52.0	33.1	33
Elementary	86.8	87.5	86.1	84.9	87.6	84.2	81.7	87.5	85.8	82.6	82.7	81.3	78.3	86.1	83.7	76.3	11.8	116	82.1	76.2	67.0	151
Preparatory	95.0	94.9	93.7	93.2	94.1	93.7	88.2	94.9	93.9	93.3	93.8	92.2	92.2	90.3	89.3	85.6	4.0	189	93.5	84.9	72.8	234
Secondary	93.5	93.2	92.5	91.0	93.3	91.7	85.7	93.0	92.4	91.1	92.3	91.7	89.9	89.9	87.6	83.4	6.4	676	89.3	83.2	73.5	755
Higher	93.4	93.2	91.3	90.3	93.2	90.6	83.4	93.2	91.3	90.7	91.9	90.9	89.4	86.9	84.6	78.2	6.3	685	91.9	85.4	70.9	717
Wealth quintile																						
Lowest	89.6	90.6	89.0	87.6	89.9	87.5	83.9	90.5	89.0	87.8	88.1	86.9	85.5	87.1	84.8	80.4	9.3	460	85.5	78.4	65.2	528
Second	93.2	92.1	91.8	90.7	92.5	91.3	85.9	91.9	91.4	91.0	91.3	90.7	89.9	88.3	86.8	83.7	6.7	380	89.6	82.3	72.6	439
Middle	95.9	95.3	93.4	91.7	95.4	93.2	84.7	95.3	95.0	92.7	94.3	93.7	91.2	90.4	87.2	80.4	3.9	419	93.0	87.0	77.2	391
Fourth	92.7	92.5	91.1	90.3	92.7	89.5	84.6	92.5	89.0	88.5	92.5	91.0	89.6	86.5	85.6	79.2	7.3	266	92.1	86.4	71.3	342
Highest	92.5	92.5	91.6	90.4	92.5	91.3	79.4	92.5	91.4	90.2	88.8	87.7	86.5	84.6	82.5	75.4	7.5	164	89.4	84.6	71.9	192
Total	92.7	92.6	91.3	90.0	92.6	90.4	84.2	92.5	91.3	90.1	91.1	90.2	88.6	87.9	85.7	80.5	6.9	1,689	89.6	83.1	71.2	1,891

Note: Figures in parentheses are based on 25-49 unweighted cases.
BCG = Bacille Calmette-Guérin
DPT = diphtheria-pertussis-tetanus
IPV= Inactivated polio vaccine
Hib = *Haemophilus influenzae* type b
HepB = hepatitis B
Note: Children are considered to have received the vaccine if it was either written on the child's vaccination card or reported by the mother. For children whose vaccination information is based on the mother's report, date of vaccination is not collected. The proportions of vaccinations given during the first and second years of life are assumed to be the same as for children with a written record of vaccination.
[1] DPT-IVP-Hib is sometimes referred to as pentavalent
[2] BCG, three doses of DPT-IPV-Hib, and one dose of measles
[3] BCG, three doses of DPT-IVP-Hib, three doses of oral polio vaccine, three doses of HepB, three doses of rotavirus vaccine, and one dose of measles
[4] BCG, three doses of DPT-IVP-Hib, three doses of oral polio vaccine, three doses of HepB, three doses of rotavirus vaccine, one dose of measles, two doses of MMR shots

3.10.2 Childhood Diseases and Treatment

Acute respiratory infection (ARI), fever, and dehydration from severe diarrhoea are major causes of childhood morbidity and mortality. Early diagnosis and treatment of children experiencing symptoms of these illnesses is crucial to reducing early child deaths. To obtain information on how childhood illnesses are treated, mothers were asked for each child under age 5, whether, in the 2 weeks before the survey, the child had experienced a cough accompanied by short, rapid breathing due to a problem in the chest, fever, or diarrhoea. It should be noted that the morbidity data collected are subjective, that is, they are based on the mother's perception of illness with no validation from medical personnel. Also, the prevalence of these illnesses may fluctuate with changes of seasons. Six percent of children under 5 showed symptoms of ARI at some time in the 2 weeks preceding the survey, while 13% were reported to have fever, and 10% had diarrhoea (Data not shown).

Table 11 Treatment for acute respiratory infection, fever, and diarrhoea

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, and among children under age 5 who had diarrhoea during the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, percentage given a fluid made from oral rehydration salt (ORS) packets or given pre-packaged ORS fluid, according to background characteristics, Jordan DHS 2017-18

Background characteristic	Children with symptoms of ARI[1]		Children with fever		Children with diarrhoea		
	Percentage for whom advice or treatment was sought[2]	Number of children	Percentage for whom advice or treatment was sought[2]	Number of children	Percentage for whom advice or treatment was sought[2]	Percentage given fluid from ORS packet or pre-packaged ORS fluid	Number of children
Age in months							
<6	(60.5)	39	67.5	85	43.4	34.5	153
6-11	74.3	84	67.1	184	65.6	45.4	184
12-23	77.2	115	61.2	317	57.3	45.8	219
24-35	74.0	108	74.1	239	53.6	48.8	151
36-47	65.9	125	67.0	228	37.6	40.8	99
48-59	72.8	98	76.9	181	62.2	51.5	104
Sex							
Male	70.6	306	68.1	678	58.4	44.8	442
Female	73.2	263	68.8	555	50.7	44.0	467
Residence							
Urban	71.2	501	68.3	1,072	54.5	45.3	803
Rural	76.0	68	68.9	161	54.0	37.8	106
Region							
Central	68.8	381	69.0	706	52.8	47.4	545
North	78.0	153	71.2	422	57.1	35.0	292
South	77.3	34	52.6	106	55.8	60.4	73
Governorate							
Amman	69.7	252	73.4	485	52.8	45.0	354
Balqa	*	13	(38.3)	25	46.2	62.7	44
Zarqa	70.0	106	61.6	173	55.5	51.8	121
Madaba	(79.5)	11	66.3	22	51.5	32.1	26
Irbid	(79.1)	92	72.4	247	57.9	35.0	186
Mafraq	78.7	35	70.1	103	56.9	32.4	65
Jarash	75.3	19	70.0	52	56.0	45.2	25
Aljun	(68.7)	8	65.6	20	49.8	28.9	15
Karak	*	11	50.2	43	(64.1)	(66.2)	18
Tafilh	(87.1)	9	56.7	18	66.0	66.6	14
Ma'an	(60.7)	9	52.3	21	51.7	59.8	23
Aqaba	*	6	54.3	24	45.1	50.8	18
Nationality							
Jordanian	74.1	457	69.2	1,030	55.3	45.2	778
Syrian	64.5	74	62.3	157	53.2	41.9	101
Other nationalities	(58.0)	37	71.4	47	(37.2)	(32.7)	31
Mother's education							
None	*	3	*	9	*	*	7
Elementary	60.0	39	71.0	85	46.5	20.4	61
Preparatory	70.2	57	63.2	138	50.9	44.1	109
Secondary	69.4	258	63.2	562	54.7	42.9	391
Higher	77.2	211	76.0	439	56.3	50.2	341
Wealth quintile							
Lowest	68.4	154	65.0	337	54.6	36.4	267
Second	69.6	160	64.2	349	49.9	41.9	216
Middle	77.0	107	73.6	277	45.3	46.0	197
Fourth	62.7	98	67.9	167	69.3	40.1	140
Highest	*	49	80.5	104	(61.8)	(77.9)	89
Total	71.8	569	68.4	1,233	54.4	44.4	910

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 include short, rapid breathing, which was chest-related, and/or difficult breathing, which was chest-related.
[2] Excludes advice or treatment from a traditional practitioner

For close to three-quarters (72%) of children under 5 with symptoms of ARI, treatment or advice was sought from a health facility or provider (Table 11). Children in rural areas are more likely than those in urban areas to be taken to a health facility or provider when they have signs of ARI. Female children, those children living in the North region, and those whose mothers are Jordanian are more likely to be taken to a health provider. For 68% of children under 5 with fever, treatment or advice was sought from a medical health facility or provider (Table 11). Children living in the North region, children whose mothers have

higher than secondary education, and those living in the highest wealth quintile are more likely to be taken for treatment when they are ill with fever.

With regard to treatment of diarrhoea, the table also shows that more than half (54%) of children under 5 with diarrhoea were taken to a health facility or provider. Oral rehydration salts (ORS), either using a solution prepared with commercially produced packets or a pre-packaged solution, is recommended to prevent dehydration in children with diarrhoea. More than two-fifths (44%) of children with diarrhoea in the 2 weeks before the survey were treated with oral rehydration salts (ORS packets).

Differentials by some background characteristics in treatment of childhood illnesses is difficult to interpret due to the small numbers of children under 5 who were ill in the 2-week period preceding the survey.

3.10.3 Infant Feeding Practices

Breast milk is the primary source of nutrients for young infants. Children who are exclusively breastfed receive only breast milk. The Ministry of Health recommends exclusive breastfeeding during the first 6 months of life. Supplementing breast milk with liquids or other foods before this time is discouraged because it increases the likelihood of contamination and hence, the risk of diarrhoea. It is important to introduce complementary foods by age 6 months, however, because at that stage, the mother's breast milk no longer provides adequate nutrition for the child.

The JPFHS 2017-18 collected data on infant feeding for the youngest children under age 2 living with the mother. As shown in Table 12, only 26% of children age 0-5 months are exclusively breastfed. Among infants 0-5 months, 20% are not breastfeeding, 8% are given water along with breast milk, 2% are breastfeeding and consuming non-milk liquids, 27% are breastfeeding and consuming other milk as well, and 17% are breastfeeding and consuming solid or mushy food prematurely. At the age of 6-9 months, 48% of children are being fed solid or mushy food along with breast milk, as recommended. Around one in three children 12-15 months of age continue to breastfeed while consuming complementary foods (34%).

The extent to which Jordanian children are bottle-fed is also examined in Table 12. Bottle-feeding is discouraged for the potential negative effects that it may have on the child's health. Five in 10 children less than 2 months old are being fed with a bottle with a nipple.

It is recommended that a child continue to breastfeed until age 2. However, in Jordan the percentage of children who are currently breastfeeding decreases from 33% among children age 12-17 months to 19% among children age 18-23 months.

Table 12 Breastfeeding status by age

Percent distribution of youngest children under age 2 who are living with their mother, by breastfeeding status, and the percentage currently breastfeeding; and percentage of all children under age 2 using a bottle with a nipple, according to age in months, Jordan DHS 2017-18

| Age in months | Breastfeeding status | | | | | | | Percentage currently breast-feeding | Number of youngest children under age 2 living with the mother | Percent-age using a bottle with a nipple | Number of all children under age 2 |
	Not breast-feeding	Exclusive-ly breast-feeding	Breast-feeding and consuming plain water only	Breast-feeding and consuming non-milk liquids[1]	Breast-feeding and consuming other milk	Breast-feeding and consuming comple-mentary foods	Total				
0-1	10.2	42.8	7.1	3.0	35.2	1.7	100.0	89.8	340	50.0	343
2-3	20.9	23.6	11.6	1.2	31.3	11.4	100.0	79.1	368	55.7	375
4-5	27.0	11.0	6.5	3.1	14.7	37.7	100.0	73.0	352	56.1	359
6-8	38.0	3.0	2.4	1.2	5.2	50.2	100.0	62.0	445	66.0	448
9-11	52.5	0.8	2.6	1.0	3.5	39.6	100.0	47.5	458	67.2	479
12-17	66.6	0.3	0.3	0.1	1.7	30.9	100.0	33.4	739	59.0	816
18-23	81.3	0.0	0.0	0.2	0.4	18.1	100.0	18.7	719	50.3	874
0-3	15.8	32.8	9.4	2.0	33.2	6.8	100.0	84.2	707	53.0	718
0-5	19.5	25.5	8.4	2.4	27.0	17.1	100.0	80.5	1,059	54.0	1,078
6-9	40.2	2.5	3.2	1.4	4.5	48.3	100.0	59.8	623	65.1	629
12-15	63.8	0.4	0.0	0.1	1.7	34.0	100.0	36.2	480	56.5	523
12-23	73.9	0.1	0.2	0.2	1.1	24.6	100.0	26.1	1,458	54.5	1,689
20-23	85.1	0.0	0.0	0.4	0.0	14.6	100.0	14.9	446	47.2	552

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, non-milk liquids, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100%. Thus children who receive breast milk and non-milk liquids and who do not receive other milk and who do not receive complementary foods are classified in the non-milk 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.
[1] Non-milk liquids include juice, juice drinks, 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 or 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; 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:

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.

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 6 shows the percentage of children being fed the minimum acceptable diet, by age. In total, only 28% of children age 6-23 months have met the criteria for a minimum acceptable diet.

Figure 6 Minimum acceptable diet by age, in months

Percent
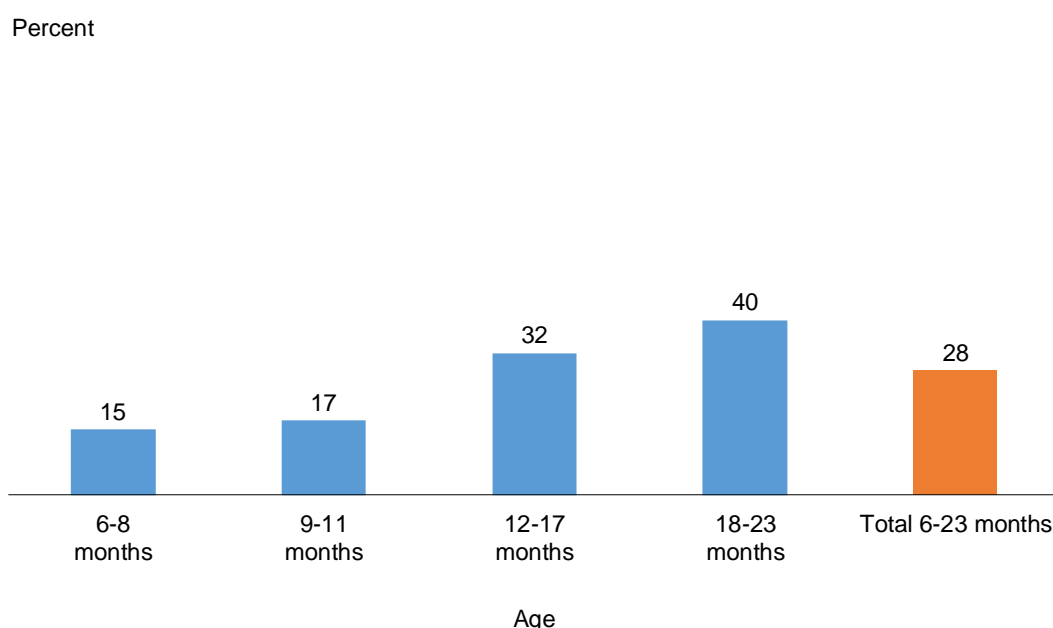
3.11   ANAEMIA PREVALENCE IN CHILDREN AND WOMEN

Anaemia is characterized by a low level of haemoglobin in the blood. Haemoglobin is necessary for transporting oxygen from the lungs to other tissues and organs in the body. Anaemia can result from a nutritional deficiency of iron, folate, vitamin B12, or some other nutrients. This type of anaemia is commonly referred to as iron-deficiency anaemia and is the most widespread form of malnutrition in the world. Anaemia can also be the result of haemorrhage and chronic disease, malaria, parasites, or genetic disorders.

Haemoglobin testing is the primary method of anaemia diagnosis. The 2017-18 JPFHS included direct measurements of haemoglobin levels for all children age 6-59 months and women age 15-49 years. Haemoglobin measurements were taken in the field using the HemoCue system. This involved taking a drop of capillary blood from the finger which was drawn directly into a reagent-coated microcuvette (a blood collection device). The filled microcuvette was inserted into a portable, battery-operated photometer. In less than a minute, haemoglobin concentration was indicated on a digital read-out in grams per decilitre.

Tables 13 and 14 present the anaemia levels for all children age 6-59 months and for women age 15-49 years. Levels of anaemia were classified as severe, moderate, or mild according to criteria developed by the World Health Organization. Children with < 7.0 g/dl of haemoglobin are classified as having severe anaemia, with 7.0 – 9.9 g/dl having moderate anaemia, and with 10.0 – 10.9 g/dl having mild anaemia. Women with < 7.0 g/dl are classified as having severe anaemia, with 7.0 – 9.9 g/dl having moderate anaemia, and non-pregnant women with 10.0 – 11.9 g/dl and pregnant women with 10.0 – 10.9 g/dl as having mild anaemia.

Anaemia is common among children in Jordan; almost one-third of children are anaemic (32%). Most of the children with anaemia have mild anaemia (21% of all children). Eleven percent have moderate anaemia, and less than 1% of children have severe anaemia.

The prevalence of anaemia among children living in the North region (38%) is higher than among those living in the Central or South regions (29% for both regions). The prevalence of anaemia varies from 17% in Tafilh governorate to 41% in Aljun governorates. Children of Syrian mothers have slightly higher rates of any anaemia than do children of mothers of other nationalities.

Table 13 Prevalence of anaemia in children

Percentage of children age 6-59 months classified as having anaemia, according to background characteristics, Jordan DHS 2017-18

| Background characteristic | Anaemia status by haemoglobin level | | | | Number of children age 6-59 months |
	Any anaemia (<11.0 g/dl)	Mild anaemia (10.0-10.9 g/dl)	Moderate anaemia (7.0-9.9 g/dl)	Severe anaemia (<7.0 g/dl)	
Age in months					
6-8	30.9	19.0	11.9	0.1	368
9-11	34.6	21.4	13.2	0.0	461
12-17	47.3	26.7	20.4	0.1	745
18-23	37.4	25.0	12.4	0.0	811
24-35	33.4	21.8	11.6	0.0	1,713
36-47	29.0	20.3	8.7	0.0	1,622
48-59	23.4	17.3	5.6	0.5	1,926
Sex					
Male	31.3	20.4	10.6	0.2	3,885
Female	32.1	21.6	10.4	0.1	3,761
Residence					
Urban	31.8	21.2	10.4	0.2	6,781
Rural	30.7	19.0	11.5	0.2	864
Region					
Central	28.7	19.6	8.8	0.2	4,417
North	37.7	23.4	14.1	0.1	2,527
South	29.2	20.9	8.3	0.0	702
Governorate					
Amman	24.7	17.4	7.1	0.3	2,792
Balqa	32.3	21.1	11.3	0.0	412
Zarqa	38.3	25.9	12.4	0.0	1,019
Madaba	26.8	16.8	9.7	0.3	193
Irbid	37.4	23.0	14.3	0.1	1,443
Mafraq	36.9	22.9	13.7	0.3	613
Jarash	38.2	23.9	14.4	0.0	269
Aljun	40.6	26.6	13.9	0.1	201
Karak	29.9	20.1	9.7	0.0	257
Tafilh	17.1	14.6	2.5	0.0	123
Ma'an	37.1	26.0	10.9	0.2	122
Aqaba	31.0	22.6	8.4	0.0	200
Nationality of mother					
Jordanian	31.8	21.5	10.1	0.2	6,260
Syrian	34.3	21.2	13.0	0.1	946
Other nationalities	31.1	15.7	15.4	0.0	286
Wealth quintile					
Lowest	37.9	23.0	14.8	0.1	2,047
Second	35.4	22.7	12.3	0.3	1,822
Middle	32.8	22.3	10.5	0.0	1,619
Fourth	24.3	18.5	5.5	0.3	1,338
Highest	17.8	13.6	4.1	0.0	820
Total	31.7	21.0	10.5	0.2	7,646

Note: Table is based on children who stayed in the household on the night before the interview and who were tested for anaemia. Prevalence of anaemia, based on haemoglobin levels, is adjusted for altitude using formulas in CDC 1998. Haemoglobin is in grams per decilitre (g/dl).

Anaemia is also common among women in Jordan where 43% of women tested are anaemic. Most of those with anaemia have mild anaemia (36% of all women), while 6% of women are classified as having moderate anaemia and less than 1% have severe anaemia. The prevalence of anaemia ranges from a low of 35% of women in Madaba governorate to a high of 49% of women in Ma'an governorate. Syrian women have slightly higher rates of any anaemia than women of other nationalities. Differentials in the prevalence of anaemia among women by other background characteristics are minimal.

Table 14 Prevalence of anaemia in women

Percentage of women age 15-49 with anaemia, according to background characteristics, Jordan DHS 2017-18

| Background | Not pregnant | Anaemia status by haemoglobin level | | | | Number of women |
		Any <12.0 g/dl	Mild 10.0-11.9 g/dl	Moderate 7.0-9.9 g/dl	Severe <7.0 g/dl	

characteristic	Pregnant	<11.0 g/dl	10.0-10.9 g/dl	7.0-9.9 g/dl	<7.0 g/dl	
Age						
15-19		43.1	38.4	4.4	0.2	2,144
20-29		39.9	34.5	5.3	0.1	3,770
30-39		44.0	36.6	7.2	0.2	2,930
40-49		45.0	35.9	8.6	0.5	2,702
Number of living children						
0		40.8	36.2	4.5	0.1	5,300
1		43.3	37.9	5.3	0.1	941
2-3		41.7	34.0	7.7	0.1	2,345
4-5		44.2	36.0	7.6	0.7	2,106
6+		52.8	39.4	12.7	0.7	855
Maternity status						
Pregnant		32.2	20.2	11.7	0.4	723
Breastfeeding		45.4	38.6	6.8	0.0	858
Neither		43.2	37.0	6.0	0.3	9,965
Residence						
Urban		42.7	36.0	6.4	0.2	10,279
Rural		42.8	36.4	6.0	0.3	1,267
Region						
Central		41.6	35.9	5.6	0.1	7,233
North		44.9	36.6	7.7	0.6	3,205
South		43.6	35.8	7.7	0.1	1,108
Governorate						
Amman		42.6	37.2	5.3	0.1	4,793
Balqa		39.7	32.0	7.4	0.3	624
Zarqa		40.6	34.8	5.6	0.2	1,555
Madaba		35.4	28.1	7.2	0.2	262
Irbid		44.0	35.9	7.5	0.6	2,019
Mafraq		45.7	36.7	8.2	0.7	610
Jarash		47.2	38.7	8.1	0.3	323
Aljun		46.8	38.6	7.9	0.2	254
Karak		40.9	31.7	8.9	0.3	447
Tafilh		39.6	34.2	5.2	0.3	176
Ma'an		49.3	39.4	9.9	0.0	196
Aqaba		46.5	40.6	5.9	0.0	289
Nationality						
Jordanian		42.6	36.0	6.3	0.3	10,341
Syrian		45.2	34.4	10.3	0.4	674
Other nationalities		42.9	40.3	2.6	0.0	527
Education						
None		43.3	36.0	6.8	0.5	274
Elementary		50.2	39.9	9.9	0.3	521
Preparatory		42.7	35.0	7.2	0.6	1,475
Secondary		42.9	36.4	6.3	0.2	4,860
Higher		41.5	35.6	5.7	0.2	4,417
Wealth quintile						
Lowest		47.0	37.2	9.1	0.6	2,149
Second		42.7	35.5	7.0	0.2	2,163
Middle		41.2	33.1	7.9	0.3	2,354
Fourth		40.3	35.3	4.8	0.2	2,323
Highest		42.7	39.1	3.6	0.0	2,558
Total		42.7	36.1	6.4	0.3	11,546

Note: Prevalence is adjusted for altitude and for smoking status, if known, using formulas in CDC, 1998. Total includes 5 women for whom information on nationality is missing and 1 woman for whom education is missing.

3.12 HIV AWARENESS, KNOWLEDGE, AND BEHAVIOUR

3.12.1 Knowledge of HIV Prevention

The 2017-18 JPFHS included a series of questions that inquired about women's and men's knowledge about AIDS and their awareness of modes of transmission of the human immunodeficiency virus (HIV) that causes AIDS. In addition, respondents were asked if they knew of behaviours that can prevent the spread of HIV. Table 15 shows that more than half of ever-married women (52%) and 54% of men know that consistent use of condoms is a means of preventing the spread of HIV. About 6 in 10 ever-married women (64%), and 72% of men know that limiting sexual intercourse to one faithful and uninfected partner can reduce the chance of contracting HIV. Overall, 42% of ever-married women and 48% of men know about these two ways to prevent the illness. Among women, knowledge of these two ways of prevention is lowest among those living in Karak governorate (28%), Syrian women (33%), women with

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no education (24%), and women living in the lowest wealth quintile. Among men, knowledge of these two means of prevention is the lowest among never-married men, those living in Mafraq governorate, Syrian men, men with no education, and those in the lowest wealth quintile.

Table 15 Comprehensive 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, according to background characteristics, Jordan DHS 2017-18

Background characteristic	Percentage of women who say HIV can be prevented by:				Percentage of men who say HIV can be prevented by:			
	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[2]	Number of women	Using condoms[1]	Limiting sexual intercourse to one uninfected partner[2]	Using condoms and limiting sexual intercourse to one uninfected partner[2]	Number of men
Age								
15-24	45.7	61.6	37.7	1,906	50.2	69.9	44.7	2,358
15-19	42.6	53.8	31.8	370	46.3	64.8	40.4	1,110
20-24	46.5	63.5	39.1	1,536	53.7	74.3	48.6	1,247
25-29	51.9	63.4	41.8	2,479	55.6	74.5	49.1	847
30-39	53.2	65.9	44.1	5,369	59.4	74.0	51.5	1,366
40-49	51.9	64.4	42.5	4,936	54.7	74.3	48.5	1,053
Marital status								
Never married	na	na	na	na	52.7	70.9	46.5	3,324
Married/living together	51.5	64.4	42.3	13,616	55.9	74.7	49.4	2,269
Divorced/separated/widowed	52.8	65.1	43.2	1,073	(67.9)	(66.5)	(58.6)	31
Residence								
Urban	51.5	65.0	42.4	13,200	54.3	72.3	47.8	5,011
Rural	52.8	59.7	41.7	1,489	52.6	73.2	47.4	612
Region								
Central	49.4	64.4	41.6	9,171	55.0	77.1	49.5	3,560
North	53.3	65.9	44.0	4,119	47.2	64.1	42.0	1,550
South	60.7	60.1	42.2	1,398	68.5	64.9	52.4	513
Governorate								
Amman	48.3	66.3	40.3	5,997	56.0	82.1	51.8	2,316
Balqa	55.0	59.8	44.1	752	59.4	61.7	47.5	345
Zarqa	50.3	62.2	44.5	2,094	47.9	69.6	41.6	768
Madaba	52.7	56.0	40.6	329	67.8	71.9	62.0	132
Irbid	54.2	66.8	44.3	2,549	48.8	62.1	43.4	970
Mafraq	47.0	55.7	36.4	849	35.4	57.2	30.1	312
Jarash	55.1	76.8	50.4	410	56.4	76.5	52.6	159
Aljun	60.8	72.1	54.3	312	52.9	83.3	47.6	109
Karak	60.7	45.4	28.4	544	81.9	70.3	63.8	207
Tafilh	67.5	77.9	58.4	221	52.6	68.5	48.2	73
Ma'an	51.1	61.2	40.4	250	61.2	49.7	37.4	103
Aqaba	63.0	70.0	53.7	383	61.8	66.6	48.6	129
Nationality								
Jordanian	53.0	65.8	43.6	12,764	54.9	72.4	48.2	4,989
Syrian	42.2	55.1	33.3	1,257	42.3	71.5	38.2	327
Other nationalities	41.6	55.7	35.1	668	53.1	73.3	50.5	307
Education								
None	30.8	40.9	23.5	327	36.7	43.1	33.0	84
Elementary	39.4	51.8	29.8	1,029	46.5	64.4	37.1	347
Preparatory	45.7	60.1	36.6	1,892	51.5	68.3	45.1	746
Secondary	51.5	65.2	42.3	6,176	52.7	70.7	45.8	2,612
Higher	57.5	69.1	48.1	5,265	59.4	79.4	54.2	1,834
Wealth quintile								
Lowest	45.0	58.3	35.7	2,936	43.3	64.7	38.2	946
Second	50.5	61.9	40.3	3,039	53.2	70.7	46.6	1,063
Middle	53.1	64.2	43.7	3,083	53.4	69.3	45.1	1,122
Fourth	54.3	66.3	44.0	3,009	60.6	73.4	53.5	1,190
Highest	55.4	72.4	48.7	2,623	57.3	81.1	52.5	1,303
Total 15-49	51.6	64.4	42.3	14,689	54.1	72.4	47.7	5,623
50-59	na	na	na	na	48.3	73.6	43.6	806
Total 15-59	na	na	na	na	53.4	72.6	47.2	6,429

Note: Figures in parentheses are based on 25-49 unweighted cases.
na = Not applicable
[1] Using condoms every time they have sexual intercourse
[2] Partner who has no other partners

3.12.2 Awareness of HIV Testing Services

The survey also collected information on whether women and men know where to go to get an HIV test. Table 16 shows that only one in four ever-married women (27%) and 40% of men know where to go to be tested for HIV. Knowledge is particularly low among women age 15-19, women living in the North region,

Syrian women, women with no education, and women living in the lowest wealth quintile. Among men, knowledge of a place to get an HIV test also increases with age, education, and wealth.

Table 16 Knowledge of where to get an HIV test

Percentage of ever-married women and men age 15-49 who know where to get an HIV test, according to background characteristics, Jordan 2017-18

	Women		Men	
	Percentage who know where to get an HIV test	Number of women	Percentage who know where to get an HIV test	Number of men
Age				
15-24	22.8	1,906	32.5	2,358
15-19	15.2	370	27.6	1,110
20-24	24.6	1,536	36.7	1,247
25-29	25.8	2,479	41.6	847
30-39	28.6	5,369	48.5	1,366
40-49	28.0	4,936	42.8	1,053
Marital status				
Never married	na	na	36.4	3,324
Married/living together	27.2	13,616	44.3	2,269
Divorced/separated/widowed	27.7	1,073	(47.4)	31
Residence				
Urban	27.3	13,200	39.4	5,011
Rural	26.4	1,489	41.6	612
Region				
Central	27.2	9,171	36.3	3,560
North	23.7	4,119	44.6	1,550
South	37.1	1,398	48.0	513
Governorate				
Amman	29.6	5,997	38.0	2,316
Balqa	22.0	752	43.8	345
Zarqa	23.4	2,094	29.0	768
Madaba	19.8	329	28.4	132
Irbid	25.9	2,549	46.8	970
Mafraq	16.9	849	33.3	312
Jarash	27.1	410	45.2	159
Aljun	20.1	312	56.8	109
Karak	43.8	544	57.1	207
Tafilh	39.9	221	59.5	73
Ma'an	30.3	250	30.9	103
Aqaba	30.3	383	40.6	129
Nationality				
Jordanian	28.5	12,764	40.6	4,989
Syrian	14.7	1,257	28.2	327
Other nationalities	26.4	668	36.5	307
Education				
None	12.5	327	24.3	84
Elementary	13.4	1,029	30.3	347
Preparatory	19.0	1,892	34.9	746
Secondary	23.9	6,176	37.2	2,612
Higher	37.6	5,265	47.6	1,834
Wealth quintile				
Lowest	19.4	2,936	29.5	946
Second	22.4	3,039	39.2	1,063
Middle	25.5	3,083	39.9	1,122
Fourth	29.7	3,009	45.9	1,190
Highest	40.6	2,623	41.4	1,303
Total 15-49	27.2	14,689	39.6	5,623
50-59	na	na	44.6	806
Total 15-59	na	na	40.3	6,429

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

3.12.3 Knowledge among Young People

Table 17 shows the level of comprehensive knowledge of HIV among men and ever-married women age 15-24. Comprehensive knowledge of HIV is defined as knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chances of contracting

HIV, knowing that a healthy-looking person can have HIV, and rejecting the two most common misconceptions about HIV transmission in Jordan (that HIV can be transmitted by mosquito bites and that it can be transmitted by sharing food with someone who has HIV). Fewer than 1 in 10 (7%) of ever-married young women, and 8% of young men in Jordan have comprehensive knowledge of HIV. Comprehensive knowledge is lower among women age 15-17, young women living in in the North region, Syrian women, and women with low levels of education. Among men, comprehensive knowledge is lower among those living in urban areas, those living in the Central region, and those with low levels of education.

Table 17 Comprehensive knowledge about HIV prevention among young people

Percentage of ever married-women and young men age 15-24 with comprehensive knowledge about HIV prevention, according to background characteristics, Jordan DHS 2017-18

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	1.9	370	7.7	1,110
15-17	1.7	127	8.1	708
18-19	2.0	243	6.8	402
20-24	7.8	1,536	8.5	1,247
20-22	8.0	749	8.6	752
23-24	7.6	787	8.2	496
Marital status				
Never married	na	na	8.1	2,299
Married/living together	6.7	1,813	8.8	59
Divorced/separated/widowed	5.5	93	*	0
Residence				
Urban	6.6	1,714	7.8	2,107
Rural	6.8	192	10.7	251
Region				
Central	7.5	1,076	5.0	1,489
North	5.1	658	12.5	669
South	7.4	172	16.0	199
Governorate				
Amman	7.6	667	3.9	946
Balqa	11.4	92	9.2	151
Zarqa	6.3	280	6.7	341
Madaba	4.5	38	2.2	50
Irbid	5.3	413	14.1	408
Mafraq	5.2	149	9.0	145
Jarash	3.7	55	9.1	70
Aljun	4.6	41	14.8	46
Karak	5.0	58	26.0	86
Tafilh	13.8	29	3.0	30
Ma'an	6.2	34	5.2	37
Aqaba	7.1	51	14.6	46
Nationality				
Jordanian	7.2	1,442	8.2	2,090
Syrian	3.5	363	7.1	150
Other nationalities	10.2	102	6.4	118
Education				
None	(0.0)	32	(3.4)	19
Elementary	1.1	147	1.5	109
Preparatory	3.1	336	5.6	340
Secondary	5.2	919	7.7	1,237
Higher	14.1	473	11.3	654
Total 15-24	6.6	1,906	8.1	2,358

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] 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.

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