The Hashemite Kingdom of Jordan

Jordan Population and Family Health Survey

Key Indicators

2023

THE HASHEMITE KINGDOM OF JORDAN

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Department of Statistics
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The DHS Program
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ACRONYMS AND ABBREVIATIONS

ANC   antenatal care
ARI   acute respiratory infection
ART   antiretroviral therapy

BCG   bacille Calmette-Guérin (vaccine)

CAPI   computer-assisted personal interview
CBR   crude birth rate
CDC   Centers for Disease Control and Prevention
CSPro   Census and Survey Processing

DHS   Demographic and Health Survey
DoS   Department of Statistics
DPT   diphtheria, pertussis, tetanus (vaccine)

GFR   general fertility rate

HepB   hepatitis B (vaccine)
Hib   *Haemophilus influenzae* type B (vaccine)
HIV   human immunodeficiency virus

IFSS   internet file streaming system
IUD   intrauterine contraceptive device
IYCF   infant and young child feeding

JPFHS   Jordan Population and Family Health Survey
JPHC   Jordan Population and Housing Census (2015)

LAM   lactational amenorrhea method

MMR   measles, mumps, and rubella
MoH   Ministry of Health

NN   neonatal mortality

OPV   oral polio vaccine
ORS   oral rehydration salts
ORT   oral rehydration therapy

PNN   postneonatal mortality
PSU   primary sampling unit

SDG   Sustainable Development Goal
SDM   standard days method

TFR   total fertility rate

UNFPA United Nations Population Fund
UNHCR United Nations High Commissioner for Refugees
UNICEF United Nations Children's Fund
USAID United States Agency for International Development

WFP   World Food Programme
WHO   World Health Organization

JORDAN
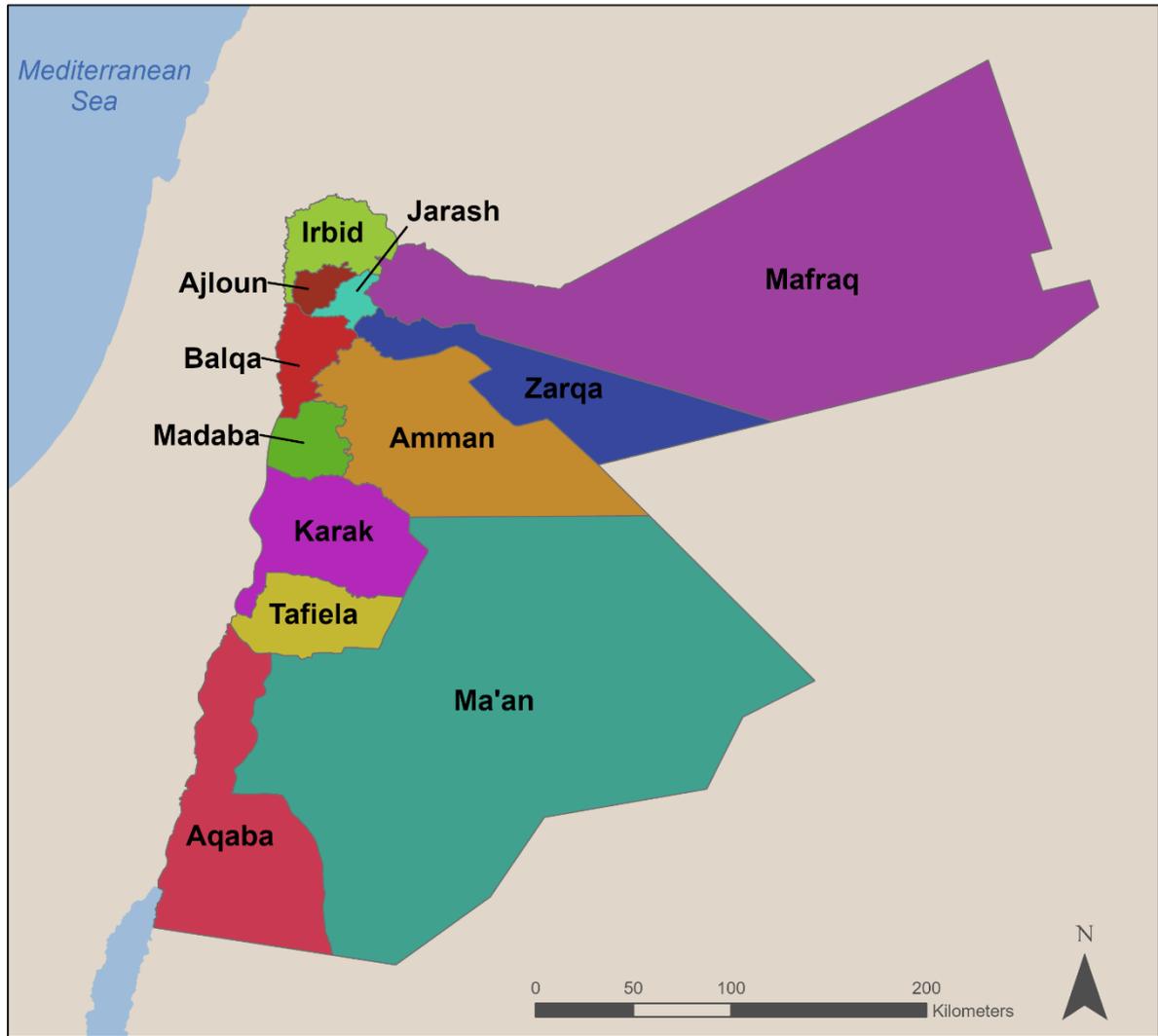
1   INTRODUCTION

The 2023 Jordan Population and Family Health Survey (JPFHS) is the eighth Population and Family Health Survey conducted in Jordan, following those conducted in 1990, 1997, 2002, 2007, 2009, 2012, and 2017–18. It was implemented by the Department of Statistics (DoS) at the request of the Ministry of Health (MoH). Data collection took place from January 2023 to June 2023. The survey protocol, including biomarker collection, was reviewed and approved by the ICF Institutional Review Board.

Financial support for the 2023 JPFHS was provided by the government of Jordan, the United States Agency for International Development (USAID), the United Nations Children's Fund (UNICEF), the United Nations Population Fund (UNFPA), the World Health Organization (WHO), and the World Food Programme (WFP). ICF provided technical assistance through The DHS Program, a USAID-funded project offering support and technical assistance in the implementation of population and health surveys in countries worldwide.

This Key Indicators Report presents selected findings from the 2023 JPFHS. A comprehensive analysis of the data will be presented in a final report to be published in the second quarter of 2024.

As in the previous JPFHS surveys, the primary objective of the 2023 JPFHS is to provide up-to-date estimates of key demographic and health indicators. Specifically, the 2023 JPFHS:

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

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

▪ Measured contraceptive knowledge and practice

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

▪ Obtained data on child feeding practices, including breastfeeding, and conducted anthropometric measurements to assess the nutritional status of children under age 5 and women age 15–49

▪ Conducted hemoglobin testing with eligible children age 6–59 months and women age 15–49 to gather information on the prevalence of anemia

▪ Collected data on women's and men's knowledge and attitudes regarding sexually transmitted infections and HIV/AIDS

▪ Obtained data on women's experience of emotional, physical, and sexual violence

▪ Gathered data on disability among household members

The 2023 JPFHS will provide valuable information on trends in key demographic and health indicators over time. The information collected through the survey is intended to assist policymakers and program managers in evaluating and designing programs and strategies for improving the health of the country's population. The 2023 JPFHS also provides indicators relevant to the Sustainable Development Goals (SDGs) for Jordan.

2   SURVEY IMPLEMENTATION

2.1   SAMPLE DESIGN

The sampling frame used for the 2023 JPFHS was the 2015 Jordan Population and Housing Census (JPHC) frame. The survey was designed to produce representative results for the country as a whole, for urban and rural areas separately, for each of the country's 12 governorates, and for four nationality domains: the Jordanian population, the Syrian population living in camps, the Syrian population living outside of camps, and the population of other nationalities.

Each of the 12 governorates is subdivided into districts, each district into subdistricts, each subdistrict into localities, and each locality into areas and subareas. In addition to these administrative units, during the 2015 JPHC each subarea was divided into convenient area units called census blocks. An electronic file of a complete list of all of the census blocks is available at DoS. The list contains census information on households, populations, geographical locations, and socioeconomic characteristics of each block. Based on this list, census blocks were 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 clusters for the 2023 JPFHS were selected from the frame of cluster units provided by the DoS.

The sample for the 2023 JPFHS was a stratified sample selected in two stages from the 2015 census frame. Stratification was achieved by separating each governorate into urban and rural areas. In addition, the Syrian camps in Zarqa and Mafraq each formed a special sampling stratum. In total, 26 sampling strata were constructed. Samples were selected independently in each sampling stratum, through a two-stage selection process, according to the sample allocation. Before the sample selection, the sampling frame was sorted by district and subdistrict within each sampling stratum. By using a probability proportional to size selection at the first stage of sampling, 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 reported in the 2015 JPHC. A household listing operation was carried out in all of the selected sample clusters, and the resulting lists of households served as the sampling frame for the selection of households in the next stage. During the listing, data on the citizenship of household heads were collected. These data were used to oversample households of Syrians living outside refugee camps. In the second stage of selection, a fixed number of 20 households per cluster were selected with an equal probability systematic selection from the newly created household listing. The survey interviewers interviewed only the preselected households. No replacements and no changes of the preselected households were allowed in the implementing stages in order to prevent bias.

Ever-married women age 15–49 who were usual residents of the sampled households or stayed in the households on the night before the interview were eligible for interviews. In a subsample of the selected households (every second household), all children under age 5 were eligible to be weighed and measured for anthropometric indicators, and all children age 6–59 months were eligible to be tested for anemia. In the same subsample, all women age 15–49 were eligible to be weighed and measured for anthropometric indicators and to be tested for anemia. Also in this subsample, a child discipline module was administered during the household interview for one randomly selected child age 2–14, and an early childhood development module was administered during individual interviews of women for the youngest child under age 5 living with his or her mother. In the other 50% of the selected households, a domestic violence module was administered with one ever-married woman age 15–49 randomly selected from each household. Finally, a male survey was conducted in a subsample of half of the households in which the domestic violence module was applied (i.e., in one in four households selected for the survey). All men age 15–59 who were usual residents of the selected households or who stayed in the households the night before the survey were eligible for the male survey.

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2.2 QUESTIONNAIRES

Five questionnaires were used for the 2023 JPFHS: (1) the Household Questionnaire, (2) the Woman's Questionnaire, (3) the Man's Questionnaire, (4) the Biomarker Questionnaire, and (5) the Fieldworker Questionnaire. These questionnaires, based on The DHS Program's standard questionnaires, were adapted to reflect population and health issues relevant to Jordan. Input was solicited from various stakeholders representing government ministries and agencies, nongovernmental organizations, and international donors. After all questionnaires were finalized in English, they were translated into Arabic.

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

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

- Background characteristics (including age, education, and media exposure)

- Pregnancy 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

- Women's work and husbands' background characteristics

- Knowledge and awareness regarding HIV/AIDS

- Knowledge, attitudes, and behaviors related to other health issues (e.g., injections, smoking)

- Early childhood development

- Domestic violence

The Man's Questionnaire was administered to all eligible men age 15–59. The Man's Questionnaire collected much of the same information elicited from 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 health technicians.

The Fieldworker Questionnaire recorded background information from the interviewers that will serve as a tool in conducting analyses of data quality. Each interviewer completed the self-administered Fieldworker

Questionnaire after the final selection of interviewers and before the fieldworkers entered the field. No personal identifiers were attached to the 2023 JPFHS fieldworker data file.

The 2023 JPFHS interviewers used tablet computers to record responses during the interviews as well as anthropometry and anemia 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 transfer of completed questionnaires from interviewers to supervisors). The computer-assisted personal interviewing (CAPI) data collection system employed in the 2023 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 ANEMIA TESTING

The 2023 JPFHS incorporated anthropometry and anemia testing. Biomarkers were collected in half of all selected households. The survey protocol, including biomarker collection, was reviewed and approved by the ICF Institutional Review Board.

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

Anemia testing. Blood specimens for anemia testing were collected from women age 15–49 who voluntarily consented to be tested and from all children age 6–59 months for whom consent was obtained 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. Hemoglobin analysis was carried out on-site using a battery-operated portable HemoCue analyzer. Results were provided verbally and in writing. Parents of or adults responsible for children whose hemoglobin level was below 7 g/dl were instructed to take the child to a health facility for follow-up care. Likewise, nonpregnant women and pregnant women were referred for follow-up care if their hemoglobin levels were below 7 g/dl. All households in which anemia testing was conducted were given a brochure explaining the causes of anemia and its prevention.

2.4 PRETEST

The pretest training for the 2023 JPFHS was conducted from October 2–17, 2022, in Amman, Jordan. It consisted of in-class training and biomarker training. The pretest fieldwork was conducted in rural and urban clusters throughout Amman that were not included in the 2023 JPFHS from October 18–20. A total of 50 trainees attended the pretest. In general, interviewers and supervisors displayed proficiency in the 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 modifications to the questionnaires were made based on lessons drawn from the exercise.

2.5 TRAINING OF FIELD STAFF

The DoS recruited and trained 142 people for the main fieldwork to serve as team supervisors, interviewers, and biomarker measurers. The training took place from November 20 to December 24, 2022, in Amman. The training course consisted of instruction regarding interviewing techniques and field procedures, a detailed review of questionnaire content, instruction on how to administer the paper and electronic questionnaires, mock interviews between participants in the classroom, and practice interviews with real respondents in areas outside the survey sample.

In addition, 34 individuals were trained on how to collect biomarker data, including taking height and weight measurements, and testing for anemia by measuring hemoglobin levels. The biomarker training was held from December 4–24, 2022, and consisted of lectures, demonstrations of biomarker measurement or testing procedures, field practice with children, and standardization exercises.

The interviewer training also included presentations given by various specialists and experts from the Ministry of Health covering Jordan-specific policies and programs on family planning, immunization, and nutrition.

A field practice was organized to provide trainees with additional hands-on experience before the actual fieldwork. A total of 28 teams were formed for field practice. Each team consisted of a female supervisor, three female interviewers, one male interviewer, and one biomarker technician.

2.6   FIELDWORK

Data collection took place over a 6-month period from January 2 to June 15, 2023. Fieldwork was carried out by 30 field teams, each consisting of one female supervisor, three female interviewers, one male interviewer, one biomarker technician, and two drivers. Electronic data files were transferred to the DoS central office in Amman every few days via the secured SynCloud. Staff from the DoS and specialists from The DHS Program coordinated and supervised fieldwork activities.

2.7   DATA PROCESSING

All electronic data files for the 2023 JPFHS were transferred via SynCloud 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 July and completed in September 2023.

3   KEY FINDINGS

3.1   RESPONSE RATES

Table 1 shows response rates for the 2023 JPFHS. A total of 20,054 households were selected for the sample, of which 19,809 were occupied. Of the occupied households, 19,475 were successfully interviewed, yielding a response rate of 98%.

In the interviewed households, 13,020 eligible women were identified for individual interviews; interviews were completed with 12,595 women, yielding a response rate of 97%. In the subsample of households selected for the male survey, 6,506 men age 15–59 were identified as eligible for individual interviews and 5,873 were successfully interviewed, yielding a response rate of 90%.

Table 1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Jordan PFHS 2023

	Residence		
Result	Urban	Rural	Total
Household interviews			
Households selected	16,055	3,999	20,054
Households occupied	15,894	3,915	19,809
Households interviewed	15,625	3,850	19,475
Household response rate[1]	98.3	98.3	98.3
Interviews with women age 15–49			
Number of eligible women	10,780	2,240	13,020
Number of eligible women interviewed	10,443	2,152	12,595
Eligible women response rate[2]	96.9	96.1	96.7
Household interviews in subsample			
Households selected	3,999	998	4,997
Households occupied	3,953	977	4,930
Households interviewed	3,885	962	4,847
Household response rate in subsample[1]	98.3	98.5	98.3
Interviews with men age 15–59			
Number of eligible men	5,199	1,307	6,506
Number of eligible men interviewed	4,712	1,161	5,873
Eligible men response rate[2]	90.6	88.8	90.3

[1] Households interviewed/households occupied
[2] Respondents interviewed/eligible respondents

3.2   CHARACTERISTICS OF RESPONDENTS

Table 2 shows the weighted and unweighted numbers and the weighted percent distributions of ever-married women and all men age 15–49 interviewed in the 2023 JPFHS by selected background characteristics. Only 23% of ever-married women are age 15–29, while 77% are age 30–49. The proportion of ever-married women who are age 15–29 declined from 30% in 2017–18. This decline in the proportion of young women in the ever-married population is mainly the consequence of increasing age at marriage. In contrast, the proportion of ever-married women age 30–49 has increased since 2017–18 (from 70% to 77%).

Ninety-one percent of ever-married women live in urban areas. Two in three women live in the Central region, 28% in the North region, and only 6% in the South region. In addition, 46% of women live in Amman, 13% in Zarqa, and 20% in Irbid.

The overall level of education among women continues to improve. The percentage of ever-married women age 15–49 with no schooling has declined over time, from 6% in 2002 to 2% in 2017–18 and 2023. The percentage of women who have attended school beyond the secondary level increased from 25% in 2002 to 29% in 2007, 31% in 2012, and 35% in 2023.

Table 2 Background characteristics of respondents

Percent distributions of ever-married women and all men age 15–49 by selected background characteristics, Jordan PFHS 2023

Background characteristic	Women			Men		
	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15–19	1.4	182	217	24.8	1,232	1,223
20–24	7.2	905	994	19.8	984	984
25–29	14.2	1,788	1,897	14.1	700	756
30–34	17.7	2,234	2,324	11.9	593	569
35–39	18.4	2,318	2,425	8.8	437	490
40–44	18.6	2,347	2,306	10.4	520	521
45–49	22.4	2,821	2,432	10.3	513	469
Self-reported health status						
Very good	58.9	7,416	7,484	78.0	3,883	4,119
Good	26.9	3,384	3,294	17.3	864	668
Moderate	12.9	1,621	1,638	3.9	195	183
Bad	1.3	167	166	0.6	28	34
Very bad	0.1	7	13	0.2	9	8
Marital status						
Never married	na	na	na	61.8	3,077	3,116
Married	92.3	11,622	11,635	37.3	1,856	1,851
Divorced/separated	4.9	613	554	0.9	46	44
Widowed	2.9	359	406	0.0	0	1
Residence						
Urban	91.1	11,477	10,443	89.5	4,455	4,011
Rural	8.9	1,118	2,152	10.5	524	1,001
Region						
Central	66.1	8,327	5,178	64.9	3,230	1,929
North	28.0	3,524	4,630	28.0	1,392	1,827
South	5.9	745	2,787	7.2	357	1,256
Governorate						
Amman	45.6	5,746	2,034	42.9	2,135	651
Balqa	5.5	691	911	6.0	299	353
Zarqa	13.3	1,669	1,559	13.7	681	624
Madaba	1.7	220	674	2.3	115	301
Irbid	19.7	2,484	1,718	18.2	907	570
Mafraq	4.2	529	1,182	5.0	251	479
Jarash	2.4	307	940	2.8	141	436
Ajloun	1.6	205	790	1.8	92	342
Karak	2.3	284	686	2.6	130	290
Tafiela	0.9	114	730	1.0	51	312
Ma'an	1.2	152	662	1.7	86	336
Aqaba	1.5	194	709	1.8	90	318
Nationality						
Jordanian	88.5	11,152	9,936	90.2	4,489	4,092
Syrian	7.8	980	2,200	5.5	275	680
Outside camps	6.7	847	1,300	4.5	225	361
Inside camps	1.1	133	900	1.0	50	319
Other nationalities	3.7	463	459	4.3	215	240
Education						
No education	2.1	270	383	1.6	78	108
Less than secondary	26.8	3,372	3,889	28.5	1,419	1,685
Secondary	36.5	4,592	4,505	37.1	1,847	1,928
Higher	34.6	4,361	3,818	32.8	1,635	1,291
Wealth quintile						
Lowest	19.6	2,469	3,807	14.7	733	1,221
Second	20.9	2,632	2,792	16.0	799	998
Middle	21.3	2,688	2,543	20.8	1,035	1,019
Fourth	19.6	2,471	2,180	23.0	1,145	1,097
Highest	18.5	2,334	1,273	25.5	1,267	677
Total 15–49	100.0	12,595	12,595	100.0	4,979	5,012
50–59	na	na	na	na	894	861
Total 15–59	na	na	na	na	5,873	5,873

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

As noted, **Table 2** also presents the weighted and unweighted numbers of women in the sample. The unweighted numbers of women in the largest governorates are smaller than the weighted numbers. The opposite is true for all other governorates because of oversampling. For example, in Tafiela, although the

weighted number of women is 114, in reality data were collected from 730 women: Tafiela was oversampled to obtain a sufficient sample of women to yield statistically reliable estimates.

3.3 FERTILITY

> **Total fertility rate**
> The average number of children a woman would have by the end of her childbearing years if she bore children at the current age-specific fertility rates. Age-specific fertility rates are calculated for the 3 years before the survey, based on detailed pregnancy histories provided by women.
> *Sample:* Women age 15–49

The age-specific and total fertility rates shown in **Table 3** are for the 3-year period before the survey (approximately the years 2020–2023). The total fertility rate (TFR) is the sum of the age-specific rates and is a useful measure of the level of recent fertility. 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 an average of 2.6 children during her lifetime. Fertility is slightly higher in rural areas than in urban areas (2.8 versus 2.6 births per woman).

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 (0.6) by age 25 and about two children (2.1) by age 35. Fertility rates are quite low in the 15–19 age group (17 births per 1,000 women). Rates then increase dramatically and reach a maximum of 156 births per 1,000 women in the 25–29 age group. Above age 29, rates decline slowly but regularly. Fertility is higher in rural areas for every age group except 15–19 years and 20–24 years.

Table 3 Current fertility

Age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the 3 years preceding the survey, according to residence, Jordan PFHS 2023

Age group	Residence		
	Urban	Rural	Total
15–19	17	14	17
20–24	93	91	93
25–29	155	164	156
30–34	144	152	145
35–39	83	90	84
40–44	21	36	22
45–49	[2]	[8]	[2]
TFR (15–49)	2.6	2.8	2.6
GFR	80	88	81
CBR	18.8	19.6	18.9

Note: Age-specific fertility rates are per 1,000 women. Estimates in brackets are truncated. Rates are for the period 1–36 months preceding the 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

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 CBR is 18.9 births per 1,000 population and the GFR is 81 births per 1,000 women age 15–44.

Trends: Figure 1 shows trends in fertility over time. The total fertility rate for Jordan declined rapidly between 1990 and 2002, from 5.6 to 3.7, and changed only minimally between 2002 and 2012, fluctuating from 3.5 to 3.7. However, the total fertility rate has since declined, reaching a low of 2.6 in 2023.

There are differentials in fertility by urban-rural residence, governorate, and camp/noncamp residence (**Table 4**). As mentioned above, fertility is slightly higher in rural areas than in urban areas. By governorate, the TFR ranges from 1.9 in Aqaba to 3.1 in Ajloun and Mafraq. Fertility is higher among women who live in refugee camps than among those who do not (4.9 and 3.9 children per woman, respectively).

Figure 1 Trends in fertility by residence

TFR for the 3 years before each survey

| | 1990 JPFHS | 1997 JPFHS | 2002 JPFHS | 2007 JPFHS | 2012 JPFHS | 2017–18 JPFHS | 2023 JPFHS |

Rural: 6.8, 5.0, 4.2, 3.7, 3.9, 3.1, 2.8
Total: 5.6, 4.4, 3.7, 3.6, 3.5, 2.7, 2.6
Urban: 5.1, 4.2, 3.5, 3.6, 3.4, 2.7, 2.6

Table 4 Fertility by background characteristics

Total fertility rate for the 3 years preceding the survey, percentage of women age 15–49 currently pregnant, and mean number of children ever born to women age 40–49, according to background characteristics, Jordan PFHS 2023

Background characteristic	Total fertility rate	Percentage of women age 15–49 currently pregnant	Mean number of children ever born to women age 40–49
Residence			
Urban	2.6	3.7	3.7
Rural	2.8	4.3	3.9
Region			
Central	2.5	3.6	3.7
North	3.0	4.2	3.9
South	2.3	3.1	3.6
Governorate			
Amman	2.4	3.4	3.6
Balqa	2.0	4.0	3.4
Zarqa	3.0	4.3	4.1
Madaba	2.2	3.8	3.8
Irbid	2.9	4.1	3.8
Mafraq	3.1	3.8	4.0
Jarash	3.0	5.3	4.1
Ajloun	3.1	3.8	4.1
Karak	2.3	3.0	3.5
Tafiela	2.4	3.3	4.0
Ma'an	2.4	3.4	3.4
Aqaba	1.9	3.0	3.7
Nationality			
Jordanian	2.5	3.5	3.7
Syrian	4.1	6.1	4.5
Outside camps	3.9	6.0	4.5
Inside camps	4.9	7.2	4.7
Other nationalities	2.1	3.7	3.5
Education			
No education	2.4	1.6	4.1
Less than secondary	3.4	4.4	4.1
Secondary	2.9	3.5	3.9
Higher	2.1	3.6	3.2
Wealth quintile			
Lowest	3.9	4.7	4.0
Second	3.0	4.7	3.9
Middle	2.6	4.4	3.8
Fourth	2.2	3.5	3.6
Highest	1.4	1.9	3.5
Total	2.6	3.8	3.7

3.4   TEENAGE PREGNANCY AND MOTHERHOOD

> **Teenage pregnancy**
> Percentage of women age 15–19 who have ever been pregnant.
> *Sample:* Women age 15–19

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

Table 5 shows that 3% of ever-married women age 15–19 in Jordan have ever been pregnant: 2% have had a live birth, 1% were pregnant with their first child at the time of the interview, and less than 1% have had a pregnancy loss. As expected, the proportion of women age 15–19 who have ever been pregnant rises rapidly with age, from less than 1% among those age 15 to 7% among those age 19. There is little difference between urban and rural areas (2.8 and 2.9, respectively). Teenage pregnancy varies from a low of 1% in Ma'an and Aqaba to a high of 5% in Zarqa. The proportion of ever-married teenagers who have been pregnant is much higher among those who live inside camps than among those who live outside camps (12% versus 8%). Teenage pregnancy is more common among those with less than a secondary education or a secondary education (4% and 3%, respectively) than among those with no education or a higher education (less than 1% and 1%, respectively). Teenage pregnancy decreases steadily with increasing wealth; 6% of teenagers in the lowest wealth quintile have begun childbearing, as compared with 1% of those in the highest quintile.

Table 5 Teenage pregnancy

Percentage of ever-married women age 15–19 who have ever had a live birth, percentage who have ever had a pregnancy loss, percentage who are currently pregnant, and percentage who have ever been pregnant, according to background characteristics, Jordan PFHS 2023

Background characteristic	Percentage of women age 15–19 who:				Number of women
	Have ever had a live birth	Have ever had a pregnancy loss[1]	Are currently pregnant	Have ever been pregnant	
Age					
15	0.0	0.1	0.2	0.2	1,024
16	0.4	0.0	0.5	0.6	912
17	1.1	0.8	1.0	2.6	903
18	3.6	0.4	1.1	4.6	947
19	6.0	0.6	1.9	7.0	797
Residence					
Urban	2.1	0.3	0.9	2.8	4,150
Rural	2.2	0.4	0.7	2.9	427
Region					
Central	2.3	0.3	0.9	3.0	3,193
North	1.5	0.4	0.9	2.2	1,211
South	1.2	0.0	0.7	1.5	353
Governorate					
Amman	2.0	0.3	0.6	2.6	2,027
Balqa	0.9	0.6	0.4	1.9	227
Zarqa	4.1	0.5	2.0	5.4	706
Madaba	1.9	0.4	0.3	2.1	91
Irbid	1.1	0.3	0.9	1.7	828
Mafraq	3.2	0.4	1.0	3.9	203
Jarash	2.1	0.9	1.3	3.5	108
Ajloun	1.1	0.4	0.6	1.5	72
Karak	2.0	0.0	1.1	2.5	142
Tafiela	0.3	0.0	1.0	1.3	59
Ma'an	0.7	0.0	0.4	0.7	70
Aqaba	0.7	0.0	0.0	0.7	80
Nationality					
Jordanian	1.8	0.2	0.7	2.3	4,254
Syrian	5.4	2.5	2.9	8.9	314
Outside camps	4.8	2.8	2.4	8.3	267
Inside camps	8.9	0.6	5.8	11.8	46
Other nationalities	0.9	0.1	1.0	1.8	248

Continued…

Table 5—*Continued*

Background characteristic	Percentage of women age 15–19 who:				
	Have ever had a live birth	Have ever had a pregnancy loss[1]	Are currently pregnant	Have ever been pregnant	Number of women
Education					
No education	0.0	0.0	0.4	0.4	50
Less than secondary	2.8	0.6	1.2	4.0	2,050
Secondary	2.0	0.2	0.8	2.5	1,787
Higher	0.3	0.0	0.2	0.5	765
Wealth quintile					
Lowest	4.7	0.5	1.7	6.2	847
Second	2.6	1.1	1.2	3.9	916
Middle	2.6	0.2	1.1	3.4	941
Fourth	0.6	0.0	0.8	0.9	659
Highest	0.5	0.0	0.0	0.5	617
Total	2.1	0.3	0.9	2.8	4,583

[1] Stillbirth, miscarriage, or abortion

3.5 FERTILITY PREFERENCES

> **Desire for another child**
> Women were asked whether they wanted more children and, if so, how long they would prefer to wait before the birth of the next child. Women who are sterilized are assumed not to want any more children.
> *Sample:* Currently married women age 15–49

Currently married women were asked about their fertility preferences, including their desire for additional children and spacing preferences. The survey findings are presented in **Table 6**.

Overall, 57% of married women in Jordan do not want to have any more children at any time in the future, including 2% who have been sterilized. An additional 15% of women want to delay having another child for at least 2 years. Summing these two figures implies that 70% of married women in Jordan may have a potential need for family planning services with respect to either limiting or spacing births.

Desire for a child is strongly related to number of living children. Nearly 6 out of 10 women who had not yet begun childbearing at the time of the survey want a birth soon. Almost 70% of women who have one child also express a desire to have another, although most of them want to wait to have the next child (40%). The desire to cease childbearing rises rapidly with number of living children, from 3% among women with no children to 83% among women with six or more children (including 10% who have been sterilized).

Table 6 Fertility preferences by number of living children

Percent distribution of ever-married women age 15–49 by desire for children, according to number of living children, Jordan PFHS 2023

Desire for children	Number of living children[1]							Total
	0	1	2	3	4	5	6+	
Have another soon[2]	57.5	28.2	15.2	7.8	4.9	2.7	2.9	11.7
Have another later[3]	10.0	40.0	28.3	16.5	7.3	4.5	2.5	15.3
Have another, undecided when	0.2	0.5	0.1	0.0	0.1	0.1	0.0	0.1
Undecided	5.3	12.8	14.9	11.3	8.1	4.6	3.5	9.2
Want no more	3.4	10.3	36.1	57.4	72.5	77.6	73.8	54.3
Sterilized[4]	0.9	0.1	0.3	0.3	2.0	3.5	9.6	2.3
Declared infecund	22.8	8.0	5.1	6.7	5.1	7.0	7.7	7.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	586	1,110	2,033	2,525	2,333	1,575	1,460	11,622

[1] The number of living children includes a woman's 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

3.6 CONTRACEPTIVE USE

Contraceptive prevalence
Percentage of women who use any contraceptive method.
Sample: Currently married women age 15–49

Modern methods
Include male and female sterilization, injectables, intrauterine devices (IUDs), contraceptive pills, implants, female and male condoms, emergency contraception, the standard days method, and the lactational amenorrhea method.

Table 7 shows that 60% of currently married women in Jordan are using a method of family planning: 38% are using modern contraceptive methods, and 22% use traditional methods. Contraceptive prevalence rose from 35% in 1990 to 61% in 2012, declined to 52% in 2017–18, and then increased once again to 60% in 2023. The increase has been almost entirely in the use of traditional methods. Since 2017–18, the proportion of married women using traditional methods has increased substantially, from 14% to 22%. Modern method use remained almost constant from 2002 until 2012 at about 42% before decreasing slightly to 38% in 2023.

The most popular modern method is the IUD, used by 20% of married women. The next most popular modern methods are the pill (8%) and the male condom (6%). Two percent of married women have been sterilized, while less than 1% are using injectables or implants. In terms of traditional methods, 20% of women use withdrawal and 1% use the rhythm method.

Differentials in contraceptive use according to background characteristics are also shown in **Table 7**. In general, women age 30–44, those with a secondary education or higher, and those with at least three children are more likely to use family planning than other women. The prevalence is slightly higher in urban areas than in rural areas (61% versus 56%). Urban women are more likely to use a modern method than rural women (39% versus 35%). By governorate, the contraceptive prevalence rate ranges from 38% in Mafraq to 64% in Ajloun, Tafiela, and Madaba. Women who live inside camps are less likely to use contraception than women who live outside camps (41% versus 51%).

Half of women with one or two children are using family planning (50%), mainly withdrawal, IUDs, and pills. The contraceptive prevalence rate is highest among those with five or more children (71%) and is expectedly low (2%) among childless women.

Young women age 15–19 are most likely to use pills (6%), withdrawal (8%), and IUDs (5%), while those age 20–24 are most likely to use withdrawal (15%) and IUDs (12%). Use of female sterilization is positively associated with age; older women are more likely to use this method to terminate childbearing. Five percent of married women in the oldest age group have been sterilized.

Urban women are more likely than rural women to use IUDs (21% versus 13%), while rural women are more likely to use pills (10% versus 8%). The proportion of married women using contraception increases with increasing education, from 46% among women with no education to 62% among those with a secondary education or higher.

Table 7 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 PFHS 2023

Background characteristic	Any method	Any modern method	Female sterilization	IUD	Injectables	Implants	Pill	Male condom	LAM	Other[1]	Any traditional method	Rhythm	Withdrawal	Other	Not currently using	Total	Number of women
Number of living children																	
0	2.4	1.7	0.7	0.0	0.0	0.0	0.3	0.7	0.0	0.0	0.7	0.0	0.7	0.0	97.6	100.0	780
1–2	49.9	29.5	0.3	15.0	0.6	0.5	7.6	5.0	0.5	0.0	20.4	1.4	18.9	0.0	50.1	100.0	3,094
3–4	69.5	43.4	1.1	23.0	0.9	1.0	10.1	6.9	0.4	0.0	26.1	1.5	24.6	0.0	30.5	100.0	4,802
5+	70.8	49.2	6.6	25.2	1.4	0.7	8.0	6.7	0.4	0.1	21.6	1.4	20.2	0.0	29.2	100.0	2,947
Age																	
15–19	27.0	19.0	0.0	5.3	0.1	2.4	5.8	4.0	1.3	0.0	8.1	0.0	8.1	0.0	73.0	100.0	170
20–24	46.4	30.0	0.1	11.5	0.8	1.6	8.9	6.4	0.7	0.0	16.4	1.0	15.4	0.0	53.6	100.0	836
25–29	56.4	32.3	0.1	13.2	1.1	1.0	10.6	5.5	0.7	0.0	24.1	1.2	22.9	0.0	43.6	100.0	1,696
30–34	65.4	42.2	0.7	22.0	1.0	1.0	11.5	5.2	0.7	0.1	23.3	1.5	21.7	0.0	34.6	100.0	2,122
35–39	66.0	43.2	2.2	21.1	1.2	0.4	10.4	7.4	0.4	0.0	22.9	1.0	21.8	0.0	34.0	100.0	2,162
40–44	66.8	42.9	3.3	25.1	0.8	0.8	5.9	6.9	0.0	0.1	23.9	1.4	22.5	0.0	33.2	100.0	2,157
45–49	53.9	35.3	5.1	20.9	0.6	0.2	4.0	4.5	0.0	0.0	18.6	1.7	16.9	0.0	46.1	100.0	2,478
Residence																	
Urban	60.5	38.7	2.2	20.5	0.8	0.7	8.0	6.0	0.4	0.0	21.7	1.4	20.4	0.0	39.5	100.0	10,590
Rural	56.1	34.7	2.9	13.4	1.8	1.1	10.3	4.6	0.3	0.2	21.4	1.1	20.3	0.1	43.9	100.0	1,032
Region																	
Central	61.4	40.6	2.3	21.6	0.9	0.7	8.3	6.4	0.3	0.0	20.8	1.6	19.3	0.0	38.6	100.0	7,682
North	58.0	34.1	2.2	17.3	0.9	0.8	7.6	4.9	0.4	0.0	23.9	1.0	22.9	0.0	42.0	100.0	3,241
South	55.7	34.2	2.2	12.7	1.4	0.8	10.9	5.2	0.9	0.2	21.5	0.6	20.9	0.0	44.3	100.0	700
Governorate																	
Amman	61.1	40.0	2.5	21.7	0.8	0.6	8.7	5.6	0.2	0.0	21.1	1.6	19.5	0.0	38.9	100.0	5,304
Balqa	60.1	42.9	1.6	23.0	1.3	1.0	7.5	8.1	0.4	0.0	17.2	2.3	14.9	0.0	39.9	100.0	636
Zarqa	62.6	40.8	1.8	20.4	0.9	1.2	7.0	8.6	0.9	0.0	21.8	1.1	20.7	0.0	37.4	100.0	1,534
Madaba	63.7	46.7	2.9	26.6	1.2	0.8	9.2	5.5	0.2	0.3	17.0	2.2	14.8	0.0	36.3	100.0	209
Irbid	61.2	34.9	2.3	18.0	0.5	0.8	7.5	5.4	0.4	0.0	26.4	1.2	25.1	0.0	38.8	100.0	2,271
Mafraq	38.3	26.1	1.3	10.6	2.3	0.8	8.8	1.6	0.5	0.2	12.2	0.0	12.1	0.2	61.7	100.0	496
Jarash	62.5	37.8	2.9	18.7	1.6	0.6	8.5	5.1	0.3	0.1	24.7	0.6	24.1	0.0	37.5	100.0	284
Ajloun	63.7	39.7	1.8	25.0	0.2	0.9	4.5	7.1	0.2	0.0	24.0	1.0	23.0	0.0	36.3	100.0	189
Karak	51.4	34.7	2.3	9.5	1.4	1.0	12.6	6.3	1.1	0.4	16.7	0.4	16.3	0.0	48.6	100.0	270
Tafiela	63.5	38.7	3.3	16.3	1.3	0.5	10.9	6.4	0.2	0.0	24.8	0.4	24.3	0.0	36.5	100.0	108
Ma'an	53.1	24.8	1.6	9.2	1.4	1.1	7.3	2.8	1.1	0.2	28.3	0.1	28.1	0.1	46.9	100.0	143
Aqaba	59.6	38.2	1.6	17.9	1.4	0.3	11.2	4.6	1.1	0.0	21.4	1.3	20.1	0.0	40.4	100.0	180
Nationality																	
Jordanian	61.3	39.0	2.2	20.4	0.9	0.8	8.1	6.3	0.3	0.0	22.3	1.4	20.9	0.0	38.7	100.0	10,326
Syrian	50.0	33.2	3.1	15.5	1.3	0.5	8.1	3.2	1.2	0.2	16.8	1.1	15.7	0.0	50.0	100.0	882
Outside camps	51.4	33.4	3.5	15.6	1.2	0.3	8.4	3.2	1.0	0.2	18.0	1.2	16.8	0.0	48.6	100.0	757
Inside camps	41.1	31.7	0.9	14.8	2.3	1.3	6.3	3.3	2.5	0.2	9.4	0.2	9.1	0.0	58.9	100.0	125
Other nationalities	51.7	34.8	2.4	16.6	1.4	1.0	11.0	2.4	0.0	0.0	16.9	0.2	16.7	0.0	48.3	100.0	415
Education																	
No education	46.1	32.8	5.7	14.4	1.6	1.5	8.1	1.0	0.6	0.1	13.3	0.2	13.0	0.1	53.9	100.0	242
Less than secondary	56.0	39.2	2.6	19.2	1.4	1.0	9.7	4.7	0.5	0.1	16.8	1.1	15.7	0.0	44.0	100.0	3,063
Secondary	62.2	39.3	2.8	19.6	0.9	0.7	8.6	6.3	0.3	0.0	22.9	1.2	21.7	0.0	37.8	100.0	4,217
Higher	61.8	37.2	1.3	21.0	0.6	0.5	6.8	6.6	0.3	0.0	24.7	1.7	22.9	0.0	38.2	100.0	4,100
Wealth quintile																	
Lowest	54.1	36.3	2.3	15.7	1.8	1.2	10.6	3.8	0.9	0.1	17.8	0.5	17.4	0.0	45.9	100.0	2,223
Second	59.4	37.0	1.7	18.8	1.1	0.6	8.7	5.8	0.3	0.1	22.5	2.0	20.4	0.0	40.6	100.0	2,409
Middle	58.7	38.2	1.8	18.9	0.7	0.7	8.8	7.1	0.3	0.0	20.5	0.6	19.9	0.0	41.3	100.0	2,468
Fourth	63.5	39.3	2.3	21.4	0.8	0.7	7.2	6.4	0.4	0.0	24.2	1.4	22.8	0.0	36.5	100.0	2,303
Highest	64.8	41.2	3.2	24.9	0.3	0.6	5.9	6.3	0.0	0.0	23.6	2.2	21.3	0.0	35.2	100.0	2,219
Total	60.1	38.4	2.3	19.9	0.9	0.7	8.2	5.9	0.4	0.0	21.7	1.3	20.4	0.0	39.9	100.0	11,622

Note: If more than one method is used, only the most effective method is considered in this tabulation.
LAM = lactational amenorrhea method
[1] Includes 3 unweighted cases for female condom, 4 unweighted cases for emergency contraception, and 5 unweighted cases for other modern methods

3.7   NEED AND DEMAND FOR FAMILY PLANNING

Unmet need for family planning

Proportion of women who (1) are not pregnant and not postpartum amenorrheic and are considered fecund and want to postpone their next birth for 2 or more years or stop childbearing altogether but are not using a contraceptive method, or (2) have a mistimed or unwanted current pregnancy, or (3) are postpartum amenorrheic and their most recent birth in the last 2 years was mistimed or unwanted.

Met need for family planning

Current contraceptive use (any method).

Sample: Currently married women age 15–49 and sexually active unmarried women age 15–49

Demand for family planning:	Unmet need for family planning + met need (current contraceptive use [any method])

Proportion of demand satisfied:	$\dfrac{\text{Current contraceptive use (any method)}}{\text{Unmet need + current contraceptive use (any method)}}$

Proportion of demand satisfied by modern methods:	$\dfrac{\text{Current contraceptive use (any modern method)}}{\text{Unmet need + current contraceptive use (any method)}}$

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 programs.

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 amenorrhoeic 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 amenorrhoeic for up to two years following an unwanted birth and not using contraception

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

Women using contraception are considered to have a met need. Women using contraception who say they want no (more) children are considered to have a met need for limiting, and women who are using

contraception and say they want to delay having a child or are unsure if or when they want a (another) child are considered to have a met need for spacing.

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

- **Total demand for family planning:** the sum of unmet need (for spacing and limiting) and total contraceptive use

- **Percentage of demand satisfied:** total contraceptive use divided by the sum of unmet need and total contraceptive use

- **Percentage of demand satisfied by modern methods:** use of modern contraceptive methods divided by the sum of unmet need and total contraceptive use

Table 8 presents data on unmet need, met need, and total demand for family planning among currently married women. The table shows that 11% of currently married women have an unmet need for family planning services. As mentioned above, 60% of women are currently using a contraceptive method; that is, they have a met need for family planning. The total demand for family planning among currently married women in Jordan is 71%. Eighty-five percent of the demand for family planning is satisfied, and 54% is satisfied with modern methods.

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

Percentage of currently married women age 15–49 with unmet need for family planning, percentage with met need for family planning, percentage with met need for family planning who are using modern methods, percentage with demand for family planning, percentage of the demand for family planning that is satisfied, and percentage of the demand for family planning that is satisfied with modern methods, according to background characteristics, Jordan PFHS 2023

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	18.0	27.0	19.0	45.1	170	60.0	42.1
20–24	17.2	46.4	30.0	63.7	836	73.0	47.2
25–29	11.9	56.4	32.3	68.4	1,696	82.5	47.2
30–34	11.6	65.4	42.2	77.0	2,122	84.9	54.7
35–39	12.6	66.0	43.2	78.6	2,162	84.0	54.9
40–44	9.5	66.8	42.9	76.2	2,157	87.6	56.3
45–49	6.5	53.9	35.3	60.4	2,478	89.3	58.5
Residence							
Urban	10.6	60.5	38.7	71.1	10,590	85.1	54.5
Rural	13.3	56.1	34.7	69.4	1,032	80.8	50.0
Region							
Central	10.0	61.4	40.6	71.4	7,682	85.9	56.8
North	12.0	58.0	34.1	70.0	3,241	82.9	48.7
South	14.2	55.7	34.2	69.9	700	79.7	48.9
Governorate							
Amman	9.0	61.1	40.0	70.1	5,304	87.1	57.0
Balqa	11.2	60.1	42.9	71.3	636	84.2	60.2
Zarqa	13.0	62.6	40.8	75.6	1,534	82.9	54.0
Madaba	11.2	63.7	46.7	74.8	209	85.1	62.4
Irbid	9.3	61.2	34.9	70.5	2,271	86.8	49.5
Mafraq	23.6	38.3	26.1	61.9	496	61.9	42.2
Jarash	11.9	62.5	37.8	74.4	284	84.0	50.8
Ajloun	14.5	63.7	39.7	78.1	189	81.5	50.8
Karak	18.6	51.4	34.7	70.0	270	73.5	49.6
Tafiela	12.6	63.5	38.7	76.1	108	83.4	50.9
Ma'an	13.7	53.1	24.8	66.8	143	79.5	37.2
Aqaba	9.0	59.6	38.2	68.6	180	86.8	55.6
Nationality							
Jordanian	10.0	61.3	39.0	71.3	10,326	86.0	54.7
Syrian	17.8	50.0	33.2	67.8	882	73.7	49.0
Outside camps	17.2	51.4	33.4	68.6	757	74.9	48.7
Inside camps	21.4	41.1	31.7	62.4	125	65.8	50.8
Other nationalities	17.8	51.7	34.8	69.5	415	74.3	50.1
Education							
No education	13.8	46.1	32.8	59.9	242	77.0	54.8
Less than secondary	13.4	56.0	39.2	69.4	3,063	80.7	56.5
Secondary	11.0	62.2	39.3	73.1	4,217	85.0	53.7
Higher	8.7	61.8	37.2	70.5	4,100	87.7	52.7
Wealth quintile							
Lowest	15.8	54.1	36.3	69.9	2,223	77.4	51.9
Second	13.2	59.4	37.0	72.7	2,409	81.8	50.9
Middle	9.6	58.7	38.2	68.3	2,468	85.9	56.0
Fourth	9.0	63.5	39.3	72.5	2,303	87.6	54.2
Highest	6.6	64.8	41.2	71.4	2,219	90.8	57.8
Total	10.8	60.1	38.4	70.9	11,622	84.7	54.1

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, IUD, injectables, implants, pill, 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.

Trends: Figure 2 presents trends in unmet need, modern contraceptive use, and percentage of total demand satisfied with modern methods among currently married women. These indicators help evaluate the extent to which family planning programs in Jordan meet the demand for services. Overall, the level of unmet need for family planning has been declining over time, from 27% in 1990 to 14% in 2007 and 11% in 2023. During the same period, the total demand for family planning has changed only minimally. Met need through use of modern contraceptive methods has declined slightly since 2007, from 42% to 38%.

Figure 2 Trends in use of, need for, and demand for family planning

Percentage of currently married women age 15–49

Total demand

Unmet need

Currently using traditional methods (met need)

Currently using modern methods (met need)
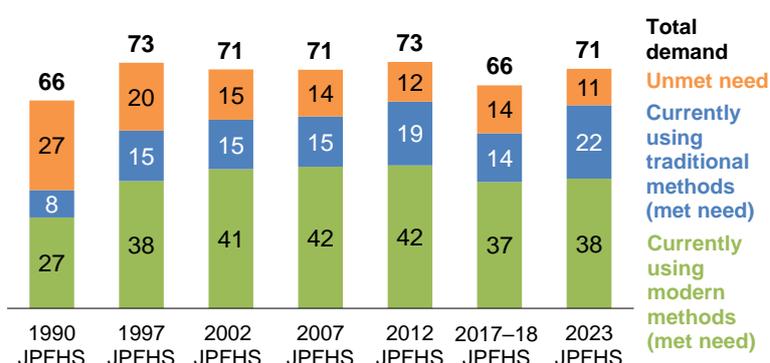
3.8 EARLY CHILDHOOD MORTALITY

Neonatal mortality: The probability of dying within the first month of life.
Postneonatal mortality: The probability of dying between the first month of life and the first birthday (computed as the difference between infant and neonatal mortality).
Infant mortality: The probability of dying between birth and 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.

Table 9 presents estimates for three successive 5-year periods prior to the 2023 JPFHS. The rates were estimated directly from information collected as part of a retrospective pregnancy history in which female respondents listed all of the children to whom they have given birth, along with each child's date of birth, survivorship status, and current age or age at death.

During the 5 years immediately preceding the survey, the infant mortality rate was 14 deaths per 1,000 live births (**Table 9**). The child mortality rate was 1 death per 1,000 children surviving to age 12 months, while the overall under-5 mortality rate was 15 deaths per 1,000 live births. The neonatal mortality rate was 9 deaths per 1,000 live births, and the postneonatal mortality rate was 6 deaths per 1,000 live births.

Table 9 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-5 mortality rates for 5-year periods preceding the survey, Jordan PFHS 2023

Years preceding the survey	Neonatal mortality (NN)	Postneonatal mortality (PNN)[1]	Infant mortality ($_1q_0$)	Child mortality ($_4q_1$)	Under-5 mortality ($_5q_0$)
0–4	9	6	14	1	15
5–9	10	5	15	1	16
10–14	6	3	10	1	10

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

Trends: The neonatal mortality rate has declined over time, from 21 deaths per 1,000 live births in 1990 to 9 deaths per 1,000 live births in 2023. During the same period, the infant mortality rate has declined from 34 to 14 deaths per 1,000 live births, while the under-5 mortality rate has declined from 39 to 15 deaths per 1,000 live births (**Figure 3**).

Figure 3 Trends in early childhood mortality rates

Deaths per 1,000 live births in the 5-year period preceding the survey

	1990 JPFHS	1997 JPFHS	2002 JPFHS	2007 JPFHS	2012 JPFHS	2017–18 JPFHS	2023 JPFHS
Under-5 mortality	39	34	27	21	21	19	15
Infant mortality	34	29	22	19	17	17	14
Neonatal mortality	21	19	16	14	14	11	9
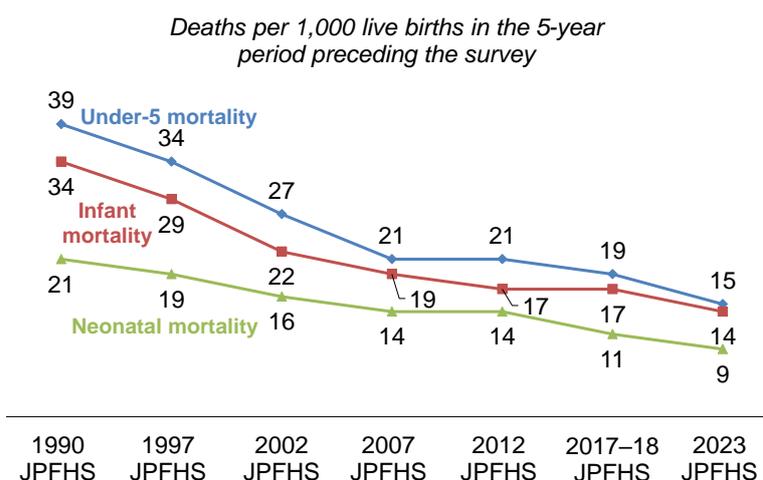
3.9   MATERNAL CARE

> **Antenatal care from a skilled provider**
> Pregnancy care received from skilled providers, such as doctors and nurses/midwives.
> **Sample:** Women age 15–49 who had a live birth or stillbirth in the 2 years before the survey

The 2032 JPFHS contained a number of questions on maternal health care for women who had a live birth or stillbirth in the 2 years before the survey. For the most recent birth or stillbirth 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 live births and stillbirths in the 2 years before the survey, mothers were asked who assisted at the delivery of the child and where they delivered. Finally, questions were asked about postnatal care for the most recent birth. Results are shown in **Table 10**.

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 postnatal period (within 42 days after delivery). In Jordan, antenatal care is almost universal; 97% of women received antenatal care from a health professional (doctor, nurse, or midwife) during the pregnancy for their most recent birth or stillbirth in the 2 years preceding the survey. Antenatal care coverage is high in all background characteristic categories.

Trends: The proportion of women receiving antenatal care from a skilled provider remains very high in Jordan, varying from 84% in 1990 to 99% in 2007 and 97% in 2023.

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3.9.2 Tetanus Toxoid Vaccinations

Protection against neonatal tetanus

The number of tetanus toxoid injections needed to protect a baby from neonatal tetanus depends on the mother's vaccinations. A birth is protected against neonatal tetanus if the mother has received any of the following:

- Two tetanus toxoid injections during the pregnancy
- Two or more injections, the last one within 3 years of the birth
- Three or more injections, the last one within 5 years of the birth
- Four or more injections, the last one within 10 years of the birth
- Five or more injections at any time prior to the birth

Sample: Women age 15–49 with a live birth in the 2 years before the survey

Tetanus toxoid injections are given to women during pregnancy to protect infants from neonatal tetanus, a cause of infant death that is due primarily to unsanitary conditions at childbirth. Only 18% of women received the number of tetanus toxoid injections required to provide full protection to their most recent birth in the 2 years preceding the survey. Women in urban areas are more likely to receive full protection against tetanus than those in rural areas (19% versus 16%). Similarly, women in Balqa governorate (39%) are more likely than other women to have received the required number of tetanus injections to protect their most recent birth. Women in the Central region (20%) and those in refugee camps (62%) have higher levels of tetanus toxoid protection than women in other areas.

3.9.3 Delivery Care

Institutional deliveries

Deliveries that occur in a health facility.

Sample: All live births and/or stillbirths in the 2 years before the survey

Skilled assistance during delivery

Births delivered with the assistance of doctors and nurses/midwives.

Sample: All live births and/or stillbirths in the 2 years before the survey

Access to proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that may lead to death or serious illness for the mother, baby, or both (Van Lerberghe and De Brouwere 2001; WHO 2006a). **Table 10** indicates that institutional deliveries are almost universal in Jordan, with more than 99% of live births in the 2 years preceding the survey delivered in a health facility. Virtually all births in the 2 years preceding the survey were delivered by a skilled provider. There is only minimal variation according to background characteristics.

Trends: The proportion of women whose birth was delivered by a skilled provider has remained very high since 1990 (**Figure 4**).

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 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 programs recommend that all women receive a check of their health within 2 days after delivery.

Figure 4 **Trends in delivery assistance**

Percentage of live births in the 2 years preceding the survey delivered by a skilled provider

| 1990 JPFHS | 1997 JPFHS | 2002 JPFHS | 2007 JPFHS | 2012 JPFHS | 2017–18 JPFHS | 2023 JPFHS |

More than 8 in 10 women who had a live birth and/or a stillbirth in the 2 years preceding the survey had a postnatal check within 2 days of the delivery. Eighty-seven percent of women in Irbid, Jarash, and Ma'an governorates received postnatal care within 2 days of delivery, as compared with 71% of women in Mafraq. The proportion of women who received postnatal care within 2 days after delivering ranges from 78% among those with no education to 85% among those with a higher education.

Trends: Coverage of postnatal care increased substantially between 1990 and 2012 (from 60% to 82%) and has since remained at a high level (83%) (**Figure 5**).

Figure 5 **Trends in postnatal care during the first 2 days after birth**

Percentage of last live births in the 2 years before the survey for which women received a postnatal check during the first 2 days after birth

| 2007 JPFHS | 2012 JPFHS | 2017–18 JPFHS | 2023 JPFHS |

Table 10 Maternal care indicators

Among ever-married women age 15–49 who had a live birth and/or a stillbirth in the 2 years preceding the survey, percentage who received antenatal care (ANC) from a skilled provider for the most recent live birth or stillbirth, percentage with four or more ANC visits for the most recent live birth or stillbirth, percentage who took any iron-containing supplements during pregnancy, and percentage whose most recent live birth was protected against neonatal tetanus; among all live births and stillbirths in the 2 years before the survey, percentage delivered by a skilled provider and percentage delivered in a health facility; and among women age 15–49 with a live birth or stillbirth 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 PFHS 2023

Background characteristic	Women who had a live birth and/or a stillbirth in the 2 years preceding the survey					Live births and stillbirths in the 2 years preceding the survey			Women who had a live birth and/or a stillbirth in the 2 years preceding the survey	
	Percentage receiving antenatal care from a skilled provider[1]	Percentage with 4+ ANC visits	Percentage who took any iron-containing supplements during pregnancy[2]	Percentage whose most recent live birth was protected against neonatal tetanus[3]	Number of women	Percentage delivered by a skilled provider[1]	Percentage delivered in a health facility	Number of births	Percentage with a postnatal check during the first 2 days after birth[4]	Number of women
LIVE BIRTHS										
Mother's age at birth										
<20	97.1	87.0	75.7	18.1	147	100.0	97.7	163	73.4	147
20–34	97.0	93.6	81.0	17.9	1,994	99.9	99.7	2,115	82.9	1,994
35–49	97.0	93.0	83.4	19.4	528	100.0	100.0	546	83.8	528
Residence										
Urban	97.4	93.5	81.6	18.5	2,365	100.0	99.6	2,500	82.3	2,365
Rural	94.3	89.8	78.0	15.9	304	99.8	99.8	324	83.9	304
Region										
Central	97.5	93.5	83.3	19.6	1,633	99.9	99.8	1,734	81.9	1,633
North	96.3	92.6	77.8	16.5	865	100.0	99.4	909	83.5	865
South	96.4	92.5	77.3	13.9	171	99.8	99.5	182	83.2	171
Governorate										
Amman	97.4	93.7	82.2	16.6	1,045	100.0	99.7	1,115	85.2	1,045
Balqa	98.2	90.2	85.3	39.2	124	99.3	100.0	130	84.8	124
Zarqa	97.6	93.8	85.6	21.0	416	100.0	99.8	437	73.6	416
Madaba	95.9	94.0	83.5	22.0	48	100.0	100.0	52	76.2	48
Irbid	96.9	93.4	77.5	14.9	574	100.0	99.4	594	87.4	574
Mafraq	91.7	87.9	75.6	18.3	152	100.0	99.0	162	70.7	152
Jarash	98.7	92.6	87.7	19.4	79	100.0	100.0	87	86.8	79
Ajloun	98.9	96.2	73.9	23.7	61	99.6	99.7	66	74.2	61
Karak	95.7	91.7	80.2	17.0	69	100.0	99.5	74	82.8	69
Tafiela	98.1	93.0	85.3	14.8	27	100.0	99.5	29	74.8	27
Ma'an	95.5	91.7	63.6	14.4	42	99.0	99.2	45	87.4	42
Aqaba	97.7	95.1	82.6	5.7	32	100.0	100.0	34	85.6	32
Nationality										
Jordanian	97.0	93.6	81.8	18.1	2,285	99.9	100.0	2,419	82.9	2,285
Syrian	96.5	88.0	75.7	18.9	294	100.0	98.0	307	79.4	294
Outside camps	96.5	86.8	74.5	10.8	248	100.0	98.3	259	85.0	248
Inside camps	96.4	94.6	82.1	62.3	46	100.0	96.1	48	49.1	46
Other nationalities	99.8	98.5	82.1	18.3	90	100.0	96.8	99	84.2	90
Mother's education										
No education	83.0	77.6	54.8	16.2	48	100.0	99.3	52	77.8	48
Less than secondary	96.1	88.9	78.8	18.8	756	100.0	99.3	790	78.6	756
Secondary	97.8	93.6	82.2	19.7	919	99.9	99.9	990	83.8	919
Higher	97.7	96.8	83.4	16.4	945	99.9	99.7	993	84.7	945
Wealth quintile										
Lowest	96.0	88.6	76.3	20.1	747	100.0	99.6	811	77.6	747
Second	98.0	93.7	82.3	20.9	639	99.9	99.5	672	81.5	639
Middle	97.5	94.3	80.4	16.2	604	100.0	100.0	631	82.8	604
Fourth	95.6	95.2	86.5	13.3	428	99.9	99.3	445	86.5	428
Highest	98.8	98.5	85.8	19.2	250	100.0	100.0	266	92.3	250
Total	97.0	93.1	81.2	18.2	2,669	99.9	99.6	2,825	82.5	2,669
STILLBIRTHS										
Total	*	*	*	na	11	*	*	11	*	11

Continued…

Table 10—*Continued*

Background characteristic	Women who had a live birth and/or a stillbirth in the 2 years preceding the survey					Live births and stillbirths in the 2 years preceding the survey			Women who had a live birth and/or a stillbirth in the 2 years preceding the survey	
	Percent-age receiving antenatal care from a skilled provider[1]	Percent-age with 4+ ANC visits	Percent-age who took any iron-containing supple-ments during preg-nancy[2]	Percent-age whose most recent live birth was protected against neonatal tetanus[3]	Number of women	Percent-age delivered by a skilled provider[1]	Percent-age delivered in a health facility	Number of births	Percent-age with a postnatal check during the first 2 days after birth[4]	Number of women
	LIVE BIRTHS AND STILLBIRTHS[5]									
Total	97.0	93.1	81.2	na	2,676	99.9	99.6	2,836	82.5	2,676

Note: If more than one source of assistance was mentioned, only the provider with the highest qualifications is considered in this tabulation. Stillbirths are fetal deaths in pregnancies lasting 28 or more weeks. When pregnancy duration is reported in months, stillbirths are fetal deaths in pregnancies lasting 7 or more months. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
na = not applicable
[1] Skilled provider includes doctor or nurse/midwife.
[2] Iron tablets and syrup
[3] Includes mothers with two injections during the pregnancy of their 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
[4] Includes women who received a check from a doctor or midwife/nurse
[5] For women who had both a live birth and a stillbirth in the 2 years preceding the survey, data on antenatal care and postnatal checks are tabulated for the most recent birth only.

3.10   CHILD HEALTH

The 2023 JPFHS collected data on a number of key child health indicators, including vaccinations of young children, nutritional status as assessed by anthropometry, infant feeding practices, and treatment practices when a child is ill.

3.10.1 Vaccination Coverage

Universal immunization of children against common vaccine-preventable diseases is crucial in reducing infant and child mortality. In Jordan, routine childhood vaccines protect against tuberculosis (bacille Calmette-Guérin [BCG]); diphtheria, pertussis (whooping cough), and tetanus (DPT vaccine); polio (inactivated polio vaccine [IPV] or oral polio vaccine [OPV]); *Haemophilus influenzae* type b (Hib vaccine); hepatitis B (HepB vaccine); measles (measles vaccine), and measles, mumps, and rubella (MMR vaccine). In March 2015, the government of Jordan introduced the pentavalent human rotavirus vaccine into the national infant immunization program. 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.

The 2023 JPFHS collected information on coverage of these vaccines among children age 12–23 months and children age 24–35 months at any time before the survey. The information obtained on differences in vaccination coverage among subgroups of children is useful for program planning and targeting resources towards areas most in need.

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 (BCG), three doses each of the DPT and polio vaccines, and a single dose of the measles vaccine. The BCG vaccine is usually given at birth or at first clinical contact, while the DPT and polio vaccines are given in combination with Hib (DTaP-IPV-Hib) at approximately age 3, 4, and 5 months. A first measles vaccination should be given at or soon after age 9 months.

Information on vaccination coverage was obtained in two ways in the 2023 JPFHS: from written vaccination records (such as vaccination cards) and from verbal reports. For each child born in the 3 years

before the survey, mothers were asked to show the interviewer the Infant Immunization Card or health card used for recording the child's immunizations. If the Infant Immunization Card or other health card was available, the interviewer copied the dates of each vaccination received in the respective section of the Woman's Questionnaire. If a vaccination was not recorded in the Infant Immunization Card or the health card, the mother was asked to recall whether that particular vaccination had been given. If the mother was not able to present the Infant Immunization Card or other card for a child, she was asked to recall whether the child had received the BCG, polio, DPT-HepB-Hib, measles, and rotavirus vaccines. If she indicated that the child had received the polio, DPT-HepB-Hib, or rotavirus vaccine, she was asked the number of doses that the child received.

Fully vaccinated: basic antigens

Percentage of children who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report). To have received all basic antigens, a child must receive at least:

- One dose of BCG, which protects against tuberculosis
- Three doses of polio vaccine given as OPV, IPV, or a combination of OPV and IPV
- Three doses of DPT-containing vaccine, which protects against diphtheria, pertussis (whooping cough), and tetanus
- One dose of measles-containing vaccine given as measles

Sample: Children age 12–23 months

Table 11 presents data on vaccination coverage among children age 12–23 months by background characteristics. Children age 12–23 months are the youngest cohort to have reached the age by which a child should be fully immunized. The data show that 92% of children age 12–23 months had received all basic vaccinations at some time before the survey, and 78% were fully vaccinated according to the national schedule. Only 1% of children age 12–23 months had not received any vaccinations. Regarding specific vaccinations, 98% of children received the BCG vaccine and 94% were vaccinated again measles. Coverage is high for the first dose of DPT-IPV-Hib-HepB (98%) but decreases with the number of doses. Ninety percent of children received the third dose of the rotavirus vaccine.

Table 11 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 fully vaccinated (basic antigens), percentage fully vaccinated according to the national schedule, and percentage who received no vaccinations, according to background characteristics, Jordan PFHS 2023

Background characteristic	BCG	DPT/IPV/Hib/HepB 1	2	3	OPV 1	2	3	Rotavirus 1	2	3	Measles	Fully vaccinated (basic antigens)[1]	Fully vaccinated according to national schedule[2]	No vaccinations	Number of children	MMR 1	MMR 2	DPT 4	OPV 4	Fully vaccinated according to national schedule[3]	Number of children
Sex																					
Male	97.9	97.6	97.1	94.8	96.7	94.2	81.4	95.9	95.3	91.6	94.6	92.3	77.5	1.7	803	66.0	59.6	59.4	65.6	55.3	797
Female	99.2	98.1	96.1	94.4	96.7	94.3	84.1	94.8	92.7	88.8	94.1	91.5	78.1	0.6	623	65.8	61.3	61.3	72.6	58.9	715
Birth order																					
1	98.7	97.7	96.8	94.5	97.1	94.1	85.4	95.0	94.0	90.5	94.6	92.1	79.5	1.1	298	55.8	54.7	54.0	71.7	53.2	289
2–3	98.4	97.9	96.4	94.5	95.8	93.1	80.2	94.0	92.6	88.2	92.4	90.5	74.9	1.3	557	67.5	62.7	63.6	70.3	60.1	706
4–5	99.2	98.5	97.6	96.6	97.8	96.7	85.6	97.7	96.5	94.1	97.3	95.0	81.9	0.5	432	67.1	60.4	58.2	66.1	53.4	373
6+	95.6	95.5	94.6	88.9	95.8	91.3	76.7	94.8	93.6	87.0	92.5	87.8	72.9	3.5	138	75.4	60.8	62.4	63.4	58.7	143
Vaccination card[4]																					
Seen	99.7	99.0	98.3	96.7	97.6	95.2	83.3	98.3	97.3	94.4	95.4	94.3	80.8	0.0	1,067	93.4	85.9	85.5	83.7	81.1	1,063
Not seen or no longer has	97.7	97.2	94.7	91.3	96.8	94.1	83.0	89.9	87.8	81.0	94.2	87.7	71.1	1.8	347	0.7	0.0	0.7	35.2	0.0	431
Never had	*	*	*	*	*	*	*	*	*	*	*	*	*	*	12	*	*	*	*	*	17
Residence																					
Urban	98.6	97.8	96.7	94.6	97.0	94.8	84.3	95.5	94.4	90.7	94.2	92.2	79.4	1.3	1,247	66.1	61.1	61.0	70.3	58.2	1,372
Rural	97.5	98.0	96.4	94.4	94.4	90.1	70.8	94.6	92.7	87.9	95.2	90.0	66.3	1.0	179	64.1	53.6	53.3	54.5	45.1	139
Region																					
Central	98.6	97.7	96.4	94.3	97.5	95.0	83.3	95.0	93.7	89.0	93.1	91.3	77.7	1.3	850	70.6	65.6	66.1	74.3	63.0	927
North	99.1	98.5	98.1	96.2	96.8	94.6	83.0	96.9	96.1	93.9	97.4	94.5	79.8	0.5	490	60.1	54.5	53.3	63.3	50.5	482
South	93.5	94.4	91.7	88.1	87.9	85.1	73.4	91.4	88.0	83.3	89.8	83.5	66.5	4.6	87	50.5	41.5	40.1	46.0	33.1	102
Governorate																					
Amman	98.4	98.4	96.9	94.0	97.4	94.8	85.8	94.8	93.2	87.6	91.6	90.2	78.8	1.5	547	67.9	62.2	63.2	73.2	60.3	605
Balqa	99.4	99.4	99.4	99.4	97.8	96.8	82.9	98.5	98.5	95.2	99.4	99.4	78.7	0.6	64	63.6	61.4	59.8	70.7	53.9	71
Zarqa	98.7	95.3	95.3	95.3	98.3	96.3	78.9	94.4	94.4	92.2	94.7	93.2	76.5	1.3	210	80.1	77.7	78.5	80.9	75.9	223
Madaba	100.0	99.1	87.9	82.8	93.0	84.0	68.2	95.1	86.0	78.8	94.9	80.8	64.1	0.0	29	71.9	54.7	46.1	54.7	42.2	28
Irbid	99.1	99.0	99.0	98.0	99.2	98.9	87.8	96.5	96.5	95.7	98.1	96.3	84.8	0.4	324	56.1	52.8	51.7	65.7	51.2	326
Mafraq	99.6	97.4	95.6	93.7	86.7	78.4	66.9	98.0	94.3	89.2	96.3	91.5	62.5	0.0	84	65.0	50.9	48.6	49.6	38.2	81
Jarash	98.3	98.3	97.9	93.4	98.9	94.4	89.1	97.5	97.5	91.5	95.4	92.0	87.4	1.1	46	69.8	65.1	64.5	67.1	60.3	45
Ajloun	98.2	97.2	96.0	90.5	96.1	93.6	69.6	97.1	95.2	90.9	96.0	88.6	65.7	1.2	36	74.9	66.3	66.1	67.7	62.0	31
Karak	95.2	98.7	97.0	93.4	94.3	92.2	81.0	95.9	94.7	88.4	94.1	87.8	72.2	1.3	34	51.2	43.9	43.8	46.7	34.6	45
Tafiela	97.7	95.4	95.4	94.2	96.7	93.4	80.8	95.5	95.5	95.5	91.9	89.6	75.1	2.3	15	55.4	46.8	41.2	56.8	32.3	14
Ma'an	88.0	87.8	80.0	71.6	69.4	64.9	53.8	80.9	69.7	63.3	84.5	69.6	45.8	9.7	20	47.8	30.9	31.1	29.1	24.7	18
Aqaba	92.8	92.8	91.3	91.3	89.1	86.8	74.9	90.9	89.4	85.6	85.6	85.6	71.7	7.2	17	48.1	41.8	39.1	50.6	36.8	24

Continued…

Table 11—*Continued*

Background characteristic	BCG	DPT/IPV/Hib/HepB 1	2	3	OPV 1	2	3	Rotavirus 1	2	3	Measles	Fully vaccinated (basic antigens)[1]	Fully vaccinated according to national schedule[2]	No vaccinations	Number of children	MMR 1	MMR 2	DPT 4	OPV 4	Fully vaccinated according to national schedule[3]	Number of children
Nationality																					
Jordanian	98.4	97.7	96.8	94.6	96.6	94.1	82.2	95.9	94.9	90.7	94.7	92.5	78.2	1.3	1,225	65.9	60.1	60.1	68.8	56.7	1,307
Syrian	98.1	98.2	96.7	94.5	96.3	93.2	81.7	97.1	95.7	93.9	93.6	91.3	80.8	1.0	142	69.0	64.1	63.2	70.0	60.2	149
Outside camps	98.3	98.1	96.4	94.1	96.0	92.8	79.5	97.0	95.6	94.1	92.7	90.6	79.4	1.0	117	67.9	63.1	62.6	69.4	60.6	123
Inside camps	97.3	98.6	97.9	96.5	97.9	95.1	92.4	97.5	96.4	92.9	97.8	94.4	87.8	1.4	24	74.2	68.8	65.9	72.7	58.2	27
Other nationalities	99.5	99.7	94.4	94.2	100.0	99.5	91.6	80.5	75.5	75.2	88.4	82.7	62.5	0.0	59	57.9	57.7	57.2	68.7	56.0	54
Education																					
No education	(81.4)	(82.0)	(65.2)	(63.4)	(64.4)	(63.1)	(55.6)	(82.0)	(65.2)	(62.9)	(64.8)	(62.7)	(53.9)	(18.0)	28	(18.0)	(15.1)	(14.5)	(17.2)	(12.0)	35
Less than secondary	98.1	97.6	96.9	93.0	97.4	93.1	77.1	94.8	93.8	87.2	90.9	88.6	71.3	1.3	394	69.5	63.3	62.6	68.9	59.9	417
Secondary	98.6	97.2	96.8	94.8	96.9	95.3	85.0	95.8	95.4	91.9	96.6	93.6	80.9	1.1	505	70.9	64.8	65.6	72.3	62.1	505
Higher	99.5	99.4	98.2	97.5	97.7	95.8	86.0	96.2	94.9	92.8	96.4	94.6	81.1	0.3	499	61.6	57.2	56.5	68.9	53.0	554
Wealth quintile																					
Lowest	96.6	95.4	93.6	91.1	93.4	89.9	79.7	92.2	89.9	85.1	88.6	86.3	72.5	2.9	429	62.5	57.2	56.5	63.9	54.1	428
Second	98.9	98.3	98.0	95.9	97.3	94.5	79.6	96.5	96.1	94.0	96.4	94.0	76.0	0.6	336	67.5	61.7	63.5	71.9	59.1	349
Middle	99.1	99.1	98.6	96.5	98.2	95.7	88.2	98.6	98.2	93.2	97.1	95.7	84.9	0.7	321	72.9	69.3	68.8	76.3	64.6	286
Fourth	99.5	98.7	96.7	94.5	98.6	97.9	83.9	93.8	91.9	88.3	97.3	92.6	78.8	0.4	223	69.6	59.5	58.7	67.3	56.8	252
Highest	100.0	100.0	99.0	99.0	99.3	98.3	83.9	98.6	97.6	95.3	96.3	95.3	80.6	0.0	117	55.5	53.3	52.5	65.5	49.0	197
Total	98.4	97.8	96.7	94.6	96.7	94.2	82.6	95.4	94.2	90.3	94.3	92.0	77.8	1.2	1,426	65.9	60.4	60.3	68.9	57.0	1,511

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. 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.

BCG = bacille Calmette-Guérin
DPT = diphtheria-pertussis-tetanus
HepB = hepatitis B
Hib = *Haemophilus influenzae* type b
OPV = oral polio vaccine
IPV = inactivated polio vaccine
MMR = measles/mumps/rubella
[1] BCG, three doses of DPT/IPV/Hib/HepB, and one dose of measles
[2] BCG, three doses of DPT/IPV/Hib/HepB, three doses of oral polio vaccine, three doses of rotavirus vaccine, and one dose of measles vaccine
[3] BCG, three doses of DPT/IPV/Hib/HepB, four doses of oral polio vaccine, three doses of rotavirus vaccine, one dose of measles, two doses of MMR, and one dose of DPT
[4] Vaccination card, booklet, or other home-based record

- There are large variations in basic vaccination coverage among children age 12–23 months by governorate, with rates ranging from 70% in Ma'an to 99% in Balqa.

- Ninety-three percent of children age 12–23 months whose mothers are Jordanian and 91% whose mothers are Syrian have had all basic vaccines, as compared with 83% of children whose mothers are of other nationalities.

- Vaccination coverage increases with increasing mother's education. Sixty-three percent of children whose mothers have no education are fully vaccinated, compared with more than 9 in 10 children whose mothers have a secondary education or higher. Similar patterns are observed by household wealth.

Trends: The percentage of children age 12–23 months who have received all basic antigens has fluctuated over time, rising from 27% in 2002 to a peak of 93% in 2012, decreasing to 75% in 2017–18, and then increasing once again to 92% in 2023 (**Figure 6**). The percentage of children age 12–23 months who have not received any vaccinations was constant at 0%–2% from 1990 to 2012, increased notably to 7% in 2017–18, and then decreased to 1% in 2023.

Figure 6 **Trends in childhood vaccinations**

Percentage of children age 12–23 months
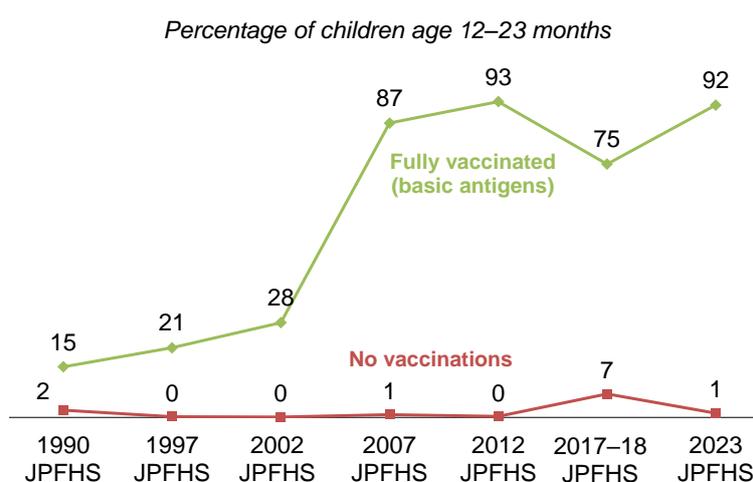
3.10.2 Care Seeking for and Treatment of Child Illness

Acute respiratory infection (ARI), fever, and dehydration from diarrhea are important contributing causes of morbidity and mortality in children under age 5. Prompt medical attention and treatment of children experiencing symptoms can be crucial to reducing early child deaths.

Eight percent of children under age 5 had ARI symptoms in the 2 weeks before the survey. Advice or treatment from a health facility was sought for 87% of these children (**Table 12**).

Fourteen percent of children had a fever in the 2 weeks preceding the survey. Eighty-two percent of children with fever were taken to health facility or provider for advice or treatment (**Table 12**).

Eleven percent of children had diarrhea in the 2 weeks before the survey. Advice or treatment from a health facility or provider was sought for 63% of these children. Administration of oral rehydration solution is a simple way to counter the effects of dehydration caused by diarrhea. Forty-two percent of children with diarrhea were given fluid from an oral rehydration salt (ORS) packet or prepackaged ORS fluid, 9% received zinc, and 7% received both ORS and zinc. Five percent of children were given ORS and zinc and continued to be fed.

Trends: The percentage of children with ARI symptoms who were taken to a health facility or provider for advice or treatment increased from 83% in 2012 to 87% in 2023. During the same period, the percentage of children with diarrhea for whom advice or treatment was sought changed only minimally (61% in 2012 and 63% in 2023), while the percentage of children with a fever for whom advice or treatment was sought increased from 76% to 82%.

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

Among children under age 5 who had symptoms of acute respiratory infection (ARI) or had a fever during the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, and among children under age 5 who had diarrhea during the 2 weeks preceding the survey, percentage for whom advice or treatment was sought, percentage given fluid from an oral rehydration salt (ORS) packet or prepackaged ORS fluid, percentage given zinc, percentage given ORS and zinc, and percentage given ORS, zinc, and continued feeding, according to background characteristics, Jordan PFHS 2023

| Background characteristic | Children with symptoms of ARI[1] | | Children with fever | | Children with diarrhea | | | | | |
	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 (Aquacell or Paralait) or pre-packaged ORS fluid	Percentage given zinc	Percentage given ORS and zinc	Percentage given ORS, zinc, and continued feeding[3]	Number of children
Age in months										
<6	(95.4)	36	(89.9)	38	52.4	25.5	10.5	10.5	9.9	66
6–11	87.0	65	72.8	133	66.3	32.8	8.5	4.9	4.7	140
12–23	85.9	156	78.7	303	57.9	33.2	8.4	5.9	2.9	251
24–35	78.5	121	83.5	198	63.5	57.9	7.6	5.8	4.2	134
36–47	94.0	131	85.4	271	71.4	49.3	13.8	10.9	8.5	135
48–59	86.4	126	84.9	205	62.9	50.4	9.3	7.1	5.5	123
Sex										
Male	87.5	358	81.0	638	66.6	43.5	10.0	7.4	5.2	455
Female	86.1	277	83.1	510	58.0	39.1	8.8	6.7	5.2	393
Residence										
Urban	86.5	582	81.6	1,048	60.9	39.3	8.3	6.0	4.5	740
Rural	91.8	53	84.9	100	74.4	56.6	17.3	14.4	10.3	107
Region										
Central	85.9	484	83.1	813	60.1	40.9	6.4	5.5	4.0	584
North	91.4	110	78.2	263	64.9	35.8	15.6	8.8	7.3	200
South	86.6	40	82.0	73	78.0	64.2	17.7	15.0	9.5	65
Governorate										
Amman	86.4	325	84.1	535	56.4	36.8	5.2	4.7	3.9	374
Balqa	(94.4)	36	86.0	65	87.4	66.8	12.5	9.3	4.3	63
Zarqa	81.5	110	79.2	194	55.4	40.2	7.7	6.6	4.6	129
Madaba	(86.5)	13	83.6	19	75.7	41.8	1.9	1.9	1.9	18
Irbid	(93.4)	58	75.9	167	63.1	24.5	10.8	3.3	2.5	114
Mafraq	(93.7)	17	81.0	37	71.5	58.5	17.5	12.8	10.5	34
Jarash	83.4	25	81.5	37	61.0	51.4	35.5	26.2	22.8	31
Ajloun	(95.5)	11	85.1	22	69.3	36.9	9.3	6.5	5.6	21
Karak	92.1	24	87.3	43	84.1	65.3	12.4	11.6	7.8	36
Tafiela	(73.5)	6	78.4	10	62.9	59.1	20.3	17.3	17.3	9
Ma'an	*	5	(72.9)	8	(74.4)	(69.0)	(33.5)	(27.8)	(13.6)	9
Aqaba	*	6	(72.2)	13	(72.3)	(60.0)	(19.8)	(13.7)	(5.1)	10
Nationality										
Jordanian	89.4	526	84.8	980	64.1	42.4	9.5	7.6	5.7	732
Syrian	79.9	72	69.0	119	55.8	37.1	9.2	3.6	1.5	82
Outside camps	79.9	69	68.3	112	55.1	34.6	9.0	2.7	0.6	74
Inside camps	*	3	78.7	7	61.6	60.0	11.7	11.7	9.9	8
Other nationalities	(65.0)	37	(54.2)	48	(47.4)	(30.8)	(8.9)	(4.2)	(3.1)	34
Mother's education										
No education	*	5	*	17	*	*	*	*	*	19
Less than secondary	80.4	218	72.0	322	55.7	35.3	11.2	6.8	5.3	247
Secondary	87.4	208	83.0	408	64.4	44.8	9.5	7.5	5.4	306
Higher	93.3	203	89.0	400	67.6	44.9	7.9	6.7	5.3	276
Wealth quintile										
Lowest	86.8	214	78.1	331	58.5	33.8	9.8	6.2	3.5	253
Second	83.4	125	82.5	285	61.0	38.1	5.5	4.1	3.2	208
Middle	93.3	125	84.5	246	68.0	44.5	11.7	9.9	7.4	178
Fourth	79.5	101	78.5	184	59.5	43.0	13.5	10.3	9.0	154
Highest	(92.7)	69	92.7	101	(79.1)	(75.6)	(3.7)	(3.7)	(2.8)	55
Total	86.9	635	81.9	1,148	62.6	41.5	9.4	7.0	5.2	848

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 that is chest-related and/or difficult breathing that is chest-related.
[2] Includes advice or treatment from the following sources: public medical sector and private medical sector. Excludes advice or treatment from a traditional practitioner.
[3] Continued feeding includes children who were given more, the same as usual, or somewhat less food during the diarrhea episode.

3.11   NUTRITIONAL STATUS OF CHILDREN

Anthropometry is commonly used to measure child nutritional status. The anthropometric measurements are used to report on child growth indicators. The distribution of height and weight among children under age 5 was compared with the World Health Organization (WHO) Child Growth Standards reference population (WHO 2006b). The distribution of a well-nourished population will be similar to that of the reference population, while the distribution of a poorly nourished population will not. The indices height-for-age, weight-for-height, and weight-for-age can be expressed in standard deviations units (*z* scores) from the median of the reference population. Values that are greater than two standard deviations below the median of the WHO Child Growth Standards are used to define malnutrition.

Stunting (assessed via height-for-age)

Height-for-age is a measure of grow faltering. Children whose height-for-age *z* score is below minus two standard deviations (−2 SD) from the median of the reference population are considered short for their age (stunted). Children whose *z* score is below minus three standard deviations (−3 SD) from the median are considered severely stunted.

Sample: Children under age 5

Wasting (assessed via weight-for-height)

The weight-for-height index measures body mass in relation to body height (or length) and describes acute malnutrition. Children whose *z* score is below minus two standard deviations (−2 SD) from the median of the reference population are considered thin (wasted). Children whose *z* score is below minus three standard deviations (−3 SD) from the median are considered severely wasted.

Sample: Children under age 5

Underweight (assessed via weight-for-age)

Weight-for-age is a composite index of height-for-age and weight-for-height that takes into account both wasting and stunting. Children whose weight-for-age *z* score is below minus two standard deviations (−2 SD) from the median of the reference population are classified as underweight. Children whose weight-for-age *z* score is below minus three standard deviations (−3 SD) from the median are classified as severely underweight.

Sample: Children under age 5

Overweight (assessed via weight-for-height)

Children whose weight-for-age *z* score is more than two standard deviations (+2 SD) above the median of the reference population are considered overweight.

Sample: Children under age 5

The 2023 JPFHS identified a total of 5,589 children under age 5 who were eligible for height and weight measurements. The percentages with valid data for height-for-age, weight-for-height, and weight-for-age were 94%, 93%, and 95%, respectively.

Table 13 Nutritional status of children

Percentage of children under age 5 classified as malnourished according to three anthropometric indices of child growth: height-for-age, weight-for-height, and weight-for-age, according to background characteristics, Jordan PFHS 2023

Background characteristic	Height-for-age[1]				Weight-for-height					Weight-for-age			
	Percentage below −3 SD	Percentage below −2 SD[2]	Mean z score (SD)	Number of children	Percentage below −3 SD	Percentage below −2 SD[2]	Percentage above +2 SD	Mean z score (SD)	Number of children	Percentage below −3 SD	Percentage below −2 SD[2]	Mean z score (SD)	Number of children
Age in months													
<6	8.0	18.3	−0.6	382	3.2	6.3	18.9	0.5	379	4.2	6.9	−0.1	385
6–11	3.9	7.5	0.0	523	0.2	2.2	12.7	0.7	525	1.0	3.4	0.5	525
12–23	3.1	7.3	−0.2	966	0.2	1.2	9.7	0.7	966	0.1	1.9	0.4	968
24–35	3.1	8.9	−0.4	982	0.5	2.2	8.3	0.5	973	0.5	2.6	0.2	987
36–47	1.8	8.3	−0.3	1,195	0.1	2.8	5.3	0.3	1,186	0.3	1.6	0.1	1,198
48–59	1.8	5.7	−0.2	1,208	0.1	1.4	7.0	0.3	1,181	0.3	2.2	0.1	1,211
0–23	4.3	9.6	−0.2	1,872	0.8	2.5	12.4	0.7	1,870	1.2	3.4	0.3	1,879
24–59	2.2	7.6	−0.3	3,386	0.2	2.1	6.7	0.4	3,341	0.4	2.1	0.1	3,395
Sex													
Male	2.4	7.7	−0.2	2,737	0.5	2.0	9.0	0.5	2,703	0.7	2.2	0.2	2,750
Female	3.5	8.9	−0.4	2,520	0.3	2.6	8.5	0.5	2,508	0.6	2.9	0.1	2,524
Mother's interview status													
Interviewed	2.8	8.2	−0.3	5,132	0.4	2.3	8.9	0.5	5,085	0.6	2.4	0.2	5,149
Not interviewed but in household	0.0	13.4	−0.2	49	2.2	3.5	2.3	−0.0	49	2.3	4.9	−0.2	49
Not interviewed and not in the household[3]	11.1	14.0	−0.1	76	0.0	0.0	4.0	0.0	76	5.3	7.2	−0.1	76
Residence													
Urban	2.8	8.2	−0.3	4,725	0.4	2.2	8.9	0.5	4,685	0.6	2.3	0.2	4,738
Rural	3.7	8.8	−0.3	532	0.5	3.1	7.6	0.4	526	0.8	4.7	0.1	537
Region													
Central	3.0	8.3	−0.2	3,474	0.2	1.8	8.3	0.5	3,443	0.6	2.3	0.2	3,480
North	2.6	7.9	−0.3	1,442	0.9	3.1	9.9	0.5	1,430	0.8	2.7	0.2	1,449
South	3.8	9.4	−0.5	341	0.9	3.7	9.5	0.3	338	1.1	3.9	−0.0	346
Governorate													
Amman	3.7	7.9	−0.2	2,229	0.3	2.1	8.5	0.5	2,199	0.7	2.6	0.2	2,231
Balqa	2.4	7.9	−0.3	329	0.2	1.0	9.1	0.4	329	0.3	1.0	0.1	330
Zarqa	1.4	9.4	−0.3	826	0.0	1.5	7.0	0.5	826	0.4	2.2	0.2	827
Madaba	3.6	10.6	−0.4	90	0.0	0.3	11.4	0.6	90	0.5	2.1	0.2	91
Irbid	2.0	6.6	−0.2	990	1.0	3.5	9.6	0.4	987	0.3	2.0	0.2	992
Mafraq	5.7	15.2	−0.7	225	1.3	2.8	12.2	0.5	217	3.4	7.0	−0.1	228
Jarash	3.0	7.8	−0.4	133	0.3	2.0	9.3	0.5	132	0.3	1.6	0.2	134
Ajloun	0.3	4.8	−0.1	94	0.0	1.1	8.1	0.5	94	0.0	1.1	0.3	95
Karak	3.2	6.7	−0.4	141	0.9	3.2	10.1	0.4	140	2.0	4.3	0.0	143
Tafiela	4.0	12.7	−0.4	44	0.4	2.4	7.4	0.2	43	0.3	2.9	−0.1	45
Ma'an	5.1	13.0	−0.7	78	1.4	4.3	11.2	0.4	78	0.9	3.2	−0.1	79
Aqaba	3.3	8.8	−0.3	78	0.7	4.8	7.6	0.2	78	0.3	4.4	−0.1	79
Nationality													
Jordanian	2.9	7.9	−0.2	4,508	0.5	2.5	9.0	0.5	4,464	0.7	2.4	0.2	4,524
Syrian	3.3	11.3	−0.6	532	0.2	0.7	8.6	0.4	530	0.2	3.3	−0.1	534
Outside camps	3.3	11.0	−0.6	440	0.1	0.5	8.6	0.4	438	0.2	3.1	−0.0	440
Inside camps	3.6	12.7	−0.7	92	0.8	1.9	8.5	0.2	92	0.0	4.2	−0.3	93
Other nationalities	2.4	9.5	−0.1	217	0.1	0.8	4.4	0.4	217	0.0	2.9	0.2	217
Mother's education[4]													
No education	6.5	13.1	−0.8	109	0.2	1.6	10.3	0.6	109	0.5	4.0	−0.0	109
Less than secondary	3.6	11.7	−0.5	1,567	0.3	2.0	7.7	0.4	1,562	0.7	3.7	0.0	1,570
Secondary	1.9	6.5	−0.2	1,636	0.6	2.1	8.8	0.5	1,620	0.8	2.4	0.2	1,641
Higher	2.8	6.5	−0.1	1,868	0.4	2.8	9.8	0.5	1,843	0.4	1.5	0.3	1,877
Wealth quintile													
Lowest	4.8	11.8	−0.6	1,428	0.3	1.6	7.1	0.4	1,419	1.1	4.7	−0.0	1,431
Second	2.1	7.3	−0.3	1,263	0.3	1.9	7.6	0.4	1,255	0.7	2.6	0.1	1,265
Middle	1.2	6.8	−0.2	1,088	0.7	3.6	8.7	0.5	1,084	0.5	2.0	0.2	1,093
Fourth	1.8	5.5	0.0	862	0.2	2.4	10.3	0.5	856	0.5	0.7	0.4	866
Highest	4.9	8.7	−0.0	616	0.6	2.1	13.3	0.6	596	0.1	1.1	0.5	619
Total	2.9	8.3	−0.3	5,257	0.4	2.3	8.8	0.5	5,211	0.7	2.5	0.2	5,274

Note: Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards.
[1] Recumbent length is measured for children under age 2; standing height is measured for all other children.
[2] Includes children who are below −3 SD from the WHO Child Growth Standards population median
[3] Includes children whose mothers are deceased
[4] For women who are not interviewed, information is taken from the Household Questionnaire. Excludes children whose mothers are not listed in the Household Questionnaire.

Trends: A comparison of anthropometric measurements from previous JPFHS surveys shows that the prevalence of stunting declined from 11% in 1997 to 8% in 2023 (**Figure 7**). There was no change in the percentage of children who are wasted (2%). The prevalence of overweight has increased since 1997, from 4% to 9% (**Table 13**).

3.12 INFANT AND YOUNG CHILD FEEDING

Optimal infant and young child feeding (IYCF) practices are critical to the health and survival of young children. Recommended IYCF practices include early initiation of breastfeeding (within the first hour of life), exclusive breastfeeding for the first 6 months of life, and feeding children a diet that meets a minimum diversity standard (WHO and UNICEF 2021).

Figure 7 **Trends in nutritional status of children**

Percentage of children under age 5 who are malnourished
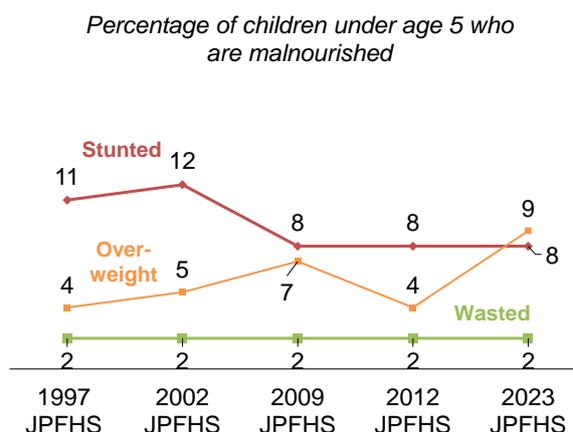
Early initiation of breastfeeding
Percentage of children age 0–23 months who were put to the breast within 1 hour of birth.
Sample: Children age 0–23 months

Exclusive breastfeeding under 6 months
Percentage of children age 0–5 months who were fed exclusively with breast milk during the previous day.
Sample: Youngest children age 0–5 months living with their mother

Minimum dietary diversity
Percentage of children age 6–23 months who were fed a minimum of five out of eight defined food groups during the previous day. The eight food groups are as follows: breast milk; grains, roots, and tubers; legumes and nuts; dairy products (milk, yogurt, and cheese); flesh foods (meat, fish, poultry, and organ meat); eggs; vitamin A-rich fruits and vegetables; and other fruits and vegetables.
Sample: Youngest children age 6–23 months living with their mother

Key IYCF indicators are presented in **Table 14**.

- Thirty-four percent of children age 0–23 months were breastfed within 1 hour of birth.

- Twenty-four percent of children under age 6 months are exclusively breastfeed.

- Forty-two percent of children age 6–23 months are fed with a minimum dietary diversity.

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Table 14 Infant and young child feeding (IYCF) indicators

Percentage of children fed according to various IYCF practices, Jordan PFHS 2023

Indicator	Indicator numerator and denominator	Value
Early initiation of breastfeeding	Percentage of children born in the last 2 years who were put to the breast within 1 hour of birth	33.8
	Number of children born in the last 2 years	2,825
Exclusive breastfeeding under 6 months	Percentage of children age 0–5 months who were fed exclusively with breast milk during the previous day	23.9
	Number of youngest children age 0–5 months living with their mother	563
Minimum dietary diversity 6–23 months	Percentage of children age 6–23 months who were fed foods and beverages from at least five out of eight defined food groups during the previous day	42.4
	Number of youngest children age 6–23 months living with their mother	2,061
Sweet beverage consumption 6–23 months	Percentage of children age 6–23 months who were given a sweet beverage during the previous day	56.3
	Number of youngest children age 6–23 months living with their mother	2,061
Unhealthy food consumption 6–23 months	Percentage of children age 6–23 months fed unhealthy foods during the previous day	64.8
	Number of youngest children age 6–23 months living with their mother	2,061

Note: Table includes children born in the 2 years preceding the survey regardless of whether the children were living or dead at the time of the interview.

Unhealthy infant and young child feeding practices should be avoided because they can replace nutritious foods that provide important nutrients for children and can promote unhealthy weight gain. For infants and young children, consumption of sweet foods and beverages increases the risk of dental caries and obesity in childhood. The definition below for unhealthy food consumption describes sentinel unhealthy foods, foods high in sugar, salt, and/or unhealthy fats that are commonly consumed by infants and young children (WHO and UNICEF 2021).

Sweet beverage consumption
Percentage of children age 6–23 months who were given a sweet beverage during the previous day.
Unhealthy food consumption
Percentage of children age 6–23 months who were fed sentinel unhealthy foods during the previous day.
Sample: Youngest children age 6–23 months living with their mother

- Fifty-six percent of children age 6–23 months were fed a sweet beverage during the previous day.

- Sixty-five percent of children consumed unhealthy foods during the previous day.

Trends: Exclusive breastfeeding among children age 0–5 months has declined over time, from 39% in 1990 to 24% in 2023 (**Figure 8**).

Figure 8 Trends in exclusive breastfeeding

Percentage of children age 0–5 months

1990 JPFHS	1997 JPFHS	2002 JPFHS	2007 JPFHS	2012 JPFHS	2017–18 JPFHS	2023 JPFHS
39	11	27	22	23	26	24
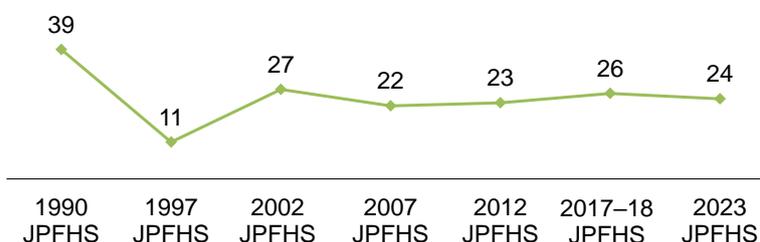
3.13   ANEMIA PREVALENCE

3.13.1 Prevalence of Anemia among Children

Anemia is a condition that is marked by low levels of hemoglobin in the blood. Causes of anemia include iron deficiency and other nutritional deficiencies, malaria, infections with hookworm or other helminths, chronic infections, and genetic conditions such as sickle cell disease. Anemia is a serious concern for children because it can impair cognitive development and is associated with long-term health problems and poor economic consequences. Severe anemia leads to increased mortality (Chaparro and Suchdev 2019).

Anemia in children

Anemia status	Hemoglobin level in grams/deciliter*
Anemic	<11.0
Mildly anemic	10.0–10.9
Moderately anemic	7.0–9.9
Severely anemic	<7.0
Not anemic	≥11.0

* Hemoglobin levels are adjusted for altitude in enumeration areas above 1,000 meters.

Sample: Children age 6–59 months

Of the 5,011 children age 6–59 months eligible for anemia testing in the survey, 89% were tested.

The results in **Table 15** show that anemia is common among children in Jordan; almost one-third of children age 6–59 months are anemic, including 19% who are mildly anemic, 13% who are moderately anemic, and less than 1% who are severely anemic.

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Table 15 Prevalence of anemia in children

Percentage of children age 6–59 months classified as having anemia, according to background characteristics, Jordan PFHS 2023

| Background characteristic | Anemia status by hemoglobin level | | | | Number of children age 6–59 months |
	Any (<11.0 g/dl)	Mild (10.0–10.9 g/dl)	Moderate (7.0–9.9 g/dl)	Severe (<7.0 g/dl)	
Age in months					
6–11	32.0	19.5	12.5	0.0	479
12–23	50.2	28.2	20.7	1.4	910
24–35	35.6	19.6	15.4	0.5	915
36–47	27.3	17.7	9.6	0.1	1,139
48–59	19.5	12.6	6.9	0.0	1,152
6–23	44.0	25.2	17.8	0.9	1,389
24–59	26.9	16.4	10.3	0.2	3,206
Sex					
Male	33.7	20.4	13.2	0.1	2,376
Female	30.2	17.6	11.9	0.7	2,219
Residence					
Urban	31.7	18.9	12.4	0.4	4,139
Rural	35.1	20.4	14.4	0.2	456
Region					
Central	28.1	17.2	10.5	0.5	3,064
North	42.7	23.6	18.8	0.3	1,218
South	28.5	19.3	9.1	0.0	313
Governorate					
Amman	27.5	16.5	10.3	0.6	1,967
Balqa	35.3	23.7	11.0	0.6	293
Zarqa	27.3	16.4	10.9	0.0	728
Madaba	25.6	17.3	8.3	0.0	75
Irbid	42.7	23.8	18.5	0.4	862
Mafraq	44.6	24.5	19.8	0.3	168
Jarash	44.1	22.2	21.9	0.0	109
Ajloun	37.6	22.7	14.9	0.0	80
Karak	31.5	21.5	10.0	0.0	126
Tafiela	28.8	22.6	5.9	0.4	40
Ma'an	18.3	11.3	7.0	0.0	73
Aqaba	33.1	21.9	11.2	0.0	74
Nationality					
Jordanian	31.6	18.8	12.4	0.4	3,939
Syrian	36.6	21.7	14.8	0.2	469
Outside camps	34.3	20.3	13.9	0.1	383
Inside camps	47.2	27.8	18.7	0.6	86
Other nationalities	30.0	18.4	11.5	0.0	187
Wealth quintile					
Lowest	39.0	20.7	17.3	1.0	1,265
Second	34.8	19.6	15.1	0.1	1,092
Middle	30.2	17.5	12.6	0.1	953
Fourth	28.1	20.1	8.0	0.0	768
Highest	18.3	15.2	2.3	0.8	517
Total	32.0	19.1	12.6	0.4	4,595

Note: Table is based on children who stayed in the household on the night before the interview and who were tested for anemia. Prevalence of anemia, based on hemoglobin levels, is adjusted for altitude using formulas in CDC 1998 and cutoffs defined in WHO 2017. Hemoglobin is measured in grams per deciliter (g/dl) using the HemoCue 201+ device.

Trends: The prevalence of anemia among Jordanian children remained largely unchanged between 2002 and 2023, declining slightly from 34% to 32%.

- The prevalence of anemia is highest among children age 12–23 months (50%).

- Anemia is more prevalent among children in the North region (43%) than among children in the Central (28%) or South (29%) region.

- The prevalence of anemia varies widely by governorate, from 18% in Ma'an to 45% in Mafraq.

- Anemia levels generally decrease with increasing household wealth.

3.13.2 Prevalence of Anemia among Women

Hemoglobin levels below which women are considered anemic

Respondents	Hemoglobin level in grams/deciliter*
Nonpregnant women age 15–49	Less than 12.0
Pregnant women age 15–49	Less than 11.0

* Hemoglobin levels are adjusted for cigarette smoking and for altitude in enumeration areas above 1,000 meters.

Sample: Women age 15–49

Of the 11,880 women age 15–49 eligible for anemia testing, 89% were tested.

As shown in **Table 16**, 32% of women are anemic, including 17% who are mildly anemic, 14% who are moderately anemic, and 1% who are severely anemic.

Table 16 Prevalence of anemia in women

Percentage of women age 15–49 with anemia, according to background characteristics, Jordan PFHS 2023

Background characteristic	Nonpregnant / Pregnant	Any <12.0 g/dl / <11.0 g/dl	Mild 11.0–11.9 g/dl / 10.0–10.9 g/dl	Moderate 8.0–10.9 g/dl / 7.0–9.9 g/dl	Severe 8.0 g/dl / <7.0 g/dl	Number of women
Age						
15–19		28.8	17.3	10.9	0.6	2,343
20–29		30.1	18.1	11.5	0.5	3,045
30–39		34.1	16.6	16.2	1.4	2,624
40–49		36.1	16.4	17.0	2.7	2,571
Residence						
Urban		31.4	16.7	13.5	1.2	9,570
Rural		40.4	21.5	17.1	1.8	1,014
Region						
Central		27.5	14.5	11.7	1.3	7,015
North		42.9	22.9	18.5	1.5	2,757
South		37.4	20.3	16.6	0.6	812
Governorate						
Amman		27.0	14.4	11.3	1.2	4,690
Balqa		29.2	13.3	14.6	1.3	673
Zarqa		27.8	15.2	11.3	1.4	1,446
Madaba		30.9	15.2	14.6	1.1	206
Irbid		41.2	22.2	17.4	1.6	1,996
Mafraq		48.5	27.5	19.9	1.1	386
Jarash		51.4	24.0	25.4	2.1	217
Ajloun		40.1	19.6	19.1	1.5	159
Karak		33.2	20.4	12.6	0.1	361
Tafiela		42.0	24.6	16.4	1.1	105
Ma'an		46.1	20.0	24.8	1.3	155
Aqaba		35.8	17.9	17.4	0.6	191
Nationality						
Jordanian		32.1	17.0	13.8	1.3	9,297
Syrian		38.6	20.8	16.3	1.5	774
Outside camps		37.2	20.1	15.4	1.7	677
Inside camps		48.2	25.6	22.2	0.3	97
Other nationalities		25.2	13.7	10.3	1.2	513
Don't know		*	*	*	*	1

Continued…

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Table 16—*Continued*

Background characteristic	Nonpregnant Pregnant	Any <12.0 g/dl <11.0 g/dl	Mild 11.0–11.9 g/dl 10.0–10.9 g/dl	Moderate 8.0–10.9 g/dl 7.0–9.9 g/dl	Severe 8.0 g/dl <7.0 g/dl	Number of women
Education						
No education		35.1	20.7	13.0	1.5	251
Less than secondary		33.7	17.0	15.4	1.3	3,042
Secondary		34.8	17.8	15.2	1.8	3,452
Higher		28.7	16.4	11.5	0.8	3,837
Don't know/missing		*	*	*	*	2
Wealth quintile						
Lowest		38.6	18.6	18.2	1.8	2,046
Second		36.4	18.4	16.3	1.7	2,183
Middle		34.2	17.4	15.3	1.4	2,151
Fourth		30.1	17.4	11.6	1.2	2,082
Highest		22.0	13.9	7.8	0.3	2,122
Total		32.3	17.1	13.8	1.3	10,584

The header spans "Anemia status by hemoglobin level" over the Any, Mild, Moderate, Severe columns.

Note: Prevalence of anemia, based on hemoglobin levels, is adjusted for altitude and for cigarette smoking, if known, using formulas in CDC 1998 and cutoffs defined in WHO 2017. Hemoglobin is measured in grams per deciliter (g/dl) using the HemoCue 201+ device. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.

Trends: Anemia prevalence among women age 15–49 increased from 26% in 2002 to 43% in 2017–18 before declining to 32% in 2023 (**Figure 9**).

▪ Anemia levels increase with women's age, from 29% among those age 15–19 to 36% among those age 40–49.

▪ Women who have six or more births, those who live in rural areas, and those who live in the North region have the highest levels of anemia (44%, 40%, and 43%, respectively).

▪ There are large differences in anemia levels by governorate, ranging from 27% in Amman to 51% in Jarash.

Figure 9 **Trends in anemia among women**

Percentage of women age 15–49 classified as having anemia

2002 JPFHS	2009 JPFHS	2012 JPFHS	2017–18 JPFHS	2023 JPFHS
26	26	34	43	32
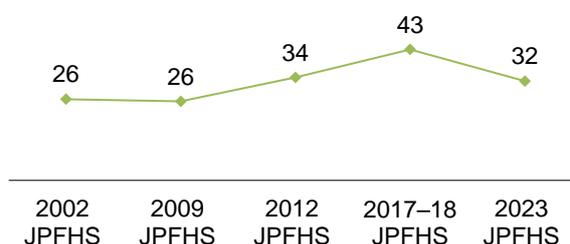
3.14 HIV

3.14.1 Prevention Knowledge among Young People

Knowledge about HIV prevention

Knowing that consistent use of condoms during sexual intercourse and having just one uninfected faithful partner can reduce the chances of getting HIV, knowing that a healthy-looking person can have HIV, and rejecting two major misconceptions about HIV transmission: HIV can be transmitted by mosquito bites and a person can become infected by sharing food with a person who has HIV.

Sample: Ever-married women and men age 15–24

Knowledge of how HIV is transmitted is crucial in enabling people to avoid HIV infection, and this is especially true for young people, who are often at greater risk because they may have shorter relationships with more partners or engage in other risky behaviors. The 2023 JPFHS collected information on HIV/AIDS knowledge and attitudes from ever-married women and all men age 15–24.

The level of knowledge about HIV prevention is significantly lower among young women than young men age 15–24 (9% and 22%, respectively) (**Table 17**). Knowledge of HIV prevention is lowest among women age 15–17, women who live in rural areas, women from Balqa, Syrian women, and women living outside camps. Levels of knowledge increase with increasing education, from 6% among women with less than a secondary education to 16% among women with a higher education. Among men, knowledge of HIV prevention is particularly low in Madaba and Mafraq and among those who live inside camps.

Table 17 Knowledge about HIV prevention methods among young people

Percentage of young ever-married women and young men age 15–24 with knowledge about HIV prevention, according to background characteristics, Jordan PFHS 2023

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	6.9	182	16.2	1,232
15–17	3.9	42	11.9	749
18–19	7.8	141	22.9	484
20–24	9.8	905	28.1	984
20–22	7.5	442	31.0	627
23–24	11.9	464	23.1	357
Marital status				
Never married	na	na	21.6	2,179
Married/living together	9.6	1,006	13.9	36
Divorced/separated/ widowed	5.1	82	*	1
Residence				
Urban	9.8	1,003	22.3	1,990
Rural	3.4	85	14.8	227
Region				
Central	10.7	692	17.6	1,425
North	5.7	346	32.4	635
South	14.1	50	13.3	156
Governorate				
Amman	13.9	428	21.6	953
Balqa	1.2	53	12.3	127
Zarqa	6.3	198	9.0	296
Madaba	(14.3)	12	4.7	50
Irbid	4.6	236	43.4	431
Mafraq	8.6	64	4.1	109
Jarash	7.3	27	9.7	53
Ajloun	8.0	19	21.8	42
Karak	(14.8)	16	13.7	54
Tafiela	(11.7)	7	10.0	22
Ma'an	7.9	14	11.3	39
Aqaba	(21.5)	12	16.4	41
Nationality				
Jordanian	10.6	853	22.2	1,971
Syrian	3.7	162	15.5	153
Outside camps	2.6	135	17.9	126
Inside camps	9.0	27	3.5	26
Other nationalities	6.7	73	17.4	93
Education				
No education	*	6	(1.1)	34
Less than secondary	6.0	511	10.4	669
Secondary	10.9	409	19.7	910
Higher	15.6	163	37.7	603
Wealth quintile				
Lowest	7.8	307	13.5	324
Second	7.2	307	18.3	319
Middle	8.3	275	21.1	435
Fourth	16.9	152	22.5	514
Highest	(13.2)	47	26.8	626
Total	9.3	1,088	21.5	2,217

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.
na = not applicable
[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 two common misconceptions about transmission or prevention of HIV: HIV can be transmitted by mosquito bites and a person can become infected by sharing food with a person who has HIV.

3.14.2 Prior HIV Testing

HIV testing programs diagnose people living with HIV so that they can be linked to care and access antiretroviral therapy (ART). Knowledge of HIV status helps HIV-negative individuals reduce risk and remain negative.

Overall, 2% of ever-married women and 3% of men have ever been tested for HIV (**Tables 18.1** and **18.2**).

Coverage of testing increases with age among both women and men. The percentages of women who have ever been tested vary considerably by governorate, from 1% in Zarqa, Aqaba, and Madaba to 6% in Ma'an. Among men, the percentages who have ever been tested vary from 1% in Balqa to 17% in Ajloun.

Table 18.1 Coverage of prior HIV testing: Women

Percentage of ever-married women age 15–49 ever tested for HIV, according to background characteristics, Jordan PFHS 2023

Background characteristic	Percentage ever tested	Number of women
Age		
15–24	0.8	1,088
15–19	0.0	182
20–24	1.0	905
25–29	1.9	1,788
30–39	2.2	4,552
40–49	2.6	5,168
Marital status		
Married	2.2	11,622
Divorced/separated	2.7	613
Widowed	1.6	359
Residence		
Urban	2.2	11,477
Rural	2.5	1,118
Region		
Central	1.6	8,327
North	3.5	3,524
South	3.0	745
Governorate		
Amman	1.5	5,746
Balqa	2.8	691
Zarqa	1.2	1,669
Madaba	1.0	220
Irbid	3.7	2,484
Mafraq	3.9	529
Jarash	2.8	307
Ajloun	1.6	205
Karak	3.2	284
Tafiela	1.5	114
Ma'an	6.2	152
Aqaba	1.0	194
Nationality		
Jordanian	2.2	11,152
Syrian	1.0	980
Outside camps	1.0	847
Inside camps	1.5	133
Other nationalities	4.9	463
Education		
No education	1.8	270
Less than secondary	1.2	3,372
Secondary	1.8	4,592
Higher	3.4	4,361
Wealth quintile		
Lowest	1.4	2,469
Second	1.6	2,632
Middle	1.9	2,688
Fourth	2.8	2,471
Highest	3.5	2,334
Total	2.2	12,595

Table 18.2 Coverage of prior HIV testing: Men

Percentage of men age 15–49 ever tested for HIV, according to background characteristics, Jordan PFHS 2023

Background characteristic	Percentage ever tested	Number of men
Age		
15–24	1.2	2,217
15–19	0.8	1,232
20–24	1.6	984
25–29	2.7	700
30–39	5.8	1,030
40–49	6.5	1,033
Marital status		
Never married	2.2	3,077
Married	5.6	1,856
Divorced/separated	(1.3)	46
Residence		
Urban	3.4	4,455
Rural	3.6	524
Region		
Central	2.9	3,230
North	3.9	1,392
South	6.1	357
Governorate		
Amman	3.3	2,135
Balqa	1.1	299
Zarqa	2.2	681
Madaba	4.6	115
Irbid	3.3	907
Mafraq	2.8	251
Jarash	1.6	141
Ajloun	17.0	92
Karak	4.1	130
Tafiela	5.3	51
Ma'an	7.3	86
Aqaba	8.4	90
Nationality		
Jordanian	3.3	4,489
Syrian	2.3	275
Outside camps	2.0	225
Inside camps	3.6	50
Other nationalities	8.5	215
Education		
No education	1.1	78
Less than secondary	2.6	1,419
Secondary	2.3	1,847
Higher	5.5	1,635
Wealth quintile		
Lowest	3.2	733
Second	2.6	799
Middle	1.8	1,035
Fourth	5.7	1,145
Highest	3.4	1,267
Total 15–49	3.4	4,979
50–59	7.1	894
Total 15–59	4.0	5,873

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

3.15 DISABILITY BY DOMAIN AND AGE

The 2023 JPFHS included The DHS Program's Disability Module, a series of questions developed by the Washington Group on Disability Statistics (WG) to measure disability in surveys. The conceptual framework for the questions is the World Health Organization (WHO) International Classification of Functioning, Disability, and Health. The questions address the degree of difficulty a person experiences when performing one of the six basic areas of functioning identified by the WG, namely seeing, hearing, walking, cognition, self-care, and communication. The aim of this new module is to provide information on disability that is internationally comparable.

Table 19 shows the distribution of the de facto population age 5 and over by degree of difficulty in functioning according to domain and the percent distribution by the highest degree of difficulty in functioning in at least one domain by age.

Overall, 16% of people age 5 or older are reported to have some difficulty in at least one of the six areas of functioning. Four percent of the population has great difficulty functioning or cannot function at all in at least one area. The percentage is highest among those age 60 and over (19%). Difficulty seeing is the most frequently reported disability (9%), followed by difficulty walking or climbing steps (7%) and difficulty remembering or concentrating (4%).

Table 19 Disability by domain and age

Percent distribution of the de facto household population age 5 and over by degree of difficulty in functioning according to domain, and percent distribution by the highest degree of difficulty in functioning in at least one domain by age, Jordan PFHS 2023

Domain and age	Degree of difficulty					A lot of difficulty or cannot do at all	Number of persons
	No difficulty	Some difficulty	A lot of difficulty	Cannot do at all	Total		
Domain							
Difficulty seeing	90.6	8.1	1.2	0.1	100.0	1.3	84,065
Difficulty hearing	97.3	2.1	0.5	0.1	100.0	0.5	84,065
Difficulty communicating	98.5	1.0	0.4	0.1	100.0	0.5	84,065
Difficulty remembering or concentrating	96.3	3.0	0.6	0.1	100.0	0.7	84,065
Difficulty walking or climbing steps	92.7	5.2	1.8	0.3	100.0	2.1	84,065
Difficulty washing all over or dressing	97.6	1.6	0.6	0.3	100.0	0.9	84,065
Difficulty in at least one domain[1]							
5–9	93.3	5.1	1.3	0.3	100.0	1.6	10,325
10–14	94.2	4.3	1.4	0.2	100.0	1.6	11,055
15–19	93.4	4.8	1.4	0.4	100.0	1.8	10,914
20–29	93.3	5.3	1.1	0.3	100.0	1.4	15,065
30–39	89.0	8.6	2.0	0.4	100.0	2.3	11,124
40–49	79.9	16.4	3.5	0.2	100.0	3.7	11,341
50–59	63.7	29.0	6.9	0.5	100.0	7.4	7,717
60+	40.1	40.9	15.8	3.2	100.0	19.0	6,524
Age 15 and over	80.9	14.4	4.0	0.6	100.0	4.6	62,684
Total	84.2	11.9	3.3	0.5	100.0	3.9	84,065

[1] If a person was reported to have difficulty in more than one domain, only the highest level of difficulty is shown.

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