## Turkey



Demographic and
Health Survey 2018

# 2018 <br> Turkey <br> Demographic and Health Survey 

# Hacettepe University Institute of Population Studies Ankara, Turkey 

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## PREFACE

Technological developments and migration waves taking place in much of the world constitute the principal foci of the era we live in. These dynamism, mobility and innovation bring along not only paradigmatic transformations but also problematization of adaptation and implementation of vital and organizational activities through policies and strategies. In this period where establishing the relationship of knowledge and politics at the highest order is of the essence, inter-institutional and interpersonal active interaction and communication become more possible by being open to cooperations and collaborations in both local and international levels. Within this context, Turkey, with its demografic structure, health system, and migration and population policies, is in a constantly and rapidly changing and developing position, and the knowledge and policies to be produced in these issues have a more distinctive meaning and value than ever.

As the eleventh demographic survey and sixth Turkey Demographic and Health Survey carried out by Hacettepe University Institute of Population Studies since 1968, 2018 TDHS has re-constructed itself on aforementioned focal points. In this sense, it has the feature of being the first and most extensive research to produce nationally representative quantitative data by means of sample, listing, fieldwork stages designed specific to Syrian migrant population living in Turkey along with Turkey population in general. Data-based monitoring of Turkey is of high importance in terms of Sustainable Development Goals. With this design, some indicators for Turkey, which cannot be obtained from other data sources, are produced within the scope of 2018 TDHS. Additionally, Computer Assisted Personal Interviewing (CAPI) has been preferred in 2018 TDHS as an innovative technique in order to, first, be in tune with the times through technological improvements and in line with their requirements; and, second, to contribute epistemologically, ontologically and methodologically to the discussions of the minimization of time-labour-budget triangle while maximizing the data quality.

Under the light of this theoretical and political background, 2018 TDHS was initiated in May 2018 as a 30month project. After the completion of sample design, sample selection, and questionnaire design, the listing activity took place in August-September 2018; and data collection and data entry activities in October 2018-February 2019. In 2018 TDHS, interviews were completed with 13,982 households and 7,345 women in 15-49 age group in 754 clusters.

In realization of 2018 TDHS, many institutions and individuals had significant efforts, contributions and support at various stages.

I would like to thank The Scientific and Technological Research Council of Turkey who has supported the 2018 TDHS project as a Research and Development (R\&D) project under the 1007 Support Program for Research Projects of Public Institutions; the Presidency of Turkey Directorate of Strategy and Budget who is the beneficiary institute and has contributed to all stages of the project; the Ministry of Health, Public Health Institution of Turkey, especially for their support during fieldwork; the Turkish Statistical Institute and the Ministry of Interior Directorate General of Migration Management for their contribution in sample selection; the Governorships, Provincial Public Health Directorates and Provincial Directorates of Migration Management and UNICEF Turkey for their support during the fieldwork.

I pay tribute to valuable contributions of the Steering Committee members of 2018 TDHS and contributions of academics, employees of public and international institutions, who did not withhold their support and recommendations during the questionnaire design.

I am grateful to all respondents in selected households of the survey sample who accepted to be involved in the survey and answered the questions, as well as the personnel in pre-testing, listing, data collection and data entry for their efforts. Without their participation, this survey could not have been carried out.

I would like to thank all experts at the DHS Program/ICF International team for their contributions to data entry, data processing and analysis and to the finalization of the report in English, as well as to making the survey reach international standards.

I would like to express my gratitude to our Rector Prof. Dr. A. Haluk Özen for his support in all phases of the most recent survey of demographic survey series carried out more than a half century by Hacettepe University Institute of Population Studies. Last but not least, I would like to thank to our Institute's professors, academic staff, project assistants and administrative personnel, who actualized the survey by contributing to all stages of 2018 TDHS with their endeavors and knowledge.

Assoc. Prof. Dr. Alanur Çavlin
Project Coordinator

## SUMMARY INDICATORS

## Sustainable Development Goal Indicators - 2018 Turkey DHS

| Indicator | Sex |  | Total | DHS table number |
| :---: | :---: | :---: | :---: | :---: |
|  | Male | Female |  |  |
| 2. Zero hunger |  |  |  |  |
| 2.2.1 Prevalence of stunting among children under 5 years of age | 6.1 | 5.8 | 6.0 | 11.1 |
| 2.2.2 Prevalence of malnutrition among children under 5 years of age | 11.0 | 8.4 | $9.8{ }^{\text {a }}$ | 11.1 |
| a) Prevalence of wasting among children under 5 years of age | 1.7 | 1.6 | 1.7 | 11.1 |
| b) Prevalence of overweight among children under 5 years of age | 9.3 | 6.8 | 8.1 | 11.1 |
| 3. Good health and well-being |  |  |  |  |
| 3.7.1 Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods ${ }^{1}$ | na | 60.6 | na | - |
| 5. Gender equality |  |  |  |  |
| 5.6.1 Proportion of women aged 15-49 years who make their own informed decisions regarding sexual relations, contraceptive use and reproductive health care ${ }^{1,2}$ | na | 49.8 | na | - |
| 16. Peace, justice, and strong institutions |  |  |  |  |
| 16.9.1 Proportion of children under 5 years of age whose births have been registered with a civil authority | 98.2 | 98.7 | 98.4 | 2.11 |

na $=$ Not applicable
${ }^{1}$ This figure is not presented in the main report. ${ }^{2}$ Data are available for currently married women who are not pregnant only.
The total is calculated as the simple arithmetic mean of the percentages in the columns for males and females

## Summary Indicators - 2018 Turkey DHS

| Indicator | Total | Residence |  | Region |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Urban | Rural | West | South | Central | North | East |
| Basic Demographic Indicators |  |  |  |  |  |  |  |  |
| Fertility <br> Births per women age 15-49 |  |  |  |  |  |  |  |  |
| Total fertility rate | 2.3 | 2.2 | 2.8 | 2.0 | 2.8 | 2.1 | 1.6 | 3.2 |
| Total wanted fertility rate | 2.0 | 2.0 | 2.3 | 1.8 | 2.5 | 1.8 | 1.4 | 2.6 |
| Gender equality |  |  |  |  |  |  |  |  |
| Marriage |  |  |  |  |  |  |  |  |
| Proportion of women aged 20-24 years who were married or in a union before age 15 and before age 18 |  |  |  |  |  |  |  |  |
| a) before age 15 | 2.0 | nc | nc | nc | nc | nc | nc | nc |
| b) before age 18 | 14.7 | nc | nc | nc | nc | nc | nc | nc |
| Reproductive health |  |  |  |  |  |  |  |  |
| High-risk childbearing |  |  |  |  |  |  |  |  |
| Adolescent women age 15-19 who have begun childbearing | 3.5 | 3.5 | 3.6 | 2.4 | 6.6 | 3.5 | 2.6 | 4.0 |
| Adolescent birth rates per 1.000 women Women aged 15-19 years ${ }^{1}$ | 30.0 | nc | nc | nc | nc | nc | nc | nc |

Basic Demographic Indicators - 2018 Turkey DHS (Continued)

| Indicator | Total | Residence |  | Region |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Urban | Rural | West | South | Central | North | East |
| Family planning |  |  |  |  |  |  |  |  |
| Percentage of currently married women 15-49 |  |  |  |  |  |  |  |  |
| Women currently using: |  |  |  |  |  |  |  |  |
| Any contraceptive method | 69.8 | 69.4 | 71.4 | 70.0 | 64.7 | 74.8 | 72.3 | 66.1 |
| Any modern contraceptive method | 48.9 | 49.9 | 45.2 | 49.7 | 47.0 | 53.5 | 47.0 | 43.0 |
| Women with an unmet need for family planning |  |  |  |  |  |  |  |  |
| For spacing births | 4.0 | 3.9 | 4.3 | 3.9 | 6.3 | 2.0 | 3.1 | 5.1 |
| For limiting births | 7.6 | 7.7 | 7.2 | 8.4 | 6.7 | 5.6 | 7.7 | 8.7 |
| Safe motherhood <br> Percentage of women with a live birth in the five years before the survey |  |  |  |  |  |  |  |  |
| Women who received antenatal care from a skilled health provider | 96.4 | 96.3 | 97.0 | 95.9 | 95.8 | 97.7 | 99.4 | 96.2 |
| Births delivered at home | 0.9 | 0.5 | 2.2 | 0.3 | 0.3 | 0.5 | 0.0 | 2.6 |
| Births delivered by a skilled health provider | 99.2 | 99.7 | 98.0 | 99.9 | 99.5 | 99.3 | 99.4 | 98.1 |
| Women who received a postnatal checkup within 4 hours of delivery | 66.0 | 65.1 | 68.7 | 61.2 | 66.2 | 67.9 | 70.1 | 70.9 |
| Child health and well-being |  |  |  |  |  |  |  |  |
| Vaccinations |  |  |  |  |  |  |  |  |
| Children age 12-23 months who received all age appropriate vaccines (BCG, three doses of DTaP-Hib-IPV, three doses of hepatitis B, first dose of OPV and three doses of PCV) | 66.9 | 66.6 | 68.0 | 70.2 | 56.6 | 66.8 | (48.3) | 71.3 |
| Proportion of children under 5 years of age who are developmentally on track in health, learning and psychosocial well-being ${ }^{2}$ | 73.7 | 74.2 | 72.3 | 77.2 | 75.6 | 76.6 | 67.8 | 66.1 |
| Maternal health and nutrition |  |  |  |  |  |  |  |  |
| Breastfeeding |  |  |  |  |  |  |  |  |
| Median duration of breastfeeding (months) | 16.7 | 16.4 | 17.7 | 15.7 | 16.1 | (20.1) | a | 17.3 |
| Malnutrition among women |  |  |  |  |  |  |  |  |
| Women with chronic malnutrition (BMI<18.5) | 3.9 | 4.1 | 3.2 | 4.2 | 3.4 | 3.7 | 4.2 | 3.5 |
| Women who are overweight $(30.0>\mathrm{BMI}>=25.0)$ | 29.1 | 29.1 | 28.8 | 29.2 | 27.8 | 28.9 | 28.8 | 29.9 |
| Women who are obese ( $\mathrm{BMI}>=30.0$ ) | 30.3 | 29.3 | 33.9 | 29.6 | 33.7 | 30.7 | 32.1 | 28.4 |

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## INTRODUCTION AND SURVEY METHODOLOGY

The 2018 Turkey Demographic and Health Survey (TDHS) was implemented by the Hacettepe University Institute of Population Studies. Data collection took place from October 10, 2018 to February 10, 2019. The beneficiary institution of this project is the T.R. Presidency of Turkey Directorate of Strategy and Budget. The financial support of the 2018 TDHS is provided by The Scientific and Technological Research Council of Turkey (TÜBİTAK) within the scope of the 1007 Support Program for Research Projects of Public Institutions. ICF International provided technical assistance through The DHS Program, which is funded by the United States Agency for International Development (USAID) and offers financial support and technical assistance for population and health surveys in countries worldwide. Other agencies and organizations that facilitated the successful implementation of the survey with their support were the Turkish Statistical Institute, the Ministry of Interior Directorate General of Migration Management, the Ministry of Health, and the United Nations Children's Fund (UNICEF).

### 1.1 Survey Objectives

The primary objective of the 2018 TDHS project is to provide up-to-date estimates of basic demographic and health indicators.

Specifically, the 2018 TDHS:

- Collected data at the national level that allows the calculation of some demographic and health indicators, particularly fertility rates and childhood mortality rates,
- Obtained information on direct and indirect factors that determine levels and trends in fertility and childhood mortality,
- Measured the level of contraceptive knowledge and practice,
- Collected data relative to maternal and child health, including immunizations, antenatal care, postnatal care, assistance at delivery, and breastfeeding,
- Measured the nutritional status of children under five and all women age 15-49,
- Collected data on reproductive-age women about marriage, employment status, and social status, and
- Obtained data on Sustainable Development Goal (SDG) indicators.

The information collected through the TDHS is intended to assist policymakers and program managers in evaluating and designing programs and strategies for improving the health of the country's population. Following the 2008 TDHS and 2013 TDHS, the 2018 TDHS is accepted as a part of the Official Statistic Program of Turkey. Additionally, the 2018 TDHS is included in the 2019 Annual Presidential Program of Turkey.

### 1.2 Sample Design

The sample design and sample size for the 2018 TDHS make it possible to perform analyses for Turkey as a whole, for urban and rural areas, and for the five demographic regions of the country (West, South, Central,

North, and East). The 2018 TDHS sample is of sufficient size to allow for analysis on some of the survey topics at the level of 12 geographical regions (NUTS 1).

2018 TDHS sample was designed with a multi-stage, stratified cluster sampling approach. A disproportionate sample allocation among strata was based on the results of the 2018 Address Based Population Registration System (ABPRS). Sample selection for the 2018 TDHS was carried out in two stages. The sampling frame used for 2018 TDHS used is "The National Address Data Base" which is linked to support ABPRS. The urban/rural definition in Turkey changed in 2012 with the Law No. 6360 which changed the configuration of metropolitan provinces in Turkey. Because of this, the frame did not include information to determine the conventional urban and rural definition; thus urban-rural stratification was not possible in 2018 TDHS. Following the sample selection of 2018 TDHS, the urban-rural division was defined as a survey variable after examining the former administrative status and population size of each cluster.

The first stage of the sample selection involved the selection of a pre-determined number of primary sampling units as blocks (i.e., clusters) out of the settlements selected in the first stage. The total number of clusters in the 2018 TDHS was set at 754. Block level household lists, each including approximately 100 households, were provided by TURKSTAT, using the National Address Database prepared for municipalities. The block lists provided by TURKSTAT were updated during the listing activities for only rural blocks or if the block information was not clear.

In the second stage, a fixed number of households were selected from each cluster by systematic random sampling method using the updated household lists. Twenty-one households were selected per cluster. The total number of households selected in 2018 TDHS is 15,775 .

All women at ages 15-49 who usually live in the selected households and/or were present in the household the night before the interview were regarded as eligible for the Woman's Questionnaire.

A more technical and detailed description of the 2018 TDHS sample design, selection and implementation is presented in Appendix A.

### 1.3 Questionnaires

Two questionnaires were used in the 2018 TDHS: The Household Questionnaire and Woman's Questionnaire. The questionnaires, based on The DHS Program's Model Questionnaires, were adapted to reflect the population and health issues relevant to Turkey. Moreover, comparability of the 2018 TDHS with previous demographic surveys was ensured during the questionnaire design.

The Household Questionnaire was used to enumerate all members of and visitors ${ }^{1}$ to the selected households and to collect information relating to the socio-economic level of the households. In the first part of the Household Questionnaire, basic information was collected on the age, sex, educational attainment, marital status, and relationship to the head of household of each person listed as a household member or visitor. The objective of the first part of the Household Questionnaire was to identify women who were eligible for the Individual Questionnaire. In the second part of the questionnaire, questions were included on the dwelling unit and on the ownership of a variety of consumer goods.

[^1]The Woman's Questionnaire was designed for women listed in the household schedule age 15-49. This questionnaire covers the major topics listed below:

- Background characteristics
- Migration history
- Pregnancy, birth history and fertility preferences
- Knowledge and use of contraceptive methods
- Antenatal and postnatal care
- Breastfeeding and nutrition
- Immunization
- Early childhood development
- Marriage history and marriage characteristics
- Women's work history
- Husband's background characteristics
- Women's status
- Anthropometric measurements of women and children

The calendar module in the Woman's Questionnaire was used to record monthly fertility and contraceptive use for a period of approximately six years beginning from January 2013 up to the survey month.

The 2018 TDHS was reviewed and approved by the Hacettepe University Ethics Commission.

English versions of the two questionnaires can be seen in Appendix E.

### 1.4 ANTHROPOMETRY

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

### 1.5 Pretest

The pretest for the 2018 TDHS was conducted in two phases. In the first phase, paper questionnaires were tested, then in the second phase computer assisted questionnaires were tested. Turkey hosts more than 3 million Syrian refugees. Syrian households are covered by the sample frame of the 2018 TDHS. The questionnaires were translated into Arabic and were tested in both Turkish and in Arabic languages. The first pretest training for the 2018 TDHS was done in June 25-27, 2018 with 14 trainees. Pretest fieldwork was conducted in rural and urban clusters in Ankara from June 28-30, 2018. Following the necessary modifications, questionnaires were transferred to the computer-assisted personal interviewing (CAPI) system. The second pretest training for CAPI was done in August 8-9, 2018. The CAPI pretest field practice was conducted in August 11-13 and September 7-8, 2018 in Ankara. After the pretests necessary modifications were made and the questionnaires were finalized.

### 1.6 Training of Field Staff

Field staff candidates participated in a full time training in Ankara. A four-week training was given to the field staff from September 11 to October 9, 2018. Training involved instructions to collect data, interviewing techniques, field procedures, questionnaire content, and weight and height measurements. In the first two weeks of the training, candidates trained on how to administer the paper questionnaire. In the last two weeks
they trained on the CAPI. Trainers conducted mock interviews in a classroom environment. The field staff training also included presentations given by specialists from the Ministry of Health General Directorate of Public Health and the Ministry of Interior Directorate General of Migration Management. In the final stage of the training, 3 days of field practice was conducted for hands-on experience for trainees. This 3-day practice was conducted in areas that are outside the clusters selected for the 2018 TDHS sample. Based on their performance in training, 124 field staff out of 145 candidates were selected for the fieldwork.

### 1.7 Fieldwork

The field study of the 2018 TDHS was carried out by teams. Each team was comprised of 6-7 people; 4-5 female interviewers, one male measurer and a team supervisor. The project assistants of 2018 TDHS have also worked in the field as team supervisors. An academic staff of the Institute of Population Studies worked as the field coordinator. Other academic staff of the Institute visited the teams in the field for monitoring and support. They also conveyed their observations about the teams to the field director. The fieldwork was initiated with 20 teams and was carried out in 750 clusters out of 754 between October 10, 2018 - February 10, 2019. Certain clusters, especially in metropoles, were re-visited several times and thus, interview rates and the numbers of observations were increased.

In the 2018 TDHS, 20 households were interviewed with tablets as computer-assisted personal interviews (CAPI) and 1 household with paper questionnaire (PAPI) in every cluster. The interviews completed in the tablets were first sent to the team supervisor with Bluetooth technology, and then to the central data system by the team supervisor. The paper questionnaires were sent to the Institute of Population Studies for data entry.

### 1.8 Data Processing

An academic staff of the Institute of Population Studies worked as the data processing coordinator. Data processing started during the fieldwork by generating field-check tables to check various data quality parameters. Based on these table, specific feedback was given to the field teams. All electronic data files (CAPI data) were transferred to the central office. Following the arrival of all paper questionnaires to the Institute, data entry and editing were done using the Census and Survey Processing System (CSPro) package. During data entry, each questionnaire was entered twice by different data editors to ensure full verification between the field data and data entered. Data entry and editing activities were completed in February 2019. All data files, CAPI and PAPI, were combined before data processing. The data processing included checking of notes, secondary editing and coding of open-ended questions. CSPro software was employed for data processing. The preliminary results were prepared in April 2019. Data processing was finalized in September 2019 following the ICF visit of the data processing team of the 2018 TDHS.

### 1.9 Response Rates

The results of the household and individual questionnaires are summarized in Table 1.1. Information is provided on the overall coverage of the sample, including household and individual response rates. In all, 15,775 households were selected for the 2018 TDHS. At the time of the listing phase of the survey, 13,962 households were considered occupied and, thus, available for interview. Of the occupied households, $79 \%$ $(11,056)$ households were successfully interviewed. The main reasons the field teams were unable to interview some households were because some dwelling units that had been listed were found to be vacant at the time of the interview or the household was away for an extended period.

In the interviewed 11,056 households, 9,056 women age $15-49$ were identified as eligible for the individual interview. Interviews were successfully completed with 7,346 of these women (81\%). Among the eligible women not interviewed in the survey, the principal reason for non-response was the failure to find the women at home after repeated visits to the household.

A more complete description of the sample design is presented in Appendix A.

## Table 1.1 Results of the household and individual interviews

Number of households, number of interviews, and response rates, according to residence (unweighted), Turkey DHS 2018

|  | Residence |  |  |
| :--- | ---: | ---: | ---: |
| Result |  |  |  |
|  | 11,420 | 4,355 | 15,775 |
| Household interviews | 10,119 | 3,843 | 13,962 |
| Households selected | 7,537 | 3,519 | 11,056 |
| Households occupied <br> Households interviewed | 74.5 | 91.6 | 79.2 |
| $\quad$Household response rate |  |  |  |
| Interviews with women age 15-49 | 6,606 | 2,450 | 9,056 |
| Number of eligible women | 59.245 | 2,101 | 7,346 |
| Number of eligible women <br> interviewed | 85.8 | 81.1 |  |
| Eligible women response rate ${ }^{2}$ |  |  |  |

[^2]
## Key Findings

- Drinking water and sanitation: $98 \%$ of the households in Turkey have access to an improved source of drinking water, and $99 \%$ use improved toilet facilities.
- Tobacco smoking inside the home: In $28 \%$ of the households, someone smokes inside the house on a daily basis, and in $3 \%$ of the households someone smokes inside on a weekly basis.
- Household composition: On average, households in Turkey have 3.5 members, and 16\% of the households are female-headed.
- Birth registration: 98\% of the children under age 5 are registered with civil authorities.
- School attendance: $95 \%$ of females age 6-13 attend primary or secondary school, as compared with $94 \%$ of males. The net attendance ratio (NAR) drops in high school: $77 \%$ of females and $78 \%$ of males age 14-17 attend high school.

Information on the socioeconomic characteristics of the household population in the TDHS provides context to interpret demographic and health indicators and can furnish an approximate indication of the representativeness of the survey. In addition, this information sheds light on the living conditions of the population.

This chapter presents information on sources of drinking water, sanitation, exposure to smoke inside the house, wealth, household population composition, educational attainment, school attendance, birth registration, and family living arrangements.

### 2.1 Drinking Water Sources and Treatment

## Improved sources of drinking water

Include piped water, public taps, standpipes, tube wells, boreholes, protected dug wells and springs, rainwater, water delivered via tanker truck or a cart with a small tank, and bottled water.
Sample: Households
Table 2.1 provides information on the source of drinking water and the time to obtain drinking water by urban-rural residences. Overall, $98 \%$ of households in Turkey have access to an improved source of drinking water. The prevalence of access to an improved water source is slightly higher for urban households than rural households ( $98 \%$ and $96 \%$, respectively). More than half of all households ( $53 \%$ ) use piped water within their
dwelling, $33 \%$ use bottled water and $6 \%$ use a protected spring. By residence, the source of drinking water differs considerably. The most common sources of drinking water in urban settlements are piped water within the dwelling ( $52 \%$ ) and bottled water ( $40 \%$ ), whereas in rural areas, the most common source of drinking water is piped water in the dwelling ( $58 \%$ ), protected spring ( $14 \%$ ) and tube well or borehole ( $6 \%$ ).

More than nine in ten households (94\%) report having water on their premises. By residence, drinking water is available on the premises in $95 \%$ of households in urban areas and $89 \%$ in rural areas. Including those with water on the premises, $98 \%$ of households have access to water within 30 minutes and $2 \%$ of the households spend 30 minutes or more obtaining drinking water. As expected, there is better access to water in urban areas than in rural areas.

Trends: There has been an increase in access to an improved source of drinking water since the 2008 TDHS, with proportions ranging from $92 \%$ to $98 \%$.

### 2.2 SANITATION

## Improved toilet facilities

Include any non-shared toilet of the following types: flush/pour flush toilets to piped sewer systems, septic tanks, and pit latrines; ventilated improved pit (VIP) latrines; pit latrines with slabs; and composting toilets
Sample: Households

The lack of availability of hygienic sanitation facilities poses a serious health problem. Table $\mathbf{2} .2$ shows the proportion of households and de jure population with access to hygienic sanitation facilities. Ninety-eight percent of households have access to an improved toilet facility that is not shared with other households, of which $88 \%$ are flushed to a piped sewer system and $11 \%$ are pit latrines with a slab. These improved sanitation facilities are more common in urban areas ( $99 \%$ ) than in rural areas $(95 \%)$. Most urban households and more than half of rural households have flush toilets ( $97 \%$ and $58 \%$, respectively). Among rural households, use of pit latrines ( $37 \%$ pit latrine with slab and $2 \%$ open pit) is common as well.

Trends: There have been improvements in the use of improved sanitation facilities in the past 10 years. Households using improved facilities that are not shared with other households increased from $94 \%$ in 2008 to $98 \%$ in 2018.

### 2.3 Other housing characteristics

The physical characteristics of the household reflect the household's economic status and have an important environmental impact on maternal and child health. Information on household characteristics such as type of flooring material, number of rooms used for sleeping and frequency of smoking in the home are shown in
Table 2.3.
With regard to flooring, the most commonly used material is parquet (polished wood) ( $37 \%$ ) followed by laminate ( $25 \%$ ), cement ( $14 \%$ ), tile ( $10 \%$ ), and wood planks ( $7 \%$ ). There are substantial differences in the flooring materials in urban and rural dwellings. Among rural households, $33 \%$ have a cement floor compared with about $8 \%$ of urban households. Seventy percent of the urban households live in dwellings with parquet or laminate floors and $5 \%$ of households in rural areas have earth floors.

Data on the number of sleeping rooms per household was collected in the 2018 TDHS to help assess the extent of crowding. Table 2.3 shows that $80 \%$ of households have 1 or 2 rooms for sleeping and $20 \%$ have 3 or more
rooms for sleeping. Rural households tend to have less rooms for sleeping, while in urban households $22 \%$ have 3 or more rooms, this percentage decreases to $15 \%$ in rural households.

Exposure to smoke inside the home, from smoking tobacco, has potentially harmful health effects. In $33 \%$ of households, someone smokes inside the house, and in $28 \%$ of households someone smokes inside the house on a daily basis. Frequency of smoking inside home on a daily basis is higher in urban households than rural households ( $30 \%$ and $21 \%$ respectively) (Table 2.3).

### 2.4 Household Wealth

## Household Durable Goods

Ownership of household effects and other possessions is a useful indicator of a household's social and economic well-being. Table 2.4 presents the availability of selected household possessions by residence. A majority of households in Turkey own most basic appliances. Washing machine, vacuum cleaner and iron are the most commonly owned devices in Turkey. Forty-four percent of households have an internet connection, $39 \%$ have a computer and $18 \%$ have a paid TV service. Households in urban areas have higher proportions of household effect ownership.

Relatively fewer proportion of households have a means of transportation in urban areas. The most common means of transportation is a car/truck ( $44 \%$ in urban areas and $41 \%$ in rural areas). Thirty-two percent of rural households have a tractor (Table 2.4).

## Wealth Index

## Wealth index

Households are given scores based on the number and kinds of consumer goods they own, ranging from a television to a car, and housing characteristics such as source of drinking water, toilet facilities, and flooring materials. These scores are derived using principal component analysis.
National wealth quintiles are compiled by assigning the household score to each usual (de jure) household member, ranking each person in the household population by their score, and then dividing the distribution into five equal categories, each with $20 \%$ of the population.
Sample: Households

Table 2.5 shows the distribution of the de jure population by the 5 wealth quintiles and the Gini coefficient according to urban-rural residence, region and NUTS 1 region. The Gini coefficient indicates the level of concentration of wealth, with 0 representing an equal wealth distribution and 1 representing a totally unequal distribution. Gini coefficient for the total population is 0.21 (Table 2.5). More than half of the de jure household population (53\%) in rural areas are in the lowest quintile in contrast to $9 \%$ in urban areas. On the other hand, more than half of the urban population (52\%) are in the fourth and highest wealth quintiles as opposed to $5 \%$ of rural population. As expected, there are huge variations in wealth quintile distribution across regions. The East region has the largest proportion in the lowest wealth quintile (44\%) and West region has the largest proportion in the highest quintile ( $28 \%$ ). In line with this finding, the NUTS 1 regions located in the eastern part of Turkey, namely Northeast Anatolia, Central East Anatolia and Southeast Anatolia regions have the largest proportions in the lowest quintile ( $52 \%, 44 \%$ and $42 \%$, respectively) and İstanbul, West Anatolia, and East Marmara regions have the smallest proportions in the lowest quintile $(4 \%, 8 \%$ and $10 \%$, respectively).

### 2.5 Household Population and Composition

## Household

A person or group of related or unrelated persons who live together in the same dwelling unit(s), who acknowledge one adult male or female as the head of the household, who share the same housekeeping arrangements, and who are considered a single unit.

## De facto population

All persons who stayed in the selected households the night before the interview (whether usual residents or visitors).

## De jure population

All persons who are usual residents of the selected households, whether or not they stayed in the household the night before the interview.

## How data are calculated

All tables are based on the de facto population, unless specified otherwise.

A total of 37,897 (weighted number) individuals stayed overnight in the 11,056 households interviewed in the 2018 TDHS. Among these individuals, 18,557 were male and 19,340 were female (Table 2.6), yielding a sex ratio of 96 males per 100 females. The population pyramid in Figure 2.1 illustrates the distribution of the population by 5-year age groups and sex. Children under age 15 account for $25 \%$ of the population, adolescents (10-19) account for 16\% and individuals age 65 and older make up 10\% (Table 2.6 and Figure 2.1).

Figure 2.1 Population Pyramid Percent distribution of household population


Figure 2.2 Trends in mean household size Mean household size, 1993-2018


The majority of households in Turkey are male-headed ( $84 \%$ ), with small differences by place of residence. The average household consists of 3.5 usual members, with small differences by place of residence (Table 2.7). Two percent of households have foster and/or orphan children (Table 2.7).

Trends: Mean household size declined from 4.5 members in 1993 to 3.5 members in 2018, a decrease of 1.0 persons (Figure 2.2)

### 2.6 Children's Living Arrangements and Parental Survival

## Orphan

A child with one or both parents who are dead.
Sample: Children under age 18

Table 2.8 shows that $92 \%$ of children under age 18 live with both biological parents. By background characteristics, differences in children's living arrangements are quite small. The only exception is with regards to children's age, where, as expected, the proportion of children living with both parents decreases as age increases. Seven percent of children under 18 live with only one parent, $5 \%$ only with their mother and $1 \%$ only with their father. The proportion of children below age 18 who do not live with a biological parent is $1 \%$ and the proportion with one or both parents dead is $2 \%$.

## Patterns by background characteristics

- Orphanhood increases with age. Less than $1 \%$ of children age 0-4 are orphans as compared with $5 \%$ of children age 15-17 who are orphans.
- Children in the lowest wealth quintile are nearly three times more prevalently orphaned than children in the highest quintile ( $3 \%$ and $1 \%$, respectively).
- Orphanhood ranges from $1 \%$ to $3 \%$ among regions with slight variations. Among 5 regions, the Central region has the lowest value ( $1 \%$ ) and the East region has the highest value (3\%).


### 2.7 BIRTH Registration

## Registered birth

Child has a birth certificate or child does not have a birth certificate, but his/her birth is registered with the civil authorities.
Sample: Children under age 5 born to interviewed women

Table 2.9 presents information on the percentage of children under five years of age whose births were officially registered. The table shows that $98 \%$ of births were registered. Table 2.9 reflects that there is little variation in birth registration rates by the child`s age, child's sex and region.

Trends: From 1993 to 2018, the percentage of unregistered children decreased from $26 \%$ in the 1993 TDHS to $2 \%$ in 2018 TDHS (Figure 2.3).

Figure 2.3 Trends in non-registration of children under age 5
Percentage of children under age 5 whose births are not registered, 1993-2018


### 2.8 EdUCATION

### 2.8.1 Educational Attainment

## Median educational attainment

Half of the population has completed less than the median number of years of schooling, and half of the population has completed more than the median number of years of schooling.
Sample: De facto household population age 6 and older

Tables 2.10.1 and 2.10.2 present information on educational attainment among the household population age 6 and over. Overall, $25 \%$ of females age 6 and over have never been to school or have attended primary school but have not graduated from this level. One in three (34\%) women are graduates of primary level education, or have attended secondary school but have not completed it. The proportion of women who completed secondary level education is $15 \%$, and $26 \%$ of women received education at the high school level or higher. Females age 6 and over have completed a median of 4.8 years of schooling.

The level of education for males is higher compared to females in Turkey. The proportion of males age 6 and over who have not attended school or have not completed primary school is $14 \%$. Thirty-three percent of men have completed primary school and $21 \%$ have completed secondary school. One in three males ( $33 \%$ ) are high school or higher graduates. The median years of schooling for males age 6 and above is 7.1.

## Patterns by background characteristics

- Not having completed primary school education is proportionally lower in urban areas than rural areas for both sexes ( $22 \%$ and $35 \%$ for females respectively, $12 \%$ and $17 \%$ for males). Similarly, the level of people with high school or higher education is higher in urban areas than rural areas ( $31 \%$ and $12 \%$ for females respectively, $38 \%$ and $18 \%$ for males).
- The highest proportion of persons without primary school level education is in the East region ( $41 \%$ for females and $22 \%$ for males). The highest level of high school or higher education is in the West region for females ( $32 \%$ ) and in the Central region for males ( $38 \%$ ).
- Among the 12 NUTS 1 regions, the proportion of females in the lowest education category is highest in Central East Anatolia (43\%), and proportion of males in this category is highest in Southeast Anatolia (22\%).
- The median number of years of schooling is highest among the 20-24 and 25-29 age groups for both sexes ( 11.6 years and 10.5 years respectively for females, and 11.5 years and 11.3 years for males).
- The median years of schooling completed is higher in urban than rural areas for both sexes (5.0 years and 7.5 years in urban areas for females and males respectively, compared to 4.4 years and 4.8 years in rural areas respectively).
- By region, among both females and males, the median number of years of schooling is highest in the West and Central regions ( 5.0 years and 4.9 years for females, and 7.3 years and 7.4 years for males respectively). The lowest median years completed is observed in the East region (4.3 years for females and 5.6 years for males respectively).
- The median years of schooling is highest in West Anatolia for both sexes (7.0 years for females and 8.0 years for males); it is lowest in Central East Anatolia for females ( 4.1 years) and Northeast Anatolia ( 5.0 years) for males.
- Educational attainment increases with increasing household wealth. Females in the lowest wealth quintile have completed a median of 3.7 years of schooling, as compared with a median of 10.4 years among females in the highest wealth quintile. Among males, the median number of years of schooling increases from 4.6 years in the lowest wealth quintile to 10.6 years in the highest quintile.

Trends: Between 2013 and 2018, the level of not having completed primary school has declined for both sexes (from $28 \%$ in the 2013 TDHS to $25 \%$ in the 2018 TDHS for females; from $16 \%$ in the 2013 TDHS to $14 \%$ in the 2018 TDHS for males). From 2013 to 2018, the proportion of people with high school or higher level education has increased among females and males (from $21 \%$ to $26 \%$ for females, and from $29 \%$ to $33 \%$ for males, respectively). The median years of schooling slightly increased from 4.7 to 4.8 among females and increased from 6.9 to 7.1 among males.

### 2.8.2 School Attendance

## Net attendance ratios (NAR)

Percentage of the school-age population that attends primary, secondary or high school.
Sample: Children age 6-13 for primary and secondary school NAR and children age 14-17 for high school NAR

## Gross attendance ratios (GAR)

The total number of children attending primary or secondary school divided by the official primary or secondary school age population and the total number of children attending high school divided by the official high school age population.
Sample: Children age 6-13 for primary and secondary school GAR and children age 14-17 for high school GAR

The 2018 TDHS collected information on current school attendance for the population age 4-24, however, for comparability with previous surveys, results are presented for the population age 6-24 years. The age-specific attendance rates for the population by sex are shown in Figure 2.4.

Figure 2.4 Age specific attendance rates
Percentage of the household population attending school by age and sex


School attendance ratios are shown in
Table 2.11.1 and Table 2.11.2 . Ninetyfive percent of girls and $94 \%$ of boys age 6-13 attend primary or secondary school. The net attendance ratio (NAR) drops in high school: 77\% of girls and 78\% of boys age 14-17 attend high school.

The gross attendance ratio (GAR) for primary or secondary school is $99 \%$ for girls and $98 \%$ for boys, the GAR for high school is $89 \%$ for girls and $96 \%$ for boys. These figures indicate that a small
proportion of children outside the official school-age population for that level are attending primary or secondary school but not high school.

## Gender Parity Indices (GPI)

The ratio of female to male students attending primary or secondary school and the ratio of female to male students attending high school. The index reflects the magnitude of the gender gap.
Sample: Primary, secondary and high school students
The gender parity index (GPI) for the NAR at primary or secondary school is 1.01 , indicating no difference by sex in attending primary or secondary school. At the high school level, the GPI for the NAR is 0.99 , indicating same levels of participation of female and male students.

The GPI (GAR) for primary school is 1.00 , also indicating no difference in male and female attendance. It decreases to 0.93 in high school, indicating a lower participation of females than males for this level.

## Patterns by background characteristics

- The NAR and the GAR are at similar levels comparing urban and rural areas for primary and secondary school. At the high school level, NAR is higher in urban than rural ( $80 \%$ and $70 \%$ respectively), and the same holds for GAR ( $96 \%$ and $83 \%$ for urban and rural areas).
- The disparity in school enrollment between the East and other regions is substantial at the high school level (the NAR in the East is $62 \%$, compared to the national average of $77 \%$ ).
- NUTS 1 regional disparities are pronounced at the high school level. The NAR ranges from a low of $57 \%$ in Northeast Anatolia, to a high of $89 \%$ in East Marmara.
- The NARs increase with increasing wealth, but this pattern is more apparent for high school attendance. NAR is $55 \%$ in the lowest wealth quintile and is $90 \%$ in the highest quintile.
- Urban-rural differentials in the GPI for the NAR do not exist at the primary and secondary school level ( 1.01 in urban areas and 1.00 in rural areas), and are only small at the high school level ( 1.01 for urban areas and 0.96 in rural areas); there are also no major regional differentials for the GPI.
- The lowest GPI for NAR at the high school level is observed for the lowest wealth quintile (0.95).

Trends: The NAR for primary and secondary school has remained the same since the 2013 TDHS ( $94 \%$ ). This holds for the NAR by sex. The NAR for high school was estimated at $76 \%$ in 2013 the TDHS, and is estimated at $77 \%$ in the 2018 TDHS.

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## Table 2.1 Household drinking water

Percent distribution of households and de jure population by source of drinking water and by time to obtain drinking water; percentage of households and de jure population with basic drinking water service and percentage with limited drinking water service, according to residence, Turkey DHS 2018

| Characteristic | Households |  |  | Population |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Urban | Rural | Total | Urban | Rural | Total |
| Source of drinking water |  |  |  |  |  |  |
| Improved source | 98.4 | 96.2 | 97.9 | 98.3 | 95.6 | 97.6 |
| Piped into dwelling/yard plot | 51.5 | 57.8 | 53.0 | 56.0 | 58.3 | 56.6 |
| Public tap/standpipe | 2.7 | 7.4 | 3.8 | 2.8 | 6.7 | 3.7 |
| Tube well or borehole | 0.3 | 6.4 | 1.8 | 0.4 | 8.3 | 2.3 |
| Protected dug well | 0.3 | 2.3 | 0.8 | 0.4 | 3.1 | 1.1 |
| Protected spring | 3.4 | 13.6 | 5.8 | 3.2 | 12.7 | 5.5 |
| Tanker truck/cart with small |  |  |  |  |  |  |
| tank | 0.1 | 0.1 | 0.1 | 0.1 35.5 | 0.2 | 0.1 |
| Bottled water | 40.1 | 8.5 | 32.6 | 35.5 | 6.4 | 28.2 |
| Unimproved source | 0.3 | 2.4 | 0.8 | 0.3 | 2.9 | 1.0 |
| Unprotected dug well | 0.0 | 0.5 | 0.2 | 0.1 | 0.8 | 0.2 |
| Unprotected spring | 0.2 | 1.5 | 0.5 | 0.2 | 1.6 | 0.5 |
| Surface water | 0.1 | 0.3 | 0.1 | 0.1 | 0.5 | 0.2 |
| Other | 1.3 | 1.4 | 1.3 | 1.4 | 1.5 | 1.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Time to obtain drinking water (round trip) |  |  |  |  |  |  |
| Water on premises ${ }^{1}$ | 94.8 | 89.3 | 93.5 | 95.0 | 90.6 | 93.9 |
| 30 minutes or less | 3.1 | 7.0 | 4.0 | 2.9 | 6.2 | 3.7 |
| More than 30 minutes | 1.9 | 3.4 | 2.3 | 1.8 | 3.1 | 2.2 |
| Don't know/missing | 0.2 | 0.3 | 0.2 | 0.2 | 0.1 | 0.2 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Percentage with basic drinking water service ${ }^{2}$ | 96.5 | 93.1 | 95.7 | 96.5 | 93.0 | 95.6 |
| Percentage with limited drinking water service ${ }^{3}$ | 1.7 | 2.8 | 2.0 | 1.7 | 2.6 | 1.9 |
| Number of households/population | 8,414 | 2,642 | 11,056 | 29,038 | 9,589 | 38,628 |

${ }^{1}$ Includes water piped to a neighbor and those reporting a round trip collection time of zero minutes
${ }^{2}$ Defined as drinking water from an improved source, provided either water is on the premises or round-trip collection time is 30 minutes or less. Includes safely managed drinking water, which is not shown separately.
${ }^{3}$ Drinking water from an improved source, provided round-trip collection time is more than 30 minutes

## Table 2.2 Household sanitation facilities

Percent distribution of households and de jure population by type of toilet/latrine facilities, percent distribution of households and de jure population with a toilet/latrine facility by location of the facility, percentage of households and de jure population with basic sanitation services, according to residence, Turkey DHS 2018

| Type and location of toilet/latrine facility | Households |  |  | Population |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Urban | Rural | Total | Urban | Rural | Total |
| Flush/pour flush to piped |  |  |  |  |  |  |
| sewer system | 97.0 | 58.1 | 87.7 | 96.7 | 56.4 | 86.7 |
| Pit latrine with slab | 2.2 | 37.0 | 10.5 | 2.5 | 37.8 | 11.3 |
| Improved, shared facility |  |  |  |  |  |  |
| Flush/pour flush to piped |  |  |  |  |  |  |
| sewer system | 0.3 | 0.7 | 0.4 | 0.3 | 0.8 | 0.4 |
| Pit latrine with slab | 0.0 | 1.0 | 0.3 | 0.0 | 0.9 | 0.2 |
| Unimproved facility |  |  |  |  |  |  |
| Pit latrine without slab/ |  |  |  |  |  |  |
| open pit | 0.3 | 2.3 | 0.8 | 0.2 | 2.8 | 0.9 |
| Other | 0.1 | 0.6 | 0.2 | 0.1 | 0.9 | 0.3 |
| Open defecation (No |  |  |  |  |  |  |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of |  |  |  |  |  |  |
| households/population | 8,414 | 2,642 | 11,056 | 29,038 | 9,589 | 38,628 |
| Location of toilet facility |  |  |  |  |  |  |
| In own dwelling | 96.6 | 72.4 | 90.8 | 96.0 | 72.7 | 90.2 |
| In own yard/plot | 2.7 | 17.5 | 6.2 | 3.2 | 17.8 | 6.8 |
| Elsewhere | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Both inside and outside | 0.7 | 10.0 | 2.9 | 0.9 | 9.5 | 3.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of households/population with a toilet/latrine facility | 8,405 | 2,634 | 11,039 | 29,008 | 9,554 | 38,562 |
| Percentage with basic sanitation service ${ }^{1}$ | 99.3 | 95.0 | 98.3 | 99.2 | 94.2 | 98.0 |
| Number | 8,414 | 2,642 | 11,056 | 29,038 | 9,589 | 38,628 |

${ }^{1}$ Defined as use of improved facilities that are not shared with other households. Includes safely managed sanitation service, which is not shown separately.

## Table 2.3 Household characteristics

Percent distribution of households and de jure population by housing characteristics, percentage distribution of flooring material, percentage distribution of number of rooms used for sleeping, and percent distribution by frequency of smoking in the home, according to residence, Turkey DHS 2018

| Housing characteristic | Households |  |  | Population |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Urban | Rural | Total | Urban | Rural | Total |
| Flooring material |  |  |  |  |  |  |
| Earth, sand | 0.2 | 4.6 | 1.3 | 0.2 | 4.6 | 1.3 |
| Wood planks | 4.4 | 15.5 | 7.0 | 3.8 | 12.7 | 6.0 |
| Parquet or polished wood | 43.1 | 15.8 | 36.6 | 42.3 | 15.5 | 35.7 |
| Tile | 10.8 | 9.1 | 10.4 | 11.9 | 10.1 | 11.5 |
| Cement | 7.8 | 33.0 | 13.8 | 9.6 | 36.5 | 16.3 |
| Carpet | 0.8 | 1.1 | 0.9 | 0.8 | 0.9 | 0.8 |
| Vinyl covering | 3.0 | 1.7 | 2.7 | 3.1 | 1.5 | 2.7 |
| Mozaic | 0.9 | 0.6 | 0.8 | 0.9 | 0.6 | 0.8 |
| Laminate | 27.3 | 16.4 | 24.7 | 25.7 | 15.1 | 23.1 |
| Other | 1.7 | 2.2 | 1.9 | 1.7 | 2.5 | 1.9 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Rooms used for sleeping |  |  |  |  |  |  |
| 1 | 31.0 | 45.0 | 34.4 | 19.7 | 29.1 | 22.1 |
| 2 | 47.5 | 39.5 | 45.6 | 50.2 | 46.3 | 49.2 |
| 3 or more | 21.5 | 15.4 | 20.1 | 30.1 | 24.6 | 28.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Frequency of smoking in the home |  |  |  |  |  |  |
| Daily | 30.4 | 20.8 | 28.1 | 32.7 | 24.9 | 30.8 |
| Weekly | 2.7 | 2.1 | 2.6 | 2.9 | 2.5 | 2.8 |
| Monthly | 1.1 | 1.0 | 1.1 | 1.2 | 1.2 | 1.2 |
| Less than once a month | 0.9 | 0.9 | 0.9 | 0.8 | 0.7 | 0.8 |
| Never | 64.9 | 75.2 | 67.3 | 62.3 | 70.7 | 64.4 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of households/population | 8,414 | 2,642 | 11,056 | 29,038 | 9,589 | 38,628 |

## Table 2.4 Household possessions

Percentage of households possessing various household effects, and means of transportation by residence, Turkey DHS 2018

|  | Residence |  |
| :--- | :--- | :--- |
|  |  |  |
| Possession | Urban Rural |  |


| Household effects |  |  |  |
| :--- | ---: | ---: | ---: |
| LED/LCD television | 80.6 | 62.5 | 76.3 |
| Computer | 46.3 | 17.3 | 39.4 |
| Deep freezer | 35.5 | 46.4 | 38.1 |
| Gas/electric oven | 82.9 | 67.1 | 79.1 |
| Microwave oven | 28.4 | 10.7 | 24.2 |
| Dishwasher | 77.3 | 46.0 | 69.8 |
| Garbage dispenser | 0.8 | 0.3 | 0.7 |
| Washing machine | 6.4 | 96.5 | 97.8 |
| Drying machine | 91.9 | 76.5 | 5.2 |
| Iron | 93.4 | 80.2 | 90.2 |
| Vacuum cleaner | 3.6 | 0.6 | 2.9 |
| Home theater | 31.4 | 13.1 | 27.1 |
| Tea/coffee machine | 59.8 | 47.8 | 56.9 |
| Kettle | 3.8 | 4.8 | 4.1 |
| Generator | 62.7 | 35.8 | 56.3 |
| Food processor/blender |  |  |  |
| Paid TV service (Cable TV, | 22.0 | 3.6 | 17.6 |
| Digitürk, D-Smart etc.) | 77.8 | 81.7 | 78.8 |
| Satellite TV | 52.2 | 16.8 | 43.7 |
| Internet connection | 25.2 | 14.2 | 22.6 |
| Air conditioner |  |  |  |
|  |  |  |  |
| Means of transport | 54.1 | 40.6 | 43.3 |
| Car/truck | 5.3 | 5.5 | 5.3 |
| Commercial vehicles | 2.3 | 31.5 | 9.3 |
| Tractor |  |  |  |
| Number of households | 8,414 | 2,642 | 11,056 |
|  |  |  |  |

## Table 2.5 Wealth quintiles

Percent distribution of the de jure population by wealth quintiles, and the Gini coefficient, according to residence and region, Turkey DHS 2018

| Residence/region | Wealth quintile |  |  |  |  | Total | Number of persons | Gini coefficient |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Lowest | Second | Middle | Fourth | Highest |  |  |  |
| Residence |  |  |  |  |  |  |  |  |
| Urban | 9.3 | 16.2 | 22.9 | 25.5 | 26.2 | 100.0 | 29,038 | 0.17 |
| Rural | 52.6 | 31.5 | 11.3 | 3.5 | 1.1 | 100.0 | 9,589 | 0.20 |
| Region |  |  |  |  |  |  |  |  |
| West | 9.3 | 13.9 | 22.9 | 25.5 | 28.4 | 100.0 | 16,189 | 0.16 |
| South | 30.6 | 33.0 | 18.8 | 9.4 | 8.3 | 100.0 | 4,956 | 0.24 |
| Central | 13.6 | 16.9 | 18.8 | 24.3 | 26.3 | 100.0 | 7,991 | 0.18 |
| North | 21.5 | 26.4 | 20.1 | 18.6 | 13.5 | 100.0 | 2,340 | 0.21 |
| East | 43.5 | 26.1 | 15.7 | 10.7 | 4.1 | 100.0 | 7,152 | 0.30 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |
| Istanbul | 3.6 | 9.1 | 24.0 | 28.3 | 35.0 | 100.0 | 7,395 | 0.15 |
| West Marmara | 19.2 | 20.2 | 21.8 | 19.4 | 19.4 | 100.0 | 1,719 | 0.20 |
| Aegean | 15.3 | 20.2 | 22.1 | 21.6 | 20.8 | 100.0 | 4,880 | 0.19 |
| East Marmara | 9.7 | 15.8 | 23.5 | 26.6 | 24.4 | 100.0 | 3,678 | 0.17 |
| West Anatolia | 8.4 | 9.6 | 15.4 | 28.5 | 38.0 | 100.0 | 3,787 | 0.16 |
| Mediterranean | 30.6 | 33.0 | 18.8 | 9.4 | 8.3 | 100.0 | 4,956 | 0.24 |
| Central Anatolia | 20.1 | 21.0 | 19.8 | 20.4 | 18.6 | 100.0 | 1,894 | 0.18 |
| West Black Sea | 20.6 | 29.6 | 19.3 | 18.3 | 12.2 | 100.0 | 2,148 | 0.20 |
| East Black Sea | 25.5 | 23.7 | 20.3 | 17.7 | 12.8 | 100.0 | 1,018 | 0.23 |
| Northeast Anatolia | 51.6 | 16.6 | 12.6 | 11.9 | 7.3 | 100.0 | 998 | 0.33 |
| Central East Anatolia | 43.6 | 23.5 | 19.0 | 11.6 | 2.4 | 100.0 | 1,889 | 0.30 |
| Southeast Anatolia | 41.5 | 29.5 | 14.9 | 10.0 | 4.2 | 100.0 | 4,265 | 0.30 |
| Total | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 | 100.0 | 38,628 | 0.21 |

Table 2.6 Household population by age, sex, and residence
Percent distribution of the de facto household population by age groups, according to sex and residence,
Turkey DHS 2018

| Age | Urban |  |  | Rural |  |  | Total |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Total | Male | Female | Total | Male | Female |  |
| <5 | 8.3 | 7.9 | 8.1 | 7.5 | 8.2 | 7.9 | 8.1 | 8.0 | 8.0 |
| 5-9 | 8.3 | 7.4 | 7.8 | 8.2 | 6.8 | 7.5 | 8.3 | 7.2 | 7.8 |
| 10-14 | 8.7 | 8.4 | 8.6 | 8.9 | 9.0 | 9.0 | 8.8 | 8.6 | 8.7 |
| 15-19 | 8.1 | 7.4 | 7.8 | 7.7 | 7.4 | 7.6 | 8.0 | 7.4 | 7.7 |
| 20-24 | 7.2 | 7.0 | 7.1 | 5.8 | 5.8 | 5.8 | 6.8 | 6.7 | 6.8 |
| 25-29 | 7.3 | 7.3 | 7.3 | 5.7 | 5.5 | 5.6 | 6.9 | 6.9 | 6.9 |
| 30-34 | 7.4 | 7.6 | 7.5 | 5.5 | 5.0 | 5.3 | 7.0 | 7.0 | 7.0 |
| 35-39 | 7.4 | 7.6 | 7.5 | 5.6 | 6.2 | 5.9 | 6.9 | 7.3 | 7.1 |
| 40-44 | 7.3 | 7.2 | 7.2 | 5.7 | 5.7 | 5.7 | 6.9 | 6.9 | 6.9 |
| 45-49 | 6.5 | 6.4 | 6.4 | 6.1 | 5.6 | 5.8 | 6.4 | 6.2 | 6.3 |
| 50-54 | 5.5 | 6.2 | 5.8 | 6.9 | 7.4 | 7.1 | 5.8 | 6.5 | 6.2 |
| 55-59 | 5.4 | 5.7 | 5.5 | 6.4 | 7.1 | 6.7 | 5.6 | 6.0 | 5.8 |
| 60-64 | 4.4 | 4.6 | 4.5 | 5.9 | 5.6 | 5.7 | 4.8 | 4.8 | 4.8 |
| 65-69 | 3.4 | 3.4 | 3.4 | 4.6 | 4.9 | 4.7 | 3.7 | 3.8 | 3.7 |
| 70-74 | 1.9 | 2.3 | 2.1 | 3.7 | 3.6 | 3.7 | 2.3 | 2.6 | 2.5 |
| 75-79 | 1.3 | 1.5 | 1.4 | 2.5 | 2.5 | 2.5 | 1.6 | 1.8 | 1.7 |
| 80 + | 1.6 | 2.0 | 1.8 | 3.0 | 3.4 | 3.2 | 1.9 | 2.3 | 2.1 |
| Don't know/missing | 0.1 | 0.0 | 0.1 | 0.2 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Dependency age groups |  |  |  |  |  |  |  |  |  |
| 0-14 | 25.4 | 23.7 | 24.5 | 24.7 | 24.0 | 24.3 | 25.2 | 23.7 | 24.5 |
| 15-64 | 66.3 | 67.0 | 66.7 | 61.4 | 61.3 | 61.4 | 65.1 | 65.6 | 65.4 |
| 65+ | 8.2 | 9.3 | 8.7 | 13.7 | 14.5 | 14.1 | 9.5 | 10.5 | 10.0 |
| Don't know/missing | 0.1 | 0.0 | 0.1 | 0.2 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Child and adult populations |  |  |  |  |  |  |  |  |  |
| 0-17 | 30.4 | 28.2 | 29.3 | 29.2 | 28.6 | 28.9 | 30.1 | 28.3 | 29.2 |
| 18+ | 69.5 | 71.7 | 70.6 | 70.6 | 71.2 | 70.9 | 69.7 | 71.6 | 70.7 |
| Don't know/missing | 0.1 | 0.0 | 0.1 | 0.2 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Adolescents 10-19 | 16.8 | 15.9 | 16.3 | 16.6 | 16.4 | 16.5 | 16.8 | 16.0 | 16.4 |
| Number of persons | 14,031 | 14,642 | 28,673 | 4,526 | 4,698 | 9,224 | 18,557 | 19,340 | 37,897 |

## Table 2.7 Household composition

Percent distribution of households by sex of head of household and by household size; mean size of household, and percentage of households with orphans and foster children under 18 years of age, according to residence, Turkey DHS 2018

| Characteristic | Residence |  | Total |
| :---: | :---: | :---: | :---: |
|  | Urban | Rural |  |
| Household headship |  |  |  |
| Male | 83.2 | 86.6 | 84.0 |
| Female | 16.8 | 13.4 | 16.0 |
| Total | 100.0 | 100.0 | 100.0 |
| Number of usual members |  |  |  |
| 1 | 8.1 | 9.9 | 8.5 |
| 2 | 22.5 | 28.5 | 23.9 |
| 3 | 23.4 | 18.0 | 22.1 |
| 4 | 24.5 | 14.5 | 22.1 |
| 5 | 12.2 | 12.5 | 12.2 |
| 6 | 5.6 | 7.0 | 6.0 |
| 7 | 2.0 | 3.8 | 2.4 |
| 8 | 0.9 | 2.4 | 1.2 |
| 9+ | 0.8 | 3.2 | 1.4 |
| Total | 100.0 | 100.0 | 100.0 |
| Mean size of households | 3.5 | 3.6 | 3.5 |
| Percentage of households with orphans and foster children under 18 years of age |  |  |  |
| Double orphans | 0.0 | 0.0 | 0.0 |
| Single orphans ${ }^{1}$ | 1.3 | 1.0 | 1.2 |
| Foster children ${ }^{2}$ | 1.2 | 1.1 | 1.2 |
| Foster and/or orphan children | 2.3 | 2.0 | 2.2 |
| Number of households | 8,414 | 2,642 | 11,056 |

Note: Table is based on de jure household members, i.e., usual residents.
${ }^{1}$ Includes children with one dead parent and an unknown survival status of the other parent.
${ }^{2}$ Foster children are those under age 18 living in households with neither their mother nor their father present, and the mother and/or the father are alive.

## Table 2.8 Children's living arrangements and orphanhood

Percent distribution of de jure children under age 18 by living arrangements and survival status of parents, percentage of children not living with a biological parent, and percentage of children with one or both parents dead, according to background characteristics, Turkey DHS 2018

| Background characteristic | Living with both parents | Living with mother but not with father |  | Living with father but not with mother |  | Not living with either parent |  |  |  |  | Total | Percent. not living with a biological parent | Percent. with one or both parents dead ${ }^{1}$ | Number of children |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Father alive | Father dead | Mother alive | Mother dead | Both alive | Only father alive | Only mother alive | Both dea d | Missing info. on father/ mother |  |  |  |  |
| Age |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0-4 | 96.6 | 2.3 | 0.3 | 0.2 | 0.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.5 | 0.4 | 2,979 |
| <2 | 97.5 | 2.0 | 0.3 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.1 | 0.3 | 1,122 |
| 2-4 | 96.0 | 2.4 | 0.4 | 0.3 | 0.1 | 0.7 | 0.0 | 0.0 | 0.0 | 0.1 | 100.0 | 0.7 | 0.5 | 1,857 |
| 5-9 | 93.2 | 3.5 | 1.0 | 1.2 | 0.2 | 0.8 | 0.1 | 0.1 | 0.0 | 0.0 | 100.0 | 0.9 | 1.3 | 2,925 |
| 10-14 | 90.5 | 5.2 | 1.4 | 0.9 | 0.5 | 1.2 | 0.1 | 0.1 | 0.1 | 0.2 | 100.0 | 1.4 | 2.1 | 3,327 |
| 15-17 | 85.7 | 5.0 | 3.5 | 1.7 | 0.6 | 2.8 | 0.3 | 0.3 | 0.1 | 0.0 | 100.0 | 3.5 | 4.8 | 1,900 |
| Sex |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 92.7 | 3.6 | 1.3 | 0.9 | 0.2 | 1.0 | 0.1 | 0.1 | 0.0 | 0.1 | 100.0 | 1.2 | 1.8 | 5,638 |
| Female | 91.4 | 4.3 | 1.4 | 1.0 | 0.4 | 1.4 | 0.1 | 0.0 | 0.0 | 0.1 | 100.0 | 1.6 | 2.0 | 5,493 |
| Residence |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Urban | 91.1 | 4.7 | 1.4 | 1.1 | 0.3 | 1.1 | 0.1 | 0.1 | 0.0 | 0.1 | 100.0 | 1.4 | 1.9 | 8,391 |
| Rural | 94.9 | 1.6 | 1.3 | 0.4 | 0.4 | 1.3 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 1.3 | 1.8 | 2,740 |
| Region |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| West | 90.6 | 5.2 | 1.6 | 1.1 | 0.1 | 1.1 | 0.1 | 0.1 | 0.0 | 0.1 | 100.0 | 1.3 | 1.9 | 4,104 |
| South | 91.6 | 5.2 | 1.0 | 0.4 | 0.1 | 1.5 | 0.1 | 0.1 | 0.0 | 0.0 | 100.0 | 1.6 | 1.2 | 1,525 |
| Central | 92.8 | 3.6 | 0.6 | 1.2 | 0.3 | 1.3 | 0.0 | 0.1 | 0.0 | 0.0 | 100.0 | 1.5 | 1.1 | 2,115 |
| North | 89.6 | 5.1 | 1.4 | 1.4 | 0.1 | 1.7 | 0.0 | 0.3 | 0.0 | 0.3 | 100.0 | 2.0 | 1.8 | 498 |
| East | 94.1 | 1.5 | 1.8 | 0.6 | 0.7 | 1.0 | 0.1 | 0.1 | 0.1 | 0.1 | 100.0 | 1.2 | 2.8 | 2,888 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Istanbul | 92.8 | 3.7 | 1.4 | 1.1 | 0.1 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 0.9 | 1.6 | 2,010 |
| West Marmara | 90.0 | 5.3 | 2.1 | 0.7 | 0.3 | 1.0 | 0.1 | 0.2 | 0.0 | 0.2 | 100.0 | 1.4 | 2.8 | 367 |
| Aegean | 86.2 | 7.5 | 1.9 | 1.7 | 0.1 | 2.2 | 0.1 | 0.1 | 0.0 | 0.1 | 100.0 | 2.4 | 2.3 | 1,109 |
| East Marmara | 92.5 | 4.8 | 0.9 | 0.8 | 0.1 | 0.6 | 0.4 | 0.0 | 0.0 | 0.0 | 100.0 | 1.0 | 1.4 | 965 |
| West Anatolia | 92.7 | 4.4 | 0.3 | 1.2 | 0.3 | 0.9 | 0.0 | 0.3 | 0.0 | 0.0 | 100.0 | 1.2 | 0.8 | 1,006 |
| Mediterranean | 91.6 | 5.2 | 1.0 | 0.4 | 0.1 | 1.5 | 0.1 | 0.1 | 0.0 | 0.0 | 100.0 | 1.6 | 1.2 | 1,525 |
| Central Anatolia | 91.7 | 3.3 | 1.6 | 1.7 | 0.5 | 1.1 | 0.1 | 0.0 | 0.1 | 0.0 | 100.0 | 1.4 | 2.4 | 537 |
| West Black Sea | 90.9 | 4.4 | 0.9 | 1.3 | 0.0 | 1.8 | 0.0 | 0.2 | 0.0 | 0.3 | 100.0 | 2.1 | 1.1 | 518 |
| East Black Sea | 92.0 | 4.0 | 1.5 | 0.6 | 0.2 | 1.5 | 0.0 | 0.2 | 0.0 | 0.0 | 100.0 | 1.7 | 1.8 | 206 |
| Northeast Anatolia | 93.6 | 2.2 | 1.1 | 1.0 | 0.8 | 1.0 | 0.1 | 0.0 | 0.2 | 0.0 | 100.0 | 1.3 | 2.1 | 366 |
| Central East Anatolia | 93.3 | 2.3 | 1.9 | 0.5 | 0.5 | 1.2 | 0.1 | 0.2 | 0.1 | 0.0 | 100.0 | 1.6 | 2.7 | 710 |
| Southeast Anatolia | 94.5 | 1.0 | 1.9 | 0.5 | 0.8 | 0.9 | 0.1 | 0.1 | 0.1 | 0.2 | 100.0 | 1.1 | 2.9 | 1,812 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | 91.2 | 2.9 | 2.4 | 1.0 | 0.6 | 1.6 | 0.1 | 0.0 | 0.0 | 0.2 | 100.0 | 1.8 | 3.2 | 2,576 |
| Second | 91.4 | 4.4 | 1.6 | 0.7 | 0.2 | 1.2 | 0.2 | 0.2 | 0.1 | 0.0 | 100.0 | 1.7 | 2.2 | 2,379 |
| Middle | 92.5 | 4.0 | 1.0 | 0.8 | 0.0 | 1.4 | 0.1 | 0.0 | 0.1 | 0.1 | 100.0 | 1.5 | 1.2 | 2,156 |
| Fourth | 92.5 | 3.9 | 0.8 | 1.3 | 0.5 | 0.7 | 0.0 | 0.2 | 0.0 | 0.0 | 100.0 | 0.9 | 1.5 | 2,053 |
| Highest | 92.8 | 4.6 | 0.7 | 0.8 | 0.2 | 0.8 | 0.0 | 0.1 | 0.0 | 0.1 | 100.0 | 0.8 | 1.0 | 1,967 |
| Total < 15 | 93.3 | 3.7 | 0.9 | 0.8 | 0.2 | 0.8 | 0.0 | 0.0 | 0.0 | 0.1 | 100.0 | 1.0 | 1.3 | 9,230 |
| Total <18 | 92.0 | 3.9 | 1.4 | 0.9 | 0.3 | 1.2 | 0.1 | 0.1 | 0.0 | 0.1 | 100.0 | 1.4 | 1.9 | 11,131 |

[^3]Table 2.9 Birth registration of children under age 5
Percent distribution of de jure children under age 5 whose births are registered with the civil authorities, according to background characteristics, Turkey DHS 2018

|  | Percentage of children who: |  |  |  |
| :--- | ---: | :---: | :---: | :---: |
|  | $\begin{array}{c}\text { Are not } \\ \text { registered }\end{array}$ |  |  | Total | \(\left.\begin{array}{c}Number of <br>

children\end{array}\right]\)

## Table 2.10.1 Educational attainment of the female household population

Percent distribution of the de facto female household population age 6 and over by highest level of schooling completed and median years completed, according to background characteristics, Turkey DHS 2018

| Background characteristic | No educ / prim. incomp. | Complete primary ${ }^{1}$ | Complete secondary ${ }^{2}$ | Complete high school / higher ${ }^{3}$ | Don't know/ missing | Total | Number of women | Median years completed |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age |  |  |  |  |  |  |  |  |
| 6-9 | 94.8 | 5.2 | 0.0 | 0.0 | 0.0 | 100.0 | 1,097 | 0.9 |
| 10-14 | 7.6 | 59.7 | 32.7 | 0.0 | 0.0 | 100.0 | 1,656 | 5.3 |
| 15-19 | 1.9 | 4.0 | 47.8 | 46.0 | 0.3 | 100.0 | 1,438 | 9.8 |
| 20-24 | 3.9 | 8.2 | 26.0 | 61.6 | 0.3 | 100.0 | 1,305 | 11.6 |
| 25-29 | 10.1 | 12.2 | 24.1 | 53.6 | 0.0 | 100.0 | 1,333 | 10.5 |
| 30-34 | 12.8 | 26.7 | 17.0 | 43.1 | 0.3 | 100.0 | 1,346 | 7.7 |
| 35-39 | 12.6 | 45.9 | 6.9 | 34.6 | 0.1 | 100.0 | 1,403 | 4.9 |
| 40-44 | 12.2 | 49.8 | 7.7 | 30.3 | 0.0 | 100.0 | 1,327 | 4.8 |
| 45-49 | 17.6 | 52.3 | 6.8 | 22.9 | 0.3 | 100.0 | 1,193 | 4.6 |
| 50-54 | 25.1 | 50.7 | 7.0 | 17.0 | 0.2 | 100.0 | 1,254 | 4.5 |
| 55-59 | 30.9 | 50.8 | 3.6 | 14.4 | 0.3 | 100.0 | 1,161 | 4.4 |
| 60-64 | 37.8 | 43.4 | 3.7 | 14.9 | 0.1 | 100.0 | 935 | 4.3 |
| $65+$ | 61.5 | 27.6 | 2.7 | 7.7 | 0.5 | 100.0 | 2,035 | 0.0 |
| Don't know /missing | * | * | * | * | * | 100.0 | 16 | * |
| Residence |  |  |  |  |  |  |  |  |
| Urban | 22.0 | 31.8 | 15.2 | 30.9 | 0.2 | 100.0 | 13,254 | 5.0 |
| Rural | 34.8 | 38.8 | 14.3 | 11.8 | 0.3 | 100.0 | 4,248 | 4.4 |
| Region |  |  |  |  |  |  |  |  |
| West | 18.9 | 34.9 | 14.5 | 31.6 | 0.2 | 100.0 | 7,463 | 5.0 |
| South | 28.3 | 34.4 | 15.8 | 21.2 | 0.4 | 100.0 | 2,226 | 4.7 |
| Central | 21.6 | 35.3 | 15.1 | 27.9 | 0.1 | 100.0 | 3,691 | 4.9 |
| North | 29.3 | 34.0 | 13.1 | 23.1 | 0.4 | 100.0 | 1,092 | 4.6 |
| East | 40.8 | 26.9 | 16.1 | 15.9 | 0.3 | 100.0 | 3,030 | 4.3 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |
| Istanbul | 19.3 | 31.4 | 15.1 | 34.0 | 0.2 | 100.0 | 3,366 | 6.0 |
| West Marmara | 20.1 | 42.4 | 13.2 | 24.0 | 0.3 | 100.0 | 815 | 4.7 |
| Aegean | 19.5 | 38.1 | 12.7 | 29.5 | 0.2 | 100.0 | 2,279 | 4.9 |
| East Marmara | 17.8 | 37.7 | 15.5 | 28.9 | 0.1 | 100.0 | 1,671 | 4.9 |
| West Anatolia | 18.0 | 30.6 | 15.4 | 35.9 | 0.1 | 100.0 | 1,788 | 7.0 |
| Mediterranean | 28.3 | 34.4 | 15.8 | 21.2 | 0.4 | 100.0 | 2,226 | 4.7 |
| Central Anatolia | 26.2 | 34.6 | 17.2 | 21.9 | 0.1 | 100.0 | 851 | 4.7 |
| West Black Sea | 26.9 | 39.5 | 13.2 | 20.2 | 0.2 | 100.0 | 1,006 | 4.6 |
| East Black Sea | 33.0 | 28.9 | 13.2 | 24.4 | 0.5 | 100.0 | 472 | 4.6 |
| Northeast |  |  |  |  |  |  |  |  |
| Anatolia | 38.0 | 30.1 | 16.6 | 15.3 | 0.1 | 100.0 | 419 | 4.4 |
| Central East |  |  |  |  |  |  |  |  |
| Anatolia | 43.0 | 27.7 | 14.1 | 15.0 | 0.2 | 100.0 | 805 | 4.1 |
| Southeast |  |  |  |  |  |  |  |  |
| Anatolia | 40.4 | 25.9 | 16.9 | 16.5 | 0.3 | 100.0 | 1,806 | 4.3 |
| Wealth quintile |  |  |  |  |  |  |  |  |
| Lowest | 46.6 | 33.5 | 14.1 | 5.3 | 0.4 | 100.0 | 3,357 | 3.7 |
| Second | 32.5 | 38.4 | 16.1 | 12.8 | 0.1 | 100.0 | 3,400 | 4.5 |
| Middle | 23.0 | 39.4 | 16.1 | 21.2 | 0.3 | 100.0 | 3,586 | 4.7 |
| Fourth | 15.0 | 36.2 | 15.6 | 33.0 | 0.2 | 100.0 | 3,589 | 5.8 |
| Highest | 10.0 | 20.0 | 12.8 | 57.1 | 0.1 | 100.0 | 3,569 | 10.4 |
| Total | 25.1 | 33.5 | 15.0 | 26.3 | 0.2 | 100.0 | 17,502 | 4.8 |

[^4]Table 2.10.2 Educational attainment of the male household population
Percent distribution of the de facto male household population age 6 and over by highest level of schooling completed and median years completed, according to background characteristics, Turkey DHS 2018

| Background characteristic | No educ / prim. incomp. | Complete primary ${ }^{1}$ | Complete secondary ${ }^{2}$ | Complete high school /higher ${ }^{3}$ | Don't know/ missing | Total | Number of men | Median years completed |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age |  |  |  |  |  |  |  |  |
| 6-9 | 95.7 | 4.2 | 0.0 | 0.0 | 0.1 | 100.0 | 1,238 | 0.8 |
| 10-14 | 7.5 | 57.5 | 34.6 | 0.1 | 0.3 | 100.0 | 1,631 | 5.3 |
| 15-19 | 2.2 | 4.5 | 57.1 | 36.0 | 0.1 | 100.0 | 1,485 | 9.2 |
| 20-24 | 1.7 | 5.4 | 28.4 | 64.3 | 0.2 | 100.0 | 1,269 | 11.5 |
| 25-29 | 3.0 | 8.7 | 25.4 | 62.5 | 0.4 | 100.0 | 1,282 | 11.3 |
| 30-34 | 4.8 | 18.6 | 21.2 | 55.0 | 0.5 | 100.0 | 1,293 | 10.2 |
| 35-39 | 3.1 | 33.5 | 17.2 | 45.9 | 0.2 | 100.0 | 1,288 | 8.1 |
| 40-44 | 3.5 | 39.1 | 15.1 | 41.7 | 0.6 | 100.0 | 1,277 | 7.5 |
| 45-49 | 4.6 | 47.9 | 14.3 | 32.7 | 0.4 | 100.0 | 1,188 | 5.6 |
| 50-54 | 5.6 | 52.7 | 12.1 | 29.1 | 0.5 | 100.0 | 1,080 | 4.9 |
| 55-59 | 5.8 | 52.7 | 11.9 | 29.1 | 0.6 | 100.0 | 1,040 | 4.9 |
| 60-64 | 8.4 | 56.2 | 9.6 | 24.9 | 0.9 | 100.0 | 882 | 4.8 |
| 65+ | 25.7 | 47.9 | 7.6 | 17.6 | 1.2 | 100.0 | 1,767 | 4.5 |
| Don't |  |  |  |  |  |  |  |  |
| know/missing | * | * | * | * | * | 100.0 | 24 | * |
| Residence |  |  |  |  |  |  |  |  |
| Urban | 12.4 | 29.0 | 20.4 | 37.8 | 0.5 | 100.0 | 12,638 | 7.5 |
| Rural | 16.7 | 43.5 | 20.9 | 18.3 | 0.6 | 100.0 | 4,105 | 4.8 |
| Region |  |  |  |  |  |  |  |  |
| West | 10.9 | 32.6 | 20.6 | 35.4 | 0.5 | 100.0 | 7,163 | 7.3 |
| South | 15.2 | 36.2 | 21.3 | 27.1 | 0.3 | 100.0 | 2,087 | 5.8 |
| Central | 11.1 | 31.3 | 18.8 | 38.3 | 0.4 | 100.0 | 3,539 | 7.4 |
| North | 11.7 | 36.5 | 18.8 | 32.0 | 1.0 | 100.0 | 1,033 | 6.7 |
| East | 21.9 | 30.0 | 22.2 | 25.2 | 0.7 | 100.0 | 2,921 | 5.6 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |
| Istanbul | 10.8 | 29.7 | 23.2 | 35.9 | 0.4 | 100.0 | 3,212 | 7.5 |
| West Marmara | 12.2 | 36.6 | 17.9 | 32.5 | 0.7 | 100.0 | 762 | 6.6 |
| Aegean | 11.1 | 36.1 | 18.4 | 33.9 | 0.4 | 100.0 | 2,238 | 7.1 |
| East Marmara | 9.9 | 32.6 | 18.7 | 38.0 | 0.7 | 100.0 | 1,613 | 7.5 |
| West Anatolia | 10.0 | 27.7 | 17.2 | 44.7 | 0.4 | 100.0 | 1,669 | 8.0 |
| Mediterranean | 15.2 | 36.2 | 21.3 | 27.1 | 0.3 | 100.0 | 2,087 | 5.8 |
| Central Anatolia | 11.9 | 33.2 | 22.5 | 32.3 | 0.1 | 100.0 | 844 | 7.1 |
| West Black Sea | 13.6 | 37.2 | 19.1 | 29.2 | 0.8 | 100.0 | 952 | 5.7 |
| East Black Sea | 11.4 | 35.0 | 18.7 | 34.2 | 0.8 | 100.0 | 446 | 7.1 |
| Northeast Anatolia | 21.5 | 34.2 | 19.6 | 23.9 | 0.7 | 100.0 | 406 | 5.0 |
| Central East |  |  |  |  |  |  |  |  |
| Anatolia | 21.2 | 27.2 | 22.0 | 28.7 | 0.9 | 100.0 | 757 | 6.4 |
| Southeast Anatolia | 22.3 | 30.2 | 22.8 | 24.0 | 0.7 | 100.0 | 1,759 | 5.5 |
| Wealth quintile |  |  |  |  |  |  |  |  |
| Lowest | 24.5 | 43.9 | 19.8 | 10.9 | 0.8 | 100.0 | 3,239 | 4.6 |
| Second | 15.8 | 40.6 | 22.9 | 20.1 | 0.5 | 100.0 | 3,363 | 4.9 |
| Middle | 11.1 | 35.2 | 22.0 | 30.9 | 0.7 | 100.0 | 3,314 | 7.1 |
| Fourth | 8.4 | 27.6 | 21.9 | 41.8 | 0.3 | 100.0 | 3,399 | 7.9 |
| Highest | 8.0 | 16.2 | 15.8 | 59.8 | 0.2 | 100.0 | 3,429 | 10.6 |
| Total | 13.5 | 32.5 | 20.5 | 33.0 | 0.5 | 100.0 | 16,743 | 7.1 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
${ }^{1}$ Completed 4-5 grade at the primary level
${ }^{2}$ Completed 3-4 grade at the secondary level
${ }^{3}$ Completed at least 3 years of high school or above

## Table 2.11.1 School attendance ratios: primary and secondary school

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de facto household population by sex and level of schooling; and the Gender Parity Index (GPI), according to background characteristics, Turkey DHS 2018

| Background characteristic | Net attendance ratio ${ }^{1}$ |  |  |  | Gross attendance ratio ${ }^{2}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Total | Gender Parity Index ${ }^{3}$ | Male | Female | Total | Gender Parity Index ${ }^{3}$ |
| Residence |  |  |  |  |  |  |  |  |
| Urban | 93.5 | 94.4 | 94.0 | 1.01 | 97.3 | 98.6 | 98.0 | 1.01 |
| Rural | 94.8 | 94.6 | 94.7 | 1.00 | 102.0 | 98.6 | 100.3 | 0.97 |
| Region |  |  |  |  |  |  |  |  |
| West | 92.7 | 94.7 | 93.6 | 1.02 | 95.7 | 98.1 | 96.9 | 1.03 |
| South | 92.8 | 95.6 | 94.2 | 1.03 | 99.1 | 99.5 | 99.3 | 1.00 |
| Central | 95.9 | 96.7 | 96.3 | 1.01 | 99.1 | 98.7 | 98.9 | 1.00 |
| North | 96.5 | 94.9 | 95.7 | 0.98 | 99.5 | 98.8 | 99.2 | 0.99 |
| East | 93.9 | 91.9 | 92.9 | 0.98 | 101.4 | 98.7 | 100.1 | 0.97 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |
| Istanbul | 89.5 | 93.9 | 91.8 | 1.05 | 92.6 | 97.6 | 95.1 | 1.05 |
| West Marmara | 96.1 | 92.8 | 94.5 | 0.97 | 100.0 | 98.7 | 99.3 | 0.99 |
| Aegean | 96.1 | 94.3 | 95.3 | 0.98 | 98.1 | 96.2 | 97.3 | 0.98 |
| East Marmara | 93.6 | 95.7 | 94.6 | 1.02 | 96.6 | 98.8 | 97.7 | 1.02 |
| West Anatolia | 96.3 | 97.0 | 96.6 | 1.01 | 98.6 | 98.8 | 98.7 | 1.00 |
| Mediterranean | 92.8 | 95.6 | 94.2 | 1.03 | 99.1 | 99.5 | 99.3 | 1.00 |
| Central Anatolia | 96.2 | 99.4 | 97.7 | 1.03 | 101.9 | 100.0 | 101.0 | 0.98 |
| West Black Sea | 97.0 | 96.5 | 96.8 | 0.99 | 99.9 | 102.0 | 100.9 | 1.02 |
| East Black Sea | 95.4 | 94.6 | 95.0 | 0.99 | 99.6 | 98.1 | 98.9 | 0.99 |
| Northeast Anatolia | 92.6 | 93.9 | 93.2 | 1.01 | 100.0 | 102.5 | 101.2 | 1.02 |
| Central East Anatolia | 95.5 | 88.8 | 92.0 | 0.93 | 102.9 | 96.6 | 99.6 | 0.94 |
| Southeast Anatolia | 93.6 | 92.8 | 93.2 | 0.99 | 101.1 | 98.8 | 100.0 | 0.98 |
| Wealth quintile |  |  |  |  |  |  |  |  |
| Lowest | 90.9 | 90.1 | 90.5 | 0.99 | 98.7 | 95.6 | 97.1 | 0.97 |
| Second | 94.1 | 96.0 | 95.1 | 1.02 | 101.4 | 101.6 | 101.5 | 1.00 |
| Middle | 94.3 | 94.1 | 94.2 | 1.00 | 97.9 | 97.8 | 97.9 | 1.00 |
| Fourth | 96.1 | 97.0 | 96.5 | 1.01 | 97.6 | 98.7 | 98.1 | 1.01 |
| Highest | 94.4 | 96.4 | 95.3 | 1.02 | 96.1 | 100.1 | 97.9 | 1.04 |
| Total | 93.8 | 94.5 | 94.2 | 1.01 | 98.4 | 98.6 | 98.5 | 1.00 |

${ }^{1}$ The NAR for primary school and secondary school is the percentage of the primary- and secondary-school age ( $6-13$ years) population that is attending primary and secondary school. By definition the NAR cannot exceed 100.0 percent.
${ }^{2}$ The GAR for primary and secondary school is the total number of primary and secondary school students, expressed as a percentage of the official primary- and secondary-school-age population. If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100 percent.
${ }^{3}$ The Gender Parity Index for primary and secondary school is the ratio of the primary and secondary school NAR (GAR) for females to the NAR (GAR) for males.

## Table 2.11.2 School attendance ratios: high school

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de facto household population by sex and level of schooling; and the Gender Parity Index (GPI), according to background characteristics, Turkey DHS 2018

| Background characteristic | Net attendance ratio ${ }^{1}$ |  |  |  | Gross attendance ratio ${ }^{2}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Total | Gender Parity Index ${ }^{3}$ | Male | Female | Total | Gender <br> Parity Index ${ }^{3}$ |
| Residence |  |  |  |  |  |  |  |  |
| Urban | 79.6 | 80.1 | 79.8 | 1.01 | 99.4 | 92.5 | 96.0 | 0.93 |
| Rural | 71.1 | 68.2 | 69.7 | 0.96 | 86.3 | 79.3 | 82.8 | 0.92 |
| Region |  |  |  |  |  |  |  |  |
| West | 83.8 | 82.5 | 83.2 | 0.98 | 102.9 | 96.3 | 99.8 | 0.94 |
| South | 72.7 | 74.5 | 73.6 | 1.03 | 92.7 | 85.0 | 88.8 | 0.92 |
| Central | 86.0 | 86.3 | 86.2 | 1.00 | 109.0 | 95.1 | 101.1 | 0.87 |
| North | 87.2 | 81.3 | 84.5 | 0.93 | 103.7 | 92.6 | 98.6 | 0.89 |
| East | 62.5 | 60.5 | 61.6 | 0.97 | 77.3 | 74.3 | 75.9 | 0.96 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |
| Istanbul | 80.7 | 82.6 | 81.6 | 1.02 | 104.5 | 94.7 | 100.0 | 0.91 |
| West Marmara | 82.1 | 74.0 | 78.3 | 0.90 | 92.3 | 81.9 | 87.5 | 0.89 |
| Aegean | 85.3 | 84.1 | 84.7 | 0.99 | 101.8 | 101.2 | 101.5 | 0.99 |
| East Marmara | 91.1 | 86.8 | 89.0 | 0.95 | 108.0 | 101.0 | 104.5 | 0.94 |
| West Anatolia | 88.3 | 85.4 | 86.5 | 0.97 | 111.9 | 98.1 | 103.2 | 0.88 |
| Mediterranean | 72.7 | 74.5 | 73.6 | 1.03 | 92.7 | 85.0 | 88.8 | 0.92 |
| Central Anatolia | 80.7 | 84.1 | 82.3 | 1.04 | 97.0 | 87.2 | 92.5 | 0.90 |
| West Black Sea | 85.0 | 85.8 | 85.4 | 1.01 | 110.5 | 92.1 | 101.0 | 0.83 |
| East Black Sea | 91.0 | 78.9 | 85.4 | 0.87 | 107.1 | 88.5 | 98.5 | 0.83 |
| Northeast Anatolia | 57.8 | 57.0 | 57.4 | 0.99 | 78.0 | 68.4 | 72.8 | 0.88 |
| Central East Anatolia | 62.6 | 58.8 | 60.8 | 0.94 | 73.1 | 74.2 | 73.6 | 1.02 |
| Southeast Anatolia | 63.2 | 61.8 | 62.6 | 0.98 | 78.9 | 75.5 | 77.3 | 0.96 |
| Wealth quintile |  |  |  |  |  |  |  |  |
| Lowest | 56.9 | 53.9 | 55.4 | 0.95 | 68.7 | 65.4 | 67.1 | 0.95 |
| Second | 72.7 | 73.5 | 73.1 | 1.01 | 92.0 | 82.7 | 87.2 | 0.90 |
| Middle | 80.3 | 81.3 | 80.8 | 1.01 | 108.9 | 101.5 | 105.2 | 0.93 |
| Fourth | 90.5 | 91.8 | 91.1 | 1.01 | 111.1 | 103.7 | 107.6 | 0.93 |
| Highest | 90.3 | 89.0 | 89.7 | 0.99 | 105.2 | 97.8 | 101.7 | 0.93 |
| Total | 77.6 | 77.1 | 77.3 | 0.99 | 96.2 | 89.2 | 92.8 | 0.93 |

[^5]
## CHARACTERISTICS OF WOMEN

## Key Findings

- Basic characteristics of respondents: $66 \%$ of women are married and $78 \%$ of women live in urban areas.
- Education: Percentage of women who have high school or higher education continues to increase; $41 \%$ of women have completed high school or higher.
- Exposure to mass media: 26\% of women age 15-49 read newspaper or magazine at least once a week. Percentage of reading newspaper or magazine increases as the level of education and household wealth quintile rises.
- Employment: The majority of women (64\%) have not been employed in the 12 months preceding the survey or have never been employed. $28 \%$ of women are currently employed.
- Occupation: $47 \%$ of women are working as waged workers and $15 \%$ are salaried government employees. Percentage of unpaid family workers has decreased from $19 \%$ in 2013 to $12 \%$ in 2018. Thirty-nine percent of working women who are employed in 12 months preceding the survey do not have social security.
- Health insurance: $90 \%$ of women have some type of health insurance coverage.

TThis chapter provides descriptive information on the basic demographic and socioeconomic characteristics of the women of reproductive age in Turkey such as age, marital status, region, place of residence, education, use of media and wealth status. This information is useful for understanding the context of reproduction and health behaviors of women. In addition, the information about women's employment, details about the occupation status of employed women, social security and health security coverage are also provided. Insights provided in this chapter about the situation of women of reproductive age in Turkey help for a better understanding of demographic phenomena discussed in the following chapters.

### 3.1 Basic Characteristics of Survey Respondents

Table 3.1 shows background characteristics of 7,346 women age 15-49 interviewed in the survey. Women were asked two questions in the individual interview to assess their age: "In what month and year were you born?" and "How old are you?". Interviewers were trained to probe in situations in which respondents knew neither their age nor date of birth. As a last resort, interviewers were instructed to record their best estimate of the respondent's age. Forty-four percent of women are less than 30 years of age. Sixty-six percent of women are married, $30 \%$ have never married, $3 \%$ are divorced/separated and $1 \%$ are widowed.

Table 3.1 also shows that $78 \%$ of women live in urban areas. The highest proportion of respondents live in the West region $(44 \%)$ and lowest proportion of respondents live in the North region (6\%). Regarding the NUTS 1 regions, $21 \%$ of women lives in İstanbul, followed by $12 \%$ in the Aegean and the Mediterranean, and $11 \%$ West Anatolia and Southeast Anatolia regions. For information about differentials in basic characteristics of women by background characteristics, see Table 3.1.

### 3.2 EdUcAtion and Literacy

## Literacy

Respondents who have attended higher than secondary school are assumed to be literate. All other respondents, shown a typed sentence to read aloud, are considered literate if they could read all or part of the sentence.
Sample: Women age 15-49

Tables 3.2 presents the distribution of survey respondents by level of education attained. The data indicate that $41 \%$ of women completed high school or have higher education (Table 3.2 and Figure 3.1). Twentynine percent of women have completed primary school and $20 \%$ of women completed secondary school. Nine percent of women have no education or incomplete primary education (Figure 3.1). The median number of years of schooling is 8.0 among women.

Table 3.3 shows the literacy level of women by age, residence, region, and wealth quintile. This question was asked to the $49 \%$ of women who had completed primary or secondary school. Overall, $94 \%$ of women are literate; this includes $40 \%$ with no schooling or have primary or secondary education who can read a whole sentence on the card.

Trends: Percentage of women who have completed high school or higher education has increased from $31 \%$ in 2013 to $41 \%$ in 2018. Correspondingly, median number of years of schooling has increased from 7.3 years in 2013 to 8.0 years in 2018.

## Patterns by background characteristics

- Due to the spread of education in recent decades in Turkey, younger women are more educated than older women. Sixteen percent of women age 45-49 have no education or have not completed primary school compared with only $10 \%$ of women age 25-29. Fifty-two percent of women age $25-29$ have completed at least high school compared to $22 \%$ of women age 45-49. Finally, the increase in compulsory education from 8 years to 12 years in 2012 clearly impacted the educational attainment of the youngest cohort; $48 \%$ of women age 15-19 have completed high school or higher.
- The percentage of women who have completed high school or higher is greater in urban areas than rural areas ( $46 \%$ versus $25 \%$ ). Meanwhile, only $6 \%$ of urban women have not completed any educational level compared to $11 \%$ of rural women (Table 3.2).
- By regions, the percentage of women who have completed high school or more is highest in West (47\%), North $(45 \%)$ and Central ( $44 \%$ ) regions Women living in East region have the lowest proportion of completing high school or higher education (28\%).
- Regarding the NUTS 1 regions, women living in Southeast Anatolia, Central East Anatolia and Northeast Anatolia regions have the least access to education ( $25 \%, 28 \%$ and $21 \%$, respectively, have no education or have less than primary school level). On the other hand, in five of the other NUTS 1 regions, the median years of schooling are equal to or exceed the national average ( 8.0 years).
- Educational attainment increases with wealth. Twenty-six percent of women in the lowest wealth quintile have no education or have not completed primary school compared with $1 \%$ of women in the highest quintile. The median number of years of schooling among women increases with increasing household wealth, from 4.7 years in the lowest quintile to 11.4 years in the highest quintile.
- As expected, literacy decreases with age, from $99 \%$ in the $15-19$ age group to $89 \%$ among women age 45 49 years.
- Urban women are more likely than rural women to be literate ( $95 \%$ and $90 \%$, respectively).
- Literacy rate is more than $94 \%$ in all NUTS1 regions except Southeast Anatolia, Central East Anatolia and Northeast Anatolia (around 84\%).
- The literacy level increases with the wealth quintile; virtually all women in the highest wealth quintile are literate compared to $82 \%$ in the lowest quintile (Table 3.3).


### 3.3 Mass Media Exposure

## Exposure to mass media

Respondents were asked how often they read a newspaper or magazine. Those who responded at least once a week are considered regularly exposed to that form of media.
Sample: Women age 15-49

Data on women's exposure to mass media are essential in the development of educational programmes and the dissemination of all types of information, particularly information about family planning and other important health topics.

Table 3.4 shows the percentage of women age 15-49 who are exposed to specific media, by background characteristics. The 2018 TDHS results indicates that $26 \%$ of women read a newspaper or magazine at least once a week.

## Patterns by background characteristics

- The percentage of women who reads a newspaper or magazine at least once a week is higher in urban than in rural areas ( $29 \%$ versus $14 \%$ ).
- By regions, women in East reported the highest level of no access to newspaper or magazine at least once a week ( $87 \%$ ).
- Reading newspapers or magazines increases with increasing education. Only 4\% of women with no education read newspapers or magazines at least once a week as compared with $42 \%$ of women with high school or higher education.
- Reading newspapers or magazines also increases with increasing wealth. Seven percent of women in the lowest wealth quintile read newspapers or magazines at least once a week, as compared with $49 \%$ in the highest quintile.


### 3.4 Employment

## Currently employed

Respondents who were employed in the 7 days before the survey
Sample: Women age 15-49

Employment, like education, can be a source of empowerment for women. Table 3.5 presents the employment status of all women interviewed in the 2018 TDHS by age, marital status, number of children, region, residence, educational level, and wealth quintiles. In 2018 TDHS, information was obtained about all of women's employment experiences which were longer than 6 months. Additionally, data were collected about women's current employment, which refers to paid or unpaid employment within the last seven days, and employment at any time during the 12 months before the survey regardless of length of employment.

The measurement of employment can be difficult due to different perceptions of work. For example, women who work as an unpaid family worker or in the informal sector may not label themselves as working. In the 2018 TDHS, a number of complementary questions were also asked to ensure that undocumented, informal or differently-defined employment activities were captured in the interview.

Table 3.5 shows that $28 \%$ of women were currently working at the time of the survey, and $4 \%$ were not currently employed but had worked at some point during the 12 months prior to the survey. Majority of women have not been employed in the 12 months preceding the survey or they have never been employed (64\%).

Trends: The percentage of women who were employed at the time of the survey has fluctuated since 1998, ranging between $27 \%$ and $35 \%$ (Figure 3.2).

Figure 3.2 Employment status of women Percent distribution of women age 15-49 by employment status, 1998-2018


## Patterns by background characteristics

- Employment among women increases rapidly with age, peaking at $37 \%$ in the $40-44$ age group.
- An association exists between employment and marital status; women who were divorced, separated, or widowed were more widely employed than never married or currently married women. Twenty-five
percent of never married and $29 \%$ of married women are employed, as compared with $48 \%$ of divorced, separated, and widowed women.
- The percentage of working women decreases as the number of living children increases. Twenty-seven percent of women with no children are currently employed, as compared with $18 \%$ of women with five or more children.
- Across regions, the proportion of working women was highest at $35 \%$ in the North and West compared with lowest at $17 \%$ of women in the East.
- By NUTS 1 regions, the percentage of women currently employed ranges from $14 \%$ in Northeast Anatolia to $41 \%$ in Aegean region. Nearly $40 \%$ of women in Aegean and West Marmara regions were currently working. This majority, however, is followed by a sharp drop across all other NUTS 1 regions with 34\% in both East Marmara and East Black Sea, $32 \%$ in Istanbul, and smaller percentages elsewhere (Figure 3.3).
- Women with high school or higher education and women in the highest wealth quintile were more prevalently to be economically active than other women ( $37 \%$ and $41 \%$, respectively).


### 3.5 OcCUPATION

## Occupation

Categorized as employer, waged worker (regular), salaried/government official, daily waged, for her own (regular), for her own (irregular), unpaid family worker, and other
Sample: Women age 15-49 who were currently employed or had worked in the 12 months before the survey

Table 3.6 presents the distribution of women who are currently working or worked in the 12 months before the survey. Findings indicate that $47 \%$ of women were waged workers either regular or daily, and $15 \%$ were salaried government employees. Around $12 \%$ of women were employed as unpaid family worker, while $13 \%$ were self-employed. Smaller percentages were daily waged workers ( $8 \%$ ), employer ( $3 \%$ ), and workers in other ( $2 \%$ ) occupations.

The percent distribution of employed women by social security coverage and background characteristics is presented in Table 3.7. Thirty-nine percent of working women who are employed in 12 months preceding the survey do not have social security. Among employed women with social security, the Social Security Institution (SGK) provided the highest coverage at $60 \%$ while private insurance coverage is only nearly $1 \%$.

Trends: Since 2013 TDHS, the percentage of women who were salaried government employees has increased from $11 \%$ to $15 \%$ and the percentage of unpaid family workers has decreased from 19\% to $12 \%$ (Figure 3.4).

Patterns by background characteristics

- Regular waged or salaried employment varies according to education and wealth quintile. Fifty-three percent and $27 \%$ of women who have high school or higher education were employed as regular waged worker and salaried government official, respectively. In the highest wealth quintile, $48 \%$ of women were employed as regular waged worker and $32 \%$ were employed as salaried government official.

Figure 3.4 Employment status of women Percentage of women age 15-49 employed in the 12 months before the survey by employment status


- Working as unpaid family worker is most common among rural women (40\%), and among women in the East Black Sea and Central East Anatolia (around 34\%) regions.
- Women who have five or more children are mostly employed as daily waged ( $26 \%$ ) and unpaid family workers (36\%) (Table 3.6).
- Proportion of being covered by social security is higher for women who live in urban areas, have higher education, or live in households with higher wealth compared to their counterparts (Table 3.7).
- By region, women had the lowest social security coverage in the East ( $39 \%$ covered by SGK), and by NUTS 1 regions, Southeast Anatolia and Central East Anatolia had the lowest coverage ( $37 \%$ and $38 \%$ covered by SGK, respectively).


### 3.6 Health Insurance Coverage

All women age 15-49 interviewed in the 2018 TDHS were asked whether or not they were covered by any health insurance. Health insurance is provided by the General Health Insurance (GSS) since 2012 and private insurance companies. The General Health Insurance (GSS) program insures to cover all population who are not covered by any social security system and participation is obligatory for the ones who have no other insurance. Depending on social and economic background (mainly age and income) clients have varying share for participating into the program. The percent distribution of all women by health insurance coverage, by background characteristics, is presented in Table 3.8.

According to Table 3.8, 9\% of women are not covered by any health insurance in Turkey. Not having health insurance is most common among women who live in rural areas ( $15 \%$ ), women with less than primary school education ( $14 \%$ ), and women in the lowest wealth quintile ( $22 \%$ ). In the NUTS 1 regions, the percentage of women who are not covered by health insurance ranges between 2\% in East Marmara and $16 \%$ in Mediterranean regions. Eighty-nine percent of women are covered by General Health Insurance, followed by privately purchased insurance (1\%).

Trends: Since 2013, percentage of women who have not covered by any health insurance has decreased from $11 \%$ to $9 \%$.

## LIST OF TABLES

For more information on the characteristics of survey respondents, see the following tables:

- Table 3.1 Background characteristics of respondents
- Table 3.2 Educational attainment
- Table 3.3 Literacy
- Table 3.4 Exposure to mass media
- Table 3.5 Employment status
- Table 3.6 Occupation
- Table 3.7 Social security coverage
- Table 3.8 Health insurance coverage

Table 3.1 Background characteristics of respondents
Percent distribution of women age 15-49 by selected background characteristics, Turkey DHS 2018

| Background characteristic | Women |  |  |
| :---: | :---: | :---: | :---: |
|  | Weighted percent | Weighted number | Unweighted number |
| Age |  |  |  |
| 15-19 | 15.8 | 1,163 | 1,012 |
| 20-24 | 14.1 | 1,034 | 969 |
| 25-29 | 14.1 | 1,035 | 1,051 |
| 30-34 | 14.5 | 1,065 | 1,138 |
| 35-39 | 15.0 | 1,105 | 1,149 |
| 40-44 | 14.0 | 1,025 | 1,058 |
| 45-49 | 12.5 | 918 | 969 |
| Marital status |  |  |  |
| Never married | 30.0 | 2,205 | 1,862 |
| Married | 65.6 | 4,820 | 5,156 |
| Divorced/separated | 3.3 | 244 | 239 |
| Widowed | 1.0 | 77 | 89 |
| Residence |  |  |  |
| Urban | 78.2 | 5,744 | 5,245 |
| Rural | 21.8 | 1,602 | 2,101 |
| Region |  |  |  |
| West | 43.6 | 3,203 | 2,178 |
| South | 12.4 | 914 | 894 |
| Central | 20.7 | 1,524 | 1,457 |
| North | 5.5 | 401 | 929 |
| East | 17.8 | 1,305 | 1,888 |
| NUTS 1 Region |  |  |  |
| Istanbul | 21.1 | 1,549 | 607 |
| West Marmara | 4.1 | 299 | 638 |
| Aegean | 12.0 | 884 | 547 |
| East Marmara | 9.8 | 718 | 604 |
| West Anatolia | 10.6 | 777 | 542 |
| Mediterranean | 12.4 | 914 | 894 |
| Central Anatolia | 4.7 | 347 | 528 |
| West Black Sea | 5.2 | 384 | 600 |
| East Black Sea | 2.3 | 168 | 498 |
| Northeast Anatolia | 2.3 | 172 | 525 |
| Central East Anatolia | 4.8 | 355 | 574 |
| Southeast Anatolia | 10.6 | 778 | 789 |
| Education |  |  |  |
| No educ. / prim. incomp. | 9.2 | 678 | 820 |
| Complete primary | 29.1 | 2,139 | 2,300 |
| Complete secondary | 20.4 | 1,495 | 1,499 |
| Complete high school / higher | 41.3 | 3,033 | 2,727 |
| Wealth quintile |  |  |  |
| Lowest | 15.7 | 1,154 | 1,494 |
| Second | 19.0 | 1,395 | 1,580 |
| Middle | 20.8 | 1,527 | 1,482 |
| Fourth | 22.5 | 1,650 | 1,445 |
| Highest | 22.0 | 1,619 | 1,345 |
| Total | 100.0 | 7,346 | 7,346 |

## Table 3.2 Educational attainment

Percent distribution of women age 15-49 by highest level of schooling completed, and median years completed, according to background characteristics, Turkey DHS 2018

| Background characteristic | Highest level of schooling |  |  |  | Total | Median years completed | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No educ. / prim. incomp. | Complete primary ${ }^{1}$ | Complete secondary ${ }^{2}$ | $\begin{gathered} \text { Complete } \\ \text { high school / } \\ \text { higher }^{3} \end{gathered}$ |  |  |  |
| Age |  |  |  |  |  |  |  |
| 15-24 | 2.2 | 6.7 | 36.7 | 54.4 | 100.0 | 10.4 | 2,198 |
| 15-19 | 1.3 | 4.7 | 46.5 | 47.5 | 100.0 | 9.8 | 1,163 |
| 20-24 | 3.2 | 8.8 | 25.7 | 62.3 | 100.0 | 11.6 | 1,034 |
| 25-29 | 9.8 | 11.2 | 26.8 | 52.3 | 100.0 | 10.3 | 1,035 |
| 30-34 | 11.9 | 27.3 | 19.1 | 41.7 | 100.0 | 7.7 | 1,065 |
| 35-39 | 11.7 | 48.2 | 7.1 | 33.1 | 100.0 | 4.8 | 1,105 |
| 40-44 | 12.7 | 52.3 | 7.5 | 27.5 | 100.0 | 4.7 | 1,025 |
| 45-49 | 15.6 | 56.4 | 5.8 | 22.2 | 100.0 | 4.6 | 918 |
| Residence |  |  |  |  |  |  |  |
| Urban | 7.9 | 26.6 | 19.6 | 45.9 | 100.0 | 8.9 | 5,744 |
| Rural | 13.9 | 38.0 | 23.2 | 24.9 | 100.0 | 5.1 | 1,602 |
| Region |  |  |  |  |  |  |  |
| West | 6.2 | 28.3 | 18.4 | 47.0 | 100.0 | 9.1 | 3,203 |
| South | 8.2 | 34.4 | 22.5 | 34.9 | 100.0 | 7.6 | 914 |
| Central | 3.6 | 29.8 | 22.6 | 44.0 | 100.0 | 8.5 | 1,524 |
| North | 4.1 | 31.2 | 19.8 | 44.8 | 100.0 | 8.5 | 401 |
| East | 25.4 | 26.0 | 21.0 | 27.6 | 100.0 | 6.1 | 1,305 |
| NUTS 1 Region |  |  |  |  |  |  |  |
| Istanbul | 7.3 | 27.3 | 17.9 | 47.6 | 100.0 | 9.4 | 1,549 |
| West Marmara | 6.3 | 30.8 | 20.8 | 42.1 | 100.0 | 7.9 | 299 |
| Aegean | 4.6 | 29.1 | 17.8 | 48.6 | 100.0 | 9.3 | 884 |
| East Marmara | 4.5 | 32.1 | 20.5 | 42.8 | 100.0 | 8.2 | 718 |
| West Anatolia | 3.1 | 23.6 | 21.6 | 51.7 | 100.0 | 10.1 | 777 |
| Mediterranean | 8.2 | 34.4 | 22.5 | 34.9 | 100.0 | 7.6 | 914 |
| Central Anatolia | 5.1 | 31.9 | 26.1 | 36.8 | 100.0 | 7.7 | 347 |
| West Black Sea | 5.0 | 38.0 | 20.7 | 36.2 | 100.0 | 7.6 | 384 |
| East Black Sea | 3.6 | 25.6 | 19.9 | 50.9 | 100.0 | 10.1 | 168 |
| Northeast Anatolia | 21.1 | 28.9 | 25.0 | 24.9 | 100.0 | 6.6 | 172 |
| Central East Anatolia | 28.3 | 28.3 | 18.2 | 25.3 | 100.0 | 4.8 | 355 |
| Southeast Anatolia | 25.0 | 24.2 | 21.5 | 29.2 | 100.0 | 7.0 | 778 |
| Wealth quintile |  |  |  |  |  |  |  |
| Lowest | 26.2 | 37.2 | 23.5 | 13.2 | 100.0 | 4.7 | 1,154 |
| Second | 14.3 | 37.7 | 23.6 | 24.4 | 100.0 | 5.4 | 1,395 |
| Middle | 7.5 | 33.0 | 24.0 | 35.5 | 100.0 | 7.6 | 1,527 |
| Fourth | 2.9 | 28.5 | 19.8 | 48.8 | 100.0 | 9.7 | 1,650 |
| Highest | 0.8 | 12.9 | 12.6 | 73.7 | 100.0 | 11.4 | 1,619 |
| Total | 9.2 | 29.1 | 20.4 | 41.3 | 100.0 | 8.0 | 7,346 |

[^6]Table 3.3 Literacy
Percent distribution of women age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Turkey DHS 2018

| Background characteristic | Higher than secondary schooling | No schooling, primary or secondary school |  |  |  |  | Total | $\begin{aligned} & \text { Percentage } \\ & \text { literate }^{1} \end{aligned}$ | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Can read a whole sentence | Can read part of a sentence | Cannot read at all | No card with required language | Blind/ visually impaired |  |  |  |
| Age |  |  |  |  |  |  |  |  |  |
| 15-24 | 77.9 | 18.9 | 1.2 | 1.9 | 0.0 | 0.0 | 100.0 | 98.1 | 2,198 |
| 15-19 | 84.4 | 13.7 | 1.0 | 0.9 | 0.0 | 0.0 | 100.0 | 99.1 | 1,163 |
| 20-24 | 70.6 | 24.8 | 1.5 | 3.1 | 0.1 | 0.0 | 100.0 | 96.9 | 1,034 |
| 25-29 | 56.9 | 36.1 | 2.2 | 4.7 | 0.1 | 0.0 | 100.0 | 95.2 | 1,035 |
| 30-34 | 47.9 | 42.9 | 3.4 | 5.4 | 0.3 | 0.2 | 100.0 | 94.2 | 1,065 |
| 35-39 | 35.5 | 52.3 | 4.5 | 7.4 | 0.0 | 0.2 | 100.0 | 92.3 | 1,105 |
| 40-44 | 30.9 | 56.4 | 3.9 | 8.5 | 0.2 | 0.1 | 100.0 | 91.2 | 1,025 |
| 45-49 | 24.6 | 59.6 | 5.0 | 10.0 | 0.3 | 0.5 | 100.0 | 89.2 | 918 |
| Residence |  |  |  |  |  |  |  |  |  |
| Urban | 56.0 | 36.8 | 2.6 | 4.4 | 0.1 | 0.1 | 100.0 | 95.3 | 5,744 |
| Rural | 33.2 | 52.0 | 4.7 | 9.8 | 0.1 | 0.3 | 100.0 | 89.9 | 1,602 |
| Region |  |  |  |  |  |  |  |  |  |
| West | 56.8 | 38.0 | 1.5 | 3.6 | 0.1 | 0.0 | 100.0 | 96.3 | 3,203 |
| South | 45.0 | 45.1 | 4.5 | 5.4 | 0.0 | 0.0 | 100.0 | 94.6 | 914 |
| Central | 54.7 | 40.4 | 2.2 | 2.3 | 0.3 | 0.1 | 100.0 | 97.3 | 1,524 |
| North | 53.3 | 39.7 | 3.9 | 2.6 | 0.0 | 0.5 | 100.0 | 96.9 | 401 |
| East | 35.8 | 41.9 | 6.4 | 15.4 | 0.2 | 0.4 | 100.0 | 84.0 | 1,305 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |  |
| Istanbul | 58.1 | 36.2 | 1.8 | 4.0 | 0.0 | 0.0 | 100.0 | 96.0 | 1,549 |
| West Marmara | 51.1 | 43.6 | 1.6 | 3.5 | 0.1 | 0.0 | 100.0 | 96.4 | 299 |
| Aegean | 57.7 | 38.1 | 0.9 | 3.2 | 0.0 | 0.2 | 100.0 | 96.6 | 884 |
| East Marmara | 52.8 | 42.2 | 2.2 | 2.7 | 0.2 | 0.0 | 100.0 | 97.1 | 718 |
| West Anatolia | 62.7 | 33.7 | 1.7 | 1.5 | 0.2 | 0.2 | 100.0 | 98.1 | 777 |
| Mediterranean | 45.0 | 45.1 | 4.5 | 5.4 | 0.0 | 0.0 | 100.0 | 94.6 | 914 |
| Central Anatolia | 47.4 | 47.2 | 2.8 | 1.9 | 0.7 | 0.0 | 100.0 | 97.3 | 347 |
| West Black Sea | 45.4 | 45.8 | 3.1 | 4.8 | 0.2 | 0.5 | 100.0 | 94.4 | 384 |
| East Black Sea | 59.3 | 35.2 | 3.7 | 1.4 | 0.0 | 0.4 | 100.0 | 98.3 | 168 |
| Northeast Anatolia | 34.1 | 43.9 | 6.5 | 15.5 | 0.0 | 0.0 | 100.0 | 84.5 | 172 |
| Central East Anatolia | 32.0 | 43.4 | 7.6 | 16.7 | 0.3 | 0.0 | 100.0 | 83.0 | 355 |
| Southeast Anatolia | 37.9 | 40.7 | 5.8 | 14.8 | 0.2 | 0.6 | 100.0 | 84.4 | 778 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |
| Lowest | 21.9 | 51.9 | 7.7 | 18.3 | 0.1 | 0.1 | 100.0 | 81.5 | 1,154 |
| Second | 34.5 | 51.9 | 4.1 | 8.9 | 0.2 | 0.4 | 100.0 | 90.5 | 1,395 |
| Middle | 46.1 | 47.3 | 2.9 | 3.6 | 0.1 | 0.0 | 100.0 | 96.3 | 1,527 |
| Fourth | 59.5 | 37.9 | 1.4 | 0.9 | 0.1 | 0.2 | 100.0 | 98.9 | 1,650 |
| Highest | 81.9 | 17.2 | 0.5 | 0.3 | 0.1 | 0.0 | 100.0 | 99.6 | 1,619 |
| Total | 51.0 | 40.2 | 3.0 | 5.6 | 0.1 | 0.1 | 100.0 | 94.2 | 7,346 |

[^7]
## Table 3.4 Exposure to mass media

Percentage of women age 15-49 who are exposed to specific media on a weekly basis, according to background characteristics, Turkey DHS 2018

| Background characteristic | Reads a newspaper at least once a week | No access to newspaper at least once a week | Number of women |
| :---: | :---: | :---: | :---: |
| Age |  |  |  |
| 15-19 | 22.6 | 77.4 | 1,163 |
| 20-24 | 26.1 | 73.9 | 1,034 |
| 25-29 | 24.9 | 75.1 | 1,035 |
| 30-34 | 27.2 | 72.8 | 1,065 |
| 35-39 | 26.5 | 73.5 | 1,105 |
| 40-44 | 28.4 | 71.6 | 1,025 |
| 45-49 | 24.0 | 76.0 | 918 |
| Residence |  |  |  |
| Urban | 29.0 | 71.0 | 5,744 |
| Rural | 13.7 | 86.3 | 1,602 |
| Region |  |  |  |
| West | 33.1 | 66.9 | 3,203 |
| South | 18.8 | 81.2 | 914 |
| Central | 25.9 | 74.1 | 1,524 |
| North | 23.2 | 76.8 | 401 |
| East | 12.7 | 87.3 | 1,305 |
| NUTS 1 Region |  |  |  |
| Istanbul | 33.3 | 66.7 | 1,549 |
| West Marmara | 27.9 | 72.1 | 299 |
| Aegean | 39.1 | 60.9 | 884 |
| East Marmara | 24.3 | 75.7 | 718 |
| West Anatolia | 31.3 | 68.7 | 777 |
| Mediterranean | 18.8 | 81.2 | 914 |
| Central Anatolia | 19.9 | 80.1 | 347 |
| West Black Sea | 20.0 | 80.0 | 384 |
| East Black Sea | 22.6 | 77.4 | 168 |
| Northeast Anatolia | 12.2 | 87.8 | 172 |
| Central East Anatolia | 12.7 | 87.3 | 355 |
| Southeast Anatolia | 12.8 | 87.2 | 778 |
| Education |  |  |  |
| No educ. / prim. incomp. | 3.5 | 96.5 | 678 |
| Complete primary | 14.3 | 85.7 | 2,139 |
| Complete secondary | 18.5 | 81.5 | 1,495 |
| Complete high school / higher | 42.1 | 57.9 | 3,033 |
| Wealth quintile |  |  |  |
| Lowest | 6.8 | 93.2 | 1,154 |
| Second | 14.0 | 86.0 | 1,395 |
| Middle | 22.3 | 77.7 | 1,527 |
| Fourth | 29.1 | 70.9 | 1,650 |
| Highest | 48.8 | 51.2 | 1,619 |
| Total | 25.7 | 74.3 | 7,346 |

## Table 3.5 Employment status

Percent distribution of women age 15-49 by employment status, according to background characteristics, Turkey DHS 2018

| Background characteristic | Employed in the 12 months preceding the survey |  | Not employed in the 12 months preceding the survey or never worked | Missing/ don't know | Total | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Currently employed $^{1}$ | Not currently employed |  |  |  |  |
| Age |  |  |  |  |  |  |
| 15-19 | 12.6 | 4.0 | 83.0 | 0.3 | 100.0 | 1,163 |
| 20-24 | 22.6 | 6.9 | 68.7 | 1.9 | 100.0 | 1,034 |
| 25-29 | 29.7 | 5.2 | 59.8 | 5.3 | 100.0 | 1,035 |
| 30-34 | 31.8 | 4.9 | 58.9 | 4.4 | 100.0 | 1,065 |
| 35-39 | 34.1 | 3.2 | 57.7 | 5.0 | 100.0 | 1,105 |
| 40-44 | 36.8 | 2.3 | 56.4 | 4.5 | 100.0 | 1,025 |
| 45-49 | 32.8 | 3.0 | 58.1 | 6.0 | 100.0 | 918 |
| Marital status |  |  |  |  |  |  |
| Never married | 24.8 | 5.9 | 68.6 | 0.7 | 100.0 | 2,205 |
| Married or living together | 28.6 | 3.5 | 62.9 | 5.0 | 100.0 | 4,820 |
| Divorced/separated/widowed | 48.1 | 4.4 | 39.4 | 8.1 | 100.0 | 321 |
| Number of living children |  |  |  |  |  |  |
| 0 | 26.7 | 6.2 | 65.7 | 1.4 | 100.0 | 2,608 |
| 1-2 | 33.5 | 3.3 | 57.9 | 5.2 | 100.0 | 2,882 |
| 3-4 | 23.4 | 3.0 | 68.9 | 4.7 | 100.0 | 1,544 |
| $5+$ | 18.2 | 1.8 | 72.1 | 7.8 | 100.0 | 311 |
| Residence |  |  |  |  |  |  |
| Urban | 28.1 | 4.5 | 63.2 | 4.3 | 100.0 | 5,744 |
| Rural | 29.3 | 3.3 | 65.1 | 2.2 | 100.0 | 1,602 |
| Region |  |  |  |  |  |  |
| West | 34.8 | 5.1 | 56.5 | 3.6 | 100.0 | 3,203 |
| South | 20.6 | 3.9 | 67.1 | 8.4 | 100.0 | 914 |
| Central | 27.8 | 3.6 | 65.8 | 2.8 | 100.0 | 1,524 |
| North | 34.9 | 4.2 | 59.3 | 1.6 | 100.0 | 401 |
|  | 16.6 | 3.1 | 77.3 | 3.0 | 100.0 | 1,305 |
| NUTS 1 Region |  |  |  |  |  |  |
| Istanbul | 31.9 | 4.9 | 60.6 | 2.6 | 100.0 | 1,549 |
| West Marmara | 39.4 | 5.1 | 48.9 | 6.7 | 100.0 | 299 |
| Aegean | 40.5 | 4.8 | 52.2 | 2.5 | 100.0 | 884 |
| East Marmara | 34.1 | 5.3 | 55.2 | 5.5 | 100.0 | 718 |
| West Anatolia | 26.7 | 3.4 | 67.0 | 3.0 | 100.0 | 777 |
| Mediterranean | 20.6 | 3.9 | 67.1 | 8.4 | 100.0 | 914 |
| Central Anatolia | 22.9 | 4.2 | 69.6 | 3.2 | 100.0 | 347 |
| West Black Sea | 30.7 | 3.1 | 64.6 | 1.5 | 100.0 | 384 |
| East Black Sea | 34.3 | 6.1 | 57.4 | 2.2 | 100.0 | 168 |
| Northeast Anatolia | 14.2 | 3.0 | 78.4 | 4.5 | 100.0 | 172 |
| Central East Anatolia | 17.6 | 1.6 | 78.7 | 2.1 | 100.0 | 355 |
| Southeast Anatolia | 16.6 | 3.8 | 76.4 | 3.2 | 100.0 | 778 |
| Education |  |  |  |  |  |  |
| No educ. / prim. incomp. | 17.8 | 1.3 | 72.9 | 8.1 | 100.0 | 678 |
| Complete primary | 27.4 | 3.5 | 64.6 | 4.5 | 100.0 | 2,139 |
| Complete secondary | 17.4 | 3.7 | 74.6 | 4.2 | 100.0 | 1,495 |
| Complete high school / higher | 36.7 | 5.7 | 55.4 | 2.2 | 100.0 | 3,033 |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | 19.8 | 3.3 | 72.9 | 3.9 | 100.0 | 1,154 |
| Second | 22.8 | 4.0 | 69.3 | 3.9 | 100.0 | 1,395 |
| Middle | 26.2 | 4.9 | 65.0 | 4.0 | 100.0 | 1,527 |
| Fourth | 29.0 | 3.9 | 63.0 | 4.1 | 100.0 | 1,650 |
| Highest | 40.6 | 4.7 | 51.3 | 3.4 | 100.0 | 1,619 |
| Total | 28.3 | 4.2 | 63.6 | 3.8 | 100.0 | 7,346 |

[^8] who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.

## Table 3.6 Occupation

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Turkey DHS 2018

| Background characteristic | Employer | Waged, worker (regular) | Salaried, government official | Daily waged (seasonal/temporal) | For her own (regular) | For her own (irregular) | Unpaid family worker | Other | Total | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 0.0 | 56.7 | 1.0 | 15.1 | 0.0 | 4.1 | 16.4 | 6.7 | 100.0 | 194 |
| 20-24 | 1.1 | 66.1 | 5.4 | 7.0 | 2.4 | 3.2 | 7.9 | 6.9 | 100.0 | 305 |
| 25-29 | 1.8 | 52.3 | 21.8 | 6.3 | 3.8 | 6.4 | 6.5 | 1.2 | 100.0 | 361 |
| 30-34 | 5.4 | 44.6 | 19.5 | 5.4 | 3.2 | 9.0 | 11.1 | 1.7 | 100.0 | 391 |
| 35-39 | 2.2 | 44.3 | 19.6 | 6.9 | 5.4 | 10.3 | 10.4 | 0.8 | 100.0 | 412 |
| 40-44 | 4.8 | 41.7 | 14.4 | 6.2 | 7.4 | 9.2 | 15.6 | 0.6 | 100.0 | 401 |
| 45-49 | 2.3 | 28.8 | 15.1 | 11.3 | 9.3 | 12.3 | 18.7 | 2.1 | 100.0 | 329 |
| Marital status |  |  |  |  |  |  |  |  |  |  |
| Never married | 1.7 | 60.7 | 10.4 | 8.5 | 2.8 | 2.5 | 7.4 | 6.1 | 100.0 | 677 |
| Married or living together | 3.0 | 40.5 | 16.9 | 7.7 | 5.1 | 10.8 | 15.2 | 0.9 | 100.0 | 1,547 |
| Divorced/separated/widowed | 5.4 | 48.9 | 17.7 | 5.3 | 10.3 | 7.7 | 2.8 | 1.9 | 100.0 | 169 |
| Number of living children |  |  |  |  |  |  |  |  |  |  |
| 0 | 2.1 | 59.6 | 12.5 | 7.7 | 2.9 | 3.1 | 7.4 | 4.8 | 100.0 | 859 |
| 1-2 | 3.6 | 44.1 | 21.4 | 5.4 | 5.0 | 9.3 | 10.1 | 1.1 | 100.0 | 1,063 |
| 3-4 | 2.4 | 30.5 | 6.6 | 11.3 | 8.7 | 15.6 | 23.8 | 1.1 | 100.0 | 408 |
| 5+ | 1.5 | 21.6 | 0.5 | 25.5 | 3.3 | 11.3 | 36.3 | 0.0 | 100.0 | 63 |
| Residence |  |  |  |  |  |  |  |  |  |  |
| Urban | 3.2 | 53.2 | 17.6 | 5.4 | 4.6 | 8.8 | 4.3 | 2.9 | 100.0 | 1,870 |
| Rural | 1.2 | 23.8 | 6.2 | 16.2 | 5.6 | 6.2 | 40.0 | 0.9 | 100.0 | 523 |
| Region |  |  |  |  |  |  |  |  |  |  |
| West | 3.6 | 54.5 | 13.2 | 6.2 | 4.9 | 8.2 | 6.4 | 3.0 | 100.0 | 1,276 |
| South | 2.8 | 44.2 | 8.9 | 14.9 | 6.6 | 3.4 | 19.1 | 0.0 | 100.0 | 224 |
| Central | 2.1 | 40.7 | 21.7 | 6.6 | 5.9 | 9.0 | 10.9 | 3.1 | 100.0 | 479 |
| North | 1.4 | 39.6 | 14.7 | 3.9 | 3.2 | 9.1 | 26.7 | 1.4 | 100.0 | 157 |
| East | 0.9 | 26.2 | 18.1 | 13.8 | 2.0 | 10.1 | 27.9 | 1.1 | 100.0 | 257 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |  |  |
| Istanbul | 3.3 | 61.2 | 13.1 | 2.8 | 5.2 | 9.9 | 0.6 | 3.9 | 100.0 | 569 |
| West Marmara | 2.7 | 45.4 | 13.1 | 7.6 | 5.1 | 8.0 | 16.6 | 1.4 | 100.0 | 133 |
| Aegean | 3.7 | 44.6 | 15.6 | 10.8 | 3.4 | 6.9 | 10.8 | 4.2 | 100.0 | 400 |
| East Marmara | 3.2 | 53.4 | 12.0 | 3.9 | 5.0 | 9.9 | 11.6 | 0.9 | 100.0 | 283 |
| West Anatolia | 2.3 | 46.1 | 25.1 | 6.3 | 8.8 | 4.8 | 3.1 | 3.6 | 100.0 | 234 |
| Mediterranean | 2.8 | 44.2 | 8.9 | 14.9 | 6.6 | 3.4 | 19.1 | 0.0 | 100.0 | 224 |
| Central Anatolia | 4.3 | 36.7 | 21.5 | 6.4 | 5.3 | 11.9 | 12.5 | 1.5 | 100.0 | 94 |
| West Black Sea | 0.8 | 36.7 | 14.6 | 9.0 | 3.0 | 10.3 | 24.9 | 0.8 | 100.0 | 130 |
| East Black Sea | 1.7 | 35.8 | 13.4 | 5.2 | 2.8 | 5.9 | 33.5 | 1.7 | 100.0 | 68 |
| Northeast Anatolia | 0.0 | 29.9 | 23.0 | 5.0 | 1.1 | 11.9 | 28.0 | 1.1 | 100.0 | 30 |
| Central East Anatolia | 0.9 | 23.6 | 16.9 | 4.7 | 2.8 | 15.9 | 34.4 | 0.9 | 100.0 | 68 |
| Southeast Anatolia | 1.1 | 26.6 | 17.7 | 19.3 | 1.8 | 7.3 | 25.1 | 1.1 | 100.0 | 159 |
| Education |  |  |  |  |  |  |  |  |  |  |
| No educ. / prim. incomp. | 0.0 | 22.0 | 0.2 | 21.4 | 5.0 | 19.4 | 31.5 | 0.3 | 100.0 | 129 |
| Complete primary | 1.9 | 37.8 | 1.6 | 12.1 | 8.0 | 14.8 | 22.9 | 0.8 | 100.0 | 660 |
| Complete secondary | 2.6 | 49.7 | 1.1 | 13.7 | 4.2 | 9.3 | 18.8 | 0.7 | 100.0 | 316 |
| Complete high school / higher | 3.6 | 53.1 | 27.0 | 2.7 | 3.3 | 3.4 | 3.0 | 3.9 | 100.0 | 1,286 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |
| Lowest | 0.6 | 17.9 | 0.5 | 30.8 | 4.3 | 9.5 | 35.2 | 1.2 | 100.0 | 267 |
| Second | 1.6 | 37.4 | 3.1 | 12.9 | 4.5 | 12.2 | 26.5 | 1.6 | 100.0 | 374 |
| Middle | 1.2 | 52.7 | 7.6 | 6.6 | 7.6 | 9.3 | 12.8 | 2.2 | 100.0 | 474 |
| Fourth | 2.7 | 60.4 | 14.2 | 1.8 | 4.1 | 8.7 | 3.5 | 4.5 | 100.0 | 543 |
| Highest | 5.3 | 48.1 | 32.1 | 1.8 | 4.0 | 4.6 | 2.3 | 1.9 | 100.0 | 734 |
| Total | 2.8 | 46.8 | 15.1 | 7.7 | 4.8 | 8.2 | 12.1 | 2.4 | 100.0 | 2,392 |

## Table 3.7 Social security coverage

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by social security coverage according to background characteristics, Turkey DHS 2018

| Background characteristic | Social security |  |  |  | Total | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | None | Social Security Institution | Private insurance only | Other |  |  |
| Age |  |  |  |  |  |  |
| 15-19 | 55.7 | 44.0 | 0.0 | 0.3 | 100.0 | 194 |
| 20-24 | 29.6 | 67.7 | 2.1 | 0.6 | 100.0 | 305 |
| 25-29 | 27.8 | 69.6 | 1.9 | 0.8 | 100.0 | 361 |
| 30-34 | 33.4 | 64.0 | 2.0 | 0.6 | 100.0 | 391 |
| 35-39 | 37.5 | 61.6 | 0.8 | 0.1 | 100.0 | 412 |
| 40-44 | 39.2 | 59.4 | 1.1 | 0.4 | 100.0 | 401 |
| 45-49 | 55.4 | 43.7 | 0.9 | 0.0 | 100.0 | 329 |
| Residence |  |  |  |  |  |  |
| Urban | 30.2 | 67.8 | 1.6 | 0.4 | 100.0 | 1,870 |
| Rural | 68.5 | 30.7 | 0.4 | 0.4 | 100.0 | 523 |
| Region |  |  |  |  |  |  |
| West | 31.7 | 66.1 | 1.7 | 0.5 | 100.0 | 1,276 |
| South | 49.3 | 49.5 | 1.2 | 0.0 | 100.0 | 224 |
| Central | 38.2 | 60.5 | 1.2 | 0.1 | 100.0 | 479 |
| North | 44.5 | 54.2 | 0.2 | 1.1 | 100.0 | 157 |
| East | 60.5 | 39.0 | 0.2 | 0.3 | 100.0 | 257 |
| NUTS 1 Region |  |  |  |  |  |  |
| Istanbul | 26.8 | 70.6 | 2.6 | 0.0 | 100.0 | 569 |
| West Marmara | 40.8 | 58.0 | 0.9 | 0.3 | 100.0 | 133 |
| Aegean | 34.4 | 62.5 | 1.5 | 1.6 | 100.0 | 400 |
| East Marmara | 37.1 | 62.1 | 0.8 | 0.0 | 100.0 | 283 |
| West Anatolia | 30.2 | 68.7 | 1.1 | 0.0 | 100.0 | 234 |
| Mediterranean | 49.3 | 49.5 | 1.2 | 0.0 | 100.0 | 224 |
| Central Anatolia | 39.1 | 59.8 | 0.5 | 0.7 | 100.0 | 94 |
| West Black Sea | 51.5 | 47.2 | 0.0 | 1.3 | 100.0 | 130 |
| East Black Sea | 48.4 | 51.1 | 0.5 | 0.0 | 100.0 | 68 |
| Northeast Anatolia | 48.1 | 51.9 | 0.0 | 0.0 | 100.0 | 30 |
| Central East Anatolia | 59.7 | 38.3 | 0.9 | 1.1 | 100.0 | 68 |
| Southeast Anatolia | 63.1 | 36.9 | 0.0 | 0.0 | 100.0 | 159 |
| Education |  |  |  |  |  |  |
| No educ. / prim. incomp. | 82.0 | 16.9 | 0.0 | 1.2 | 100.0 | 129 |
| Complete primary | 64.9 | 34.4 | 0.7 | 0.1 | 100.0 | 660 |
| Complete secondary | 57.7 | 41.8 | 0.2 | 0.4 | 100.0 | 316 |
| Complete high school / higher | 16.0 | 81.5 | 2.0 | 0.5 | 100.0 | 1,286 |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | 86.4 | 13.0 | 0.0 | 0.6 | 100.0 | 267 |
| Second | 65.0 | 34.8 | 0.2 | 0.0 | 100.0 | 374 |
| Middle | 42.2 | 56.4 | 0.7 | 0.7 | 100.0 | 474 |
| Fourth | 25.7 | 72.2 | 1.7 | 0.4 | 100.0 | 543 |
| Highest | 14.9 | 82.3 | 2.5 | 0.4 | 100.0 | 734 |
| Total | 38.6 | 59.7 | 1.3 | 0.4 | 100.0 | 2,392 |

## Table 3.8 Health insurance coverage

Percentage of women age 15-49 with specific types of health insurance coverage, and percentage with any health insurance, according to background characteristics, Turkey DHS 2018

| Background characteristic | General health insurance | Insurance for temporary protection | Private health insurance only | Other | Missing | No insurance | Total | Percentage with any health insurance | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age |  |  |  |  |  |  |  |  |  |
| 15-19 | 88.3 | 0.6 | 0.2 | 0.8 | 0.0 | 10.1 | 100.0 | 89.1 | 1,163 |
| 20-24 | 86.3 | 1.2 | 1.4 | 0.8 | 0.0 | 10.3 | 100.0 | 88.9 | 1,034 |
| 25-29 | 88.0 | 1.6 | 1.0 | 0.2 | 0.0 | 9.2 | 100.0 | 90.6 | 1,035 |
| 30-34 | 88.2 | 0.7 | 1.3 | 1.4 | 0.1 | 8.3 | 100.0 | 90.2 | 1,065 |
| 35-39 | 87.4 | 0.9 | 0.6 | 1.2 | 0.0 | 9.9 | 100.0 | 88.9 | 1,105 |
| 40-44 | 90.2 | 0.4 | 0.8 | 0.8 | 0.0 | 7.7 | 100.0 | 91.5 | 1,025 |
| 45-49 | 93.0 | 0.1 | 0.7 | 0.6 | 0.0 | 5.6 | 100.0 | 93.8 | 918 |
| Residence |  |  |  |  |  |  |  |  |  |
| Urban | 90.0 | 0.9 | 1.0 | 0.8 | 0.0 | 7.3 | 100.0 | 91.9 | 5,744 |
| Rural | 83.9 | 0.5 | 0.3 | 0.8 | 0.0 | 14.5 | 100.0 | 84.7 | 1,602 |
| Region |  |  |  |  |  |  |  |  |  |
| West | 90.9 | 1.0 | 1.0 | 0.9 | 0.1 | 6.2 | 100.0 | 92.8 | 3,203 |
| South | 80.3 | 1.5 | 1.1 | 0.8 | 0.0 | 16.4 | 100.0 | 82.8 | 914 |
| Central | 89.2 | 0.2 | 0.6 | 0.7 | 0.0 | 9.2 | 100.0 | 90.0 | 1,524 |
| North | 92.4 | 0.0 | 0.3 | 1.1 | 0.1 | 6.2 | 100.0 | 92.6 | 401 |
| East | 87.4 | 0.9 | 0.8 | 0.5 | 0.0 | 10.4 | 100.0 | 89.1 | 1,305 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |  |
| Istanbul | 89.9 | 2.0 | 1.5 | 1.0 | 0.0 | 5.7 | 100.0 | 93.4 | 1,549 |
| West Marmara | 85.3 | 0.0 | 0.6 | 0.3 | 0.1 | 13.7 | 100.0 | 85.9 | 299 |
| Aegean | 90.5 | 0.0 | 0.4 | 1.6 | 0.2 | 7.2 | 100.0 | 90.9 | 884 |
| East Marmara | 97.5 | 0.2 | 0.5 | 0.2 | 0.0 | 1.7 | 100.0 | 98.1 | 718 |
| West Anatolia | 90.0 | 0.3 | 0.8 | 0.2 | 0.0 | 8.7 | 100.0 | 91.2 | 777 |
| Mediterranean | 80.3 | 1.5 | 1.1 | 0.8 | 0.0 | 16.4 | 100.0 | 82.8 | 914 |
| Central Anatolia | 83.2 | 0.0 | 0.5 | 1.6 | 0.0 | 14.7 | 100.0 | 83.7 | 347 |
| West Black Sea | 91.3 | 0.0 | 0.3 | 1.9 | 0.0 | 6.5 | 100.0 | 91.6 | 384 |
| East Black Sea | 91.0 | 0.0 | 0.0 | 0.0 | 0.2 | 8.8 | 100.0 | 91.0 | 168 |
| Northeast Anatolia | 85.8 | 0.2 | 0.6 | 0.6 | 0.0 | 12.8 | 100.0 | 86.6 | 172 |
| Central East Anatolia | 91.9 | 0.0 | 0.9 | 0.2 | 0.0 | 7.0 | 100.0 | 92.8 | 355 |
| Southeast Anatolia | 85.6 | 1.5 | 0.8 | 0.7 | 0.0 | 11.4 | 100.0 | 87.9 | 778 |
| Education |  |  |  |  |  |  |  |  |  |
| No educ. / prim. incomp. | 84.1 | 1.4 | 0.3 | 0.5 | 0.0 | 13.7 | 100.0 | 85.8 | 678 |
| Complete primary | 86.1 | 1.3 | 0.3 | 1.2 | 0.0 | 11.0 | 100.0 | 87.7 | 2,139 |
| Complete secondary | 85.9 | 0.8 | 0.4 | 1.2 | 0.0 | 11.7 | 100.0 | 87.2 | 1,495 |
| Complete high school / higher | 92.9 | 0.3 | 1.6 | 0.4 | 0.1 | 4.8 | 100.0 | 94.7 | 3,033 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |
| Lowest | 73.4 | 2.8 | 0.2 | 1.2 | 0.0 | 22.3 | 100.0 | 76.4 | 1,154 |
| Second | 84.5 | 1.7 | 0.2 | 1.3 | 0.0 | 12.4 | 100.0 | 86.3 | 1,395 |
| Middle | 90.3 | 0.2 | 0.7 | 0.5 | 0.0 | 8.3 | 100.0 | 91.2 | 1,527 |
| Fourth | 94.2 | 0.1 | 0.6 | 1.1 | 0.0 | 4.0 | 100.0 | 94.9 | 1,650 |
| Highest | 95.9 | 0.0 | 2.3 | 0.1 | 0.1 | 1.5 | 100.0 | 98.3 | 1,619 |
| Total | 88.7 | 0.8 | 0.8 | 0.8 | 0.0 | 8.8 | 100.0 | 90.3 | 7,346 |

## Key Findings

- Current marital status: 66\% of women age 15-49 are currently married, $30 \%$ have never been married, and the remaining $4 \%$ are either divorced, separated or widowed.
- Age at first marriage: The median age at first marriage among women age $25-49$ is 21.4 years. $5 \%$ of women age 45-49 have never been married.
- Consanguinity: 23\% of ever-married women age 20-24 reported that they have married a relative.
- Polygyny: 2\% of married women report that their husbands have other wives.

Marriage helps determine the extent to which women are exposed to the risk of pregnancy. Thus, it is an important determinant of fertility levels. However, the timing and circumstances of marriage also have profound consequences for women's lives.

### 4.1 Marital Status

## Currently married

Women who report being married or living together with a partner as though married at the time of the survey
Sample: Women age 15-49

In Turkey, the majority of women at childbearing age are currently married ( $66 \%$ ), nearly one-third ( $30 \%$ ) have never been married, and the remaining $4 \%$ are either divorced, separated, or widowed (Figure 4.1 and Table 4.1). The proportion of never married women declines rapidly with age, from $95 \%$ among teenagers age $15-19$ to $26 \%$ among women in their late twenties (Table 4.1). Five percent of women in their late thirties and same percentage of women age 45-49, who are approaching the end of the reproductive years, are never married.

Figure 4.1 Marital status
Percent distribution of women age 15-49 by marital status


Note: Figures may not add up to $100 \%$ due to rounding.

As age increases, the proportion of women widowed or divorced also increases. The proportion of widowed women rises from less than $1 \%$ of women under age 40 to $3 \%$ among women at ages 45-49. The percentage of
women who are divorced markedly increases after age 30 and is highest among women age 45-49 (5\%). Separation is socially discouraged, and therefore is uncommon in Turkey, remaining at $1 \%$ for women aged 15-49.

Trends: In the 2018 TDHS, the proportion of never married women increased in all age groups compared to the 2013 TDHS. There has been a gradual increase in the proportion of never married among women in their twenties since 1998 TDHS despite a slight decline in 2013 TDHS (Table 4.2).

### 4.2 Age at First Marriage

## Median age at first marriage

Age by which half of respondents have been married.
Sample: Women age 20-49 and 25-49

The median age at first marriage is 21.4 years for women age $25-49$, indicating that half of women in this age group married before that age (Table 4.3).

Among women in the 25-49 age group, $39 \%$ marry by age $20,21 \%$ marry by age 18 , and $4 \%$ enter marriage before their $15^{\text {th }}$ birthday.

Trends: There has been a steady increase in the age at first marriage over the last two decades in Turkey. This is evident from changes in the median age at first marriage across cohorts in Table 4.3; the median age increases from 20.8 years for women in their late forties to 22.7 for women in their late twenties. A comparison of the 2018 TDHS results for women age 25-49 with the findings of previous surveys also confirms the increasing tendency to delay marriage; the age at first marriage has increased more than 2 years during the 25 -year period between the 1993 TDHS and the 2018 TDHS (Figure 4.2).

## Patterns by background characteristics

- Urban women age 25-49 tend to marry 1.7 years later than their rural counterparts (21.8 years and 20.1 years, respectively, Table 4.4).
- Looking at the regional variations, the median age at first marriage for women age 25-49 is lowest in the East (20.7 years) and above 21 in all other regions. It is highest in the West (21.9 years). Comparisons of the NUTS 1 regions indicate that Istanbul and Aegean regions have the highest median age ( 22.2 years) at marriage and Central Anatolia has the lowest (19.7 years).
- The median age at first marriage for women who completed primary school is 19.8 years, about one year higher than the median age for women with no education (19.1 years).
- The median age at first marriage also increases with household wealth. Women in the highest wealth quintile marry 3.8 years later than those from the lowest wealth quintile (23.6 years and 19.8 years, respectively).


### 4.3 CONSANGUINITY

## Consanguinity

Ever-married women who report that they are related to their current husband, their last husband (among divorced or widowed women), or their most recent husband (among those married more than once).
Sample: Ever-married women age 15-49

Kinship marriage, also called consanguineous marriage, is relatively common in Turkey. Twenty-four percent of ever-married women age 15-49 reported that they are related to their current husband, last husband (among divorced or widowed women), or most recent husband (among those married more than once) (Table 4.5).

According to the data, $11 \%$ of all marriages were first-cousin marriages (i.e., first cousins on either the father's or mother's side). There is not much difference between the level of marriages between first cousins related only on the father's side and first cousins related only on the mother's side ( $6 \%$ versus $5 \%$ ). Thirteen percent of all marriages were marriages to second cousins or other relatives.

## Patterns by background characteristics

- The proportion of kinship marriages is highest among women ages 15-19 (31\%) and lowest among women ages 25-29 and 35-39 (22\% each) (Table 4.5).
- Kinship marriages are more

Figure 4.3 Consanguineous marriage by regions
Percentage of women who married a relative common among rural women (29\%) than among urban women ( $22 \%$ ).

- By five regions, West and North have the lowest percentage of women related to their husbands (17\%). A breakdown by the 12 NUTS 1 regions shows that consanguineous marriages are highest in Southeast Anatolia (43\%) (Figure 4.3).
- The percentage of kinship marriages is highest among women with no education (40\%) and lowest among women who completed high school or higher (10\%).
- Women living in households in the lowest two wealth quantiles have the highest levels of kinship marriages ( $35 \%$ lowest and $32 \%$ second) , the next two quantiles are similar in level and are around $20 \%$, and the lowest level is observed in the highest wealth quantile (12\%).


### 4.4 Polygyny

## Polygyny

Women who report that their husband or partner has other wives are considered to be in a polygynous marriage.
Sample: Currently married women age 15-49
In the TDHS 2018, married women were asked if their husbands had other wives. The results in Table 4.6 are tabulated for currently married women, and show that polygyny is relatively uncommon in Turkey. Only 2\% of currently married women reported their husbands have more than one wife.

Patterns by background characteristics

- Women ages $15-19,40-44$, and 45-49 have the highest prevalence of polygyny ( $2 \%, 2 \%$, and $3 \%$ respectively) (Table 4.6).
- By five regions, West has the lowest percentage of women in a polygynous union (1\%). A breakdown by the 12 NUTS 1 regions show that it is highest in Southeast Anatolia (3\%).
- Relatively large differences in polygyny are found by education. Over 3\% of married women with no education reported having a co-wife, as compared with less than $1 \%$ of women in the highest education category.
- Household wealth status is another variable by which polygyny differs. Over $3 \%$ of married women living in households with the lowest level of wealth reported having a co-wife, as compared with less than $1 \%$ of women in households with the highest wealth level.


## List of Tables

For more information on marriage, see the following tables:

- Table 4.1 Current marital status
- Table 4.2 Trends in proportion of never married
- Table 4.3 Age at first marriage
- Table 4.4 Median age at first marriage
- Table 4.5 Consanguinity
- Table 4.6 Proportion of women with a co-wife


## Table 4.1 Current marital status

Percent distribution of women age 15-49 by current marital status, according to age, Turkey DHS 2018

|  | Marital status |  |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Age | Never <br> married | Married | Divorced | Separated | Widowed |  |  | TotalNumber of <br> respondents |
|  |  |  |  |  |  |  |  |  |
| $15-19$ | 94.9 | 4.8 | 0.1 | 0.2 | 0.0 | 100.0 | 1,163 |  |
| $20-24$ | 59.0 | 39.7 | 0.6 | 0.5 | 0.2 | 100.0 | 1,034 |  |
| $25-29$ | 26.0 | 71.2 | 1.4 | 0.9 | 0.5 | 100.0 | 1,035 |  |
| $30-34$ | 8.4 | 86.7 | 3.8 | 0.7 | 0.4 | 100.0 | 1,065 |  |
| $35-39$ | 4.8 | 90.7 | 3.3 | 0.5 | 0.7 | 100.0 | 1,105 |  |
| $40-44$ | 3.6 | 88.7 | 4.6 | 0.3 | 2.7 | 100.0 | 1,025 |  |
| $45-49$ | 4.6 | 85.1 | 5.2 | 1.8 | 3.3 | 100.0 | 918 |  |
| Total 15-49 | 30.0 | 65.6 | 2.7 | 0.7 | 1.0 | 100.0 | 7,346 |  |

## Table 4.2 Trends in proportion of never married

Percent distribution of women who have never married, by age group, Turkey DHS 1993-2018

| Age | 1993 <br> TDHS | 1998 <br> TDHS | 2003 <br> TDHS | 2008 <br> TDHS | 2013 <br> TDHS | TDHS |
| :--- | :---: | :---: | :---: | ---: | ---: | ---: |
| $15-19$ | 86.5 | 84.5 | 88.1 | 90.2 | 92.8 | 94.9 |
| $20-24$ | 41.5 | 39.3 | 50.2 | 54.4 | 52.6 | 59.0 |
| $25-29$ | 15.6 | 12.9 | 20.0 | 22.7 | 19.1 | 26.0 |
| $30-34$ | 4.3 | 6.5 | 8.2 | 10.8 | 7.1 | 8.4 |
| $35-39$ | 1.8 | 2.4 | 4.1 | 4.3 | 4.5 | 4.8 |
| $40-44$ | 2.2 | 1.8 | 3.0 | 1.7 | 2.1 | 3.6 |
| $45-49$ | 0.9 | 1.7 | 1.5 | 0.1 | 3.0 | 4.6 |

Table 4.3 Age at first marriage
Percentage of women age 15-49 who were first married by specific exact ages and median age at first marriage, according to current age, Turkey DHS 2018

| Current age | Percentage first married by exact age: |  |  |  |  | $\begin{gathered} \text { Percentage } \\ \text { never } \\ \text { married } \\ \hline \end{gathered}$ | Number of respondents | Median age at first marriage |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 15 | 18 | 20 | 22 | 25 |  |  |  |
| 15-19 | 1.1 | na | na | na | na | 94.9 | 1,163 | a |
| 20-24 | 2.0 | 14.7 | 26.3 | na | na | 59.0 | 1,034 | a |
| 25-29 | 2.4 | 16.5 | 32.7 | 45.1 | 64.0 | 26.0 | 1,035 | 22.7 |
| 30-34 | 3.6 | 19.1 | 36.7 | 52.4 | 72.1 | 8.4 | 1,065 | 21.6 |
| 35-39 | 4.5 | 22.0 | 39.6 | 54.6 | 74.8 | 4.8 | 1,105 | 21.4 |
| 40-44 | 4.1 | 23.2 | 41.9 | 60.7 | 75.9 | 3.6 | 1,025 | 20.8 |
| 45-49 | 4.9 | 24.1 | 43.6 | 60.1 | 76.9 | 4.6 | 918 | 20.8 |
| 20-49 | 3.6 | 19.9 | 36.7 | na | na | 17.8 | 6,183 | a |
| 25-49 | 3.9 | 20.9 | 38.8 | 54.4 | 72.7 | 9.5 | 5,148 | 21.4 |

[^9]
## Table 4.4 Median age at first marriage by background characteristics

Median age at first marriage among women age 20-49 and age 25-49, according to background characteristics, Turkey DHS 2018

|  | Women age <br> Background characteristic |
| :--- | :---: |
|  | $25-49$ |
| Residence |  |
| Urban | 21.8 |
| Rural | 20.1 |
| Region |  |
| West | 21.9 |
| South | 21.1 |
| Central | 21.0 |
| North | 21.4 |
| East | 20.7 |
|  |  |
| NUTS 1 Region | 22.2 |
| Istanbul | 21.0 |
| West Marmara | 22.2 |
| Aegean | 21.4 |
| East Marmara | 21.5 |
| West Anatolia | 21.1 |
| Mediterranean | 19.7 |
| Central Anatolia | 21.0 |
| West Black Sea | 20.9 |
| East Black Sea | 20.2 |
| Northeast Anatolia | 20.7 |
| Central East Anatolia | 20.9 |
| Southeast Anatolia |  |
| Education | 19.1 |
| No educ. / prim. incomp. | 219.8 |
| Complete primary | 20.1 |
| Complete secondary | 25.0 |
| Complete high school / higher |  |
| Wealth quintile | 19.8 |
| Lowest | 21.4 |
| Second | 21.5 |
| Middle | 23.6 |
| Fourth |  |
| Highest |  |
| Total |  |
|  |  |
|  |  |

Note: The age at first marriage is defined as the age at which the respondent began living with her/his first spouse/partner

## Table 4.5 Consanguinity

Percent distribution of all ever-married women age 15-49 by their relationship to their most recent husband and percentage reporting any relationship to the husband, according to background characteristics, Turkey DHS 2018

| Age | Relationship to husband |  |  |  |  |  |  |  |  |  | Percentage reporting any relationship with husband | Number of respondents |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No relation | Son of father's brother | Son of father's sister | Son of mother's sister | Son of mother's brother | Other paternal blood relative | Other maternal blood relative | Other | Missing | Total |  |  |
| 15-19 | 69.4 | 4.7 | 1.2 | 2.2 | 4.3 | 11.6 | 6.5 | 0.0 | 0.0 | 100.0 | 30.6 | 60 |
| 20-24 | 77.0 | 6.4 | 2.0 | 2.8 | 1.8 | 4.4 | 5.1 | 0.6 | 0.0 | 100.0 | 23.0 | 424 |
| 25-29 | 77.6 | 4.2 | 1.7 | 2.7 | 1.7 | 7.0 | 4.3 | 0.5 | 0.3 | 100.0 | 22.1 | 766 |
| 30-34 | 78.1 | 2.3 | 2.0 | 1.9 | 1.6 | 9.1 | 4.5 | 0.7 | 0.0 | 100.0 | 21.9 | 976 |
| 35-39 | 77.9 | 3.4 | 2.0 | 2.6 | 2.6 | 7.0 | 4.4 | 0.1 | 0.0 | 100.0 | 22.1 | 1,052 |
| 40-44 | 75.3 | 3.4 | 3.0 | 2.9 | 1.7 | 7.5 | 5.8 | 0.3 | 0.1 | 100.0 | 24.6 | 988 |
| 45-49 | 73.4 | 4.9 | 2.8 | 2.9 | 2.4 | 9.0 | 4.1 | 0.4 | 0.0 | 100.0 | 26.6 | 876 |
| Residence |  |  |  |  |  |  |  |  |  |  |  |  |
| Urban | 77.9 | 3.6 | 2.0 | 2.4 | 1.9 | 7.1 | 4.6 | 0.4 | 0.0 | 100.0 | 22.0 | 4,021 |
| Rural | 71.3 | 4.7 | 3.1 | 3.2 | 2.4 | 9.8 | 4.9 | 0.6 | 0.1 | 100.0 | 28.7 | 1,120 |
| Region |  |  |  |  |  |  |  |  |  |  |  |  |
| West | 82.6 | 2.2 | 1.7 | 1.5 | 1.3 | 6.0 | 4.6 | 0.2 | 0.0 | 100.0 | 17.4 | 2,277 |
| South | 67.9 | 5.5 | 3.9 | 4.0 | 2.8 | 9.7 | 5.4 | 0.8 | 0.0 | 100.0 | 32.1 | 648 |
| Central | 79.7 | 1.5 | 1.4 | 2.7 | 1.6 | 7.6 | 5.0 | 0.4 | 0.1 | 100.0 | 20.2 | 1,082 |
| North | 82.4 | 1.3 | 0.9 | 1.9 | 1.5 | 7.9 | 3.7 | 0.1 | 0.1 | 100.0 | 17.4 | 273 |
| East | 60.9 | 10.5 | 3.9 | 4.4 | 4.3 | 10.5 | 4.5 | 0.8 | 0.1 | 100.0 | 39.0 | 861 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |  |  |  |  |
| Istanbul | 77.6 | 3.1 | 2.2 | 2.2 | 2.2 | 7.5 | 5.0 | 0.2 | 0.0 | 100.0 | 22.4 | 1,075 |
| West Marmara | 90.4 | 0.7 | 1.0 | 0.8 | 0.4 | 3.4 | 3.1 | 0.2 | 0.0 | 100.0 | 9.6 | 225 |
| Aegean | 84.1 | 1.9 | 1.7 | 1.2 | 0.5 | 5.9 | 4.8 | 0.0 | 0.0 | 100.0 | 15.9 | 644 |
| East Marmara | 88.2 | 0.9 | 0.6 | 1.3 | 0.6 | 4.7 | 3.2 | 0.4 | 0.0 | 100.0 | 11.8 | 516 |
| West Anatolia | 81.9 | 0.5 | 1.1 | 2.5 | 1.4 | 7.0 | 5.1 | 0.2 | 0.2 | 100.0 | 17.9 | 535 |
| Mediterranean | 67.9 | 5.5 | 3.9 | 4.0 | 2.8 | 9.7 | 5.4 | 0.8 | 0.0 | 100.0 | 32.1 | 648 |
| Central Anatolia | 74.7 | 3.0 | 2.7 | 2.5 | 2.3 | 7.9 | 6.4 | 0.4 | 0.0 | 100.0 | 25.3 | 257 |
| West Black Sea | 78.7 | 2.5 | 1.2 | 3.0 | 1.7 | 9.0 | 3.5 | 0.3 | 0.0 | 100.0 | 21.3 | 268 |
| East Black Sea | 82.2 | 1.0 | 0.7 | 1.4 | 0.8 | 8.1 | 5.1 | 0.4 | 0.3 | 100.0 | 17.5 | 110 |
| Northeast Anatolia | 68.8 | 5.9 | 2.8 | 3.6 | 1.9 | 11.6 | 4.7 | 0.5 | 0.2 | 100.0 | 31.0 | 119 |
| Central East |  |  |  |  |  |  |  |  |  |  |  |  |
| Anatolia | 64.2 | 8.9 | 3.9 | 4.9 | 3.1 | 8.6 | 5.2 | 0.8 | 0.4 | 100.0 | 35.3 | 230 |
| Southeast Anatolia | 57.5 | 12.3 | 4.2 | 4.5 | 5.3 | 11.1 | 4.2 | 0.8 | 0.0 | 100.0 | 42.5 | 512 |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |
| No educ. / prim. |  |  |  |  |  |  |  |  |  |  |  |  |
| incomp. | 59.9 | 11.9 | 4.9 | 2.9 | 2.9 | 11.0 | 5.9 | 0.6 | 0.1 | 100.0 | 40.0 | 627 |
| Complete primary | 70.7 | 4.0 | 3.0 | 3.8 | 2.8 | 9.6 | 5.5 | 0.4 | 0.0 | 100.0 | 29.2 | 2,027 |
| Complete secondary | 77.0 | 3.0 | 1.5 | 2.1 | 2.4 | 8.4 | 4.9 | 0.6 | 0.1 | 100.0 | 22.9 | 861 |
| Complete high school / higher | 89.7 | 0.8 | 0.7 | 1.3 | 0.5 | 3.6 | 3.1 | 0.2 | 0.1 | 100.0 | 10.2 | 1,625 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | 65.1 | 8.1 | 3.7 | 3.6 | 3.5 | 10.2 | 5.1 | 0.7 | 0.1 | 100.0 | 34.8 | 803 |
| Second | 67.7 | 7.2 | 3.6 | 4.2 | 1.9 | 9.7 | 5.0 | 0.6 | 0.0 | 100.0 | 32.3 | 985 |
| Middle | 78.0 | 3.3 | 1.6 | 3.1 | 2.0 | 7.5 | 4.4 | 0.2 | 0.0 | 100.0 | 22.0 | 1,057 |
| Fourth | 79.1 | 1.9 | 1.5 | 1.6 | 2.3 | 7.8 | 5.3 | 0.4 | 0.1 | 100.0 | 20.8 | 1,129 |
| Highest | 87.7 | 0.4 | 1.5 | 1.1 | 0.9 | 4.3 | 3.8 | 0.2 | 0.1 | 100.0 | 12.2 | 1,166 |
| Total | 76.5 | 3.8 | 2.3 | 2.6 | 2.0 | 7.7 | 4.7 | 0.4 | 0.1 | 100.0 | 23.5 | 5,141 |

## Table 4.6 Proportion of women with a co-wife

Percent distribution of currently married women age 15-49 with a co-wife according to background characteristics, Turkey DHS 2018

| Background characteristic | Woman with: |  |  | Total | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | No co-wife | A co-wife ${ }^{1}$ | Missing |  |  |
| Age |  |  |  |  |  |
| 15-19 | 97.7 | 2.3 | 0.0 | 100.0 | 56 |
| 20-24 | 98.9 | 1.1 | 0.0 | 100.0 | 411 |
| 25-29 | 98.9 | 0.9 | 0.2 | 100.0 | 737 |
| 30-34 | 98.9 | 1.1 | 0.0 | 100.0 | 923 |
| 35-39 | 98.6 | 1.4 | 0.0 | 100.0 | 1,002 |
| 40-44 | 97.7 | 2.3 | 0.0 | 100.0 | 910 |
| 45-49 | 97.1 | 2.9 | 0.0 | 100.0 | 781 |
| Residence |  |  |  |  |  |
| Urban | 98.3 | 1.6 | 0.0 | 100.0 | 3,743 |
| Rural | 98.3 | 1.7 | 0.0 | 100.0 | 1,076 |
| Region |  |  |  |  |  |
| West | 98.8 | 1.2 | 0.0 | 100.0 | 2,095 |
| South | 98.0 | 2.0 | 0.0 | 100.0 | 617 |
| Central | 98.3 | 1.5 | 0.1 | 100.0 | 1,028 |
| North | 97.3 | 2.6 | 0.1 | 100.0 | 257 |
| East | 97.6 | 2.4 | 0.0 | 100.0 | 822 |
| NUTS 1 Region |  |  |  |  |  |
| Istanbul | 99.0 | 1.0 | 0.0 | 100.0 | 995 |
| West Marmara | 98.9 | 1.1 | 0.0 | 100.0 | 203 |
| Aegean | 98.2 | 1.8 | 0.0 | 100.0 | 589 |
| East Marmara | 99.0 | 1.0 | 0.0 | 100.0 | 482 |
| West Anatolia | 98.4 | 1.3 | 0.3 | 100.0 | 512 |
| Mediterranean | 98.0 | 2.0 | 0.0 | 100.0 | 617 |
| Central Anatolia | 97.6 | 2.4 | 0.0 | 100.0 | 242 |
| West Black Sea | 97.9 | 2.1 | 0.0 | 100.0 | 252 |
| East Black Sea | 96.9 | 2.8 | 0.3 | 100.0 | 106 |
| Northeast Anatolia | 98.4 | 1.6 | 0.0 | 100.0 | 114 |
| Central East Anatolia | 99.3 | 0.7 | 0.0 | 100.0 | 219 |
| Southeast Anatolia | 96.7 | 3.3 | 0.0 | 100.0 | 489 |
| Education |  |  |  |  |  |
| No educ. / prim. incomp. | 96.8 | 3.2 | 0.1 | 100.0 | 581 |
| Complete primary | 97.9 | 2.1 | 0.0 | 100.0 | 1,923 |
| Complete secondary | 98.8 | 1.2 | 0.0 | 100.0 | 813 |
| Complete high school / higher | 99.2 | 0.7 | 0.1 | 100.0 | 1,503 |
| Wealth quintile |  |  |  |  |  |
| Lowest | 96.6 | 3.4 | 0.0 | 100.0 | 758 |
| Second | 98.1 | 1.9 | 0.0 | 100.0 | 914 |
| Middle | 98.7 | 1.3 | 0.0 | 100.0 | 994 |
| Fourth | 98.5 | 1.5 | 0.0 | 100.0 | 1,066 |
| Highest | 99.2 | 0.7 | 0.1 | 100.0 | 1,088 |
| Total | 98.3 | 1.7 | 0.0 | 100.0 | 4,820 |
| ${ }^{1}$ Excludes women who responded "don't know" when asked if their husband has other wives |  |  |  |  |  |

## Key Findings

- Total fertility rate: The current total fertility rate in Turkey is 2.3 children per woman ( 2.2 children in urban and 2.8 children in rural areas). Fertility peaks in the 25-29 age group.
- Fertility trends: 2018 TDHS results show a steady trend of TFR starting from 2.2 in 2008 TDHS and 2.3 in 2013 TDHS .
- Children ever born and living: For currently married women, the mean number of children ever born is 2.4 and the mean number of living children is 2.3 . Only $4 \%$ of currently married women in the 45-49 age group have no children.
- Birth intervals: The median birth interval is 44 months. About one fifth ( $21 \%$ ) of non-first births occurred within 24 months of the preceding birth.
- Insusceptibility to pregnancy: The median duration of postpartum amenorrhea is 3.1 months, abstinence is 2.3 months, and insusceptibility is 3.8 months.
- Age at first birth: The median age at first birth is 23.3 years among women age 25-49.
- Teenage Childbearing: 3.5\% of adolescents have begun childbearing: $2.8 \%$ have had a live birth, and less than $1 \%$ is currently pregnant with their first child.

TThe number of children that a woman bears depends on many factors, including the age she begins childbearing, how long she waits between births, and her fecundity. Postponing first births and extending the interval between births have played a role in reducing fertility levels in many countries. These factors also have positive health consequences. In contrast, short birth intervals (of less than 24 months) can lead to harmful outcomes for both newborns and their mothers, such as preterm birth, low birth weight, and death. Childbearing at a very young age is associated with an increased risk of complications during pregnancy and childbirth and higher rates of neonatal mortality.

This chapter describes the current level of fertility in Turkey and some of its proximate determinants. It presents information on the total fertility rate, birth intervals, insusceptibility to pregnancy (due to postpartum amenorrhea, postpartum abstinence, or menopause), age at first birth, and teenage childbearing.

### 5.1 Current 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 birth histories provided by women.
Sample: Women age 15-49

Table 5.1 presents information on the current fertility levels for Turkey as a whole and for urban and rural areas. The total fertility rate for Turkey is 2.3 children per woman. The fertility rate is higher in rural areas (2.8) compared to that of in urban areas (2.2). Childbearing peaks at 25-29 age group for both urban and rural areas. In rural areas, age specific fertility rates for women age 20-24 are also high. In Turkey, the general fertility rate (per 1,000 women age $15-44$ ) is 77 , and the crude birth rate (per 1,000 population) is 17 .

Almost 4 percent of women age 15-49 are currently pregnant, and the mean number of children ever born to women age 40-49 is 2.7 (Table 5.2).

Figure 5.1 Age-specific fertility rates during the last two decades Age-specific fertility rates per 1,000 women for five-year periods preceding the survey


Table 5.3 and Figure 5.1 shows trends in ASFRs for 5-year periods preceding the survey. Because women age 50 years and over were not interviewed in the 2018 TDHS, the rates for older age groups become progressively more truncated for periods more distant from the survey date. The age-specific fertility rates calculated over a 20-year time frame from the 2018 TDHS provide evidence of a substantial decline in fertility at ages 15-24. On the other hand, for age 25 and higher, fertility is more stable.

Trends: Table 5.4 shows that the total fertility rate in Turkey, which declined to 2.6 children in the 1990s, stabilized over replacement level fertility ( 2.1 children). The current total fertiliy rate, which is not statistically different than 2,26 observed in 2013 TDHS, indicates that period fertility has continued to be stable in the past five years (Figure 5.2). The urban-rural gap in fertility levels appears to be stable since 1993 TDHS.

Figure 5.2 Trends in total fertility rates
Total fertility rates by residence, 1993-2018


| 1993 | 1998 | 2003 | 2008 | 2013 | 2018 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TDHS | TDHS | TDHS | TDHS | TDHS | TDHS |

Figure 5.3 Trends in age-specific fertility rates Age-specific fertility rates per 1,000 women, 1993-2018


Figure 5.3 shows that until the 2003 TDHS, fertility was highest among women age 2024. The 2018 TDHS results show that the ages 25-29, in which childbearing is highest, has not changed since 2008 TDHS.

Patterns by background characteristics

- The regional variations in fertility are marked, ranging from 3.2 children in the East to 1.6 children in North region. All regions in Turkey, except the North and the West, exhibit TFRs not below 2.1 , the replacement level of fertility (Table 5.2 and Figure 5.4).
- Fertility decreases with increasing wealth, from 3.3 children among women in the lowest wealth quintile to
 1.9 children among women in the highest wealth quintile.
- The TFR is highest among women with no education / incomplete primary education (4.2) and lowest among women with high school or higher education (1.8).
- Women age 40-49 had an average of 2.7 children during their lifetime, 0.4 children more than women will have at the current rates.
- Almost $4 \%$ of all women of reproductive age were pregnant at the time of the survey.


### 5.2 Children Ever Born and Living

The distribution of children ever born by age shows that early childbearing is not common in Turkey: over $97 \%$ of women age 15-19 have never given birth (Table 5.5). However, this proportion declines to $38 \%$ for women age 25-29, and to $8 \%$ or less among women age 35 and older. Only $8 \%$ of women age $45-49$ have not had any births.

Overall, currently married women age 15-49 have had an average of 2.4 children compared with 1.6 children among all women. On average, by the end of their reproductive years (age 45-49), women in Turkey have given birth to 2.7 children with 2.6 surviving.

The level of childlessness among married women at the end of their reproductive period can be used as an indicator of the level of primary sterility. Results indicate that in Turkey, primary sterility among currently married women age $45-49$ is $4 \%$.

### 5.3 BIRTH INTERVALS

## Median birth interval

Number of months since the preceding birth by which half of children are born
Sample: Non-first births in the 5 years before the survey

Examination of birth intervals is important in providing insights into birth spacing patterns, which in turn provides information on mother and child health. Short birth intervals increase the risks of maternal and child mortality. Overall, the median birth interval in Turkey is more than 3.5 years ( 44 months). Nearly $21 \%$ of children are born after an interval that is considered "too short," i.e., less than 24 months.

Trends: The median birth interval remained almost stable between 2013 TDHS and 2018 TDHS ( 45 and 44 months, respectively).

## Patterns by background characteristics

- Younger women have shorter birth intervals than older women. While $33 \%$ of women age 20-29 space their births less than 24 months apart, only $15 \%$ of women age $30-39$ do so (Table 5.6).
- The median birth interval among women living in urban areas are longer than that of the women living in rural areas (47 and 38 months, respectively).
- By region, the median birth interval ranges from a low of 35 months in the East to a high of 57 months in the Central.
- Births to mothers with no education / incomplete primary education have shorter median intervals than births to mothers who have high school or higher education (34 and 51 months, respectively).
- The median birth interval increases with increasing wealth, from 34 months among non-first births in the lowest wealth quintile to 64 months in the highest quintile.


### 5.4 Insusceptibility to Pregnancy

## Postpartum amenorrhoea

The period of time after the birth of a child and before the resumption of menstruation.

## Postpartum abstinence

The period of time after the birth of a child and before the resumption of sexual intercourse.

## Postpartum insusceptibility

The period of time during which a woman is considered not at risk of pregnancy either because she is postpartum amenorrhoeic and/or abstaining from sexual intercourse postpartum.

## Median duration of postpartum amenorrhea

Calculated as the number of months after childbirth by which time half of women have begun menstruating.
Sample: Women who gave birth in the 3 years before the survey

## Median duration of postpartum insusceptibility

Calculated as the number of months after childbirth by which time half of women are no longer protected against pregnancy either by postpartum amenorrhoea or abstinence from sexual intercourse.
Sample: Women who gave birth in the 3 years before the survey

Overall, in more than $15 \%$ of births of women who gave birth in the 3 years preceding the survey, women are insusceptible to pregnancy because they are amenorrhoeic (12\%) and/or abstaining (8\%) (Table 5.7). In Turkey, the median duration of postpartum amenorrhoea is 3.1 months and women abstain from sexual intercourse for a median of 2.3 months. Women are insusceptible to pregnancy after childbirth (still amenorrhoeic and/or still abstaining) for a median of 3.8 months.

The percentage of births for which the mother was insusceptible drops steadily by the number of months since birth. Seventythree percent of births for which the mother is amenorrhoeic during the first two months following the birth and declines to $51 \%$ after the second month. Only $20 \%$ of women are amenorrheic after the sixth month. Seventy-seven percent of all mothers abstained from sexual relations during first two months following the birth. However, starting from the second month after the birth, the contribution of abstinence to the period of insusceptibility is greatly reduced. At 2-3 months following a birth, the percentage of abstaining mothers decreases to $11 \%$ and by 6-7 months, to $2 \%$ (Figure 5.5).

Figure 5.5 Postpartum amenorrhoea, abstinence and insusceptibility
Percentage of births in the three years preceding the survey for which mothers are postpartum amenorrheic, abstaining, and insusceptible, by number of months since birth


Months since birth

Trends: 2018 TDHS results, which are similar to the findings of previous surveys, indicate that the period of postpartum amenorrhoea is comparatively longer than the period of postpartum abstinence and therefore is the primary determinant of the length of postpartum insusceptibility to pregnancy in Turkey.

## Patterns by background characteristics

- Women age 30 and above have a longer median duration of postpartum insusceptibility ( 4.3 months) than women under age 30 ( 3.5 months) (Table 5.8).
- Urban women have a longer median duration of insusceptibility than their rural counterparts (3.9 and 3.2 months, respectively).


## Menopause

Women are considered to have reached menopause if they are neither pregnant nor postpartum amenorrheic and have not had a menstrual period in the 6 months before the survey, or if they report being menopausal or having had a hysterectomy, or if they have never menstruated.
Sample: Women age 30-49

Overall, $10 \%$ of women age 30-49 are estimated to be menopausal (Table 5.9). The percentage of menopausal women increases with age, from $1 \%$ for women in their early thirties to $45 \%$ for women age 48-49.

### 5.5 Age at First Birth

## Median age at first birth

Age by which half of women have had their first child.
Sample: Women age 20-49 and 25-49

The median age at first birth in Turkey is 23.3 years among women age 25-49 (Table 5.10). Women over age 40 had their first birth around age 22.5 whereas women currently age 25-29 are having their first birth later, at age 25 . While $11 \%$ of women age $40-49$ had their first birth by exact age 18 , only $5-7 \%$ of women age 20-29 had started childbearing by age 18 .

Trends: A comparison with the 2013 TDHS results, where the median age was 22.9 years, indicates that the median age at which women have their first birth increased by nearly half year between the two surveys.

## Patterns by background characteristics

- Women with secondary level education begin childbearing about 1 year later than women with no education/ incomplete primary education (21.8 and 20.7 respectively) (Table 5.11).
- The median age at first birth is higher in urban areas than in rural areas, with a difference of almost two years for women age 25-49.
- Across regions, the West region has the highest median age at first birth (24.0 years) for women age 2549 , while the East and Central region have the lowest median age at first birth ( 22.5 and 22.7 years respectively).
- Women who belong to the fourth wealth quintile had their first child almost 2 years later than women in the lowest wealth quintile.


### 5.6 Teenage Childbearing

## Teenage childbearing

Percentage of women age 15-19 who have given birth or are pregnant with their first child
Sample: Women age 15-19
Teenage mothers are more likely to experience adverse pregnancy outcomes and maternity-related mortality than non-teenage mothers. In addition, early childbearing limits a teenager's ability to pursue educational opportunities and their access to job opportunities. Nearly $4 \%$ of adolescents in Turkey have started childbearing: $3 \%$ have had a live birth, and $1 \%$ is currently pregnant with their first child (Table 5.12). Among women age $15-19$ only $1 \%$ have married before age 15 and $0.2 \%$ gave birth to a child before age 15 (Table 5.13).

Trends: Since the 2013 TDHS, the proportion of adolescents who have begun childbearing has decreased from $5 \%$ to the current level of $4 \%$.

## Patterns by background characteristics

- Childbearing before age 17 is rare. However, $10 \%$ of women age 19 are either a mother or pregnant with their first child.
- Teenage childbearing varies by region, ranging from $2 \%$ in the West to $7 \%$ in the South.
- Twenty percent of teenagers with completed primary school education had begun childbearing compared with $1 \%$ of those with high school or higher education.
- By wealth status, $9 \%$ of teenagers in the lowest wealth quintile have begun childbearing compared to $1 \%$ of teenagers living in households in the highest wealth quintiles.


## List of Tables

For more information on fertility levels and some of the determinants of fertility, see the following tables:

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## Table 5.1 Current fertility

Age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the 3 years preceding the survey, by residence, Turkey DHS 2018

|  | Residence |  |  |
| :--- | ---: | ---: | ---: |
| Age group | Urban | Rural | Total |
|  |  |  |  |
| $<15$ | 0 | 2 | 0 |
| $15-19$ | 28 | 35 | 30 |
| $20-24$ | 114 | 162 | 124 |
| $25-29$ | 142 | 170 | 148 |
| $30-34$ | 96 | 119 | 100 |
| $35-39$ | 53 | 61 | 55 |
| $40-44$ | 10 | 11 | 10 |
| $45-49$ | 1 | 0 | 1 |
|  |  |  |  |
| TFR(15-49) | 2.2 | 2.8 | 2.3 |
| GFR | 74 | 89 | 77 |
| CBR | 17 | 16 | 17 |

Notes: Age-specific fertility rates are per 1,000 women. Rates for age group 45-49 may be slightly biased due to truncation. Rates are for the period 1-36 months 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

## Table 5.2 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 years, according to background characteristics, Turkey DHS 2018

| 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 | 2.2 | 3.7 | 2.6 |
| Rural | 2.8 | 3.6 | 3.1 |
| Region |  |  |  |
| West | 2.0 | 3.5 | 2.3 |
| South | 2.8 | 4.5 | 2.6 |
| Central | 2.1 | 2.8 | 2.7 |
| North | 1.6 | 2.0 | 2.5 |
| East | 3.2 | 5.1 | 4.4 |
| Education |  |  |  |
| No educ. / prim. incomp. | 4.2 | 4.9 | 4.4 |
| Complete primary | 3.6 | 3.5 | 2.7 |
| Complete secondary | 2.8 | 4.1 | 2.4 |
| Complete high school / higher | 1.8 | 3.3 | 1.8 |
| Wealth quintile |  |  |  |
| Lowest | 3.3 | 5.8 | 3.6 |
| Second | 2.6 | 4.0 | 3.2 |
| Middle | 2.2 | 2.7 | 2.7 |
| Fourth | 1.9 | 4.1 | 2.5 |
| Highest | 1.9 | 2.4 | 2.1 |
| Total | 2.3 | 3.7 | 2.7 |

Note: Total fertility rates are for the period 1-36 months prior to interview.

Table 5.3 Trends in age-specific fertility rates
Age-specific fertility rates for 5 -year periods preceding the survey, according to age group, Turkey DHS 2018

|  | Number of years preceding survey |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Age group | $0-4$ | $5-9$ | $10-14$ | $15-19$ |
|  | 0 | 1 | 1 | 2 |
| 15 | 34 | 43 | 54 | 65 |
| $15-19$ | 126 | 136 | 147 | 159 |
| $20-24$ | 151 | 143 | 143 | 139 |
| $25-29$ | 106 | 100 | 99 | $[98]$ |
| $30-34$ | 56 | 38 | $[50]$ |  |
| $35-39$ | 10 | $[16]$ |  |  |
| $40-44$ | $[1]$ |  |  |  |
| $45-49$ |  |  |  |  |

Notes: Age-specific fertility rates are per 1,000 women. Rates exclude the month of interview. Estimates in brackets are truncated.

Table 5.4 Trends in age-specific and total fertility rates
Age-specific and total fertility rates (TFR), according to mother's age at the time of the birth, Turkey DHS 2018

| Age at birth | $\begin{aligned} & 1978 \\ & \text { TFS }^{1} \\ & \hline \end{aligned}$ | $\begin{array}{r} 1988 \\ \text { TPHS }^{2} \\ \hline \end{array}$ | $\begin{array}{r} 1993 \\ \text { TDHS } \\ \hline \end{array}$ | $\begin{array}{r} 1998 \\ \text { TDHS } \\ \hline \end{array}$ | $\begin{array}{r} 2003 \\ \text { TDHS } \\ \hline \end{array}$ | $\begin{array}{r} 2008 \\ \text { TDHS } \\ \hline \end{array}$ | $\begin{array}{r} 2013 \\ \text { TDHS } \\ \hline \end{array}$ | $\begin{array}{r} 2018 \\ \text { TDHS } \\ \hline \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15-19 | 93 | 45 | 56 | 60 | 46 | 35 | 31 | 30 |
| 20-24 | 259 | 193 | 179 | 163 | 136 | 126 | 124 | 124 |
| 25-29 | 218 | 183 | 151 | 150 | 134 | 133 | 136 | 148 |
| 30-34 | 154 | 102 | 94 | 93 | 78 | 91 | 104 | 100 |
| 35-39 | 101 | 55 | 38 | 42 | 38 | 36 | 48 | 55 |
| 40-44 | 38 | 19 | 12 | 13 | 12 | 10 | 7 | 10 |
| 45-49 | 2 | 7 | 0 | 1 | 2 | 1 | 2 | 1 |
| TFR (15-49) | 4.3 | 3.0 | 2.7 | 2.6 | 2.2 | 2.2 | 2.3 | 2.3 |

Notes: Rates from surveys conducted in 1978, 1988 and 1993 refer to the 1-12 months before the survey. Rates from surveys conducted in 1998, 2003, 2008, 2013 and 2018 refer to the 1-36 months period before the survey.
${ }^{1}$ Turkish Fertility Survey
${ }^{2}$ Turkish Population and Health Survey

## Table 5.5 Children ever born and living

Percent distribution of all women and currently married women age 15-49 by number of children ever born, mean number of children ever born and mean number of living children, according to age group, Turkey DHS 2018

|  | Number of children ever born |  |  |  |  |  |  |  |  |  |  | Total | Number of women | Mean number of |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10+ |  |  | children ever born | living children |
| ALL WOMEN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 97.2 | 2.3 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 1,163 | 0.03 | 0.03 |
| 20-24 | 68.8 | 16.5 | 11.2 | 3.1 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 1,034 | 0.50 | 0.48 |
| 25-29 | 37.7 | 22.5 | 23.6 | 11.0 | 4.1 | 0.8 | 0.2 | 0.0 | 0.1 | 0.0 | 0.0 | 100.0 | 1,035 | 1.25 | 1.23 |
| 30-34 | 13.2 | 21.2 | 33.7 | 20.5 | 7.3 | 2.8 | 0.7 | 0.3 | 0.2 | 0.0 | 0.0 | 100.0 | 1,065 | 2.02 | 1.99 |
| 35-39 | 7.7 | 13.4 | 34.1 | 26.1 | 10.1 | 4.3 | 2.3 | 0.9 | 0.6 | 0.5 | 0.0 | 100.0 | 1,105 | 2.52 | 2.45 |
| 40-44 | 6.3 | 11.9 | 35.4 | 23.1 | 12.3 | 5.1 | 2.3 | 1.6 | 0.8 | 0.6 | 0.6 | 100.0 | 1,025 | 2.70 | 2.58 |
| 45-49 | 8.4 | 10.0 | 35.7 | 22.3 | 11.2 | 4.8 | 3.2 | 1.8 | 1.1 | 0.7 | 0.7 | 100.0 | 918 | 2.72 | 2.56 |
| Total | 35.4 | 13.9 | 24.4 | 14.9 | 6.3 | 2.5 | 1.2 | 0.6 | 0.4 | 0.3 | 0.2 | 100.0 | 7,346 | 1.64 | 1.58 |
| CURRENTLY MARRIED WOMEN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 43.0 | 45.5 | 10.6 | 0.0 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 56 | 0.70 | 0.69 |
| 20-24 | 22.1 | 40.7 | 28.1 | 7.9 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 100.0 | 411 | 1.25 | 1.20 |
| 25-29 | 14.8 | 30.3 | 32.7 | 15.0 | 5.7 | 1.1 | 0.3 | 0.0 | 0.1 | 0.0 | 0.0 | 100.0 | 737 | 1.72 | 1.69 |
| 30-34 | 4.6 | 22.7 | 37.0 | 23.0 | 8.2 | 3.3 | 0.9 | 0.4 | 0.1 | 0.0 | 0.1 | 100.0 | 923 | 2.24 | 2.20 |
| 35-39 | 2.5 | 13.1 | 36.2 | 28.1 | 10.8 | 4.5 | 2.6 | 1.0 | 0.7 | 0.6 | 0.0 | 100.0 | 1,002 | 2.69 | 2.62 |
| 40-44 | 2.4 | 10.7 | 37.2 | 24.8 | 13.0 | 5.6 | 2.5 | 1.7 | 0.9 | 0.7 | 0.6 | 100.0 | 910 | 2.86 | 2.74 |
| 45-49 | 3.6 | 9.5 | 37.0 | 24.5 | 12.6 | 4.8 | 3.4 | 2.1 | 0.9 | 0.9 | 0.7 | 100.0 | 781 | 2.90 | 2.73 |
| Total | 7.1 | 19.2 | 35.2 | 21.8 | 9.3 | 3.6 | 1.8 | 0.9 | 0.5 | 0.4 | 0.2 | 100.0 | 4,820 | 2.37 | 2.29 |

## Table 5.6 Birth intervals

Percent distribution of non-first births in the 5 years preceding the survey by number of months since preceding birth, and median number of months since preceding birth, according to background characteristics, Turkey DHS 2018

| Background characteristic | Months since preceding birth |  |  |  |  |  | Total | Number of nonfirst births | Median number of months since preceding birth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 7-17 | 18-23 | 24-35 | 36-47 | 48-59 | 60+ |  |  |  |
| Mother's age |  |  |  |  |  |  |  |  |  |
| 15-19 | * | * | * | * | * | * | 100.0 | 7 | * |
| 20-29 | 15.3 | 17.9 | 26.9 | 19.4 | 9.6 | 10.9 | 100.0 | 629 | 31.6 |
| 30-39 | 7.0 | 7.6 | 13.8 | 12.5 | 13.6 | 45.5 | 100.0 | 907 | 55.2 |
| 40-49 | 2.8 | 8.6 | 8.6 | 7.7 | 5.3 | 67.0 | 100.0 | 171 | a |
| Sex of preceding birth |  |  |  |  |  |  |  |  |  |
| Male | 8.7 | 11.1 | 17.3 | 13.0 | 12.4 | 37.5 | 100.0 | 879 | 47.9 |
| Female | 10.9 | 12.1 | 18.8 | 16.2 | 10.2 | 31.8 | 100.0 | 835 | 41.7 |
| Survival of preceding birth |  |  |  |  |  |  |  |  |  |
| Living | 9.4 | 11.4 | 17.9 | 14.7 | 11.5 | 35.0 | 100.0 | 1,676 | 44.7 |
| Dead | (26.2) | (19.3) | (23.7) | (6.3) | (3.2) | (21.4) | 100.0 | 38 | (25.4) |
| Birth order |  |  |  |  |  |  |  |  |  |
| 2-3 | 9.7 | 11.5 | 17.4 | 15.1 | 11.6 | 34.8 | 100.0 | 1,336 | 44.8 |
| 4-6 | 10.1 | 10.8 | 19.3 | 13.2 | 11.1 | 35.6 | 100.0 | 325 | 43.8 |
| 7+ | 12.2 | 17.7 | 27.2 | 8.6 | 6.4 | 28.0 | 100.0 | 53 | 33.5 |
| Residence |  |  |  |  |  |  |  |  |  |
| Urban | 8.8 | 10.6 | 17.2 | 14.5 | 12.0 | 36.8 | 100.0 | 1,243 | 47.0 |
| Rural | 12.4 | 14.0 | 20.3 | 14.5 | 9.4 | 29.3 | 100.0 | 471 | 38.2 |
| Region |  |  |  |  |  |  |  |  |  |
| West | 7.9 | 11.2 | 14.6 | 13.7 | 10.3 | 42.4 | 100.0 | 604 | 50.9 |
| South | 11.5 | 11.7 | 21.1 | 13.9 | 10.9 | 30.9 | 100.0 | 251 | 40.7 |
| Central | 3.7 | 6.6 | 15.9 | 15.3 | 11.3 | 47.2 | 100.0 | 296 | 56.7 |
| North | 7.6 | 9.4 | 11.7 | 13.0 | 16.8 | 41.5 | 100.0 | 59 | 50.9 |
| East | 15.2 | 15.2 | 22.7 | 15.5 | 12.1 | 19.3 | 100.0 | 504 | 34.5 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |  |
| Istanbul | 9.3 | 13.2 | 17.8 | 9.3 | 10.1 | 40.3 | 100.0 | 305 | 50.5 |
| West Marmara | 6.8 | 10.1 | 13.4 | 8.0 | 14.8 | 46.9 | 100.0 | 49 | 56.8 |
| Aegean | 4.8 | 5.9 | 11.6 | 19.1 | 10.5 | 48.1 | 100.0 | 161 | 59.0 |
| East Marmara | 7.4 | 12.2 | 13.5 | 19.5 | 9.0 | 38.5 | 100.0 | 138 | 46.9 |
| West Anatolia | 2.9 | 3.8 | 16.5 | 19.4 | 13.1 | 44.4 | 100.0 | 144 | 54.7 |
| Mediterranean | 11.5 | 11.7 | 21.1 | 13.9 | 10.9 | 30.9 | 100.0 | 251 | 40.7 |
| Central Anatolia | 6.4 | 12.6 | 13.6 | 12.5 | 9.4 | 45.5 | 100.0 | 74 | 54.5 |
| West Black Sea | 2.4 | 7.2 | 11.5 | 7.4 | 15.1 | 56.3 | 100.0 | 63 | a |
| East Black Sea | 12.1 | 7.4 | 12.2 | 15.2 | 11.2 | 41.9 | 100.0 | 25 | 50.4 |
| Northeast Anatolia | 9.1 | 18.2 | 18.2 | 15.7 | 9.0 | 29.8 | 100.0 | 52 | 37.0 |
| Central East Anatolia | 14.2 | 12.5 | 26.5 | 15.5 | 12.8 | 18.6 | 100.0 | 121 | 34.7 |
| Southeast Anatolia | 16.5 | 15.7 | 22.0 | 15.5 | 12.4 | 18.0 | 100.0 | 330 | 33.0 |
| Mother's education |  |  |  |  |  |  |  |  |  |
| No educ. / prim. incomp. | 13.8 | 14.4 | 24.9 | 13.9 | 9.9 | 23.1 | 100.0 | 305 | 34.4 |
| Complete primary | 9.6 | 8.7 | 15.9 | 12.6 | 9.5 | 43.7 | 100.0 | 573 | 52.9 |
| Complete secondary | 10.3 | 15.6 | 22.1 | 15.7 | 12.1 | 24.3 | 100.0 | 420 | 37.5 |
| Complete high school / higher | 6.6 | 9.4 | 12.0 | 16.4 | 14.2 | 41.4 | 100.0 | 416 | 50.9 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |
| Lowest | 14.6 | 15.5 | 23.9 | 15.2 | 10.7 | 20.0 | 100.0 | 452 | 33.8 |
| Second | 13.4 | 12.6 | 19.1 | 15.4 | 8.7 | 30.9 | 100.0 | 393 | 39.2 |
| Middle | 7.3 | 9.8 | 15.8 | 15.1 | 11.9 | 40.1 | 100.0 | 341 | 49.7 |
| Fourth | 5.0 | 10.8 | 19.2 | 13.1 | 11.1 | 40.8 | 100.0 | 291 | 50.3 |
| Highest | 4.3 | 5.9 | 7.1 | 12.6 | 16.2 | 54.0 | 100.0 | 238 | 64.2 |
| Total | 9.8 | 11.6 | 18.0 | 14.5 | 11.3 | 34.7 | 100.0 | 1,714 | 44.0 |

Note: First-order births are excluded. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth. Figures in parentheses are based on 25-49 unweighted cases. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. ${ }^{\text {a }}$ Median cannot be calculated because less than half of women have a non-first birth.

Table 5.7 Postpartum amenorrhea, abstinence and insusceptibility
Percentage of births in the 3 years preceding the survey for which mothers are postpartum amenorrheic, abstaining, and insusceptible, by number of months since birth, and median and mean durations, Turkey DHS 2018

| Months since birth | Percentage of births for which the mother is: |  |  | Number of births |
| :---: | :---: | :---: | :---: | :---: |
|  | Amenorrheic | Abstaining | Insusceptible ${ }^{1}$ |  |
| <2 | 73.0 | 77.1 | 95.3 | 89 |
| 2-3 | 51.1 | 11.2 | 51.5 | 83 |
| 4-5 | 25.1 | 11.3 | 32.7 | 78 |
| 6-7 | 19.9 | 1.5 | 19.9 | 86 |
| 8-9 | 18.1 | 0.0 | 18.1 | 81 |
| 10-11 | 3.5 | 8.8 | 10.7 | 85 |
| 12-13 | 1.5 | 4.1 | 5.6 | 102 |
| 14-15 | 3.3 | 0.0 | 3.3 | 83 |
| 16-17 | 0.4 | 1.7 | 2.2 | 73 |
| 18-19 | 4.2 | 1.7 | 5.9 | 60 |
| 20-21 | 1.3 | 3.3 | 4.7 | 59 |
| 22-23 | 3.1 | 1.2 | 4.3 | 76 |
| 24-25 | 0.7 | 0.7 | 1.4 | 84 |
| 26-27 | 3.2 | 1.9 | 4.1 | 98 |
| 28-29 | 0.0 | 2.9 | 2.9 | 80 |
| 30-31 | 0.0 | 0.7 | 0.7 | 70 |
| 32-33 | 0.0 | 1.9 | 1.9 | 80 |
| 34-35 | 0.0 | 0.0 | 0.0 | 85 |
| Total | 12.1 | 7.7 | 15.4 | 1,452 |
| Median | 3.1 | 2.3 | 3.8 | na |
| Mean | 5.2 | 3.6 | 6.3 | na |

Note: Estimates are based on status at the time of the survey.
na $=$ Not applicable
${ }^{1}$ Includes births for which mothers are either still amenorrheic or still abstaining (or both) following birth

## Table 5.8 Median duration of amenorrhea, postpartum abstinence and postpartum insusceptibility

Median number of months of postpartum amenorrhea, postpartum abstinence, and postpartum insusceptibility following births in the 3 years preceding the survey, according to background characteristics, Turkey DHS 2018

| Background characteristic | Postpartum <br> amenorrhea | Postpartum <br> abstinence | Postpartum <br> insusceptibility ${ }^{1}$ |
| :--- | :---: | :---: | :---: |
| Mother's age |  |  |  |
| $15-29$ | 2.9 | 2.2 |  |
| $30-49$ | 3.5 | $(2.3)$ | 3.5 |
| Residence |  |  | 4.3 |
| Urban <br> Rural | 3.2 | 2.3 |  |
| Total | 3.1 | $*$ | 3.9 |

Note: Medians are based on the status at the time of the survey (current status). 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.
${ }^{1}$ Includes births for which mothers are either still amenorrheic or still abstaining (or both) following birth

## Table 5.9 Menopause

Percentage of women age 30-49 who are menopausal, according to age, Turkey DHS 2018

| Age | Percentage <br> menopausal $^{1}$ | Number of <br> women |
| :--- | :---: | :---: |
| Age |  |  |
| $30-34$ | 1.1 | 1,065 |
| $35-39$ | 1.5 | 1,105 |
| $40-41$ | 5.2 | 445 |
| $42-43$ | 9.6 | 359 |
| $44-45$ | 15.9 | 408 |
| $46-47$ | 31.2 | 404 |
| $48-49$ | 45.1 | 327 |
| Total | 10.3 | 4,113 |

${ }^{1}$ Percentage of women who 1) are not pregnant, and 2) have had a birth in the past 5 years and are not postpartum amenorrheic, and 3) for whom one of the following additional conditions applies: a) whose last menstrual period occurred 6 or more months preceding the survey, or b) declared that they are in menopause or have had a hysterectomy, or c) have never menstruated.

## Table 5.10 Age at first birth

Percentage of women age 15-49 who gave birth by exact ages, percentage who have never given birth, and median age at first birth, according to current age, Turkey DHS 2018

| Current age | Percentage who gave birth by exact age |  |  |  |  | Percentage who have never given birth | Number of women | Median age at first birth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 15 | 18 | 20 | 22 | 25 |  |  |  |
| 15-19 | 0.2 | na | na | na | na | 97.2 | 1,163 | a |
| 20-24 | 0.2 | 5.1 | 17.2 | na | na | 68.8 | 1,034 | a |
| 25-29 | 0.4 | 7.0 | 19.5 | 33.1 | 50.2 | 37.7 | 1,035 | 25.0 |
| 30-34 | 0.7 | 7.8 | 21.4 | 39.8 | 58.3 | 13.2 | 1,065 | 23.6 |
| 35-39 | 1.2 | 10.7 | 25.6 | 40.3 | 60.1 | 7.7 | 1,105 | 23.3 |
| 40-44 | 0.8 | 10.8 | 24.6 | 43.3 | 65.3 | 6.3 | 1,025 | 22.6 |
| 45-49 | 0.9 | 11.1 | 27.5 | 44.9 | 67.7 | 8.4 | 918 | 22.5 |
| 20-49 | 0.7 | 8.7 | 22.6 | na | na | 23.8 | 6,183 | a |
| 25-49 | 0.8 | 9.4 | 23.6 | 40.2 | 60.1 | 14.7 | 5,148 | 23.3 |
| na $=$ Not applicable due to censoring <br> $a=$ Omitted because less than $50 \%$ of women had a birth before reaching the beginning of the age group |  |  |  |  |  |  |  |  |

## Table 5.11 Median age at first birth

Median age at first birth among women age 20-49 and age 25-49 years, according to background characteristics, Turkey DHS 2018

| Background characteristic | Age |  |  |  |  | Women age 25-49 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 |  |
| Residence |  |  |  |  |  |  |
| Urban | a | 24.1 | 23.9 | 22.8 | 22.7 | 23.7 |
| Rural | 22.5 | 21.6 | 21.6 | 21.9 | 22.0 | 21.8 |
| Region |  |  |  |  |  |  |
| West | a | 24.7 | 24.1 | 22.9 | 22.8 | 24.0 |
| South | 23.4 | 22.6 | 22.8 | 22.9 | 23.2 | 23.0 |
| Central | 24.7 | 22.7 | 23.0 | 22.1 | 22.3 | 22.7 |
| North | a | 24.1 | 22.0 | 22.6 | 22.1 | 23.2 |
| East | 24.4 | 22.3 | 22.3 | 21.9 | 21.1 | 22.5 |
| NUTS 1 Region |  |  |  |  |  |  |
| Istanbul | a | 24.8 | 25.0 | 22.9 | 22.7 | 24.4 |
| West Marmara | 24.3 | 23.6 | 22.6 | 22.7 | 21.9 | 22.9 |
| Aegean | a | a | 23.2 | 23.3 | 23.3 | 24.1 |
| East Marmara | 24.3 | 23.8 | 22.8 | 22.7 | 22.7 | 23.3 |
| West Anatolia | 24.9 | 22.8 | 24.2 | 23.3 | 22.6 | 23.3 |
| Mediterranean | 23.4 | 22.6 | 22.8 | 22.9 | 23.2 | 23.0 |
| Central Anatolia | 23.2 | 21.7 | 21.1 | 21.6 | 21.3 | 21.6 |
| West Black Sea | a | 23.9 | 22.4 | 21.5 | 21.6 | 22.7 |
| East Black Sea | a | 24.0 | 22.1 | 21.9 | 22.8 | 22.8 |
| Northeast Anatolia | 22.4 | 21.6 | 21.6 | 20.7 | 22.3 | 21.7 |
| Central East Anatolia | 24.4 | 21.8 | 23.4 | 22.2 | 20.7 | 22.5 |
| Southeast Anatolia | 24.6 | 22.6 | 22.0 | 22.0 | 20.9 | 22.6 |
| Education |  |  |  |  |  |  |
| No educ. / prim. incomp. | 20.7 | 21.0 | 20.9 | 20.8 | 20.2 | 20.7 |
| Complete primary | 20.5 | 21.2 | 21.9 | 21.6 | 22.1 | 21.6 |
| Complete secondary | 21.3 | 21.9 | 22.2 | 22.3 | 22.8 | 21.8 |
| Complete high school / higher | a | 27.3 | 27.5 | 27.4 | 26.4 | a |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | 21.1 | 21.5 | 21.7 | 21.9 | 22.0 | 21.6 |
| Second | 23.2 | 21.5 | 21.4 | 21.5 | 22.3 | 21.9 |
| Middle | 24.8 | 23.5 | 23.1 | 22.5 | 22.3 | 23.2 |
| Fourth | a | 24.8 | 24.2 | 22.2 | 22.2 | 23.5 |
| Highest | a | a | a | 24.9 | 23.3 | a |
| Total | 25.0 | 23.6 | 23.3 | 22.6 | 22.5 | 23.3 |

$\mathrm{a}=$ Omitted because less than $50 \%$ of the women had a birth before reaching the beginning of the age group

## Table 5.12 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, according to background characteristics, Turkey DHS 2018

| Background characteristic | Percentage of women age 15-19 who: |  | Percentage who have begun childbearing | Number of women |
| :---: | :---: | :---: | :---: | :---: |
|  | Have had a live birth | Are pregnant with first child |  |  |
| Age |  |  |  |  |
| 15-17 | 1.1 | 0.3 | 1.3 | 697 |
| 15 | 0.6 | 0.0 | 0.6 | 202 |
| 16 | 0.4 | 0.8 | 1.2 | 226 |
| 17 | 2.0 | 0.0 | 2.0 | 270 |
| 18 | 3.8 | 0.5 | 4.3 | 247 |
| 19 | 7.4 | 2.3 | 9.7 | 220 |
| Residence |  |  |  |  |
| Urban | 2.8 | 0.7 | 3.5 | 881 |
| Rural | 2.9 | 0.6 | 3.6 | 283 |
| Region |  |  |  |  |
| West | 2.3 | 0.1 | 2.4 | 457 |
| South | 6.6 | 0.0 | 6.6 | 143 |
| Central | 2.5 | 1.0 | 3.5 | 248 |
| North | 0.6 | 2.0 | 2.6 | 56 |
| East | 2.5 | 1.5 | 4.0 | 260 |
| NUTS 1 Region |  |  |  |  |
| Istanbul | 2.9 | 0.0 | 2.9 | 245 |
| West Marmara | 2.1 | 1.1 | 3.2 | 43 |
| Aegean | 1.4 | 0.0 | 1.4 | 112 |
| East Marmara | 3.5 | 0.0 | 3.5 | 90 |
| West Anatolia | 0.0 | 1.0 | 1.0 | 132 |
| Mediterranean | 6.6 | 0.0 | 6.6 | 143 |
| Central Anatolia | 4.6 | 2.2 | 6.8 | 55 |
| West Black Sea | 3.1 | 1.0 | 4.1 | 53 |
| East Black Sea | 1.1 | 2.1 | 3.3 | 29 |
| Northeast Anatolia | 3.6 | 0.9 | 4.5 | 36 |
| Central East Anatolia | 1.5 | 0.0 | 1.5 | 65 |
| Southeast Anatolia | 2.6 | 2.3 | 4.9 | 159 |
| Education |  |  |  |  |
| No educ / prim. incomp. | * | * | * | 15 |
| Complete primary | 18.3 | 1.6 | 19.9 | 55 |
| Complete secondary | 2.9 | 0.9 | 3.7 | 541 |
| Complete high school / higher | 0.8 | 0.3 | 1.1 | 552 |
| Wealth quintile |  |  |  |  |
| Lowest | 7.0 | 1.5 | 8.5 | 242 |
| Second | 3.8 | 0.2 | 4.0 | 245 |
| Middle | 1.6 | 1.6 | 3.1 | 230 |
| Fourth | 0.4 | 0.0 | 0.4 | 239 |
| Highest | 1.1 | 0.2 | 1.3 | 207 |
| Total | 2.8 | 0.7 | 3.5 | 1,163 |

Table 5.13 Sexual and reproductive health behaviors before age 15
Among women age 15-19, percentage who were married, and had a live birth before age 15, Turkey DHS 2018

|  | Married before <br> age 15 | Gave birth <br> before age 15 | Number |
| :--- | :---: | :---: | :---: |
|  |  |  |  |
| Total 15-19 | 1.1 | 0.2 | 1,163 |

## Key Findings

- Desire for another child: Overall, 13\% of currently married women age 15-49 want to have another child soon, $14 \%$ want to wait at least 2 years, and $63 \%$ want no more children or are sterilized.
- Limiting childbearing: The desire to limit childbearing rises with increasing number of living children, from 3\% among married women with no living children to above $80 \%$ among women with three or more living children.
- Ideal family size: On average, women want 2.8 children, while currently married women age 15-49 want 3.0 children.
- Unwanted births: 75\% of births/current pregnancies in the 5 years before the survey were wanted at the time of conception, $11 \%$ were mistimed, and $15 \%$ were unwanted.

Information on future reproductive preferences is of considerable importance for refining and modifying current family planning policies. Insight into fertility preferences allows for an assessment of the potential unmet need for contraception. This chapter presents information on whether and when married women want more children, ideal family size, whether the last birth was wanted, and the theoretical fertility rate if all unwanted births were prevented in Turkey.

### 6.1 Desire for Another Child

## 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

Table 6.1 shows the percent distribution of currently married women by desire for more children according to the number of living children (including any current pregnancy). The results indicate that the majority of currently married women in Turkey desire to control their future fertility. Sixty-three percent of currently married want to limit child-bearing: $53 \%$ want no more children, and an additional $10 \%$ have been sterilized (Figure 6.1). Although 28\% of currently married women want to have a child at some time in the future, $14 \%$ of them want to wait at least 2 years for another child. The proportion of currently married women who are undecided about having another child is only $4 \%$.

Figure 6.1 Fertility preferences
Fertility preferences of currently married women age 15-49


Note: Figures may not add up to $100 \%$ due to rounding.

Figure 6.2 Desire to limit childbearing by number of living children
Percentage of currently married women age 15-49 who want no more children


As expected, the desire for more children declines noticeably as the number of living children increases. Sixty-four percent of currently married women with one child want to have a child in the future, whereas only $6 \%$ of women with four or more children want to have another. A strong desire to stop childbearing is evident among women who have had 2 living children and remains at high levels at higher order parities (Figure 6.2).

Trends: The percentage of currently married women who want no more children decreased between the 2008 and 2013 TDHS surveys among women with 2,3 , and 4 or more living children. However, between the 2013 and 2018 surveys, the percentage of women who want no more children increased substantially among women with 2 and 2 living children. Among the remaining women, it remained largely unchanged. The proportion of women who want no more children regardless of number of children has increased slightly from $57 \%$ in 2013 TDHS to $63 \%$ in 2018 TDHS (Figure 6.3).

Figure 6.3 Trends in desire to limit childbearing by number of living children
The percentage of currently married women who want no more children

## Patterns by background characteristics

- The desire to limit childbearing rises with number of living children, from $3 \%$ among married women with no living children to $69 \%$ among women with 2 children, to above $80 \%$ among women with 3 or more living children (Table 6.2 and Figure 6.2).
- As expected, the desire to limit childbearing increases rapidly with the number of living children across all subgroups. Overall, roughly similar proportions of women want to stop childbearing in urban and rural areas ( $62 \%$ and $65 \%$, respectively). Across regions there is also little deviation, desire to stop childbearing is most prevalent in Central (68\%) and the least prevalent in East (57\%).
- Education is known to be negatively associated with the desire to stop childbearing, largely because bettereducated women tend to be younger and still in the early stages of the family-building process. The 2018 TDHS results conform to this pattern, with the proportion of women who desire to stop childbearing decreasing as the level of education increases. Thus, $74 \%$ of currently married women having primary school education want to stop childbearing, compared with $52 \%$ of those who have completed secondary school or higher. A similar pattern was observed in the 2008 TDHS and 2013 TDHS.
- Overall, the desire to limit childbearing remains similar among wealth status. However, there is a notable difference for women with 1 or 2 children by increase of wealth. Among women with one child, $21 \%$ of women in the lowest wealth quintile want to limit childbearing compared with $35 \%$ of women in the highest wealth quintile. For women with 2 children, $50 \%$ of women in the lowest wealth quintile want to limit childbearing, compared with $79 \%$ of those who are in the highest wealth quintile.


### 6.2 Ideal Family Size

## Ideal family size

Respondents with no children were asked, "If you could choose exactly the number of children to have in your whole life, how many would that be?" Respondents who had children were asked: "If you could go back to the time when you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?"
Sample: Women age 15-49

The 2018 TDHS attempted to obtain a measure of fertility preferences that is less dependent on the woman's current family size by asking about respondent's ideal number of children. In ascertaining the total ideal number of children, the respondent was required to abstractly consider, independent of her actual family size, the number of children she would choose if she could start the family building process over again.

There is usually a close association between the actual and ideal number of children. The reason is twofold. First, to the extent that women implement their preferences, those who want larger families tend to achieve larger families. Second, women may adjust their ideal family size so that as the actual number of children increases, their ideal family size also increases. It is also possible that women with large families, being on average older than those with small families, may prefer a larger ideal family size because of attitudes they acquired 20 or 30 years ago. Despite the likelihood that some rationalization occurs in the determination of ideal number of children, respondents often state ideals that are lower than their actual number of surviving children.

Table 6.3 shows the distribution of all women by their ideal number of children and mean ideal number of children according to actual number of living children. Except for women with no children or 1 child, there is a positive relationship between the actual and ideal number of children. Thirty-eight percent of the respondents stated 2 children as the ideal number, while only $25 \%$ of women consider 4 or more children as ideal.

Among all women and currently married women, the mean ideal family size is 2.8 and 3.0 children respectively. Currently married women with 4 or more children have a mean ideal family size of 3.8 children, compared with 2.5 children for those women with 1 child. Among those with no children, 1 child or 2 children, ideal number of children is almost the same (Figure 6.4).

Trends: The mean ideal family size among currently married women has increased slightly compared with the previous TDHS surveys ( 2.4 in 1993 TDHS, 2.5 in 1998 TDHS, 2003 TDHS, and 2008 TDHS, 2.9 in 2013 TDHS, and 3.0 in 2018 TDHS).

Figure 6.4 Ideal family size by number of living children
Mean ideal number of children for currently married women age 15-49



## Patterns by background characteristics

- After age 20, there is little variation across ages regarding the ideal number of children. However, women age 15-19 want far fewer (2.3) children than women age 20-24 (2.8).
- There is little difference by residence, with the ideal family size only slightly higher in rural (3.0) than urban (2.7) areas.
- Large differences are observed across regions. The mean ideal number of children is lowest in North (2.5 children) and highest in the East ( 3.4 children). Among the NUTS 1 regions, ideal number of children is lowest in West Marmara (2.4) and highest in Southeast Anatolia (3.6).
- The mean ideal number of children decreases with rising education. The difference between women with less than primary education and those who have high school or higher education is one child.
- Mean ideal family size generally decreases with increasing wealth, women in the two highest wealth quintiles have a lower mean ideal family size than women in the lowest two quintiles.


### 6.3 Fertility Planning Status

## Planning status of births/pregnancies <br> Women reported whether their births/pregnancies were wanted at the time (planned birth), at a later time (mistimed birth), or not at all (unwanted birth). <br> Sample: Current pregnancies and births in the 5 years before the survey to women age 15-49

Table 6.5 shows the percent distribution of births in the 5 years preceding the survey and current pregnancies by whether the birth (pregnancy) was wanted by the mother then, wanted later, or not wanted at all, according to birth order and age of mother at birth. Overall, $75 \%$ of births in the 5 -year period preceding the survey were planned, $11 \%$ were mistimed, and $15 \%$ were unwanted (Figure 6.5).

Trends: The proportion of women age 15-49 who have unwanted births has decreased over time, from 20\% in 1993 to $15 \%$ in 2018 despite the slight increase between 2013 TDHS and 2018 TDHSs. Correspondingly, the proportion of births wanted at the time of conception has increased from $68 \%$ to $75 \%$.

## Patterns by background characteristics

 order, ranging from $2 \%$ of first births to $42 \%$ of fourth and higher births. On the other hand, the proportion of mistimed births first increases from $8 \%$ of first births to $13 \%$ of second order births, before declining back to $8 \%$ of births of order 4 and higher.- As the mother's age increases, the percentage of children that are unwanted also increases. Only 5\% of births to women under age 20 are unwanted, compared with $53 \%$ of births to women age 40 and over. The percentage of mistimed births is highest among women under age 20 and drops off among women age 35 and older.


### 6.4 Wanted Fertility Rates

## Unwanted birth

Any birth in excess of the number of children a woman reported as her ideal number.

## Wanted birth

Any birth fewer than or equal to the number of children a woman reported as her ideal number.

Wanted 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 agespecific fertility rates, excluding unwanted births.
Sample: Women age 15-49

Another approach to measuring the extent of unwanted fertility is to compare the total wanted fertility rate (TWFR) with the total fertility rate (TFR). A birth is considered wanted if the number of living children at the time of conception was less than the ideal number of children reported at the time of the survey.

Table 6.6 shows that, the total wanted fertility rate for Turkey is 2.0 children, which is $13 \%$ less than the actual total fertility rate of 2.3 children. In other words, if all unwanted births were prevented, the TFR would be 0.3 children less than the observed level.

Trends: Both the wanted fertility rate and the total fertility rate increased in Turkey from 2008 to 2018 (Figure 6.6). The difference between the rates was smaller in 2018 TDHS than in the previous two TDHS.

Figure 6.6 Trends in wanted and actual fertility
Wanted and actual number of children per woman


## Patterns by background characteristics

- Total wanted fertility is higher in rural areas ( 2.3 children) than in urban areas ( 2.0 children) (Table 6.6). The gap between wanted and total fertility is in rural areas ( 0.5 children) is higher than in urban areas ( 0.2 children).
- By region, the largest gap is found in East ( 0.6 children) and the smallest in West and North ( 0.2 children).
- The difference between wanted and actual fertility is considerably smaller among women with high school or higher education ( 0.1 children) than among women in the other education groups ( $0.3-0.8$ children).
- The gap between actual and wanted fertility rates is highest among women in the lowest wealth quintile.


## List of Tables

For more information on fertility preferences, see the following tables:

- Table 6.1 Fertility preferences by number of living children
- Table 6.2 Desire to limit childbearing
- Table 6.3 Ideal number of children by number of living children
- Table 6.4 Mean ideal number of children
- Table 6.5 Fertility planning status
- Table 6.6 Wanted fertility rates


## Table 6.1 Fertility preferences by number of living children

Percent distribution of currently married women age 15-49 by desire for children, according to number of living children, Turkey DHS 2018

|  | Number of living children ${ }^{1}$ |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Desire for children | 0 | 1 | 2 | 3 | $4+$ |  |
| of womer |  |  |  |  |  |  |

[^10]
## Table 6.2 Desire to limit childbearing

Percentage of currently married women age 15-49 who want no more children, by number of living children, according to background characteristics, Turkey DHS 2018

| Background characteristic | Number of living children ${ }^{1}$ |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 3 | 4+ |  |
| Residence |  |  |  |  |  |  |
| Urban | 3.8 | 27.0 | 70.3 | 83.8 | 87.7 | 62.2 |
| Rural | 0.7 | 24.2 | 63.6 | 79.7 | 86.5 | 65.4 |
| Region |  |  |  |  |  |  |
| West | 4.4 | 33.2 | 74.8 | 86.7 | 87.9 | 63.9 |
| South | (3.0) | 10.0 | 55.3 | 79.4 | 83.3 | 57.5 |
| Central | 2.3 | 25.5 | 72.6 | 91.2 | 96.2 | 67.9 |
| North | (10.6) | 25.2 | 75.1 | 90.3 | 95.2 | 66.7 |
| East | 0.0 | 6.7 | 46.2 | 62.7 | 84.4 | 57.1 |
| NUTS 1 Region |  |  |  |  |  |  |
| Istanbul | * | 28.3 | 75.4 | 92.4 | (90.3) | 65.7 |
| West Marmara | (9.2) | 45.8 | 80.8 | 94.0 | * | 69.2 |
| Aegean | * | 37.9 | 76.2 | 84.5 | (82.0) | 62.5 |
| East Marmara | * | 29.1 | 70.5 | 77.9 | (93.2) | 61.2 |
| West Anatolia | (3.4) | 27.5 | 72.2 | 90.9 | (97.0) | 65.4 |
| Mediterranean | (3.0) | 10.0 | 55.3 | 79.4 | 83.3 | 57.5 |
| Central Anatolia |  | (17.2) | 68.5 | 91.1 | 94.5 | 71.2 |
| West Black Sea |  | 25.1 | 78.4 | 90.0 | 94.5 | 70.8 |
| East Black Sea | * | 19.1 | 67.2 | 88.6 | (97.2) | 62.0 |
| Northeast Anatolia | * | (16.4) | 45.4 | 68.8 | 90.8 | 60.3 |
| Central East Anatolia | (0.0) | (11.2) | 56.8 | 62.8 | 81.2 | 57.2 |
| Southeast Anatolia | (0.0) | 1.8 | 39.6 | 61.2 | 84.4 | 56.3 |
| Education |  |  |  |  |  |  |
| No educ. / prim. incomp. | (0.0) | (23.5) | 60.1 | 70.8 | 84.0 | 69.9 |
| Complete primary | 1.8 | 34.0 | 71.1 | 85.5 | 89.5 | 73.7 |
| Complete secondary | 2.6 | 15.2 | 60.5 | 80.1 | 81.8 | 51.8 |
| Complete high school / higher | 4.5 | 28.2 | 73.1 | 85.9 | (95.4) | 52.4 |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | (1.1) | 21.3 | 49.8 | 69.7 | 83.5 | 62.2 |
| Second | (0.0) | 12.4 | 58.1 | 82.8 | 87.8 | 62.2 |
| Middle | 5.1 | 22.1 | 68.9 | 84.9 | 85.6 | 62.7 |
| Fourth | 1.3 | 28.0 | 73.9 | 84.3 | 93.6 | 64.4 |
| Highest | 6.1 | 35.1 | 79.0 | 92.6 | (100.0) | 62.8 |
| Total | 3.3 | 26.5 | 69.0 | 82.7 | 87.3 | 62.9 |

Note: Women who have been sterilized are considered to want no more children. 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.
${ }^{1}$ The number of living children includes the current pregnancy

## Table 6.3 Ideal number of children by number of living children

Percent distribution of women age 15-49 by ideal number of children, and mean ideal number of children for all respondents and for currently married respondents, according to the number of living children, Turkey DHS 2018

| Ideal number of children | Number of living children ${ }^{1}$ |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | 1 | 2 | 3 | 4+ |  |
| 0 | 5.5 | 2.3 | 1.6 | 1.9 | 3.1 | 3.3 |
| 1 | 10.0 | 9.5 | 3.0 | 3.3 | 1.9 | 6.3 |
| 2 | 45.8 | 47.4 | 42.3 | 18.6 | 19.3 | 38.1 |
| 3 | 22.4 | 26.4 | 29.0 | 38.2 | 12.2 | 26.0 |
| 4 | 10.2 | 10.9 | 20.6 | 28.4 | 39.3 | 18.8 |
| 5 | 3.1 | 2.2 | 2.6 | 5.9 | 10.4 | 4.0 |
| 6+ | 1.5 | 1.2 | 0.6 | 3.5 | 12.6 | 2.7 |
| Non-numeric responses | 1.5 | 0.0 | 0.3 | 0.3 | 1.1 | 0.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number | 2,532 | 1,040 | 1,860 | 1,149 | 764 | 7,346 |
| Mean ideal number of children for: ${ }^{2}$ |  |  |  |  |  |  |
| All | 2.4 | 2.5 | 2.8 | 3.2 | 3.8 | 2.8 |
| Number | 2,495 | 1,040 | 1,853 | 1,146 | 755 | 7,290 |
| Currently married | 2.6 | 2.5 | 2.8 | 3.2 | 3.8 | 3.0 |
| Number of currently married | 266 | 942 | 1,755 | 1,109 | 721 | 4,793 |

[^11]
## Table 6.4 Mean ideal number of children

Mean ideal number of children for all women age $15-49$, according to background characteristics, Turkey DHS 2018

| Background characteristic | Mean | Number of women |
| :---: | :---: | :---: |
| Age |  |  |
| 15-19 | 2.3 | 1,148 |
| 20-24 | 2.8 | 1,028 |
| 25-29 | 2.8 | 1,031 |
| 30-34 | 2.8 | 1,061 |
| 35-39 | 2.8 | 1,099 |
| 40-44 | 3.0 | 1,014 |
| 45-49 | 3.1 | 909 |
| Residence |  |  |
| Urban | 2.7 | 5,705 |
| Rural | 3.0 | 1,584 |
| Region |  |  |
| West | 2.6 | 3,190 |
| South | 3.0 | 899 |
| Central | 2.6 | 1,515 |
| North | 2.5 | 397 |
| East | 3.4 | 1,288 |
| NUTS 1 Region |  |  |
| Istanbul | 2.6 | 1,544 |
| West Marmara | 2.4 | 298 |
| Aegean | 2.5 | 875 |
| East Marmara | 2.7 | 718 |
| West Anatolia | 2.6 | 775 |
| Mediterranean | 3.0 | 899 |
| Central Anatolia | 2.8 | 344 |
| West Black Sea | 2.5 | 382 |
| East Black Sea | 2.5 | 167 |
| Northeast Anatolia | 2.9 | 171 |
| Central East Anatolia | 3.1 | 352 |
| Southeast Anatolia | 3.6 | 765 |
| Education |  |  |
| No educ. / prim. incomp. | 3.5 | 665 |
| Complete primary | 3.1 | 2,125 |
| Complete secondary | 2.6 | 1,485 |
| Complete high school / higher | 2.5 | 3,016 |
| Wealth quintile |  |  |
| Lowest | 3.2 | 1,133 |
| Second | 3.0 | 1,383 |
| Middle | 2.8 | 1,519 |
| Fourth | 2.7 | 1,643 |
| Highest | 2.5 | 1,612 |
| Total | 2.8 | 7,290 |

${ }^{1}$ Number of women who gave a numeric response

## Table 6.5 Fertility planning status

Percent distribution of births to women age 15-49 in the 5 years preceding the survey (including current pregnancies), by planning status of the birth, according to birth order and mother's age at birth, Turkey DHS 2018

| Birth order and mother's age at birth | Planning status of birth |  |  | Total | Number of births |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Wanted then | Wanted later | Wanted no more |  |  |
| Birth order |  |  |  |  |  |
| 1 | 90.4 | 8.0 | 1.6 | 100.0 | 928 |
| 2 | 78.3 | 13.4 | 8.3 | 100.0 | 904 |
| 3 | 62.1 | 12.2 | 25.8 | 100.0 | 575 |
| 4+ | 49.2 | 8.4 | 42.4 | 100.0 | 431 |
| Mother's age at birth |  |  |  |  |  |
| <20 | 79.6 | 15.0 | 5.4 | 100.0 | 200 |
| 20-24 | 79.4 | 12.0 | 8.6 | 100.0 | 730 |
| 25-29 | 75.3 | 12.4 | 12.3 | 100.0 | 846 |
| 30-34 | 73.1 | 10.0 | 16.9 | 100.0 | 665 |
| 35-39 | 66.3 | 3.7 | 30.0 | 100.0 | 341 |
| 40-44 | 47.4 | 0.0 | 52.6 | 100.0 | 54 |
| 45-49 | * | * | * | * | 2 |
| Total | 74.6 | 10.6 | 14.8 | 100.0 | 2,838 |

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

## Table 6.6 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the 3 years preceding the survey, according to background characteristics, Turkey DHS 2018

| Background characteristic | Total wanted fertility rates | Total fertility rate |
| :--- | :--- | :---: |
| Residence |  |  |
| Urban |  |  |
| Rural | 2.0 | 2.2 |
| Region | 2.3 | 2.8 |
| West |  |  |
| South | 1.8 | 2.0 |
| Central | 2.5 | 2.8 |
| North | 1.8 | 2.1 |
| East | 2.6 | 1.6 |
| Education |  | 3.2 |
| No educ. / prim. incomp. | 3.4 |  |
| Complete primary | 3.2 | 4.2 |
| Complete secondary | 2.5 | 3.6 |
| Complete high school / higher | 1.7 | 2.8 |
| Wealth quintile |  | 1.8 |
| Lowest | 2.5 |  |
| Second | 2.2 | 3.3 |
| Middle | 2.0 | 2.6 |
| Fourth | 1.7 | 2.2 |
| Highest | 1.7 | 1.9 |
| Total | 2.0 | 1.9 |

Note: Rates are calculated based on births to women age 15-49 in the period 1-36 months preceding the survey. The total fertility rates are the same as those presented in Table 5.2.

- Contraceptive knowledge: Knowledge of at least one family planning method is almost universal among all women and currently married women. Results show that $97 \%$ of all women and $99 \%$ of currently married women have heard of a modern family planning method.
- Contraceptive use: Overall, $70 \%$ of currently married women use a method of family planning. The most commonly used method is the withdrawal (20\%), followed by male condom (19\%), the IUD (14\%), and the sterilization (10\%).
- Trends in current use: Contraceptive use among currently married women declined from $74 \%$ to $70 \%$ between the two most recent demographic and health surveys. The decline was mainly due to decreases in use of the withdrawal (from $26 \%$ to $20 \%$ ) and the IUD (from $17 \%$ to $14 \%$ ). The use of modern method increased from $47 \%$ to $49 \%$ in the same period mainly due to an increase in male condom use from $16 \%$ to $19 \%$.
- Future use of contraception: $38 \%$ of currently married women who are not using contraception intend to use family planning at some future time. On the other hand, $58 \%$ do not intend to use contraceptives in the future.
- Sources of modern methods: Public sector providers are generally preferred source for modern contraceptives. Of the modern method users, $52 \%$ named a public sector provider as the source of their method, $36 \%$ mentioned a private sector source, and the remaining $13 \%$ reported using other sources, such as markets/shops.
- Contraceptive discontinuation: More than one-fourth of contraceptive users stop using a contraceptive method within 12 months of starting use ( $28 \%$ ). The most common reason for discontinuations was the desire to become pregnant ( $38 \%$ ), followed by method failure (19\%).
- Unmet need for family planning: 12\% of currently married women have an unmet need for family planning, which means, they want to space or limit births but are not currently using contraception.
- Demand for family planning: 60\% of the total demand for family planning is satisfied by modern methods.

Couples can use contraceptive methods to limit or space the number of children they have. This chapter presents information on the knowledge, use, and sources of contraceptive methods and rates and reasons for discontinuing contraceptives in Turkey. It also examines the need for family planning and the demand for family planning that is satisfied. In addition, it provides information on decision-making about family planning, timing of sterilization, and future use of contraception.

The use of family planning helps women avoid unintended and untimely pregnancies, and reduces risks of unsafe abortions. Contraceptives help women space the births of their children, which directly benefits the health of the mother and infants.

### 7.1 Contraceptive Knowledge

Knowledge of contraceptive methods is prevalent in Turkey, with virtually all ( $99.5 \%$ ) currently married women knowing at least one method of contraception. On average, women have heard of 8 methods (Table 7.1). The most commonly known method among currently married women is the pill ( $97 \%$ ), followed by the IUD (94\%), female sterilization (93\%) and male condom (92\%). Knowledge of male sterilization (37\%), implants ( $36 \%$ ), female condom ( $20 \%$ ) diaphragm/foam/jelly ( $24 \%$ ) and vaginal ring ( $9 \%$ ) are relatively poor among currently married women.

Although withdrawal is the most commonly used method in Turkey, $70 \%$ of all women and $86 \%$ of currently married women declared that they heard this method.

For more information on contraceptive knowledge by method, see Table 7.1. Knowledge of contraceptive methods does not vary by background characteristics among women. For information about differentials in knowledge of any method and any modern method by background characteristics, see Table 7.2.

### 7.2 Ever Use of Contraceptive Methods

Overall, 90 percent of currently married women and $63 \%$ of all women have used a family planning method at some time (Table 7.3). When comparing all women with currently married women, results show that ever use of modern methods ( $77 \%$ ) and traditional methods ( $60 \%$ ) are higher among currently married women than all women ( $55 \%$ and $42 \%$ respectively). The methods most commonly ever used by currently married women are withdrawal ( $58 \%$ ), male condom ( $49 \%$ ), IUD ( $35 \%$ ) and the pill ( $30 \%$ ). A similar pattern is evident for all women, however, the percentages are generally lower for all women.

Regarding age groups, results indicate a positive relationship between age and ever use of contraceptive method for both all women and currently married women. As expected, contraceptive use increases with increasing age for both all women and currently married women.

### 7.3 Current Use of Contraceptive Methods

## Contraceptive prevalence rate

Percentage of women who use any contraceptive method
Sample: All women age 15-49, and currently married women age 15-49

Overall, the rate of contraceptive prevalence of currently married women age $15-49$ is $70 \%$, with $49 \%$ using modern contraceptive methods and $21 \%$ using traditional methods. Use of a family planning method rises with increasing age of currently married women (Table 7.4). The use of family planning methods among younger women (age 15-19 and age 20-24) is low ( $36 \%$ and $53 \%$, respectively) (Table 7.4).

## Modern methods

Include male and female sterilization, injectables, intrauterine devices (IUDs), contraceptive pills, implants, female and male condoms, lactational amenorrhea method, and emergency contraception

Among currently married women, withdrawal is the most commonly used method ( $20 \%$ ), followed by male condom (19\%) and the IUD (14\%) (Figure 7.1).

Trends: Table 7.5 and Figure 7.2 present trends in the use of contraceptive methods for the last 30 years. There was little variation in contraceptive use in the $10-$ year period from 1988 to 1998, then after 1998, contraceptive use increased substantially, reaching $74 \%$ in 2013. However, the percentage of currently married women age 15-49 currently using any contraceptive method decreased from $74 \%$ in 2013 to $70 \%$ in 2018 (Table 7.5). Use of modern contraceptives has risen continuously over the past 30 -year period, from $31 \%$ in 1988 to $49 \%$ in 2018. In line with the increase in the use of modern methods, an overall decline has been observed in traditional methods from $32 \%$ in 1988 to $21 \%$ in 2018. Since the decrease in the use of traditional methods cannot be compensated by the limited increase in the use of modern methods, the percentage of non-use of contraception has increased from $27 \%$ in 2013 to $30 \%$ in 2018 in Turkey.

Figure 7.2 Trends in contraceptive use
Percentage of currently married women currently using a contraceptive method


With regards to individual methods, the most notable declines between the two most recent surveys were in the use of withdrawal. Although withdrawal continues to be used nearly at the same level, around $24-26 \%$ during
the 1988-2013 period, for the first time in the last 30-year period, use of withdrawal declined from $26 \%$ in 2013 to $20 \%$ in 2018. Together with the use of withdrawal, the use of IUD has also decreased from $20 \%$ in 2003 to $14 \%$ in 2018. The percentages of women using the pill did not change between 2013 and 2018. In the same period, only the use of two methods has increased in Turkey, namely female sterilization (from 9\% to $10 \%$ ) and male condom (from 16\% to 19\%) (Figure 7.2).

## Patterns by background characteristics

- Modern contraceptive use increases as number of living children increases, with $57 \%$ of currently married women with 5 or more children using a modern method compared to $16 \%$ for women with no living children.
- Urban women more commonly use modern methods than rural women( $50 \%$ versus $45 \%$ ). This difference is mainly the result of higher male condom use in urban than rural areas ( $21 \%$ versus $14 \%$ ). Use of traditional methods is higher in rural areas than in urban areas, mainly due to the greater use of withdrawal ( $26 \%$ among rural women versus $19 \%$ among urban women).
- Modern contraceptive use varies considerably by region, from $40 \%$ in Central East Anatolia to $55 \%$ in Central Anatolia.
- Modern contraceptive use is the lowest among women who never attended school or did not complete primary school ( $40 \%$ ) and then rises, although not uniformly, to $52 \%$ among women with high school or higher education. Use of traditional methods shows significant differences among women with high school or higher education (19\%) compared to the women with lower levels of education (around $22 \%$ ).
- Women in the lowest wealth quintile (39\%) and second quintile ( $46 \%$ ) have lower modern contraceptive use than women in the highest wealth quintile (58\%) (Table 7.6).


### 7.3.1 Timing of Sterilization

Female sterilization method is used by $10 \%$ of currently married women in Turkey (Table 7.6). Women using the method were mainly in the 30-34 age group (41\%) at the time they were sterilized (Table 7.7). The median age at sterilization is found to be 32.8 .

### 7.3.2 Knowledge of the Fertile Period

The survey collected data on women's knowledge of the fertile period. Table 7.8 shows that more than onefourth of women ( $27 \%$ ) correctly report that a woman is at most risk of pregnancy if she has intercourse halfway between two menstrual periods. Twenty-four percent of women incorrectly believe that a woman is more likely to conceive immediately after her menstrual cycle has ended, $21 \%$ say there is no specific fertile period, and $22 \%$ of women report that they do not know when the fertile period is. Women 15-19 has the lowest correct knowledge of fertile period (18\%) compared to women from older age groups ( $26 \%-32 \%$ )
(Table 7.9).

### 7.4 Source of Modern Contraceptive Methods

## Source of modern contraceptives

The place where the modern method currently being used was obtained the last time it was acquired

Sample: Women age 15-49 currently using a modern contraceptive method

Information on current sources of modern contraceptive methods is critical for planning and program implementation. Fifty-two percent of all modern contraceptive users obtain their methods from the public sector facilities, compared with $56 \%$ in the 2013 TDHS. Public hospitals provide the most services $(22 \%)$ in the public sector. The private sector provides $36 \%$ of users compared with $37 \%$ in the 2013 TDHS. Pharmacies provide the most services ( $22 \%$ ) in the private sector. Other sources, including markets/shops provide contraceptive methods to another 13\% of users
(Table 7.10 and Figure 7.3).

Figure 7.4 Source of selected modern contraceptive methods Percent distribution of current users of modern methods age 15-49 by most recent source of method, according to contraceptive methods


Figure 7.3 Source of modern contraceptive methods
Percent distribution of current users of modern methods age 15-49 by most recent source of method


Note: Figures may not add up to $100 \%$ due to rounding.

The share of other sources shows a significant increase in providing modern contraception to users, their share has increased from 7\% in 2013 TDHS to $11 \%$ in 2018 TDHS. Public sector sources provide the bulk of three methods: female sterilization (66\%), IUDs (75\%), injectables (79\%). The private sector provides more than a half of the pills and $44 \%$ of the male condoms. Markets/shops, on the other hand, provide more than a fourth of the male condoms (Table 7.10 and Figure 7.4).

### 7.5 Discontinuation of Contraceptives

## Contraceptive discontinuation rate

Percentage of contraceptive use episodes discontinued within 12 months
Sample: Episodes of contraceptive use in the 5 years before the survey, experienced by women who are currently age 15-49 (one woman may contribute more than one episode)

Continuity of use affects the success of a particular method of contraception. Improvement in quality of family planning services in Turkey focuses on maintaining continuity of use. An important indicator for measuring the quality of use is the contraceptive discontinuation rate.

Among all contraceptive use episodes in the 5 years before the survey, nearly three out of every 10 episodes ( $28 \%$ ) were discontinued within 12 months. Discontinuation rates for the three most commonly used methods, withdrawal, male condom and the IUD were $31 \%$, $29 \%$ and $12 \%$ respectively (Table 7.11). The most common reason for discontinuation was the desire to become pregnant (38\%), followed by the method failure (19\%), side effects/health concerns (9\%), and the desire for a more effective method (7\%) (Table 7.12). The most common reason for discontinuation of IUDs was the desire to become pregnant ( $29 \%$ ), followed by the side effects/health concerns ( $23 \%$ ). The primary reason women discontinued use of withdrawal was the desire to
become pregnant ( $42 \%$ ), followed by method failure ( $29 \%$ ). For male condoms, the most common reason for discontinuation, once more, was the desire to become pregnant (47\%), followed by method failure ( $17 \%$ ).

Overall, $7 \%$ of currently married women who started contraceptive use in the 5 years preceding the survey switched to another method within 12 months.

### 7.6 Demand for Family Planning

## Unmet need for family planning

Proportion of women who (1) are not pregnant and not postpartum amenorrhoeic 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 amenorrhoeic and their last birth in the last 2 years was mistimed or unwanted.
Sample: Currently married women age 15-49

Demand for family planning:

Proportion of demand satisfied:

## Proportion of demand satisfied by modern methods: by modern methods:

Unmet need for family planning + current contraceptive use (any method)

Current contraceptive use (any method)
Unmet need + current contraceptive use (any method)

Figure 7.5 Demand for family planning Percent distribution of currently married women age 15-49 by need for family planning


Trends: There has been a steady decrease in unmet need for family planning in the period of 19932013. However, unmet need for family planning has increased from $6 \%$ in 2013 to $12 \%$ in 2018 (Figure 7.6). This increase may be attributed to the decrease in the overall use of contraception in the last five years. The increase observed in unmet need has an impact on the decrease in the demand satisfied which decreased from 93\% in 2013 TDHS to $86 \%$ in 2018 TDHS.

The total demand for family planning among currently married women age $15-49$ is $81 \% ; 22 \%$ of women want to space births, and $60 \%$ want to limit births (Table 7.13 and Figure 7.5). Seventy percent of married women are already using a contraceptive method either to space (18\%) or to limit (52\%) births; that is, their family planning need is met. An additional $12 \%$ have an unmet need for family planning ( $4 \%$ for spacing and $8 \%$ for limiting) but are not using contraception. Overall, $60 \%$ of the demand for family planning is satisfied through use of modern methods.

Figure 7.6 Trends in unmet need for family planning
Percent of currently married women age 15-49 with unmet need for family planning by years using the


## Patterns by background characteristics

- The proportion of married women with an unmet need for spacing births is highest among those age 20-24 ( $12 \%$ ) compared to less than $5 \%$ for women $35-49$, while unmet need for limiting births is highest among women age 45-49 (13\%) compared to 3\% for women 25-29 (Table 7.13).
- Women living in urban areas and women living in the rural areas have almost equal level of unmet need for family planning at around $12 \%$.
- Unmet need for family planning varies widely by regions, ranging from a high of $16 \%$ in Northeast Anatolia and $14 \%$ in Istanbul, West Marmara and Southeast Anatolia to a low of $7-8 \%$ in Central Anatolia and East Marmara regions.
- Unmet need for family planning declines as education increases. Unmet need is $20 \%$ for women with no education or incomplete primary and $9 \%$ for women with higher than secondary education.
- Unmet need decreases from 18\% among women living in the households with the lowest wealth quintile to $8 \%$ among women living in the households with the highest wealth quintile.


### 7.6.1 Decision Making about Family Planning

Table 7.14 provides information on family planning decision making among current users and nonusers. Seventy-five percent of users report that the decision to use a method was made jointly with their husband, $22 \%$ stated that it is mainly made by themselves, and only $2 \%$ said that the decision is mainly made by their husbands. The same pattern is observed for those who are not using any contraceptive method. Approximately $74 \%$ of the women reported that the decision not to use contraception is made jointly with their husbands, $14 \%$ stated that it is mainly decided by themselves, and $3 \%$ said that it is mainly decided by their husbands. Among users, the highest proportions saying that their husband mainly decided about use of family planning were found among women with 5 or more children (5\%), and among women living in the Central East Anatolia (6\%).

### 7.6.2 Future Use of Contraception

The survey collected information about nonusers' intention to use contraception. Thirty-eight percent of currently married women who were not using a contraceptive method declared that they intended to use contraception in the future. More than half reported that they did not intend to use any in the future ( $58 \%$ ). The proportion of women who reported that they did not intend to use a contraceptive method was highest among those with four or more living children and women without children ( $62 \%$ each). Women with one living child showed the highest level of intention to use contraception at some future time (43\%) (Table 7.15).

### 7.6.3 Preferred Method of Contraception for Future Use

The 2018 TDHS also obtained information from non-users who intended to use a method in the future on the contraceptive method they would prefer to use. The IUD ( $28 \%$ ) is by far the most popular method among these nonusers, followed by male condom ( $21 \%$ ) and withdrawal ( $16 \%$ ) (Table 7.16). Eleven percent expressed a preference for the pill and $8 \%$ mentioned female sterilization. Method preferences vary somewhat with age; female sterilization, as a long-term method, was more commonly preferred among women age 30-49 than women age 15-29 ( $10 \%$ and $6 \%$ respectively), whereas withdrawal, a short-term method, was more widely preferred by women age 15-29 than 30-49 ( $18 \%$ and $14 \%$, respectively).

### 7.6.4 Exposure to Family Planning Messages in the Media

Table 7.17 offers information on women's exposure to family planning messages in the media. Most of the women $(81 \%)$ declared that they have no exposure to family planning messages in any of the four types of mass media (radio, television, print media, and the Internet). Only $13 \%$ of women reported hearing a family planning message in the past few months on television. Just $7 \%$ of women were exposed to family planning messages from print media such as newspapers, magazines, posters, bulletins, or booklets. Exposure to family planning messages through radio and mobile phone appears to be limited at around (4\%)

## Patterns by background characteristics

- The percentage of women exposed to family planning messages in any of the four types of mass media increased from $14 \%$ at age $15-19$ to $22 \%$ at age $45-49$ (Table 7.17).
- The percentage of women not exposed to family planning messages in any of the four types of mass media was higher in rural areas (84\%) than in urban areas (80\%).
- The percentage of women exposed to family planning messages in any of the four types of mass media was highest in the West ( $21 \%$ ) and lowest in the South region (15\%).
- The percentage of women not exposed to family planning messages decreases with increasing education level, with the highest proportion of $89 \%$ among women with no education and lowest proportion of $75 \%$ among women with high school or higher education.
- Women who are not exposed to family planning messages are most often found in the lowest wealth quintile ( $87 \%$ ), but the percentage declines to $72 \%$ as wealth quintile level increases.


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- Table 7.2 Knowledge of contraceptive methods according to background characteristics
- Table 7.3 Ever use of contraception by age
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- Table 7.14 Decision making about family planning
- Table 7.15 Future use of contraception
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- Table 7.17 Exposure to family planning messages


## Table 7.1 Knowledge of contraceptive methods

Percentage of all women and currently married women age 15-49 who know any contraceptive method, by specific method, Turkey DHS 2018

|  |  | Currently <br> married <br> women |
| :--- | ---: | ---: |
| Method | All women |  |
|  | 97.4 | 99.5 |
| Any method | 97.3 | 99.4 |
| Any modern method | 85.2 | 92.7 |
| Female sterilization | 32.5 | 37.0 |
| Male sterilization | 92.6 | 96.7 |
| Pill | 74.6 | 93.6 |
| IUD | 29.5 | 36.5 |
| Injectables | 83.3 | 91.5 |
| Implants | 20.9 | 20.1 |
| Male condom | 21.6 | 23.7 |
| Female condom | 8.9 | 8.6 |
| Diaphragm/foam/jelly | 45.8 | 48.0 |
| Vaginal ring | 73.2 | 87.7 |
| Emergency contraception | 32.6 | 36.5 |
| Any traditional method | 70.0 | 86.1 |
|  | 2.4 | 2.7 |
| Rhythm |  |  |
| Withdrawal | 6.8 | 7.6 |
| Other traditional method | 7,346 | 4,820 |
| Mean number of methods |  |  |
| known by respondents 15-49 |  |  |
| Number of respondents |  |  |

## Table 7.2 Knowledge of contraceptive methods according to background characteristics

Percentage of currently married women age 15-49 who have heard of at least one contraceptive method and who have heard of at least one modern method by background characteristics, Turkey DHS 2018

| Background characteristic | Heard of any method | Heard of any modern method ${ }^{1}$ | Number |
| :---: | :---: | :---: | :---: |
| Age |  |  |  |
| 15-19 | 96.8 | 96.8 | 56 |
| 20-24 | 98.8 | 98.8 | 411 |
| 25-29 | 99.3 | 99.3 | 737 |
| 30-34 | 100.0 | 99.8 | 923 |
| 35-39 | 99.9 | 99.9 | 1,002 |
| 40-44 | 99.6 | 99.5 | 910 |
| 45-49 | 99.4 | 99.1 | 781 |
| Residence |  |  |  |
| Urban | 99.6 | 99.5 | 3,743 |
| Rural | 99.5 | 99.2 | 1,076 |
| Region |  |  |  |
| West | 99.7 | 99.6 | 2,095 |
| South | 99.3 | 99.3 | 617 |
| Central | 99.4 | 99.1 | 1,028 |
| North | 100.0 | 100.0 | 257 |
| East | 99.4 | 99.4 | 822 |
| NUTS 1 Region |  |  |  |
| Istanbul | 99.8 | 99.8 | 995 |
| West Marmara | 99.0 | 99.0 | 203 |
| Aegean | 99.7 | 99.5 | 589 |
| East Marmara | 100.0 | 99.8 | 482 |
| West Anatolia | 99.2 | 99.2 | 512 |
| Mediterranean | 99.3 | 99.3 | 617 |
| Central Anatolia | 99.1 | 98.3 | 242 |
| West Black Sea | 100.0 | 99.7 | 252 |
| East Black Sea | 100.0 | 100.0 | 106 |
| Northeast Anatolia | 99.5 | 99.5 | 114 |
| Central East Anatolia | 99.6 | 99.6 | 219 |
| Southeast Anatolia | 99.3 | 99.3 | 489 |
| Education |  |  |  |
| No educ. / prim. incomp. | 98.7 | 98.6 | 581 |
| Complete primary | 99.7 | 99.6 | 1,923 |
| Complete secondary | 99.3 | 99.1 | 813 |
| Complete high school / higher | 99.8 | 99.7 | 1,503 |
| Wealth quintile |  |  |  |
| Lowest | 99.3 | 99.2 | 758 |
| Second | 98.8 | 98.7 | 914 |
| Middle | 99.5 | 99.2 | 994 |
| Fourth | 99.9 | 99.9 | 1,066 |
| Highest | 100.0 | 100.0 | 1,088 |
| Total 15-49 | 99.5 | 99.4 | 4,820 |

${ }^{1}$ Female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, emergency contraception, lactational amenorrhea method (LAM), and other modern methods

Table 7.3 Ever use of contraception by age
Percent distribution of all women and currently married women 15-49 by contraceptive method ever used, according to age, Turkey DHS 2018

| Age |  |  | Modern method |  |  |  |  |  |  |  |  |  |  | Traditional method |  |  |  | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { women } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Any method | Any modern method | Female sterilezation | Male sterilezation | Pill | IUD | Injectables | Implants | Male condom | Female condom | Diaphragm /Foam /Jelly | Vaginal ring | Emergency contraception | Any traditional method | Rhythm | Withdrawal | Other |  |
| ALL WOMEN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Age |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 3.4 | 2.1 | 0.0 | 0.0 | 0.3 | 0.1 | 0.1 | 0.0 | 1.8 | 0.0 | 0.0 | 0.0 | 0.7 | 2.3 | 0.0 | 2.3 | 0.0 | 1,163 |
| 20-24 | 32.0 | 24.9 | 0.0 | 0.0 | 7.2 | 6.5 | 2.9 | 0.0 | 18.4 | 0.0 | 0.0 | 0.0 | 3.0 | 21.6 | 1.0 | 21.4 | 0.3 | 1,034 |
| 25-29 | 67.9 | 55.8 | 1.3 | 0.1 | 19.0 | 16.1 | 6.7 | 0.0 | 40.3 | 0.0 | 0.2 | 0.1 | 9.3 | 48.5 | 4.6 | 47.2 | 0.6 | 1,035 |
| 30-34 | 84.6 | 73.7 | 6.7 | 0.1 | 32.5 | 27.7 | 10.3 | 0.0 | 50.9 | 0.2 | 0.9 | 0.0 | 11.4 | 58.8 | 4.7 | 57.9 | 0.7 | 1,065 |
| 35-39 | 89.0 | 78.4 | 13.2 | 0.0 | 32.1 | 39.4 | 10.0 | 0.0 | 49.1 | 0.2 | 1.0 | 0.3 | 10.5 | 59.2 | 7.1 | 57.2 | 1.0 | 1,105 |
| 40-44 | 87.5 | 79.7 | 16.8 | 0.1 | 34.1 | 42.0 | 8.6 | 0.1 | 45.9 | 0.7 | 2.0 | 0.0 | 8.6 | 53.2 | 7.1 | 51.7 | 1.0 | 1,025 |
| 45-49 | 84.3 | 75.3 | 13.8 | 0.3 | 31.2 | 44.1 | 7.3 | 0.4 | 40.7 | 0.4 | 1.6 | 0.1 | 4.1 | 53.3 | 7.4 | 50.6 | 0.7 | 918 |
| Total | 63.0 | 54.7 | 7.2 | 0.1 | 21.9 | 24.5 | 6.5 | 0.1 | 34.8 | 0.2 | 0.8 | 0.1 | 6.8 | 41.7 | 4.5 | 40.6 | 0.6 | 7,346 |
| CURRENTLY MARRIED WOMEN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Age |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 61.1 | 33.7 | 0.0 | 0.0 | 1.5 | 1.2 | 2.5 | 0.0 | 28.6 | 0.0 | 0.0 | 0.0 | 4.6 | 43.7 | 0.0 | 43.7 | 0.0 | 56 |
| 20-24 | 75.3 | 57.8 | 0.1 | 0.0 | 16.2 | 16.2 | 7.0 | 0.0 | 41.6 | 0.0 | 0.0 | 0.0 | 5.4 | 51.0 | 1.8 | 50.5 | 0.7 | 411 |
| 25-29 | 89.9 | 73.4 | 1.8 | 0.2 | 25.0 | 22.0 | 8.8 | 0.0 | 52.7 | 0.0 | 0.2 | 0.2 | 10.2 | 64.1 | 6.3 | 62.4 | 0.8 | 737 |
| 30-34 | 92.5 | 80.3 | 7.6 | 0.1 | 34.9 | 30.3 | 11.2 | 0.0 | 55.8 | 0.3 | 1.0 | 0.0 | 11.5 | 64.0 | 5.3 | 63.0 | 0.8 | 923 |
| 35-39 | 93.0 | 81.6 | 13.9 | 0.0 | 32.7 | 41.9 | 10.4 | 0.0 | 51.6 | 0.2 | 0.7 | 0.4 | 10.0 | 62.6 | 7.8 | 60.4 | 1.2 | 1,002 |
| 40-44 | 91.8 | 83.4 | 18.1 | 0.1 | 34.9 | 44.0 | 8.4 | 0.1 | 48.3 | 0.5 | 2.1 | 0.0 | 8.7 | 55.7 | 6.7 | 54.1 | 1.0 | 910 |
| 45-49 | 88.5 | 78.2 | 15.3 | 0.3 | 30.6 | 45.8 | 6.8 | 0.5 | 41.9 | 0.3 | 1.6 | 0.1 | 3.5 | 56.1 | 7.3 | 53.0 | 0.8 | 781 |
| Total | 89.6 | 77.3 | 10.5 | 0.1 | 30.2 | 35.0 | 9.0 | 0.1 | 49.3 | 0.2 | 1.0 | 0.1 | 8.6 | 59.5 | 6.2 | 57.8 | 0.9 | 4,820 |

Table 7.4 Current use of contraception by age
Percent distribution of all women, and currently married women age 15-49 by contraceptive method currently used, according to age, Turkey DHS 2018

| Age | Any method | Any modern method | Modern method |  |  |  |  |  | Any traditional method | Traditional method |  |  | Not currently using | Total | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Female sterilization | Pill | IUD | Injectables | Male condom | Diaphragm |  | Rhythm | Withdrawal | Other |  |  |  |
| ALL WOMEN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 2.0 | 1.2 | 0.0 | 0.0 | 0.1 | 0.1 | 1.0 | 0.0 | 0.8 | 0.0 | 0.8 | 0.0 | 98.0 | 100.0 | 1,163 |
| 20-24 | 21.7 | 14.0 | 0.0 | 2.4 | 4.0 | 1.0 | 6.6 | 0.0 | 7.7 | 0.0 | 7.6 | 0.1 | 78.3 | 100.0 | 1,034 |
| 25-29 | 50.4 | 32.6 | 1.0 | 3.8 | 8.3 | 1.1 | 18.5 | 0.0 | 17.7 | 0.3 | 17.2 | 0.3 | 49.6 | 100.0 | 1,035 |
| 30-34 | 63.5 | 43.7 | 6.5 | 6.8 | 10.8 | 1.3 | 18.3 | 0.0 | 19.8 | 0.2 | 19.5 | 0.1 | 36.5 | 100.0 | 1,065 |
| 35-39 | 72.9 | 52.6 | 13.0 | 5.0 | 16.1 | 0.7 | 17.8 | 0.0 | 20.3 | 0.3 | 19.8 | 0.1 | 27.1 | 100.0 | 1,105 |
| 40-44 | 68.5 | 52.6 | 16.6 | 3.7 | 15.1 | 0.2 | 17.0 | 0.0 | 15.9 | 0.1 | 15.7 | 0.1 | 31.5 | 100.0 | 1,025 |
| 45-49 | 53.5 | 37.4 | 13.6 | 1.5 | 10.8 | 0.1 | 11.3 | 0.0 | 16.1 | 0.9 | 15.1 | 0.1 | 46.5 | 100.0 | 918 |
| Total | 46.9 | 33.0 | 7.1 | 3.3 | 9.2 | 0.6 | 12.8 | 0.0 | 13.9 | 0.3 | 13.5 | 0.1 | 53.1 | 100.0 | 7,346 |
| CURRENTLY MARRIED WOMEN |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 36.2 | 19.0 | 0.0 | 0.0 | 1.2 | 2.5 | 15.3 | 0.0 | 17.2 | 0.0 | 17.2 | 0.0 | 63.8 | 100.0 | 56 |
| 20-24 | 52.6 | 33.7 | 0.1 | 4.8 | 10.1 | 2.4 | 16.2 | 0.0 | 18.9 | 0.0 | 18.6 | 0.2 | 47.4 | 100.0 | 411 |
| 25-29 | 69.1 | 44.4 | 1.5 | 5.2 | 11.7 | 1.5 | 24.5 | 0.0 | 24.7 | 0.4 | 23.9 | 0.4 | 30.9 | 100.0 | 737 |
| 30-34 | 72.3 | 49.8 | 7.4 | 7.9 | 12.2 | 1.5 | 20.8 | 0.0 | 22.5 | 0.3 | 22.1 | 0.1 | 27.7 | 100.0 | 923 |
| 35-39 | 78.6 | 56.3 | 13.7 | 4.9 | 17.4 | 0.8 | 19.4 | 0.0 | 22.4 | 0.4 | 21.9 | 0.1 | 21.4 | 100.0 | 1,002 |
| 40-44 | 75.8 | 58.1 | 17.9 | 4.1 | 16.7 | 0.2 | 19.2 | 0.0 | 17.7 | 0.0 | 17.6 | 0.1 | 24.2 | 100.0 | 910 |
| 45-49 | 61.0 | 42.0 | 15.3 | 1.5 | 12.0 | 0.2 | 13.1 | 0.0 | 18.9 | 1.1 | 17.8 | 0.1 | 39.0 | 100.0 | 781 |
| Total | 69.8 | 48.9 | 10.4 | 4.8 | 13.7 | 1.0 | 19.1 | 0.0 | 20.9 | 0.4 | 20.4 | 0.2 | 30.2 | 100.0 | 4,820 |

## Table 7.5 Trends in current use of contraception

Percent distribution of currently married women age 15-49 by contraceptive method currently used, 1988 TPHS, 1993 TDHS, 1998 TDHS, 2003 TDHS, 2008 TDHS, 2013 TDHS, and 2018 TDHS

| Contraceptive method | 1988 TPHS ${ }^{1}$ | 1993 TDHS | 1998 TDHS | 2003 TDHS | 2008 TDHS | 2013 TDHS | 2018 TDHS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Any method | 63.4 | 62.6 | 63.9 | 71.0 | 73.0 | 73.5 | 69.8 |
| Any modern method | 31.0 | 34.5 | 37.7 | 42.5 | 46.0 | 47.4 | 48.9 |
| Pill | 6.2 | 4.9 | 4.4 | 4.7 | 5.3 | 4.6 | 4.8 |
| IUD | 14.0 | 18.8 | 19.8 | 20.2 | 16.9 | 16.8 | 13.7 |
| Male condom | 7.2 | 6.6 | 8.2 | 10.8 | 14.3 | 15.8 | 19.1 |
| Female sterilization | 1.7 | 2.9 | 4.2 | 5.7 | 8.3 | 9.4 | 10.4 |
| Other modern methods | 2.0 | 1.3 | 1.1 | 1.1 | 1.1 | 0.8 | 1.0 |
| Any traditional method | 32.3 | 28.1 | 26.1 | 28.5 | 27.0 | 26.0 | 20.9 |
| Periodic abstinence | 3.5 | 1.0 | 1.1 | 1.1 | 0.6 | 0.3 | 0.2 |
| Withdrawal | 25.7 | 26.2 | 24.4 | 26.4 | 26.2 | 25.5 | 20.4 |
| Other traditional methods | 3.1 | 0.9 | 0.6 | 1.0 | 0.2 | 0.2 | 0.2 |
| Not currently using | 36.6 | 37.4 | 36.1 | 29.0 | 27.0 | 26.5 | 30.2 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| ${ }^{1}$ Turkish Population and Health Survey |  |  |  |  |  |  |  |

Table 7.6 Current use of contraception according to background characteristics
Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, Turkey DHS 2018

| Background characteristic | Any method |  | Modern method |  |  |  |  | Any traditional method | Traditional method |  |  | Not currently using | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Female sterilization | Pill | IUD | Injectables | Male condom |  | Rhythm | Withdrawal | Other |  |  |  |
| Number of living children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0 | 20.7 | 15.9 | 0.0 | 3.4 | 0.2 | 0.0 | 12.4 | 4.8 | 0.0 | 4.8 | 0.0 | 79.3 | 100.0 | 349 |
| 1-2 | 70.0 | 47.1 | 3.4 | 5.0 | 14.1 | 1.1 | 23.5 | 22.9 | 0.6 | 22.1 | 0.1 | 30.0 | 100.0 | 2,685 |
| 3-4 | 80.2 | 58.1 | 21.9 | 4.5 | 15.8 | 0.8 | 15.0 | 22.1 | 0.1 | 21.9 | 0.1 | 19.8 | 100.0 | 1,489 |
| 5+ | 74.0 | 57.4 | 27.3 | 5.9 | 15.5 | 1.5 | 7.2 | 16.6 | 0.0 | 15.8 | 0.8 | 26.0 | 100.0 | 296 |
| Residence |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Urban | 69.4 | 49.9 | 9.2 | 5.1 | 14.0 | 1.0 | 20.6 | 19.4 | 0.5 | 18.8 | 0.1 | 30.6 | 100.0 | 3,743 |
| Rural | 71.4 | 45.2 | 14.5 | 3.5 | 12.7 | 0.8 | 13.7 | 26.2 | 0.0 | 25.9 | 0.3 | 28.6 | 100.0 | 1,076 |
| Region |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| West | 70.0 | 49.7 | 9.5 | 5.2 | 12.9 | 1.1 | 21.0 | 20.3 | 0.6 | 19.6 | 0.1 | 30.0 | 100.0 | 2,095 |
| South | 64.7 | 47.0 | 13.2 | 4.9 | 12.9 | 1.3 | 14.6 | 17.7 | 0.0 | 17.7 | 0.0 | 35.3 | 100.0 | 617 |
| Central | 74.8 | 53.5 | 9.8 | 3.8 | 17.5 | 0.4 | 21.9 | 21.4 | 0.3 | 20.9 | 0.1 | 25.2 | 100.0 | 1,028 |
| North | 72.3 | 47.0 | 16.8 | 3.1 | 8.8 | 1.1 | 17.2 | 25.4 | 0.0 | 25.0 | 0.4 | 27.7 | 100.0 | 257 |
| East | 66.1 | 43.0 | 9.1 | 5.2 | 13.1 | 1.1 | 14.6 | 23.1 | 0.2 | 22.5 | 0.4 | 33.9 | 100.0 | 822 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Istanbul | 69.2 | 51.2 | 10.2 | 5.9 | 13.0 | 1.2 | 20.8 | 18.0 | 0.9 | 17.1 | 0.0 | 30.8 | 100.0 | 995 |
| West Marmara | 70.8 | 50.2 | 12.9 | 3.5 | 11.2 | 1.4 | 21.1 | 20.7 | 0.7 | 20.0 | 0.0 | 29.2 | 100.0 | 203 |
| Aegean | 69.7 | 50.3 | 9.0 | 4.4 | 14.4 | 1.0 | 21.4 | 19.4 | 0.3 | 18.8 | 0.3 | 30.3 | 100.0 | 589 |
| East Marmara | 75.0 | 48.9 | 9.5 | 4.7 | 11.1 | 0.7 | 22.9 | 26.1 | 0.2 | 25.8 | 0.0 | 25.0 | 100.0 | 482 |
| West Anatolia | 71.8 | 53.6 | 6.7 | 4.2 | 21.8 | 0.5 | 20.5 | 18.1 | 0.5 | 17.6 | 0.0 | 28.2 | 100.0 | 512 |
| Mediterranean | 64.7 | 47.0 | 13.2 | 4.9 | 12.9 | 1.3 | 14.6 | 17.7 | 0.0 | 17.7 | 0.0 | 35.3 | 100.0 | 617 |
| Central Anatolia | 76.0 | 54.5 | 11.8 | 4.6 | 15.1 | 0.2 | 22.7 | 21.4 | 0.3 | 20.9 | 0.3 | 24.0 | 100.0 | 242 |
| West Black Sea | 76.1 | 44.4 | 15.6 | 1.9 | 9.1 | 0.6 | 17.1 | 31.7 | 0.0 | 31.0 | 0.7 | 23.9 | 100.0 | 252 |
| East Black Sea | 71.5 | 47.9 | 13.6 | 3.7 | 11.0 | 1.4 | 18.3 | 23.7 | 0.0 | 23.7 | 0.0 | 28.5 | 100.0 | 106 |
| Northeast Anatolia | 63.5 | 41.5 | 7.0 | 2.8 | 17.3 | 0.3 | 14.1 | 22.0 | 0.0 | 21.8 | 0.3 | 36.5 | 100.0 | 114 |
| Central East |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Anatolia | 66.2 | 40.2 | 10.3 | 2.1 | 11.8 | 0.5 | 15.5 | 26.0 | 0.3 | 25.8 | 0.0 | 33.8 | 100.0 | 219 |
| Southeast Anatolia | 66.6 | 44.6 | 9.0 | 7.1 | 12.7 | 1.5 | 14.3 | 22.1 | 0.2 | 21.2 | 0.7 | 33.4 | 100.0 | 489 |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No educ. / prim. | 60.9 | 39.5 | 15.1 | 3.8 | 12.4 | 0.8 | 7.4 | 21.4 | 0.0 | 212 | 0.2 | 39.1 | 100.0 | 581 |
| Complete primary | 72.1 | 50.4 | 15.3 | 4.0 | 16.0 | 0.7 | 14.4 | 21.7 | 0.1 | 21.4 | 0.2 | 27.9 | 100.0 | 1,923 |
| Complete secondary | 69.1 | 46.2 | 5.6 | 4.9 | 14.7 | 1.4 | 19.6 | 23.0 | 0.2 | 22.4 | 0.3 | 30.9 | 100.0 | 813 |
| Complete high school / higher | 70.7 | 51.9 | 4.9 | 5.9 | 10.7 | 1.1 | 29.3 | 18.7 | 1.0 | 17.7 | 0.0 | 29.3 | 100.0 | 1,503 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | 63.1 | 39.2 | 11.3 | 4.6 | 13.5 | 0.6 | 9.1 | 23.9 | 0.0 | 23.4 | 0.5 | 36.9 | 100.0 | 758 |
| Second | 69.1 | 46.3 | 14.2 | 3.7 | 14.7 | 1.0 | 12.7 | 22.8 | 0.0 | 22.6 | 0.2 | 30.9 | 100.0 | 914 |
| Middle | 70.7 | 49.1 | 11.4 | 5.3 | 11.9 | 1.2 | 19.3 | 21.6 | 0.3 | 21.1 | 0.2 | 29.3 | 100.0 | 994 |
| Fourth | 70.0 | 48.5 | 6.7 | 3.7 | 15.2 | 1.2 | 21.8 | 21.4 | 0.3 | 21.1 | 0.1 | 30.0 | 100.0 | 1,066 |
| Highest | 74.2 | 58.0 | 9.1 | 6.3 | 13.2 | 0.9 | 28.5 | 16.3 | 1.1 | 15.1 | 0.0 | 25.8 | 100.0 | 1,088 |
| Total | 69.8 | 48.9 | 10.4 | 4.8 | 13.7 | 1.0 | 19.1 | 20.9 | 0.4 | 20.4 | 0.2 | 30.2 | 100.0 | 4,820 |

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

## Table 7.7 Timing of sterilization

Percent distribution of sterilized women age 15-49 by age at the time of sterilization and median age at sterilization, according to the number of years since the operation, Turkey DHS 2018

| Years since operation | Age at time of sterilization |  |  |  |  |  | Total | Number of women | Median age ${ }^{1}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | <25 | 25-29 | 30-34 | 35-39 | 40-44 | 45-49 |  |  |  |
| <2 | 1.0 | 14.1 | 36.1 | 39.2 | 8.4 | 1.1 | 100.0 | 79 | 34.5 |
| 2-3 | 1.4 | 19.7 | 30.9 | 32.2 | 15.7 | 0.0 | 100.0 | 80 | 33.3 |
| 4-5 | 1.4 | 20.3 | 42.7 | 31.3 | 4.3 | 0.0 | 100.0 | 76 | 33.3 |
| 6-7 | 1.0 | 13.2 | 41.2 | 31.3 | 13.3 | 0.0 | 100.0 | 45 | 34.1 |
| 8-9 | 0.4 | 18.2 | 34.6 | 44.4 | 2.4 | 0.0 | 100.0 | 61 | 33.1 |
| 10+ | 11.8 | 26.4 | 49.8 | 12.0 | 0.0 | 0.0 | 100.0 | 179 | a |
| Total | 4.8 | 20.5 | 41.2 | 27.5 | 5.8 | 0.2 | 100.0 | 520 | 32.8 |

a = Not calculated due to censoring
${ }^{1}$ Median age at sterilization is calculated only for women sterilized before age 40.

## Table 7.8 Knowledge of fertile period

Percent distribution of all women age 15-49 by knowledge of the fertile period during the ovulatory cycle, Turkey DHS 2018

| Perceived fertile period ${ }^{1}$ | All <br> women |
| :--- | ---: |
|  |  |
| Just before her menstrual |  |
| period begins | 4.1 |
| During her menstrual period | 0.6 |
| Right after her menstrual | 24.2 |
| period has ended |  |
| Halfway between two | 27.3 |
| menstrual periods | 0.2 |
| Other | 21.4 |
| No specific time | 22.3 |
| Don't know | 100.0 |
| Total | 7,346 |

${ }^{1}$ Menstruational cycle card was used during the
interview. See the card at Appendix E.

## Table 7.9 Knowledge of fertile period by age

Percentage of women age 15-49 with correct knowledge of the fertile period during the ovulatory cycle, according to age, Turkey DHS 2018

|  | Percentage <br> with correct <br> knowledge of <br> the fertile <br> period | Number of <br> women |
| :--- | :---: | ---: |
| Age |  |  |
| $15-19$ | 17.8 | 1,163 |
| $20-24$ | 27.9 | 1,034 |
| $25-29$ | 30.2 | 1,035 |
| $30-34$ | 31.5 | 1,065 |
| $35-39$ | 25.8 | 1,105 |
| $40-44$ | 30.6 | 1,025 |
| $45-49$ | 28.4 | 918 |
| Total | 27.3 | 7,346 |

Note: Correct knowledge of the fertile period is defined as "halfway between two menstrual periods."

## Table 7.10 Source of modern contraceptive methods

Percent distribution of users of modern contraceptive methods age 15-49 by most recent source of method, according to method, Turkey DHS 2018

| Source | Female sterilization | IUD | Injectables | Pill | Male condom | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PUBLIC SECTOR | 65.7 | 75.0 | 79.0 | 49.8 | 27.1 | 52.0 |
| Public hospital | 49.8 | 38.5 | 1.0 | 3.2 | 0.3 | 21.9 |
| Maternity house | 8.4 | 6.0 | 3.8 | 0.2 | 0.0 | 3.6 |
| Training and research hospital | 7.2 | 2.9 | 0.0 | 0.0 | 0.1 | 2.4 |
| City hospital | 0.4 | 0.3 | 0.0 | 0.0 | 0.0 | 0.2 |
| Family practice | 0.0 | 10.7 | 42.8 | 24.0 | 14.9 | 12.0 |
| Family health center | 0.0 | 14.5 | 27.5 | 21.3 | 11.4 | 11.1 |
| Community health center | 0.0 | 2.1 | 4.0 | 1.1 | 0.4 | 0.9 |
| PRIVATE MEDICAL SECTOR | 31.8 | 22.4 | 21.0 | 50.2 | 43.9 | 35.5 |
| Private doctor | 0.2 | 1.7 | 0.0 | 0.0 | 0.0 | 0.5 |
| Private hospital or clinic | 31.6 | 19.3 | 8.2 | 3.1 | 0.0 | 12.6 |
| Pharmacy | 0.0 | 1.4 | 12.8 | 47.1 | 43.9 | 22.4 |
| OTHER SOURCE | 2.4 | 2.6 | 0.0 | 0.0 | 29.0 | 12.5 |
| University hospital | 1.8 | 0.7 | 0.0 | 0.0 | 0.0 | 0.6 |
| Voluntary organization/foundation hospital/clinic | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Market/shop | 0.0 | 0.0 | 0.0 | 0.0 | 26.2 | 10.1 |
| Other | 0.6 | 1.9 | 0.0 | 0.0 | 2.8 | 1.7 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of women | 520 | 675 | 48 | 242 | 940 | 2,425 |

Note: Total includes other modern methods but excludes lactational amenorrhea method (LAM).

## Table 7.11 Twelve-month contraceptive discontinuation rates

Among episodes of contraceptive use experienced within the 5 years preceding the survey, percentage of episodes discontinued within 12 months, according to reason for discontinuation and specific method, Turkey DHS 2018

| Method | Method failure | Desire to become pregnant | Other fertility related reasons ${ }^{1}$ | Side effects/health concerns | Wanted more effective method | Other method related reasons ${ }^{2}$ | Other reasons | $\begin{gathered} \text { Any } \\ \text { reason } \end{gathered}$ | Switched to another method ${ }^{4}$ | Number of episodes of use ${ }^{5}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female sterilization | (0.0) | (0.0) | (0.0) | (0.0) | (0.0) | (0.0) | (0.0) | (0.0) | (0.0) | 219 |
| IUD | 1.8 | 1.4 | 0.7 | 5.3 | 0.0 | 1.2 | 1.8 | 12.2 | 3.5 | 498 |
| Pill | 4.7 | 6.4 | 2.4 | 22.6 | 2.1 | 1.9 | 1.9 | 42.1 | 15.7 | 359 |
| Male condom | 5.1 | 10.4 | 1.0 | 1.2 | 3.6 | 1.5 | 6.0 | 28.9 | 6.7 | 1,049 |
| Withdrawal | 9.7 | 11.6 | 1.5 | 0.3 | 5.0 | 0.1 | 2.2 | 30.5 | 5.4 | 1,197 |
| Other ${ }^{6}$ | (3.5) | (9.5) | (1.5) | (24.6) | (6.5) | (2.8) | (5.2) | (53.6) | (24.9) | 146 |
| All methods | 5.8 | 8.4 | 1.2 | 4.6 | 3.3 | 1.0 | 3.3 | 27.6 | 7.0 | 3,469 |

Note: Figures are based on life table calculations using information on episodes of use that occurred 3-62 months preceding the survey. Figures in parentheses are based on 25-49 unweighted cases
${ }^{1}$ Includes infrequent sex/husband away, difficult to get pregnant/menopausal, and marital dissolution/separation
${ }^{2}$ Includes lack of access/too far, costs too much, and inconvenient to use
${ }^{3}$ Reasons for discontinuation are mutually exclusive and add to the total given in this column
${ }^{4}$ A woman is considered to have switched to another method if she used a different method in the month following discontinuation or if she gave "wanted a more effective method" as the reason for discontinuation and started another method within two months of discontinuation.
${ }^{5}$ All episodes of use that occur within the 5 years preceding the survey are included. episodes of use include episodes that were discontinued during the period of observation and episodes of use that were not discontinued during the period of observation
${ }^{6}$ Includes injections, male sterilization, emergency contraception, diaphragm/foam/jelly, other modern methods, rhythm (periodic abstinence) and other traditional methods.

Table 7.12 Reasons for discontinuation
Percent distribution of discontinuations of contraceptive methods in the 5 years preceding the survey by main reason stated for discontinuation, according to specific method, Turkey DHS 2018

| Reason | IUD | Inject- <br> ables | Pill | Male <br> condom | Withdrawal | Other ${ }^{1}$ | All methods |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |  |
| Became pregnant while using | 6.9 | 3.7 | 11.8 | 17.0 | 29.0 | $(17.1)$ | 19.0 |
| Wanted to become pregnant | 29.0 | 14.5 | 24.1 | 46.6 | 42.4 | $(27.1)$ | 38.2 |
| Husband disapproved | 0.0 | 0.0 | 0.3 | 3.5 | 0.6 | $(0.0)$ | 1.3 |
| Wanted a more effective |  |  |  |  |  |  |  |
| method | 1.0 | 5.0 | 3.4 | 6.9 | 11.4 | $(16.6)$ | 7.4 |
| Side effects/health concerns | 23.2 | 43.9 | 29.8 | 1.7 | 0.2 | $(4.9)$ | 9.3 |
| Lack of access/too far | 11.3 | 16.6 | 16.2 | 2.2 | 0.5 | $(7.1)$ | 5.2 |
| Cost too much | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | $(0.0)$ | 0.1 |
| Inconvenient to use | 2.4 | 5.5 | 2.0 | 2.7 | 0.2 | $(3.0)$ | 1.7 |
| Up to God/fatalistic | 0.0 | 0.0 | 0.0 | 0.1 | 0.6 | $(2.4)$ | 0.3 |
| Difficult to get |  |  |  |  |  |  |  |
| pregnant/menopausal | 3.2 | 0.7 | 0.9 | 1.4 | 2.5 | $(4.0)$ | 2.0 |
| Infrequent sex/husband away | 1.5 | 1.5 | 2.2 | 2.6 | 2.9 | $(2.4)$ | 2.5 |
| Marital dissolution/separation | 2.0 | 0.8 | 2.5 | 3.9 | 2.1 | $(2.3)$ | 2.6 |
| Other | 17.9 | 7.7 | 5.2 | 8.0 | 4.4 | $(10.5)$ | 7.7 |
| Don't know | 0.2 | 0.0 | 0.7 | 1.4 | 0.6 | $(0.0)$ | 0.8 |
| Missing | 1.5 | 0.0 | 0.8 | 1.7 | 2.6 | $(2.5)$ | 1.9 |
| Total |  |  |  |  |  |  |  |
| Number of discontinuations | 345 | 78 | 319 | 731 | 923 | 39 | 2.435 |

Note: Figures in parentheses are based on 25-49 unweighted cases.
1 Includes male sterilization, diaphragm/foam/jelly, emergency contraception, other modern methods, rhythm (periodic abstinence) and other traditional methods.

Table 7.13 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, total demand for family planning, and percentage of the demand for family planning that is satisfied, according to background characteristics, Turkey DHS 2018

| Background characteristic | Unmet need for familyplanning |  |  | Met need for family planning (currently using) |  |  | Total demand for familyplanning ${ }^{1}$ |  |  | Number of women | Percentage of demand satisfied ${ }^{2}$ | Percentage of demand satisfied by modern methods ${ }^{3}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | For spacing | $\begin{gathered} \text { For } \\ \text { limiting } \end{gathered}$ | Total | $\begin{gathered} \text { For } \\ \text { spacing } \\ \hline \end{gathered}$ | $\begin{gathered} \text { For } \\ \text { limiting } \end{gathered}$ | Total | For spacing | $\begin{gathered} \text { For } \\ \text { limiting } \end{gathered}$ | Total |  |  |  |
| 15-19 | 5.8 | 5.1 | 10.9 | 33.1 | 3.1 | 36.2 | 38.9 | 8.2 | 47.1 | 56 | 76.8 | 40.3 |
| 20-24 | 12.2 | 4.7 | 16.9 | 38.1 | 14.5 | 52.6 | 50.3 | 19.2 | 69.4 | 411 | 75.7 | 48.5 |
| 25-29 | 6.5 | 3.3 | 9.8 | 41.0 | 28.0 | 69.1 | 47.5 | 31.4 | 78.8 | 737 | 87.6 | 56.3 |
| 30-34 | 5.6 | 5.2 | 10.9 | 24.7 | 47.5 | 72.3 | 30.4 | 52.7 | 83.1 | 923 | 86.9 | 59.9 |
| 35-39 | 2.6 | 7.6 | 10.2 | 11.7 | 66.9 | 78.6 | 14.3 | 74.5 | 88.8 | 1,002 | 88.5 | 63.3 |
| 40-44 | 1.2 | 10.3 | 11.5 | 3.5 | 72.3 | 75.8 | 4.6 | 82.6 | 87.3 | 910 | 86.8 | 66.5 |
| 45-49 | 0.3 | 13.0 | 13.3 | 0.9 | 60.1 | 61.0 | 1.2 | 73.1 | 74.3 | 781 | 82.1 | 56.6 |
| Residence |  |  |  |  |  |  |  |  |  |  |  |  |
| Urban | 3.9 | 7.7 | 11.6 | 18.0 | 51.3 | 69.4 | 21.9 | 59.0 | 81.0 | 3,743 | 85.7 | 61.7 |
| Rural | 4.3 | 7.2 | 11.5 | 17.3 | 54.0 | 71.4 | 21.6 | 61.3 | 82.9 | 1,076 | 86.1 | 54.5 |
| Region |  |  |  |  |  |  |  |  |  |  |  |  |
| West | 3.9 | 8.4 | 12.3 | 17.6 | 52.4 | 70.0 | 21.6 | 60.8 | 82.4 | 2,095 | 85.0 | 60.4 |
| South | 6.3 | 6.7 | 13.0 | 18.5 | 46.1 | 64.7 | 24.8 | 52.8 | 77.6 | 617 | 83.3 | 60.6 |
| Central | 2.0 | 5.6 | 7.6 | 15.4 | 59.4 | 74.8 | 17.5 | 65.0 | 82.5 | 1,028 | 90.8 | 64.8 |
| North | 3.1 | 7.7 | 10.9 | 15.6 | 56.8 | 72.3 | 18.7 | 64.5 | 83.2 | 257 | 87.0 | 56.4 |
| East | 5.1 | 8.7 | 13.8 | 21.8 | 44.3 | 66.1 | 26.8 | 53.0 | 79.9 | 822 | 82.7 | 53.8 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |  |  |  |  |
| Istanbul | 4.7 | 8.8 | 13.5 | 16.6 | 52.6 | 69.2 | 21.3 | 61.4 | 82.7 | 995 | 83.7 | 61.9 |
| West Marmara | 4.1 | 10.1 | 14.2 | 14.7 | 56.1 | 70.8 | 18.8 | 66.2 | 85.0 | 203 | 83.3 | 59.0 |
| Aegean | 2.6 | 7.3 | 9.9 | 16.8 | 52.9 | 69.7 | 19.4 | 60.2 | 79.6 | 589 | 87.5 | 63.2 |
| East Marmara | 2.8 | 5.5 | 8.3 | 21.1 | 54.0 | 75.0 | 23.9 | 59.5 | 83.3 | 482 | 90.0 | 58.7 |
| West Anatolia | 2.8 | 7.3 | 10.2 | 16.0 | 55.8 | 71.8 | 18.9 | 63.1 | 82.0 | 512 | 87.6 | 65.4 |
| Mediterranean | 6.3 | 6.7 | 13.0 | 18.5 | 46.1 | 64.7 | 24.8 | 52.8 | 77.6 | 617 | 83.3 | 60.6 |
| Central Anatolia | 1.5 | 5.8 | 7.3 | 15.1 | 60.9 | 76.0 | 16.6 | 66.7 | 83.3 | 242 | 91.2 | 65.5 |
| West Black Sea | 2.2 | 6.3 | 8.5 | 12.9 | 63.2 | 76.1 | 15.0 | 69.6 | 84.6 | 252 | 89.9 | 52.4 |
| East Black Sea | 3.2 | 8.3 | 11.5 | 20.8 | 50.7 | 71.5 | 24.0 | 59.0 | 83.0 | 106 | 86.2 | 57.7 |
| Northeast Anatolia | 6.5 | 9.7 | 16.2 | 18.2 | 45.3 | 63.5 | 24.7 | 54.9 | 79.7 | 114 | 79.7 | 52.0 |
| Central East |  |  |  |  |  |  |  |  |  |  |  |  |
| Anatolia | 4.1 | 9.2 | 13.2 | 22.5 | 43.7 | 66.2 | 26.6 | 52.8 | 79.4 | 219 | 83.3 | 50.6 |
| Southeast Anatolia | 5.2 | 8.3 | 13.5 | 22.2 | 44.4 | 66.6 | 27.4 | 52.7 | 80.1 | 489 | 83.2 | 55.6 |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |
| No educ. / prim. incomp. | 5.3 | 14.7 | 20.1 | 11.3 | 49.6 | 60.9 | 16.6 | 64.3 | 80.9 | 581 | 75.2 | 48.8 |
| Complete primary | 3.0 | 8.0 | 11.0 | 9.0 | 63.2 | 72.1 | 12.0 | 71.2 | 83.2 | 1,923 | 86.8 | 60.7 |
| Complete secondary | 5.6 | 6.7 | 12.2 | 27.4 | 41.7 | 69.1 | 33.0 | 48.4 | 81.4 | 813 | 85.0 | 56.7 |
| Complete high school / higher | 3.8 | 4.9 | 8.7 | 26.7 | 44.0 | 70.7 | 30.5 | 48.9 | 79.4 | 1,503 | 89.0 | 65.5 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | 6.2 | 11.3 | 17.5 | 16.8 | 46.2 | 63.1 | 23.0 | 57.6 | 80.6 | 758 | 78.3 | 48.6 |
| Second | 4.5 | 7.2 | 11.7 | 17.0 | 52.1 | 69.1 | 21.5 | 59.3 | 80.8 | 914 | 85.5 | 57.3 |
| Middle | 4.5 | 7.3 | 11.7 | 18.9 | 51.8 | 70.7 | 23.3 | 59.1 | 82.4 | 994 | 85.8 | 59.6 |
| Fourth | 3.5 | 7.3 | 10.8 | 16.0 | 53.9 | 70.0 | 19.5 | 61.2 | 80.7 | 1,066 | 86.7 | 60.1 |
| Highest | 2.1 | 6.0 | 8.1 | 20.2 | 54.0 | 74.2 | 22.4 | 59.9 | 82.3 | 1,088 | 90.2 | 70.4 |
| Total | 4.0 | 7.6 | 11.6 | 17.9 | 51.9 | 69.8 | 21.9 | 59.5 | 81.4 | 4,820 | 85.8 | 60.0 |

Note: Numbers in this table correspond to the revised definition of unmet need described in Bradley et al., 2012.
${ }^{1}$ Total demand is the sum of unmet need and met need.
${ }^{2}$ Percentage of demand satisfied is met need divided by total demand.
${ }^{3}$ Modern methods include female sterilization, male sterilization, pill, IUD, injectables, implants, male condom, female condom, emergency contraception, and other modern methods

## Table 7.14 Decision-making about family planning

Among currently married women age 15-49 who are current users of family planning, percent distribution by who makes the decision to use family planning; among currently married women who are not currently using family planning, percent distribution by who makes the decision not to use family planning, according to background characteristics, Turkey DHS 2018

| Background characteristic | Among currently married women who are current users of family planning |  |  |  |  | Number of women | Among currently married women who are not currently using family planning |  |  |  | Total | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mainly wife | Mainly husband | Wife and husband jointly | Other/ don't know/ missing | Total |  | Mainly wife | Mainly husband | Wife and husband jointly | Other/ don't know/ missing |  |  |
| Age |  |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | * | * | * | * | * | 11 | (2.1) | (0.0) | (88.6) | (9.3) | (100.0) | 23 |
| 20-24 | 18.0 | 1.7 | 79.7 | 0.7 | 100.0 | 138 | 5.9 | 5.1 | 86.3 | 2.6 | 100.0 | 118 |
| 25-29 | 20.9 | 3.1 | 75.9 | 0.0 | 100.0 | 316 | 8.4 | 1.4 | 87.0 | 3.1 | 100.0 | 138 |
| 30-34 | 21.4 | 1.4 | 76.0 | 1.2 | 100.0 | 392 | 8.8 | 3.6 | 80.4 | 7.3 | 100.0 | 177 |
| 35-39 | 24.9 | 1.9 | 71.6 | 1.7 | 100.0 | 426 | 16.0 | 4.4 | 71.5 | 8.1 | 100.0 | 169 |
| 40-44 | 18.0 | 2.5 | 77.5 | 2.1 | 100.0 | 365 | 20.2 | 1.5 | 66.2 | 12.0 | 100.0 | 206 |
| 45-49 | 27.4 | 1.8 | 67.4 | 3.5 | 100.0 | 209 | 18.5 | 2.2 | 63.5 | 15.8 | 100.0 | 286 |
| Number of living children |  |  |  |  |  |  |  |  |  |  |  |  |
| 0 | 14.3 | 1.0 | 84.6 | 0.0 | 100.0 | 56 | 3.4 | 0.3 | 87.9 | 8.3 | 100.0 | 192 |
| 1-2 | 20.6 | 1.5 | 76.2 | 1.6 | 100.0 | 1,173 | 12.0 | 2.1 | 76.0 | 9.9 | 100.0 | 622 |
| 3-4 | 22.9 | 2.9 | 73.1 | 1.1 | 100.0 | 538 | 25.3 | 5.4 | 60.4 | 8.9 | 100.0 | 238 |
| 5+ | 35.3 | 4.9 | 56.3 | 3.5 | 100.0 | 89 | 22.6 | 7.6 | 58.9 | 10.9 | 100.0 | 65 |
| Residence |  |  |  |  |  |  |  |  |  |  |  |  |
| Urban | 22.6 | 1.7 | 74.1 | 1.7 | 100.0 | 1,526 | 13.9 | 2.2 | 74.3 | 9.6 | 100.0 | 880 |
| Rural | 18.2 | 3.8 | 77.1 | 0.8 | 100.0 | 330 | 14.3 | 4.9 | 71.8 | 8.9 | 100.0 | 237 |
| Region |  |  |  |  |  |  |  |  |  |  |  |  |
| West | 22.2 | 1.4 | 74.8 | 1.6 | 100.0 | 843 | 13.9 | 1.9 | 77.7 | 6.5 | 100.0 | 489 |
| South | 20.2 | 4.3 | 73.5 | 1.9 | 100.0 | 208 | 15.4 | 4.4 | 68.1 | 12.1 | 100.0 | 167 |
| Central | 21.4 | 1.2 | 75.9 | 1.5 | 100.0 | 448 | 12.3 | 2.0 | 71.8 | 13.9 | 100.0 | 200 |
| North | 19.4 | 2.5 | 77.6 | 0.4 | 100.0 | 78 | 8.0 | 2.9 | 73.7 | 15.4 | 100.0 | 57 |
| East | 23.1 | 3.7 | 71.9 | 1.3 | 100.0 | 279 | 16.3 | 4.4 | 70.7 | 8.6 | 100.0 | 203 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |  |  |  |  |
| Istanbul | 25.4 | 1.2 | 71.7 | 1.7 | 100.0 | 408 | 15.0 | 0.0 | 79.0 | 6.0 | 100.0 | 236 |
| West Marmara | 16.5 | 0.7 | 81.5 | 1.2 | 100.0 | 76 | 8.1 | 5.3 | 78.6 | 8.0 | 100.0 | 48 |
| Aegean | 22.5 | 1.3 | 74.9 | 1.3 | 100.0 | 243 | 14.8 | 2.1 | 77.0 | 6.1 | 100.0 | 147 |
| East Marmara | 17.6 | 1.9 | 78.8 | 1.8 | 100.0 | 190 | 10.1 | 4.0 | 77.4 | 8.6 | 100.0 | 89 |
| West Anatolia | 22.3 | 1.1 | 74.9 | 1.6 | 100.0 | 240 | 11.1 | 2.2 | 70.9 | 15.7 | 100.0 | 118 |
| Mediterranean | 20.2 | 4.3 | 73.5 | 1.9 | 100.0 | 208 | 15.4 | 4.4 | 68.1 | 12.1 | 100.0 | 167 |
| Central Anatolia | 16.8 | 2.7 | 78.9 | 1.7 | 100.0 | 103 | 23.2 | 3.4 | 62.7 | 10.7 | 100.0 | 38 |
| West Black Sea | 22.2 | 2.2 | 75.6 | 0.0 | 100.0 | 72 | 7.2 | 2.2 | 73.7 | 16.9 | 100.0 | 48 |
| East Black Sea | 18.3 | 1.0 | 79.8 | 0.9 | 100.0 | 37 | 8.7 | 2.5 | 75.3 | 13.6 | 100.0 | 23 |
| Northeast Anatolia | 23.8 | 2.3 | 70.5 | 3.5 | 100.0 | 39 | 26.7 | 8.2 | 55.4 | 9.6 | 100.0 | 31 |
| Central East Anatolia | 17.1 | 6.1 | 75.9 | 0.9 | 100.0 | 66 | 13.6 | 2.2 | 73.5 | 10.7 | 100.0 | 53 |
| Southeast Anatolia | 25.2 | 3.1 | 70.7 | 1.0 | 100.0 | 174 | 14.8 | 4.5 | 73.4 | 7.3 | 100.0 | 119 |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |
| No educ. / prim.incomp. | 27.1 | 3.5 | 67.1 | 2.3 | 100.0 | 142 | 20.1 | 5.7 | 64.5 | 9.7 | 100.0 | 185 |
| Complete primary | 25.1 | 2.5 | 71.0 | 1.5 | 100.0 | 676 | 13.3 | 3.1 | 72.6 | 11.0 | 100.0 | 439 |
| Complete secondary | 23.1 | 2.1 | 74.6 | 0.2 | 100.0 | 330 | 11.1 | 2.8 | 78.0 | 8.2 | 100.0 | 173 |
| Complete high school /higher | 17.0 | 1.4 | 79.6 | 2.0 | 100.0 | 707 | 12.9 | 0.6 | 78.4 | 8.1 | 100.0 | 320 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | 19.0 | 3.9 | 75.8 | 1.3 | 100.0 | 211 | 17.1 | 5.4 | 67.0 | 10.5 | 100.0 | 200 |
| Second | 23.5 | 3.7 | 72.1 | 0.7 | 100.0 | 294 | 12.1 | 3.9 | 75.6 | 8.4 | 100.0 | 216 |
| Middle | 22.4 | 1.3 | 75.1 | 1.2 | 100.0 | 374 | 16.7 | 2.1 | 74.3 | 6.9 | 100.0 | 235 |
| Fourth | 26.4 | 1.6 | 70.3 | 1.7 | 100.0 | 446 | 12.0 | 2.0 | 75.2 | 10.7 | 100.0 | 242 |
| Highest | 17.7 | 1.4 | 78.8 | 2.1 | 100.0 | 531 | 12.3 | 1.0 | 75.7 | 11.0 | 100.0 | 224 |
| Total | 21.8 | 2.1 | 74.6 | 1.5 | 100.0 | 1,856 | 14.0 | 2.8 | 73.7 | 9.5 | 100.0 | 1,117 |

Note: Table excludes women who are currently pregnant. 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.

## Table 7.15 Future use of contraception

Percent distribution of currently married women age 15-49 who are not using a contraceptive method by intention to use in the future, according to number of living children, Turkey DHS 2018

|  | Number of living children ${ }^{1}$ |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| Intention to use in the future | 1 | 2 | 3 | $4+$ | Total |  |
|  |  |  |  |  |  |  |
| Intends to use | 30.2 | 43.1 | 37.4 | 40.7 | 35.2 | 38.2 |
| Unsure | 7.5 | 4.6 | 2.4 | 5.4 | 3.1 | 4.3 |
| Does not intend to use | 62.3 | 52.4 | 60.2 | 54.0 | 61.7 | 57.6 |
|  |  |  |  |  |  |  |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of women | 201 | 383 | 440 | 247 | 183 | 1,454 |
| ${ }^{1}$ Includes current pregnancy |  |  |  |  |  |  |

## Table 7.16 Preferred method of contraception for future use

Percent distribution of currently married women age 15-49 who are not using a contraceptive method but who intend to use in the future by preferred method, Turkey DHS 2018

|  | Mother's age |  | Percent <br> distribution |
| :--- | ---: | ---: | ---: |
| Method | $15-29$ | $30-49$ |  |
|  |  |  |  |
| Preferred future method | 11.8 | 9.2 | 10.5 |
| Pill | 28.4 | 28.5 | 28.4 |
| IUD | 5.3 | 6.3 | 5.8 |
| Injections | 21.2 | 20.2 | 20.7 |
| Male condom | 6.4 | 10.0 | 8.2 |
| Female sterilization | 1.2 | 1.6 | 1.4 |
| Male sterilization | 0.6 | 0.0 | 0.3 |
| Periodic abstinence | 18.3 | 13.5 | 15.9 |
| Withdrawal | 0.3 | 1.5 | 0.9 |
| Other traditional | 1.3 | 1.4 | 1.3 |
| Implants | 5.3 | 7.7 | 6.5 |
| Don't know | 100.0 | 100.0 | 100.0 |
|  | 285 | 270 | 555 |
| Total |  |  |  |
| Number of women |  |  |  |

## Table 7.17 Exposure to family planning messages

Percentage of women age 15-49 who heard or saw a family planning message on radio, on television or in a newspaper or magazine in the past few months, according to background characteristics, Turkey DHS 2018

| Background characteristic | Radio | Television | News- paper/ magazine | Mobile phone | None of these four media sources | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age |  |  |  |  |  |  |
| 15-19 | 0.8 | 8.1 | 7.1 | 1.3 | 85.8 | 1,163 |
| 20-24 | 1.4 | 13.2 | 6.1 | 2.9 | 81.3 | 1,034 |
| 25-29 | 1.1 | 14.4 | 7.4 | 2.3 | 78.5 | 1,035 |
| 30-34 | 1.9 | 14.5 | 8.1 | 4.2 | 78.5 | 1,065 |
| 35-39 | 1.7 | 13.0 | 6.3 | 2.2 | 82.0 | 1,105 |
| 40-44 | 1.1 | 12.1 | 5.9 | 2.1 | 83.1 | 1,025 |
| 45-49 | 1.4 | 17.3 | 6.2 | 3.0 | 77.9 | 918 |
| Residence |  |  |  |  |  |  |
| Urban | 1.4 | 13.2 | 7.5 | 2.8 | 80.4 | 5,744 |
| Rural | 1.2 | 12.6 | 4.1 | 1.8 | 83.8 | 1,602 |
| Region |  |  |  |  |  |  |
| West | 1.4 | 14.1 | 8.5 | 2.5 | 78.8 | 3,203 |
| South | 0.8 | 10.9 | 4.4 | 3.2 | 84.7 | 914 |
| Central | 1.5 | 13.0 | 7.3 | 2.7 | 81.1 | 1,524 |
| North | 1.6 | 12.0 | 5.4 | 2.5 | 83.1 | 401 |
| East | 1.4 | 12.5 | 3.9 | 2.0 | 83.9 | 1,305 |
| NUTS 1 Region |  |  |  |  |  |  |
| Istanbul | 0.8 | 15.5 | 8.8 | 1.8 | 78.3 | 1,549 |
| West Marmara | 1.8 | 15.2 | 6.4 | 3.3 | 79.6 | 299 |
| Aegean | 1.7 | 12.0 | 9.8 | 2.7 | 79.3 | 884 |
| East Marmara | 2.1 | 12.8 | 6.0 | 3.6 | 80.7 | 718 |
| West Anatolia | 1.6 | 12.6 | 9.7 | 2.3 | 80.3 | 777 |
| Mediterranean | 0.8 | 10.9 | 4.4 | 3.2 | 84.7 | 914 |
| Central Anatolia | 1.3 | 14.9 | 5.7 | 4.0 | 78.4 | 347 |
| West Black Sea | 1.7 | 11.2 | 3.1 | 2.4 | 85.2 | 384 |
| East Black Sea | 1.1 | 13.5 | 7.1 | 1.9 | 81.3 | 168 |
| Northeast Anatolia | 2.2 | 15.4 | 3.2 | 3.1 | 81.7 | 172 |
| Central East Anatolia | 2.0 | 12.6 | 3.9 | 2.7 | 83.7 | 355 |
| Southeast Anatolia | 0.9 | 11.8 | 4.0 | 1.5 | 84.5 | 778 |
| Education |  |  |  |  |  |  |
| No educ. / prim. incomp. | 1.0 | 9.2 | 1.6 | 1.3 | 88.8 | 678 |
| Complete primary | 0.9 | 11.9 | 2.4 | 2.4 | 85.4 | 2,139 |
| Complete secondary | 0.4 | 11.3 | 5.2 | 2.4 | 83.6 | 1,495 |
| Complete high school / higher | 2.2 | 15.7 | 11.7 | 3.0 | 75.2 | 3,033 |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | 1.2 | 10.4 | 1.9 | 1.6 | 86.9 | 1,154 |
| Second | 1.1 | 11.3 | 3.5 | 2.7 | 84.7 | 1,395 |
| Middle | 1.0 | 12.8 | 5.3 | 2.2 | 82.5 | 1,527 |
| Fourth | 1.0 | 13.8 | 5.1 | 2.6 | 81.6 | 1,650 |
| Highest | 2.5 | 16.1 | 16.0 | 3.4 | 72.3 | 1,619 |
| Total 15-49 | 1.3 | 13.1 | 6.7 | 2.6 | 81.1 | 7,346 |

## RISK FACTORS OF INFANT AND CHILD MORTALITY

## Key Findings

- Age of mother: Mother's age being less than 18 at the time of the delivery is one of the most important risk factors affecting infant and child mortality.
- Birth order: Having four or more births is among the most important risk factors affecting infant and child mortality.
- Short birth interval: A short birth interval has a risk only in combination with high birth order.

Demographic studies can help to identify infants and children who may be at higher risk of death and lead to strategies to reduce this risk, such as promoting birth spacing.

This chapter presents information on biodemographic factors and fertility behaviors that increase mortality risks for infants and children. The information is collected as part of a retrospective birth history, in which female respondents list 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.

The quality of mortality estimates calculated from birth histories depends on the mother's ability to recall all of the children she has given birth to, as well as their birth dates and ages at death. The interviewers who participated in the 2018 TDHS were extensively trained and supervised, which contributes to confidence in the quality of the data. However, because early age deaths are relatively rare events, mortality estimates are subject to large sampling errors as the event gets rarer.

In the countries with low infant and child mortality rates, this situation leads to larger confidence intervals for the calculation of infant and child mortality rates, as less deaths are encountered in sample surveys. In Turkey the infant mortality rate has declined substantially since the 1990s. Therefore, in the THDSs the confidence interval surrounding infant and child mortality have expanded and begun to overlap with the estimates of previous surveys. Considering that relevant indicators can be calculated from registration systems, differently from previous surveys, for 2018 TDHS estimates on infant and child mortality rates are not included in this report.

2018 TDHS has a suitable design and is rich in questions to produce findings on the determinants of infant and child mortality. Taking into consideration the issues mentioned previously, in this chapter indicators on biodemographic risk factors related to infant and child mortality that cannot be calculated from other data sources are presented.

### 8.1 Biodemographic Risk Factors

## Risk ratio

It is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births not in any high-risk category.

Fertility behavior is known to have an influence on childhood mortality. Based on data from many countries, universally recognized risk factors include low (less than 18) or high ( 35 and above) maternal age, short birth intervals (less than 24 months), and births at high parities (four and above). Depending on the country, these risk factors may not be significantly associated to higher levels of child mortality. It may be the case that, in instances where the risks mentioned do not affect the mortality rates per se, the risk increases when multiple risk factors are present.

Table $\mathbf{8 . 1}$ gives percent distribution of births in the five years preceding the survey by category of elevated risk of mortality and the risk ratio of births in these groups. This table also presents the percent distribution of currently married women who have high infant and child mortality risk if they were to conceive a child at the time of the survey by category of risk.

Thirty-four percent of births in the five years preceding the survey were not in any high-risk category. Thirtyone percent of births were first births to women between ages 18 and 34 which is an unavoidable risk category.

About one in three births ( $35 \%$ ) were in at least one of the avoidable high-risk categories. Nine percent on births were in the category with two or more high-risk factors. Regarding high-risk categories, the most common single high-risk categories are the birth interval less than 24 months ( $10 \%$ ) and mother age being over $34(8 \%)$. Among multiple risk categories, birth order of four and higher over the age of $35(4 \%)$ and birth order of four and higher in short birth intervals ( $3 \%$ ) are prominent groups.

The risk ratios presented in Table 8.1 compare the risk of dying among births in each specific high-risk category to the proportion dead among births not in any high-risk category. In general, risk ratios are higher for children in multiple high-risk categories than in single high-risk categories ( 1.37 and 1.08 respectively). The risk ratio for unavoidable risk category is 1.83 and the risk ratio for avoidable risk categories is 1.15 . It is seen that, in the single risk categories, the risk ratio of four and higher births is 1.23 . Among the multiple risk categories, the risk ratio for mother over age 35 and birth order of four is 1.24 , and the risk ratio for birth order of four and short birth intervals is 2.31 .

The last column of Table 8.1 shows that $66 \%$ of currently married women are in an avoidable high-risk category. The proportion of women who have the potential of having a birth in a single high-risk category $(41 \%)$ is higher than those in a multiple high-risk category ( $25 \%$ ). Regarding multiple risk categories, it seen that with the largest percentage the birth group with the highest risk is comprised of women aged over 35 with four and higher birth ( $20 \%$ ).

List of Tables
Table 8.1 High-risk fertility behaviour

## Table 8.1 High-risk fertility behavior

Percent distribution of children born in the 5 years preceding the survey by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Turkey DHS 2018

| Risk category | Births in the 5 years preceding the survey |  | Percentage of currently married women ${ }^{1}$ |
| :---: | :---: | :---: | :---: |
|  | Percentage of births | Risk ratio |  |
| Not in any high risk category | 34.3 | 1.00 | $28.6{ }^{\text {a }}$ |
| Unavoidable risk category First order births between ages 18 and 34 years | 30.5 | 1.83 | 5.3 |
| In any avoidable high-risk category | 35.2 | 1.15 | 66.1 |
| Single high-risk category Mother's age <18 only | 1.4 | (2.43) | 0.1 |
| Mother's age >34 only | 8.1 | 0.88 | 27.8 |
| Birth interval <24 months only | 10.1 | 0.95 | 7.3 |
| Birth order >3 only | 7.1 | 1.23 | 5.7 |
| Subtotal | 26.6 | 1.08 | 40.8 |
| Multiple high-risk category Age <18 and birth interval <24 months ${ }^{2}$ | 0.2 | * | 0.0 |
| Age $>34$ and birth interval <24 months | 0.7 | * | 1.0 |
| Age $>34$ and birth order $>3$ | 4.4 | 1.24 | 20.1 |
| Age $>34$ and birth interval <24 months and birth order $>3$ Birth interval <24 months and birth order $>3$ | 0.6 2.7 | 2.31 | 1.4 2.8 |
| Subtotal | 8.6 | 1.37 | 25.3 |
| Total | 100.0 | na | 100.0 |
| Subtotals by individual avoidable high-risk category |  |  |  |
| Mother's age <18 | 1.5 | 2.18 | 0.1 |
| Mother's age > 34 | 13.8 | 0.91 | 50.3 |
| Birth interval <24 months | 14.3 | 1.11 | 12.5 |
| Birth order > 3 | 14.7 | 1.39 | 29.9 |
| Number of births/women | 2,568 | na | 4,820 |

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

## MATERNAL HEALTH CARE

## Key Findings

- Antenatal care coverage: The majority of women age 15-49 ( $96 \%$ ) who had a live birth in the 5 years preceding the survey received antenatal care from a skilled provider for their most recent birth. $90 \%$ of women had four or more antenatal care visits.
- Components of antenatal care: The majority of pregnant women received the basic components of antenatal care (over 92\% for most components). 81\% percent of women took iron supplements during their pregnancy. $81 \%$ of women had tetanus vaccination during their pregnancy.
- Delivery: Almost all of births (99\%) in the 5 years before the survey were delivered by a skilled provider, and were delivered in a health facility.
- Caesarean section: $52 \%$ of all deliveries are delivered by caesarean section. $38 \%$ of births are delivered by caesarean section that was planned before the onset of labor pains.
- Postnatal checks: $79 \%$ of mothers and $68 \%$ of newborns had a postnatal check within the first 2 days after birth.

Health care services during pregnancy and childbirth and after delivery are important for the survival and wellbeing of both the mother and the infant. Antenatal care (ANC) can reduce health risks for mothers and their babies through monitoring of pregnancies and screening for complications.
Delivery at a health facility, with skilled medical attention and hygienic conditions, reduces complications and infections during labour and delivery. Timely postnatal care treats complications arising from delivery and teaches the mother how to care for herself and her infant. Utilization of these services contributes to policies and programmes to further improve maternal and child health care.

The first part of this chapter presents information on ANC providers, number and timing of ANC visits, and various components of care in Turkey. The second part focuses on childbirth and includes information on place of delivery, assistance during delivery, and caesarean deliveries. The final section focuses on postnatal care and presents information on postnatal health checks for mothers and newborns.

### 9.1 Antenatal Care Coverage and Content

### 9.1.1 Skilled Providers

## Antenatal care (ANC) from a skilled provider

Pregnancy care received from skilled providers, such as doctors, nurses, and midwives.
Sample: Women age 15-49 who had a live birth in the 5 years before the survey

Antenatal care from a skilled provider is important in monitoring pregnancies to ensure that problems are identified early and managed before they develop into more serious complications. In Turkey, almost all women $(96 \%)$ received ANC from a skilled provider for their most recent birth in the 5 years preceding the survey (Table 9.1). This care was mostly provided by a doctor ( $94 \%$ ). Only $3 \%$ of women received antenatal care from a nurse or midwife.

Trends: Figure 9.1 shows that antenatal care coverage in Turkey was significantly improved between 1998 and 2003. It reached to almost universal coverage in 2013 ( $97 \%$ ) and has remained consistently high since then.

There is very little variation in this indicator by background variables, with $94 \%$ or more of women in almost all categories seeing a skilled provider. The percentages of women receiving ANC from a skilled provider were lowest among those in Aegean (92\%) and those with no education (93\%).

Figure 9.1 Trends in antenatal care coverage Percentage of women age 15-49 who had a live birth in the 5 years before the survey (for the most recent birth)


|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1993 | 1998 | 2003 | 2008 | 2013 | 2018 |
| TDHS | TDHS | TDHS | TDHS | TDHS | TDHS |

### 9.1.2 Timing and Number of ANC Visits

Ninety percent of pregnant women in Turkey report having at least four antenatal care visits (Table 9.2). Only $4 \%$ of women received no ANC.

Ninety percent of women receive ANC within their first trimester of pregnancy. One percent of women delay their first ANC visit until the eighth month or later.

Trends: The percentage of women with at least 4 ANC visits for their most recent birth has increased steadily since 1993 (Figure 9.1). However, the pace of change has declined markedly since 2013, with the percentage of women having at least 4 visits increasing only slightly between 2013 and 2018 (from $89 \%$ to $90 \%$ ). The percentage of women who had their initial ANC visit in the first trimester was more or less at a standstill between 1993 and 2003 but then sharply increased afterwards until 2013 ( $89 \%$ ).

## Patterns by background characteristics

- Differences were small with respect to number of ANC visit; $84 \%$ of rural women had 4 or more ANC visit, compared with $91 \%$ of women in urban areas.
- Similarly, the percentage of women receiving ANC in the first trimester does not vary substantially according to residence. Eighty-seven percent of women in rural areas, $91 \%$ in urban areas received first ANC care in the first trimester.
- Considering the median months of pregnancy at first visit, women in rural and urban areas made the first ANC visit in the second month of their pregnancy (1.7 and 1.9 respectively).


### 9.2 Components of ANC Visits

The effectiveness of antenatal checkups in ensuring safe motherhood depends in part on the tests and measurements done and the advice given during the checkups. The 2018 TDHS collected information on this important aspect of antenatal care by asking mothers who had antenatal checkups whether they received each of several components of ANC during their last pregnancy in the 5 years preceding the survey.

In Turkey, $81 \%$ of women age $15-49$ with a live birth in the 5 years preceding the survey said that they had taken iron supplements (tablets or syrup) during the pregnancy of their most recent birth (Table 9.3). Almost all of the women who received ANC for their most recent birth had key ANC services performed, including having their blood pressure measured (98\%), a blood sample taken (97\%) and an ultrasound performed (98\%). The percentage of women who had had their urine sample taken was slightly lower than the other ANC services ( $92 \%$ ).

Tetanus toxoid injections are given during pregnancy for the prevention of neonatal tetanus, an important cause of death among infants. Eighty-one percent of the mother received tetanus injections during their ANC visits for their most recent births in the 5 years before the survey.

## Patterns by background characteristics

- The percentage of women who had their blood pressure measured, blood sample taken, and ultrasound performed increases with age. There is very little variation in receiving iron supplements and tetanus injection by age of mother.
- At residential level, there are no marked differences among urban and rural women.
- The coverage of iron supplements was the lowest in the East region (70\%) and tetanus injection was the lowest in the Central region (77\%).
- Educational differences are marked with respect to urine sample being taken, tetanus injections and particularly iron supplements. The percentage of women who took iron tablets/syrup increases with increasing education, from $63 \%$ among those with no education to $89 \%$ among those with a higher education.
- Likewise, with the percentage of women who had had their urine sample taken increases from $80 \%$ among those with no education to $96 \%$ among those with a higher education. This pattern also exists for tetanus injection (from $77 \%$ to $81 \%$ ).
- Similarly, the proportion of receiving ANC services increases with increasing household wealth.


### 9.3 Delivery Services

### 9.3.1 Institutional Deliveries

## Institutional deliveries

Deliveries that occur in a health facility.
Sample: All live births in the 5 years before the survey

Institutional deliveries are almost universal in Turkey, with $99 \%$ of live births in the 5 years preceding the survey delivered in a health facility (Table 9.4). Fifty-nine percent of deliveries occurred in public facilities and $40 \%$ in private facilities. Less than $1 \%$ of deliveries in the 5 years preceding the survey occurred at home.

Trends: Figure 9.2 shows that institutional deliveries increased from $60 \%$ in 1993 to almost universal coverage in $2013(97 \%)$ and have remained consistently high since that time.

Figure 9.2 Trends in place of birth Percentage of live births in the 5 years before the survey


Patterns by background characteristics

- There is very slight variation in this indicator by background variables, with $94 \%$ or more of births to women in almost all categories occurred in a health facility.
- With some exceptions, women mostly delivered in public sector facilities. Private sector facilities were more common among mothers with higher education (63\%) than public sector (37\%). The proportion of births occurring at a private sector facility is higher among mothers having their first birth ( $52 \%$ ).
- More than half of the births to women residing in the West region were delivered in private sector facilities (56\%)
(Figure 9.3). A similar pattern exists among mothers in highest wealth quintiles.

Figure 9.3 Births in private sector facilities
Percentage of live births in the 5 years before the survey delivered in private facilities


### 9.3.2 Skilled Assistance During Delivery

## Skilled assistance during delivery

Births delivered with the assistance of doctors, nurse, and midwives.
Sample: All live births in the 5 years before the survey

In Turkey, virtually all births in the 5 years preceding the survey were delivered by a skilled provider: $83 \%$ by a doctor and $16 \%$ by a nurse or midwife (Table

Figure 9.4 Assistance during delivery Percent distribution of births in the 5 years before the survey

## 9.5 and Figure 9.4).

## Patterns by background characteristics

- Similar to institutional deliveries, there is very little variation according to background variables in the proportion of deliveries by a skilled provider.
- Variations are more pronounced by the type of skilled provider assisting the delivery, especially at educational, regional and wealth level. Births delivered with the assistance of a nurse was


Note: Figures may not add up to $100 \%$ due to rounding. highest among women with no education, and the women in the lowest wealth quintile ( $21 \%$ ), as compared with highest education level and wealth quintile ( $3 \%$ and $1 \%$ ).

- Assistance provided by a nurse or midwife considerably varies by region, from a low of $7 \%$ in the West to a high of $32 \%$ in the East region.


### 9.3.3 Delivery by Cesarean

Access to caesarean sections (C-sections) can reduce maternal and neonatal mortality and complications such as obstetric fistula. However, use of caesarean sections without medical need can put women at risk of both short-term and long-term health problems. WHO advises that caesarean sections be done when medically necessary but does not recommend a specific rate for countries to achieve at the population level. Research conducted by WHO has shown that increases in countries' caesarean section rates up to $10 \%$ are associated with declines in maternal and neonatal mortality. However, increases beyond $10 \%$ are not associated with reductions in maternal and newborn mortality rates (WHO, 2015).

In Turkey, caesarean section rate for all births was $52 \%$ (Table 9.6). For $38 \%$ of births, the decision to deliver by C-section occurred before the onset of labour pains, while for $14 \%$ of births the decision was not made until after the onset of labour. The comparatively high ratio of planned to unplanned C-sections may indicate that a large proportion of C -section deliveries were not required or necessary.

Trends: Figure 9.5 shows that C -section deliveries significantly increased in Turkey. The pace of change is also dramatic. C-section rate was increased twofold from 1993 (7\%) to 1998 (14\%). The rapid rise in C-section continued until 2013, and it has slowed since then.

Patterns by background characteristics

- The percentage of C-section among women age 35-49 was two times higher than those of women under 20 years old ( $64 \%$ versus $33 \%$ ). Age is also related to whether or not the C-section was planned or unplanned.
- C-sections were more common among deliveries in private facilities (68\%) than those delivered in public facilities ( $41 \%$ ). More than half of the births given in private facilities were C -sections that were planned before the onset of labor pains (51\%).
- Level of C-sections were highest among mothers with the highest education level (63\%), and among those residing in the wealthiest households (68\%).
- C-section deliveries were reported commonly among mothers having their first births (54\%).
- Regional variations are substantial as they are in other background characteristics. C-section levels range from a low level of $38 \%$ in the East region to a high level of $64 \%$ in the North region.


### 9.3.4 Duration of Stay in Health Facility After Birth

Women who gave birth in a health facility in the 5 years prior to the survey were asked how long they stayed in the facility following the birth. The duration of the stay was generally longer for C -section births than for vaginal births. Twenty-seven percent of C-section births involved a stay of 3 or more days in a health facility, as compared to $8 \%$ of vaginal births (Table 9.7).

### 9.4 Postnatal Care

The World Health Organization recommends that both mothers and newborns receive a postnatal health check within 24 hours after delivery (WHO 2017).

### 9.4.1 Postnatal Health Check for Mothers

Seventy-one percent of women who had a birth in the 2 years preceding the survey had a postnatal check within 24 hours of the delivery of their most recent birth, with $66 \%$ reporting that the first check occurred less than 4 hours after delivery (Table 9.8). Seventy-nine percent of women had a postnatal check during the first 2 days after birth while $96 \%$ of them had a postnatal check during the first 41 days after delivery. Only $5 \%$ of women did not receive any postnatal check.

## Patterns by background characteristics

- The percentage of women who had a postnatal check during the first 41 days decreased from $97 \%$ for the $1^{\text {st }}$ birth to $90 \%$ for the $4^{\text {th }}$ or $5^{\text {th }}$ birth order.


## Type of Provider

Fifty-nine percent of women giving birth in the 2 years before the survey received postnatal care from a doctor for their most recent birth, while $20 \%$ received care from a nurse or midwife (Table 9.9).

### 9.4.2 Postnatal Health Check for Newborns

Majority of newborns (68\%) had a postnatal check in the first 2 days after birth (Table 9.10). Fifty-eight percent of newborns had a check within 24 hours after delivery, with almost all such newborns being checked within 4 hours after delivery (56\%).

## Patterns by background characteristics

- There is not an obvious relationship between mother's education level and postnatal care of newborns, but the percentage of newborns receiving postnatal care within 2 days after the birth varied within a range of $62 \%$ at the lowest to $72 \%$ at the highest education level.
- A similar pattern exists in wealth quintiles. Babies born to mothers in the highest wealth quintile most commonly received postnatal care within 2 days after delivery ( $78 \%$ ). The percentage of postnatal care of newborns decreased to $62 \%-65 \%$ for mothers in the lowest two wealth quintiles.


## Type of Provider

Sixty-two percent of newborns in the 2 years preceding the survey had a postnatal check from a doctor, while $6 \%$ were checked by a nurse or midwife (Table 9.11).

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## Table 9.1 Antenatal care

Percent distribution of women age $15-49$ who had a live birth in the 5 years preceding the survey by antenatal care (ANC) provider during pregnancy for the most recent birth and the percentage receiving antenatal care from a skilled provider for the most recent birth, according to background characteristics, Turkey DHS 2018

| Background characteristic | Antenatal care provider |  |  |  | $\begin{gathered} \mathrm{No} \\ \text { ANC } \end{gathered}$ | Total | Percentage receiving ANC from a skilled provider ${ }^{1}$ | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Doctor | Nurse | Midwife | Other |  |  |  |  |
| Age at birth |  |  |  |  |  |  |  |  |
| <20 | 92.2 | 1.9 | 0.0 | 0.0 | 5.9 | 100.0 | 94.1 | 97 |
| 20-34 | 93.7 | 1.6 | 1.4 | 0.1 | 3.3 | 100.0 | 96.7 | 1,612 |
| 35-49 | 93.4 | 1.3 | 1.3 | 0.0 | 4.0 | 100.0 | 96.0 | 323 |
| Birth order |  |  |  |  |  |  |  |  |
| 1 | 96.5 | 0.5 | 1.0 | 0.0 | 2.0 | 100.0 | 98.0 | 591 |
| 2-3 | 92.5 | 2.1 | 1.7 | 0.1 | 3.7 | 100.0 | 96.2 | 1,118 |
| 4-5 | 93.3 | 2.2 | 0.8 | 0.0 | 3.7 | 100.0 | 96.3 | 254 |
| 6+ | 86.4 | 0.0 | 0.0 | 0.0 | 13.6 | 100.0 | 86.4 | 69 |
| Residence |  |  |  |  |  |  |  |  |
| Urban | 94.0 | 1.2 | 1.1 | 0.1 | 3.7 | 100.0 | 96.3 | 1,560 |
| Rural | 92.0 | 2.8 | 2.2 | 0.0 | 3.0 | 100.0 | 97.0 | 471 |
| Region |  |  |  |  |  |  |  |  |
| West | 94.2 | 0.9 | 0.8 | 0.0 | 4.1 | 100.0 | 95.9 | 827 |
| South | 91.4 | 1.4 | 3.0 | 0.0 | 4.2 | 100.0 | 95.8 | 271 |
| Central | 92.5 | 2.6 | 2.7 | 0.0 | 2.3 | 100.0 | 97.7 | 389 |
| North | 96.0 | 1.9 | 1.4 | 0.0 | 0.6 | 100.0 | 99.4 | 81 |
| East | 94.2 | 1.9 | 0.1 | 0.2 | 3.6 | 100.0 | 96.2 | 463 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |
| Istanbul | 95.9 | 0.6 | 0.0 | 0.0 | 3.5 | 100.0 | 96.5 | 406 |
| West Marmara | 93.0 | 1.3 | 1.4 | 0.0 | 4.3 | 100.0 | 95.7 | 70 |
| Aegean | 87.4 | 1.3 | 3.3 | 0.0 | 8.0 | 100.0 | 92.0 | 232 |
| East Marmara | 98.3 | 0.6 | 0.6 | 0.0 | 0.5 | 100.0 | 99.5 | 191 |
| West Anatolia | 94.4 | 2.2 | 2.1 | 0.0 | 1.4 | 100.0 | 98.6 | 194 |
| Mediterranean | 91.4 | 1.4 | 3.0 | 0.0 | 4.2 | 100.0 | 95.8 | 271 |
| Central Anatolia | 88.1 | 4.7 | 3.7 | 0.0 | 3.5 | 100.0 | 96.5 | 88 |
| West Black Sea | 94.8 | 3.1 | 0.6 | 0.0 | 1.5 | 100.0 | 98.5 | 84 |
| East Black Sea | 96.4 | 1.6 | 1.9 | 0.0 | 0.0 | 100.0 | 100.0 | 34 |
| Northeast Anatolia | 96.8 | 0.4 | 0.0 | 0.0 | 2.7 | 100.0 | 97.3 | 56 |
| Central East Anatolia | 91.9 | 4.8 | 0.5 | 0.0 | 2.8 | 100.0 | 97.2 | 115 |
| Southeast Anatolia | 94.7 | 1.0 | 0.0 | 0.3 | 4.0 | 100.0 | 95.7 | 292 |
| Education |  |  |  |  |  |  |  |  |
| No educ. / prim. incomp. | 91.6 | 1.4 | 0.0 | 0.0 | 7.0 | 100.0 | 93.0 | 259 |
| Complete primary | 92.4 | 1.5 | 1.9 | 0.0 | 4.2 | 100.0 | 95.8 | 554 |
| Complete secondary | 93.4 | 2.8 | 1.7 | 0.2 | 1.9 | 100.0 | 97.9 | 491 |
| Comp. high school / higher | 95.3 | 0.8 | 1.1 | 0.0 | 2.8 | 100.0 | 97.2 | 728 |
| Wealth quintile |  |  |  |  |  |  |  |  |
| Lowest | 90.8 | 2.9 | 0.8 | 0.2 | 5.3 | 100.0 | 94.4 | 406 |
| Second | 91.7 | 1.1 | 2.4 | 0.0 | 4.7 | 100.0 | 95.3 | 414 |
| Middle | 91.5 | 2.4 | 1.4 | 0.0 | 4.7 | 100.0 | 95.3 | 426 |
| Fourth | 95.4 | 1.2 | 1.5 | 0.0 | 1.9 | 100.0 | 98.1 | 389 |
| Highest | 98.8 | 0.0 | 0.4 | 0.0 | 0.8 | 100.0 | 99.2 | 397 |
| Total | 93.6 | 1.6 | 1.3 | 0.0 | 3.5 | 100.0 | 96.4 | 2,032 |

Note: If more than one source of ANC was mentioned, only the provider with the highest qualifications is considered in this tabulation.
${ }^{1}$ Skilled provider includes doctors, nurses and midwives.

## Table 9.2 Number of antenatal care visits and timing of first visit

Percent distribution of women age 15-49 who had a live birth in the 5 years preceding the survey by number of antenatal care (ANC) visits for the most recent live birth, and by the timing of the first visit, and among women with ANC, median months pregnant at first visit, according to residence, Turkey DHS 2018

| Number of ANC visits and timing of first visit | Residence |  | Total |
| :---: | :---: | :---: | :---: |
|  | Urban | Rural |  |
| Number of ANC visits |  |  |  |
| None | 3.7 | 3.0 | 3.5 |
| 1 | 0.6 | 3.2 | 1.2 |
| 2-3 | 4.0 | 8.9 | 5.1 |
| 4+ | 91.4 | 84.0 | 89.7 |
| Don't know/missing | 0.4 | 0.9 | 0.5 |
| Total | 100.0 | 100.0 | 100.0 |
| Number of months pregnant at time of first ANC visit |  |  |  |
| No antenatal care | 3.7 | 3.0 | 3.5 |
| <4 | 90.5 | 86.5 | 89.5 |
| 4-5 | 4.3 | 6.7 | 4.8 |
| 6-7 | 0.6 | 1.1 | 0.8 |
| 8+ | 0.7 | 2.6 | 1.1 |
| Don't know/missing | 0.3 | 0.2 | 0.2 |
| Total | 100.0 | 100.0 | 100.0 |
| Number of women | 1,560 | 471 | 2,032 |
| Median months pregnant at first visit (for those with ANC) | 1.7 | 1.9 | 1.7 |
| Number of women with ANC | 1,503 | 458 | 1,960 |

## Table 9.3 Components of antenatal care

Among women age 15-49 with a live birth in the 5 years preceding the survey, percentage who took iron tablets or syrup and drugs for intestinal parasites during the pregnancy of the most recent live birth; and among women receiving antenatal care (ANC) for the most recent live birth in the 5 years preceding the survey, percentage receiving specific antenatal services, according to background characteristics, Turkey DHS 2018

| Background characteristic | Among women with a live birth in the past 5 years, percentage who during the pregnancy of their most recent live birth: |  | Among women who received antenatal care for their most recent birth in the past 5 years, percentage with selected services |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | Number of |
|  | Took iron tablets or syrup | Number of women with a live birth in the past 5 years | Blood pressure measured | Urine sample taken | Blood sample taken | Ultrasound | Tetanus injection | women with ANC for their most recent birth |
| Age at birth |  |  |  |  |  |  |  |  |
| <20 | 81.0 | 97 | 92.4 | 87.3 | 93.5 | 98.1 | 67.9 | 91 |
| 20-34 | 81.5 | 1,612 | 97.9 | 92.3 | 96.6 | 98.2 | 82.0 | 1,559 |
| 35-49 | 79.6 | 323 | 97.5 | 91.9 | 97.9 | 99.3 | 79.3 | 310 |
| Birth order |  |  |  |  |  |  |  |  |
| 1 | 84.6 | 591 | 97.3 | 93.8 | 97.3 | 98.5 | 83.9 | 579 |
| 2-3 | 83.0 | 1,118 | 98.2 | 93.2 | 97.5 | 98.8 | 79.9 | 1,077 |
| 4-5 | 70.5 | 254 | 96.3 | 87.1 | 93.8 | 96.2 | 79.6 | 245 |
| 6+ | 61.1 | 69 | 93.0 | 72.9 | 88.1 | 97.5 | 77.2 | 59 |
| Residence |  |  |  |  |  |  |  |  |
| Urban | 82.2 | 1,560 | 97.6 | 92.9 | 97.3 | 98.3 | 80.4 | 1,503 |
| Rural | 77.8 | 471 | 97.5 | 89.0 | 94.8 | 98.6 | 82.6 | 458 |
| Region |  |  |  |  |  |  |  |  |
| West | 85.4 | 827 | 98.4 | 93.7 | 98.1 | 98.3 | 82.7 | 793 |
| South | 84.3 | 271 | 95.8 | 91.3 | 94.4 | 97.7 | 82.7 | 260 |
| Central | 82.6 | 389 | 98.6 | 95.4 | 99.0 | 99.7 | 77.0 | 380 |
| North | 81.7 | 81 | 98.2 | 98.0 | 99.0 | 99.4 | 86.6 | 81 |
| East | 70.4 | 463 | 96.1 | 85.4 | 93.0 | 97.6 | 79.1 | 446 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |
| Istanbul | 88.4 | 406 | 98.2 | 94.0 | 97.5 | 97.6 | 77.7 | 392 |
| West Marmara | 86.6 | 70 | 100.0 | 95.2 | 98.7 | 98.7 | 86.0 | 67 |
| Aegean | 82.8 | 232 | 97.8 | 91.9 | 98.6 | 98.6 | 87.0 | 213 |
| East Marmara | 82.9 | 191 | 99.4 | 96.9 | 99.4 | 100.0 | 88.9 | 190 |
| West Anatolia | 81.3 | 194 | 97.9 | 93.0 | 98.6 | 100.0 | 74.5 | 191 |
| Mediterranean | 84.3 | 271 | 95.8 | 91.3 | 94.4 | 97.7 | 82.7 | 260 |
| Central Anatolia | 82.0 | 88 | 98.5 | 95.0 | 98.7 | 98.5 | 73.3 | 85 |
| West Black Sea | 80.7 | 84 | 98.3 | 98.1 | 99.4 | 99.4 | 82.4 | 82 |
| East Black Sea | 82.1 | 34 | 100.0 | 100.0 | 99.0 | 100.0 | 88.4 | 34 |
| Northeast Anatolia | 68.3 | 56 | 95.5 | 89.4 | 94.4 | 98.5 | 82.6 | 54 |
| Central East Anatolia | 67.9 | 115 | 95.4 | 88.4 | 92.7 | 95.8 | 75.8 | 112 |
| Southeast Anatolia | 71.8 | 292 | 96.4 | 83.5 | 92.9 | 98.2 | 79.7 | 280 |
| Education |  |  |  |  |  |  |  |  |
| No educ. / prim. incomp. | 62.7 | 259 | 95.0 | 80.1 | 92.2 | 97.8 | 76.5 | 241 |
| Complete primary | 79.3 | 554 | 96.5 | 91.3 | 95.4 | 96.9 | 81.1 | 531 |
| Complete secondary | 81.2 | 491 | 98.6 | 93.3 | 97.4 | 99.3 | 82.3 | 481 |
| Complete high school / higher | 89.1 | 728 | 98.5 | 95.7 | 98.7 | 99.0 | 81.4 | 707 |
| Wealth quintile |  |  |  |  |  |  |  |  |
| Lowest | 70.6 | 406 | 95.1 | 84.1 | 91.5 | 97.0 | 75.3 | 384 |
| Second | 79.3 | 414 | 96.1 | 89.5 | 95.4 | 97.8 | 80.3 | 395 |
| Middle | 81.6 | 426 | 98.4 | 94.1 | 97.3 | 98.5 | 84.2 | 406 |
| Fourth | 86.3 | 389 | 98.8 | 94.8 | 99.3 | 98.9 | 85.4 | 381 |
| Highest | 88.4 | 397 | 99.4 | 97.5 | 99.9 | 99.6 | 79.3 | 394 |
| Total | 81.2 | 2,032 | 97.6 | 92.0 | 96.7 | 98.4 | 80.9 | 1,960 |

## Table 9.4 Place of delivery

Percent distribution of live births in the 5 years preceding the survey by place of delivery and percentage delivered in a health facility, according to background characteristics, Turkey DHS 2018

| Background characteristic | Health facility |  | Home | Other | Total | Percentage delivered in a health facility | Number of births |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Public sector | Private sector |  |  |  |  |  |
| Mother's age at birth |  |  |  |  |  |  |  |
| <20 | 68.9 | 29.0 | 1.6 | 0.5 | 100.0 | 97.9 | 192 |
| 20-34 | 57.8 | 41.2 | 0.8 | 0.1 | 100.0 | 99.0 | 2,023 |
| 35-49 | 57.4 | 41.1 | 1.2 | 0.4 | 100.0 | 98.4 | 354 |
| Birth order |  |  |  |  |  |  |  |
| 1 | 47.4 | 51.9 | 0.6 | 0.1 | 100.0 | 99.4 | 854 |
| 2-3 | 60.1 | 39.0 | 0.7 | 0.2 | 100.0 | 99.1 | 1,336 |
| 4-5 | 77.3 | 19.9 | 2.5 | 0.3 | 100.0 | 97.2 | 290 |
| 6+ | 82.5 | 13.4 | 2.8 | 1.2 | 100.0 | 96.0 | 88 |
| Antenatal care visits ${ }^{1}$ |  |  |  |  |  |  |  |
| None | 64.0 | 32.0 | 3.3 | 0.7 | 100.0 | 96.0 | 71 |
| 1-3 | 80.7 | 13.0 | 6.3 | 0.0 | 100.0 | 93.7 | 128 |
| 4+ | 55.3 | 44.3 | 0.2 | 0.2 | 100.0 | 99.6 | 1,822 |
| Don't know/missing | * | * | * | * | * | * | 10 |
| Residence |  |  |  |  |  |  |  |
| Urban | 54.2 | 45.2 | 0.5 | 0.1 | 100.0 | 99.4 | 1,931 |
| Rural | 71.9 | 25.4 | 2.2 | 0.6 | 100.0 | 97.2 | 637 |
| Region |  |  |  |  |  |  |  |
| West | 43.8 | 55.8 | 0.3 | 0.0 | 100.0 | 99.6 | 990 |
| South | 62.2 | 37.5 | 0.3 | 0.0 | 100.0 | 99.7 | 362 |
| Central | 66.5 | 32.6 | 0.5 | 0.4 | 100.0 | 99.1 | 463 |
| North | 66.2 | 33.5 | 0.0 | 0.3 | 100.0 | 99.7 | 98 |
| East | 72.2 | 24.8 | 2.6 | 0.4 | 100.0 | 97.0 | 656 |
| NUTS 1 Region |  |  |  |  |  |  |  |
| Istanbul | 37.0 | 62.5 | 0.5 | 0.0 | 100.0 | 99.5 | 498 |
| West Marmara | 53.4 | 44.8 | 1.2 | 0.6 | 100.0 | 98.2 | 78 |
| Aegean | 50.6 | 49.4 | 0.0 | 0.0 | 100.0 | 100.0 | 267 |
| East Marmara | 58.3 | 41.7 | 0.0 | 0.0 | 100.0 | 100.0 | 228 |
| West Anatolia | 65.7 | 33.2 | 0.6 | 0.5 | 100.0 | 98.8 | 235 |
| Mediterranean | 62.2 | 37.5 | 0.3 | 0.0 | 100.0 | 99.7 | 362 |
| Central Anatolia | 58.8 | 40.8 | 0.0 | 0.4 | 100.0 | 99.6 | 108 |
| West Black Sea | 73.3 | 25.8 | 0.9 | 0.0 | 100.0 | 99.1 | 93 |
| East Black Sea | 61.1 | 38.3 | 0.0 | 0.6 | 100.0 | 99.4 | 43 |
| Northeast Anatolia | 83.4 | 14.9 | 1.7 | 0.0 | 100.0 | 98.3 | 71 |
| Central East Anatolia | 85.6 | 9.3 | 4.3 | 0.9 | 100.0 | 94.8 | 161 |
| Southeast Anatolia | 65.2 | 32.4 | 2.1 | 0.3 | 100.0 | 97.6 | 424 |
| Mother's education |  |  |  |  |  |  |  |
| No educ. / prim. incomp. | 78.8 | 18.2 | 2.3 | 0.7 | 100.0 | 97.0 | 368 |
| Complete primary | 68.6 | 29.4 | 1.7 | 0.3 | 100.0 | 98.0 | 703 |
| Complete secondary | 64.1 | 35.7 | 0.1 | 0.1 | 100.0 | 99.8 | 653 |
| Complete high school / higher | 37.1 | 62.6 | 0.3 | 0.0 | 100.0 | 99.7 | 843 |
| Wealth quintile |  |  |  |  |  |  |  |
| Lowest | 82.7 | 13.0 | 3.5 | 0.8 | 100.0 | 95.7 | 576 |
| Second | 66.9 | 32.6 | 0.5 | 0.0 | 100.0 | 99.5 | 550 |
| Middle | 61.2 | 38.7 | 0.0 | 0.1 | 100.0 | 99.9 | 523 |
| Fourth | 43.2 | 56.6 | 0.2 | 0.0 | 100.0 | 99.8 | 473 |
| Highest | 30.4 | 69.6 | 0.0 | 0.0 | 100.0 | 100.0 | 446 |
| Total | 58.6 | 40.3 | 0.9 | 0.2 | 100.0 | 98.9 | 2,568 |

[^12]Table 9.5 Assistance during delivery
Percent distribution of live births in the 5 years preceding the survey by person providing assistance during delivery, percentage of births assisted by a skilled provider, according to background characteristics, Turkey DHS 2018

| Background characteristic | Person providing assistance during delivery |  |  |  |  | No one | Total | Percentage delivered by a skilled provider ${ }^{1}$ | Number of births |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Doctor | Nurse | Midwife | Traditional birth attendant | Relative/ other |  |  |  |  |
| Mother's age at birth |  |  |  |  |  |  |  |  |  |
| <20 | 78.5 | 10.6 | 9.8 | 0.4 | 0.5 | 0.3 | 100.0 | 98.9 | 192 |
| 20-34 | 82.7 | 8.4 | 8.2 | 0.0 | 0.4 | 0.2 | 100.0 | 99.3 | 2,023 |
| 35-49 | 88.4 | 6.1 | 4.4 | 0.1 | 0.7 | 0.2 | 100.0 | 98.9 | 354 |
| Birth order |  |  |  |  |  |  |  |  |  |
| 1 | 87.5 | 5.3 | 6.8 | 0.1 | 0.3 | 0.0 | 100.0 | 99.6 | 854 |
| 2-3 | 83.7 | 7.7 | 8.1 | 0.0 | 0.2 | 0.3 | 100.0 | 99.5 | 1,336 |
| 4-5 | 74.3 | 13.3 | 9.6 | 0.0 | 2.4 | 0.5 | 100.0 | 97.1 | 290 |
| 6+ | 63.1 | 28.2 | 7.5 | 0.6 | 0.6 | 0.0 | 100.0 | 98.8 | 88 |
| Antenatal care visits ${ }^{2}$ |  |  |  |  |  |  |  |  |  |
| None | 77.2 | 10.7 | 10.7 | 0.0 | 0.0 | 1.4 | 100.0 | 98.6 | 71 |
| 1-3 | 71.0 | 14.0 | 10.6 | 0.0 | 2.3 | 2.2 | 100.0 | 95.5 | 128 |
| 4+ | 85.9 | 7.0 | 6.8 | 0.0 | 0.3 | 0.0 | 100.0 | 99.6 | 1,822 |
| Unknown/Missing | * | * | * | * | * | * | * | * | 10 |
| Place of delivery |  |  |  |  |  |  |  |  |  |
| Health facility | 84.0 | 8.2 | 7.7 | 0.0 | 0.0 | 0.1 | 100.0 | 99.9 | 2,539 |
| Public facility | 74.9 | 13.2 | 11.7 | 0.0 | 0.1 | 0.1 | 100.0 | 99.8 | 1,505 |
| Private facility | 97.1 | 1.0 | 1.8 | 0.0 | 0.0 | 0.0 | 100.0 | 100.0 | 1,035 |
| Other | (14.2) | (9.3) | (20.4) | (4.0) | (40.5) | (11.6) | (100.0) | (43.9) | 29 |
| Residence |  |  |  |  |  |  |  |  |  |
| Urban | 87.3 | 5.4 | 6.9 | 0.0 | 0.2 | 0.2 | 100.0 | 99.7 | 1,931 |
| Rural | 70.6 | 16.8 | 10.5 | 0.2 | 1.5 | 0.4 | 100.0 | 98.0 | 637 |
| Region |  |  |  |  |  |  |  |  |  |
| West | 92.9 | 2.3 | 4.7 | 0.0 | 0.1 | 0.0 | 100.0 | 99.9 | 990 |
| South | 83.1 | 6.8 | 9.5 | 0.0 | 0.5 | 0.0 | 100.0 | 99.5 | 362 |
| Central | 85.5 | 5.2 | 8.6 | 0.0 | 0.0 | 0.7 | 100.0 | 99.3 | 463 |
| North | 86.1 | 5.2 | 8.1 | 0.0 | 0.3 | 0.3 | 100.0 | 99.4 | 98 |
| East | 66.5 | 20.6 | 11.0 | 0.2 | 1.4 | 0.3 | 100.0 | 98.1 | 656 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |  |
| Istanbul | 96.7 | 1.9 | 1.4 | 0.0 | 0.0 | 0.0 | 100.0 | 100.0 | 498 |
| West Marmara | 88.3 | 4.6 | 5.3 | 0.6 | 1.2 | 0.0 | 100.0 | 98.2 | 78 |
| Aegean | 88.7 | 2.9 | 8.4 | 0.0 | 0.0 | 0.0 | 100.0 | 100.0 | 267 |
| East Marmara | 87.5 | 1.5 | 10.5 | 0.0 | 0.0 | 0.4 | 100.0 | 99.6 | 228 |
| West Anatolia | 90.0 | 3.0 | 6.3 | 0.0 | 0.0 | 0.6 | 100.0 | 99.4 | 235 |
| Mediterranean | 83.1 | 6.8 | 9.5 | 0.0 | 0.5 | 0.0 | 100.0 | 99.5 | 362 |
| Central Anatolia | 81.6 | 9.1 | 9.3 | 0.0 | 0.0 | 0.0 | 100.0 | 100.0 | 108 |
| West Black Sea | 81.8 | 9.8 | 7.5 | 0.0 | 0.0 | 0.9 | 100.0 | 99.1 | 93 |
| East Black Sea | 85.2 | 3.4 | 10.0 | 0.0 | 0.6 | 0.8 | 100.0 | 98.6 | 43 |
| Northeast Anatolia | 63.6 | 22.0 | 12.6 | 0.0 | 1.7 | 0.0 | 100.0 | 98.3 | 71 |
| Central East Anatolia | 64.4 | 24.7 | 6.8 | 0.7 | 2.9 | 0.6 | 100.0 | 95.8 | 161 |
| Southeast Anatolia | 67.8 | 18.8 | 12.3 | 0.0 | 0.9 | 0.2 | 100.0 | 98.9 | 424 |
| Mother's education |  |  |  |  |  |  |  |  |  |
| No educ. / prim. incomp. | 68.4 | 21.1 | 8.1 | 0.3 | 1.9 | 0.3 | 100.0 | 97.6 | 368 |
| Complete primary | 81.7 | 8.4 | 8.7 | 0.1 | 0.7 | 0.5 | 100.0 | 98.8 | 703 |
| Complete secondary | 81.7 | 7.9 | 10.1 | 0.0 | 0.1 | 0.2 | 100.0 | 99.7 | 653 |
| Comp. high school / higher | 92.1 | 2.7 | 5.2 | 0.0 | 0.0 | 0.0 | 100.0 | 100.0 | 843 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |
| Lowest | 68.8 | 18.8 | 10.0 | 0.2 | 2.0 | 0.2 | 100.0 | 97.6 | 576 |
| Second | 77.1 | 11.5 | 10.8 | 0.0 | 0.2 | 0.4 | 100.0 | 99.4 | 550 |
| Middle | 85.6 | 4.6 | 9.7 | 0.1 | 0.0 | 0.0 | 100.0 | 99.9 | 523 |
| Fourth | 92.3 | 2.1 | 5.1 | 0.0 | 0.0 | 0.5 | 100.0 | 99.5 | 473 |
| Highest | 96.7 | 1.3 | 2.0 | 0.0 | 0.0 | 0.0 | 100.0 | 100.0 | 446 |
| Total | 83.2 | 8.2 | 7.8 | 0.1 | 0.5 | 0.2 | 100.0 | 99.2 | 2,568 |

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.
${ }^{1}$ Skilled health providers refer doctor, nurse and midwife.
${ }^{2}$ Includes only the most recent birth in the 5 years preceding the survey.

## Table 9.6 Caesarean section

Percentage of live births in the 5 years preceding the survey delivered by Caesarean section (C-section), percentage delivered by C -section that was planned before the onset of labor pains, and percentage delivered by C -section that was decided after the onset of labor pains, according to background characteristics, Turkey DHS 2018

| Background characteristic | Timing of decision to conduct C-section |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Percentage delivered by C-section | Planned before onset of labor pains | Decided after onset of labor pains | Number of births |
| Mother's age at birth |  |  |  |  |
| <20 | 33.3 | 19.3 | 14.0 | 192 |
| 20-34 | 51.2 | 37.5 | 13.6 | 2,023 |
| 35-49 | 63.5 | 50.9 | 12.6 | 354 |
| Birth order |  |  |  |  |
| 1 | 54.4 | 32.9 | 21.5 | 854 |
| 2-3 | 53.5 | 44.3 | 9.2 | 1,336 |
| 4-5 | 37.9 | 27.4 | 10.5 | 290 |
| 6+ | 37.8 | 27.6 | 10.3 | 88 |
|  |  |  |  |  |
| None | 53.2 | 36.5 | 16.8 | 71 |
| 1-3 | 35.9 | 22.2 | 13.7 | 128 |
| 4+ | 54.9 | 41.4 | 13.5 | 1,822 |
| Unknown/Missing | * | * | * | 10 |
| Place of delivery |  |  |  |  |
| Health facility | 52,1 | 38,4 | 13,6 | 2.539 |
| Public facility | 41.2 | 29.6 | 11.7 | 1,505 |
| Private facility | 67.8 | 51.3 | 16.5 | 1,035 |
| Residence |  |  |  |  |
| Urban | 54.8 | 39.9 | 14.9 | 1,931 |
| Rural | 41.6 | 32.4 | 9.2 | 637 |
| Region |  |  |  |  |
| West | 57.6 | 42.7 | 14.9 | 990 |
| South | 55.4 | 41.3 | 14.0 | 362 |
| Central | 52.5 | 40.2 | 12.3 | 463 |
| North | 63.5 | 44.1 | 19.4 | 98 |
| East | 37.8 | 26.7 | 11.1 | 656 |
| NUTS 1 Region |  |  |  |  |
| Istanbul | 53.5 | 37.9 | 15.6 | 498 |
| West Marmara | 59.4 | 44.0 | 15.4 | 78 |
| Aegean | 63.4 | 48.8 | 14.6 | 267 |
| East Marmara | 56.6 | 43.9 | 12.7 | 228 |
| West Anatolia | 52.2 | 39.3 | 12.9 | 235 |
| Mediterranean | 55.4 | 41.3 | 14.0 | 362 |
| Central Anatolia | 55.1 | 44.7 | 10.4 | 108 |
| West Black Sea | 57.1 | 39.0 | 18.1 | 93 |
| East Black Sea | 65.3 | 48.5 | 16.8 | 43 |
| Northeast Anatolia | 36.8 | 27.4 | 9.4 | 71 |
| Central East Anatolia | 31.3 | 21.6 | 9.7 | 161 |
| Southeast Anatolia | 40.4 | 28.5 | 12.0 | 424 |
| Mother's education |  |  |  |  |
| No educ. / prim. incomp. | 37.1 | 26.7 | 10.4 | 368 |
| Complete primary | 48.5 | 35.4 | 13.1 | 703 |
| Complete secondary | 48.7 | 36.6 | 12.1 | 653 |
| Complete high school / higher | 62.6 | 46.2 | 16.4 | 843 |
| Wealth quintile |  |  |  |  |
| Lowest | 33.8 | 23.7 | 10.1 | 576 |
| Second | 47.7 | 34.9 | 12.8 | 550 |
| Middle | 55.6 | 40.9 | 14.8 | 523 |
| Fourth | 57.7 | 45.0 | 12.6 | 473 |
| Highest | 67.7 | 49.5 | 18.2 | 446 |
| Total | 51.5 | 38.0 | 13.5 | 2,568 |

Note: Births delivered outside of the health facility is assumed as vaginal births. An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
${ }^{1}$ Includes only the most recent birth in the 5 years preceding the survey.

## Table 9.7 Duration of stay in health facility after birth

Among women with a birth in the 5 years preceding the survey who delivered their most recent live birth in a health facility, percent distribution by duration of stay in the health facility following their most recent live birth, according to type of delivery, Turkey DHS 2018

|  |  |  |  |  |  |  | Number <br> of |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Type of delivery | < hours | 6-11 <br> hours | $12-23$ <br> hours | $1-2$ days | $3+$ days | Total | women |
|  |  |  |  |  |  |  |  |
| Vaginal birth | 4.9 | 4.1 | 3.3 | 79.5 | 8.2 | 100.0 | 926 |
| Caesarean section | 0.6 | 0.0 | 0.1 | 72.8 | 26.5 | 100.0 | 1,088 |

## Table 9.8 Timing of first postnatal check for the mother

Among women age 15-49 giving birth in the 2 years preceding the survey, percent distribution of the mother's first postnatal check for the most recent live birth by time after delivery, and percentage of women with a live birth during the 2 years preceding the survey who received a postnatal check in the first 2 days and first 41 days after giving birth, according to background characteristics, Turkey DHS 2018

| Background characteristic | Time after delivery of mother's first postnatal check ${ }^{1}$ |  |  |  |  |  | No postnatal check ${ }^{2}$ | Total | Percentage of women with a postnatal check during: |  | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than 4 hours | $4-23$ <br> hours | $\begin{gathered} 1-2 \\ \text { days } \\ \hline \end{gathered}$ | $\begin{gathered} 3-6 \\ \text { days } \\ \hline \end{gathered}$ | $\begin{array}{r} 7-41 \\ \text { days } \\ \hline \end{array}$ | $\begin{gathered} \text { Don't } \\ \text { know/ } \\ \text { missing } \\ \hline \end{gathered}$ |  |  | First 2 days after birth | 41 days after birth |  |
| Age at birth |  |  |  |  |  |  |  |  |  |  |  |
| <20 | 70.8 | 3.9 | 8.6 | 0.7 | 13.0 | 0.0 | 3.0 | 100.0 | 83.3 | 97.0 | 48 |
| 20-34 | 65.2 | 5.1 | 8.1 | 2.2 | 14.5 | 0.0 | 4.8 | 100.0 | 78.5 | 95.2 | 728 |
| 35-49 | 68.3 | 5.0 | 5.0 | 6.1 | 12.5 | 0.0 | 3.2 | 100.0 | 78.2 | 96.8 | 139 |
| Birth order |  |  |  |  |  |  |  |  |  |  |  |
| 1 | 63.2 | 4.1 | 9.2 | 2.8 | 17.3 | 0.0 | 3.5 | 100.0 | 76.5 | 96.5 | 293 |
| 2-3 | 65.8 | 5.0 | 7.8 | 3.4 | 14.0 | 0.0 | 4.0 | 100.0 | 78.6 | 96.0 | 497 |
| 4-5 | 72.0 | 6.8 | 2.8 | 0.0 | 7.9 | 0.0 | 10.5 | 100.0 | 81.6 | 89.5 | 95 |
| 6+ | (78.8) | (8.5) | (6.0) | (0.0) | (5.2) | (0.0) | (1.6) | (100.0) | (93.2) | (98.4) | 28 |
| Residence |  |  |  |  |  |  |  |  |  |  |  |
| Urban | 65.1 | 3.6 | 8.2 | 2.8 | 16.0 | 0.0 | 4.2 | 100.0 | 77.0 | 95.8 | 684 |
| Rural | 68.7 | 9.1 | 6.0 | 2.7 | 8.4 | 0.0 | 5.1 | 100.0 | 83.8 | 94.9 | 230 |
| Region |  |  |  |  |  |  |  |  |  |  |  |
| West | 61.2 | 1.6 | 11.1 | 3.1 | 18.4 | 0.0 | 4.5 | 100.0 | 73.9 | 95.5 | 344 |
| South | 66.2 | 8.3 | 6.2 | 5.2 | 10.0 | 0.0 | 4.1 | 100.0 | 80.6 | 95.9 | 141 |
| Central | 67.9 | 5.3 | 8.5 | 2.1 | 13.1 | 0.0 | 3.0 | 100.0 | 81.8 | 97.0 | 157 |
| North | 70.1 | 4.5 | 6.6 | 2.8 | 11.9 | 0.0 | 4.0 | 100.0 | 81.3 | 96.0 | 35 |
| East | 70.9 | 7.9 | 3.2 | 1.1 | 11.3 | 0.0 | 5.6 | 100.0 | 82.0 | 94.4 | 237 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |  |  |  |
| Istanbul | 63.3 | 0.0 | 12.7 | 2.8 | 16.9 | 0.0 | 4.2 | 100.0 | 76.1 | 95.8 | 167 |
| West Marmara | 55.6 | 3.3 | 6.9 | 1.7 | 25.9 | 0.0 | 6.6 | 100.0 | 65.8 | 93.4 | 27 |
| Aegean | 50.5 | 4.8 | 11.6 | 5.0 | 21.6 | 0.0 | 6.5 | 100.0 | 66.9 | 93.5 | 93 |
| East Marmara | 72.7 | 4.6 | 9.8 | 1.1 | 9.2 | 0.0 | 2.5 | 100.0 | 87.2 | 97.5 | 90 |
| West Anatolia | 64.0 | 1.8 | 10.9 | 3.6 | 17.9 | 0.0 | 1.8 | 100.0 | 76.7 | 98.2 | 73 |
| Mediterranean | 66.2 | 8.3 | 6.2 | 5.2 | 10.0 | 0.0 | 4.1 | 100.0 | 80.6 | 95.9 | 141 |
| Central Anatolia | 68.3 | 5.4 | 2.7 | 1.6 | 17.4 | 0.0 | 4.5 | 100.0 | 76.4 | 95.5 | 39 |
| West Black Sea | 81.9 | 6.0 | 3.3 | 0.0 | 7.2 | 0.0 | 1.5 | 100.0 | 91.3 | 98.5 | 33 |
| East Black Sea | (58.1) | (3.6) | (8.2) | (6.6) | (17.5) | (0.0) | (5.9) | (100.0) | (69.9) | (94.1) | 15 |
| Northeast Anatolia | 76.8 | 5.7 | 4.9 | 0.0 | 4.8 | 0.0 | 7.7 | 100.0 | 87.5 | 92.3 | 26 |
| Central East Anatolia | 70.3 | 8.4 | 6.6 | 0.0 | 9.3 | 0.0 | 5.3 | 100.0 | 85.3 | 94.7 | 54 |
| Southeast Anatolia | 70.2 | 8.1 | 1.7 | 1.7 | 13.0 | 0.0 | 5.3 | 100.0 | 79.9 | 94.7 | 158 |
| Education |  |  |  |  |  |  |  |  |  |  |  |
| No educ. / prim. incomp. | 66.2 | 7.2 | 7.6 | 1.1 | 13.7 | 0.0 | 4.2 | 100.0 | 81.0 | 95.8 | 109 |
| Complete primary | 75.1 | 3.8 | 6.7 | 0.7 | 9.0 | 0.0 | 4.5 | 100.0 | 85.7 | 95.5 | 226 |
| Complete secondary | 63.5 | 5.7 | 5.5 | 2.6 | 16.1 | 0.0 | 6.5 | 100.0 | 74.8 | 93.5 | 259 |
| Comp.high school / higher | 61.5 | 4.5 | 10.1 | 4.8 | 16.2 | 0.0 | 2.8 | 100.0 | 76.1 | 97.2 | 320 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | 70.4 | 7.5 | 7.3 | 1.5 | 8.2 | 0.0 | 5.1 | 100.0 | 85.1 | 94.9 | 200 |
| Second | 66.6 | 5.0 | 9.0 | 1.7 | 11.8 | 0.0 | 6.0 | 100.0 | 80.6 | 94.0 | 197 |
| Middle | 60.8 | 6.0 | 5.3 | 2.8 | 18.8 | 0.0 | 6.4 | 100.0 | 72.1 | 93.6 | 187 |
| Fourth | 62.9 | 2.3 | 10.2 | 2.2 | 19.1 | 0.0 | 3.4 | 100.0 | 75.3 | 96.6 | 164 |
| Highest | 69.0 | 3.7 | 6.8 | 6.0 | 13.8 | 0.0 | 0.8 | 100.0 | 79.4 | 99.2 | 166 |
| Total | 66.0 | 5.0 | 7.7 | 2.7 | 14.1 | 0.0 | 4.5 | 100.0 | 78.7 | 95.5 | 914 |

[^13]
## Table 9.9 Type of provider of first postnatal check for the mother

Among women age $15-49$ giving birth in the 2 years preceding the survey, percent distribution by type of provider of the mother's first postnatal health check during the 2 days after the most recent live birth, according to background characteristics, Turkey DHS 2018

| Background characteristic | Type of health provider of mother's first postnatal check |  | No postnatal check during the first 2 days after birth | Total | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Doctor | Nurse/ midwife |  |  |  |
| Age at birth |  |  |  |  |  |
| <20 | 61.4 | 22.0 | 16.7 | 100.0 | 48 |
| 20-34 | 59.7 | 18.8 | 21.5 | 100.0 | 728 |
| 35-49 | 53.6 | 24.5 | 21.8 | 100.0 | 139 |
| Birth order |  |  |  |  |  |
| 1 | 60.6 | 15.9 | 23.5 | 100.0 | 293 |
| 2-3 | 61.2 | 17.4 | 21.4 | 100.0 | 497 |
| 4-5 | 45.4 | 36.2 | 18.4 | 100.0 | 95 |
| 6+ | (43.7) | (49.5) | (6.8) | (100.0) | 28 |
| Residence |  |  |  |  |  |
| Urban | 61.4 | 15.5 | 23.0 | 100.0 | 684 |
| Rural | 51.2 | 32.6 | 16.2 | 100.0 | 230 |
| Region |  |  |  |  |  |
| West | 63.7 | 10.2 | 26.1 | 100.0 | 344 |
| South | 63.3 | 17.3 | 19.4 | 100.0 | 141 |
| Central | 59.6 | 22.3 | 18.2 | 100.0 | 157 |
| North | 72.2 | 9.1 | 18.7 | 100.0 | 35 |
| East | 46.7 | 35.3 | 18.0 | 100.0 | 237 |
| NUTS 1 Region |  |  |  |  |  |
| Istanbul | 67.6 | 8.4 | 23.9 | 100.0 | 167 |
| West Marmara | 59.1 | 6.6 | 34.2 | 100.0 | 27 |
| Aegean | 56.1 | 10.8 | 33.1 | 100.0 | 93 |
| East Marmara | 68.6 | 18.6 | 12.8 | 100.0 | 90 |
| West Anatolia | 61.9 | 14.8 | 23.3 | 100.0 | 73 |
| Mediterranean | 63.3 | 17.3 | 19.4 | 100.0 | 141 |
| Central Anatolia | 48.6 | 27.8 | 23.6 | 100.0 | 39 |
| West Black Sea | 67.7 | 23.6 | 8.7 | 100.0 | 33 |
| East Black Sea | (61.3) | (8.6) | (30.1) | (100.0) | 15 |
| Northeast Anatolia | 63.2 | 24.3 | 12.5 | 100.0 | 26 |
| Central East Anatolia | 37.7 | 47.7 | 14.7 | 100.0 | 54 |
| Southeast Anatolia | 47.1 | 32.8 | 20.1 | 100.0 | 158 |
| Education |  |  |  |  |  |
| No educ / prim. incomp. | 41.1 | 39.9 | 19.0 | 100.0 | 109 |
| Complete primary | 61.4 | 24.2 | 14.3 | 100.0 | 226 |
| Complete secondary | 55.5 | 19.2 | 25.2 | 100.0 | 259 |
| Complete high school / higher | 65.7 | 10.4 | 23.9 | 100.0 | 320 |
| Wealth quintile |  |  |  |  |  |
| Lowest | 51.9 | 33.2 | 14.9 | 100.0 | 200 |
| Second | 53.1 | 27.5 | 19.4 | 100.0 | 197 |
| Middle | 56.3 | 15.8 | 27.9 | 100.0 | 187 |
| Fourth | 65.3 | 10.0 | 24.7 | 100.0 | 164 |
| Highest | 70.4 | 9.0 | 20.6 | 100.0 | 166 |
| Total | 58.8 | 19.8 | 21.3 | 100.0 | 914 |

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.

## Table 9.10 Timing of first postnatal check for the newborn

Percent distribution of most recent live births in the 2 years preceding the survey by time after birth of first postnatal check, and percentage of births with a postnatal check during the first 2 days after birth, according to background characteristics, Turkey DHS 2018

| Background characteristic | Time after delivery of newborn's first postnatal check ${ }^{1}$ |  |  |  |  |  | No postnatal check ${ }^{2}$ | Total | Percentage of births with a postnatal check during the first 2 days after birth ${ }^{1}$ | Number of births |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than 1 hour | $\begin{gathered} 1-3 \\ \text { hours } \end{gathered}$ | $\begin{gathered} 4-23 \\ \text { hours } \end{gathered}$ | $\begin{gathered} 1-2 \\ \text { days } \end{gathered}$ | $\begin{gathered} 3-6 \\ \text { days } \end{gathered}$ | Don't know |  |  |  |  |
| Mother's age at birth |  |  |  |  |  |  |  |  |  |  |
| <20 | 23.3 | 30.5 | 0.0 | 11.2 | 7.7 | 0.0 | 27.2 | 100.0 | 65.1 | 48 |
| 20-34 | 36.7 | 18.8 | 2.7 | 9.8 | 9.0 | 0.3 | 22.6 | 100.0 | 68.1 | 728 |
| 35-49 | 36.2 | 21.1 | 2.0 | 9.2 | 9.0 | 1.7 | 20.8 | 100.0 | 68.4 | 139 |
| Birth order |  |  |  |  |  |  |  |  |  |  |
| 1 | 37.5 | 18.6 | 2.1 | 10.9 | 11.7 | 0.5 | 18.6 | 100.0 | 69.1 | 293 |
| 2-3 | 35.3 | 20.2 | 2.5 | 9.1 | 8.2 | 0.5 | 24.1 | 100.0 | 67.2 | 497 |
| 4-5 | 35.8 | 18.8 | 3.1 | 7.7 | 6.8 | 0.6 | 27.2 | 100.0 | 65.4 | 95 |
| 6+ | (30.8) | (28.1) | (3.3) | (17.7) | (0.0) | (0.0) | (20.0) | (100.0) | (80.0) | 28 |
| Residence |  |  |  |  |  |  |  |  |  |  |
| Urban | 37.2 | 19.9 | 2.3 | 10.0 | 9.4 | 0.7 | 20.5 | 100.0 | 69.5 | 684 |
| Rural | 32.0 | 19.4 | 3.1 | 9.1 | 7.6 | 0.0 | 28.7 | 100.0 | 63.7 | 230 |
| Region |  |  |  |  |  |  |  |  |  |  |
| West | 37.2 | 18.3 | 0.7 | 12.0 | 9.7 | 1.1 | 21.0 | 100.0 | 68.1 | 344 |
| South | 33.1 | 19.9 | 2.6 | 8.4 | 13.4 | 0.0 | 22.6 | 100.0 | 64.0 | 141 |
| Central | 40.3 | 21.9 | 1.3 | 7.1 | 9.3 | 0.0 | 20.2 | 100.0 | 70.5 | 157 |
| North | 40.4 | 21.4 | 1.6 | 6.9 | 8.6 | 0.0 | 21.1 | 100.0 | 70.2 | 35 |
| East | 32.3 | 20.3 | 6.0 | 9.6 | 5.0 | 0.2 | 26.6 | 100.0 | 68.2 | 237 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |  |  |
| Istanbul | 45.0 | 11.3 | 1.4 | 12.7 | 5.6 | 1.4 | 22.6 | 100.0 | 70.4 | 167 |
| West Marmara | 31.8 | 11.6 | 0.0 | 11.8 | 11.5 | 0.0 | 33.3 | 100.0 | 55.2 | 27 |
| Aegean | 33.2 | 11.3 | 0.0 | 13.3 | 16.4 | 1.7 | 24.1 | 100.0 | 57.9 | 93 |
| East Marmara | 27.0 | 42.6 | 0.0 | 10.6 | 8.6 | 0.0 | 11.2 | 100.0 | 80.2 | 90 |
| West Anatolia | 45.5 | 23.3 | 1.8 | 5.4 | 7.3 | 0.0 | 16.7 | 100.0 | 76.0 | 73 |
| Mediterranean | 33.1 | 19.9 | 2.6 | 8.4 | 13.4 | 0.0 | 22.6 | 100.0 | 64.0 | 141 |
| Central Anatolia | 26.7 | 20.6 | 1.7 | 6.0 | 14.2 | 0.0 | 30.8 | 100.0 | 55.0 | 39 |
| West Black Sea | 47.3 | 23.3 | 0.0 | 1.5 | 11.7 | 0.0 | 16.2 | 100.0 | 72.1 | 33 |
| East Black Sea | (49.4) | (8.9) | (3.6) | (12.6) | (6.4) | (0.0) | (19.1) | (100.0) | (74.5) | 15 |
| Northeast Anatolia | 60.5 | 20.9 | 2.5 | 0.8 | 3.6 | 0.0 | 11.6 | 100.0 | 84.8 | 26 |
| Central East Anatolia | 20.6 | 18.4 | 7.2 | 10.0 | 6.8 | 1.1 | 35.9 | 100.0 | 56.2 | 54 |
| Southeast Anatolia | 31.7 | 20.8 | 6.1 | 10.9 | 4.6 | 0.0 | 25.8 | 100.0 | 69.6 | 158 |
| Mother's education |  |  |  |  |  |  |  |  |  |  |
| No educ. / prim. incomp. | 32.5 | 18.7 | 2.6 | 7.9 | 7.8 | 0.0 | 30.4 | 100.0 | 61.7 | 109 |
| Complete primary | 33.1 | 22.6 | 3.2 | 10.5 | 6.6 | 2.0 | 22.0 | 100.0 | 69.4 | 226 |
| Complete secondary | 34.7 | 20.0 | 1.3 | 8.2 | 7.9 | 0.0 | 27.8 | 100.0 | 64.3 | 259 |
| Complete high school / higher | 40.1 | 18.0 | 2.9 | 11.2 | 11.7 | 0.0 | 16.1 | 100.0 | 72.2 | 320 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |
| Lowest | 25.4 | 23.1 | 2.8 | 13.2 | 4.6 | 0.0 | 31.0 | 100.0 | 64.5 | 200 |
| Second | 33.3 | 18.6 | 2.2 | 8.1 | 10.0 | 1.1 | 26.7 | 100.0 | 62.2 | 197 |
| Middle | 34.0 | 21.0 | 2.2 | 6.6 | 10.7 | 1.3 | 24.1 | 100.0 | 63.9 | 187 |
| Fourth | 41.3 | 20.0 | 1.7 | 11.3 | 11.3 | 0.0 | 14.4 | 100.0 | 74.3 | 164 |
| Highest | 48.6 | 15.7 | 3.5 | 9.7 | 8.5 | 0.0 | 14.0 | 100.0 | 77.5 | 166 |
| Total | 35.9 | 19.8 | 2.5 | 9.8 | 8.9 | 0.5 | 22.6 | 100.0 | 68.0 | 914 |

[^14]
## Table 9.11 Type of provider of first postnatal check for the newborn

Percent distribution of most recent live birth in the 2 years preceding the survey by type of provider of the newborn's first postnatal health check during the 2 days after the most recent live birth, according to background characteristics, Turkey DHS 2018

| Background characteristic | Type of health provider of newborn's first postnatal check |  | No postnatal check during the first 2 days after birth | Total | Number of births |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Doctor | Nurse/ midwife |  |  |  |
| Mother's age at birth |  |  |  |  |  |
| <20 | 63.1 | 1.9 | 34.9 | 100.0 | 48 |
| 20-34 | 61.5 | 6.6 | 31.9 | 100.0 | 728 |
| 35-49 | 61.8 | 6.7 | 31.6 | 100.0 | 139 |
| Birth order |  |  |  |  |  |
| 1 | 64.9 | 4.2 | 30.9 | 100.0 | 293 |
| 2-3 | 60.8 | 6.4 | 32.8 | 100.0 | 497 |
| 4-5 | 57.0 | 8.3 | 34.6 | 100.0 | 95 |
| $6+$ | (57.6) | (22.4) | (20.0) | (100.0) | 28 |
| Residence |  |  |  |  |  |
| Urban | 64.4 | 5.1 | 30.5 | 100.0 | 684 |
| Rural | 53.5 | 10.2 | 36.3 | 100.0 | 230 |
| Region |  |  |  |  |  |
| West | 65.3 | 2.9 | 31.9 | 100.0 | 344 |
| South | 58.6 | 5.4 | 36.0 | 100.0 | 141 |
| Central | 63.0 | 7.5 | 29.5 | 100.0 | 157 |
| North | 64.9 | 5.4 | 29.8 | 100.0 | 35 |
| East | 56.8 | 11.4 | 31.8 | 100.0 | 237 |
| NUTS 1 Region |  |  |  |  |  |
| Istanbul | 66.2 | 4.2 | 29.6 | 100.0 | 167 |
| West Marmara | 53.6 | 1.7 | 44.8 | 100.0 | 27 |
| Aegean | 57.9 | 0.0 | 42.1 | 100.0 | 93 |
| East Marmara | 76.5 | 3.7 | 19.8 | 100.0 | 90 |
| West Anatolia | 64.9 | 11.1 | 24.0 | 100.0 | 73 |
| Mediterranean | 58.6 | 5.4 | 36.0 | 100.0 | 141 |
| Central Anatolia | 52.3 | 2.7 | 45.0 | 100.0 | 39 |
| West Black Sea | 62.4 | 9.7 | 27.9 | 100.0 | 33 |
| East Black Sea | (72.3) | (2.2) | (25.5) | (100.0) | 15 |
| Northeast Anatolia | 79.4 | 5.4 | 15.2 | 100.0 | 26 |
| Central East Anatolia | 41.1 | 15.1 | 43.8 | 100.0 | 54 |
| Southeast Anatolia | 58.5 | 11.1 | 30.4 | 100.0 | 158 |
| Mother's education |  |  |  |  |  |
| No educ. / prim. incomp. | 48.8 | 12.9 | 38.3 | 100.0 | 109 |
| Complete primary | 63.7 | 5.7 | 30.6 | 100.0 | 226 |
| Complete secondary | 57.4 | 6.9 | 35.7 | 100.0 | 259 |
| Complete high school / higher | 68.0 | 4.2 | 27.8 | 100.0 | 320 |
| Wealth quintile |  |  |  |  |  |
| Lowest | 52.0 | 12.4 | 35.5 | 100.0 | 200 |
| Second | 54.3 | 7.9 | 37.8 | 100.0 | 197 |
| Middle | 62.8 | 1.0 | 36.1 | 100.0 | 187 |
| Fourth | 66.8 | 7.5 | 25.7 | 100.0 | 164 |
| Highest | 75.5 | 2.0 | 22.5 | 100.0 | 166 |
| Total | 61.6 | 6.4 | 32.0 | 100.0 | 914 |

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

## CHILD HEALTH

## Key Findings

- Low birth weight: $12 \%$ of live births in the 5 years preceding the survey that have a reported birth weight had a low birth weight.
- All basic vaccinations: $\mathbf{7 2 \%}$ of children age 24-35 months had received all basic vaccinations by the time of the survey.

Information on child health and survival can help policymakers and programme managers assess the efficacy of current strategies, formulate appropriate interventions to prevent deaths from childhood illnesses, and improve the health of children in Turkey. This chapter presents information on birth weight and vaccination status for young children.

### 10.1 Birth Weight

## Low birth weight

Percentage of births with a reported birth weight below 2.5 kilograms regardless of gestational age
Sample: Live births in the 5 years before the survey that have a reported birth weight, from either a written record or the mother's report

Information on low birth weight is very important since it can not only be an indicator of maternal nutrition but also a predictive indicator of potential neonatal death and of malnutrition if the child survives. Children with low birth weight have been shown to have a higher than average risk of dying during early childhood.

For all births in the five years preceding the survey, the birth weight was recorded in the 2018 TDHS questionnaire from either a written record if available or the mother's recall. Data on the child's weight at birth were available for $96 \%$ of births during the five-year period prior to the 2018 TDHS (Table 10.1). Availability of birth weight information was less than average for births of order four and higher, births in the East, births to mothers of age less than 20 , and in the lowest education and wealth categories. Among births with a reported weight, $12 \%$ had a low birth weight (less than 2.5 kg .).

In 2018 TDHS, the mother's perception of the baby's size at birth was also obtained. Although these estimates of size are subjective, they can be a useful proxy for weight at birth. Eight percent of all babies were reported to be "very small" and $15 \%$ were reported to be "smaller than average" by their mothers (Table 10.1).

## Patterns by background characteristics

- Level of low birth weight is the same with respect to the mother's age at birth (all 12\%).
- Low birth weight and small size were more common among births of order 6 and higher than lower parity births ( $21 \%$ with weight $<2.5 \mathrm{~kg}$, a total of $28 \%$ for very small or smaller than average).
- Among the five geographical regions of Turkey, the East had the highest proportion of babies with low birth weight (16\%) and very small birth size (13\%).
- Among the NUTS 1 regions, the percentage of children weighing less than 2.5 kilograms at birth varies from 8\% in West Anatolia to 21\% in Central East Anatolia. Mediterranean region held the lowest proportion of women considering their babies as "very small" at birth (4\%), while this proportion was 20\% in Central East Anatolia.
- Women with higher education had a lower proportion of babies with low birth weight (9\%) and reported proportionally fewer babies as "very small" at birth (5\%) than less educated mothers ( $20 \%$ and $16 \%$ respectively for women who did not complete primary level education).
- The proportion of babies considered "very small" at birth declines with increasing wealth. Low birth weight is highest among women in the lowest wealth quintile (15\%).


### 10.2 Vaccination of Children

## All basic vaccinations coverage

Percentage of 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). To have received all basic vaccinations, a child must receive at least:

- One dose of BCG vaccine, which protects against tuberculosis
- Three doses of DTaP-IPV-Hib vaccine, which protects against diphtheria, pertussis (whooping cough), tetanus, polio and haemophilus influenzae type b
- One dose of MMR vaccine, which protects against measles, mumps and rubella
Sample: Living children age 24-35 months


## All age appropriate vaccinations coverage for 12-23 months

Percentage of children age 12-23 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report). To have received all 12-23 months of age appropriate vaccinations, a child must receive at least:

- One dose of BCG vaccine, which protects against tuberculosis
- Three doses of DTaP-IPV-Hib vaccine, which protects against diphtheria, pertussis (whooping cough), tetanus, polio and haemophilus influenzae type b
- Three doses of Hepatitis B vaccine
- Three doses of pneumococcal conjugate vaccine (PCV)
- One dose of oral polio (OPV) vaccine

Sample: Living children age 12-23 months

## All age appropriate vaccinations coverage for 24-35 months

Percentage of 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). To have received all 24-35 months of age appropriate vaccinations, a child must receive at least:

- One dose of BCG vaccine, which protects against tuberculosis
- Three doses of DTaP-IPV-Hib vaccine, which protects against diphtheria, pertussis (whooping cough), tetanus, polio and haemophilus influenzae type b
- One dose of MMR vaccine, which protects against measles, mumps and rubella
- Three doses of Hepatitis B vaccine
- Three doses of pneumococcal conjugate vaccine (PCV)
- Two doses of oral polio (OPV) vaccine
- Two doses of Hepatitis A vaccine
- One dose of varicella (chickenpox) vaccine

Sample: Living children age 24-35 months

Immunization of children against common vaccine-preventable diseases is one of the most cost-effective programs in reducing infant and child morbidity and mortality. There have been changes in the national vaccination program since the 2013 TDHS. Among the changes are the introduction of two doses of Hepatitis A vaccine and one dose of varicella vaccine. Hepatitis A vaccine was added to the vaccination scheme in 2012 starting with children born since $1^{\text {st }}$ of March, 2011 as two shots in $18^{\text {th }}$ and $24^{\text {th }}$ months. Varicella vaccine, on the other hand, was added into the immunization schedule in 2013 starting with children born since $1^{\text {st }}$ of January, 2012 with one shot in the completion of $12^{\text {th }}$ month.

According to the current vaccination schedule of the Ministry of Health in Turkey, all three doses of DTaP-IPV-Hib and three doses of PCV (both at months 2, 4 and 6), the single dose of BCG (month 2), all three doses of Hepatitis B (at birth and at months 1 and 6), and the first dose of OPV (at month 6) should be complete by 12 months of age, whereas the MMR and the single dose of varicella vaccine (both at month 12), the second dose of oral polio (month 18), and the two doses of Hepatitis A (at months 18 and 24) should be complete by 24 months of age.

In the 2018 TDHS, information was collected on immunization status of all children born in or after January 2015. To obtain data for each eligible child, mothers were asked whether they had a vaccination card for the child, and if so, to show the card to the interviewer. The dates of the vaccinations were copied from the card to the questionnaire. Mothers were also asked whether the child has been given any vaccination not recorded on the card. If a vaccination card was not available for the child, the mother was asked a number of questions in order to determine the vaccination status of the child for each specific vaccine. If the mother reported her child receiving a vaccine that requires multiple doses, she was asked to report the number of doses that the child had received.

Taking into account both information from vaccination card and the mothers' reports, $67 \%$ of all children age 12-23 months received all age appropriate vaccinations during the first 23 months of life (Table 10.2). The contribution of children for whom a vaccination card was seen was $59 \%$, while this proportion was $8 \%$ for those whose information was based on the mother's report. The contribution of children with mothers' reports being the source of information instead of vaccination card was higher for children age 24-35 months than 1223 months ( $37 \%$ by card and $13 \%$ by mother's report). In total, $50 \%$ of children age $24-35$ months received all age appropriate vaccinations. Only $2 \%$ of all children between ages 12-23 months and $3 \%$ of children age $24-$

35 months had not received any vaccinations at all. The level of children age 24-35 months who received all basic vaccinations is $72 \%$.

Figure 10.1 shows coverage of all age appropriate vaccinations among children age 12-23 months. Regarding specific vaccinations, $93 \%$ of children received the BCG vaccine. Ninety percent received the first dose of oral polio. The coverage rate for the first dose of DTaP-IPV-Hib was high (93\%), but declined steadily after the first dose ( $83 \%$ and $79 \%$ respectively for the $2^{\text {nd }}$ and $3^{\text {rd }}$ doses). The same pattern was observed for doses of other vaccines with repeated doses (Hepatitis B and PCV vaccines).

Figure 10.1 Childhood vaccinations
Percentage of children age 12-23 months vaccinated at any time before the survey


Trends: Since the vaccination schedule has changed since 2013 TDHS, and the vaccination coverages were presented for 15-26 months of age for 2008 TDHS and 2013 TDHS, a direct comparison to 2018 TDHS is not possible. It was seen in 2013 TDHS that, the proportion of fully immunized children ( 1 dose of BCG, 1 dose of MMR, 3 doses of DTaP-IPV-Hib, HepB, and PCV) was $74 \%$ (Figure 10.2). The current proportion of children with all age appropriate vaccinations is $67 \%$, with the inclusion of OPV 1, the exclusion of MMR and modification of the age group as 12-23 months.

Figure 10.2 Trends in childhood vaccinations
Percentage of children age 12-23 or 15-26 months who received all basic vaccinations at any time before the survey


## Patterns by background characteristics

- The proportion of girls receiving all basic vaccinations or all age appropriate vaccinations at age 24-35 months is slightly higher than boys ( $76 \%$ girls vs. $68 \%$ boys for all basic vaccinations, $52 \%$ vs. $48 \%$ for age 24-35 months) (Table 10.3).
- The proportion of receiving all age appropriate vaccinations for children age 12-23 months declines with increasing birth order ( $70 \%$ for first birth and $64 \%$ for $4^{\text {th }}$ or $5^{\text {th }}$ birth). This pattern was not observed for the 24-35 months age group.
- The widest gap for receiving all age appropriate or basic vaccinations is between children for whom a vaccination card was seen vs. those whose cards have not been seen or who did not have them. Only $26 \%$ of those whose cards were not seen or did not exist received all age appropriate vaccinations for age 12-23 months, as opposed to $85 \%$ for those with cards seen.
- Among mothers' educational levels, there was not a clear pattern for receiving all age appropriate vaccinations for age 12-23 months. However, the proportion of children with no vaccinations declined with increasing education of mothers (from 4\% for mothers who are not primary school graduates vs. $2 \%$ for mothers with high school or higher education).
- The age appropriate and basic vaccination coverages were highest in the fourth and highest wealth quintiles for all three definitions used (Figure 10.3 and Table 10.3).

Figure 10.3 All basic vaccinations by household wealth
Percentage of children age 24-35 months who received all basic vaccinations at any time before the survey


## Vaccination Card Ownership and Availability

A vaccination card is a critical tool in ensuring that a child receives all necessary vaccinations within the determined time. Ninety-three percent of children age 12-23 months ever had a vaccination card, while $88 \%$ of children of age 24-35 months ever owned a vaccination card (Table 10.4).

## Patterns by background characteristics

- The proportion of children age 12-23 months whose vaccination cards were shown by their mothers was $69 \%$, while this proportion was $53 \%$ among children age 24-35 months.
- The prevalence of vaccination card ownership and its presentation during the interview is lower in rural areas than in urban areas among both children age 12-23 months and 24-35 months.
- Among the wealth quintiles, the percentage who ever had a vaccination card and the percentage with a vaccination card seen were lowest in the lowest wealth quintile for children of all age groups ( $89 \%$ and $62 \%$ among 12-23 months, and $76 \%$ and $44 \%$ among $24-35$ months, respectively).


## LIST OF TABLES

For more information on low birth weight and vaccinations, see the following tables:

- Table 10.1 Child's size and weight at birth
- Table $10.2 \quad$ Vaccinations by source of information
- Table 10.3 Vaccinations by background characteristics
- Table 10.4 Possession and observation of vaccination cards


## Table 10.1 Child's size and weight at birth

Percent distribution of live births in the 5 years preceding the survey by mother's estimate of baby's size at birth, percentage of live births in the 5 years preceding the survey that have a reported birth weight, and among live births in the 5 years preceding the survey with a reported birth weight, percentage less than 2.5 kg , according to background characteristics, Turkey DHS 2018

| Background characteristic | Percent distribution of births by size of baby at birth |  |  |  |  | Percentage of births that have a reported birth weight ${ }^{1}$ | Number of births | Among births with a reported birth weight ${ }^{1}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Very small | Smaller than average | Average or larger | Don't know/ missing | Total |  |  | $\begin{gathered} \text { Percentage } \\ \text { less than } \\ 2.5 \mathrm{~kg} \\ \hline \end{gathered}$ | Number of births |
| Mother's age at birth |  |  |  |  |  |  |  |  |  |
| <20 | 8.8 | 15.9 | 74.9 | 0.4 | 100.0 | 91.6 | 192 | 12.2 | 176 |
| 20-34 | 7.0 | 14.9 | 77.7 | 0.4 | 100.0 | 96.8 | 2,023 | 11.9 | 1,957 |
| 35-49 | 11.2 | 12.9 | 75.9 | 0.0 | 100.0 | 95.3 | 354 | 11.8 | 337 |
| Birth order |  |  |  |  |  |  |  |  |  |
| 1 | 8.1 | 15.3 | 76.5 | 0.1 | 100.0 | 96.6 | 854 | 12.1 | 825 |
| 2-3 | 6.8 | 14.2 | 78.7 | 0.3 | 100.0 | 96.8 | 1,336 | 11.6 | 1,293 |
| 4-5 | 8.8 | 15.5 | 75.4 | 0.3 | 100.0 | 93.6 | 290 | 9.7 | 271 |
| $6+$ | 15.0 | 13.1 | 69.1 | 2.8 | 100.0 | 91.5 | 88 | 20.5 | 80 |
| Residence |  |  |  |  |  |  |  |  |  |
| Urban | 7.9 | 14.9 | 76.9 | 0.3 | 100.0 | 96.6 | 1,931 | 11.4 | 1,865 |
| Rural | 7.3 | 14.1 | 78.3 | 0.4 | 100.0 | 94.9 | 637 | 13.2 | 605 |
| Region |  |  |  |  |  |  |  |  |  |
| West | 6.6 | 13.2 | 79.9 | 0.3 | 100.0 | 96.7 | 990 | 10.5 | 957 |
| South | 4.3 | 13.8 | 81.9 | 0.0 | 100.0 | 97.0 | 362 | 11.5 | 351 |
| Central | 5.6 | 16.2 | 78.2 | 0.0 | 100.0 | 98.8 | 463 | 10.4 | 457 |
| North | 6.2 | 13.4 | 80.4 | 0.0 | 100.0 | 98.5 | 98 | 10.4 | 96 |
| East | 13.0 | 16.6 | 69.6 | 0.9 | 100.0 | 92.7 | 656 | 15.6 | 608 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |  |
| Istanbul | 5.7 | 11.4 | 82.4 | 0.5 | 100.0 | 95.2 | 498 | 8.9 | 474 |
| West Marmara | 4.6 | 13.2 | 81.7 | 0.6 | 100.0 | 98.3 | 78 | 10.4 | 77 |
| Aegean | 6.9 | 15.4 | 77.7 | 0.0 | 100.0 | 97.1 | 267 | 10.9 | 260 |
| East Marmara | 8.3 | 17.2 | 74.5 | 0.0 | 100.0 | 99.5 | 228 | 13.9 | 227 |
| West Anatolia | 6.2 | 13.9 | 79.9 | 0.0 | 100.0 | 100.0 | 235 | 7.8 | 235 |
| Mediterranean | 4.3 | 13.8 | 81.9 | 0.0 | 100.0 | 97.0 | 362 | 11.5 | 351 |
| Central Anatolia | 4.6 | 16.0 | 79.3 | 0.0 | 100.0 | 98.2 | 108 | 11.2 | 106 |
| West Black Sea | 5.6 | 16.2 | 78.2 | 0.0 | 100.0 | 97.2 | 93 | 13.5 | 90 |
| East Black Sea | 8.3 | 13.5 | 78.3 | 0.0 | 100.0 | 97.8 | 43 | 12.6 | 42 |
| Northeast Anatolia | 13.4 | 17.6 | 67.1 | 1.9 | 100.0 | 89.9 | 71 | 15.5 | 64 |
| Central East Anatolia | 19.8 | 16.7 | 63.2 | 0.3 | 100.0 | 93.7 | 161 | 21.1 | 151 |
| Southeast Anatolia | 10.3 | 16.4 | 72.4 | 0.9 | 100.0 | 92.9 | 424 | 13.5 | 393 |
| Mother's education |  |  |  |  |  |  |  |  |  |
| No educ. / prim. incomp. | 16.0 | 15.7 | 67.4 | 1.0 | 100.0 | 88.6 | 368 | 20.0 | 326 |
| Complete primary | 9.3 | 13.8 | 76.3 | 0.6 | 100.0 | 93.9 | 703 | 11.8 | 661 |
| Complete secondary | 4.9 | 14.0 | 81.0 | 0.1 | 100.0 | 98.7 | 653 | 11.8 | 645 |
| Complete high school / higher | 5.0 | 15.4 | 79.5 | 0.0 | 100.0 | 99.5 | 843 | 8.8 | 838 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |
| Lowest | 11.2 | 13.5 | 74.1 | 1.2 | 100.0 | 89.7 | 576 | 14.5 | 517 |
| Second | 7.6 | 16.0 | 76.2 | 0.2 | 100.0 | 97.2 | 550 | 13.2 | 535 |
| Middle | 6.7 | 14.4 | 78.8 | 0.1 | 100.0 | 97.6 | 523 | 13.4 | 510 |
| Fourth | 6.5 | 14.1 | 79.4 | 0.0 | 100.0 | 97.7 | 473 | 10.0 | 462 |
| Highest | 5.9 | 15.5 | 78.6 | 0.0 | 100.0 | 100.0 | 446 | 7.4 | 446 |
| Total | 7.7 | 14.7 | 77.3 | 0.3 | 100.0 | 96.2 | 2,568 | 11.9 | 2,470 |
| ${ }^{1}$ Based on either a written record or the mother's recall |  |  |  |  |  |  |  |  |  |

## Table 10.2 Vaccinations by source of information

Percentage of children age 12-23 months and children age 24-35 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage who received specific vaccines by the appropriate age, Turkey DHS 2018

| Vaccine | Children age 12-23 months |  |  |  | Children age 24-35 months |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Vaccination card ${ }^{1}$ | Mother's report | Either source | Vaccinated by appropriate age $^{2,3}$ | Vaccination card ${ }^{1}$ | Mother's report | Either source | Vaccinated by appropriate age ${ }^{3,4}$ |
| BCG | 65.5 | 27.1 | 92.6 | 90.6 | 52.6 | 41.6 | 94.2 | 91.3 |
| DTaPHibIPV |  |  |  |  |  |  |  |  |
| 1 | 68.7 | 24.3 | 93.0 | 91.9 | 52.9 | 35.5 | 88.4 | 86.0 |
| 2 | 67.5 | 15.7 | 83.2 | 81.1 | 52.8 | 24.9 | 77.6 | 75.0 |
| 3 | 65.0 | 13.8 | 78.8 | 76.1 | 51.5 | 21.3 | 72.7 | 67.5 |
| HepB |  |  |  |  |  |  |  |  |
| 1 | 69.2 | 27.2 | 96.4 | 95.5 | 53.3 | 42.2 | 95.4 | 94.4 |
| 2 | 68.8 | 19.6 | 88.4 | 87.7 | 53.2 | 31.0 | 84.2 | 82.0 |
| 3 | 66.2 | 14.6 | 80.8 | 79.5 | 51.5 | 25.6 | 77.1 | 73.9 |
| OPV |  |  |  |  |  |  |  |  |
| 1 | 66.8 | 22.9 | 89.7 | 87.2 | 52.2 | 35.2 | 87.4 | 78.1 |
| 2 | na | na | na | na | 46.6 | 22.4 | 69.0 | 66.9 |
| PCV |  |  |  |  |  |  |  |  |
| 1 | 68.2 | 23.0 | 91.2 | 90.1 | 52.1 | 37.2 | 89.4 | 86.5 |
| 2 | 67.6 | 14.3 | 82.0 | 80.4 | 52.1 | 20.3 | 72.4 | 68.5 |
| 3 | 64.9 | 10.2 | 75.1 | 71.0 | 50.8 | 14.9 | 65.6 | 59.4 |
| MMR | na | na | na | na | 52.1 | 42.2 | 94.3 | 92.7 |
| HepA |  |  |  |  |  |  |  |  |
| 1 | na | na | na | na | 51.4 | 38.4 | 89.9 | 87.1 |
| 2 | na | na | na | na | 43.0 | 21.3 | 64.2 | 5.1 |
| Varicella | na | na | na | na | 49.8 | 40.3 | 90.0 | 88.0 |
| All basic vaccinations ${ }^{5}$ | na | na | na | na | 50.6 | 21.2 | 71.8 | 66.2 |
| All age appropriate vaccinations ${ }^{6}$ | 58.9 | 8.0 | 66.9 | 62.2 | 37.0 | 12.6 | 49.6 | 2.9 |
| No vaccinations | 0.0 | 2.2 | 2.2 | na | 0.0 | 3.4 | 3.4 | na |
| Number of children | 313 | 138 | 451 | 451 | 263 | 231 | 495 | 495 |

[^15]Table 10.3 Vaccinations by background characteristics
Percentage of children age 12-23 months and children age 24-35 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), percentage with all basic vaccinations, and percentage with all age appropriate vaccinations, by background characteristics, Turkey DHS 2018

| Background characteristic | Children age 12-23 months: |  |  |  |  |  |  |  |  |  |  |  |  | Children age 24-35 months: |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | DTaPHibIPV |  |  |  | HepB |  |  | PCV |  |  |  | All age appropriate vaccinations ${ }^{1}$ | No vaccinations | Number of children |  |  |  |  | Varic | All basic vaccin- | All age appropriate vaccin- | Number of |
|  | BCG | 1 | 2 | 3 | 1 | 2 | 3 | OPV1 | 1 | 2 | 3 |  |  |  | MMR | OPV2 | 1 | 2 | ella | ations ${ }^{2}$ | ations ${ }^{3}$ | children |


| Male | 89.9 | 90.9 | 81.9 | 77.8 | 94.3 | 88.6 | 79.4 | 86.7 | 89.7 | 81.9 | 75.5 | 67.3 | 4.1 | 210 | 93.1 | 70.7 | 89.5 | 64.8 | 89.4 | 68.1 | 51.5 | 246 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Female | 94.9 | 94.9 | 84.5 | 79.7 | 98.3 | 88.2 | 82.1 | 92.3 | 92.5 | 82.1 | 74.8 | 66.6 | 0.5 | 241 | 95.4 | 67.3 | 90.2 | 63.6 | 90.7 | 75.5 | 47.7 | 249 |
| Birth order |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 | 95.5 | 94.2 | 84.6 | 80.0 | 98.0 | 91.8 | 85.7 | 89.1 | 93.6 | 83.9 | 73.7 | 70.1 | 2.0 | 142 | 95.1 | 69.5 | 88.8 | 64.4 | 90.2 | 75.6 | 50.0 | 172 |
| 2-3 | 92.1 | 92.9 | 83.4 | 79.9 | 96.3 | 88.1 | 80.1 | 90.6 | 91.5 | 82.8 | 78.0 | 67.2 | 2.0 | 242 | 94.3 | 66.6 | 90.4 | 63.8 | 90.8 | 69.1 | 47.6 | 234 |
| 4-5 | 89.8 | 94.8 | 85.6 | 79.4 | 95.5 | 88.9 | 76.4 | 90.5 | 88.6 | 77.8 | 73.5 | 63.9 | 1.1 | 50 | 94.5 | 77.2 | 93.7 | 66.2 | 89.6 | 74.6 | 53.2 | 68 |
| 6+ | * |  |  |  |  | * | * | * | * | * | * | * | * | 17 | * | * | * | * | * | * |  | 22 |
| Vaccination card ${ }^{4}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Seen | 94.3 | 99.0 | 97.3 | 93.7 | 99.7 | 99.1 | 95.4 | 96.3 | 98.2 | 97.5 | 93.5 | 84.8 | 0.0 | 313 | 97.8 | 87.5 | 96.6 | 80.6 | 93.5 | 95.0 | 69.5 | 263 |
| Not seen/ no card | 88.6 | 79.6 | 51.3 | 45.0 | 89.0 | 64.0 | 47.7 | 74.8 | 75.2 | 46.8 | 33.3 | 26.3 | 7.2 | 138 | 90.2 | 48.0 | 82.2 | 45.5 | 86.1 | 45.4 | 26.9 | 231 |
| Residence |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Urban | 92.5 | 94.6 | 85.0 | 80.6 | 96.7 | 90.7 | 82.8 | 90.4 | 92.7 | 84.1 | 76.6 | 66.6 | 2.0 | 332 | 95.3 | 69.6 | 91.2 | 65.0 | 91.5 | 73.1 | 50.1 | 383 |
| Rural | 92.7 | 88.7 | 78.3 | 73.9 | 95.7 | 81.8 | 75.1 | 87.6 | 86.9 | 75.9 | 71.1 | 68.0 | 2.7 | 118 | 90.9 | 67.0 | 85.4 | 61.6 | 85.1 | 67.4 | 47.8 | 112 |
| Region |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| West | 94.0 | 95.2 | 86.7 | 84.0 | 95.9 | 91.2 | 81.0 | 91.2 | 90.8 | 82.6 | 78.4 | 70.2 | 1.4 | 150 | 94.2 | 68.8 | 89.1 | 68.0 | 89.0 | 80.5 | 54.7 | 197 |
| South | 88.1 | 91.8 | 75.4 | 66.6 | 96.0 | 84.0 | 75.0 | 88.5 | 96.2 | 81.5 | 71.4 | 56.6 | 1.3 | 70 | 90.9 | 61.0 | 87.0 | 51.3 | 88.0 | 51.3 | 31.5 | 66 |
| Central | 98.4 | 94.8 | 84.6 | 79.5 | 99.2 | 89.9 | 84.2 | 89.0 | 92.4 | 80.9 | 70.8 | 66.8 | 0.8 | 81 | 98.6 | 69.5 | 95.1 | 64.2 | 95.9 | 71.3 | 47.4 | 99 |
| North | (91.1) | (80.9) | (67.4) | (62.7) | (97.3) | (76.3) | (65.7) | (82.9) | (85.7) | (60.8) | (52.1) | (48.3) | (2.7) | 19 | (94.7) | (61.6) | (92.3) | (57.2) | (92.5) | (60.2) | (42.6) | 17 |
| East | 90.0 | 91.8 | 85.0 | 81.3 | 95.5 | 88.3 | 83.7 | 90.0 | 89.1 | 85.2 | 79.3 | 71.3 | 4.3 | 131 | 92.6 | 74.6 | 88.1 | 66.1 | 87.6 | 70.9 | 53.9 | 117 |

Table 10.3 Vaccinations by background characteristics (continued)
Percentage of children age 12-23 months and children age 24-35 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), percentage with all basic vaccinations, and percentage with all age appropriate vaccinations, by background characteristics, Turkey DHS 2018



 unweighted cases and has been suppressed.
${ }^{1}$ BCG, three doses of DTaP-Hib-IPV, three doses of hepatitis B, first dose of OPV and three doses of PCV
${ }^{2}$ BCG, three doses of DTaP-Hib-IPV and one dose of MMR


## Table 10.4 Possession and observation of vaccination cards

Percentage of children age 12-23 months and children age 24-35 months who ever had a vaccination card, and percentage with a vaccination card seen, according to background characteristics, Turkey DHS 2018

| Background characteristic | Children age 12-23 months |  |  | Children age 24-35 months |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage who ever had a vaccination card ${ }^{1}$ | Percentage with a vaccination card seen ${ }^{1}$ | Number of children | Percentage who ever had a vaccination card ${ }^{1}$ | Percentage with a vaccination card seen ${ }^{1}$ | Number of children |
| Sex |  |  |  |  |  |  |
| Male | 91.5 | 69.3 | 210 | 88.8 | 51.2 | 246 |
| Female | 94.9 | 69.5 | 241 | 87.1 | 55.3 | 249 |
| Birth order |  |  |  |  |  |  |
| 1 | 96.8 | 70.1 | 142 | 88.4 | 51.1 | 172 |
| 2-3 | 91.5 | 70.7 | 242 | 89.5 | 55.6 | 234 |
| 4-5 | 96.5 | 72.6 | 50 | 81.7 | 58.0 | 68 |
| 6+ | * | * | 17 | * | * | 22 |
| Residence |  |  |  |  |  |  |
| Urban | 94.1 | 71.2 | 332 | 90.0 | 53.4 | 383 |
| Rural | 91.4 | 64.3 | 118 | 80.8 | 52.8 | 112 |
| Region |  |  |  |  |  |  |
| West | 94.1 | 71.5 | 150 | 90.2 | 58.8 | 197 |
| South | 94.1 | 65.5 | 70 | 85.6 | 36.1 | 66 |
| Central | 92.8 | 70.0 | 81 | 91.1 | 60.3 | 99 |
| North | (92.0) | (56.5) | 19 | (89.5) | (61.4) | 17 |
| East | 92.7 | 70.6 | 131 | 82.6 | 46.4 | 117 |
| Mother's education |  |  |  |  |  |  |
| No educ. / prim. incomp. | 93.5 | 66.7 | 62 | 77.8 | 46.0 | 75 |
| Complete primary | 92.1 | 70.5 | 110 | 88.6 | 52.2 | 126 |
| Complete secondary | 90.0 | 67.1 | 128 | 88.8 | 54.0 | 117 |
| Complete high school / higher | 97.1 | 71.7 | 150 | 91.2 | 56.6 | 177 |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | 88.5 | 62.3 | 108 | 76.0 | 43.9 | 104 |
| Second | 94.9 | 72.7 | 97 | 86.4 | 47.2 | 97 |
| Middle | 96.1 | 67.9 | 79 | 91.2 | 52.3 | 103 |
| Fourth | 92.1 | 70.1 | 76 | 95.1 | 64.2 | 92 |
| Highest | 96.1 | 75.0 | 90 | 92.0 | 59.9 | 99 |
| Total | 93.4 | 69.4 | 451 | 87.9 | 53.3 | 495 |

[^16]
## NUTRITION OF CHILDREN AND WOMEN

## Key Findings

" Child nutrition: Among children under age 5, 6\% of them are short for their age (stunted), $2 \%$ are thin (wasted), $2 \%$ are underweight and $8 \%$ are overweight.

- Breastfeeding: 98\% of children are breastfed at some point in their life. Contrary to recommendations, 42\% receive a prelacteal feed.
- Early breastfeeding: Among children under age 2, 71\% were breastfed within 1 hour of birth.
- Exclusive breastfeeding: $41 \%$ of infants under age 6 months are exclusively breastfed, and the median duration of exclusive breastfeeding is 1.8 months.
- Maternal nutrition: 4\% of women age 15-49 are too thin. More than half ( $59 \%$ ) of women are overweight or obese.

This chapter reports on nutritional status of children and women in Turkey. It also focuses on infant and young child feeding practices, including breastfeeding and complementary feeding, and micronutrient supplementation for children.

Nutrition is crucial for the growth, health and development of children, and is important for adults in terms of productivity, susceptibility to infections, and also for maternal health of women in particular. The 2018 TDHS obtained information on several aspects of infant feeding practices including the duration and intensity of breastfeeding, the types of the complimentary foods given, and the usage of bottles with a nipple. Both the duration and intensity of breastfeeding are crucial to child health and development, as well as the age at which the child starts receiving supplemental foods and liquids. The foods consumed by children present the variety of nutrients received by young children in Turkey.

To assess the nutritional status of all children under age 5 and all women age 15-49, anthropometric (height and weight) measurements were obtained. Anthropometric measurements are directly related to nutritional status and influence the risk of morbidity and mortality of young children. The nutritional status of all women is assessed in this chapter, as the same approach of previous demographic and health surveys in Turkey.

### 11.1 Nutritional Status of Children

One of the major contributions of the DHS surveys in Turkey has been the anthropometric data collected for all children under five years of age since the 1993 TDHS. Both weight and height (length) measurements were obtained for all children under 5 years of age whose mother was interviewed in the 2018 TDHS to assess the nutritional status of children in Turkey. Anthropometric information is used to calculate standard indices:
height-for-age, weight-for-height, and weight-for-age. The indices are employed to examine malnutrition among children.

Similar to 2008 TDHS and 2013 TDHS, in this report, the distribution of height and weight for children under 5 years of age is compared against the WHO growth standard reference population (WHO 2006). A wellnourished population will be similar to the reference population while a poorly nourished population will differ from the reference population. Three indices: height-for-age, weight-for-height, and weight-for-age can be expressed in standard deviation units (Z-scores) from the median of the reference population and values less than or greater than 2 standard deviations from the median of the WHO child growth standards are used to define malnutrition.

Stunting, low height-for-age, is a sign of chronic undernutrition that reflects failure to receive adequate nutrition over a long period of time. The height-for-age index provides an indicator of linear growth among children. The most direct causes of stunting are inadequate nutrition (not eating enough or eating foods that lack growth-promoting nutrients) and recurrent infections or chronic diseases which cause poor nutrient intake, absorption, and utilization. Thus, height-for-age represents a measure of the long-term effects of malnutrition in a population and does not vary appreciably according to the season of data collection.

Wasting, low weight-for-height, is a measure of acute undernutrition and represents the failure to receive adequate nutrition in the period immediately before the survey. Wasting may result from inadequate food intake or from a recent episode of illness or infection, resulting in weight loss. Severe wasting represents the failure to receive adequate balanced nutrition in a short period before the survey and may be the result of recent illness episodes, especially diarrhea, or of seasonal variations in food supply.

Overweight, high weight-for-height, is a measure of overnutrition and results from an imbalance between energy consumed (too much) and energy expended (too little). The percentage of children more than two standard deviations above the median for weight-for-height indicates the level of this public health problem.

Underweight, low weight-for-age, is a composite index of weight-for-height and height-for-age, reflecting both acute (wasting) and chronic (stunting) undernutrition. The weight-for-age index is often used to monitor nutritional status on a longitudinal basis. It is a useful tool in clinical settings for continuous assessment of nutritional progress and growth. It is presented in DHS reports to allow comparison with the results of studies or clinic based monitoring efforts that employ the weight for age measure. Similar to weight-for-height, this index is subject to seasonal variation.

> Stunting (assessed via height-for-age)
> Height-for-age is a measure of linear growth retardation and cumulative growth deficits. 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), or chronically undernourished. Children who are below minus three standard deviations (-3 SD) are considered severely stunted.
> Sample: Children under age 5 born to interviewed women

## Wasting (assessed via weight-for-height)

The weight-for-height index measures body mass in relation to body height or length and describes acute nutritional status. Children whose Z -score is below minus two standard deviations (-2 SD) from the median of the reference population are considered thin (wasted), or acutely undernourished. Children whose weight-for-height Z-score is below minus three standard deviations $(-3$ SD) from the median of the reference population are considered severely wasted.
Sample: Children under age 5 born to interviewed women

## Underweight (assessed via weight-for-age)

Weight-for-age is a composite index of height-for-age and weight-for-height. It takes into account both acute and chronic undernutrition. 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 considered severely underweight.
Sample: Children under age 5 born to interviewed women

## Overweight (assessed via weight-for-height)

Children whose weight-for-height Z-score is more than 2 standard deviations (+2 SD) above the median of the reference population are considered overweight.
Sample: Children under age 5 born to interviewed women

The means of the Z-scores for height-for-age, weight-for-height, and weight-for-age are also calculated as summary statistics representing the nutritional status of children in a population. These mean scores describe the nutritional status of the entire population of children without the use of a cutoff point. A mean Z-score of less than 0 (i.e., a negative mean value for stunting, wasting, or underweight) suggests the downward shift in the entire sample population's nutritional status relative to the reference population. The farther away the mean Z-scores are from 0 , the higher would be the prevalence of malnutrition.

### 11.1.1 Anthropometry Training and Data Collection

Interviewers were trained to measure the height and weight of children and women. Children younger than age 24 months were measured lying down (recumbent length), older children and women were measured standing up (height). Weight measurements were taken using SECA scales with a digital display [(model number SECA 881 1021659)]. Height and length were measured with a Shorr Productions measuring board.

The survey identified a total of 2,568 children under age 5 born to interviewed women to be eligible for height and weight measurement. Valid height-for-age measurements were taken for $76 \%$ of eligible children. Valid weight-for-height measurements were taken for $75 \%$ of eligible children. Valid weight-for-age measurements were taken for $78 \%$ of eligible children. Appendix C provides additional information on completeness and quality of anthropometry data for children.

### 11.1.2 Levels of Child Malnutrition

Overall, $6 \%$ of children under age 5 is stunted, with $1.5 \%$ is classified as severely stunted (Table 11.1). A very small percentage of children in Turkey are wasted (less than $2 \%$ ) and less than $1 \%$ are severely wasted. The proportion of underweight children is almost the same as the proportion of wasted children ( $2 \%$ each). Eight percent of children under 5 years of age are overweight.

Trends: There is a steady decline in the proportion of stunted children since 2008 TDHS. The prevalence of stunting decreased from $12 \%$ to $6 \%$ in the last decade. There is also a decline in the share of overweight children under age 5. The proportion of overweight children declined from $11 \%$ to $8 \%$ in the last five years (Figure 11.1). The percentage of wasted children remains very low overall despite increasing from $1 \%$ to $2 \%$ since 2008 TDHS. The indicator of both acute and chronic undernutrition, suggests no changes since 2008 TDHS as the percentage of underweight children has remained at $2 \%$ for the past three surveys.

The decline in stunting is noteworthy, it is observed both in any stunting and in severe stunting. Although the level of severe stunting is low in all surveys (within $2 \%-4 \%$ range), the steady decline indicates an improvement in the chronic malnutrition status of children under age 5 (Figure 11.2).

Patterns by background characteristics

- The prevalence of stunting generally increases with age of the children, peaking at age 18-23 months ( $9 \%$ ). This represents the impact of undernutrition in the first 1,000 days of life. Wasting, on the other hand, is more prevalent in children under age 1 , peaking among children $6-8$ months (7\%) (Table 11.1).
- The prevalence of overweight children peaks at 12-17 months of age ( $14 \%$ ) and overweight is slightly more common among male ( $9 \%$ ) than female children ( $7 \%$ ).
- As expected, children with small or very small size at birth have a higher proportion of stunting ( $12 \%$ and $11 \%$ ) and wasting ( $2 \%$ and $3 \%$ ) compared to those reported as average or larger. Conversely, overweight is less common among children reported as very small size at birth ( $5 \%$ ).
- The prevalence of stunting is higher in rural areas than in urban areas ( $8 \%$ versus $5 \%$ ), while the prevalence overweight is higher in urban areas than in rural areas ( $9 \%$ versus $6 \%$ ).
- By region, stunting is most common in the East ( $8 \%$ ), wasting is most common in the Central and Southern regions ( $3 \%$, respectively), and overweight is most common in the Northern region (13\%). The NUTS 1 regions show that the prevalence of stunting is highest in Northeast Anatolia (19\%), wasting is highest in West Anatolia (3\%), and overweight is highest in East Black Sea (15\%).
- The proportion of children who are stunted declines with increasing mother's education and increasing household wealth. For example, the prevalence of stunting among children whose mothers have no education is $9 \%$ compared with $4 \%$ among those whose mothers have have high school education or higher. In contrast, overweight increases with mother's education level and household wealth. For
example, the prevalence of overweight among children whose mothers have no education is $5 \%$ compared to $9 \%$ among those whose mothers have have high school education or higher.


### 11.2 Infant and Young Child Feeding Practices

Appropriate infant and young child feeding (IYCF) practices include early initiation of breastfeeding within the first hour of life, exclusive breastfeeding for the first 6 months of life, continued breastfeeding for two years or more, and introducing safe, appropriate, and adequate complementary foods at 6 months of age (WHO 2008).

### 11.2.1 Early Initiation of Breastfeeding

Initiation of breastfeeding within the first hour of life is important for both the mother and the child. The first breast milk contains colostrum, which is highly nutritious and has antibodies that protect the newborn from diseases. Early initiation of breastfeeding also encourages bonding between the mother and her newborn, facilitating the production of regular breast milk. Therefore, it is suggested that newborns be put to the breast immediately to ensure that they breastfed within 1 hour after birth, in addition, prelacteal feeding (feeding newborns any foods/liquids before breast milk is regularly produced) should be discouraged.

## Early initiation of breastfeeding

Initiation of breastfeeding within 1 hour of birth
Sample: Last born children who were born in the 2 years before the survey

Table 11.2 shows that breastfeeding is almost universal in Turkey. Among children born in the 2 years before the survey, $98 \%$ were breastfed. Seven in ten children (71\%) were breastfed within 1 hour of birth, and $86 \%$ were breastfed within 1 day of birth. Contrary to recommendations, $42 \%$ of breastfeeding children received a prelacteal feed.

## Patterns by background characteristics

- Initiation of breastfeeding within one hour of birth is more common among female births (75\%) than male births (67\%).
- Interestingly, early initiation of breastfeeding is less common in rural areas (67\%) than in urban areas (73\%).
- By regions, early initiation of breastfeeding ranges from a low of $65 \%$ in the North to a high of $76 \%$ in the West region, and was highest in Istanbul at $80 \%$.
- The proportion of children who were breastfed within one hour of birth increases with mother's education; from $64 \%$ among mothers with no education or incomplete primary school to above $71 \%$ among women with higher levels of education.
- Early initiation of breastfeeding by wealth quintile shows a U-shape pattern, where $66 \%$ of children in the middle wealth quintile initiated breastfeeding within one hour of birth compared to $73 \%$ of children in the lowest and $75 \%$ of children in the highest wealth quintiles.
- Prelacteal feeding is not a recommended infant feeding practice, however the practice is prevalent, especially in the Central region (51\%) and increases with increasing mother's education level and household wealth quintile.


### 11.2.2 Exclusive Breastfeeding

Breast milk contains all the nutrients needed by children during their first 6 months of life. It is recommended that in the first 6 months of their life, children be given nothing but breast milk, that is, be exclusively breastfed. Exclusive breastfeeding for 6 months prevents infections such as diarrhea and respiratory illnesses, and provides all the nutrients and liquid an infant requires for optimal growth and development. Feeding complementary foods within the first 6 months will have the adverse effect of reducing breast milk output, because the production and release of breast milk are modulated by the frequency and intensity of suckling.

## Exclusive breastfeeding

Proportion of children 0-5 months of age who are fed exclusively with breastmilk
Sample: Last born children who were born in the 2 years before the survey

Figure 11.3 Breastfeeding practices by age
Percentage of children under age 2


In 2018 TDHS, $41 \%$ of children under age 6 months are exclusively breastfed (Table 11.3). The proportion of children exclusively breastfed declines rapidly with age, from $59 \%$ among children age $0-1$ months to $45 \%$ among those age 2-3 months and $14 \%$ among those age $4-5$ months (Table 11.3 and Figure 11.3). Contrary to the recommendation that children under 6 months should be exclusively breastfed, $23 \%$ of children receive breast milk with other milk and $12 \%$ of children receive complementary foods in addition to breast milk.

Figure 11.4 and Table 11.4
show that over half of children under age 2 ( $53 \%$ ) are receiving age-appropriate breastfeeding. Eighty-five percent of children are introduced to solid, semisolid, or soft foods at 6-8 months. Continued breastfeeding is still common at age 1 ( $66 \%$ ), however only $34 \%$ of children continue breastfeeding until their second birthday. months. Continued

Figure 11.4 IYCF indicators on breastfeeding status Percentage of children under age 2


### 11.2.3 Median Duration of Breastfeeding

Table $\mathbf{1 1 . 5}$ shows that the median duration of any breastfeeding among children born in the 3 years before the survey is 16.7 months. Overall, median duration of exclusive breastfeeding (i.e., the time by which half of children have stopped exclusive breastfeeding) is 1.8 months, and median duration of predominant breastfeeding (either exclusively breastfed or breastfed with plain water and/or non-milk liquids) is 3.6 months.

Figure 11.5 Trends in median duration of breastfeeding
Percentage of children under age 3


Trends: The median duration of any breastfeeding was 16.7 months in 2018 TDHS, almost 5 months longer than the median duration in 1998 TDHS (11.9 months) (Figure 11.5). The median duration of exclusive breastfeeding was 1.3 months longer in 2018 TDHS than in 1998 TDHS ( 0.5 months and 1.8 months, respectively).

Patterns by background characteristics

- The median duration of breastfeeding among male children is 18.0 months compared to female children at 16.2 months (Table 11.5).
- The median duration of breastfeeding is slightly higher in rural areas (17.7 months) than in urban areas ( 16.4 months).
- Children with less educated mothers and in less wealthy households have a somewhat longer period of predominant breastfeeding than those in higher wealth quintiles and with more education.


### 11.2.4 Bottle Feeding

The nipple on a feeding bottle is susceptible to contamination and increases the risk of disease among children. Thus, feeding children from a bottle with a nipple is not recommended for children under 2 years of age (WHO, 2005).

## Bottle feeding

Proportion of children age 0-23 months who are fed from a bottle with a nipple Sample: Last born children who were born in the 2 years before the survey

Bottle feeding is common in Turkey. Among all children age $0-23$ months, $53 \%$ were fed with a bottle on the day or night before the survey (Figure 11.4). The proportion of children who are fed with a bottle rises steadily with age in the first year, from $31 \%$ among children less than age 2 months to a peak of $60 \%$ among children age 9 to 11 months (Table 11.3).

### 11.2.5 Introduction of Complementary Foods

After the first 6 months, breast milk alone is no longer enough to meet the nutritional needs of an infant. After 6 months, appropriate complementary foods should be introduced while continuing to breastfeed until age 2 or older. The transition from exclusive breastfeeding to complementing with family foods is when children are most vulnerable to becoming undernourished and during this time it is important they receive solid, semi-solid, or soft foods.

Appropriate complementary feeding should include feeding children a variety of foods to ensure that nutrient requirements are met. Fruits and vegetables rich in vitamin A should be consumed daily. Eating a range of fruits and vegetables, in addition to those rich in vitamin A, is also important. Studies have shown that plantbased complementary foods by themselves are insufficient to meet the needs for certain micronutrients. Therefore, it has been recommended that meat, poultry, fish, or eggs should be part of the daily diet, or eaten as often as possible (WHO, 2003).

In the 2018 TDHS, women who had at least one child living with them who was born in 2015 or later were asked questions about the types of liquids and foods the child had consumed during the day or night before the interview.

Table $\mathbf{1 1 . 6}$ indicates the types of foods and liquids received by children under age 2 living with their mother during the day and night before the interview by their age and breastfeeding status. The most common foods given to breastfed and nonbreastfed children age 6 to 23 months are cheese, yogurt and other milk products ( $74 \%$ and $73 \%$, respectively) and other fruits and vegetables ( $74 \%$ and $77 \%$, respectively). Meat, fish and poultry consumption are the least commonly given foods for breastfeeding children age 6 to 23 months ( $25 \%$ ) and nonbreastfeeding children age 6 to 23 months ( $26 \%$ ). Similarly, food made from legumes and nuts, are less commonly given to breastfeeding ( $32 \%$ ) and nonbreastfeeding ( $31 \%$ ) children. Consumption of infant formula among children age 6 to 23 months is lower among breastfeeding children ( $15 \%$ ) compared to nonbreastfeeding children (32\%).

### 11.3 Micronutrient Intake among Children

Micronutrient deficiency is a major contributor to childhood morbidity and mortality. Micronutrients are available in foods and can also be provided through direct supplementation.

In 2018 TDHS, the information was collected on food consumption among children 6-23 months assessing the extent to which children are consuming food groups rich in iron in their daily diet. Iron is a micronutrient which plays an important role in numerous biological systems and iron deficiency is one of the primary causes of anemia, which has serious health consequences for children.

Overall, $63 \%$ of children age $6-23$ months consumed foods rich in iron during the 24 hours before the interview (Table 11.7).

## Patterns by background characteristics

- The intake of iron-rich foods tends to increases with the age of the child from $48 \%$ among children 6-8 months to $69 \%$ and $68 \%$ among children age 12-17 months and 18-23 months respectively.
- The percentage of children consuming iron-rich foods is higher among nonbreastfed children (67\%) compared with breastfed ones ( $60 \%$ ).
- Consumption of iron-rich foods is considerably higher in urban areas (67\%) than rural areas (53\%).
- Among regions, consumption of foods rich in iron is highest among children living in the North (75\%) and West (73\%) regions, and lowest in the East region (46\%).
- Intake of iron-rich foods increases with increasing mother's education and wealth.


### 11.4 Women's Nutritional Status

Chronic energy deficiency is caused by eating too little or having an unbalanced diet that lacks adequate nutrients. Women of reproductive age are especially vulnerable to chronic energy deficiency and malnutrition due to low dietary intakes, inequitable distribution of food within the household, improper food storage and preparation, dietary taboos, infectious diseases, and inadequate care practices. It is well known that chronic energy deficiency leads to low productivity among adults and is related to heightened morbidity and mortality. In addition, chronic undernutrition among women is a major risk factor for adverse birth outcomes.

As discussed above, 2018 TDHS collected anthropometric data on height and weight among women age 1549. These data were used to calculate several measures of nutritional status such as maternal height and Body Mass Index (BMI).

In order to assess women's nutritional status, women were weighed and their heights measured using the same equipment used to obtain children's measurements (i.e., an electronic scale and wooden height board). The weight and BMI distributions presented in this section exclude pregnant women and women with a birth within the 2 months prior to the measurement.

The height of women is important in terms of mother and child health, because maternal height is useful in predicting the risk of delivery complications as short stature is frequently associated with a small pelvis size. The height below which women are considered to be at risk of such complications is in the range of 140-150 centimeters, with 145 centimeters being the widely accepted cutoff for identifying maternal malnutrition.

## Body mass index (BMI)

BMI is calculated by dividing weight in kilograms by height in meters squared (kg/m²).

| Status | BMI |
| :--- | :--- |
| Too thin for their height | Less than 18.5 |
| Normal | Between 18.5 and 24.9 |
| Overweight | Between 25.0 and 29.9 |
| Obese | Greater than or equal to 30.0 |

Sample: Women age 15-49 who are not pregnant and who have not had a birth in the 2 months before the survey

## Short Stature

Proportion of women with height under 145 cm .
Sample: Women age 15-49

Figure 11.6 Nutritional status of women Percent distribution of women age 15-49


Trends: In the last 15 years, the percentage of women who are obese has increased from $23 \%$ to $30 \%$ (Figure 11.7). During that period, the percentage of women considered to be thin has changed significantly between 2003 TDHS and 2013 TDHS and remained low, stable at $4 \%$.

Thirty-seven percent of women have a normal BMI, whereas $59 \%$ are overweight or obese and $4 \%$ are thin (Table 11.8 and Figure 11.6).
Women's mean BMI ( $27.3 \mathrm{~kg} / \mathrm{m} 2$ ) falls within the range considered as overweight. One percent of women age 15-49 are of short stature (below 145 centimeters) (Table 11.8).

Figure 11.7 Trends in women's nutritional status Percent distribution of women age 15-49


## Patterns by background characteristics

- Both short stature and overweight or obesity decreases with increasing level of education and wealth status. For example, $63 \%$ of women in the lowest quintile are overweight or obese compared to $52 \%$ in the highest wealth quintile. Similarly, $81 \%$ of women with no education or incomplete primary are overweight or obese compared with $44 \%$ of those with complete high school or higher education.
- Strikingly, $84 \%$ of women aged 40-49 are overweight or obese, and $53 \%$ of women in this age group are obese.
- Women living in rural areas (63\%) are more prevalently overweight or obese than women residing in urban areas (58\%).
- Regional variations in the BMI are relatively small.


## List of Tables

For more information on nutrition of children and adults, see the following tables:

- Table 11.1 Nutritional status of children
- Table 11.2 Initial breastfeeding
- Table 11.3 Breastfeeding status by age
- Table 11.4 Infant and young child feeding (IYCF) indicators on breastfeeding status
- Table 11.5 Median duration of breastfeeding
- Table 11.6 Foods and liquids consumed by children in the day or night preceding the interview
- Table 11.7 Micronutrient intake among children
- Table 11.8 Nutritional status of women


## Table 11.1 Nutritional status of children

Percentage of children under age 5 classified as malnourished according to three anthropometric indices of nutritional status: height-forage, weight-for-height, and weight-for-age, according to background characteristics, Turkey DHS 2018

| Background characteristic | Height-for-age ${ }^{1}$ |  |  |  | Weight-for-height |  |  |  |  | Weight-for-age |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage below -3 SD | Percent age below -2 SD ${ }^{2}$ | $\begin{gathered} \text { - Mean } \\ \text { Z- } \\ \text { score } \\ \text { (SD) } \\ \hline \end{gathered}$ | Number of children | $\begin{gathered} \hline \text { Percent- } \\ \text { age } \\ \text { below }-3 \\ \text { SD } \\ \hline \end{gathered}$ | ```- Percent- age below -2 SD``` | Percent age above $+2 S D$ | Mean Zscore (SD) | Number of children | Percentage below -3 SD | ercentage <br> elow -2 <br> SD ${ }^{2}$ | Percent- age above +2 SD | Mean Zscore (SD) | Number of children |
| Age in months |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| <6 | 3.5 | 3.5 | 0.3 | 173 | 2.7 | 6.5 | 4.9 | -0.0 | 171 | 0.4 | 1.2 | 1.3 | 0.2 | 182 |
| 6-8 | 0.3 | 2.2 | 0.5 | 108 | 4.4 | 7.4 | 3.3 | -0.0 | 107 | 3.4 | 3.4 | 2.9 | 0.2 | 108 |
| 9-11 | 0.9 | 3.7 | 0.1 | 100 | 0.9 | 3.1 | 10.3 | 0.3 | 99 | 0.9 | 2.2 | 4.5 | 0.3 | 101 |
| 12-17 | 2.2 | 7.2 | -0.1 | 196 | 0.0 | 0.9 | 14.0 | 0.7 | 193 | 0.0 | 0.5 | 7.1 | 0.5 | 204 |
| 18-23 | 1.9 | 9.4 | -0.5 | 148 | 0.0 | 0.0 | 3.2 | 0.5 | 150 | 0.0 | 1.0 | 1.7 | 0.1 | 154 |
| 24-35 | 1.4 | 6.5 | -0.4 | 360 | 0.0 | 0.6 | 11.0 | 0.6 | 356 | 0.0 | 1.1 | 6.0 | 0.2 | 385 |
| 36-47 | 1.6 | 6.9 | -0.5 | 400 | 0.0 | 0.7 | 7.0 | 0.5 | 398 | 0.2 | 1.2 | 5.1 | 0.1 | 410 |
| 48-59 | 0.7 | 5.4 | -0.4 | 466 | 0.5 | 0.7 | 7.7 | 0.4 | 462 | 0.3 | 2.2 | 4.6 | 0.1 | 470 |
| Sex |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Male | 1.5 | 6.1 | -0.2 | 996 | 0.5 | 1.7 | 9.3 | 0.5 | 990 | 0.4 | 1.3 | 5.2 | 0.2 | 1,023 |
| Female | 1.5 | 5.8 | -0.3 | 954 | 0.9 | 1.6 | 6.8 | 0.4 | 945 | 0.3 | 1.7 | 4.0 | 0.1 | 992 |
| Birth interval in months ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| First birth ${ }^{4}$ | 1.6 | 4.8 | -0.1 | 619 | 1.1 | 2.2 | 8.2 | 0.4 | 614 | 0.5 | 1.6 | 5.2 | 0.2 | 647 |
| <24 | 2.9 | 7.1 | -0.4 | 282 | 0.2 | 2.8 | 5.6 | 0.3 | 284 | 0.0 | 1.9 | 2.9 | 0.0 | 292 |
| 24-47 | 0.8 | 8.1 | -0.4 | 431 | 0.0 | 0.5 | 6.0 | 0.4 | 426 | 0.1 | 0.9 | 3.7 | 0.1 | 437 |
| 48+ | 1.2 | 5.1 | -0.2 | 618 | 0.8 | 1.4 | 10.6 | 0.5 | 612 | 0.6 | 1.6 | 5.4 | 0.2 | 639 |
| Size at birth ${ }^{3}$ |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Very small | 6.1 | 11.9 | -0.9 | 133 | 0.7 | 2.3 | 4.6 | 0.2 | 133 | 1.5 | 5.7 | 0.9 | -0.3 | 135 |
| Small | 2.9 | 11.0 | -0.5 | 292 | 1.6 | 2.6 | 7.8 | 0.1 | 291 | 1.2 | 2.9 | 4.1 | -0.2 | 298 |
| Average or larger | 0.8 | 4.4 | -0.1 | 1,521 | 0.5 | 1.4 | 8.5 | 0.5 | 1,509 | 0.1 | 0.9 | 5.0 | 0.3 | 1,579 |
| Missing | * | * | * | 3 | * | * | * | * | 3 | * | * | * |  | 3 |

## Mother's nutritional status ${ }^{5}$

Thin

| (BMI<18.5) | (9.1) | (12.5) | 0.6 | 43 | (5.8) | (14.3) | (4.5) | 0.4 | 41 | (5.7) | (8.3) | (0.0) | 0.6 | 42 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Normal (BMI |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 18.5-24.9) | 1.2 | 5.8 | -0.2 | 582 | 0.5 | 1.5 | 4.8 | 0.3 | 583 | 0.4 | 1.4 | 2.6 | 0.1 | 612 |
| Overweight/ obese (BMI |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| >= 25) | 1.4 | 5.8 | -0.2 | 1,315 | 0.6 | 1.4 | 9.7 | 0.5 | 1,308 | 0.2 | 1.3 | 5.6 | 0.3 | 1,357 |
| Residence |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Urban | 1.5 | 5.4 | -0.2 | 1,466 | 0.7 | 1.6 | 8.8 | 0.5 | 1,460 | 0.3 | 1.4 | 5.0 | 0.2 | 1,518 |
| Rural | 1.4 | 7.7 | -0.4 | 484 | 0.5 | 2.0 | 6.0 | 0.4 | 475 | 0.7 | 1.8 | 3.4 | 0.1 | 497 |
| Region |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| West | 1.0 | 3.7 | -0.1 | 764 | 0.3 | 0.8 | 8.6 | 0.5 | 760 | 0.4 | 1.1 | 5.8 | 0.2 | 786 |
| South | 2.5 | 8.0 | -0.3 | 292 | 1.3 | 2.8 | 6.4 | 0.3 | 290 | 0.3 | 2.1 | 4.6 | 0.0 | 308 |
| Central | 1.1 | 6.0 | -0.1 | 328 | 1.6 | 2.9 | 9.1 | 0.6 | 318 | 1.0 | 1.7 | 4.5 | 0.3 | 340 |
| North | 1.7 | 6.8 | -0.2 | 83 | 0.0 | 1.3 | 13.2 | 0.9 | 82 | 0.0 | 0.0 | 10.7 | 0.6 | 86 |
| East | 1.9 | 8.2 | -0.4 | 482 | 0.3 | 1.6 | 6.7 | 0.4 | 485 | 0.1 | 1.8 | 1.8 | 0.0 | 494 |

Table 11.1 Nutritional status of children (Continued)
Percentage of children under age 5 classified as malnourished according to three anthropometric indices of nutritional status: height-forage, weight-for-height, and weight-for-age, according to background characteristics, Turkey DHS 2018


NUTS 1
Region

| Istanbul | 0.0 | 2.3 | -0.1 | 418 | 0.6 | 1.1 | 10.2 | 0.4 | 415 | 0.5 | 0.5 | 6.5 | 0.2 | 434 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| West |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Marmara | 4.2 | 7.8 | -0.1 | 63 | 0.0 | 2.2 | 7.8 | 0.4 | 63 | 0.7 | 2.0 | 5.5 | 0.2 | 64 |
| Aegean | 0.9 | 3.5 | -0.2 | 176 | 0.0 | 0.0 | 7.0 | 0.5 | 174 | 0.0 | 0.9 | 4.3 | 0.2 | 174 |
| East Marmara | 2.5 | 7.0 | -0.2 | 174 | 0.6 | 1.1 | 7.0 | 0.6 | 174 | 0.0 | 1.9 | 3.8 | 0.3 | 181 |
| West Anatolia | 0.9 | 6.4 | -0.2 | 147 | 2.9 | 2.9 | 10.6 | 0.6 | 137 | 1.8 | 2.7 | 7.1 | 0.4 | 148 |
| Mediterranean | 2.5 | 8.0 | -0.3 | 292 | 1.3 | 2.8 | 6.4 | 0.3 | 290 | 0.3 | 2.1 | 4.6 | 0.0 | 308 |
| Central |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Anatolia | 1.6 | 5.5 | -0.1 | 81 | 0.0 | 2.4 | 6.3 | 0.5 | 81 | 0.7 | 2.2 | 3.2 | 0.3 | 88 |
| West Black |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sea | 0.6 | 4.1 | -0.2 | 82 | 0.0 | 2.3 | 11.6 | 0.7 | 81 | 0.0 | 0.0 | 8.2 | 0.5 | 86 |
| East Black |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sea | 2.7 | 10.8 | -0.4 | 35 | 0.0 | 1.6 | 14.5 | 1.0 | 34 | 0.0 | 0.0 | 8.6 | 0.6 | 35 |
| Northeast |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Anatolia | 3.1 | 18.7 | -0.7 | 56 | 0.0 | 1.7 | 7.2 | 0.5 | 56 | 0.0 | 3.2 | 2.3 | 0.0 | 58 |
| Central East |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Anatolia | 2.4 | 9.4 | -0.6 | 118 | 0.5 | 2.0 | 6.5 | 0.3 | 117 | 0.5 | 3.0 | 1.9 | -0.1 | 119 |
| Southeast |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Anatolia | 1.4 | 5.8 | -0.4 | 309 | 0.3 | 1.5 | 6.6 | 0.4 | 312 | 0.0 | 1.1 | 1.7 | 0.1 | 317 |
| Mother's education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No educ. / prim. incomp. | 2.5 | 9.4 | -0.4 | 280 | 0.0 | 0.5 | 4.6 | 0.3 | 282 | 0.0 | 1.5 | 2.5 | -0.0 | 282 |
| Complete primary | 1.5 | 6.9 | -0.4 | 550 | 0.2 | 1.3 | 9.1 | 0.5 | 546 | 0.3 | 1.3 | 5.3 | 0.2 | 571 |
| Complete secondary | 1.4 | 5.5 | -0.3 | 524 | 0.9 | 2.0 | 8.1 | 0.5 | 517 | 0.4 | 1.7 | 3.2 | 0.2 | 534 |
| Complete high school / higher | 1.0 | 3.9 | -0.0 | 595 | 1.1 | 2.2 | 8.8 | 0.4 | 590 | 0.6 | 1.5 | 6.1 | 0.3 | 627 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | 2.5 | 12.3 | -0.6 | 448 | 0.0 | 1.8 | 6.8 | 0.4 | 443 | 0.0 | 1.7 | 2.5 | -0.0 | 455 |
| Second | 2.0 | 6.7 | -0.4 | 432 | 0.1 | 0.8 | 7.9 | 0.5 | 431 | 0.2 | 1.9 | 3.6 | 0.1 | 438 |
| Middle | 1.4 | 3.8 | -0.2 | 402 | 1.3 | 1.9 | 7.7 | 0.5 | 397 | 0.8 | 1.7 | 3.6 | 0.2 | 417 |
| Fourth | 0.2 | 2.8 | -0.1 | 351 | 0.4 | 1.9 | 9.2 | 0.5 | 350 | 0.3 | 0.3 | 7.2 | 0.3 | 377 |
| Highest | 0.8 | 2.2 | 0.1 | 316 | 1.7 | 2.0 | 9.4 | 0.4 | 314 | 0.7 | 1.7 | 7.3 | 0.4 | 327 |
| Total | 1.5 | 6.0 | -0.2 | 1,950 | 0.6 | 1.7 | 8.1 | 0.4 | 1,935 | 0.4 | 1.5 | 4.6 | 0.2 | 2,015 |

[^17]Table 11.2 Initial breastfeeding
Among last-born children who were born in the 2 years preceding the survey, percentage who were ever breastfed and percentages who started breastfeeding within 1 hour and within 1 day of birth, and among last-born children born in the 2 years preceding the survey who were ever breastfed, percentage who received a prelacteal feed, according to background characteristics, Turkey DHS 2018

| Background characteristic | Among last-born children born in the past 2 years: |  |  |  | Among last-born children born in the past 2 years who were ever breastfed: |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage ever breastfed | Percentage who started breastfeeding within 1 hour of birth | Percentage who started breastfeeding within 1 day of birth ${ }^{1}$ | Number of lastborn children | Percentage who received a prelacteal feed ${ }^{2}$ | Number of lastborn children ever breastfed |
| Sex |  |  |  |  |  |  |
| Male | 97.6 | 67.0 | 83.1 | 429 | 44.6 | 418 |
| Female | 97.9 | 75.2 | 87.8 | 485 | 39.2 | 475 |
| Residence |  |  |  |  |  |  |
| Urban | 97.4 | 72.9 | 85.7 | 684 | 41.4 | 666 |
| Rural | 98.8 | 66.8 | 85.2 | 230 | 42.4 | 227 |
| Region |  |  |  |  |  |  |
| West | 97.8 | 76.3 | 86.2 | 344 | 41.6 | 337 |
| South | 97.3 | 72.6 | 87.6 | 141 | 36.5 | 137 |
| Central | 98.8 | 66.6 | 83.2 | 157 | 51.1 | 155 |
| North | 96.1 | 64.6 | 85.9 | 35 | 44.0 | 33 |
| East | 97.6 | 67.5 | 85.1 | 237 | 38.1 | 232 |
| NUTS 1 Region 38.1 |  |  |  |  |  |  |
| Istanbul | 98.6 | 80.3 | 87.3 | 167 | 42.9 | 165 |
| West Marmara | 94.9 | 67.1 | 88.7 | 27 | 29.7 | 25 |
| Aegean | 98.3 | 70.4 | 80.5 | 93 | 39.3 | 91 |
| East Marmara | 97.4 | 72.5 | 85.7 | 90 | 52.6 | 87 |
| West Anatolia | 98.2 | 74.7 | 87.8 | 73 | 47.6 | 71 |
| Mediterranean | 97.3 | 72.6 | 87.6 | 141 | 36.5 | 137 |
| Central Anatolia | 98.4 | 55.3 | 78.7 | 39 | 48.5 | 39 |
| West Black Sea | 96.9 | 64.1 | 85.6 | 33 | 41.6 | 32 |
| East Black Sea | (97.8) | (68.7) | (87.7) | 15 | (56.1) | 14 |
| Northeast Anatolia | 98.7 | 56.2 | 78.4 | 26 | 47.6 | 25 |
| Central East Anatolia | 98.2 | 57.9 | 91.6 | 54 | 37.5 | 53 |
| Southeast Anatolia | 97.2 | 72.7 | 84.0 | 158 | 36.8 | 153 |
| Mother's education |  |  |  |  |  |  |
| No educ. / prim. incomp. | 99.1 | 63.7 | 86.7 | 109 | 35.0 | 108 |
| Complete primary | 96.7 | 73.4 | 87.9 | 226 | 39.6 | 219 |
| Complete secondary | 99.1 | 71.3 | 87.4 | 259 | 42.0 | 257 |
| Complete high school / higher | 97.0 | 72.6 | 82.1 | 320 | 45.2 | 310 |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | 98.0 | 73.2 | 90.3 | 200 | 37.3 | 196 |
| Second | 99.1 | 71.0 | 87.5 | 197 | 40.2 | 195 |
| Middle | 95.7 | 66.2 | 79.9 | 187 | 40.6 | 179 |
| Fourth | 97.9 | 72.2 | 84.9 | 164 | 43.1 | 161 |
| Highest | 98.1 | 74.5 | 84.9 | 166 | 48.6 | 163 |
| Total | 97.8 | 71.3 | 85.6 | 914 | 41.7 | 894 |

[^18]
## Table 11.3 Breastfeeding status by age

Percent distribution of youngest children under age 2 who are living with their mother by breastfeeding status and the percentage currently breastfeeding, and the percentage of all children under age 2 using a bottle with a nipple, according to age in months, Turkey DHS 2018

| Age in months | Not breastfeeding | Breastfeeding status |  |  |  |  |  |  | Number of youngest children under age 2 living with their mother | Percentage using a bottle with a nipple | Number of all children under age 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Exclusively breastfed | Breastfeeding and consuming plain water only | Breast- feeding and consu- ming non milk liquids ${ }^{1}$ | Breastfeeding and consuming other milk | Breast- feeding and consu- ming comple- mentary foods | Total | Percentage currently breastfeeding |  |  |  |
| 0-1 | 4.7 | 59.2 | 12.8 | 0.0 | 21.6 | 1.7 | 100.0 | 95.3 | 88 | 30.7 | 92 |
| 2-3 | 6.4 | 45.1 | 16.6 | 2.6 | 27.0 | 2.3 | 100.0 | 93.6 | 82 | 45.0 | 82 |
| 4-5 | 11.9 | 14.4 | 16.9 | 3.0 | 20.0 | 33.9 | 100.0 | 88.1 | 76 | 49.4 | 76 |
| 6-8 | 15.7 | 3.8 | 4.1 | 3.8 | 2.5 | 70.1 | 100.0 | 84.3 | 131 | 59.4 | 137 |
| 9-11 | 30.3 | 0.4 | 1.6 | 1.7 | 2.2 | 63.7 | 100.0 | 69.7 | 119 | 59.9 | 120 |
| 12-17 | 37.6 | 0.0 | 1.1 | 0.8 | 0.1 | 60.4 | 100.0 | 62.4 | 242 | 58.7 | 254 |
| 18-23 | 61.5 | 0.0 | 0.0 | 0.0 | 0.5 | 38.0 | 100.0 | 38.5 | 165 | 50.9 | 197 |
| 0-3 | 5.5 | 52.4 | 14.6 | 1.3 | 24.2 | 2.0 | 100.0 | 94.5 | 170 | 37.4 | 174 |
| 0-5 | 7.5 | 40.7 | 15.3 | 1.8 | 22.9 | 11.8 | 100.0 | 92.5 | 246 | 41.1 | 250 |
| 6-9 | 17.1 | 3.0 | 3.4 | 3.0 | 2.0 | 71.6 | 100.0 | 82.9 | 168 | 55.8 | 175 |
| 12-15 | 34.4 | 0.0 | 0.8 | 0.6 | 0.2 | 64.0 | 100.0 | 65.6 | 173 | 56.3 | 181 |
| 12-23 | 47.3 | 0.0 | 0.7 | 0.4 | 0.3 | 51.3 | 100.0 | 52.7 | 407 | 55.3 | 451 |
| 20-23 | 66.5 | 0.0 | 0.0 | 0.0 | 0.8 | 32.7 | 100.0 | 33.5 | 112 | 48.2 | 137 |

Note: Breastfeeding status refers to a " 24 -hour" period (yesterday and last night). Children who are classified as breastfeeding and consuming plain water only consumed no liquid or solid supplements. The categories of not breastfeeding, exclusively breastfed, breastfeeding and consuming plain water, nonmilk liquids, other milk, and complementary foods (solids and semi-solids) are hierarchical and mutually exclusive, and their percentages add to 100 percent. Thus children who receive breast milk and non-milk liquids and who do not receive other milk and who do not receive complementary foods are classified in the non-milk liquid category even though they may also get plain water. Any children who get complementary food are classified in that category as long as they are breastfeeding as well.
${ }^{1}$ Non-milk liquids include juice, juice drinks, clear broth or other liquids

## Table 11.4 Infant and young child feeding (IYCF) indicators on breastfeeding status

Percentage of children fed according to various IYCF practices, Turkey DHS 2018

| Indicator | Indicator numerator and denominator | Value |
| :--- | :--- | :---: |
| Exclusive breastfeeding under | Percentage exclusively breastfed | 40.7 |
| 6 months | Number of children age 0-5 months | 246 |

Exclusive breastfeeding at 4-5 Percentage exclusively breastfed 14.4
months of age $\quad$ Number of children age 4-5 months 76
Continued breastfeeding at $1 \quad$ Percentage currently breastfeeding 65.6
year $\quad$ Number of children age 12-15 months 173

| Introduction of solid, semi- | Percentage of children age 6-8 months who received any solid, |
| :--- | :--- |
| solid or soft foods (6-8 | semi-solid or soft foods during the previous day |

months) $\quad$ Number of youngest children age 6-8 months living with the mother 131
Continued breastfeeding at 2 Percentage currently breastfeeding 33.5
years $\quad$ Number of children age 20-23 months 112

| Age-appropriate | Percentage with age-appropriate breastfeeding <br>  <br> breastfeeding $(0-23$ months $)$ | Number of youngest children age $0-23$ months of age living with the <br> mother |
| :--- | :--- | :---: |


| Predominant breastfeeding | Percentage with predominant breastfeeding ${ }^{2}$ |
| :--- | :--- |
| 57.8 |  |

(0-5 months) Number of children age 0-5 months 246

Mixed breast and non-breast Percentage with mixed breast and non-breast milk feeding ${ }^{3}$ 28.4
milk feeding (0-5 months) Number of children age 0-5 months 246

Bottle feeding (0-23 months) Percentage using a bottle with a nipple 52.7
Number of children age 0-23 months 957

[^19]
## Table 11.5 Median duration of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the 3 years preceding the survey, according to background characteristics, Turkey DHS 2018

| Background characteristic | Median duration (months) of breastfeeding among children born in the past 3 years ${ }^{1}$ |  |  |
| :---: | :---: | :---: | :---: |
|  | Any breastfeeding | Exclusive breastfeeding | Predominant breastfeeding ${ }^{2}$ |
| Sex |  |  |  |
| Male | 18.0 | a | 3.6 |
| Female | 16.2 | (2.2) | 3.6 |
| Residence |  |  |  |
| Urban | 16.4 | 2.0 | 3.6 |
| Rural | 17.7 | (1.0) | 3.5 |
| Region |  |  |  |
| West | 15.7 | * | 3.1 |
| South | 16.1 | a | a |
| Central | (20.1) | * | (4.8) |
| North | a | a | a |
| East | 17.3 | (2.4) | 4.3 |
| Mother's education |  |  |  |
| No educ. / prim. incomp. | (19.3) | * | (4.6) |
| Complete primary | 12.0 | (2.4) | 3.8 |
| Complete secondary | 15.9 | a | * |
| Complete high school / higher | 17.8 | (1.4) | 3.6 |
| Wealth quintile |  |  |  |
| Lowest | 17.4 | * | * |
| Second | 16.7 | * | 4.2 |
| Middle | (19.1) | * | 3.6 |
| Fourth | (14.3) | * | (3.9) |
| Highest | 16.4 | a | (3.5) |
| Total | 16.7 | 1.8 | 3.6 |
| Mean for all children | 17.9 | 3.5 | 4.9 |

Note: Median and mean durations are based on breastfeeding status of the child at the time of the survey (current status). Includes living and deceased children. 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.
${ }^{a}=$ omitted because less than $50 \%$ of the children in this group were exclusively or predominantly breastfeeding
${ }^{1}$ For last-born children under age 24 months who live with the mother and are breastfeeding, information to determine exclusive and predominant breastfeeding comes from a 24 -hour dietary recall. Tabulations assume that lastborn children age 24 months or older who live with the mother and are breastfeeding are neither exclusively nor predominantly breastfed. It is assumed that last-born children not currently living with the mother and all non-last-born children are not currently breastfeeding.
${ }^{2}$ Either exclusively breastfed or received breast milk and plain water, and/or non-milk liquids only.

Table 11.6 Foods and liquids consumed by children in the day or night preceding the interview
Percentage of youngest children under age 2 who are living with the mother by type of foods consumed in the day or night preceding the interview, according to breastfeeding status and age, Turkey DHS 2018

| Age in months | Liquids |  |  | Solid or semi-solid foods |  |  |  |  |  |  | Number of children under age 2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Infant formula | Other milk ${ }^{1}$ | Other liquids ${ }^{2}$ | Food made from grains | Other fruits and vegetables | Food made from legumes and nuts | Meat, fish, poultry | Eggs | Cheese, yogurt, other milk product | Any solid or semisolid food |  |
| BREASTFEEDING CHILDREN |  |  |  |  |  |  |  |  |  |  |  |
| 0-1 | 22.0 | 5.3 | 4.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 1.8 | 84 |
| 2-3 | 29.6 | 3.0 | 5.1 | 0.0 | 1.7 | 0.0 | 0.0 | 0.0 | 0.8 | 2.4 | 77 |
| 4-5 | 34.4 | 13.9 | 28.8 | 2.3 | 19.3 | 4.1 | 0.0 | 14.2 | 35.6 | 40.5 | 67 |
| 6-8 | 29.1 | 13.5 | 76.8 | 33.5 | 60.2 | 24.8 | 15.2 | 42.0 | 72.3 | 86.8 | 110 |
| 9-11 | 15.4 | 20.2 | 88.2 | 45.0 | 64.3 | 32.6 | 21.0 | 56.2 | 74.9 | 94.5 | 83 |
| 12-17 | 9.2 | 36.5 | 82.9 | 68.9 | 83.5 | 35.5 | 32.0 | 60.4 | 76.3 | 97.7 | 151 |
| 18-23 | 0.0 | 39.9 | 82.5 | 71.1 | 87.9 | 34.4 | 28.4 | 60.5 | 70.4 | 98.6 | 64 |
| 6-23 | 14.4 | 27.5 | 82.3 | 54.8 | 74.0 | 31.8 | 24.6 | 54.6 | 74.0 | 94.2 | 408 |
| Total | 19.3 | 20.2 | 57.0 | 35.4 | 49.7 | 20.8 | 15.8 | 36.5 | 51.6 | 65.2 | 636 |
| NONBREASTFEEDING CHILDREN |  |  |  |  |  |  |  |  |  |  |  |
| 0-1 | * | * | * | * | * | * | * | * | * | * | 4 |
| 2-3 | * | * | * | * | * | * | * | * | * | * | 5 |
| 4-5 | * | * | * | * | * | * | * | * | * | * | 9 |
| 6-8 | * | * | * | * | * | * | * | * | * | * | 21 |
| 9-11 | (57.8) | (57.5) | (85.9) | (64.5) | (76.4) | (22.4) | (15.9) | (44.4) | (72.7) | (95.6) | 36 |
| 12-17 | 22.0 | 73.7 | 88.7 | 62.9 | 75.5 | 33.1 | 27.3 | 64.3 | 75.9 | 100.0 | 91 |
| 18-23 | 20.5 | 64.7 | 88.0 | 69.1 | 77.6 | 35.2 | 30.1 | 62.3 | 69.4 | 98.5 | 101 |
| 6-23 | 31.5 | 65.4 | 88.0 | 62.8 | 76.6 | 31.0 | 26.4 | 60.5 | 73.3 | 98.6 | 249 |
| Total | 35.9 | 61.9 | 83.1 | 58.5 | 72.4 | 28.9 | 24.6 | 57.0 | 70.3 | 93.8 | 267 |

Note: Breastfeeding status and food consumed refer to a 24-hour" period (yesterday and last night). 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.
${ }^{1}$ Other milk includes fresh, tinned and powdered cow or other animal milk
${ }^{2}$ Doesn't include plain water

## Table 11.7 Micronutrient intake among children

Among youngest children age 6-23 months who are living with their mother, percentages who consumed iron-rich foods in the 24 hours preceding the survey, according to background characteristics, Turkey DHS 2018

| Background characteristic | Percentage who consumed foods rich in iron in last 24 hours $^{1}$ | Number of children |
| :---: | :---: | :---: |
| Age in months |  |  |
| 6-8 | 48.1 | 131 |
| 9-11 | 59.9 | 119 |
| 12-17 | 69.0 | 242 |
| 18-23 | 67.7 | 165 |
| Sex |  |  |
| Male | 61.2 | 309 |
| Female | 64.3 | 348 |
| Breastfeeding status |  |  |
| Breastfeeding | 60.2 | 408 |
| Not breastfeeding | 67.1 | 249 |
| Mother's age |  |  |
| 15-19 | * | 16 |
| 20-29 | 60.1 | 343 |
| 30-39 | 66.4 | 276 |
| 40-49 | * | 22 |
| Residence |  |  |
| Urban | 66.5 | 486 |
| Rural | 52.5 | 171 |
| Region |  |  |
| West | 72.5 | 246 |
| South | 57.2 | 100 |
| Central | 69.0 | 118 |
| North | 75.2 | 26 |
| East | 45.8 | 167 |
| Mother's education |  |  |
| No educ. / prim. incomp. | 31.9 | 81 |
| Complete primary | 54.0 | 158 |
| Complete secondary | 62.6 | 199 |
| Complete high school / higher | 80.8 | 220 |
| Wealth quintile |  |  |
| Lowest | 40.1 | 149 |
| Second | 56.2 | 137 |
| Middle | 63.3 | 132 |
| Fourth | 74.8 | 110 |
| Highest | 85.7 | 128 |
| Total | 62.9 | 657 |

Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
${ }^{1}$ Includes meat, fish, poultry and eggs

## Table 11.8 Nutritional status of women

Among women age 15-49, percentage with height under 145 cm , mean Body Mass Index (BMI), and percentage with specific BMI levels, according to background characteristics, Turkey DHS 2018

| Background characteristic | Height |  | Body Mass Index ${ }^{1}$ |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage below 145 cm | Number of women | Mean <br> Body <br> Mass <br> Index <br> (BMI) | $\begin{gathered} 18.5- \\ 24.9 \\ \text { (Total } \\ \text { normal) } \\ \hline \end{gathered}$ | <18.5 <br> (Total thin) | $\begin{gathered} 17.0- \\ 18.4 \\ \text { (Mildly } \\ \text { thin) } \\ \hline \end{gathered}$ | $<17$ <br> (Moderately and sever- ely thin) | $>=25.0$ <br> (Total <br> over- <br> weight or obese) | $\begin{aligned} & 25.0- \\ & 29.9 \end{aligned}$ <br> (Overweight) | $\begin{gathered} >=30.0 \\ \text { (Obese) } \end{gathered}$ | Number of women |
|  |  |  |  |  |  |  |  |  |  |  |  |
| Age |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 0.4 | 1,093 | 23.3 | 61.6 | 11.1 | 8.5 | 2.6 | 27.3 | 17.5 | 9.8 | 1,061 |
| 20-29 | 0.5 | 1,899 | 25.1 | 50.7 | 5.0 | 3.7 | 1.3 | 44.2 | 28.4 | 15.8 | 1,698 |
| 30-39 | 1.5 | 1,988 | 28.2 | 29.6 | 2.1 | 1.8 | 0.3 | 68.3 | 34.8 | 33.5 | 1,838 |
| 40-49 | 1.9 | 1,787 | 30.9 | 15.9 | 0.3 | 0.3 | 0.1 | 83.8 | 30.6 | 53.2 | 1,765 |
| Residence |  |  |  |  |  |  |  |  |  |  |  |
| Urban | 0.9 | 5,250 | 27.2 | 37.5 | 4.1 | 3.3 | 0.8 | 58.4 | 29.1 | 29.3 | 4,942 |
| Rural | 2.1 | 1,516 | 27.8 | 34.2 | 3.2 | 2.1 | 1.1 | 62.6 | 28.8 | 33.9 | 1,420 |
| Region |  |  |  |  |  |  |  |  |  |  |  |
| West | 0.7 | 2,977 | 27.3 | 37.0 | 4.2 | 3.3 | 0.9 | 58.8 | 29.2 | 29.6 | 2,822 |
| South | 1.7 | 852 | 27.5 | 35.1 | 3.4 | 2.6 | 0.9 | 61.5 | 27.8 | 33.7 | 790 |
| Central | 0.9 | 1,384 | 27.2 | 36.7 | 3.7 | 2.7 | 1.0 | 59.6 | 28.9 | 30.7 | 1,297 |
| North | 2.5 | 387 | 27.6 | 34.9 | 4.2 | 3.7 | 0.6 | 60.9 | 28.8 | 32.1 | 375 |
| East | 1.8 | 1,166 | 27.0 | 38.3 | 3.5 | 2.6 | 0.9 | 58.2 | 29.9 | 28.4 | 1,078 |
| NUTS 1 Region |  |  |  |  |  |  |  |  |  |  |  |
| Istanbul | 0.5 | 1,482 | 27.3 | 37.8 | 4.5 | 4.1 | 0.4 | 57.7 | 28.4 | 29.3 | 1,399 |
| West Marmara | 1.5 | 280 | 27.9 | 33.7 | 3.5 | 2.8 | 0.7 | 62.8 | 29.3 | 33.5 | 270 |
| Aegean | 0.7 | 780 | 27.1 | 37.9 | 4.3 | 3.0 | 1.2 | 57.9 | 28.8 | 29.0 | 743 |
| East Marmara | 0.9 | 669 | 27.2 | 35.1 | 4.1 | 2.7 | 1.5 | 60.8 | 31.5 | 29.3 | 635 |
| West Anatolia | 0.6 | 671 | 27.1 | 39.8 | 3.0 | 2.2 | 0.8 | 57.2 | 28.3 | 28.9 | 613 |
| Mediterranean | 1.7 | 852 | 27.5 | 35.1 | 3.4 | 2.6 | 0.9 | 61.5 | 27.8 | 33.7 | 790 |
| Central Anatolia | 0.4 | 329 | 27.8 | 33.6 | 2.8 | 2.4 | 0.4 | 63.6 | 30.8 | 32.8 | 313 |
| West Black Sea | 2.7 | 380 | 27.8 | 31.5 | 4.2 | 2.5 | 1.7 | 64.2 | 28.6 | 35.7 | 368 |
| East Black Sea | 1.6 | 158 | 26.9 | 39.5 | 6.2 | 5.2 | 1.0 | 54.3 | 26.5 | 27.7 | 153 |
| Northeast Anatolia | 1.4 | 159 | 26.5 | 39.0 | 4.3 | 3.0 | 1.3 | 56.7 | 30.1 | 26.6 | 149 |
| Central East Anatolia | 1.3 | 305 | 26.4 | 37.9 | 6.0 | 4.5 | 1.5 | 56.1 | 32.1 | 23.9 | 283 |
| Southeast Anatolia | 2.1 | 702 | 27.4 | 38.2 | 2.2 | 1.7 | 0.6 | 59.5 | 28.8 | 30.7 | 646 |
| Education |  |  |  |  |  |  |  |  |  |  |  |
| No educ. / prim. incomp. | 3.0 | 621 | 30.5 | 18.5 | 0.8 | 0.6 | 0.1 | 80.7 | 31.1 | 49.6 | 572 |
| Complete primary | 1.8 | 2,009 | 30.4 | 16.5 | 0.7 | 0.5 | 0.2 | 82.7 | 33.6 | 49.2 | 1,890 |
| Complete secondary | 0.8 | 1,397 | 25.7 | 46.6 | 6.0 | 4.6 | 1.4 | 47.4 | 25.6 | 21.8 | 1,302 |
| Complete high school / higher | 0.4 | 2,738 | 25.1 | 50.6 | 5.8 | 4.5 | 1.3 | 43.6 | 27.0 | 16.6 | 2,598 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | 2.4 | 1,092 | 27.9 | 34.2 | 3.0 | 1.9 | 1.0 | 62.8 | 27.5 | 35.4 | 990 |
| Second | 1.7 | 1,322 | 27.9 | 33.9 | 3.0 | 2.2 | 0.8 | 63.1 | 28.7 | 34.4 | 1,240 |
| Middle | 1.2 | 1,397 | 27.5 | 33.8 | 5.0 | 3.7 | 1.3 | 61.2 | 29.5 | 31.7 | 1,328 |
| Fourth | 0.5 | 1,497 | 27.2 | 36.7 | 4.6 | 3.6 | 1.0 | 58.7 | 29.5 | 29.2 | 1,398 |
| Highest | 0.3 | 1,458 | 26.2 | 44.0 | 3.6 | 3.2 | 0.3 | 52.4 | 29.5 | 22.9 | 1,406 |
| Total | 1.1 | 6,766 | 27.3 | 36.8 | 3.9 | 3.0 | 0.9 | 59.3 | 29.1 | 30.3 | 6,362 |

[^20]
## ABORTIONS AND STILLBIRTHS

## Key Findings

- Spontaneous abortions: Among ever-married women, $22 \%$ had at least one spontaneous abortion. Among all pregnancies in the 5 years preceding 2018 TDHS, 13\% ended with this outcome.
- Stillbirths: 4\% of ever-married women reported having had a stillbirth. There was 1 stillbirth per 100 pregnancies in the 5 years preceding survey date.
- Induced abortions: The proportion of ever-married women who had at least one abortion is $15 \%$. The percentage of pregnancies ending with abortions in the 5 years preceding survey date is $6 \%$.
- Trends in induced abortion: The number of abortions per 100 pregnancies decreased from 18\% in 1993 TDHS to $6 \%$ in 2018 TDHS. However, there was an increase between 2008 TDHS and 2013 TDHS.
- Use of contraception before and after abortion: 36\% of women were using contraception prior to abortion, which increased to $40 \%$ after abortion.
- Characteristics of Induced Abortions: Among women who had an abortion in the 5 years preceding the survey, $62 \%$ proceeded with an abortion following their doctor's advice, $49 \%$ proceeded within the first month of pregnancy and $49 \%$ reported that they used private sector service for the abortion.

Spontaneous abortions and stillbirths are strictly medical, yet induced abortions are also important from a maternal health perspective, since the practice can adversely affect a woman's health, reduce her chances for further childbearing, and contribute to maternal and perinatal mortality. Induced abortions may be impacted by family planning services: they are likely to become more common if there are problems with availability and accessibility of contraceptive services. Likewise, the level of induced abortions is likely to increase in the case of contraceptive failure.

Induced abortions were legalized in Turkey in 1983 with the enactment of a law on population planning. This law ensured safe abortions during the first ten weeks of gestation for every woman who requested the service. Ever since, induced abortions have been available at government hospitals, for a nominal fee, as well as in private institutions.

This chapter presents the findings concerning spontaneous abortions (miscarriages), stillbirths and induced abortions, where more detail is provided for induced abortions than the other types of pregnancy terminations.

### 12.1 Spontaneous Abortions

## Number of spontaneous abortions per 100 pregnancies

The number of spontaneous abortions per 100 completed pregnancies occurring within the 5 years preceding survey date (as reported by respondents)
Sample: Women age 15-49

The results of the 2018 TDHS showed that about one in five ever married women ( $22 \%$ ) had at least one spontaneous abortion (Table 12.1). The lifetime mean number of spontaneous abortions was 0.32 . According to Table 12.2, there were 13 spontaneous abortions per 100 pregnancies (Figure 12.1).

Trends: The lifetime experience of spontaneous abortions has not changed much in the last 20 years. Twenty-one percent of ever married women in 1998 TDHS reported having a spontaneous abortion, compared to $23 \%$ in 2013 TDHS, and $22 \%$ in 2018 TDHS. The mean number of spontaneous abortions remained close ( 0.28 in 2008 TDHS, 0.33 in 2013 TDHS and 0.32 in 2018 TDHS). The current level of spontaneous abortions is also very similar in 2013 TDHS and 2018 TDHS, with 14 per 100 pregnancies in the former and 13 in the latter.

### 12.2 Stillbirths

## Number of stillbirths per 100 pregancies

The number of stillbirths per 100 completed pregnancies occurring within the 5 years preceding survey date (as reported by respondents)
Sample: Women age 15-49

The level of stillbirths in Turkey is low. In 2018 TDHS, $4 \%$ of ever married women reported having had a stillbirth, and women had 0.04 stillbirths on average in their lifetime (Table 12.1). The number of stillbirths per 100 pregnancies was 1 (Table 12.2 and Figure 12.1).

Trends: The proportion of women who had at least one stillbirth remained almost constant since 1998 TDHS . It was $5 \%$ in 1998 TDHS, $4 \%$ in both 2008 TDHS and 2018 TDHS. The mean number of stillbirths women had in their lifetime was 0.05 in 2008 TDHS, and 0.04 in 2018 TDHS. The percentage share of stillbirths among all pregnancies decreased from 1.5 in 1998 TDHS to 1.0 in 2018 TDHS.

### 12.3 Induced Abortions

Proportion of ever married women who had an induced abortion
The proportion of ever married women reporting having had at least one induced abortion in a lifetime
Sample: Ever married women age 15-49

## Induced abortions per 100 pregancies

The proportion of all pregnancies completed within the 5 years preceding survey date that ended with an induced abortion
Sample: Women age 15-49
The findings of 2018 TDHS showed that $15 \%$ of women had an induced abortion, with a lifetime average of 0.21 abortions per women (Table 12.1). Within the pregnancies in the five years preceding survey date, $6 \%$ ended in induced abortions (Table 12.2 and Figure 12.1).

Trends: Overall, there has been a substantial decline in the level of induced abortions during the past 25 years. In 1993 TDHS, more than a quarter of ever married women reported having had an abortion ( $28 \%$ ), compared to almost half of this level in 2018 TDHS ( $15 \%$ ). The mean lifetime number of abortions per woman was 0.5 in 1998 TDHS, and is 0.21 twenty years later, in 2018 TDHS. The percentage of induced abortions among all pregnancies declined from 18 per 100 pregnancies in 1993 TDHS, to 5 induced abortions per 100 pregnancies in TDHS-2013, and remained similar at 6 per 100 pregancies in 2018 TDHS.

## Patterns by background characteristics

- The proportion of women who had an induced abortion increases from 3\% of women aged 15-19 to 27\% among women age 45-49 (Table 12.3). A similar pattern is observed for abortions per 100 pregnancies; $5 \%$ of all pregnancies ended in induced abortions for the 15-19 age group as opposed to $25 \%$ for the $45-49$ age group (Table 12.4).
- As the number of living children increases, the proportion of women who had an induced abortion also increases. The proportion of women with five or more children who had an induced abortion is more than double that of women with no living children ( $19 \%$ and $7 \%$ respectively).
- The proportion of women who ever had an induced abortion is highest in the West ( $16 \%$ ), and lowest among women in the East and North ( $13 \%$ each). The highest proportion of pregnancies ending in abortions is also observed in the West (7\%).
- By NUTS 1 regions, the percentage of women who had an induced abortion is the highest in İstanbul ( $18 \%$ ) and lowest in East Black Sea (10\%) (Figure 12.2). This pattern is also valid for the abortions per 100 pregancies indicator, which is 8 for Istanbul and 2 for the East Black Sea.
- Primary school graduation is the level of education with the highest level of abortions (19\%), the lowest levels were observed for women who are secondary school graduates ( $10 \%$ ). The highest proportion of
pregnancies ending with induced abortions was observed in the lowest education category (8 per 100 pregnancies).
- The proportion of women who had an induced abortion ranges from 13\% among women in the lowest wealth quintile to $17 \%$ among women in the highest wealth quintile. The number of pregnancies ending in abortions ranges from 3 per 100 pregnancies for the second wealth quintile to 8 for the highest wealth quintile.


### 12.3.1 Rates of Induced Abortion

## Total abortion rate (TAR)

The average number of abortions a woman would have by the end of her childbearing years if she had abortions at the current age-specific abortion rates. Age-specific abortion rates are calculated for the 5 years before the survey, based on detailed pregnancy histories provided by women.
Sample: Women age 15-49

Age specific abortion rates for the 5-year period preceding the survey are displayed in Table $\mathbf{1 2 . 5}$ by place of residence. The age-specific rates represent the probability that a woman in a particular age category will have an abortion during a one-year period.

The TAR is 0.17 for the five years preceding 2018 TDHS. Abortion rates have an inverse U relationship with age; in other words, age-specific abortion rates are increasing and peak among women in the 30-34 age group and then decline among older women.

Trends: Total abortion rate has been rather stable ( 0.14 in 2013 TDHS) but the age specific abortion rate for the 30-34 age group has increased from 6 per 1,000 women in 2013 TDHS to 10 per 1,000 women in 2018 TDHS

## Patterns by background characteristics

- Total abortion rates are higher among women in urban areas (0.18) than rural areas (0.13) (Table 12.6). Age-specific abortion rates are higher in urban than rural areas, except among women in the 40-44 age group (Table 12.5).
- TAR is highest in the East region (0.29), and lowest in the North region (0.06).
- The highest TAR was observed for the lowest education category (0.29), and the highest for the highest two education categories ( 0.17 each).
- The lowest wealth quintile had a TAR of 0.28 whereas the second lowest quintile had a TAR of 0.10 .


### 12.3.2 Contraceptive Use Prior to and After Induced Abortion

The contraceptive calendar in the individual questionnaire provides an opportunity to study women's use of contraception before and after an induced abortion. An examination of the patterns of contraceptive use before a woman has an abortion is important because pregnancies that end in abortions often result from the (i) use of ineffective contraceptive methods, (ii) ineffective use of contraceptive methods, and (iii) lack of contraception at all.

Table 12.7 shows the percent distribution of women by methods used in the calendar month preceding the last aborted pregnancy. The highest proportion of these women relied on withdrawal ( $20 \%$ ), suggesting an elevated risk of pregnancy from this traditional method of contraception. Almost two-thirds of these women did not use any contraceptive methods. Nine percent of women relied on a male condom, $2 \%$ on an IUD, and $5 \%$ on the pill prior to the pregnancy that resulted in an abortion.

Table $\mathbf{1 2 . 8}$ presents the percent distribution of women by methods used in the calendar month following the month of the last aborted pregnancy. More than half of women reported not using any contraceptive methods a month after having an induced abortion ( $60 \%$ ). Among the other methods used, the most common ones included IUD (11\%), condom and withdrawal ( $10 \%$ each).

The use of IUD increased from $2 \%$ before to $11 \%$ after an induced abortion, whereas condom used remained almost constant at $9 \%$ before and $10 \%$ after; on the other hand, the use of withdrawal decreased substantially, from $20 \%$ to $10 \%$ (Figure 12.3).

Figure 12.3 Contraceptive Use Prior to and After Induced Abortion
Percent distribution of women by method used in the calendar month before and after the last aborted pregnancy among women who had an abortion in the five years preceding the survey


### 12.3.3 Characteristics of Induced Abortions

This section summarizes questions asked to women who had an induced abortion in the five years preceding 2018 TDHS. Topics included decision-making on induced abortion, its timing and choice of provider.

Table 12.9 presents the percent distribution of women by person who decided to proceed with abortion for last induced abortion, among women who had an abortion in the five years preceding the survey. Of these women, only two out of ten women decided on the operation jointly with their partner ( $20 \%$ ) and about 3 out of 5 women ( $62 \%$ ) proceeded with an abortion following their doctor's advice (Figure 12.4). In a distant third and fourth place, $13 \%$ of women decided on their own and $3 \%$ said that it was their partner who made decided the decision.

Figure 12.4 Decision maker for last induced abortion Percent distribution of women by person who decided to proceed with abortion for last induced abortion


Figure 12.5 Timing of last induced abortion Percent distribution of women by number of months pregnant at time of last induced abortion


Table 12.9 shows the distribution of women by place of provision for last induced abortion, among women who had an abortion in the five years preceding the survey. Forty-nine percent of women reported that the abortion took place at a private doctor's office or at a private hospital or clinic (Figure 12.6). More than half of women ( $51 \%$ ) reported using some sort of public sector service for their last abortion. Of these public sector services, the most common were state or sample hospitals and maternity homes ( $35 \%$ and $5 \%$ respectively).

Induced abortions in Turkey are legal until the end of the 10th week ( 2.5 months) of pregnancy. Table 12.9 shows the percent distribution of women by number of months pregnant at time of last induced abortion, among women who had an abortion in the five years preceding the survey. Nearly half of women proceeded with an abortion within the first month of pregnancy ( $49 \%$ ) and nearly one quarter of women proceeded with an abortion in the second month of pregnancy ( $26 \%$, Figure 12.5). One quarter of women reported having an abortion after three months or more of pregnancy, which is beyond the recommended time limit.

Figure 12.6 Place of last induced abortion Percent distribution of women by number of months pregnant at time of last induced abortion


Trends: Since 2008 TDHS, doctors as the decision maker of the last induced abortion have been increased from $22 \%$ to $62 \%$. The timing has been shifted to later months also, potentially indicating an increase in the share of abortions due to medical causes. The percentage of women who had their induced abortion in second and higher months of pregnancy has increased from $33 \%$ in 2008 TDHS to $51 \%$ in 2018 TDHS. The private sector service percentage has decreased from $70 \%$ in 2008 TDHS to $49 \%$ in 2018 TDHS.

## List of Tables

For more information on abortions and stillbirths, see the following tables:

- Table 12.1 Number of abortions and stillbirths
- Table 12.2 Abortions and stillbirths per 100 pregnancies
- Table 12.3 Lifetime experience of induced abortions
- Table 12.4 Induced abortions per 100 pregnancies
- Table 12.5 Age-specific and total induced abortion rates
- Table 12.6 Total abortion rates
- Table 12.7 Method used before abortion
- Table 12.8 Method used after abortion
- Table 12.9 Characteristics of induced abortions


## Table 12.1 Number of abortions and stillbirths

Percent distribution of ever-married women by number of abortions (spontaneous and induced) and stillbirths, Turkey DHS 2018.

|  | Abortions |  |  |
| :--- | ---: | ---: | ---: |
|  | Spontaneous | Induced | Stillbirths |
|  |  |  |  |
| Number of terminations | 77.6 | 85.0 | 96.5 |
| None | 16.3 | 11.0 | 3.0 |
| 1 | 4.0 | 3.0 | 0.4 |
| 2 | 1.2 | 0.7 | 0.0 |
| 3 | 0.4 | 0.1 | 0.0 |
| 4 | 0.3 | 0.1 | 0.0 |
| 5 or more |  |  |  |
|  | 22.4 | 15.0 | 3.5 |
| At least 1 | 100.0 | 100.0 | 100.0 |
| Total | 0.32 | 0.21 | 0.04 |
| Mean number | 5,141 | 5,141 | 5,141 |
| Number |  |  |  |

Table 12.2 Abortions and stillbirths per 100 pregnancies
Number of abortions (spontaneous and induced) and stillbirths per 100 pregnancies by all women during the five-year period before the survey Turkey DHS 2018

|  | Number per 100 pregnancies |
| :--- | :---: |
| Outcome |  |
| Abortions | 18.6 |
| Spontaneous | 12.7 |
| Induced | 5.9 |
| Stillbirths | 1.0 |
| Number | 3,118 |

## Table 12.3 Lifetime experience of induced abortions

Percentage of ever-married women ever having an induced abortion, by selected background characteristics, Turkey DHS 2018.

|  | Abortions Induced | Number |
| :---: | :---: | :---: |
| Age group |  |  |
| 15-19 | 2.8 | 60 |
| 20-24 | 4.1 | 424 |
| 25-29 | 5.4 | 766 |
| 30-34 | 10.9 | 976 |
| 35-39 | 15.1 | 1,052 |
| 40-44 | 21.6 | 988 |
| 45-49 | 26.7 | 876 |
| Number of living children |  |  |
| 0 | 6.8 | 403 |
| 1-2 | 11.3 | 1,054 |
| 3-4 | 15.3 | 1,828 |
| 5+ | 18.9 | 1,111 |
| Residence |  |  |
| Urban | 15.2 | 4,021 |
| Rural | 14.5 | 1,120 |
| Region |  |  |
| West | 16.3 | 2,277 |
| South | 16.6 | 648 |
| Central | 13.4 | 1,082 |
| North | 13.2 | 273 |
| East | 13.2 | 861 |
| NUTS 1 Region |  |  |
| Istanbul | 18.4 | 1,075 |
| West Marmara | 13.5 | 225 |
| Aegean | 15.7 | 644 |
| East Marmara | 13.4 | 516 |
| West Anatolia | 12.9 | 535 |
| Mediterranean | 16.6 | 648 |
| Central Anatolia | 11.8 | 257 |
| West Black Sea | 16.0 | 268 |
| East Black Sea | 9.7 | 110 |
| Northeast Anatolia | 12.3 | 119 |
| Central East Anatolia | 16.4 | 230 |
| Southeast Anatolia | 12.0 | 512 |
| Education |  |  |
| No educ / prim. incomp. | 16.8 | 627 |
| Complete primary | 18.5 | 2,027 |
| Complete secondary | 10.2 | 861 |
| Complete high school / higher | 12.5 | 1,625 |
| Wealth quintile |  |  |
| Lowest | 13.0 | 803 |
| Second | 13.1 | 985 |
| Middle | 15.2 | 1,057 |
| Fourth | 15.6 | 1,129 |
| Highest | 17.4 | 1,166 |
| Total | 15.0 | 5,141 |

## Table 12.4 Induced abortions per 100 pregnancies

Number of induced abortions per 100 pregnancies during the five-year period before the survey, by selected background characteristics, Turkey DHS 2018

|  | Number per 100 pregnancies |
| :---: | :---: |
| Age |  |
| 15-19 | 5.3 |
| 20-24 | 2.4 |
| 25-29 | 3.7 |
| 30-34 | 7.7 |
| 35-39 | 11.6 |
| 40-44 | 16.4 |
| 45-49 | 24.6 |
| Residence |  |
| Urban | 6.4 |
| Rural | 4.1 |
| Region |  |
| West | 6.8 |
| South | 4.8 |
| Central | 5.0 |
| North | 2.8 |
| East | 6.1 |
| NUTS 1 Region |  |
| Istanbul | 8.1 |
| West Marmara | 6.2 |
| Aegean | 6.2 |
| East Marmara | 3.5 |
| West Anatolia | 5.0 |
| Mediterranean | 4.8 |
| Central Anatolia | 6.7 |
| West Black Sea | 3.5 |
| East Black Sea | 1.8 |
| Northeast Anatolia | 4.8 |
| Central East Anatolia | 7.2 |
| Southeast Anatolia | 5.9 |
| Education |  |
| No educ / prim. incomp. | 7.5 |
| Complete primary | 6.1 |
| Complete secondary | 4.0 |
| Complete high school / higher | 6.4 |
| Wealth quintile |  |
| Lowest | 6.6 |
| Second | 3.1 |
| Middle | 6.0 |
| Fourth | 5.9 |
| Highest | 7.9 |
| Total | 5.9 |

Table 12.5 Age-specific and total induced abortion rates
Age-specific and cumulative abortion rates for the five year period preceding the survey by residence, Turkey DHS 2018.

| Age | Urban | Rural | Total |
| :--- | ---: | :---: | ---: |
|  |  |  |  |
| $15-19$ | 1.9 | 1.8 | 1.8 |
| $20-24$ | 4.1 | 1.1 | 3.5 |
| $25-29$ | 6.9 | 3.8 | 6.3 |
| $30-34$ | 8.8 | 8.2 | 10.2 |
| $35-39$ | 3.1 | 7.4 | 8.5 |
| $40-44$ | 1.4 | 3.8 | 3.3 |
| $45-49$ |  | 0.0 | 1.1 |
|  |  |  |  |
| Total | 0.18 | 0.13 | 0.17 |


| Table 12.6 Total abortion rates |  |
| :---: | :---: |
| Total abortion rates for the five preceding the survey by characteristics, Turkey DHS 2018 | year period background |
| Background characteristic | TAR |
| Residence |  |
| Urban | 0.18 |
| Rural | 0.13 |
| Region |  |
| West | 0.18 |
| South | 0.16 |
| Central | 0.12 |
| North | 0.06 |
| East | 0.29 |
| Education |  |
| No educ / prim. incomp. | 0.29 |
| Complete primary | 0.20 |
| Complete secondary | 0.17 |
| Complete high school / higher | 0.17 |
| Wealth quintile |  |
| Lowest | 0.28 |
| Second | 0.10 |
| Middle | 0.18 |
| Fourth | 0.14 |
| Highest | 0.18 |
| Total | 0.17 |

## Table 12.7 Method used before abortion

Among women who had an abortion in the five years preceding the survey, percent distribution of women by methods used within 30 days of last aborted pregnancy, Turkey DHS 2018.

|  | Percentage <br> using <br> method <br> before <br> abortion |
| :--- | :---: |
| Method of Contraception |  |
|  |  |
| Pill | 5.4 |
| IUD | 1.9 |
| Condom | 8.8 |
| Withdrawal | 19.6 |
| Not using | 64.3 |
| Total | 100.0 |
| Number | 158 |

## Table 12.8 Method used after abortion

Among women who had an abortion in the five years preceding the survey, percent distribution of women by methods used within 30 days after last aborted pregnancy, Turkey DHS 2018.

|  | Percentage <br> using <br> method after <br> abortion |
| :--- | :---: |
| Method of Contraception |  |
| Pill | 6.2 |
| IUD | 11.3 |
| Condom | 10.1 |
| Female Sterilization | 1.2 |
| Withdrawal | 9.9 |
| Not using | 59.8 |
| Not certain yet | 1.5 |
| Total | 100.0 |
| Number | 158 |

Table 12.9 Characteristics of induced abortions
Percent distribution of the last induced abortions of women who had aninduced abortion in the five years preceding survey by decision maker, monthof pregnancy at time of termination and place of provision, Turkey DHS 2018
Background characteristic ..... Percentage
Decision maker for abortion
Doctor ..... 62.4
Herself ..... 12.7
Husband ..... 3.0
Herself and husband together ..... 20.1
Other ..... 1.8
Total ..... 100.0
Number of months pregnant at abortion
1 ..... 48.7
2 ..... 25.9
3+ ..... 25.4
Total ..... 100.0
Abortion provider
State/Sample hospital ..... 35.4
Maternity house ..... 4.7
Other public ..... 8.5
Private ..... 48.9
University hospital ..... 2.3
Other ..... 0.3
Total ..... 100.0
Number ..... 158

## EARLY CHILDHOOD DEVELOPMENT

## Key Findings

- Early childhood learning: 65\% of children aged 24-59 months engaged with adult household members in four or more activities that promote learning and school readiness during the 3 days before the survey.
- Learning materials: 29\% of children under age 5 have three or more children's or picture books present in the household.
- Child care arrangements: 6\% of children under age 5 were left alone or left in the care of another child younger than age 10 for more than 1 hour during the week preceding the survey.

Information obtained in the 2018 TDHS allows for an assessment of several key aspects of the welfare of Turkey's children. Questions were included on birth registration and living arrangements and the survival status of parents. A child's access to education is critical, and the TDHS also obtained information on children's participation in primary and secondary school. These data were discussed in Chapter 2 of this report.

This chapter presents data on early childhood education and development collected in the 2018 TDHS using modules developed for UNICEF's Multiple Indicator Cluster Surveys. The early childhood development module was administered for all children of all interviewed women who were born after 2013.

These data are expected to help the Government of Turkey, civil society, and other stakeholders design and implement programs and policies that will enhance opportunities for young children to reach their full potential by supporting families and communities and increasing access to quality early childhood care and education.

### 13.1 ChiLdhood LEARNing

It is recognized that a period of rapid brain development occurs in the first years of life and that quality of home care is the major determinant of a child's development during this period. In this context, adults spending "quality time" with children, the presence of children's books in the home, opportunities for play to stimulate the imagination, and conditions of care are all important indicators of quality of home care. In the 2018 TDHS, questions in all of these areas were included in the Woman's Questionnaire; where mothers were either asked about all their children under age 5 or aged 24-59 months, depending on question. The information gathered is useful in assessing the extent to which the home care received by children in Turkey is supportive of early childhood development.

### 13.1.1 Support for Learning

## Support for early learning

Percentage of children with whom any adult household member (age 15+) has (within the previous 3 days) engaged in four or more of the following activities to promote learning and school readiness: reading books or looking at picture books; telling stories; singing songs; taking children outside the home; playing with children; and spending time with children naming, counting, or drawing things
Sample: Children age 24-59 months born to interviewed women

## Father's and mother's support for early learning

Percentage of children with whom the father or mother has engaged in four or more activities to promote learning and school readiness in the 3 days before the survey
Sample: Children age 24-59 months born to interviewed women

Sixty-five percent of children age 24-59 months were engaged by adult household members in four or more activities that promote learning and school readiness during the 3 days before the survey. The mean number of activities in which adult household members engaged with the children was 4.1 . Focusing on parental involvement, only $16 \%$ of children had engaged in four or more early learning activities with their fathers in the 3 days before the survey, while $49 \%$ had engaged in at least four activities with their mothers (Table 13.1).

## Patterns by background characteristics

- Fathers are more likely to have engaged in four or more learning activities with children living in urban than children in rural areas ( $19 \%$ versus $7 \%$ ). The urban-rural difference holds for mothers as well ( $54 \%$ vs. $35 \%$ ).
- Among regions, the proportion of children with whom adult household members have engaged in four or more activities and the mean number of activities with adult household members are lowest in the East ( $47 \%$ and 3.3 respectively).
- Children whose mothers have no education or not completed primary school are much less likely to have engaged in four or more activities with adult household members than children whose mothers have completed high school or higher education ( $40 \%$ versus $88 \%$ ). A similar pattern is seen for children whose fathers have no education or not completed primary school as compared with children whose fathers have completed high school or higher education ( $39 \%$ versus $80 \%$ ).
- The mean number of learning activities in which a child engages with any adult household member increases with increasing wealth, from 3.1 in the lowest quintile to 5.3 in the highest quintile. The mean number of activities with their fathers and their mothers also tend to increase with increasing household wealth (from 0.9 to 2.8 for fathers; from 2.2 to 4.6 for mothers).


### 13.1.2 Children's Books and Playthings

## Availability of books <br> Proportion of children who have three or more children's books or picture books <br> Availability of playthings <br> Proportion of children who play with two or more types of playthings (homemade toys, manufactured toys, and/or household or natural objects) when they are at home.

Sample: Children under 5 years of age born to interviewed women

Exposure to books in the early years not only provides children with a greater understanding of the nature of print but may also give them opportunities to see others reading (e.g., older siblings doing school work). The presence of books is also important for later school performance. Mothers were asked about the number of children's books or picture books they have for all their children under age 5 . The results show that $29 \%$ of children under age 5 have 3 or more children's books or picture books (Table 13.2).

By stimulating the imagination, play also contributes to brain development. Mothers were asked what items children play with, including homemade toys, toys purchased from a shop, and other household objects or objects found around the home. Fifty-three percent of the children under age 5 living with their mother play with homemade toys (including dolls and cars). Overall, $76 \%$ of children play with two or more types of playthings, including homemade toys, toys purchased from a store, and household objects (such as pots and bowls) along with objects found outside (such as sticks, rocks, animal shells, and leaves) (Table 13.2).

## Patterns by background characteristics

- The proportion of urban children with three or more children's books is double that of rural children ( $34 \%$ versus $15 \%$ ).
- The percentage of children with ten or more children's books varies by region, from a high of $24 \%$ in West to a low of 4\% in East (Figure 13.1).
- The percentage of children who play with two or more types of playthings

Figure 13.1 Access to children's books by region increases with mother's education level. Sixty percent of children with mothers who have no education or have not completed primary school have two or more types of playthings, as compared with $83 \%$ of children with mothers who have high school or higher education.

- The percentage of children living in households with three or more

Percentage of children under age 5 that have 10 or more children's books
 children's books increases with increasing mother's education, from $6 \%$ among children whose mothers have less than primary school education to $64 \%$ among children whose mothers have high school level or higher education.

- Access to children's books also increases with increasing household wealth; $68 \%$ of children in the highest wealth quintile live in households with three or more books, as compared with $6 \%$ of children in the lowest quintile.


### 13.2 Adequate Care For Young Children

Leaving children alone or only in the presence of other young children is known to increase the risk of accidents, abuse, and neglect. In the 2018 TDHS, mothers were asked questions to establish whether their youngest child under age 5 had been left alone during the week preceding the interview for 1 hour or more and whether the child had been left in the care of another child under age 10 for 1 hour or more.

> Inadequate care
> Percentage of children under age 5 left alone or in the care of another child younger than age 10 for more than 1 hour at least once in the last week
> Sample: Children under 5 years of age born to interviewed women

Three percent of the children under age 5 were left alone and $4 \%$ were left in the care of another child younger than age 10 for more than 1 hour during the week before the survey. Overall, $6 \%$ of children were left alone or left in the care of another child younger than age 10 for more than 1 hour at least once during the week before the survey (Table 13.3).

## Patterns by background characteristics

- Children living in rural were more often left with inadequate care than children in urban ( $8 \%$ and $6 \%$, respectively).
- The percentage of children left with inadequate care varies by region, from a high of $8 \%$ in South to a low of $3 \%$ in North.
- The proportion of children left with inadequate care is higher among children of mothers with no education or who have not completed primary school ( $10 \%$ ) than mothers with high school or higher level of education (5\%).
- Children living in households in the lowest wealth quintile had a higher proportion of being left with inadequate care than children living in households in the highest wealth quintile ( $9 \%$ and $5 \%$ respectively).


### 13.3 Developmentally on Track

## Early child development index

Proportion of children who are developmentally on track in at least three of the following four domains: literacy-numeracy, physical, social-emotional, and learning
Sample: Children age under 5 born to interviewed women
Early childhood development is multidimensional and involves an ordered progression of motor, cognitive, language, socio-emotional and regulatory skills and capacities across the first few years of life. Physical growth, literacy and numeracy skills, socio-emotional development and readiness to learn are vital domains of a child's overall development, which build the foundation for later life and set the trajectory for health, learning and well-being.

In the 2018 TDHS, a 10-item module was used to calculate the Early Child Development Index (ECDI). The primary purpose of the ECDI is to inform public policy regarding the developmental status of children in Turkey. The index is based on selected milestones that children are expected to achieve by ages 3 and 4 (36-59 months). The 10 items are used to determine if children are developmentally on track in four domains. ECDI is then calculated as the percentage of children who are developmentally on track in at least three of these four domains.

The results show that $98 \%$ of children age 3-4 years are on track for their age in terms of physical development; $14 \%$ are on track in the literacy-numeracy domain, $73 \%$ are on track in the social-emotional domain, and $96 \%$ are on track in the learning domain. Seventy-four percent of children are on track in their development as measured in at least three of the four developmental domains (Table 13.4).

## Patterns by background characteristics

- The proportion of girls who are developmentally on track as measured in at least three of the four developmental domains is higher than the corresponding proportion for boys ( $78 \%$ and $70 \%$, respectively).

Figure 13.2 Developmentally on track by household wealth
Percentage of children age 36-59 months living with their mother who are developmentally on track

■ Literacy-numeracy ■ Social-Emotional

- Urban children are at a higher level than rural children to be developmentally on track in the literacy-numeracy domain ( $16 \%$ versus $9 \%$, respectively).
- The early child development index score is highest in the West region (77\%) and is lowest in the East region (66\%).

- The early child development index score increases with increasing mother's education, from $62 \%$ among children whose mothers have no education or primary completed to $85 \%$ among children whose mothers have completed high school or higher.
- In general, the largest differentials in the proportions of children developmentally on track by background characteristics are in the literacy-numeracy domain. For example, only $8 \%$ of children in the lowest wealth quintile are on track in the literacy-numeracy domain, as compared with $30 \%$ in the highest quintiles (Figure 13.2).


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For more information on early childhood development, see the following tables:

- Table 13.1 Support for learning
- Table 13.2 Learning materials
- Table 13.3 Inadequate supervision
- Table 13.4 Early child development index


## Table 13.1 Support for learning

Percentage of children age 2-4 years with whom adult household members engaged in activities that promote learning and school readiness during the last three days, and engagement in such activities by fathers and mothers, according to background characteristics, Turkey DHS 2018

| Background characteristic | Adult household members |  |  | Percentage of children living with their: |  | Father |  | Mother |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage of children with whom adult household members have engaged in four or more activities ${ }^{1}$ | Mean number of activities with adult household members | Percentage of children with whom no adult household member have engaged in any activity | Father | Mother | Percentage of children with whom fathers have engaged in four or more activities ${ }^{2}$ | Mean number of activities with fathers | Percentage of children with whom mothers have engaged in four or more activities ${ }^{3}$ | Mean number of activities with mothers | Number of all children 36-59 months old |
| Sex |  |  |  |  |  |  |  |  |  |  |
| Male | 65.9 | 4.1 | 3.8 | 94.2 | 99.4 | 13.9 | 1.7 | 49.2 | 3.4 | 807 |
| Female | 64.5 | 4.1 | 3.1 | 94.9 | 99.4 | 17.6 | 1.7 | 48.9 | 3.4 | 760 |
| Residence |  |  |  |  |  |  |  |  |  |  |
| Urban | 69.6 | 4.3 | 2.5 | 94.0 | 99.4 | 18.6 | 1.8 | 53.8 | 3.6 | 1,182 |
| Rural | 52.0 | 3.5 | 6.7 | 96.0 | 99.6 | 7.0 | 1.2 | 34.5 | 2.7 | 385 |
| Region |  |  |  |  |  |  |  |  |  |  |
| West | 74.5 | 4.5 | 1.6 | 94.7 | 99.2 | 21.2 | 2.1 | 61.1 | 3.9 | 620 |
| South | 71.1 | 4.2 | 2.7 | 95.6 | 98.7 | 13.3 | 1.5 | 44.2 | 3.2 | 208 |
| Central | 63.2 | 4.1 | 5.2 | 94.1 | 100.0 | 20.1 | 1.9 | 50.2 | 3.5 | 292 |
| North | 74.7 | 4.5 | 1.3 | 92.5 | 100.0 | 15.0 | 1.5 | 58.9 | 3.7 | 61 |
| East | 47.2 | 3.3 | 5.9 | 94.3 | 99.7 | 5.1 | 1.0 | 29.9 | 2.5 | 387 |
| Mother's education |  |  |  |  |  |  |  |  |  |  |
| No educ. / prim. incomp. | 39.8 | 3.0 | 7.6 | 93.5 | 99.4 | 3.4 | 0.9 | 25.2 | 2.2 | 242 |
| Comp. primary | 53.3 | 3.6 | 4.7 | 94.8 | 99.4 | 5.7 | 1.1 | 31.7 | 2.6 | 458 |
| Comp. secondary | 65.4 | 4.1 | 2.7 | 94.8 | 99.4 | 14.3 | 1.8 | 47.2 | 3.4 | 363 |
| Complete high school / higher | 88.2 | 5.2 | 1.0 | 94.6 | 99.6 | 31.7 | 2.5 | 77.6 | 4.6 | 504 |
| Father's education |  |  |  |  |  |  |  |  |  |  |
| No education | 38.5 | 2.9 | 7.8 | 100.0 | 100.0 | 2.4 | 0.9 | 23.1 | 2.3 | 88 |
| Complete primary | 52.6 | 3.6 | 3.4 | 100.0 | 100.0 | 5.7 | 1.2 | 31.1 | 2.7 | 432 |
| Complete |  |  |  |  |  |  |  |  |  |  |
| Complete high school / higher | 79.9 | 4.8 | 1.6 | 100.0 | 100.0 | 27.6 | 2.4 | 65.7 | 4.1 | 630 |
| Biological father not in the HH | 70.5 | 4.2 | 5.6 | 0.0 | 89.7 | 8.4 | 0.7 | 55.3 | 3.4 | 86 |
| Missing |  | * | * |  | * | * | * | * | * | 8 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |
| Lowest | 41.9 | 3.1 | 7.5 | 92.8 | 98.3 | 3.7 | 0.9 | 21.1 | 2.2 | 358 |
| Second | 53.2 | 3.7 | 3.3 | 94.6 | 99.8 | 7.1 | 1.2 | 35.3 | 2.9 | 337 |
| Middle | 71.8 | 4.2 | 2.0 | 95.0 | 99.6 | 15.5 | 1.8 | 54.1 | 3.5 | 319 |
| Fourth | 79.8 | 4.7 | 2.9 | 93.8 | 100.0 | 21.8 | 2.1 | 68.1 | 4.1 | 282 |
| Highest | 88.1 | 5.3 | 1.0 | 96.9 | 99.7 | 36.0 | 2.8 | 77.1 | 4.6 | 272 |
| Total | 65.2 | 4.1 | 3.5 | 94.5 | 99.4 | 15.7 | 1.7 | 49.0 | 3.4 | 1,567 |

[^21]
## Table 13.2 Learning materials

Percentage of children under age 5 by the number of children's books present in the household, and by the type and number of playthings that child plays with, according to background characteristics, Turkey DHS 2018

| Background characteristic | Percentage of children living in households that have for the child: |  | Percentage of children who play with: |  |  |  | Number of children |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3 or more children's books ${ }^{1}$ | 10 or more children's books | Homemade toys | Toys from a shop/ manufacture toys | Household objects/objects found outside | Two or more types of playthings ${ }^{2}$ |  |
| Sex |  |  |  |  |  |  |  |
| Male | 27.9 | 14.2 | 48.5 | 82.9 | 72.2 | 75.4 | 1,257 |
| Female | 30.5 | 16.9 | 57.2 | 81.1 | 72.1 | 76.6 | 1,268 |
| Residence |  |  |  |  |  |  |  |
| Urban | 33.8 | 18.5 | 54.1 | 83.9 | 72.8 | 77.9 | 1,900 |
| Rural | 15.3 | 6.5 | 49.3 | 76.2 | 70.2 | 70.2 | 625 |
| Region |  |  |  |  |  |  |  |
| West | 39.7 | 23.9 | 56.9 | 85.0 | 75.3 | 79.1 | 976 |
| South | 16.3 | 7.2 | 57.0 | 79.2 | 68.9 | 75.6 | 355 |
| Central | 38.8 | 20.3 | 58.9 | 88.8 | 73.7 | 81.6 | 457 |
| North | 39.4 | 18.3 | 52.2 | 86.7 | 78.0 | 80.6 | 97 |
| East | 12.0 | 3.6 | 40.3 | 73.5 | 67.2 | 66.8 | 640 |
| Mother's education |  |  |  |  |  |  |  |
| No educ / prim. |  |  |  |  |  |  |  |
| incomp. | 6.8 | 1.5 | 43.2 | 66.6 | 67.7 | 62.4 | 358 |
| Complete primary | 16.2 | 4.7 | 50.7 | 81.1 | 71.8 | 75.0 | 690 |
| Complete secondary | 21.8 | 9.5 | 49.6 | 83.5 | 71.5 | 77.1 | 642 |
| Complete high school / higher | 55.3 | 35.1 | 61.4 | 88.3 | 74.9 | 81.7 | 835 |
| Wealth quintile |  |  |  |  |  |  |  |
| Lowest | 6.3 | 1.3 | 46.6 | 69.2 | 67.2 | 64.2 | 568 |
| Second | 13.5 | 3.6 | 49.2 | 77.3 | 66.3 | 71.0 | 542 |
| Middle | 26.4 | 9.5 | 52.5 | 87.5 | 76.1 | 81.9 | 515 |
| Fourth | 41.4 | 24.5 | 53.5 | 89.0 | 75.5 | 80.7 | 454 |
| Highest | 68.3 | 45.9 | 65.2 | 90.6 | 77.7 | 85.3 | 446 |
| Total | 29.2 | 15.5 | 52.9 | 82.0 | 72.2 | 76.0 | 2,525 |

[^22]
## Table 13.3 Inadequate supervision

Percentage of children under age 5 left alone or under the supervision of another child younger than 10 years of age for more than one hour at least once during the past week, according to background characteristics, Turkey DHS 2018

| Background characteristic | Percentage of children: |  |  | Number of children |
| :---: | :---: | :---: | :---: | :---: |
|  | Left alone in the past week | Left under the supervision of another child younger than 10 years of age in the past week | Left with inadequate supervision in the past week ${ }^{1}$ |  |
| Sex |  |  |  |  |
| Male | 2.7 | 3.7 | 5.9 | 1,257 |
| Female | 3.8 | 4.6 | 7.0 | 1,268 |
| Residence |  |  |  |  |
| Urban | 2.8 | 3.8 | 5.9 | 1,900 |
| Rural | 4.5 | 5.3 | 8.2 | 625 |
| Region |  |  |  |  |
| West | 2.5 | 4.3 | 5.7 | 976 |
| South | 4.8 | 4.5 | 8.2 | 355 |
| Central | 4.2 | 3.1 | 6.5 | 457 |
| North | 0.9 | 2.7 | 3.1 | 97 |
| East | 3.2 | 4.6 | 7.0 | 640 |
| Mother's education |  |  |  |  |
| No educ / prim. incomp. | 4.3 | 8.3 | 10.3 | 358 |
| Complete primary | 2.0 | 4.2 | 6.1 | 690 |
| Complete secondary | 3.2 | 3.0 | 5.7 | 642 |
| Complete high school / higher | 3.8 | 3.1 | 5.6 | 835 |
| Wealth quintile |  |  |  |  |
| Lowest | 4.3 | 5.4 | 8.6 | 568 |
| Second | 3.8 | 4.2 | 7.0 | 542 |
| Middle | 3.0 | 4.6 | 6.7 | 515 |
| Fourth | 1.8 | 2.9 | 4.2 | 454 |
| Highest | 3.0 | 3.3 | 5.0 | 446 |
| Total | 3.2 | 4.1 | 6.4 | 2,525 |
| ${ }^{1}$ MICS indicator TC. 52 - Inadequate supervision |  |  |  |  |

## Table 13.4 Early child development index

Percentage of children age 3-4 years who are developmentally on track in literacy-numeracy, physical, social-emotional, and learning domains, and the early child development index score, the past week, according to background characteristics, Turkey DHS 2018

| Background characteristic | Percentage of children age 3-4 years who are developmentally on track for indicated domains |  |  |  | Early child development index score ${ }^{1}$ | Number of children age 3-4 years |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Literacynumeracy | Physical | Social- <br> Emotional | Learning |  |  |
| Sex |  |  |  |  |  |  |
| Male | 14.0 | 97.8 | 69.4 | 95.2 | 69.8 | 562 |
| Female | 14.9 | 97.9 | 77.6 | 96.4 | 78.0 | 511 |
| Residence |  |  |  |  |  |  |
| Urban | 16.3 | 97.5 | 73.7 | 95.5 | 74.2 | 799 |
| Rural | 9.1 | 98.9 | 72.3 | 96.5 | 72.3 | 273 |
| Region |  |  |  |  |  |  |
| West | 18.1 | 97.6 | 75.0 | 96.7 | 77.2 | 424 |
| South | 11.8 | 98.8 | 75.9 | 96.1 | 75.6 | 142 |
| Central | 20.5 | 97.0 | 75.3 | 96.3 | 76.6 | 193 |
| North | 14.1 | 100.0 | 64.3 | 98.8 | 67.8 | 44 |
| East | 5.8 | 98.0 | 69.3 | 93.2 | 66.1 | 271 |
| Mother's education |  |  |  |  |  |  |
| No educ / prim. incomp. | 5.2 | 95.0 | 65.9 | 91.8 | 61.8 | 167 |
| Complete primary | 11.4 | 97.9 | 69.5 | 95.3 | 69.3 | 332 |
| Complete secondary | 13.4 | 98.1 | 75.3 | 96.3 | 76.4 | 246 |
| Complete high school / higher | 23.0 | 99.0 | 79.6 | 97.8 | 82.3 | 328 |
| Wealth quintile |  |  |  |  |  |  |
| Lowest | 7.6 | 95.4 | 64.5 | 90.8 | 62.1 | 254 |
| Second | 10.1 | 99.1 | 67.7 | 96.2 | 68.2 | 239 |
| Middle | 15.5 | 98.4 | 79.6 | 95.6 | 79.4 | 216 |
| Fourth | 14.0 | 99.7 | 78.7 | 99.3 | 79.7 | 189 |
| Highest | 29.5 | 97.1 | 80.4 | 98.5 | 84.6 | 174 |
| Total | 14.4 | 97.9 | 73.3 | 95.7 | 73.7 | 1,073 |
| ${ }^{1}$ MICS indicator TC. 53 - Early child development index (SDG 4.2.1) |  |  |  |  |  |  |

## Key Findings

- Women's employment: In Turkey, a relatively small proportion of currently married women age 15-49 were employed $(32 \%)$ in the 12 months before the survey, while $94 \%$ of their husbands age 15-49 were employed.
- Asset ownership: $18 \%$ of women own a house alone and/or jointly with someone else, while 9\% own land/estate/field alone and/or jointly with someone.
- Participation in decision making: 55\% of currently married women make decisions about both their own health, and use of contraceptive method either by themselves or jointly with their husbands.
- Attitude towards wife beating: Overall, 9\% of women agreed that physical violence was justified at least under one specific circumstance. Regarding specific situations, more women agree that physical violence is justified if woman neglects the children or if woman argues with husband ( $6 \%$ and $4 \%$, respectively) and few women say that violence is justified if a wife burns the food ( $1 \%$ ).
- Interspousal differences: The mean difference in age between currently married women and their spouses is 4.2 years. Overall, the mean difference in educational attainment between women and their spouses is 0.7 years.

This chapter explores women's empowerment in terms of employment status relative to those of their husbands in Turkey. In addition, the chapter looks at other aspects of women's empowerment including ownership of assets, women's participation in household decision making, women's attitudes towards wife beating, and differences in age and educational levels.

### 14.1 Married Women's and Their Husbands' Employment

## Employment

Respondents are considered to be employed if they have done any work other than their housework in the 12 months before the survey.
Sample: Currently married women age 15-49 and their husbands age 15-49.

In Turkey, a relatively small proportion of currently married women age 15-49 were employed ( $32 \%$ ) in the 12 months before the survey, while $94 \%$ of their husbands who are between $15-49$ were employed. Among
currently married respondents who are employed in the past 12 months, $85 \%$ of women and $99 \%$ of husbands are paid, $15 \%$ of women and $1 \%$ of husbands are unpaid workers (Table 14.1).

Table 14.2 presents the percent distribution of women who were not employed in the 12 months prior to the survey by the main reason that they did not work during the period. Twenty percent of women reported being a housewife, $21 \%$ reported caring for children and $18 \%$ reported being a student as the main reason for not working. Eleven percent of women indicated that their husband or family would not allow them to work. Six percent of women reported that they did not need or want to work.

## Patterns by background characteristics

- Employment among currently married women increases with age, from 9\% in the 15-19 age group to a peak of $37 \%$ in the 40-44 age group. The percentage of women's husbands who are employed increases from \%94 among those age 20-24 to a peak of $96 \%$ among those age 25-39 before decreasing to $92 \%$ among those age 45-49 (Figure 14.1).

Figure 14.1 Employment by age
Percentage of currently married women and their husbands who were employed at any time before the 12 months of the survey


- Among currently married respondents, women are more commonly unpaid workers than men, while $15 \%$ of women in age 15-49 are unpaid workers, only $1 \%$ of husbands work in unpaid job (Table 14.1).
- As expected, the proportion of women who report their main reason for not working as being housewife increases with increasing age (Table 14.2).
- Reasons for not working clearly differs with marital status; being a student was the main reason of not working among never married women (55\%) whereas being a housewife and caring for children ( $29 \%$ and $31 \%$, respectively) were the main reasons among married women. It is worth mentioning that $13 \%$ of married women reported that their partner or family did not allow them to work.
- The proportion of women citing their role as a housewife as the reason for not working was higher in rural areas and in the South region.
- The proportion of women citing their role as a housewife as the reason for not working decreases with increasing education and wealth.


### 14.2 Women's Ownership of Assets

Ownership of a house or land/estate/field
Respondents who own a house or land/estate/field, whether alone or jointly with someone else
Sample: Ever-married women age 15-49

Figure 14.2 shows that $82 \%$ of women age 15-49 do not own a house and that $91 \%$ do not own land/estate/field. Eighteen percent of women own a house alone and/or jointly with someone else, while $9 \%$ own land/estate/field alone and/or jointly with someone.

Figure 14.2 Ownership of assets
Percentage of ever married women age 15-49 by ownership of assets


## Patterns by background characteristics

- Among women age 15-49, both house and land/estate/field ownership generally increase with age. Fourteen percent of women age 25-29 own a house alone and/or jointly with someone else, as compared with $34 \%$ of women age $45-49$. Similarly, $6 \%$ of women age 25-29 own land/estate/field alone and/or jointly with someone else, compared with $16 \%$ of women age 45-49 (Table 14.3).
- The proportion of women's house ownership alone is higher in urban areas, whereas land/estate/field ownership is higher among women living in rural.
- Women's ownership of a house alone is more common in the West and Central regions ( $7 \%$ each) than in the East region (3\%). Regarding land/estate/field ownership, the percentage of ownership among women is the highest in Central (5\%) (Table 14.3).
- The proportion of women who do not own a house decreases with increasing wealth status ( $87 \%$ for the lowest quintile and $71 \%$ for the highest quintile). The proportion of women who do not own land/estate/field portrays a similar but less pronounced pattern ( $94 \%$ for the lowest quintile and $88 \%$ for the highest quintile).


### 14.3 Women’s Participation in Decision Making

## Participation in major healthcare decisions

Women are considered to participate in household decisions if they make decisions alone or jointly with their husband in two of the following areas: (1) the woman's own health care and (2) contraceptive methods (both use and non-use)
Sample: Currently married women age 15-49

Table 14.4 shows the distribution of currently married women age $15-49$ by person who usually makes decisions about various issues. Sixty percent of women reported that they deciding jointly with their husbands about their own health care compared to $35 \%$ of women decide by themselves (Figure 14.3 and Table 14.4).

Figure 14.3 Women's participation in decision making Percentage of currently married women age 15-49 by participating in decision making


When contraceptive use is considered, the decision is most often taken by women jointly with their husband ( $69 \%$ ) or alone ( $25 \%$ ) (Figure 14.3 and Table 14.4). Fifty-five percent of currently married women participate in both specified healthcare decisions, either alone or jointly with their husbands (Table 14.5). Only $2 \%$ of currently married women do not participate in any of the two decisions.

## Patterns by background characteristics

- Women age 20-24 (57\%) have the highest level of participation in making both decisions among all age groups (Table 14.5).
- Employed women have a slightly higher level of participation in both decisions (57\%) than women who are not employed (54\%) (Table 14.5).
- Sixty-four percent of currently married women who have no children are reported making both decisions either alone or jointly with their husband in comparison to $39 \%$ of women who have 5 or more children.
- The proportion of women's participation in both specified decisions is higher in urban areas than rural areas.
- By region, women's participation in all two specified decision making is highest in West and Central (59\% and $57 \%$ respectively).
- The percentage of women who participate in both decisions increases with increasing education.
- Currently married women in the lowest wealth quintile are more frequently reported that they do not participate in any of the two household decisions (4\%).


### 14.4 Attitudes toward Wife Beating


#### Abstract

Attitudes toward wife beating Respondents are asked if they agree that a husband is justified in hitting or beating his wife under each of the following five circumstances: she burns the food; she argues with him, she goes out without telling him; she neglects the children, and she refuses to have sex with him. If respondents answer 'yes' in at least one circumstance, they are considered to have attitudes justifying wife beating. Sample: Women age 15-49


Domestic violence is a violation of women's human rights. Tolerance as well as the experience of domestic violence form significant barriers to women's empowerment and women's autonomy in all spheres of social life. This has adverse consequences for women's health, health-seeking behavior, and the health of their children. Table $\mathbf{1 4 . 6}$ presents differences by background characteristics in the percentages of women who agreed that wife beating would be justified in each of the five circumstances. Overall, $9 \%$ of women accepted at least one of the situations as a justification for physical violence. With regard to the specific situations, more women agree that physical violence is justified if the woman neglects the children or a woman argues with her husband ( $6 \%$ and $4 \%$, respectively) and few women say that violence is justified if a wife burns the food ( $1 \%$ ).

Trends: The percentage of women who agreed that physical violence was justified in at least one of the situations has decreased over time ( $13 \%$ in 2013 TDHS, and $9 \%$ in 2018 TDHS).

## Patterns by background characteristics

- While $16 \%$ of women in rural areas report that physical violence would be justified in at least one of the circumstances specified, the proportion drops to $7 \%$ for urban women. For both urban and rural women, "neglects the children" is the most cited reason for justifying violence.
- Seventeen percent of women in the East region agree that physical violence is justified in at least one of the circumstances compared with $6 \%$ in the West region.
- Acceptance of wife beating is inversely associated with education level. The proportion of agreeing with at least one reason that justifies violence is 9 times higher for women with no education or incomplete primary education ( $28 \%$ ) than women with high school or higher education ( $3 \%$ ).
- Women in the lowest wealth quintile agree with at least one reason that justifies violence at a level of $20 \%$, which is 10 times higher than that of women in the highest wealth quintile ( $2 \%$ ).


### 14.5. InTERSPOUSAL DIFFERENCES IN AGE AND EDUCATION

## Age differences

Interspousal age differences are grouped as (1) wife older by 2+ years, (2) about the same age/ one or two years difference, (3) husband older by 2-4 years, (4) husband older by 5-9 years and (5) husband older by 10+ years.
Sample: Currently married women age 15-49 and their husbands

## Educational difference

Education difference between women and their husband is grouped into three different categories: (1) husband better educated, (2) wife better educated and (3) both have equal education.

Sample: Currently married women age 15-49 and their husbands

Large differences in age and education levels between spouses may be associated with differences in relative power. Table 14.7 presents data from the 2018 TDHS on differences in age and education levels between spouses. With regard to interspousal age differences, only $5 \%$ of women are two or more years older than their husband. Twenty-two percent of women are about the same age (less than 2 years older or younger than their spouse). Thirty-three percent of currently married women are married to men who are at least 5 years older than they are and, in the case of $10 \%$ of the women, the husband is 10 or more years older. The mean difference in age between currently married women and their spouses is 4.2 years.

An increase in women's educational level is reflected in the educational differences between spouses. The results in Table 14.8 show that husbands have attained, on average, higher educational levels than their wives. Forty-one percent of women are married to men who have more education than they have. A rather small proportion of women is more educated than their spouses ( $23 \%$ ) and this percentage indicates an increase of five percentage points when compared to that of the previous survey.

Trends: The longstanding education gap between women and men in Turkey, has been in a decreasing trend for some time. Overall, the mean difference in educational attainment between women and their spouses decreased from 1.6 years to 0.7 years from 2008 TDHS to 2018 TDHS.

## Patterns by background characteristics

- Considering the variation in interspousal ages across subgroups, the mean difference is greatest among young women, particularly among those under age 20 ( 6.2 years). This group represents a comparatively small proportion of all married women since the overall age at marriage has been rising in Turkey, however, it is important to be aware of the age gap in planning programs to further discourage early marriage.
- Considering regional variation in interspousal age difference, Northeast Anatolia region is well above the national average with a mean age difference of 5.3 years.
- With regards the variation in interspousal education differences, the gap tends to rise with parity; 50\% of women with at least 5 children are less educated than their spouse compared to $36 \%$ among women with no children.
- Regional variations in interspousal education differences are also observed. For instance, for women living in Central East Anatolia and Southeast Anatolia, being less educated than their spouses is at the highest levels ( $56 \%$ and $51 \%$, respectively) while $67 \%$ of women in Aegean, $64 \%$ of women in West Anatolia and $65 \%$ of women in Mediterranean regions are most prone to having equal or more education than their husband.
- The interspousal gap in education is greatest among women with the least education. Fifty-nine percent of women who have never attended school or have not completed the primary level are married to men who better educated than themselves. On the other hand, $77 \%$ of women with high school or higher education have attained the same or more years of schooling than their husbands.
- With regards the variation in interspousal education differences by wealth, $19 \%$ of women in the lowest wealth quintile and $15 \%$ of women in the second wealth quintile are more educated than their husbands compared with $30 \%$ of women in the highest wealth quintile.


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- Table 14.1 Employment and earnings of currently married women and their husbands
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- Table 14.4 Participation in decision making
- Table 14.5 Women's participation in decision making on health
- Table 14.6 Attitude toward wife beating
- Table 14.7 Interspousal age difference
- Table 14.8 Interspousal education difference


## Table 14.1 Employment and earnings of currently married women and their husbands

Percentage of currently married women and husbands age 15-49 who were employed at any time in the past 12 months and percent distribution of currently married women and their husbands employed in the past 12 months by type of earnings, according to age, Turkey DHS 2018

| Age | Currently married respondents |  | Percent distribution of currently married respondents employed in the past 12 months |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage employed in past 12 months | Number of respondents | Paid | Unpaid | Total | Number of respondents |
| 15-19 | 9.2 | 56 | * | * | * | 5 |
| 20-24 | 18.0 | 411 | 82.0 | 18.0 | 100.0 | 74 |
| 25-29 | 26.7 | 737 | 90.8 | 9.2 | 100.0 | 197 |
| 30-34 | 32.9 | 923 | 86.8 | 13.2 | 100.0 | 304 |
| 35-39 | 35.5 | 1,002 | 88.2 | 11.8 | 100.0 | 356 |
| 40-44 | 37.2 | 910 | 82.1 | 17.9 | 100.0 | 338 |
| 45-49 | 35.0 | 781 | 78.6 | 21.4 | 100.0 | 273 |
| Total 15-49 | 32.1 | 4,820 | 84.8 | 15.2 | 100.0 | 1,547 |
|  | Husbands/ partners of currently married respondents |  | Percent distribution of husbands/ partners employed in the past 12 months |  |  |  |
|  | Percentage employed in past 12 months | Number of husbands/ partners | Paid | Unpaid | Total | Number of husbands/ partners |
| Age of husband |  |  |  |  |  |  |
| 15-19 | * | 4 | * | * | * | 4 |
| 20-24 | 93.6 | 137 | 99.1 | 0.9 | 100.0 | 128 |
| 25-29 | 95.6 | 491 | 98.4 | 1.6 | 100.0 | 469 |
| 30-34 | 95.8 | 773 | 99.1 | 0.9 | 100.0 | 741 |
| 35-39 | 95.7 | 961 | 99.3 | 0.7 | 100.0 | 920 |
| 40-44 | 93.4 | 934 | 99.7 | 0.3 | 100.0 | 872 |
| 45-49 | 91.5 | 863 | 99.7 | 0.3 | 100.0 | 790 |
| Total 15-49 | 94.3 | 4,163 | 99.2 | 0.8 | 100.0 | 3,924 |

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

## Table 14.2 Reason for not working

Percentage distribution of women age 15-49 who were not employed during the 12 months preceding the survey by the main reason for not working, according to background characteristics, Turkey DHS 2018

| Background characteristic | Main reason for not currently working |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Number |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Student | Housewife | Retired | $\begin{gathered} \text { Disabled/ } \\ \text { Sick } \\ \hline \end{gathered}$ | Caring for elderly | Caring for children | Looking for a job / unemployed | Partner/ Family does not allow to work | Just migrated/ left | $\begin{gathered} \hline \text { Does } \\ \text { not } \\ \text { need } \\ \text { (want) } \\ \text { to work } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { Pregnant// } \\ & \text { just } \\ & \text { delivered a } \\ & \text { baby } \\ & \hline \end{aligned}$ | Does not have a work permit | Does not speak the language | Other | Missing |  |
| Age |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 69.7 | 2.9 | 0.0 | 0.6 | 0.4 | 1.8 | 4.1 | 7.1 | 0.3 | 6.1 | 0.6 | 0.4 | 0.0 | 6.0 | 0.0 | 1,016 |
| 20-24 | 22.5 | 9.9 | 0.0 | 1.2 | 1.2 | 18.5 | 16.5 | 11.5 | 0.0 | 6.1 | 1.6 | 0.0 | 0.0 | 11.0 | 0.0 | 800 |
| 25-29 | 3.7 | 16.8 | 0.0 | 1.9 | 1.1 | 35.7 | 10.9 | 12.6 | 0.0 | 4.9 | 4.5 | 0.3 | 0.0 | 7.4 | 0.0 | 728 |
| 30-34 | 0.3 | 23.6 | 0.0 | 1.8 | 1.7 | 39.9 | 8.8 | 9.7 | 0.0 | 5.3 | 2.6 | 0.0 | 0.0 | 6.1 | 0.2 | 726 |
| 35-39 | 0.0 | 28.8 | 0.0 | 5.3 | 4.3 | 32.5 | 6.2 | 11.9 | 0.1 | 3.8 | 1.5 | 0.2 | 0.0 | 5.5 | 0.0 | 728 |
| 40-44 | 0.8 | 34.9 | 0.2 | 9.8 | 4.5 | 17.4 | 6.3 | 11.9 | 0.0 | 6.8 | 0.1 | 0.3 | 0.1 | 6.8 | 0.0 | 648 |
| 45-49 | 0.5 | 37.3 | 4.1 | 10.3 | 8.5 | 4.3 | 5.3 | 13.5 | 0.0 | 7.7 | 0.0 | 0.1 | 0.0 | 8.3 | 0.1 | 617 |
| Employment (last 12 months) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Not employed | 19.1 | 21.0 | 0.4 | 3.4 | 2.8 | 20.7 | 6.9 | 11.4 | 0.1 | 6.1 | 1.2 | 0.2 | 0.0 | 6.7 | 0.0 | 4,671 |
| Employed | 10.6 | 6.0 | 0.8 | 5.7 | 2.4 | 12.1 | 31.3 | 3.7 | 0.1 | 4.6 | 7.7 | 0.0 | 0.0 | 15.0 | 0.0 | 310 |
| Missing | 0.9 | 24.4 | 1.4 | 11.2 | 3.8 | 31.2 | 6.2 | 10.7 | 0.2 | 1.6 | 0.9 | 0.3 | 0.0 | 7.3 | 0.0 | 282 |
| Marital status |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Never married | 54.6 | 2.5 | 0.2 | 2.1 | 2.4 | 0.0 | 14.6 | 6.2 | 0.2 | 6.4 | 0.0 | 0.2 | 0.0 | 10.5 | 0.0 | 1,658 |
| Married or living together | 0.6 | 29.0 | 0.4 | 4.3 | 2.6 | 31.0 | 5.1 | 13.4 | 0.0 | 5.6 | 2.4 | 0.2 | 0.0 | 5.3 | 0.1 | 3,439 |
| Divorced/separat ed/widowed | 0.5 | 17.6 | 4.9 | 14.6 | 11.8 | 15.6 | 11.0 | 6.5 | 0.0 | 3.4 | 0.0 | 0.2 | 0.0 | 14.0 | 0.0 | 166 |
| Number of living children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0 | 47.7 | 5.2 | 0.2 | 2.7 | 2.5 | 0.0 | 14.8 | 7.5 | 0.2 | 6.9 | 1.2 | 0.2 | 0.0 | 10.9 | 0.0 | 1,911 |
| 1-2 | 0.7 | 23.7 | 1.1 | 4.4 | 2.5 | 36.2 | 5.4 | 12.7 | 0.0 | 5.3 | 2.5 | 0.3 | 0.0 | 5.2 | 0.1 | 1,915 |
| 3-4 | 0.2 | 34.8 | 0.2 | 4.4 | 3.3 | 28.9 | 3.8 | 13.5 | 0.0 | 5.6 | 0.7 | 0.0 | 0.0 | 4.7 | 0.0 | 1,183 |
| 5+ | 0.0 | 40.2 | 0.0 | 7.8 | 5.0 | 22.3 | 2.4 | 10.9 | 0.0 | 2.4 | 1.5 | 0.5 | 0.0 | 7.0 | 0.1 | 255 |
| Residence |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Urban | 18.7 | 19.0 | 0.6 | 4.0 | 2.6 | 21.8 | 8.3 | 10.6 | 0.1 | 5.8 | 1.5 | 0.2 | 0.0 | 6.6 | 0.0 | 4,132 |
| Rural | 13.5 | 24.9 | 0.2 | 3.7 | 3.5 | 16.7 | 8.3 | 12.2 | 0.0 | 5.7 | 1.6 | 0.0 | 0.0 | 9.8 | 0.0 | 1,132 |
| Region 0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| West | 17.7 | 15.1 | 0.8 | 5.1 | 3.0 | 25.3 | 7.8 | 10.4 | 0.0 | 5.7 | 2.2 | 0.2 | 0.0 | 6.5 | 0.1 | 2,090 |
| South | 16.6 | 28.1 | 0.4 | 3.5 | 4.3 | 18.5 | 9.8 | 6.8 | 0.0 | 2.8 | 2.0 | 0.1 | 0.0 | 7.0 | 0.0 | 725 |
| Central | 20.7 | 22.1 | 0.4 | 3.9 | 1.7 | 18.7 | 8.3 | 9.6 | 0.2 | 6.7 | 1.1 | 0.2 | 0.0 | 6.5 | 0.0 | 1,100 |
| North | 20.0 | 20.0 | 0.2 | 4.6 | 3.2 | 18.0 | 8.8 | 8.7 | 0.1 | 5.5 | 1.9 | 0.0 | 0.0 | 8.9 | 0.1 | 261 |
| East | 14.3 | 23.1 | 0.1 | 2.0 | 2.6 | 16.3 | 8.0 | 16.4 | 0.2 | 7.1 | 0.5 | 0.2 | 0.0 | 9.3 | 0.0 | 1,089 |
| NUTS 1 Region 10.3 10.3 0.4 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Istanbul | 16.3 | 18.3 | 0.4 | 5.1 | 2.6 | 27.3 | 6.8 | 10.4 | 0.0 | 3.9 | 1.8 | 0.3 | 0.0 | 6.8 | 0.0 | 1,055 |
| West Marmara | 18.5 | 20.0 | 1.9 | 4.8 | 3.5 | 23.3 | 6.5 | 4.5 | 0.2 | 3.6 | 3.9 | 0.2 | 0.2 | 8.6 | 0.2 | 181 |
| Aegean | 19.6 | 11.4 | 1.5 | 5.7 | 2.6 | 23.8 | 9.0 | 9.7 | 0.0 | 5.5 | 3.0 | 0.3 | 0.0 | 7.4 | 0.3 | 526 |
| East Marmara | 19.7 | 12.3 | 0.2 | 3.4 | 3.7 | 24.2 | 8.1 | 12.8 | 0.0 | 11.0 | 1.1 | 0.0 | 0.0 | 3.4 | 0.0 | 473 |
| West Anatolia | 23.0 | 22.9 | 0.7 | 3.6 | 1.8 | 17.5 | 8.7 | 9.0 | 0.3 | 6.1 | 0.5 | 0.2 | 0.0 | 5.7 | 0.0 | 570 |
| Mediterranean | 16.6 | 28.1 | 0.4 | 3.5 | 4.3 | 18.5 | 9.8 | 6.8 | 0.0 | 2.8 | 2.0 | 0.1 | 0.0 | 7.0 | 0.0 | 725 |
| Central Anatolia | 16.8 | 21.8 | 0.2 | 4.4 | 0.9 | 19.8 | 7.5 | 9.9 | 0.0 | 8.9 | 1.2 | 0.5 | 0.0 | 8.2 | 0.0 | 268 |
| West Black Sea | 17.1 | 21.4 | 0.2 | 5.7 | 2.5 | 12.4 | 10.8 | 12.2 | 0.0 | 5.1 | 2.7 | 0.0 | 0.0 | 9.7 | 0.0 | 266 |
| East Black Sea | 24.3 | 16.4 | 0.0 | 4.2 | 3.7 | 22.4 | 8.3 | 5.4 | 0.3 | 6.0 | 1.6 | 0.0 | 0.0 | 7.2 | 0.3 | 110 |
| Northeast 0.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Anatolia | 12.6 | 35.4 | 0.0 | 1.3 | 2.4 | 11.9 | 4.1 | 19.0 | 0.4 | 6.1 | 0.2 | 0.2 | 0.2 | 6.1 | 0.0 | 148 |
| Central East |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Anatolia | 13.4 | 20.9 | 0.0 | 1.6 | 3.0 | 19.1 | 9.4 | 18.0 | 0.0 | 6.0 | 0.2 | 0.3 | 0.0 | 7.9 | 0.0 | 292 |
| Southeast |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Anatolia | 15.1 | 21.4 | 0.1 | 2.3 | 2.4 | 16.0 | 8.3 | 15.1 | 0.2 | 7.8 | 0.6 | 0.1 | 0.0 | 10.6 | 0.0 | 649 |
| Education |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| No educ / prim. incomp. | 0.0 | 33.0 | 0.0 | 9.2 | 5.0 | 20.3 | 5.2 | 16.6 | 0.2 | 2.0 | 1.0 | 0.0 | 0.0 | 7.6 | 0.1 | 558 |
| Complete primary | 0.0 | 34.5 | 0.7 | 6.4 | 4.7 | 22.0 | 4.9 | 13.9 | 0.0 | 5.4 | 1.3 | 0.1 | 0.0 | 6.1 | 0.0 | 1,553 |
| Complete secondary | 27.0 | 14.2 | 0.1 | 1.9 | 1.6 | 21.1 | 3.4 | 13.5 | 0.2 | 8.5 | 1.8 | 0.1 | 0.1 | 6.5 | 0.0 | 1,235 |
| Complete high school /higher | 30.9 | 9.0 | 0.8 | 1.7 | 1.4 | 19.6 | 15.1 | 5.1 | 0.1 | 5.5 | 1.7 | 0.4 | 0.0 | 8.6 | 0.1 | 1,919 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | 11.0 | 25.0 | 0.2 | 5.0 | 4.5 | 20.5 | 7.3 | 12.8 | 0.1 | 3.9 | 1.5 | 0.1 | 0.0 | 7.9 | 0.0 | 925 |
| Second | 15.5 | 22.4 | 0.2 | 3.7 | 3.3 | 19.3 | 8.7 | 14.7 | 0.0 | 3.6 | 1.6 | 0.2 | 0.0 | 6.9 | 0.0 | 1,077 |
| Middle | 16.0 | 18.8 | 0.2 | 6.0 | 2.8 | 22.1 | 7.4 | 10.5 | 0.2 | 6.4 | 1.5 | 0.0 | 0.0 | 8.2 | 0.0 | 1,127 |
| Fourth | 19.7 | 19.6 | 0.5 | 3.1 | 2.0 | 21.3 | 9.2 | 7.7 | 0.0 | 7.4 | 2.1 | 0.3 | 0.0 | 7.1 | 0.0 | 1,173 |
| Highest | 25.6 | 16.0 | 1.6 | 1.9 | 1.6 | 20.4 | 8.6 | 9.2 | 0.1 | 7.4 | 1.0 | 0.4 | 0.0 | 6.1 | 0.2 | 962 |
| Total | 17.6 | 20.3 | 0.5 | 4.0 | 2.8 | 20.7 | 8.3 | 10.9 | 0.1 | 5.8 | 1.6 | 0.2 | 0.0 | 7.3 | 0.0 | 5,264 |

## Table 14.3 Ownership of assets

Percent distribution of women age 15-49 by ownership of housing and land, according to background characteristics, Turkey DHS 2018

| Background characteristic | Percentage who own a house |  | Percenta ge who do not own a house | Missing | Total | Percentage who own land/estate/field |  | Percentage who do not own land/ estate | Missing | Total | Number |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Alone | Jointly |  |  |  | Alone | Jointly |  |  |  |  |
| Age |  |  |  |  |  |  |  |  |  |  |  |
| 15-19 | 0.3 | 2.7 | 97.0 | 0.0 | 100.0 | 0.2 | 2.1 | 97.7 | 0.0 | 100.0 | 1,163 |
| 20-24 | 0.9 | 6.3 | 92.8 | 0.0 | 100.0 | 0.9 | 4.2 | 95.0 | 0.0 | 100.0 | 1,034 |
| 25-29 | 2.8 | 10.7 | 86.5 | 0.0 | 100.0 | 1.9 | 4.4 | 93.8 | 0.0 | 100.0 | 1,035 |
| 30-34 | 5.6 | 15.1 | 79.0 | 0.3 | 100.0 | 3.1 | 5.9 | 90.7 | 0.3 | 100.0 | 1,065 |
| 35-39 | 6.5 | 16.1 | 77.4 | 0.0 | 100.0 | 3.8 | 6.5 | 89.7 | 0.0 | 100.0 | 1,105 |
| 40-44 | 11.3 | 18.0 | 70.7 | 0.0 | 100.0 | 5.8 | 8.2 | 86.0 | 0.0 | 100.0 | 1,025 |
| 45-49 | 14.6 | 19.5 | 65.6 | 0.3 | 100.0 | 5.7 | 10.1 | 83.9 | 0.3 | 100.0 | 918 |
| Residence |  |  |  |  |  |  |  |  |  |  |  |
| Urban | 6.6 | 11.5 | 81.8 | 0.1 | 100.0 | 2.6 | 5.2 | 92.1 | 0.1 | 100.0 | 5,744 |
| Rural | 3.0 | 15.5 | 81.5 | 0.0 | 100.0 | 4.2 | 7.9 | 87.9 | 0.0 | 100.0 | 1,602 |
| Region |  |  |  |  |  |  |  |  |  |  |  |
| West | 7.0 | 11.7 | 81.1 | 0.2 | 100.0 | 3.1 | 5.2 | 91.5 | 0.2 | 100.0 | 3,203 |
| South | 4.2 | 15.7 | 80.1 | 0.0 | 100.0 | 2.7 | 7.8 | 89.5 | 0.0 | 100.0 | 914 |
| Central | 7.2 | 10.2 | 82.6 | 0.0 | 100.0 | 4.6 | 6.4 | 89.0 | 0.0 | 100.0 | 1,524 |
| North | 4.1 | 12.5 | 83.5 | 0.0 | 100.0 | 2.4 | 8.3 | 89.2 | 0.0 | 100.0 | 401 |
| East | 2.8 | 14.3 | 82.9 | 0.0 | 100.0 | 1.0 | 4.4 | 94.6 | 0.0 | 100.0 | 1,305 |
| Education |  |  |  |  |  |  |  |  |  |  |  |
| No educ / prim. |  |  |  |  |  |  |  |  |  |  |  |
| incomp. | 4.5 | 15.3 | 80.2 | 0.0 | 100.0 | 1.8 | 4.6 | 93.6 | 0.0 | 100.0 | 678 |
| Complete primary | 4.8 | 15.8 | 79.2 | 0.1 | 100.0 | 3.8 | 7.4 | 88.7 | 0.1 | 100.0 | 2,139 |
| Complete secondary | 2.7 | 8.6 | 88.7 | 0.0 | 100.0 | 2.6 | 4.2 | 93.2 | 0.0 | 100.0 | 1,495 |
| Complete high school / higher | 8.2 | 11.2 | 80.5 | 0.1 | 100.0 | 2.8 | 5.7 | 91.4 | 0.1 | 100.0 | 3,033 |
| Wealth quintile |  |  |  |  |  |  |  |  |  |  |  |
| Lowest | 2.1 | 11.0 | 86.9 | 0.0 | 100.0 | 1.6 | 4.5 | 93.9 | 0.0 | 100.0 | 1,154 |
| Second | 3.2 | 11.7 | 85.1 | 0.0 | 100.0 | 3.1 | 6.1 | 90.9 | 0.0 | 100.0 | 1,395 |
| Middle | 3.5 | 11.9 | 84.6 | 0.0 | 100.0 | 2.6 | 5.5 | 91.9 | 0.0 | 100.0 | 1,527 |
| Fourth | 6.0 | 10.9 | 83.0 | 0.1 | 100.0 | 3.4 | 4.9 | 91.6 | 0.1 | 100.0 | 1,650 |
| Highest | 12.6 | 16.0 | 71.2 | 0.2 | 100.0 | 3.7 | 7.7 | 88.4 | 0.2 | 100.0 | 1,619 |
| Total | 5.8 | 12.4 | 81.8 | 0.1 | 100.0 | 3.0 | 5.8 | 91.2 | 0.1 | 100.0 | 7,346 |

Table 14.4 Participation in decision making
Percent distribution of currently married women age 15-49 by person who usually makes decisions about various issues, Turkey DHS 2018

| Decision | Mainly wife | Wife and husband jointly | Mainly husband | $\begin{gathered} \text { Someone } \\ \text { else } \\ \hline \end{gathered}$ | Other | Missing | Total | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Own health care | 35.2 | 60.2 | 4.3 | 0.1 | 0.1 | 0.0 | 100.0 | 4,820 |
| Contraceptive use | 24.6 | 69.3 | 3.2 | 0.1 | 2.8 | 0.0 | 100.0 | 4,820 |

## Table 14.5 Women's participation in decision making on health

Percentage of currently married women age 15-49 who usually make specific decisions on health either by themselves or jointly with their husband, by background characteristics, Turkey DHS 2018

| Background characteristic | Specific decisions |  | Both decisions | None of the two decisions | Number of women |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Woman's own health care | Own contraception use |  |  |  |
| Age |  |  |  |  |  |
| 15-19 | 95.6 | 55.7 | 53.6 | 2.3 | 56 |
| 20-24 | 95.2 | 59.2 | 57.2 | 2.8 | 411 |
| 25-29 | 95.3 | 59.4 | 56.3 | 1.6 | 737 |
| 30-34 | 95.8 | 58.4 | 55.8 | 1.5 | 923 |
| 35-39 | 95.4 | 55.8 | 53.3 | 2.2 | 1,002 |
| 40-44 | 95.2 | 57.9 | 55.9 | 2.8 | 910 |
| 45-49 | 95.8 | 55.3 | 52.9 | 1.7 | 781 |
| Employment (last 12 months) |  |  |  |  |  |
| Not employed | 95.5 | 56.7 | 54.1 | 1.9 | 3,031 |
| Employed | 95.8 | 58.7 | 56.7 | 2.2 | 1,547 |
| Missing | 93.1 | 58.5 | 54.6 | 3.0 | 241 |
| Number of living children |  |  |  |  |  |
| 0 | 95.1 | 65.9 | 63.6 | 2.6 | 349 |
| 1-2 | 96.6 | 62.7 | 60.5 | 1.2 | 2,685 |
| 3-4 | 95.1 | 48.4 | 46.2 | 2.7 | 1,489 |
| 5+ | 87.7 | 45.5 | 39.2 | 6.0 | 296 |
| Residence |  |  |  |  |  |
| Urban | 96.3 | 60.1 | 58.0 | 1.7 | 3,743 |
| Rural | 92.8 | 48.2 | 44.4 | 3.4 | 1,076 |
| Region |  |  |  |  |  |
| West | 96.3 | 60.4 | 58.6 | 1.8 | 2,095 |
| South | 93.1 | 54.2 | 49.5 | 2.2 | 617 |
| Central | 97.4 | 58.8 | 57.4 | 1.2 | 1,028 |
| North | 94.9 | 47.6 | 45.9 | 3.5 | 257 |
| East | 92.9 | 53.7 | 49.8 | 3.2 | 822 |
| Education |  |  |  |  |  |
| No educ / prim. incomp. | 90.3 | 49.9 | 44.3 | 4.0 | 581 |
| Complete primary | 95.8 | 53.4 | 51.9 | 2.7 | 1,923 |
| Complete secondary | 96.2 | 58.7 | 56.3 | 1.4 | 813 |
| Complete high school / higher | 96.7 | 64.9 | 62.4 | 0.8 | 1,503 |
| Wealth quintile |  |  |  |  |  |
| Lowest | 92.0 | 48.5 | 44.4 | 3.8 | 758 |
| Second | 94.3 | 51.4 | 48.4 | 2.8 | 914 |
| Middle | 95.6 | 58.2 | 56.1 | 2.3 | 994 |
| Fourth | 97.2 | 60.3 | 58.7 | 1.3 | 1,066 |
| Highest | 97.1 | 65.3 | 63.2 | 0.8 | 1,088 |
| Total | 95.5 | 57.5 | 55.0 | 2.1 | 4,820 |

## Table 14.6 Attitude toward wife beating

Percentage of all women age 15-49 who agree that a husband is justified in hitting or beating his wife for specific reasons, by background characteristics, Turkey DHS 2018

| Background characteristic | Husband is justified in hitting or beating his wife if she: |  |  |  |  | Percentage who agree with at least one specified reason | Number |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Burns the food | Argues with him | Goes out without telling him | Neglects the children | Refuses to have sexual intercourse with him |  |  |
| Age |  |  |  |  |  |  |  |
| 15-19 | 0.6 | 2.6 | 1.7 | 4.3 | 1.7 | 6.4 | 1,163 |
| 20-24 | 0.4 | 3.8 | 2.3 | 4.3 | 0.7 | 7.7 | 1,034 |
| 25-29 | 0.5 | 2.6 | 2.3 | 5.0 | 1.1 | 7.4 | 1,035 |
| 30-34 | 0.7 | 3.3 | 2.2 | 5.6 | 1.1 | 7.9 | 1,065 |
| 35-39 | 1.2 | 4.0 | 3.6 | 7.2 | 2.2 | 9.8 | 1,105 |
| 40-44 | 1.5 | 4.3 | 4.0 | 7.7 | 2.1 | 11.2 | 1,025 |
| 45-49 | 1.4 | 5.0 | 4.5 | 9.4 | 2.5 | 13.4 | 918 |
| Employment (last 12 months) |  |  |  |  |  |  |  |
| Not employed | 1.0 | 4.1 | 2.8 | 5.9 | 1.8 | 9.1 | 4,671 |
| Employed | 0.7 | 2.7 | 2.8 | 6.9 | 1.2 | 8.8 | 2,392 |
| Missing | 0.9 | 3.7 | 5.6 | 4.2 | 2.3 | 9.4 | 282 |
| Number of living children |  |  |  |  |  |  |  |
| 0 | 0.8 | 2.4 | 1.9 | 4.3 | 1.2 | 6.2 | 2,608 |
| 1-2 | 0.3 | 2.6 | 1.9 | 4.6 | 0.8 | 7.0 | 2,882 |
| 3-4 | 1.4 | 5.5 | 4.4 | 9.0 | 2.3 | 13.4 | 1,544 |
| 5+ | 4.5 | 13.6 | 13.7 | 22.1 | 8.6 | 29.2 | 311 |
| Marital status |  |  |  |  |  |  |  |
| Never married | 0.8 | 2.3 | 1.7 | 4.3 | 1.3 | 6.2 | 2,205 |
| Married or living together | 0.9 | 4.3 | 3.4 | 7.0 | 1.7 | 10.3 | 4,820 |
| Divorced/separated/widowed | 0.7 | 2.9 | 3.4 | 6.3 | 1.9 | 8.9 | 321 |
| Residence |  |  |  |  |  |  |  |
| Urban | 0.6 | 2.8 | 2.3 | 4.6 | 1.2 | 7.1 | 5,744 |
| Rural | 1.8 | 6.6 | 5.0 | 11.7 | 3.1 | 15.9 | 1,602 |
| Region |  |  |  |  |  |  |  |
| West | 0.5 | 1.9 | 1.6 | 3.9 | 0.7 | 5.7 | 3,203 |
| South | 0.9 | 6.2 | 3.9 | 8.7 | 2.7 | 12.3 | 914 |
| Central | 0.7 | 3.0 | 1.9 | 4.8 | 1.0 | 7.7 | 1,524 |
| North | 0.7 | 2.8 | 2.0 | 5.8 | 1.2 | 7.5 | 401 |
| East | 2.0 | 6.9 | 6.8 | 11.5 | 3.9 | 16.7 | 1,305 |
| Education |  |  |  |  |  |  |  |
| No educ / prim. incomp. | 4.2 | 12.6 | 12.9 | 19.5 | 8.2 | 27.5 | 678 |
| Complete primary | 1.3 | 5.2 | 3.7 | 8.6 | 1.7 | 12.9 | 2,139 |
| Complete secondary | 0.4 | 3.3 | 2.3 | 4.6 | 1.2 | 7.7 | 1,495 |
| Complete high school / higher | 0.1 | 0.6 | 0.4 | 2.1 | 0.2 | 2.8 | 3,033 |
| Wealth quintile |  |  |  |  |  |  |  |
| Lowest | 2.2 | 9.1 | 7.5 | 14.9 | 4.2 | 20.3 | 1,154 |
| Second | 1.1 | 5.7 | 3.9 | 9.0 | 2.4 | 13.4 | 1,395 |
| Middle | 1.3 | 3.7 | 2.9 | 5.9 | 1.6 | 9.4 | 1,527 |
| Fourth | 0.2 | 1.2 | 1.3 | 2.9 | 0.4 | 4.4 | 1,650 |
| Highest | 0.0 | 0.3 | 0.5 | 1.0 | 0.3 | 1.5 | 1,619 |
| Total | 0.9 | 3.6 | 2.9 | 6.1 | 1.6 | 9.0 | 7,346 |

Table 14.7 Interspousal age difference
Percent distribution of currently married women by interspousal age difference and mean difference in age, according to background characteristics, Turkey DHS 2018

| Background characteristic | Interspousal age difference |  |  |  |  | Mean difference in age (husbandwife) | Number |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Wife older by $2+$ years | About the same age | Husband older 2-4 years | Husband older 5-9 years | Husband older 10+ years |  |  |
| Age |  |  |  |  |  |  |  |
| 15-19 | 0.0 | 8.9 | 19.1 | 53.4 | 18.6 | 6.2 | 56 |
| 20-24 | 1.2 | 12.9 | 34.8 | 40.8 | 10.2 | 5.1 | 411 |
| 25-29 | 2.7 | 23.5 | 29.2 | 34.1 | 10.5 | 4.3 | 737 |
| 30-34 | 2.2 | 23.6 | 30.6 | 33.9 | 9.7 | 4.3 | 923 |
| 35-39 | 5.9 | 23.6 | 28.8 | 31.4 | 10.3 | 4.1 | 1,002 |
| 40-44 | 7.0 | 22.3 | 34.4 | 27.3 | 9.1 | 3.7 | 910 |
| 45-49 | 6.4 | 20.7 | 30.4 | 32.2 | 10.2 | 4.2 | 781 |
| Employment (last 12 months) |  |  |  |  |  |  |  |
| Not employed | 4.0 | 20.1 | 30.9 | 34.4 | 10.6 | 4.4 | 3,031 |
| Employed | 5.6 | 24.7 | 31.3 | 29.9 | 8.5 | 3.8 | 1,547 |
| Missing | 4.9 | 24.1 | 28.2 | 29.5 | 13.3 | 4.6 | 241 |
| Number of living children |  |  |  |  |  |  |  |
| 0 | 7.3 | 24.7 | 30.2 | 28.0 | 9.9 | 3.8 | 349 |
| 1-2 | 4.3 | 23.3 | 31.4 | 32.2 | 8.7 | 4.1 | 2,685 |
| 3-4 | 4.4 | 19.2 | 30.8 | 34.3 | 11.3 | 4.4 | 1,489 |
| 5+ | 3.9 | 16.8 | 27.8 | 35.5 | 16.0 | 5.1 | 296 |
| Residence |  |  |  |  |  |  |  |
| Urban | 4.3 | 22.8 | 31.6 | 31.6 | 9.7 | 4.1 | 3,743 |
| Rural | 5.3 | 18.2 | 28.6 | 36.6 | 11.3 | 4.6 | 1,076 |
| Region |  |  |  |  |  |  |  |
| West | 3.6 | 21.7 | 32.9 | 31.6 | 10.2 | 4.3 | 2,095 |
| South | 5.5 | 20.0 | 26.3 | 36.4 | 11.8 | 4.5 | 617 |
| Central | 4.7 | 22.8 | 33.1 | 32.4 | 6.9 | 3.8 | 1,028 |
| North | 4.5 | 23.1 | 28.7 | 34.1 | 9.6 | 4.2 | 257 |
| East | 6.0 | 21.5 | 27.1 | 32.9 | 12.5 | 4.3 | 822 |
| NUTS 1 Region |  |  |  |  |  |  |  |
| Istanbul | 3.3 | 20.6 | 34.1 | 31.5 | 10.4 | 4.3 | 995 |
| West Marmara | 3.0 | 25.0 | 30.6 | 32.2 | 9.2 | 4.3 | 203 |
| Aegean | 4.5 | 22.4 | 33.3 | 30.0 | 9.8 | 4.1 | 589 |
| East Marmara | 3.9 | 21.5 | 32.2 | 33.0 | 9.4 | 4.3 | 482 |
| West Anatolia | 5.4 | 23.2 | 35.0 | 29.9 | 6.5 | 3.6 | 512 |
| Mediterranean | 5.5 | 20.0 | 26.3 | 36.4 | 11.8 | 4.5 | 617 |
| Central Anatolia | 3.6 | 21.5 | 26.4 | 40.4 | 8.1 | 4.5 | 242 |
| West Black Sea | 4.8 | 25.4 | 31.8 | 30.3 | 7.7 | 3.8 | 252 |
| East Black Sea | 2.7 | 21.8 | 26.7 | 38.4 | 10.5 | 4.5 | 106 |
| Northeast Anatolia | 3.3 | 20.2 | 24.8 | 34.9 | 16.8 | 5.3 | 114 |
| Central East Anatolia | 5.3 | 20.5 | 26.9 | 33.4 | 13.9 | 4.5 | 219 |
| Southeast Anatolia | 7.0 | 22.3 | 27.7 | 32.1 | 10.9 | 4.1 | 489 |
| Education |  |  |  |  |  |  |  |
| No educ / prim. incomp. | 8.5 | 19.7 | 24.5 | 33.2 | 14.1 | 4.6 | 581 |
| Complete primary | 4.3 | 20.6 | 31.6 | 32.7 | 10.8 | 4.4 | 1,923 |
| Complete secondary | 2.3 | 13.8 | 29.7 | 42.8 | 11.5 | 5.1 | 813 |
| Complete high school / higher | 4.6 | 28.4 | 33.2 | 27.1 | 6.8 | 3.4 | 1,503 |
| Wealth quintile |  |  |  |  |  |  |  |
| Lowest | 6.1 | 20.4 | 23.7 | 36.3 | 13.6 | 4.7 | 758 |
| Second | 4.6 | 21.0 | 31.8 | 32.4 | 10.3 | 4.2 | 914 |
| Middle | 5.9 | 19.2 | 29.8 | 33.5 | 11.6 | 4.4 | 994 |
| Fourth | 2.3 | 22.0 | 34.0 | 32.8 | 8.9 | 4.2 | 1,066 |
| Highest | 4.4 | 25.5 | 33.3 | 29.7 | 7.1 | 3.7 | 1,088 |
| Total | 4.5 | 21.8 | 30.9 | 32.7 | 10.1 | 4.2 | 4,820 |

## Table 14.8 Interspousal education difference

Percent distribution of currently married women by interspousal age difference, education differences and mean difference in education, according to background characteristics, Turkey DHS 2018

| Background characteristic | Interspousal education differential |  |  | Mean difference in education (husband-wife) | Number |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Husband better educated | Wife better educated | Both have equal education |  |  |
| Age |  |  |  |  |  |
| 15-19 | 47.1 | 25.9 | 27.0 | 1.0 | 56 |
| 20-24 | 44.7 | 29.5 | 25.8 | 0.6 | 411 |
| 25-29 | 39.2 | 36.0 | 24.8 | 0.3 | 737 |
| 30-34 | 42.3 | 26.5 | 31.3 | 0.6 | 923 |
| 35-39 | 39.8 | 21.8 | 38.4 | 0.7 | 1,002 |
| 40-44 | 42.7 | 15.1 | 42.3 | 1.1 | 910 |
| 45-49 | 36.7 | 13.1 | 50.1 | 0.9 | 781 |
| Employment (last 12 months) |  |  |  |  |  |
| Not employed | 44.7 | 21.4 | 33.9 | 0.9 | 3,031 |
| Employed | 33.7 | 26.2 | 40.0 | 0.3 | 1,547 |
| Missing | 35.8 | 20.3 | 43.9 | 0.4 | 241 |
| Number of living children |  |  |  |  |  |
| 0 | 35.6 | 35.0 | 29.4 | (0.1) | 349 |
| 1-2 | 38.6 | 26.6 | 34.8 | 0.6 | 2,685 |
| 3-4 | 43.9 | 15.7 | 40.4 | 1.1 | 1,489 |
| 5+ | 49.9 | 11.0 | 39.1 | 1.0 | 296 |
| Residence |  |  |  |  |  |
| Urban | 40.6 | 24.6 | 34.8 | 0.7 | 3,743 |
| Rural | 41.2 | 16.9 | 41.9 | 0.8 | 1,076 |
| Region |  |  |  |  |  |
| West | 38.8 | 26.7 | 34.5 | 0.4 | 2,095 |
| South | 35.4 | 20.4 | 44.2 | 0.7 | 617 |
| Central | 40.2 | 21.6 | 38.3 | 1.0 | 1,028 |
| North | 38.0 | 20.3 | 41.6 | 0.8 | 257 |
| East | 51.2 | 17.6 | 31.2 | 1.2 | 822 |
| NUTS 1 Region |  |  |  |  |  |
| Istanbul | 41.2 | 27.0 | 31.8 | 0.4 | 995 |
| West Marmara | 37.6 | 22.1 | 40.3 | 0.6 | 203 |
| Aegean | 33.6 | 31.8 | 34.7 | 0.1 | 589 |
| East Marmara | 41.5 | 18.7 | 39.9 | 0.9 | 482 |
| West Anatolia | 36.2 | 25.5 | 38.3 | 0.6 | 512 |
| Mediterranean | 35.4 | 20.4 | 44.2 | 0.7 | 617 |
| Central Anatolia | 45.1 | 18.4 | 36.5 | 1.3 | 242 |
| West Black Sea | 41.0 | 16.1 | 42.9 | 1.2 | 252 |
| East Black Sea | 39.7 | 25.1 | 35.2 | 0.7 | 106 |
| Northeast Anatolia | 43.6 | 20.5 | 35.9 | 0.9 | 114 |
| Central East Anatolia | 56.0 | 16.1 | 27.9 | 1.3 | 219 |
| Southeast Anatolia | 50.9 | 17.5 | 31.6 | 1.3 | 489 |
| Education |  |  |  |  |  |
| No educ / prim. incomp. | 58.7 | 14.9 | 26.4 | 1.0 | 581 |
| Complete primary | 46.6 | 4.5 | 48.9 | 1.9 | 1,923 |
| Complete secondary | 47.1 | 29.2 | 23.7 | 0.8 | 813 |
| Complete high school / higher | 22.8 | 46.1 | 31.1 | (1.0) | 1,503 |
| Wealth quintile |  |  |  |  |  |
| Lowest | 37.4 | 19.1 | 43.5 | 0.5 | 758 |
| Second | 43.3 | 15.1 | 41.5 | 0.9 | 914 |
| Middle | 43.9 | 21.8 | 34.2 | 1.0 | 994 |
| Fourth | 43.7 | 25.8 | 30.4 | 0.8 | 1,066 |
| Highest | 35.0 | 30.2 | 34.9 | 0.3 | 1,088 |
| Total | 40.7 | 22.9 | 36.4 | 0.7 | 4,820 |

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## SAMPLE DESIGN

## A. 1 Introduction

This section includes a description of the objectives of the survey, the overall sample size and survey domains (design and analysis domains). The 2018 Turkey Demographic and Survey (2018 TDHS) is the sixth survey of its kind, following those implemented in 1993, 1998, 2003, 2008, and 2013. As with the prior surveys, the major objective of the 2018 TDHS sample design was to ensure that the survey would provide estimates with acceptable precision for Turkey and the analysis domains for key demographic indicators on fertility, infant and child mortality, contraceptive prevalence, and mother and child health.

The survey involved a nationally representative target sample consisting of 15,834 households in Turkey. The survey sample was designed to produce representative results for Turkey as a whole, for each of the conventional major five regions of the country, namely West, South, Central, North and East regions, and for the 12 Nomenclature of Territorial Units for Statistics Level 1 (NUTS 1) regions for selected indicators.

An adult member (age 15 or older) in every household was interviewed in order to collect information on household members. In all of the households selected for the 2018 TDHS, all women age 15-49 who were usual members of the selected households or visitors who were present in the household on the night before the interview were identified as eligible and interviewed.

## A. 2 Sample Frame

The sampling frame used for 2018 TDHS is "The National Address Data Base (NABD)", which was developed by municipalities in collaboration with the Turkish Statistical Institute (TURKSTAT). The NABD is linked to the "The Address Based Population Registration System (ABPRS)", a system launched in 2007, which registers each person who has a Turkish Republic Identity Number (or a special number for resident aliens) to a specific address. This linkage allows TURKSTAT to classify addresses in terms of residential status. Only addresses that are matched to at least one ID number as a resident are included in the sample frame for the 2018 TDHS. If an ID number is matched to more than address (as primary residence, summer residence, etc.), only the primary residence address was included.

Different definitions have been used to describe "urban" and "rural" settlements in Turkey DHSs. In the 1993 TDHS, all settlements with a population of 10,000 and higher and all district and city centers regardless of size were defined as urban, leaving all other settlements to be rural. From 1998 TDHS to 2013 TDHS, the definition was standard: all settlements populated 10,000 regardless of administrative status and over were urban.

The official urban and rural status has been changed with a law issued in $2012^{1}$. In terms of the administrative definitions of TURKSTAT, the proportion of the population living in villages decreased from a level of $23 \%$ in 2012, to $9 \%$ in 2013 due to this change. According to the new official definition, all villages in provinces whose status were changed to greater metropolitan cities were now defined as quarters, under districts of these provinces. The new law added 14 such provinces to existing 16 greater metropolitan cities, defining a total of 30 provinces out of 81 as metropolitan cities. Therefore many villages that were previously defined as

[^23]settlements ${ }^{2}$ on their own, are now defined as quarters within districts; and because of the way the new frame is formed, it is impossible to tell whether or not a quarter was defined as a village before the law, or if it was an already existing urban quarter before. Since it would not be possible to identify these places from the frame, most of which still carry rural characteristics, no stratification could be done based in type of settlement. Instead, all sampled clusters were checked for the status in 2013 (where the changes by the law were not yet reflected) and type of settlement was defined as a survey variable rather than a design/stratification variable.

The frame had 22,067,776 households in total, with 9,750,242 households in West region and 1,681,223 households in North region. In other words, $43.9 \%$ of all households in Turkey are in the West, where İstanbul is located, which by itself includes $18.7 \%$ of all households in Turkey. Table A. 1 gives the distribution of households by five conventional regions and twelve statistical regions (NUTS 1) in Turkey.

## A. 3 Sample Design and Implementation

A multistage, stratified cluster sampling approach was used in the selection of the 2018 TDHS sample.
Currently Turkey is divided administratively into 81 provinces. For purposes of selection and reporting in prior surveys before 2003 in Turkey, these provinces have been grouped into five regions. This regional breakdown has been shown to be a powerful variable for understanding the demographic, social, cultural, and economic differences between different parts of the country. The five regions include varying numbers of provinces.

In addition to the conventional five geographic regions, an official system of regional breakdown was adopted in late 2002. In accordance with the accession process of Turkey to the European Union, the State Planning Organization and the State Statistical Institute constructed three levels of NUTS regions, which have since become official (Law No. 2002/4720). The "Nomenclature of Territorial Units for Statistics" (NUTS) is a statistical classification that is used by member countries of the European Union (EU). For purposes of the system, Turkey`s 81 provinces were designated as regions of NUTS 3 level; these were further aggregated into 26 regions to form the NUTS 2 regions. NUTS 1 regions were formed by aggregating NUTS 2 regions into 12 regions.

One of the priorities of the 2018 TDHS was to produce a sample design that was methodologically and conceptually consistent with the designs of previous demographic surveys carried out by the Hacettepe Institute of Population Studies. In surveys prior to the 1993 TDHS, the five-region breakdown of the country was used for stratification. In 1993 TDHS, a more detailed stratification taking into account sub-regions was employed to obtain a better dispersion of the sample. The sub-regional division developed during the 1993 TDHS was also used in 1998 TDHS.

Starting with 2003 TDHS, the introduction of the NUTS 1 regions necessitated further steps for sample design, namely that the sample design of the TDHS would allow using the conventional five regions as well as the NUTS 1 regions as design domains. How this issue was tackled is explained in detail in a paper by Türkylmaz and Hancıoglu ${ }^{3}$. Fifteen strata were designed to aggregate and provide either the five regions or the NUTS 1

[^24]regions. Each of the 15 strata consisted of urban and rural areas, leading to a total of 30 strata. Throughout 2003 TDHS and 2013 TDHS, the basis of stratification was these 30 strata, and the total number of strata changed between 36 and 40 , depending on specific estimation requirements of each survey.

With stratification by urban and rural no longer being possible, a significant reduction in the number of strata was made in 2018 TDHS. Moreover, the change in law in 2012 also made it impossible to stratify by metropolitan areas, which in 2008 TDHS were defined as provinces with "province centers" being more populated than $1,000,000$. Thus stratification in 2018 TDHS is merely done by the 15 strata explained in the previous paragraph, which can be aggregated both into 5 regions and 12 regions (Table A.2). Sample allocation began with the classification of settlements into 15 strata. The detailed sample allocation of number of clusters and households are shown in Table A.3.

The first stage sample selection included the selection of blocks/segments as primary sampling units from each strata and this task was requested from TURKSTAT. Systematic selection with probability proportional to size was used for selecting the blocks. Therefore, more blocks were sampled from larger settlements. The systematic selection was made from an ordered list; and the ordering was done in multiple levels. Within each stratum, provinces were first sorted in descending order by the number of households. Within province ordering was made by the number of households in each district. Within districts, quarters were again sorted by the number of households, where villages (those remained as villages after the administrative change in 2012) were mostly at the bottom of the list due to their sizes; after quarters. Villages were also sorted by the number of households. Within quarters, household addresses were sorted by a geographic proximity code that exists in the frame. This ordering scheme was recommended by TURKSTAT, provided the number of households in a settlement is a better determinant of similarity in characteristics of provinces and districts than geographic proximity. In the lack of an urban-rural variable on the frame, this selection scheme was the best method to obtain a representative sample with implicit stratification effects according to all the sorting characteristics.

In Turkey, settlements are not divided into census enumeration areas with well-defined boundaries that can be used for conducting surveys. However, for all settlements, household lists are available from the National Address Data Base. Thus TURKSTAT was able to provide household lists for all selected blocks. These blocks are actually artificial segments consisted of 100 households on average. TURKSTAT provided a list of the dwellings units with their full addresses (quarter, avenue/street, building and door number) for each of the selected blocks.

The second stage of sample selection was carried out after block lists were obtained from TURKSTAT and were updated through the listing and mapping fieldwork for selected clusters. Provided the improvements in population registration systems in Turkey, listing and mapping activities have been limited to clusters with rural characteristics, where each cluster has been examined in detail at the Institute of Population Studiesprior to this activity.

As briefly mentioned above, the Address Based Registration System in Turkey has been improving since its set up in 2007. Most addresses are up to date, and with developments in online mapping, can be located on online maps. On the other hand, these almost only hold for urban areas. In rural areas, physical addresses are still hard to locate. Although a unique address that consists of at least information on street number for each building, a street name and a quarter name is defined for each household in Turkey, these cannot be physically observed in most villages, where household addresses are often known by names of household heads. After a thorough examination of each cluster, 199 out of 754 clusters were identified for a fresh listing and mapping. Among selection criteria were current administrative status, administrative status in 2013 (according to the status before the new municipality law), online satellite views and population size. Listing and mapping were
also done in some clusters that were urban in nature, but consisted of summer housing; to ensure occupied household are included only in the second stage sampling frame.

In order to implement listing and mapping activity, forty-three university students/graduates were trained during a five-day training program in August 2018. Thirty-seven of them completed the training; and fifteen listing teams were then formed each including one mapper and one lister. A pilot listing activity was undertaken in the capital, Ankara, before the actual listing activity began. The teams were finalized based on this pilot activity. Each team was provided with maps describing the location of the settlements they were expected to visit, as well as other materials needed for the listing. Free satellite photos and maps from Google, Yandex and HERE WeGO were prepared at the central office to help teams to locate their cluster, and prepare their create sketch and location maps. The listing operation started at the beginning of September 2018 and it was carried out under the supervision of listing coordinator, research assistants and regional coordinators from the HUIPS.

The block (standard segment) size was around 100 households for the urban areas. Some of the selected villages were composed of less than 100 households. On the rare occasions when the selected village was smaller than 36 , a village that was near the selected village and was also small in size was included in the sample, and the names of these villages were provided to the listing teams beforehand. On some other rare occasions where a block was selected by TURKSTAT out of a large village; and could not be identified in the field due to lack of physical addresses; teams contacted the Institute of Population Studies. In those cases, segmentation was done, through dividing the village into equal pieces that were as close to 100 as possible using satellite views, and randomly selecting one segment by the listing coordinator for the team to list.

The listing operation was completed in the last week of September 2018. Only one cluster was not listed as official permissions could not be granted in time. For this particular cluster, selections were made using TURKSTAT block lists. A fixed cluster size of 21 households were selected from each block at the Institute of Population Studies, through computers for unlisted clusters; and through manual selection for listed clusters.

The target sample size of the 2018 TDHS was set at 15,834 households for the national sample. This sample size is 1,338 households greater than that of 2013 TDHS and 2,324 households than that of 2008 TDHS. The increased sample size was mainly designed to ensure an acceptable level of precision for core indicators for the analysis domains and take the increasing non-response trend into account. In 2013 TDHS, 25 households per standard urban segment (under the assumption of each block consisting of roughly 100 households) and 18 households per standard rural segment were selected. Since type of settlement was not available as a stratification variable, this approach has been abandoned in 2018 TDHS and 21 households were selected in each segment. On this basis, allocation of sample households and the total number of selected standard segments by regions is shown in Table A.3.

## A. 4 Sample Probabilities and Sampling Weights

2018 TDHS sample is not self-weighted. A disproportionate number of sample units were chosen from some of the strata, since there would have been inadequate number of observations for these areas if the target number of households had been proportionally allocated across regions. Due to the disproportionate allocation of the sample and the differential response rates across strata, ever-married and never married women as well as differences between the block sizes as provided by TURKSTAT and the actual block sizes after the listing operation, sampling weights must be used in all analyses of the 2018 TDHS results to ensure that survey results are representative at both the national and domain level. Thus, separate household and women weights were calculated for each of the 754 clusters. Women weights differed by marital status for each cluster.

There are two main components to the sampling weights in DHS surveys: One resulting from the probability of selection, and one from non-response. The first component is required because the design is not an equal
probability selection method; different units are selected with different probabilities. Weights are used to allow the units to represent their share of the population.

The idea behind the non-response correction is similar: If non-response is higher in some domains than others, then they will be under-estimated when making inference about the population. Thus units are multiplied by the inverse of the response rates in their domains.

Since the 2018 TDHS is a two-stage stratified cluster sample, sampling weights are based on sampling probabilities calculated separately for each sampling stage and for each cluster where:

$$
\begin{array}{ll}
P_{1 h i}: & \text { first-stage sampling probability of the } i^{t h} \text { cluster in stratum } h \\
P_{2 h i}: & \text { second-stage sampling probability within the } i^{t h} \text { cluster (households) }
\end{array}
$$

The following describes the calculation of these probabilities:
Let $a_{\mathrm{h}}$ be the number of clusters selected in stratum $h, M_{h i}$ the number of households according to the sampling frame in the $i^{\text {th }}$ cluster, and $\sum M_{h i}$ the total number of households in the stratum. The probability of selecting the $i^{\text {th }}$ cluster in stratum $h$ in the 2018 TDHS sample is calculated as follows:

$$
\frac{a_{h} M_{h i}}{\sum M_{h i}}
$$

Let $b_{h i}$ be the proportion of households in the selected segment compared with the total number of households in cluster $i$ in stratum $h$ if the cluster is segmented, otherwise $b_{h i}=1$. Then the probability of selecting cluster $i$ in the sample is:

$$
P_{l h i}=\frac{a_{h} M_{h i}}{\sum M_{h i}} \times b_{h i}
$$

Let $L_{h i}$ be the number of households listed in the household listing operation in cluster $i$ in stratum $h$ if the cluster was freshly listed, otherwise the number of households provided by TURKSTAT, and let $g_{h i}$ be the number of households selected in the cluster ( 21 households). The second stage's selection probability for each household in the cluster is calculated as follows:

$$
P_{2 h i}=\frac{g_{h i}}{L_{h i}}
$$

The overall selection probability of each household in cluster $i$ of stratum $h$ in the 2018 TDHS is therefore the product of the two stages' selection probabilities:

$$
P_{h i}=P_{1 h i} \times P_{2 h i}
$$

The design weight for each household in cluster $i$ of stratum $h$ is the inverse of its overall selection probability:

$$
W_{h i}=1 / P_{h i}
$$

Design weights are calculated first, for households and for women. The design weight is the inverse of the overall probability of selection of the unit (it is the same for households and women as no selection is made within households regarding women. All eligible women are interviewed with a probability of selection of 1).

A spreadsheet containing all sampling parameters and selection probabilities was prepared to facilitate the calculation of the design weights.

The second component taken into account in the calculation of the weights is the level of non-response for the household and the individual interviews. Non-response is adjusted at the stratum level; and for ever-married and never-married women separately. According to the DHS Sampling and Listing Manual prepared by The DHS Program, response rates used in the calculation of sample weights are also weighted by the design weight. The adjustment for household non-response is equal to the inverse value of:

$$
R_{h h}=\frac{\sum W_{h i} \times m_{h i}^{*}}{\sum W_{h i} \times m_{h i}}
$$

Where $m_{h i}^{*}$ is the number of households in cluster where interviews were possible, and $m_{h i}$ denotes the total number of eligible households in cluster.

Eligible households include households where interviews were completed, households where there were no household members or no competent respondents at home at time of visit, households where interviews were postponed and eventually not completed, refusals, and those dwellings that were not found by the fieldwork teams.

Similarly, individual level response rate by marital status for stratum $h$ is calculated as:

$$
\begin{aligned}
& R_{h}^{E M}=\frac{\sum W_{h i} \times k_{h i}^{E M *}}{\sum W_{h i} \times k_{h i}^{E M}} \\
& R_{h}^{N M}=\frac{\sum W_{h i} \times k_{h i}^{N M *}}{\sum W_{h i} \times k_{h i}^{N M}}
\end{aligned}
$$

Where $k_{h i}^{E M *}$ is the number of interviewed ever-married women in cluster, and $k_{h i}^{E M}$ denotes the total number of ever-married women in the cluster (NM stands for never-married women). The non-response adjustment was made for ever-married and never married women separately within each strata. The reason for this was the significantly higher level of non-response among never-married women. Ignoring this difference between women of different marital status would lead to an under-representation of never married women in the sample.

The weights for the 2018 TDHS also include an adjustment for missing clusters. The household weight was computed as follows:

$$
D_{h i}=\frac{W_{h i}}{\left(R_{c h} \times R_{h h}\right)}
$$

And the sampling weights for ever-married and never-married women were calculated by dividing the design weight by the non-response component for each group:

$$
\begin{aligned}
W_{h i}^{E M} & =\frac{W_{h i}}{\left(R_{c h} \times R_{h h} \times R_{h}^{E M}\right)} \\
W_{h i}^{N M} & =\frac{W_{h i}}{\left(R_{c h} \times R_{h h} \times R_{h}^{N M}\right)}
\end{aligned}
$$

Where $R_{c h}$ is the cluster level response rate in stratum h.
After the survey weights for the households $\left(D_{h i}\right)$ were calculated by multiplying their design weights by the non-response correction factors for each stratum; they were normalized by multiplying these weights by the ratio of the number of completed interviewed households to the total unadjusted weighted number of households. The normalization process is done to obtain a total number of unweighted cases equal to the number of weighted cases at the national level.

The final household weight is $H V 005_{h i}=D_{h i} \times \frac{\sum \sum m_{h i}^{*}}{\sum \sum D_{h i} \times m_{h i}^{*}}$
A similar normalization procedure was followed in obtaining the final weights for the individual women's data. However, it was not done separately for the two marital status groups, because the normalized weights are relative weights, separately normalized weights would not allow to calculate any women indicators for the two marital status together.

Therefore a combined normalization factor $(F W)$ was computed, that would preserve the marital distribution in the population, rather than that of the sample:

$$
F W=\frac{\sum \sum\left(k_{h i}^{E M *}+k_{h i}^{N M *}\right)}{\sum \sum W_{h i}^{E M} \times k_{h i}^{E M *}+\sum \sum W_{h i}^{N M} \times k_{h i}^{N M *}}
$$

And the weight for women is $V 005_{h i}=\left\{\begin{array}{c}W_{h i}^{E M} \times F W \text { if ever married } \\ W_{h i}^{N M} \times F W \text { if never married }\end{array}\right.$

The normalized household and individual weights are relative weights that are valid for estimating means, proportions, ratios, and rates, but they are not valid for estimating population totals or for pooled data.

## A. 5 Sample Implementation Results

Tables A. 4 presents response rates, for households and women, respectively, by residence (urban and rural) and 5 conventional regions, and Table A. 5 presents them for the NUTS 1 regions. The results indicate that, of the $15,775^{4}$ household selected, the TDHS fieldwork teams successfully completed interviews with 11,056 (a completion rate of $70 \%$ ). The main reasons that eligible households were not interviewed were that there is no competent respondent at home to answer the household questionnaire ( $9 \%$ ), some of the units were found to be vacant at the time of the interview ( $7 \%$ ), and refusals ( $8 \%$ ). A total of 13,982 households were located and visited, of which 11,056 households were successfully interviewed. Overall, the household response rate was calculated as $79 \%$.

The household response rate was higher in rural areas than in urban areas ( $9 \%$ and $74 \%$ respectively), and the highest in the East ( $87 \%$ ) and North regions ( $85 \%$ ). Among NUTS 1 regions, the household response rate was the lowest in İstanbul ( $61 \%$ ) and highest in Northeast Anatolia, Southeast Anatolia and East Black Sea (88\%).

[^25]In the interviewed households, 9,056 eligible women were identified, of whom $81 \%$ were interviewed. Among the number of eligible women not interviewed in the survey, the principal reason for non-response was the failure to find the woman at home after repeated visits to the household (11\%).

The overall response rate in the 2018 TDHS was calculated as $64 \%$. It ranged from $57 \%$ in the West region to $73 \%$ in the East region. The eligible women response rate was found as $79 \%$ in urban areas and $86 \%$ in rural areas, and it varied across five regions from $79 \%$ to $84 \%$. In terms of NUTS 1 regions, the overall response rates ranged from $50 \%$ in İstanbul to $75 \%$ in South East Anatolia.

The eligible woman response rate was higher in rural areas than urban areas ( $86 \%$ and $79 \%$ respectively), and it varied across the five regions from $78 \%$ to $84 \%$. The response rate for eligible women in West Anatolia ( $82 \%$ ) was the lowest among the NUTS 1 regions and highest in Southeast Anatolia (86\%) (Table A.5).

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- Table A. 1 Number of households in the sample frame
- Table A. 2 Survey strata, Turkey DHS 2018
- Table A. 3 Sample allocation of households and clusters
- Table A. 4 Sample implementation according to residence and region
- Table A. 5 Sample implementation according to NUTS-1 regions

Table A. 1 Number of households in the sample frame
The distribution of the number of households by 5 regions and NUTS 1 regions in the ABPRS as of February 2018, Turkey DHS 2018

|  | Percentage | Number of households |
| :--- | :---: | ---: |
| Region |  |  |
| West | 43.9 | $9,750,242$ |
| South | 12.7 | $2,810,869$ |
| Central | 22.4 | $4,981,525$ |
| North | 7.6 | $1,681,223$ |
| East | 13.4 | $2,982,917$ |
| NUTS 1 Region | 18.7 | $4,150,576$ |
| Istanbul | 5.1 | $1,142,618$ |
| West Marmara | 14.6 | $3,247,344$ |
| Aegean | 10.1 | $2,252,968$ |
| East Marmara | 10.4 | $2,315,556$ |
| West Anatolia | 12.7 | $2,810,869$ |
| Mediterranean | 5.0 | $1,120,898$ |
| Central Anatolia | 6.2 | $1,371,721$ |
| West Black Sea | 3.7 | 811,309 |
| East Black Sea | 2.3 | 504,287 |
| Northeast Anatolia | 3.8 | 835,401 |
| Central East Anatolia | 7.4 | $1,643,229$ |
| Southeast Anatolia |  |  |
| Total | 100.0 | $22,206,776$ |


| Table A.2 Survey strata, Turkey DHS 2018 |  |  |  |
| :--- | :--- | :--- | :--- |
| Stratum | Region | NUTS 1 Region | Province |
| 1 | West | İstanbul | İstanbul |
| 2 | West | West Marmara | Edirne, Kırklareli, Tekirdağ, Balıkesir, Çanakkale |
| 3 | West | Aegean | İzmir, Aydın, Denizli, Muğla, Manisa |
| 4 | Central | Aegean | Afyon, Kütahya, Uşak |
| 5 | West | East Marmara | Bursa, Kocaeli, Sakarya, Yalova |
| 6 | Central | East Marmara | Bilecik, Eskişehir, Bolu, Düzce |
| 7 | Central | West Anatolia | Ankara, Konya, Karaman |
|  |  |  | Adana, Antalya, Burdur, Isparta, Adana, İçel, Hatay, K. Maraş, |
| 8 | South | Mediterranean | Osmaniye |
| 9 | Central | Central Anatolia | Kırşehir, Nevşehir, Niğde, Aksaray, Kırıkkale, Kayseri, Sivas, Yozgat |
| 10 | North | West Black Sea | Zonguldak, Bartın, Karabük, Kastamonu, Sinop, Samsun |
| 11 | Central | West Black Sea | Çankırı, Amasya, Çorum, Tokat |
| 12 | North | East Black Sea | Artvin, Giresun, Gümüşhane, Ordu, Rize, Trabzon |
| 13 | East | Northeast Anatolia | Erzincan, Erzurum, Bayburt, Ağrı, Kars, Ardahan, Iğdır |
|  |  | Central East |  |
| 14 | East | Anatolia | Bingöl, Elazığ, Malatya, Tunceli, Bitlis, Hakkari, Muş, Van |
|  |  |  | Adıyaman, Gaziantep, Kilis, Diyarbakır, Şanlıurfa, Mardin, Siirt, Batman, |
| 15 | East | Southeast Anatolia | Şırnak |

## Table A. 3 Sample allocation of households and clusters

The allocation of the number of selected clusters and households by five regions and NUTS 1 regions, Turkey DHS 2018

|  | Percentage | Number of <br> households | Number of <br> clusters |
| :--- | ---: | :---: | ---: |
| Region | 35.3 | 5,586 |  |
| West | 11.9 | 1,890 | 266 |
| South | 20.2 | 3,192 | 90 |
| Central | 15.4 | 2,436 | 152 |
| North | 17.2 | 2,730 | 116 |
| East |  |  | 130 |
|  |  |  |  |
| NUTS 1 Region | 9.3 | 1,470 | 70 |
| Istanbul | 10.6 | 1,680 | 80 |
| West Marmara | 10.1 | 1,596 | 76 |
| Aegean | 8.8 | 1,386 | 66 |
| East Marmara | 8.0 | 1,260 | 60 |
| West Anatolia | 11.9 | 1,890 | 90 |
| Mediterranean | 6.6 | 1,050 | 50 |
| Central Anatolia | 8.8 | 1,386 | 66 |
| West Black Sea | 8.8 | 1,386 | 66 |
| East Black Sea | 5.3 | 840 | 40 |
| Northeast Anatolia | 5.3 | 840 | 40 |
| Central East Anatolia | 6.6 | 1,050 | 50 |
| Southeast Anatolia |  |  |  |
|  | 100.0 |  |  |
| Total |  |  |  |

## Table A. 4 Sample implementation according to residence and region

Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall women response rates, according to urban-rural residence and region (unweighted), Turkey DHS 2018

| Result | Residence |  | Region |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Urban | Rural | West | South | Central | North | East |  |
| Selected households |  |  |  |  |  |  |  |  |
| Completed (C) | 66.0 | 80.8 | 65.5 | 68.9 | 71.9 | 71.4 | 77.0 | 70.1 |
| Household present but no competent respondent at home (HP) | 10.5 | 5.0 | 13.0 | 6.1 | 8.9 | 6.4 | 5.2 | 9.0 |
| Postponed (P) | 1.3 | 0.2 | 1.8 | 1.7 | 0.5 | 0.1 | 0.3 | 1.0 |
| Refused (R) | 10.0 | 2.1 | 10.6 | 8.4 | 6.6 | 5.5 | 5.2 | 7.8 |
| Dwelling not found (DNF) | 0.8 | 0.2 | 0.5 | 0.8 | 0.6 | 0.3 | 1.2 | 0.6 |
| Household absent (HA) | 2.9 | 4.6 | 2.0 | 6.4 | 2.4 | 5.3 | 3.5 | 3.4 |
| Dwelling vacant/address not a dwelling (DV) | 6.7 | 6.0 | 5.5 | 5.7 | 7.4 | 8.6 | 6.3 | 6.5 |
| Dwelling destroyed (DD) | 0.7 | 0.1 | 0.5 | 0.5 | 0.4 | 0.3 | 0.7 | 0.5 |
| Partly completed (PC) | 0.2 | 0.0 | 0.1 | 0.1 | 0.2 | 0.2 | 0.0 | 0.1 |
| Other (O) | 0.9 | 1.0 | 0.6 | 1.3 | 1.0 | 1.9 | 0.6 | 1.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of sampled households | 11,420 | 4,355 | 5,534 | 1,890 | 3,193 | 2,440 | 2,718 | 15,775 |
| Household response rate (HRR) ${ }^{1}$ | 74.4 | 91.5 | 71.6 | 80.1 | 81.0 | 85.1 | 86.6 | 79.1 |
| Eligible women |  |  |  |  |  |  |  |  |
| Completed (EWC) | 79.4 | 85.8 | 78.9 | 82.2 | 80.1 | 81.1 | 84.2 | 81.1 |
| Not at home (EWNH) | 11.1 | 9.1 | 12.3 | 10.2 | 9.4 | 10.5 | 9.7 | 10.6 |
| Postponed (EWP) | 1.8 | 0.4 | 2.1 | 1.9 | 2.3 | 0.4 | 0.3 | 1.4 |
| Refused (EWR) | 5.6 | 1.6 | 4.5 | 3.8 | 6.0 | 4.8 | 3.6 | 4.5 |
| Partly completed (EWPC) | 0.5 | 0.5 | 0.3 | 0.6 | 0.5 | 0.6 | 0.7 | 0.5 |
| Other (EWO) | 1.5 | 2.6 | 1.8 | 1.3 | 1.8 | 2.6 | 1.6 | 1.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of women | 6,606 | 2,450 | 2,761 | 1,087 | 1,820 | 1,146 | 2,242 | 9,056 |
| Eligible women response rate (EWRR) ${ }^{2}$ | 79.4 | 85.8 | 78.9 | 82.2 | 80.1 | 81.1 | 84.2 | 81.1 |
| Overall women response rate (ORR) ${ }^{3}$ | 59.0 | 78.5 | 56.5 | 65.9 | 64.9 | 69.0 | 73.0 | 64.1 |

${ }^{1}$ Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$
\frac{C}{\mathrm{C}+\mathrm{HP}+\mathrm{P}+\mathrm{R}+\mathrm{DNF}+\mathrm{PC}}
$$

${ }^{2}$ The eligible women response rate (EWRR) is equivalent to the percentage of interviews completed (EWC).
${ }^{3}$ The overall response rate (ORR) is calculated as:

$$
\mathrm{ORR}=\mathrm{HRR} * \mathrm{EWRR}
$$

Table A. 5 Sample implementation according to NUTS 1 regions
Percent distribution of households and eligible women by results of the household and individual interviews, and household, eligible women and overall women response rates, according to NUTS 1 regions (unweighted), Turkey DHS 2018

| Result | NUTS 1 Regions |  |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Istanbul | West <br> Mar- <br> mara | Aegean | East Marmara | West <br> Anatolia | Mediterranean | Central <br> Anatolia | West Black Sea | East <br> Black <br> Sea | Northeast Anatolia | Central East Anatolia | Southeast Anatolia |  |
| Selected households |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Completed (C) | 56.9 | 73.0 | 66.0 | 67.9 | 70.0 | 68.9 | 73.4 | 71.1 | 71.6 | 76.2 | 75.6 | 78.8 | 70.1 |
| Household present but no competent respondent at home (HP) | 14.8 | 123 | 13.2 | 10.1 | 83 | 6.1 | 9.8 | 8.2 | 5.3 | 4.9 | 5.9 | 4.9 | 9.0 |
| Postponed (P) | 2.9 | 0.7 | 2.2 | 0.7 | 0.5 | 1.7 | 1.0 | 0.2 | 0.1 | 0.5 | 0.4 | 0.0 | 1.0 |
| Refused (R) | 17.9 | 6.0 | 7.9 | 9.2 | 9.4 | 8.4 | 5.4 | 6.0 | 4.4 | 4.9 | 6.6 | 4.3 | 7.8 |
| Dwelling not found (DNF) | 0.7 | 0.3 | 0.6 | 0.3 | 0.6 | 0.8 | 1.0 | 0.4 | 0.1 | 0.4 | 1.3 | 1.7 | 0.6 |
| Household absent (HA) | 1.0 | 3.1 | 2.2 | 2.0 | 1.3 | 6.4 | 4.2 | 1.4 | 7.9 | 2.6 | 4.3 | 3.6 | 3.4 |
| Dwelling vacant/address not a dwelling (DV) | 4.6 | 3.6 | 6.2 | 8.4 | 8.7 | 5.7 | 4.2 | 9.3 | 9.2 | 7.9 | 5.3 | 5.8 | 6.5 |
| Dwelling destroyed (DD) | 0.6 | 0.5 | 0.4 | 0.6 | 0.6 | 0.5 | 0.1 | 0.4 | 0.1 | 2.0 | 0.1 | 0.1 | 0.5 |
| Partly completed (PC) | 0.1 | 0.0 | 0.1 | 0.1 | 0.2 | 0.1 | 0.3 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.1 |
| Other (O) | 0.6 | 0.5 | 1.3 | 0.6 | 0.3 | 1.3 | 0.7 | 2.9 | 1.1 | 0.7 | 0.5 | 0.7 | 1.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of sampled households | 1,430 | 1,686 | 1,578 | 1,387 | 1,260 | 1,890 | 1,050 | 1,390 | 1,386 | 840 | 843 | 1,035 | 15,775 |
| Household response rate (HRR) ${ }^{1}$ | 60.9 | 79.1 | 73.4 | 76.8 | 78.6 | 80.1 | 80.8 | 82.6 | 87.6 | 87.8 | 84.1 | 87.7 | 79.1 |
| Eligible women |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Completed (EWC) | 81.4 | 79.3 | 77.2 | 79.1 | 72.0 | 82.2 | 87.1 | 83.0 | 80.2 | 83.2 | 83.4 | 85.5 | 81.1 |
| Not at home (EWNH) | 9.7 | 14.7 | 11.7 | 11.9 | 12.7 | 10.2 | 5.8 | 8.2 | 12.4 | 9.5 | 8.7 | 10.5 | 10.6 |
| Postponed (EWP) | 2.1 | 0.7 | 2.3 | 2.7 | 3.3 | 1.9 | 2.1 | 0.7 | 0.3 | 0.3 | 0.4 | 0.1 | 1.4 |
| Refused (EWR) | 5.2 | 3.7 | 5.9 | 3.7 | 10.2 | 3.8 | 2.1 | 5.5 | 3.4 | 4.8 | 4.2 | 2.3 | 4.5 |
| Partly completed (EWPC) | 0.7 | 0.1 | 0.3 | 0.3 | 0.5 | 0.6 | 0.3 | 0.7 | 0.6 | 0.6 | 1.3 | 0.2 | 0.5 |
| Other (EWO) | 0.9 | 1.5 | 2.7 | 2.4 | 1.2 | 1.3 | 2.5 | 1.9 | 3.1 | 1.6 | 1.9 | 1.4 | 1.8 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Number of women | 746 | 805 | 709 | 764 | 753 | 1,087 | 606 | 723 | 621 | 631 | 688 | 923 | 9,056 |
| Eligible women response rate (EWRR) ${ }^{1}$ | 81.4 | 79.3 | 77.2 | 79.1 | 72.0 | 82.2 | 87.1 | 83.0 | 80.2 | 83.2 | 83.4 | 85.5 | 81.1 |
| Overall women response rate (ORR) ${ }^{1}$ | 49.6 | 62.7 | 56.6 | 60.7 | 56.6 | 65.9 | 70.4 | 68.6 | 70.3 | 73.0 | 70.2 | 75.0 | 64.1 |

[^26]The estimates from a sample survey are affected by two types of errors: nonsampling errors and sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data processing errors. Although numerous efforts were made during the implementation of the 2018 Turkey Demographic and Health Survey 2018 TDHS to minimize this type of error, nonsampling errors are impossible to avoid and difficult to evaluate statistically.

Sampling errors, on the other hand, can be evaluated statistically. The sample of respondents selected in the 2018 TDHS is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability among all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

Sampling error is usually measured in terms of the standard error for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in $95 \%$ of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the 2018 TDHS sample is the result of a multi-stage stratified design, and, consequently, it was necessary to use more complex formulas. Sampling errors are computed by SAS programs developed by ICF. These programs use the Taylor linearization method to estimate variances for survey estimates that are means, proportions, or ratios. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r=y / x$, where $y$ represents the total sample value for variable $y$, and $x$ represents the total number of cases in the group or subgroup under consideration. The variance of $r$ is computed using the formula given below, with the standard error being the square root of the variance:

$$
S E^{2}(r)=\operatorname{var}(r)=\frac{1-f}{x^{2}} \sum_{h=1}^{H}\left[\frac{m_{h}}{m_{h}-1}\left(\sum_{i=1}^{m_{h}} z_{h i}^{2}-\frac{z_{h}^{2}}{m_{h}}\right)\right]
$$

in which

$$
z_{h i}=y_{h i}-r x_{h i}, \text { and } z_{h}=y_{h}-r x_{h}
$$

where $h \quad$ represents the stratum which varies from 1 to $H$,
$m_{h} \quad$ is the total number of clusters selected in the $h^{\text {th }}$ stratum,
$y_{h i} \quad$ is the sum of the weighted values of variable $y$ in the $i^{\text {th }}$ cluster in the $h^{\text {th }}$ stratum,
$x_{h i} \quad$ is the sum of the weighted number of cases in the $i^{\text {th }}$ cluster in the $h^{\text {th }}$ stratum, and
$f \quad$ is the overall sampling fraction, which is so small that it is ignored.
The stratum variable used in the calculation of the standard errors of selected indicators in 2018 TDHS is the variable V022, which denotes implicit strata. These strata are composed of two to three clusters, based on geographical proximity of consecutive clusters within a design stratum, as explained in detail in Appendix A.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulas. Each replication considers all but one cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the 2018 TDHS there were 750 non-empty clusters. Hence, 750 replications were created. The variance of a rate $r$ is calculated as follows:

$$
S E^{2}(r)=\operatorname{var}(r)=\frac{1}{k(k-1)} \sum_{i=1}^{k}\left(r_{i}-r\right)^{2}
$$

in which

$$
r_{i}=k r-(k-1) r_{(i)}
$$

where $r$ is the estimate computed from the full sample of 750 clusters, $r_{(i)} \quad$ is the estimate computed from the reduced sample of 749 clusters ( $i^{\text {th }}$ cluster excluded), and $k \quad$ is the total number of clusters.

In addition to the standard error, the design effect (DEFT) for each estimate is also calculated. The design effect is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. Relative standard errors and confidence limits for the estimates are also calculated.

Sampling errors for the 2018 TDHS are calculated for selected variables considered to be of primary interest. The results are presented in this appendix for the country as a whole, for urban and rural areas, for five demographic regions, and for 12 NUTS 1 regions. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table B.1. Tables B. 2 through B. 21 present the value of the statistic $(\mathrm{R})$, its standard error (SE), the number of unweighted ( N ) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the $95 \%$ confidence limits ( $\mathrm{R} \pm 2 \mathrm{SE}$ ), for each variable. The DEFT is considered undefined when the standard error considering a simple random sample is zero (when the estimate is close to 0 or 1 ).

The confidence interval (e.g., as calculated for children ever born to women age 40-49) can be interpreted as follows: the overall average number of children ever born to women age 40-49 from the national sample is 2.710 and its standard error is 0.052 . Therefore, to obtain the $95 \%$ confidence limits, one adds and subtracts twice (approximate $t$-table value for $95 \%$ confidence level) the standard error to the sample estimate, i.e., $2.710 \pm 2 \times 0.052$. There is a high probability ( $95 \%$ ) that the true average number of children ever born to all women age 40 to 49 is between 2.605 and 2.815 .

For the total sample, the value of the DEFT, averaged over all variables in Table C.1, is 1.25 . This means that, due to multi-stage clustering of the sample, the average standard error is increased by a factor of 1.25 over that in an equivalent simple random sample.

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- Table B. 20 Sampling errors, Central East Anatolia, Turkey DHS 2018
- Table B. 21 Sampling errors, South East Anatolia, Turkey DHS 2018

Table B. 1 List of indicators for sampling errors, Turkey DHS 2018

| Variable | Estimate | Base Population |
| :---: | :---: | :---: |
| Urban residence | Proportion | All women 15-49 |
| Literate | Proportion | All women 15-49 |
| No education/primary school incomplete | Proportion | All women 15-49 |
| Secondary school or higher | Proportion | All women 15-49 |
| Never married | Proportion | All women 15-49 |
| Currently married/in union | Proportion | All women 15-49 |
| Married before age 20 | Proportion | All women 20-49 |
| Currently pregnant | Proportion | All women 15-49 |
| Children ever born | Mean | All women 15-49 |
| Children ever born to women over 40 | Mean | All women 40-49 |
| Children surviving | Mean | All women 15-49 |
| Knowing any contraceptive method | Proportion | Currently married women 15-49 |
| Knowing any modern contraceptive method | Proportion | Currently married women 15-49 |
| Ever used any contraceptive method | Proportion | Currently married women 15-49 |
| Currently using any method | Proportion | Currently married women 15-49 |
| Currently using a modern method | Proportion | Currently married women 15-49 |
| Currently using pill | Proportion | Currently married women 15-49 |
| Currently using IUD | Proportion | Currently married women 15-49 |
| Currently using male condoms | Proportion | Currently married women 15-49 |
| Currently using injectables | Proportion | Currently married women 15-49 |
| Currently using female sterilization | Proportion | Currently married women 15-49 |
| Currently using withdrawal | Proportion | Currently married women 15-49 |
| Currently using periodic abstinence | Proportion | Currently married women 15-49 |
| Using public sector source | Proportion | Current users of modern methods |
| Want no more children | Proportion | Currently married women 15-49 |
| Want to delay at least 2 years | Proportion | Currently married women 15-49 |
| Ideal number of children | Mean | All women 15-49 with numeric responses |
| Mothers received antenatal care for last birth | Proportion | Women with a birth in last five years |
| Tetanus injections at last ANC visit | Proportion | Women who received ANC for the last birth in last 5 years |
| Births with skilled attendant at delivery | Proportion | Births occurring 1-59 months before survey |
| Vaccination card seen | Proportion | Children 12-23 months |
| Received BCG vaccination | Proportion | Children 12-23 months |
| Received TDAP-IPV-HIB vacc. (3 doses) | Proportion | Children 12-23 months |
| Received Hepatitis B vaccination (3 doses) | Proportion | Children 12-23 months |
| Received 1st dose of polio vaccination | Proportion | Children 12-23 months |
| Received 2nd dose of polio vaccination | Proportion | Children 24-35 months |
| Received pneumoccocal vaccination (3 doses) | Proportion | Children 12-23 months |
| Received Hepatitis A vaccination (2 doses) | Proportion | Children 24-35 months |
| Received chickenpox/variacella vaccination | Proportion | Children 24-35 months |
| Received MMR vaccination | Proportion | Children 24-35 months |
| Received all basic vaccinations | Proportion | Children 24-35 months |
| Received all age appropriate vaccinations (12-23 months) | Proportion | Children 12-23 months |
| Received all age appropriate vaccinations (24-35 months) | Proportion | Children 24-35 months |
| Height-for-age (-2SD) | Proportion | Children under 5 who were measured |
| Weight-for-height (-2SD) | Proportion | Children under 5 who were measured |
| Height-for-age (-2SD) | Proportion | Children under 5 who were measured |
| Body Mass Index (BMI) < 18.5 | Proportion | All women 15-49 who were measured (except for those who are pregnant or gave birth in the past 2 months) |
| Body Mass Index (BMI) $\geq 25.0$ | Proportion | All women 15-49 who were measured (except for those who are pregnant or gave birth in the past 2 months) |
| Total fertility rate (3 years) | Rate | Women-years of exposure to childbearing |

Table B. 2 Sampling errors, Turkey DHS 2018

| Variable | Value (R) | Standard Error (SE) | Number of cases |  | Design Effect (DEFT) | $\begin{aligned} & \hline \text { Relative } \\ & \text { Error } \\ & \text { (SE/R) } \\ & \hline \end{aligned}$ | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted <br> (N) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 0.782 | 0.016 | 7346 | 7346 | 3.288 | 0.020 | 0.750 | 0.814 |
| Literate | 0.942 | 0.004 | 7346 | 7346 | 1.463 | 0.004 | 0.934 | 0.950 |
| No education/primary school incomplete | 0.092 | 0.006 | 7346 | 7346 | 1.640 | 0.060 | 0.081 | 0.103 |
| Secondary school or higher | 0.616 | 0.008 | 7346 | 7346 | 1.335 | 0.012 | 0.601 | 0.632 |
| Never married | 0.300 | 0.007 | 7346 | 7346 | 1.298 | 0.023 | 0.286 | 0.314 |
| Currently married/in union | 0.656 | 0.007 | 7346 | 7346 | 1.298 | 0.011 | 0.642 | 0.670 |
| Married before age 20 | 0.367 | 0.008 | 6334 | 6183 | 1.355 | 0.022 | 0.350 | 0.383 |
| Currently pregnant | 0.037 | 0.003 | 7346 | 7346 | 1.151 | 0.069 | 0.032 | 0.042 |
| Children ever born | 1.640 | 0.024 | 7346 | 7346 | 1.206 | 0.014 | 1.593 | 1.687 |
| Children ever born to women over 40 | 2.710 | 0.052 | 2027 | 1943 | 1.335 | 0.019 | 2.605 | 2.815 |
| Children surviving | 1.583 | 0.022 | 7346 | 7346 | 1.200 | 0.014 | 1.538 | 1.627 |
| Knowing any contraceptive method | 0.995 | 0.001 | 5156 | 4820 | 1.085 | 0.001 | 0.993 | 0.998 |
| Knowing any modern contraceptive method | 0.994 | 0.001 | 5156 | 4820 | 1.057 | 0.001 | 0.992 | 0.997 |
| Ever used any contraceptive method | 0.896 | 0.005 | 5156 | 4820 | 1.175 | 0.006 | 0.886 | 0.906 |
| Currently using any method | 0.698 | 0.007 | 5156 | 4820 | 1.116 | 0.010 | 0.684 | 0.713 |
| Currently using a modern method | 0.489 | 0.009 | 5156 | 4820 | 1.298 | 0.018 | 0.471 | 0.507 |
| Currently using pill | 0.048 | 0.003 | 5156 | 4820 | 1.055 | 0.066 | 0.041 | 0.054 |
| Currently using IUD | 0.137 | 0.006 | 5156 | 4820 | 1.233 | 0.043 | 0.125 | 0.149 |
| Currently using male condoms | 0.191 | 0.007 | 5156 | 4820 | 1.230 | 0.035 | 0.177 | 0.204 |
| Currently using injectables | 0.010 | 0.002 | 5156 | 4820 | 1.131 | 0.158 | 0.007 | 0.013 |
| Currently using female sterilization | 0.104 | 0.005 | 5156 | 4820 | 1.251 | 0.051 | 0.093 | 0.114 |
| Currently using withdrawal | 0.204 | 0.007 | 5156 | 4820 | 1.231 | 0.034 | 0.190 | 0.218 |
| Currently using periodic abstinence | 0.004 | 0.001 | 5156 | 4820 | 1.370 | 0.310 | 0.001 | 0.006 |
| Using public sector source | 0.526 | 0.013 | 2517 | 2425 | 1.259 | 0.024 | 0.501 | 0.551 |
| Want no more children | 0.629 | 0.009 | 5156 | 4820 | 1.277 | 0.014 | 0.612 | 0.646 |
| Want to delay at least 2 years | 0.140 | 0.006 | 5156 | 4820 | 1.282 | 0.044 | 0.128 | 0.152 |
| Ideal number of children | 2.777 | 0.022 | 7291 | 7290 | 1.386 | 0.008 | 2.733 | 2.821 |
| Mothers received antenatal care for last birth | 0.964 | 0.005 | 2168 | 2032 | 1.133 | 0.005 | 0.955 | 0.973 |
| Tetanus injections at last ANC visit | 0.809 | 0.012 | 2098 | 1960 | 1.387 | 0.015 | 0.786 | 0.833 |
| Births with skilled attendant at delivery | 0.992 | 0.001 | 2755 | 2568 | 0.748 | 0.001 | 0.990 | 0.995 |
| Vaccination card seen | 0.694 | 0.025 | 502 | 451 | 1.160 | 0.035 | 0.645 | 0.743 |
| Received BCG vaccination | 0.926 | 0.012 | 502 | 451 | 0.988 | 0.013 | 0.901 | 0.951 |
| Received TDAP-IPV-HIB vacc. (3 doses) | 0.788 | 0.021 | 502 | 451 | 1.092 | 0.026 | 0.747 | 0.830 |
| Received Hepatitis $B$ vaccination (3 doses) | 0.808 | 0.019 | 502 | 451 | 1.034 | 0.023 | 0.771 | 0.846 |
| Received 1st dose of polio vaccination | 0.897 | 0.017 | 502 | 451 | 1.215 | 0.019 | 0.863 | 0.932 |
| Received 2nd dose of polio vaccination | 0.690 | 0.024 | 532 | 495 | 1.196 | 0.035 | 0.641 | 0.739 |
| Received pneumoccocal vaccination (3 doses) | 0.751 | 0.023 | 502 | 451 | 1.132 | 0.030 | 0.706 | 0.796 |
| Received Hepatitis A vaccination (2 doses) | 0.642 | 0.025 | 532 | 495 | 1.208 | 0.040 | 0.591 | 0.693 |
| Received chickenpox/variacella |  |  |  |  |  |  |  |  |
| vaccination | 0.900 | 0.015 | 532 | 495 | 1.157 | 0.017 | 0.870 | 0.931 |
| Received MMR vaccination | 0.943 | 0.011 | 532 | 495 | 1.113 | 0.012 | 0.920 | 0.965 |
| Received all basic vaccinations | 0.718 | 0.024 | 532 | 495 | 1.201 | 0.033 | 0.671 | 0.766 |
| Received all age appropriate vaccinations (12-23 months) | 0.669 | 0.025 | 502 | 451 | 1.137 | 0.037 | 0.620 | 0.719 |
| Received all age appropriate vaccinations (24-35 months) | 0.496 | 0.028 | 532 | 495 | 1.253 | 0.056 | 0.440 | 0.551 |
| Height-for-age (-2SD) | 0.060 | 0.006 | 2102 | 1950 | 1.166 | 0.106 | 0.047 | 0.072 |
| Weight-for-height (-2SD) | 0.017 | 0.003 | 2090 | 1935 | 1.099 | 0.205 | 0.010 | 0.024 |
| Weight-for-age (-2SD) | 0.015 | 0.003 | 2174 | 2015 | 1.057 | 0.185 | 0.009 | 0.020 |
| Body Mass Index (BMI) < 18.5 | 0.039 | 0.003 | 6377 | 6362 | 1.225 | 0.076 | 0.033 | 0.045 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.593 | 0.008 | 6377 | 6362 | 1.237 | 0.013 | 0.578 | 0.609 |
| Total fertility rate (3 years) | 2.334 | 0.080 | 21182 | 21025 | 1.316 | 0.034 | 2.175 | 2.493 |

Table B. 3 Sampling errors, Urban, Turkey DHS 2018

| Variable | Value (R) | Standard Error (SE) | Number of cases |  | Design Effect (DEFT) | Relative Error (SE/R) | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted (N) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 1.000 | 0.000 | 5245 | 5744 |  | 0.000 | 1.000 | 1.000 |
| Literate | 0.953 | 0.004 | 5245 | 5744 | 1.328 | 0.004 | 0.946 | 0.961 |
| No education/primary school incomplete | 0.079 | 0.005 | 5245 | 5744 | 1.456 | 0.069 | 0.068 | 0.090 |
| Secondary school or higher | 0.654 | 0.008 | 5245 | 5744 | 1.239 | 0.012 | 0.638 | 0.671 |
| Never married | 0.300 | 0.008 | 5245 | 5744 | 1.185 | 0.025 | 0.285 | 0.315 |
| Currently married/in union | 0.652 | 0.008 | 5245 | 5744 | 1.179 | 0.012 | 0.636 | 0.667 |
| Married before age 20 | 0.342 | 0.009 | 4555 | 4864 | 1.263 | 0.026 | 0.324 | 0.359 |
| Currently pregnant | 0.037 | 0.003 | 5245 | 5744 | 1.065 | 0.075 | 0.032 | 0.043 |
| Children ever born | 1.545 | 0.023 | 5245 | 5744 | 1.063 | 0.015 | 1.499 | 1.591 |
| Children ever born to women over 40 | 2.586 | 0.054 | 1407 | 1496 | 1.236 | 0.021 | 2.478 | 2.693 |
| Children surviving | 1.496 | 0.022 | 5245 | 5744 | 1.063 | 0.015 | 1.452 | 1.539 |
| Knowing any contraceptive method | 0.996 | 0.001 | 3661 | 3743 | 1.025 | 0.001 | 0.994 | 0.998 |
| Knowing any modern contraceptive method | 0.995 | 0.001 | 3661 | 3743 | 1.013 | 0.001 | 0.993 | 0.997 |
| Ever used any contraceptive method | 0.900 | 0.005 | 3661 | 3743 | 1.105 | 0.006 | 0.889 | 0.911 |
| Currently using any method | 0.694 | 0.008 | 3661 | 3743 | 1.058 | 0.012 | 0.678 | 0.710 |
| Currently using a modern method | 0.499 | 0.010 | 3661 | 3743 | 1.231 | 0.020 | 0.479 | 0.520 |
| Currently using pill | 0.051 | 0.004 | 3661 | 3743 | 0.981 | 0.070 | 0.044 | 0.058 |
| Currently using IUD | 0.140 | 0.006 | 3661 | 3743 | 1.132 | 0.046 | 0.127 | 0.153 |
| Currently using male condoms | 0.206 | 0.008 | 3661 | 3743 | 1.155 | 0.037 | 0.191 | 0.222 |
| Currently using injectables | 0.010 | 0.002 | 3661 | 3743 | 1.087 | 0.177 | 0.007 | 0.014 |
| Currently using female sterilization | 0.092 | 0.006 | 3661 | 3743 | 1.236 | 0.064 | 0.080 | 0.104 |
| Currently using withdrawal | 0.188 | 0.007 | 3661 | 3743 | 1.137 | 0.039 | 0.174 | 0.203 |
| Currently using periodic abstinence | 0.005 | 0.002 | 3661 | 3743 | 1.312 | 0.310 | 0.002 | 0.008 |
| Using public sector source | 0.491 | 0.014 | 1860 | 1934 | 1.209 | 0.029 | 0.463 | 0.519 |
| Want no more children | 0.622 | 0.010 | 3661 | 3743 | 1.221 | 0.016 | 0.602 | 0.642 |
| Want to delay at least 2 years | 0.143 | 0.007 | 3661 | 3743 | 1.186 | 0.048 | 0.129 | 0.156 |
| Ideal number of children | 2.724 | 0.023 | 5206 | 5705 | 1.229 | 0.008 | 2.678 | 2.769 |
| Mothers received antenatal care for last birth | 0.963 | 0.005 | 1551 | 1560 | 1.031 | 0.005 | 0.953 | 0.973 |
| Tetanus injections at last ANC visit | 0.804 | 0.014 | 1500 | 1503 | 1.380 | 0.018 | 0.776 | 0.833 |
| Births with skilled attendant at delivery | 0.997 | 0.001 | 1921 | 1931 | 0.774 | 0.001 | 0.994 | 0.999 |
| Vaccination card seen | 0.712 | 0.029 | 345 | 332 | 1.126 | 0.040 | 0.655 | 0.769 |
| Received BCG vaccination | 0.925 | 0.014 | 345 | 332 | 0.903 | 0.015 | 0.897 | 0.954 |
| Received TDAP-IPV-HIB vacc. (3 doses) | 0.806 | 0.023 | 345 | 332 | 1.033 | 0.029 | 0.759 | 0.852 |
| Received Hepatitis B vaccination (3 doses) | 0.828 | 0.020 | 345 | 332 | 0.948 | 0.024 | 0.788 | 0.869 |
| Received 1st dose of polio vaccination | 0.904 | 0.020 | 345 | 332 | 1.194 | 0.022 | 0.864 | 0.945 |
| Received 2nd dose of polio vaccination | 0.696 | 0.027 | 375 | 383 | 1.114 | 0.039 | 0.642 | 0.750 |
| Received pneumoccocal vaccination (3 doses) | 0.766 | 0.026 | 345 | 332 | 1.089 | 0.034 | 0.714 | 0.817 |
| Received Hepatitis A vaccination (2 doses) | 0.650 | 0.030 | 375 | 383 | 1.182 | 0.045 | 0.591 | 0.709 |
| Received chickenpox/variacella |  |  |  |  |  |  |  |  |
| vaccination | 0.915 | 0.015 | 375 | 383 | 1.060 | 0.017 | 0.884 | 0.946 |
| Received MMR vaccination | 0.953 | 0.011 | 375 | 383 | 1.036 | 0.012 | 0.930 | 0.975 |
| Received all basic vaccinations | 0.731 | 0.027 | 375 | 383 | 1.153 | 0.037 | 0.678 | 0.785 |
| Received all age appropriate vaccinations (12-23 months) | 0.666 | 0.028 | 345 | 332 | 1.037 | 0.041 | 0.610 | 0.721 |
| Received all age appropriate vaccinations (24-35 months) | 0.501 | 0.032 | 375 | 383 | 1.201 | 0.063 | 0.438 | 0.564 |
| Height-for-age (-2SD) | 0.054 | 0.007 | 1461 | 1466 | 1.175 | 0.137 | 0.039 | 0.069 |
| Weight-for-height (-2SD) | 0.016 | 0.004 | 1454 | 1460 | 0.964 | 0.231 | 0.008 | 0.023 |
| Weight-for-age (-2SD) | 0.014 | 0.003 | 1512 | 1518 | 0.966 | 0.211 | 0.008 | 0.020 |
| Body Mass Index (BMI) <18.5 | 0.041 | 0.003 | 4488 | 4942 | 1.081 | 0.078 | 0.035 | 0.047 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.584 | 0.008 | 4488 | 4942 | 1.129 | 0.014 | 0.567 | 0.600 |
| Total fertility rate (3 years) | 2.217 | 0.087 | 15168 | 16486 | 1.218 | 0.039 | 2.043 | 2.390 |

Note: The calculations done for urban and rural areas assume that the type of place of residence variable was a design variable.

Table B. 4 Sampling errors, Rural, Turkey DHS 2018

|  |  |  |  |  | Relative | Confidence limits |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |

Note: The calculations done for urban and rural areas assume that the type of place of residence variable was a design variable.

Table B. 5 Sampling errors, West, Turkey DHS 2018

| Variable | Value <br> (R) | Standard Error (SE) | Number of cases |  | Design Effect (DEFT) | Relative Error (SE/R) | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted <br> (N) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 0.878 | 0.023 | 2178 | 3203 | 3.313 | 0.027 | 0.831 | 0.925 |
| Literate | 0.963 | 0.006 | 2178 | 3203 | 1.507 | 0.006 | 0.951 | 0.976 |
| No education/primary school incomplete | 0.062 | 0.008 | 2178 | 3203 | 1.508 | 0.125 | 0.047 | 0.078 |
| Secondary school or higher | 0.654 | 0.012 | 2178 | 3203 | 1.222 | 0.019 | 0.629 | 0.679 |
| Never married | 0.289 | 0.013 | 2178 | 3203 | 1.298 | 0.044 | 0.264 | 0.314 |
| Currently married/in union | 0.654 | 0.013 | 2178 | 3203 | 1.279 | 0.020 | 0.628 | 0.680 |
| Married before age 20 | 0.338 | 0.014 | 1926 | 2746 | 1.321 | 0.042 | 0.310 | 0.367 |
| Currently pregnant | 0.035 | 0.004 | 2178 | 3203 | 0.984 | 0.111 | 0.027 | 0.042 |
| Children ever born | 1.439 | 0.035 | 2178 | 3203 | 1.171 | 0.024 | 1.369 | 1.509 |
| Children ever born to women over 40 | 2.313 | 0.074 | 669 | 916 | 1.335 | 0.032 | 2.165 | 2.461 |
| Children surviving | 1.396 | 0.034 | 2178 | 3203 | 1.186 | 0.024 | 1.328 | 1.463 |
| Knowing any contraceptive method | 0.997 | 0.001 | 1540 | 2095 | 1.013 | 0.001 | 0.994 | 1.000 |
| Knowing any modern contraceptive method | 0.996 | 0.001 | 1540 | 2095 | 0.911 | 0.001 | 0.993 | 0.999 |
| Ever used any contraceptive method | 0.909 | 0.008 | 1540 | 2095 | 1.156 | 0.009 | 0.892 | 0.926 |
| Currently using any method | 0.700 | 0.012 | 1540 | 2095 | 1.008 | 0.017 | 0.677 | 0.724 |
| Currently using a modern method | 0.497 | 0.015 | 1540 | 2095 | 1.185 | 0.030 | 0.467 | 0.528 |
| Currently using pill | 0.052 | 0.005 | 1540 | 2095 | 0.899 | 0.098 | 0.042 | 0.062 |
| Currently using IUD | 0.129 | 0.009 | 1540 | 2095 | 1.086 | 0.072 | 0.111 | 0.148 |
| Currently using male condoms | 0.210 | 0.012 | 1540 | 2095 | 1.135 | 0.056 | 0.186 | 0.233 |
| Currently using injectables | 0.011 | 0.003 | 1540 | 2095 | 1.110 | 0.267 | 0.005 | 0.017 |
| Currently using female sterilization | 0.095 | 0.010 | 1540 | 2095 | 1.330 | 0.105 | 0.075 | 0.115 |
| Currently using withdrawal | 0.196 | 0.011 | 1540 | 2095 | 1.112 | 0.057 | 0.173 | 0.218 |
| Currently using periodic abstinence | 0.006 | 0.002 | 1540 | 2095 | 1.212 | 0.384 | 0.001 | 0.011 |
| Using public sector source | 0.445 | 0.021 | 788 | 1088 | 1.198 | 0.048 | 0.402 | 0.487 |
| Want no more children | 0.639 | 0.016 | 1540 | 2095 | 1.320 | 0.025 | 0.606 | 0.671 |
| Want to delay at least 2 years | 0.131 | 0.011 | 1540 | 2095 | 1.309 | 0.086 | 0.108 | 0.153 |
| Ideal number of children | 2.581 | 0.030 | 2171 | 3190 | 1.155 | 0.012 | 2.522 | 2.641 |
| Mothers received antenatal care for last birth | 0.959 | 0.008 | 587 | 827 | 1.028 | 0.009 | 0.942 | 0.975 |
| Tetanus injections at last ANC visit | 0.827 | 0.024 | 563 | 793 | 1.541 | 0.029 | 0.779 | 0.875 |
| Births with skilled attendant at delivery | 0.999 | 0.001 | 691 | 990 | 0.585 | 0.001 | 0.997 | 1.001 |
| Vaccination card seen | 0.715 | 0.054 | 108 | 150 | 1.249 | 0.075 | 0.608 | 0.822 |
| Received BCG vaccination | 0.940 | 0.025 | 108 | 150 | 1.095 | 0.026 | 0.891 | 0.989 |
| Received TDAP-IPV-HIB vacc. (3 doses) | 0.840 | 0.043 | 108 | 150 | 1.225 | 0.051 | 0.755 | 0.925 |
| Received Hepatitis B vaccination (3 doses) | 0.810 | 0.038 | 108 | 150 | 1.031 | 0.047 | 0.733 | 0.887 |
| Received 1st dose of polio vaccination | 0.912 | 0.038 | 108 | 150 | 1.417 | 0.042 | 0.836 | 0.988 |
| Received 2nd dose of polio vaccination Received pneumoccocal vaccination (3 | 0.688 | 0.046 | 141 | 197 | 1.181 | 0.067 | 0.596 | 0.779 |
| doses) | 0.784 | 0.048 | 108 | 150 | 1.218 | 0.061 | 0.689 | 0.879 |
| Received Hepatitis A vaccination (2 doses) | 0.680 | 0.048 | 141 | 197 | 1.218 | 0.070 | 0.585 | 0.775 |
| Received chickenpox/variacella vaccination | 0.890 | 0.031 | 141 | 197 | 1.173 | 0.034 | 0.829 | 0.951 |
| Received MMR vaccination | 0.942 | 0.024 | 141 | 197 | 1.216 | 0.025 | 0.894 | 0.989 |
| Received all basic vaccinations | 0.805 | 0.040 | 141 | 197 | 1.207 | 0.049 | 0.726 | 0.885 |
| Received all age appropriate vaccinations (12-23 months) | 0.702 | 0.052 | 108 | 150 | 1.189 | 0.074 | 0.599 | 0.806 |
| Received all age appropriate vaccinations (24-35 months) | 0.547 | 0.048 | 141 | 197 | 1.153 | 0.088 | 0.450 | 0.644 |
| Height-for-age (-2SD) | 0.037 | 0.009 | 528 | 764 | 1.093 | 0.252 | 0.018 | 0.055 |
| Weight-for-height (-2SD) | 0.008 | 0.005 | 526 | 760 | 1.200 | 0.564 | 0.000 | 0.017 |
| Weight-for-age (-2SD) | 0.011 | 0.005 | 542 | 786 | 1.051 | 0.413 | 0.002 | 0.020 |
| Body Mass Index (BMI) < 18.5 | 0.042 | 0.005 | 1916 | 2822 | 1.147 | 0.125 | 0.032 | 0.053 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.588 | 0.013 | 1916 | 2822 | 1.151 | 0.022 | 0.562 | 0.614 |
| Total fertility rate (3 years) | 2.028 | 0.123 | 6332 | 9233 | 1.284 | 0.061 | 1.782 | 2.273 |

Table B. 6 Sampling errors, South, Turkey DHS 2018

| Variable | Value <br> (R) | Standard Error (SE) | Number of cases |  | Design Effect (DEFT) | Relative Error (SE/R) | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted <br> (N) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 0.675 | 0.061 | 894 | 914 | 3.874 | 0.091 | 0.553 | 0.798 |
| Literate | 0.946 | 0.009 | 894 | 914 | 1.205 | 0.010 | 0.927 | 0.964 |
| No education/primary school incomplete | 0.082 | 0.013 | 894 | 914 | 1.381 | 0.155 | 0.056 | 0.107 |
| Secondary school or higher | 0.574 | 0.019 | 894 | 914 | 1.122 | 0.032 | 0.537 | 0.611 |
| Never married | 0.291 | 0.016 | 894 | 914 | 1.084 | 0.057 | 0.258 | 0.324 |
| Currently married/in union | 0.675 | 0.018 | 894 | 914 | 1.147 | 0.027 | 0.639 | 0.711 |
| Married before age 20 | 0.390 | 0.020 | 779 | 771 | 1.140 | 0.051 | 0.351 | 0.430 |
| Currently pregnant | 0.045 | 0.010 | 894 | 914 | 1.413 | 0.218 | 0.025 | 0.064 |
| Children ever born | 1.773 | 0.070 | 894 | 914 | 1.225 | 0.039 | 1.634 | 1.912 |
| Children ever born to women over 40 | 2.646 | 0.141 | 275 | 268 | 1.352 | 0.053 | 2.363 | 2.928 |
| Children surviving | 1.715 | 0.063 | 894 | 914 | 1.166 | 0.037 | 1.589 | 1.841 |
| Knowing any contraceptive method | 0.993 | 0.004 | 649 | 617 | 1.110 | 0.004 | 0.985 | 1.000 |
| Knowing any modern contraceptive method | 0.993 | 0.004 | 649 | 617 | 1.110 | 0.004 | 0.985 | 1.000 |
| Ever used any contraceptive method | 0.868 | 0.014 | 649 | 617 | 1.025 | 0.016 | 0.841 | 0.895 |
| Currently using any method | 0.647 | 0.019 | 649 | 617 | 1.001 | 0.029 | 0.609 | 0.684 |
| Currently using a modern method | 0.470 | 0.024 | 649 | 617 | 1.231 | 0.051 | 0.422 | 0.518 |
| Currently using pill | 0.049 | 0.010 | 649 | 617 | 1.168 | 0.202 | 0.029 | 0.069 |
| Currently using IUD | 0.129 | 0.014 | 649 | 617 | 1.096 | 0.112 | 0.100 | 0.158 |
| Currently using male condoms | 0.146 | 0.013 | 649 | 617 | 0.942 | 0.089 | 0.120 | 0.173 |
| Currently using injectables | 0.013 | 0.004 | 649 | 617 | 0.796 | 0.269 | 0.006 | 0.021 |
| Currently using female sterilization | 0.132 | 0.012 | 649 | 617 | 0.896 | 0.090 | 0.109 | 0.156 |
| Currently using withdrawal | 0.177 | 0.017 | 649 | 617 | 1.142 | 0.097 | 0.142 | 0.211 |
| Currently using periodic abstinence | 0.000 | 0.000 | 649 | 617 |  |  | 0.000 | 0.000 |
| Using public sector source | 0.641 | 0.021 | 307 | 294 | 0.775 | 0.033 | 0.598 | 0.683 |
| Want no more children | 0.575 | 0.019 | 649 | 617 | 1.001 | 0.034 | 0.536 | 0.614 |
| Want to delay at least 2 years | 0.152 | 0.016 | 649 | 617 | 1.098 | 0.102 | 0.121 | 0.183 |
| Ideal number of children | 3.023 | 0.070 | 882 | 899 | 1.486 | 0.023 | 2.883 | 3.163 |
| Mothers received antenatal care for last birth | 0.958 | 0.011 | 286 | 271 | 0.961 | 0.012 | 0.935 | 0.981 |
| Tetanus injections at last ANC visit | 0.827 | 0.023 | 274 | 260 | 1.012 | 0.028 | 0.780 | 0.873 |
| Births with skilled attendant at delivery | 0.995 | 0.004 | 380 | 362 | 1.000 | 0.004 | 0.987 | 1.002 |
| Vaccination card seen | 0.655 | 0.064 | 73 | 70 | 1.149 | 0.098 | 0.526 | 0.783 |
| Received BCG vaccination | 0.881 | 0.040 | 73 | 70 | 0.969 | 0.045 | 0.801 | 0.961 |
| Received TDAP-IPV-HIB vacc. (3 doses) | 0.666 | 0.063 | 73 | 70 | 1.119 | 0.095 | 0.539 | 0.793 |
| Received Hepatitis B vaccination (3 doses) | 0.750 | 0.060 | 73 | 70 | 1.186 | 0.080 | 0.630 | 0.871 |
| Received 1st dose of polio vaccination | 0.885 | 0.046 | 73 | 70 | 1.236 | 0.052 | 0.793 | 0.977 |
| Received 2nd dose of polio vaccination | 0.610 | 0.062 | 70 | 66 | 1.055 | 0.101 | 0.486 | 0.734 |
| Received pneumoccocal vaccination (3 doses) | 0.714 | 0.064 | 73 | 70 | 1.210 | 0.090 | 0.585 | 0.842 |
| Received Hepatitis A vaccination (2 doses) | 0.513 | 0.061 | 70 | 66 | 1.018 | 0.119 | 0.391 | 0.636 |
| Received chickenpox/variacella vaccination | 0.880 | 0.041 | 70 | 66 | 1.041 | 0.046 | 0.799 | 0.962 |
| Received MMR vaccination | 0.909 | 0.026 | 70 | 66 | 0.766 | 0.029 | 0.856 | 0.962 |
| Received all basic vaccinations | 0.513 | 0.060 | 70 | 66 | 0.998 | 0.117 | 0.393 | 0.633 |
| Received all age appropriate vaccinations (12-23 months) | 0.566 | 0.077 | 73 | 70 | 1.302 | 0.136 | 0.412 | 0.719 |
| Received all age appropriate vaccinations (24-35 months) | 0.315 | 0.055 | 70 | 66 | 0.982 | 0.174 | 0.205 | 0.424 |
| Height-for-age (-2SD) | 0.080 | 0.018 | 308 | 292 | 1.162 | 0.231 | 0.043 | 0.117 |
| Weight-for-height (-2SD) | 0.028 | 0.014 | 306 | 290 | 1.036 | 0.477 | 0.001 | 0.055 |
| Weight-for-age (-2SD) | 0.021 | 0.006 | 325 | 308 | 0.805 | 0.303 | 0.008 | 0.034 |
| Body Mass Index (BMI) <18.5 | 0.034 | 0.008 | 772 | 790 | 1.205 | 0.230 | 0.019 | 0.050 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.615 | 0.019 | 772 | 790 | 1.070 | 0.030 | 0.577 | 0.652 |
| Total fertility rate (3 years) | 2.834 | 0.175 | 2571 | 2599 | 0.955 | 0.062 | 2.484 | 3.185 |

Table B. 7 Sampling errors, Central, Turkey DHS 2018

| Variable | Value <br> (R) | Standard Error (SE) | Number of cases |  | Design Effect (DEFT) | Relative Error (SE/R) | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted <br> (N) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 0.799 | 0.026 | 1457 | 1524 | 2.500 | 0.033 | 0.747 | 0.852 |
| Literate | 0.973 | 0.004 | 1457 | 1524 | 0.830 | 0.004 | 0.966 | 0.980 |
| No education/primary school incomplete | 0.036 | 0.006 | 1457 | 1524 | 1.142 | 0.154 | 0.025 | 0.048 |
| Secondary school or higher | 0.666 | 0.015 | 1457 | 1524 | 1.174 | 0.022 | 0.637 | 0.695 |
| Never married | 0.289 | 0.013 | 1457 | 1524 | 1.114 | 0.046 | 0.263 | 0.316 |
| Currently married/in union | 0.675 | 0.014 | 1457 | 1524 | 1.126 | 0.020 | 0.647 | 0.703 |
| Married before age 20 | 0.392 | 0.016 | 1258 | 1276 | 1.190 | 0.042 | 0.359 | 0.425 |
| Currently pregnant | 0.028 | 0.005 | 1457 | 1524 | 1.095 | 0.168 | 0.019 | 0.038 |
| Children ever born | 1.596 | 0.040 | 1457 | 1524 | 1.036 | 0.025 | 1.517 | 1.676 |
| Children ever born to women over 40 | 2.706 | 0.069 | 418 | 400 | 1.081 | 0.026 | 2.568 | 2.844 |
| Children surviving | 1.547 | 0.038 | 1457 | 1524 | 1.054 | 0.025 | 1.470 | 1.624 |
| Knowing any contraceptive method | 0.994 | 0.002 | 1050 | 1028 | 1.046 | 0.002 | 0.989 | 0.999 |
| Knowing any modern contraceptive method | 0.991 | 0.003 | 1050 | 1028 | 1.049 | 0.003 | 0.985 | 0.997 |
| Ever used any contraceptive method | 0.919 | 0.008 | 1050 | 1028 | 1.004 | 0.009 | 0.903 | 0.936 |
| Currently using any method | 0.748 | 0.016 | 1050 | 1028 | 1.178 | 0.021 | 0.717 | 0.780 |
| Currently using a modern method | 0.535 | 0.017 | 1050 | 1028 | 1.087 | 0.031 | 0.501 | 0.568 |
| Currently using pill | 0.038 | 0.006 | 1050 | 1028 | 0.989 | 0.153 | 0.027 | 0.050 |
| Currently using IUD | 0.175 | 0.015 | 1050 | 1028 | 1.309 | 0.088 | 0.144 | 0.206 |
| Currently using male condoms | 0.219 | 0.015 | 1050 | 1028 | 1.192 | 0.070 | 0.188 | 0.249 |
| Currently using injectables | 0.004 | 0.002 | 1050 | 1028 | 0.956 | 0.466 | 0.000 | 0.008 |
| Currently using female sterilization | 0.098 | 0.010 | 1050 | 1028 | 1.042 | 0.097 | 0.079 | 0.118 |
| Currently using withdrawal | 0.209 | 0.015 | 1050 | 1028 | 1.207 | 0.072 | 0.179 | 0.239 |
| Currently using periodic abstinence | 0.003 | 0.002 | 1050 | 1028 | 1.119 | 0.611 | 0.000 | 0.007 |
| Using public sector source | 0.543 | 0.024 | 570 | 562 | 1.168 | 0.045 | 0.494 | 0.592 |
| Want no more children | 0.679 | 0.015 | 1050 | 1028 | 1.027 | 0.022 | 0.649 | 0.709 |
| Want to delay at least 2 years | 0.114 | 0.010 | 1050 | 1028 | 1.006 | 0.087 | 0.094 | 0.134 |
| Ideal number of children | 2.619 | 0.044 | 1449 | 1515 | 1.390 | 0.017 | 2.532 | 2.707 |
| Mothers received antenatal care for last birth | 0.977 | 0.008 | 395 | 389 | 1.003 | 0.008 | 0.962 | 0.992 |
| Tetanus injections at last ANC visit | 0.770 | 0.024 | 385 | 380 | 1.137 | 0.031 | 0.722 | 0.819 |
| Births with skilled attendant at delivery | 0.993 | 0.004 | 471 | 463 | 1.072 | 0.004 | 0.985 | 1.001 |
| Vaccination card seen | 0.700 | 0.048 | 84 | 81 | 0.957 | 0.069 | 0.604 | 0.797 |
| Received BCG vaccination | 0.984 | 0.008 | 84 | 81 | 0.587 | 0.008 | 0.968 | 1.000 |
| Received TDAP-IPV-HIB vacc. (3 doses) | 0.795 | 0.042 | 84 | 81 | 0.948 | 0.053 | 0.710 | 0.879 |
| Received Hepatitis B vaccination (3 doses) | 0.842 | 0.037 | 84 | 81 | 0.914 | 0.044 | 0.769 | 0.915 |
| Received 1st dose of polio vaccination | 0.890 | 0.035 | 84 | 81 | 1.010 | 0.039 | 0.820 | 0.959 |
| Received 2nd dose of polio vaccination | 0.695 | 0.050 | 102 | 99 | 1.055 | 0.072 | 0.595 | 0.795 |
| Received pneumoccocal vaccination (3 doses) | 0.708 | 0.049 | 84 | 81 | 0.977 | 0.069 | 0.611 | 0.806 |
| Received Hepatitis A vaccination (2 doses) | 0.642 | 0.049 | 102 | 99 | 1.009 | 0.077 | 0.543 | 0.741 |
| Received chickenpox/variacella vaccination | 0.959 | 0.019 | 102 | 99 | 0.970 | 0.020 | 0.921 | 0.997 |
| Received MMR vaccination | 0.986 | 0.010 | 102 | 99 | 0.833 | 0.010 | 0.967 | 1.005 |
| Received all basic vaccinations | 0.713 | 0.050 | 102 | 99 | 1.078 | 0.070 | 0.612 | 0.813 |
| Received all age appropriate vaccinations (12-23 months) | 0.668 | 0.048 | 84 | 81 | 0.917 | 0.071 | 0.573 | 0.764 |
| Received all age appropriate vaccinations (24-35 months) | 0.474 | 0.060 | 102 | 99 | 1.182 | 0.127 | 0.354 | 0.594 |
| Height-for-age (-2SD) | 0.060 | 0.014 | 343 | 328 | 1.060 | 0.227 | 0.033 | 0.087 |
| Weight-for-height (-2SD) | 0.029 | 0.010 | 336 | 318 | 1.034 | 0.329 | 0.010 | 0.048 |
| Weight-for-age (-2SD) | 0.017 | 0.007 | 360 | 340 | 1.036 | 0.415 | 0.003 | 0.032 |
| Body Mass Index (BMI) <18.5 | 0.037 | 0.006 | 1264 | 1297 | 1.182 | 0.172 | 0.024 | 0.050 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.596 | 0.016 | 1264 | 1297 | 1.171 | 0.027 | 0.563 | 0.629 |
| Total fertility rate (3 years) | 2.108 | 0.142 | 4179 | 4325 | 1.145 | 0.067 | 1.824 | 2.392 |

Table B. 8 Sampling errors, North, Turkey DHS 2018

| Variable | Value <br> (R) | Standard Error (SE) | Number of cases |  | Design Effect (DEFT) | $\begin{gathered} \text { Relative } \\ \text { Error } \\ \text { (SE/R) } \\ \hline \end{gathered}$ | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted (N) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 0.622 | 0.043 | 929 | 401 | 2.708 | 0.070 | 0.536 | 0.709 |
| Literate | 0.969 | 0.006 | 929 | 401 | 1.035 | 0.006 | 0.957 | 0.981 |
| No education/primary school incomplete | 0.041 | 0.007 | 929 | 401 | 1.127 | 0.178 | 0.027 | 0.056 |
| Secondary school or higher | 0.646 | 0.019 | 929 | 401 | 1.210 | 0.029 | 0.608 | 0.684 |
| Never married | 0.319 | 0.018 | 929 | 401 | 1.167 | 0.056 | 0.284 | 0.355 |
| Currently married/in union | 0.642 | 0.019 | 929 | 401 | 1.178 | 0.029 | 0.605 | 0.679 |
| Married before age 20 | 0.333 | 0.020 | 814 | 345 | 1.206 | 0.060 | 0.294 | 0.373 |
| Currently pregnant | 0.020 | 0.004 | 929 | 401 | 0.905 | 0.207 | 0.012 | 0.029 |
| Children ever born | 1.487 | 0.057 | 929 | 401 | 1.243 | 0.039 | 1.372 | 1.601 |
| Children ever born to women over 40 | 2.451 | 0.087 | 292 | 119 | 1.224 | 0.036 | 2.276 | 2.626 |
| Children surviving | 1.437 | 0.054 | 929 | 401 | 1.220 | 0.038 | 1.329 | 1.546 |
| Knowing any contraceptive method | 1.000 | 0.000 | 638 | 257 | . | 0.000 | 1.000 | 1.000 |
| Knowing any modern contraceptive method | 1.000 | 0.000 | 638 | 257 |  | 0.000 | 1.000 | 1.000 |
| Ever used any contraceptive method | 0.917 | 0.011 | 638 | 257 | 0.987 | 0.012 | 0.896 | 0.939 |
| Currently using any method | 0.723 | 0.017 | 638 | 257 | 0.962 | 0.024 | 0.689 | 0.758 |
| Currently using a modern method | 0.470 | 0.021 | 638 | 257 | 1.085 | 0.046 | 0.427 | 0.513 |
| Currently using pill | 0.031 | 0.007 | 638 | 257 | 0.966 | 0.215 | 0.018 | 0.044 |
| Currently using IUD | 0.088 | 0.010 | 638 | 257 | 0.933 | 0.119 | 0.067 | 0.108 |
| Currently using male condoms | 0.172 | 0.017 | 638 | 257 | 1.151 | 0.100 | 0.137 | 0.206 |
| Currently using injectables | 0.011 | 0.004 | 638 | 257 | 0.848 | 0.314 | 0.004 | 0.018 |
| Currently using female sterilization | 0.168 | 0.017 | 638 | 257 | 1.143 | 0.101 | 0.134 | 0.202 |
| Currently using withdrawal | 0.250 | 0.021 | 638 | 257 | 1.212 | 0.083 | 0.208 | 0.291 |
| Currently using periodic abstinence | 0.000 | 0.000 | 638 | 257 |  |  | 0.000 | 0.000 |
| Using public sector source | 0.591 | 0.032 | 310 | 125 | 1.146 | 0.054 | 0.526 | 0.655 |
| Want no more children | 0.667 | 0.023 | 638 | 257 | 1.217 | 0.034 | 0.621 | 0.712 |
| Want to delay at least 2 years | 0.120 | 0.015 | 638 | 257 | 1.168 | 0.125 | 0.090 | 0.150 |
| Ideal number of children | 2.498 | 0.041 | 922 | 397 | 1.126 | 0.016 | 2.417 | 2.580 |
| Mothers received antenatal care for last birth | 0.994 | 0.006 | 201 | 81 | 1.142 | 0.006 | 0.981 | 1.006 |
| Tetanus injections at last ANC visit | 0.866 | 0.026 | 200 | 81 | 1.086 | 0.030 | 0.813 | 0.918 |
| Births with skilled attendant at delivery | 0.994 | 0.004 | 245 | 98 | 0.854 | 0.004 | 0.986 | 1.002 |
| Vaccination card seen | 0.565 | 0.077 | 47 | 19 | 1.029 | 0.136 | 0.412 | 0.719 |
| Received BCG vaccination | 0.911 | 0.053 | 47 | 19 | 1.082 | 0.058 | 0.805 | 1.016 |
| Received TDAP-IPV-HIB vacc. (3 doses) | 0.627 | 0.069 | 47 | 19 | 0.939 | 0.110 | 0.490 | 0.764 |
| Received Hepatitis B vaccination (3 doses) | 0.657 | 0.068 | 47 | 19 | 0.944 | 0.104 | 0.521 | 0.793 |
| Received 1st dose of polio vaccination | 0.829 | 0.072 | 47 | 19 | 1.198 | 0.086 | 0.686 | 0.973 |
| Received 2nd dose of polio vaccination | 0.616 | 0.078 | 43 | 17 | 1.001 | 0.126 | 0.460 | 0.771 |
| Received pneumoccocal vaccination (3 doses) | 0.521 | 0.077 | 47 | 19 | 1.029 | 0.148 | 0.367 | 0.675 |
| Received Hepatitis A vaccination (2 doses) | 0.572 | 0.065 | 43 | 17 | 0.830 | 0.114 | 0.442 | 0.703 |
| Received chickenpox/variacella vaccination | 0.925 | 0.046 | 43 | 17 | 0.930 | 0.050 | 0.833 | 1.017 |
| Received MMR vaccination | 0.947 | 0.031 | 43 | 17 | 0.879 | 0.032 | 0.885 | 1.008 |
| Received all basic vaccinations | 0.602 | 0.072 | 43 | 17 | 0.928 | 0.120 | 0.457 | 0.747 |
| Received all age appropriate vaccinations (12-23 months) | 0.483 | 0.078 | 47 | 19 | 1.044 | 0.161 | 0.327 | 0.639 |
| Received all age appropriate vaccinations (24-35 months) | 0.426 | 0.072 | 43 | 17 | 0.927 | 0.169 | 0.282 | 0.570 |
| Height-for-age (-2SD) | 0.068 | 0.018 | 208 | 83 | 0.962 | 0.262 | 0.032 | 0.103 |
| Weight-for-height (-2SD) | 0.013 | 0.008 | 204 | 82 | 0.969 | 0.603 | 0.000 | 0.028 |
| Weight-for-age (-2SD) | 0.000 | 0.000 | 214 | 86 |  |  | 0.000 | 0.000 |
| Body Mass Index (BMI) <18.5 | 0.042 | 0.008 | 863 | 375 | 1.148 | 0.186 | 0.026 | 0.058 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.609 | 0.020 | 863 | 375 | 1.235 | 0.034 | 0.568 | 0.650 |
| Total fertility rate (3 years) | 1.601 | 0.146 | 2688 | 1150 | 0.996 | 0.091 | 1.309 | 1.893 |

Table B. 9 Sampling errors, East, Turkey DHS 2018

| Variable | Value <br> (R) | Standard Error (SE) | Number of cases |  | Design Effect (DEFT) | $\begin{gathered} \text { Relative } \\ \text { Error } \\ \text { (SE/R) } \\ \hline \end{gathered}$ | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted <br> (N) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 0.650 | 0.037 | 1888 | 1305 | 3.351 | 0.057 | 0.576 | 0.724 |
| Literate | 0.840 | 0.012 | 1888 | 1305 | 1.446 | 0.015 | 0.816 | 0.865 |
| No education/primary school incomplete | 0.254 | 0.018 | 1888 | 1305 | 1.785 | 0.070 | 0.218 | 0.290 |
| Secondary school or higher | 0.487 | 0.017 | 1888 | 1305 | 1.488 | 0.035 | 0.452 | 0.521 |
| Never married | 0.341 | 0.013 | 1888 | 1305 | 1.184 | 0.038 | 0.315 | 0.366 |
| Currently married/in union | 0.630 | 0.012 | 1888 | 1305 | 1.106 | 0.020 | 0.606 | 0.655 |
| Married before age 20 | 0.406 | 0.016 | 1557 | 1045 | 1.298 | 0.040 | 0.373 | 0.438 |
| Currently pregnant | 0.051 | 0.006 | 1888 | 1305 | 1.125 | 0.111 | 0.040 | 0.063 |
| Children ever born | 2.139 | 0.058 | 1888 | 1305 | 1.070 | 0.027 | 2.023 | 2.255 |
| Children ever born to women over 40 | 4.430 | 0.212 | 373 | 240 | 1.548 | 0.048 | 4.007 | 4.853 |
| Children surviving | 2.035 | 0.053 | 1888 | 1305 | 1.042 | 0.026 | 1.929 | 2.140 |
| Knowing any contraceptive method | 0.994 | 0.002 | 1279 | 822 | 1.047 | 0.002 | 0.989 | 0.998 |
| Knowing any modern contraceptive method | 0.994 | 0.002 | 1279 | 822 | 1.047 | 0.002 | 0.989 | 0.998 |
| Ever used any contraceptive method | 0.848 | 0.012 | 1279 | 822 | 1.182 | 0.014 | 0.825 | 0.872 |
| Currently using any method | 0.661 | 0.013 | 1279 | 822 | 1.002 | 0.020 | 0.634 | 0.687 |
| Currently using a modern method | 0.430 | 0.021 | 1279 | 822 | 1.549 | 0.050 | 0.387 | 0.473 |
| Currently using pill | 0.052 | 0.007 | 1279 | 822 | 1.199 | 0.144 | 0.037 | 0.067 |
| Currently using IUD | 0.131 | 0.012 | 1279 | 822 | 1.253 | 0.090 | 0.107 | 0.154 |
| Currently using male condoms | 0.146 | 0.012 | 1279 | 822 | 1.227 | 0.083 | 0.121 | 0.170 |
| Currently using injectables | 0.011 | 0.003 | 1279 | 822 | 1.182 | 0.318 | 0.004 | 0.017 |
| Currently using female sterilization | 0.091 | 0.008 | 1279 | 822 | 0.988 | 0.088 | 0.075 | 0.107 |
| Currently using withdrawal | 0.225 | 0.016 | 1279 | 822 | 1.334 | 0.069 | 0.194 | 0.256 |
| Currently using periodic abstinence | 0.002 | 0.001 | 1279 | 822 | 1.111 | 0.730 | 0.000 | 0.004 |
| Using public sector source | 0.634 | 0.026 | 542 | 356 | 1.264 | 0.041 | 0.581 | 0.686 |
| Want no more children | 0.571 | 0.014 | 1279 | 822 | 1.045 | 0.025 | 0.542 | 0.600 |
| Want to delay at least 2 years | 0.194 | 0.013 | 1279 | 822 | 1.201 | 0.069 | 0.167 | 0.220 |
| Ideal number of children | 3.362 | 0.056 | 1867 | 1288 | 1.461 | 0.017 | 3.249 | 3.475 |
| Mothers received antenatal care for last birth | 0.962 | 0.009 | 699 | 463 | 1.306 | 0.010 | 0.944 | 0.981 |
| Tetanus injections at last ANC visit | 0.791 | 0.017 | 676 | 446 | 1.090 | 0.021 | 0.757 | 0.824 |
| Births with skilled attendant at delivery | 0.981 | 0.003 | 968 | 656 | 0.706 | 0.003 | 0.974 | 0.988 |
| Vaccination card seen | 0.706 | 0.035 | 190 | 131 | 1.064 | 0.049 | 0.637 | 0.775 |
| Received BCG vaccination | 0.900 | 0.023 | 190 | 131 | 1.013 | 0.025 | 0.854 | 0.945 |
| Received TDAP-IPV-HIB vacc. (3 doses) | 0.813 | 0.025 | 190 | 131 | 0.891 | 0.031 | 0.763 | 0.863 |
| Received Hepatitis B vaccination (3 doses) | 0.837 | 0.024 | 190 | 131 | 0.882 | 0.028 | 0.790 | 0.884 |
| Received 1st dose of polio vaccination | 0.900 | 0.021 | 190 | 131 | 0.961 | 0.024 | 0.858 | 0.943 |
| Received 2nd dose of polio vaccination | 0.746 | 0.037 | 176 | 117 | 1.142 | 0.050 | 0.672 | 0.820 |
| Received pneumoccocal vaccination (3 doses) | 0.793 | 0.026 | 190 | 131 | 0.879 | 0.032 | 0.742 | 0.844 |
| Received Hepatitis A vaccination (2 doses) | 0.661 | 0.044 | 176 | 117 | 1.240 | 0.066 | 0.573 | 0.748 |
| Received chickenpox/variacella |  |  |  |  |  |  |  |  |
| Received MMR vaccination | 0.926 | 0.018 | 176 | 117 | 0.938 | 0.020 | 0.889 | 0.962 |
| Received all basic vaccinations | 0.709 | 0.039 | 176 | 117 | 1.150 | 0.055 | 0.631 | 0.786 |
| Received all age appropriate |  |  |  |  |  |  |  | 0.776 |
| Received all age appropriate |  |  |  |  |  |  |  |  |
| vaccinations (24-35 months) | 0.539 | 0.053 | 176 | 117 | 1.423 | 0.098 | 0.434 | 0.645 |
| Height-for-age (-2SD) | 0.082 | 0.014 | 715 | 482 | 1.297 | 0.167 | 0.054 | 0.109 |
| Weight-for-height (-2SD) | 0.016 | 0.006 | 718 | 485 | 1.261 | 0.356 | 0.005 | 0.028 |
| Weight-for-age (-2SD) | 0.018 | 0.006 | 733 | 494 | 1.186 | 0.313 | 0.007 | 0.029 |
| Body Mass Index (BMI) <18.5 | 0.035 | 0.004 | 1562 | 1078 | 0.936 | 0.124 | 0.026 | 0.044 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.582 | 0.015 | 1562 | 1078 | 1.233 | 0.026 | 0.551 | 0.613 |
| Total fertility rate (3 years) | 3.195 | 0.208 | 5412 | 3718 | 1.564 | 0.065 | 2.779 | 3.610 |

Table B. 10 Sampling errors, İstanbul, Turkey DHS 2018

| Variable | Value <br> (R) | Standard Error (SE) | Number of cases |  | Design Effect (DEFT) | Relative Error (SE/R) | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted <br> (N) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 0.964 | 0.028 | 607 | 1549 | 3.740 | 0.029 | 0.908 | 1.021 |
| Literate | 0.960 | 0.010 | 607 | 1549 | 1.325 | 0.011 | 0.939 | 0.981 |
| No education/primary school incomplete | 0.073 | 0.013 | 607 | 1549 | 1.209 | 0.175 | 0.048 | 0.099 |
| Secondary school or higher | 0.654 | 0.020 | 607 | 1549 | 1.016 | 0.030 | 0.615 | 0.694 |
| Never married | 0.306 | 0.019 | 607 | 1549 | 1.009 | 0.062 | 0.268 | 0.344 |
| Currently married/in union | 0.643 | 0.019 | 607 | 1549 | 0.989 | 0.030 | 0.604 | 0.681 |
| Married before age 20 | 0.335 | 0.024 | 528 | 1304 | 1.162 | 0.071 | 0.287 | 0.382 |
| Currently pregnant | 0.038 | 0.006 | 607 | 1549 | 0.790 | 0.161 | 0.026 | 0.050 |
| Children ever born | 1.441 | 0.056 | 607 | 1549 | 0.951 | 0.039 | 1.330 | 1.552 |
| Children ever born to women over 40 | 2.426 | 0.111 | 183 | 435 | 1.038 | 0.046 | 2.204 | 2.649 |
| Children surviving | 1.397 | 0.054 | 607 | 1549 | 0.974 | 0.039 | 1.289 | 1.505 |
| Knowing any contraceptive method | 0.998 | 0.002 | 422 | 995 | 0.990 | 0.002 | 0.993 | 1.002 |
| Knowing any modern contraceptive method | 0.998 | 0.002 | 422 | 995 | 0.990 | 0.002 | 0.993 | 1.002 |
| Ever used any contraceptive method | 0.898 | 0.015 | 422 | 995 | 1.002 | 0.016 | 0.869 | 0.928 |
| Currently using any method | 0.692 | 0.018 | 422 | 995 | 0.783 | 0.025 | 0.657 | 0.727 |
| Currently using a modern method | 0.512 | 0.025 | 422 | 995 | 1.011 | 0.048 | 0.463 | 0.561 |
| Currently using pill | 0.059 | 0.008 | 422 | 995 | 0.681 | 0.132 | 0.044 | 0.075 |
| Currently using IUD | 0.130 | 0.013 | 422 | 995 | 0.805 | 0.101 | 0.104 | 0.157 |
| Currently using male condoms | 0.208 | 0.019 | 422 | 995 | 0.978 | 0.093 | 0.170 | 0.247 |
| Currently using injectables | 0.012 | 0.005 | 422 | 995 | 0.969 | 0.431 | 0.002 | 0.022 |
| Currently using female sterilization | 0.102 | 0.018 | 422 | 995 | 1.227 | 0.177 | 0.066 | 0.138 |
| Currently using withdrawal | 0.171 | 0.018 | 422 | 995 | 0.955 | 0.103 | 0.136 | 0.206 |
| Currently using periodic abstinence | 0.009 | 0.005 | 422 | 995 | 1.004 | 0.501 | 0.000 | 0.019 |
| Using public sector source | 0.361 | 0.030 | 226 | 537 | 0.936 | 0.083 | 0.301 | 0.421 |
| Want no more children | 0.657 | 0.029 | 422 | 995 | 1.250 | 0.044 | 0.599 | 0.714 |
| Want to delay at least 2 years | 0.137 | 0.019 | 422 | 995 | 1.151 | 0.141 | 0.099 | 0.176 |
| Ideal number of children | 2.629 | 0.051 | 605 | 1544 | 1.045 | 0.019 | 2.528 | 2.730 |
| Mothers received antenatal care for last birth | 0.965 | 0.013 | 172 | 406 | 0.953 | 0.014 | 0.939 | 0.992 |
| Tetanus injections at last ANC visit | 0.777 | 0.044 | 166 | 392 | 1.354 | 0.056 | 0.689 | 0.865 |
| Births with skilled attendant at delivery | 1.000 | 0.000 | 211 | 498 |  | 0.000 | 1.000 | 1.000 |
| Height-for-age (-2SD) | 0.023 | 0.011 | 177 | 418 | 1.023 | 0.506 | 0.000 | 0.045 |
| Weight-for-height (-2SD) | 0.011 | 0.008 | 176 | 415 | 1.004 | 0.707 | 0.000 | 0.028 |
| Weight-for-age (-2SD) | 0.005 | 0.006 | 184 | 434 | 1.016 | 1.011 | 0.000 | 0.017 |
| Body Mass Index (BMI) <18.5 | 0.045 | 0.008 | 546 | 1399 | 0.930 | 0.183 | 0.028 | 0.061 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.577 | 0.020 | 546 | 1399 | 0.969 | 0.035 | 0.536 | 0.618 |

Table B. 11 Sampling errors, West Marmara, Turkey DHS 2018

| Variable | Value <br> (R) | Standard Error (SE) | Number of cases |  | Design Effect (DEFT) | Relative Error (SE/R) | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted <br> ( N ) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 0.669 | 0.041 | 638 | 299 | 2.210 | 0.062 | 0.587 | 0.752 |
| Literate | 0.964 | 0.012 | 638 | 299 | 1.576 | 0.012 | 0.940 | 0.987 |
| No education/primary school incomplete | 0.063 | 0.019 | 638 | 299 | 1.988 | 0.305 | 0.024 | 0.101 |
| Secondary school or higher | 0.630 | 0.026 | 638 | 299 | 1.380 | 0.042 | 0.577 | 0.682 |
| Never married | 0.246 | 0.020 | 638 | 299 | 1.191 | 0.083 | 0.206 | 0.287 |
| Currently married/in union | 0.681 | 0.025 | 638 | 299 | 1.361 | 0.037 | 0.631 | 0.732 |
| Married before age 20 | 0.396 | 0.025 | 561 | 256 | 1.201 | 0.063 | 0.347 | 0.446 |
| Currently pregnant | 0.022 | 0.005 | 638 | 299 | 0.911 | 0.241 | 0.011 | 0.033 |
| Children ever born | 1.461 | 0.048 | 638 | 299 | 0.895 | 0.033 | 1.365 | 1.557 |
| Children ever born to women over 40 | 2.056 | 0.091 | 199 | 89 | 0.984 | 0.044 | 1.874 | 2.237 |
| Children surviving | 1.406 | 0.045 | 638 | 299 | 0.906 | 0.032 | 1.316 | 1.496 |
| Knowing any contraceptive method | 0.990 | 0.004 | 457 | 203 | 0.793 | 0.004 | 0.982 | 0.997 |
| Knowing any modern contraceptive method | 0.990 | 0.004 | 457 | 203 | 0.793 | 0.004 | 0.982 | 0.997 |
| Ever used any contraceptive method | 0.913 | 0.015 | 457 | 203 | 1.157 | 0.017 | 0.883 | 0.944 |
| Currently using any method | 0.708 | 0.019 | 457 | 203 | 0.901 | 0.027 | 0.670 | 0.747 |
| Currently using a modern method | 0.502 | 0.023 | 457 | 203 | 0.987 | 0.046 | 0.455 | 0.548 |
| Currently using pill | 0.035 | 0.008 | 457 | 203 | 0.927 | 0.228 | 0.019 | 0.051 |
| Currently using IUD | 0.112 | 0.012 | 457 | 203 | 0.836 | 0.110 | 0.087 | 0.137 |
| Currently using male condoms | 0.211 | 0.018 | 457 | 203 | 0.964 | 0.087 | 0.174 | 0.248 |
| Currently using injectables | 0.014 | 0.006 | 457 | 203 | 1.000 | 0.387 | 0.003 | 0.026 |
| Currently using female sterilization | 0.129 | 0.016 | 457 | 203 | 1.003 | 0.122 | 0.097 | 0.160 |
| Currently using withdrawal | 0.200 | 0.018 | 457 | 203 | 0.936 | 0.088 | 0.165 | 0.235 |
| Currently using periodic abstinence | 0.007 | 0.004 | 457 | 203 | 1.015 | 0.585 | 0.000 | 0.014 |
| Using public sector source | 0.483 | 0.039 | 237 | 106 | 1.193 | 0.080 | 0.405 | 0.561 |
| Want no more children | 0.692 | 0.019 | 457 | 203 | 0.858 | 0.027 | 0.655 | 0.729 |
| Want to delay at least 2 years | 0.071 | 0.013 | 457 | 203 | 1.079 | 0.184 | 0.045 | 0.096 |
| Ideal number of children | 2.395 | 0.051 | 637 | 298 | 1.255 | 0.021 | 2.294 | 2.497 |
| Mothers received antenatal care for last birth | 0.957 | 0.014 | 157 | 70 | 0.896 | 0.015 | 0.928 | 0.986 |
| Tetanus injections at last ANC visit | 0.860 | 0.026 | 150 | 67 | 0.904 | 0.030 | 0.809 | 0.911 |
| Births with skilled attendant at delivery | 0.982 | 0.013 | 176 | 78 | 1.007 | 0.013 | 0.957 | 1.008 |
| Height-for-age (-2SD) | 0.078 | 0.028 | 141 | 63 | 1.091 | 0.366 | 0.021 | 0.135 |
| Weight-for-height (-2SD) | 0.022 | 0.012 | 141 | 63 | 0.971 | 0.544 | 0.000 | 0.045 |
| Weight-for-age (-2SD) | 0.020 | 0.012 | 144 | 64 | 1.017 | 0.592 | 0.000 | 0.044 |
| Body Mass Index (BMI) < 18.5 | 0.035 | 0.008 | 576 | 270 | 1.038 | 0.227 | 0.019 | 0.051 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.628 | 0.020 | 576 | 270 | 1.000 | 0.032 | 0.588 | 0.669 |

Table B. 12 Sampling errors, Aegean, Turkey DHS 2018

| Variable | Value <br> (R) | Standard Error (SE) | Number of cases |  | Design Effect (DEFT) | $\begin{aligned} & \text { Relative } \\ & \text { Error } \\ & \text { (SE/R) } \end{aligned}$ | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted <br> ( N ) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 0.769 | 0.058 | 547 | 884 | 3.173 | 0.075 | 0.653 | 0.884 |
| Literate | 0.966 | 0.011 | 547 | 884 | 1.357 | 0.011 | 0.945 | 0.987 |
| No education/primary school incomplete | 0.046 | 0.014 | 547 | 884 | 1.560 | 0.305 | 0.018 | 0.074 |
| Secondary school or higher | 0.663 | 0.024 | 547 | 884 | 1.185 | 0.036 | 0.616 | 0.711 |
| Never married | 0.272 | 0.027 | 547 | 884 | 1.402 | 0.098 | 0.219 | 0.325 |
| Currently married/in union | 0.666 | 0.028 | 547 | 884 | 1.408 | 0.043 | 0.609 | 0.723 |
| Married before age 20 | 0.334 | 0.028 | 489 | 772 | 1.287 | 0.082 | 0.279 | 0.389 |
| Currently pregnant | 0.033 | 0.008 | 547 | 884 | 1.012 | 0.233 | 0.018 | 0.049 |
| Children ever born | 1.408 | 0.071 | 547 | 884 | 1.201 | 0.050 | 1.266 | 1.550 |
| Children ever born to women over 40 | 2.158 | 0.175 | 165 | 253 | 1.418 | 0.081 | 1.808 | 2.508 |
| Children surviving | 1.366 | 0.067 | 547 | 884 | 1.205 | 0.049 | 1.231 | 1.501 |
| Knowing any contraceptive method | 0.997 | 0.003 | 386 | 589 | 0.996 | 0.003 | 0.992 | 1.003 |
| Knowing any modern contraceptive method | 0.995 | 0.003 | 386 | 589 | 0.713 | 0.003 | 0.990 | 1.000 |
| Ever used any contraceptive method | 0.920 | 0.014 | 386 | 589 | 1.025 | 0.015 | 0.891 | 0.948 |
| Currently using any method | 0.697 | 0.024 | 386 | 589 | 1.014 | 0.034 | 0.650 | 0.745 |
| Currently using a modern method | 0.503 | 0.026 | 386 | 589 | 1.039 | 0.053 | 0.451 | 0.556 |
| Currently using pill | 0.044 | 0.008 | 386 | 589 | 0.801 | 0.189 | 0.028 | 0.061 |
| Currently using IUD | 0.144 | 0.022 | 386 | 589 | 1.215 | 0.151 | 0.101 | 0.188 |
| Currently using male condoms | 0.214 | 0.021 | 386 | 589 | 1.027 | 0.100 | 0.171 | 0.257 |
| Currently using injectables | 0.010 | 0.005 | 386 | 589 | 0.965 | 0.478 | 0.000 | 0.020 |
| Currently using female sterilization | 0.090 | 0.015 | 386 | 589 | 1.038 | 0.168 | 0.060 | 0.121 |
| Currently using withdrawal | 0.188 | 0.021 | 386 | 589 | 1.054 | 0.112 | 0.146 | 0.230 |
| Currently using periodic abstinence | 0.003 | 0.003 | 386 | 589 | 1.012 | 1.008 | 0.000 | 0.008 |
| Using public sector source | 0.567 | 0.041 | 203 | 311 | 1.183 | 0.073 | 0.484 | 0.649 |
| Want no more children | 0.625 | 0.020 | 386 | 589 | 0.809 | 0.032 | 0.585 | 0.665 |
| Want to delay at least 2 years | 0.135 | 0.018 | 386 | 589 | 1.014 | 0.131 | 0.100 | 0.171 |
| Ideal number of children | 2.465 | 0.050 | 542 | 875 | 0.953 | 0.020 | 2.366 | 2.564 |
| Mothers received antenatal care for last birth | 0.920 | 0.019 | 152 | 232 | 0.877 | 0.021 | 0.882 | 0.959 |
| Tetanus injections at last ANC visit | 0.870 | 0.029 | 140 | 213 | 1.009 | 0.033 | 0.813 | 0.927 |
| Births with skilled attendant at delivery | 1.000 | 0.000 | 175 | 267 |  | 0.000 | 1.000 | 1.000 |
| Height-for-age (-2SD) | 0.035 | 0.018 | 116 | 176 | 1.033 | 0.508 | 0.000 | 0.070 |
| Weight-for-height (-2SD) | 0.000 | 0.000 | 115 | 174 |  |  | 0.000 | 0.000 |
| Weight-for-age (-2SD) | 0.009 | 0.009 | 115 | 174 | 1.002 | 0.995 | 0.000 | 0.026 |
| Body Mass Index (BMI) <18.5 | 0.043 | 0.011 | 459 | 743 | 1.206 | 0.267 | 0.020 | 0.066 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.579 | 0.024 | 459 | 743 | 1.044 | 0.042 | 0.531 | 0.627 |

Table B. 13 Sampling errors, East Marmara, Turkey DHS 2018

| Variable | Value <br> (R) | Standard Error (SE) | Number of cases |  | Design Effect (DEFT) | Relative Error (SE/R) | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted <br> ( N ) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 0.845 | 0.044 | 604 | 718 | 2.986 | 0.053 | 0.756 | 0.933 |
| Literate | 0.971 | 0.007 | 604 | 718 | 1.027 | 0.007 | 0.957 | 0.985 |
| No education/primary school incomplete | 0.045 | 0.012 | 604 | 718 | 1.414 | 0.264 | 0.021 | 0.069 |
| Secondary school or higher | 0.633 | 0.020 | 604 | 718 | 1.038 | 0.032 | 0.593 | 0.674 |
| Never married | 0.281 | 0.021 | 604 | 718 | 1.128 | 0.074 | 0.240 | 0.322 |
| Currently married/in union | 0.671 | 0.022 | 604 | 718 | 1.129 | 0.032 | 0.628 | 0.714 |
| Married before age 20 | 0.340 | 0.020 | 540 | 627 | 0.986 | 0.059 | 0.300 | 0.380 |
| Currently pregnant | 0.030 | 0.006 | 604 | 718 | 0.882 | 0.203 | 0.018 | 0.043 |
| Children ever born | 1.489 | 0.058 | 604 | 718 | 1.092 | 0.039 | 1.373 | 1.606 |
| Children ever born to women over 40 | 2.377 | 0.087 | 175 | 198 | 1.010 | 0.037 | 2.203 | 2.550 |
| Children surviving | 1.450 | 0.054 | 604 | 718 | 1.046 | 0.037 | 1.341 | 1.558 |
| Knowing any contraceptive method | 1.000 | 0.000 | 429 | 482 | . | 0.000 | 1.000 | 1.000 |
| Knowing any modern contraceptive method | 0.998 | 0.002 | 429 | 482 | 1.032 | 0.002 | 0.993 | 1.002 |
| Ever used any contraceptive method | 0.932 | 0.010 | 429 | 482 | 0.808 | 0.011 | 0.912 | 0.951 |
| Currently using any method | 0.750 | 0.023 | 429 | 482 | 1.114 | 0.031 | 0.703 | 0.797 |
| Currently using a modern method | 0.489 | 0.028 | 429 | 482 | 1.154 | 0.057 | 0.434 | 0.545 |
| Currently using pill | 0.047 | 0.011 | 429 | 482 | 1.112 | 0.241 | 0.025 | 0.070 |
| Currently using IUD | 0.111 | 0.018 | 429 | 482 | 1.157 | 0.159 | 0.076 | 0.146 |
| Currently using male condoms | 0.229 | 0.025 | 429 | 482 | 1.252 | 0.111 | 0.178 | 0.280 |
| Currently using injectables | 0.007 | 0.003 | 429 | 482 | 0.853 | 0.493 | 0.000 | 0.014 |
| Currently using female sterilization | 0.095 | 0.013 | 429 | 482 | 0.925 | 0.138 | 0.069 | 0.122 |
| Currently using withdrawal | 0.258 | 0.021 | 429 | 482 | 1.006 | 0.082 | 0.216 | 0.301 |
| Currently using periodic abstinence | 0.002 | 0.002 | 429 | 482 | 1.040 | 1.016 | 0.000 | 0.007 |
| Using public sector source | 0.491 | 0.046 | 215 | 240 | 1.330 | 0.093 | 0.400 | 0.582 |
| Want no more children | 0.612 | 0.030 | 429 | 482 | 1.283 | 0.049 | 0.551 | 0.672 |
| Want to delay at least 2 years | 0.124 | 0.019 | 429 | 482 | 1.193 | 0.153 | 0.086 | 0.162 |
| Ideal number of children | 2.682 | 0.052 | 604 | 718 | 1.022 | 0.019 | 2.579 | 2.786 |
| Mothers received antenatal care for last birth | 0.995 | 0.005 | 171 | 191 | 0.922 | 0.005 | 0.985 | 1.005 |
| Tetanus injections at last ANC visit | 0.889 | 0.024 | 170 | 190 | 0.980 | 0.027 | 0.842 | 0.936 |
| Births with skilled attendant at delivery | 0.996 | 0.004 | 204 | 228 | 0.917 | 0.004 | 0.987 | 1.004 |
| Height-for-age (-2SD) | 0.070 | 0.024 | 157 | 174 | 1.073 | 0.343 | 0.022 | 0.117 |
| Weight-for-height (-2SD) | 0.011 | 0.008 | 157 | 174 | 0.941 | 0.704 | 0.000 | 0.027 |
| Weight-for-age (-2SD) | 0.019 | 0.011 | 163 | 181 | 1.009 | 0.567 | 0.000 | 0.041 |
| Body Mass Index (BMI) <18.5 | 0.041 | 0.009 | 535 | 635 | 1.003 | 0.209 | 0.024 | 0.059 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.608 | 0.021 | 535 | 635 | 1.005 | 0.035 | 0.565 | 0.650 |

Table B. 14 Sampling errors, West Anatolia, Turkey DHS 2018

| Variable | Value <br> (R) | Standard Error (SE) | Number of cases |  | Design Effect (DEFT) | Relative Error (SE/R) | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted <br> (N) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 0.894 | 0.038 | 542 | 777 | 2.851 | 0.042 | 0.818 | 0.970 |
| Literate | 0.981 | 0.005 | 542 | 777 | 0.788 | 0.005 | 0.972 | 0.990 |
| No education/primary school incomplete | 0.031 | 0.008 | 542 | 777 | 1.140 | 0.275 | 0.014 | 0.048 |
| Secondary school or higher | 0.733 | 0.022 | 542 | 777 | 1.153 | 0.030 | 0.689 | 0.777 |
| Never married | 0.311 | 0.020 | 542 | 777 | 1.024 | 0.065 | 0.271 | 0.352 |
| Currently married/in union | 0.658 | 0.021 | 542 | 777 | 1.043 | 0.032 | 0.616 | 0.701 |
| Married before age 20 | 0.337 | 0.026 | 468 | 645 | 1.209 | 0.078 | 0.284 | 0.390 |
| Currently pregnant | 0.024 | 0.007 | 542 | 777 | 1.026 | 0.280 | 0.011 | 0.038 |
| Children ever born | 1.468 | 0.062 | 542 | 777 | 1.016 | 0.042 | 1.344 | 1.591 |
| Children ever born to women over 40 | 2.554 | 0.102 | 152 | 197 | 1.073 | 0.040 | 2.349 | 2.758 |
| Children surviving | 1.434 | 0.061 | 542 | 777 | 1.046 | 0.043 | 1.311 | 1.557 |
| Knowing any contraceptive method | 0.992 | 0.004 | 391 | 512 | 0.988 | 0.004 | 0.984 | 1.001 |
| Knowing any modern contraceptive method | 0.992 | 0.004 | 391 | 512 | 0.988 | 0.004 | 0.984 | 1.001 |
| Ever used any contraceptive method | 0.901 | 0.014 | 391 | 512 | 0.925 | 0.016 | 0.873 | 0.929 |
| Currently using any method | 0.718 | 0.027 | 391 | 512 | 1.174 | 0.037 | 0.664 | 0.771 |
| Currently using a modern method | 0.536 | 0.026 | 391 | 512 | 1.037 | 0.049 | 0.484 | 0.589 |
| Currently using pill | 0.042 | 0.010 | 391 | 512 | 0.996 | 0.241 | 0.022 | 0.062 |
| Currently using IUD | 0.218 | 0.026 | 391 | 512 | 1.256 | 0.121 | 0.165 | 0.270 |
| Currently using male condoms | 0.205 | 0.019 | 391 | 512 | 0.949 | 0.095 | 0.166 | 0.244 |
| Currently using injectables | 0.005 | 0.004 | 391 | 512 | 0.992 | 0.698 | 0.000 | 0.012 |
| Currently using female sterilization | 0.067 | 0.015 | 391 | 512 | 1.158 | 0.220 | 0.037 | 0.096 |
| Currently using withdrawal | 0.176 | 0.024 | 391 | 512 | 1.263 | 0.138 | 0.127 | 0.225 |
| Currently using periodic abstinence | 0.005 | 0.004 | 391 | 512 | 1.040 | 0.732 | 0.000 | 0.013 |
| Using public sector source | 0.565 | 0.035 | 215 | 281 | 1.032 | 0.062 | 0.495 | 0.635 |
| Want no more children | 0.654 | 0.021 | 391 | 512 | 0.886 | 0.033 | 0.612 | 0.697 |
| Want to delay at least 2 years | 0.122 | 0.015 | 391 | 512 | 0.899 | 0.122 | 0.092 | 0.151 |
| Ideal number of children | 2.557 | 0.070 | 540 | 775 | 1.350 | 0.027 | 2.417 | 2.698 |
| Mothers received antenatal care for last birth | 0.986 | 0.010 | 147 | 194 | 0.999 | 0.010 | 0.967 | 1.005 |
| Tetanus injections at last ANC visit | 0.745 | 0.039 | 145 | 191 | 1.083 | 0.052 | 0.667 | 0.823 |
| Births with skilled attendant at delivery | 0.994 | 0.006 | 178 | 235 | 1.042 | 0.006 | 0.981 | 1.006 |
| Height-for-age (-2SD) | 0.064 | 0.024 | 111 | 147 | 1.028 | 0.368 | 0.017 | 0.111 |
| Weight-for-height (-2SD) | 0.029 | 0.017 | 104 | 137 | 1.060 | 0.598 | 0.000 | 0.063 |
| Weight-for-age (-2SD) | 0.027 | 0.015 | 113 | 148 | 1.021 | 0.577 | 0.000 | 0.057 |
| Body Mass Index (BMI) <18.5 | 0.030 | 0.009 | 426 | 613 | 1.145 | 0.314 | 0.011 | 0.049 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.572 | 0.029 | 426 | 613 | 1.228 | 0.051 | 0.513 | 0.631 |

Table B. 15 Sampling errors, Mediterranean, Turkey DHS 2018

| Variable | Value <br> (R) | Standard Error (SE) | Number of cases |  | Design Effect (DEFT) | Relative Error (SE/R) | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted <br> (N) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 0.675 | 0.061 | 894 | 914 | 3.874 | 0.091 | 0.553 | 0.798 |
| Literate | 0.946 | 0.009 | 894 | 914 | 1.205 | 0.010 | 0.927 | 0.964 |
| No education/primary school incomplete | 0.082 | 0.013 | 894 | 914 | 1.381 | 0.155 | 0.056 | 0.107 |
| Secondary school or higher | 0.574 | 0.019 | 894 | 914 | 1.122 | 0.032 | 0.537 | 0.611 |
| Never married | 0.291 | 0.016 | 894 | 914 | 1.084 | 0.057 | 0.258 | 0.324 |
| Currently married/in union | 0.675 | 0.018 | 894 | 914 | 1.147 | 0.027 | 0.639 | 0.711 |
| Married before age 20 | 0.390 | 0.020 | 779 | 771 | 1.140 | 0.051 | 0.351 | 0.430 |
| Currently pregnant | 0.045 | 0.010 | 894 | 914 | 1.413 | 0.218 | 0.025 | 0.064 |
| Children ever born | 1.773 | 0.070 | 894 | 914 | 1.225 | 0.039 | 1.634 | 1.912 |
| Children ever born to women over 40 | 2.646 | 0.141 | 275 | 268 | 1.352 | 0.053 | 2.363 | 2.928 |
| Children surviving | 1.715 | 0.063 | 894 | 914 | 1.166 | 0.037 | 1.589 | 1.841 |
| Knowing any contraceptive method | 0.993 | 0.004 | 649 | 617 | 1.110 | 0.004 | 0.985 | 1.000 |
| Knowing any modern contraceptive method | 0.993 | 0.004 | 649 | 617 | 1.110 | 0.004 | 0.985 | 1.000 |
| Ever used any contraceptive method | 0.868 | 0.014 | 649 | 617 | 1.025 | 0.016 | 0.841 | 0.895 |
| Currently using any method | 0.647 | 0.019 | 649 | 617 | 1.001 | 0.029 | 0.609 | 0.684 |
| Currently using a modern method | 0.470 | 0.024 | 649 | 617 | 1.231 | 0.051 | 0.422 | 0.518 |
| Currently using pill | 0.049 | 0.010 | 649 | 617 | 1.168 | 0.202 | 0.029 | 0.069 |
| Currently using IUD | 0.129 | 0.014 | 649 | 617 | 1.096 | 0.112 | 0.100 | 0.158 |
| Currently using male condoms | 0.146 | 0.013 | 649 | 617 | 0.942 | 0.089 | 0.120 | 0.173 |
| Currently using injectables | 0.013 | 0.004 | 649 | 617 | 0.796 | 0.269 | 0.006 | 0.021 |
| Currently using female sterilization | 0.132 | 0.012 | 649 | 617 | 0.896 | 0.090 | 0.109 | 0.156 |
| Currently using withdrawal | 0.177 | 0.017 | 649 | 617 | 1.142 | 0.097 | 0.142 | 0.211 |
| Currently using periodic abstinence | 0.000 | 0.000 | 649 | 617 |  |  | 0.000 | 0.000 |
| Using public sector source | 0.641 | 0.021 | 307 | 294 | 0.775 | 0.033 | 0.598 | 0.683 |
| Want no more children | 0.575 | 0.019 | 649 | 617 | 1.001 | 0.034 | 0.536 | 0.614 |
| Want to delay at least 2 years | 0.152 | 0.016 | 649 | 617 | 1.098 | 0.102 | 0.121 | 0.183 |
| Ideal number of children | 3.023 | 0.070 | 882 | 899 | 1.486 | 0.023 | 2.883 | 3.163 |
| Mothers received antenatal care for last birth | 0.958 | 0.011 | 286 | 271 | 0.961 | 0.012 | 0.935 | 0.981 |
| Tetanus injections at last ANC visit | 0.827 | 0.023 | 274 | 260 | 1.012 | 0.028 | 0.780 | 0.873 |
| Births with skilled attendant at delivery | 0.995 | 0.004 | 380 | 362 | 1.000 | 0.004 | 0.987 | 1.002 |
| Height-for-age (-2SD) | 0.080 | 0.018 | 308 | 292 | 1.162 | 0.231 | 0.043 | 0.117 |
| Weight-for-height (-2SD) | 0.028 | 0.014 | 306 | 290 | 1.036 | 0.477 | 0.001 | 0.055 |
| Weight-for-age (-2SD) | 0.021 | 0.006 | 325 | 308 | 0.805 | 0.303 | 0.008 | 0.034 |
| Body Mass Index (BMI) < 18.5 | 0.034 | 0.008 | 772 | 790 | 1.205 | 0.230 | 0.019 | 0.050 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.615 | 0.019 | 772 | 790 | 1.070 | 0.030 | 0.577 | 0.652 |

Table B. 16 Sampling errors, Central Anatolia, Turkey DHS 2018

| Variable | Value <br> (R) | Standard Error (SE) | Number of cases |  |  | Relative Error (SE/R) | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted (N) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 0.737 | 0.058 | 528 | 347 | 3.022 | 0.079 | 0.620 | 0.854 |
| Literate | 0.973 | 0.006 | 528 | 347 | 0.901 | 0.006 | 0.961 | 0.986 |
| No education/primary school incomplete | 0.051 | 0.011 | 528 | 347 | 1.132 | 0.212 | 0.030 | 0.073 |
| Secondary school or higher | 0.629 | 0.025 | 528 | 347 | 1.184 | 0.040 | 0.579 | 0.679 |
| Never married | 0.259 | 0.019 | 528 | 347 | 0.990 | 0.073 | 0.221 | 0.297 |
| Currently married/in union | 0.695 | 0.020 | 528 | 347 | 0.991 | 0.029 | 0.656 | 0.735 |
| Married before age 20 | 0.497 | 0.027 | 453 | 292 | 1.154 | 0.055 | 0.443 | 0.551 |
| Currently pregnant | 0.041 | 0.011 | 528 | 347 | 1.218 | 0.255 | 0.020 | 0.063 |
| Children ever born | 1.837 | 0.062 | 528 | 347 | 0.914 | 0.034 | 1.714 | 1.960 |
| Children ever born to women over 40 | 2.979 | 0.112 | 159 | 100 | 0.978 | 0.038 | 2.755 | 3.202 |
| Children surviving | 1.773 | 0.060 | 528 | 347 | 0.956 | 0.034 | 1.653 | 1.894 |
| Knowing any contraceptive method | 0.991 | 0.005 | 383 | 242 | 1.010 | 0.005 | 0.982 | 1.001 |
| Knowing any modern contraceptive method | 0.983 | 0.008 | 383 | 242 | 1.203 | 0.008 | 0.967 | 0.999 |
| Ever used any contraceptive method | 0.929 | 0.011 | 383 | 242 | 0.840 | 0.012 | 0.907 | 0.951 |
| Currently using any method | 0.760 | 0.024 | 383 | 242 | 1.086 | 0.031 | 0.712 | 0.807 |
| Currently using a modern method | 0.545 | 0.027 | 383 | 242 | 1.046 | 0.049 | 0.492 | 0.599 |
| Currently using pill | 0.046 | 0.008 | 383 | 242 | 0.748 | 0.174 | 0.030 | 0.062 |
| Currently using IUD | 0.151 | 0.022 | 383 | 242 | 1.177 | 0.143 | 0.108 | 0.194 |
| Currently using male condoms | 0.227 | 0.027 | 383 | 242 | 1.244 | 0.117 | 0.174 | 0.281 |
| Currently using injectables | 0.002 | 0.002 | 383 | 242 | 0.893 | 1.020 | 0.000 | 0.006 |
| Currently using female sterilization | 0.118 | 0.014 | 383 | 242 | 0.856 | 0.119 | 0.090 | 0.147 |
| Currently using withdrawal | 0.209 | 0.021 | 383 | 242 | 1.019 | 0.101 | 0.167 | 0.251 |
| Currently using periodic abstinence | 0.003 | 0.003 | 383 | 242 | 0.984 | 0.973 | 0.000 | 0.008 |
| Using public sector source | 0.504 | 0.030 | 212 | 134 | 0.859 | 0.059 | 0.445 | 0.563 |
| Want no more children | 0.712 | 0.025 | 383 | 242 | 1.062 | 0.035 | 0.662 | 0.761 |
| Want to delay at least 2 years | 0.108 | 0.017 | 383 | 242 | 1.094 | 0.161 | 0.073 | 0.143 |
| Ideal number of children | 2.825 | 0.056 | 523 | 344 | 1.034 | 0.020 | 2.713 | 2.936 |
| Mothers received antenatal care for last birth | 0.965 | 0.014 | 139 | 88 | 0.896 | 0.014 | 0.937 | 0.993 |
| Tetanus injections at last ANC visit | 0.733 | 0.049 | 134 | 85 | 1.286 | 0.067 | 0.634 | 0.831 |
| Births with skilled attendant at delivery | 1.000 | 0.000 | 172 | 108 |  | 0.000 | 1.000 | 1.000 |
| Height-for-age (-2SD) | 0.055 | 0.019 | 129 | 81 | 0.949 | 0.343 | 0.017 | 0.092 |
| Weight-for-height (-2SD) | 0.024 | 0.011 | 129 | 81 | 0.831 | 0.466 | 0.002 | 0.046 |
| Weight-for-age (-2SD) | 0.022 | 0.010 | 141 | 88 | 0.799 | 0.445 | 0.002 | 0.042 |
| Body Mass Index (BMI) < 18.5 | 0.028 | 0.007 | 476 | 313 | 0.890 | 0.242 | 0.014 | 0.041 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.636 | 0.021 | 476 | 313 | 0.961 | 0.033 | 0.594 | 0.679 |

Table B. 17 Sampling errors, West Black Sea, Turkey DHS 2018

| Variable | Value <br> (R) | Standard Error (SE) | Number of cases |  | Design Effect (DEFT) | Relative Error (SE/R) | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted <br> (N) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 0.629 | 0.044 | 600 | 384 | 2.213 | 0.070 | 0.541 | 0.717 |
| Literate | 0.944 | 0.008 | 600 | 384 | 0.809 | 0.008 | 0.929 | 0.959 |
| No education/primary school incomplete | 0.050 | 0.010 | 600 | 384 | 1.140 | 0.202 | 0.030 | 0.071 |
| Secondary school or higher | 0.569 | 0.026 | 600 | 384 | 1.300 | 0.046 | 0.517 | 0.622 |
| Never married | 0.302 | 0.022 | 600 | 384 | 1.184 | 0.074 | 0.257 | 0.346 |
| Currently married/in union | 0.655 | 0.022 | 600 | 384 | 1.146 | 0.034 | 0.610 | 0.699 |
| Married before age 20 | 0.376 | 0.022 | 532 | 331 | 1.035 | 0.058 | 0.332 | 0.419 |
| Currently pregnant | 0.020 | 0.006 | 600 | 384 | 1.116 | 0.322 | 0.007 | 0.032 |
| Children ever born | 1.648 | 0.069 | 600 | 384 | 1.104 | 0.042 | 1.511 | 1.786 |
| Children ever born to women over 40 | 2.721 | 0.123 | 195 | 117 | 1.296 | 0.045 | 2.475 | 2.967 |
| Children surviving | 1.584 | 0.064 | 600 | 384 | 1.074 | 0.040 | 1.457 | 1.711 |
| Knowing any contraceptive method | 1.000 | 0.000 | 417 | 252 |  | 0.000 | 1.000 | 1.000 |
| Knowing any modern contraceptive method | 0.997 | 0.003 | 417 | 252 | 1.082 | 0.003 | 0.991 | 1.003 |
| Ever used any contraceptive method | 0.914 | 0.016 | 417 | 252 | 1.160 | 0.017 | 0.882 | 0.946 |
| Currently using any method | 0.761 | 0.024 | 417 | 252 | 1.128 | 0.031 | 0.714 | 0.808 |
| Currently using a modern method | 0.444 | 0.029 | 417 | 252 | 1.171 | 0.064 | 0.387 | 0.501 |
| Currently using pill | 0.019 | 0.006 | 417 | 252 | 0.930 | 0.324 | 0.007 | 0.032 |
| Currently using IUD | 0.091 | 0.017 | 417 | 252 | 1.175 | 0.182 | 0.058 | 0.125 |
| Currently using male condoms | 0.171 | 0.023 | 417 | 252 | 1.231 | 0.133 | 0.126 | 0.217 |
| Currently using injectables | 0.006 | 0.003 | 417 | 252 | 0.870 | 0.568 | 0.000 | 0.012 |
| Currently using female sterilization | 0.156 | 0.019 | 417 | 252 | 1.068 | 0.122 | 0.118 | 0.194 |
| Currently using withdrawal | 0.310 | 0.029 | 417 | 252 | 1.265 | 0.093 | 0.253 | 0.367 |
| Currently using periodic abstinence | 0.000 | 0.000 | 417 | 252 |  |  | 0.000 | 0.000 |
| Using public sector source | 0.589 | 0.046 | 191 | 114 | 1.286 | 0.078 | 0.497 | 0.681 |
| Want no more children | 0.708 | 0.027 | 417 | 252 | 1.231 | 0.039 | 0.653 | 0.763 |
| Want to delay at least 2 years | 0.098 | 0.019 | 417 | 252 | 1.269 | 0.189 | 0.061 | 0.135 |
| Ideal number of children | 2.531 | 0.054 | 596 | 382 | 1.222 | 0.021 | 2.423 | 2.638 |
| Mothers received antenatal care for last birth | 0.985 | 0.010 | 137 | 84 | 0.998 | 0.010 | 0.964 | 1.006 |
| Tetanus injections at last ANC visit | 0.824 | 0.031 | 135 | 82 | 0.956 | 0.038 | 0.762 | 0.886 |
| Births with skilled attendant at delivery | 0.991 | 0.009 | 154 | 93 | 1.156 | 0.009 | 0.973 | 1.009 |
| Height-for-age (-2SD) | 0.041 | 0.019 | 136 | 82 | 1.091 | 0.455 | 0.004 | 0.078 |
| Weight-for-height (-2SD) | 0.023 | 0.013 | 135 | 81 | 0.986 | 0.555 | 0.000 | 0.049 |
| Weight-for-age (-2SD) | 0.000 | 0.000 | 143 | 86 |  |  | 0.000 | 0.000 |
| Body Mass Index (BMI) <18.5 | 0.042 | 0.011 | 574 | 368 | 1.299 | 0.258 | 0.020 | 0.064 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.642 | 0.027 | 574 | 368 | 1.338 | 0.042 | 0.589 | 0.696 |

Table B. 18 Sampling errors, East Black Sea, Turkey DHS 2018

| Variable | Value <br> (R) | Standard Error (SE) | Number of cases |  | Design Effect (DEFT) | Relative Error (SE/R) | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted <br> (N) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 0.631 | 0.058 | 498 | 168 | 2.678 | 0.092 | 0.515 | 0.748 |
| Literate | 0.983 | 0.006 | 498 | 168 | 0.981 | 0.006 | 0.971 | 0.994 |
| No education/primary school incomplete | 0.036 | 0.010 | 498 | 168 | 1.156 | 0.267 | 0.017 | 0.056 |
| Secondary school or higher | 0.708 | 0.022 | 498 | 168 | 1.071 | 0.031 | 0.664 | 0.751 |
| Never married | 0.345 | 0.025 | 498 | 168 | 1.158 | 0.072 | 0.295 | 0.394 |
| Currently married/in union | 0.633 | 0.026 | 498 | 168 | 1.214 | 0.041 | 0.580 | 0.685 |
| Married before age 20 | 0.340 | 0.028 | 427 | 140 | 1.215 | 0.082 | 0.284 | 0.396 |
| Currently pregnant | 0.027 | 0.007 | 498 | 168 | 1.026 | 0.276 | 0.012 | 0.042 |
| Children ever born | 1.433 | 0.062 | 498 | 168 | 0.962 | 0.043 | 1.310 | 1.557 |
| Children ever born to women over 40 | 2.580 | 0.106 | 151 | 47 | 1.014 | 0.041 | 2.367 | 2.793 |
| Children surviving | 1.386 | 0.056 | 498 | 168 | 0.913 | 0.041 | 1.273 | 1.498 |
| Knowing any contraceptive method | 1.000 | 0.000 | 343 | 106 | . | 0.000 | 1.000 | 1.000 |
| Knowing any modern contraceptive method | 1.000 | 0.000 | 343 | 106 |  | 0.000 | 1.000 | 1.000 |
| Ever used any contraceptive method | 0.935 | 0.011 | 343 | 106 | 0.852 | 0.012 | 0.913 | 0.958 |
| Currently using any method | 0.715 | 0.021 | 343 | 106 | 0.850 | 0.029 | 0.674 | 0.757 |
| Currently using a modern method | 0.479 | 0.026 | 343 | 106 | 0.975 | 0.055 | 0.426 | 0.531 |
| Currently using pill | 0.037 | 0.011 | 343 | 106 | 1.036 | 0.288 | 0.016 | 0.058 |
| Currently using IUD | 0.110 | 0.018 | 343 | 106 | 1.040 | 0.160 | 0.074 | 0.145 |
| Currently using male condoms | 0.183 | 0.024 | 343 | 106 | 1.158 | 0.132 | 0.135 | 0.231 |
| Currently using injectables | 0.014 | 0.004 | 343 | 106 | 0.701 | 0.317 | 0.005 | 0.023 |
| Currently using female sterilization | 0.136 | 0.018 | 343 | 106 | 0.949 | 0.130 | 0.100 | 0.171 |
| Currently using withdrawal | 0.237 | 0.030 | 343 | 106 | 1.283 | 0.125 | 0.178 | 0.296 |
| Currently using periodic abstinence | 0.000 | 0.000 | 343 | 106 |  |  | 0.000 | 0.000 |
| Using public sector source | 0.585 | 0.041 | 169 | 53 | 1.076 | 0.070 | 0.504 | 0.667 |
| Want no more children | 0.620 | 0.034 | 343 | 106 | 1.285 | 0.054 | 0.552 | 0.687 |
| Want to delay at least 2 years | 0.169 | 0.022 | 343 | 106 | 1.082 | 0.130 | 0.125 | 0.213 |
| Ideal number of children | 2.525 | 0.063 | 495 | 167 | 1.230 | 0.025 | 2.400 | 2.650 |
| Mothers received antenatal care for last birth | 1.000 | 0.000 | 108 | 34 |  | 0.000 | 1.000 | 1.000 |
| Tetanus injections at last ANC visit | 0.884 | 0.023 | 108 | 34 | 0.736 | 0.026 | 0.839 | 0.929 |
| Births with skilled attendant at delivery | 0.986 | 0.010 | 137 | 43 | 0.971 | 0.010 | 0.967 | 1.006 |
| Height-for-age (-2SD) | 0.108 | 0.027 | 112 | 35 | 0.847 | 0.248 | 0.054 | 0.162 |
| Weight-for-height (-2SD) | 0.016 | 0.011 | 109 | 34 | 0.946 | 0.723 | 0.000 | 0.038 |
| Weight-for-age (-2SD) | 0.000 | 0.000 | 113 | 35 |  |  | 0.000 | 0.000 |
| Body Mass Index (BMI) < 18.5 | 0.062 | 0.013 | 451 | 153 | 1.118 | 0.205 | 0.037 | 0.087 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.543 | 0.027 | 451 | 153 | 1.167 | 0.050 | 0.488 | 0.597 |

Table B. 19 Sampling errors, Northeast Anatolia, Turkey DHS 2018

| Variable | Value <br> (R) | Standard Error (SE) | Number of cases |  | Design Effect (DEFT) | $\begin{aligned} & \text { Relative } \\ & \text { Error } \\ & \text { (SE/R) } \end{aligned}$ | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted <br> (N) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 0.506 | 0.040 | 525 | 172 | 1.840 | 0.080 | 0.425 | 0.586 |
| Literate | 0.845 | 0.028 | 525 | 172 | 1.764 | 0.033 | 0.789 | 0.901 |
| No education/primary school incomplete | 0.211 | 0.027 | 525 | 172 | 1.501 | 0.127 | 0.158 | 0.265 |
| Secondary school or higher | 0.499 | 0.033 | 525 | 172 | 1.492 | 0.065 | 0.434 | 0.564 |
| Never married | 0.312 | 0.022 | 525 | 172 | 1.092 | 0.071 | 0.268 | 0.356 |
| Currently married/in union | 0.663 | 0.023 | 525 | 172 | 1.133 | 0.035 | 0.616 | 0.710 |
| Married before age 20 | 0.441 | 0.029 | 432 | 136 | 1.232 | 0.067 | 0.382 | 0.500 |
| Currently pregnant | 0.052 | 0.011 | 525 | 172 | 1.152 | 0.216 | 0.029 | 0.074 |
| Children ever born | 2.128 | 0.094 | 525 | 172 | 0.972 | 0.044 | 1.941 | 2.315 |
| Children ever born to women over 40 | 4.228 | 0.312 | 111 | 34 | 1.504 | 0.074 | 3.604 | 4.852 |
| Children surviving | 2.016 | 0.083 | 525 | 172 | 0.929 | 0.041 | 1.851 | 2.181 |
| Knowing any contraceptive method | 0.995 | 0.004 | 374 | 114 | 1.014 | 0.004 | 0.987 | 1.002 |
| Knowing any modern contraceptive method | 0.995 | 0.004 | 374 | 114 | 1.014 | 0.004 | 0.987 | 1.002 |
| Ever used any contraceptive method | 0.871 | 0.015 | 374 | 114 | 0.878 | 0.017 | 0.841 | 0.902 |
| Currently using any method | 0.635 | 0.026 | 374 | 114 | 1.052 | 0.041 | 0.583 | 0.688 |
| Currently using a modern method | 0.415 | 0.026 | 374 | 114 | 1.023 | 0.063 | 0.362 | 0.467 |
| Currently using pill | 0.028 | 0.008 | 374 | 114 | 0.875 | 0.265 | 0.013 | 0.043 |
| Currently using IUD | 0.173 | 0.022 | 374 | 114 | 1.105 | 0.125 | 0.130 | 0.216 |
| Currently using male condoms | 0.141 | 0.020 | 374 | 114 | 1.115 | 0.143 | 0.101 | 0.181 |
| Currently using injectables | 0.003 | 0.003 | 374 | 114 | 1.052 | 1.007 | 0.000 | 0.009 |
| Currently using female sterilization | 0.070 | 0.015 | 374 | 114 | 1.137 | 0.215 | 0.040 | 0.100 |
| Currently using withdrawal | 0.218 | 0.017 | 374 | 114 | 0.791 | 0.078 | 0.184 | 0.251 |
| Currently using periodic abstinence | 0.000 | 0.000 | 374 | 114 |  |  | 0.000 | 0.000 |
| Using public sector source | 0.635 | 0.038 | 153 | 48 | 0.974 | 0.060 | 0.559 | 0.711 |
| Want no more children | 0.603 | 0.025 | 374 | 114 | 0.971 | 0.041 | 0.554 | 0.652 |
| Want to delay at least 2 years | 0.149 | 0.018 | 374 | 114 | 0.996 | 0.123 | 0.112 | 0.186 |
| Ideal number of children | 2.904 | 0.089 | 521 | 171 | 1.368 | 0.031 | 2.726 | 3.082 |
| Mothers received antenatal care for last birth | 0.973 | 0.009 | 183 | 56 | 0.729 | 0.009 | 0.955 | 0.990 |
| Tetanus injections at last ANC visit | 0.826 | 0.026 | 178 | 54 | 0.902 | 0.031 | 0.775 | 0.877 |
| Births with skilled attendant at delivery | 0.983 | 0.009 | 232 | 71 | 1.034 | 0.009 | 0.965 | 1.001 |
| Height-for-age (-2SD) | 0.187 | 0.036 | 182 | 56 | 1.178 | 0.192 | 0.116 | 0.259 |
| Weight-for-height (-2SD) | 0.017 | 0.010 | 182 | 56 | 1.016 | 0.576 | 0.000 | 0.036 |
| Weight-for-age (-2SD) | 0.032 | 0.015 | 189 | 58 | 1.157 | 0.453 | 0.003 | 0.061 |
| Body Mass Index (BMI) <18.5 | 0.043 | 0.012 | 453 | 149 | 1.227 | 0.273 | 0.019 | 0.066 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.567 | 0.026 | 453 | 149 | 1.119 | 0.046 | 0.515 | 0.619 |

Table B. 20 Sampling errors, Central East Anatolia, Turkey DHS 2018

| Variable | Value <br> (R) | Standard Error (SE) | Number of cases |  | Design Effect (DEFT) | Relative Error (SE/R) | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted <br> (N) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 0.631 | 0.076 | 574 | 355 | 3.720 | 0.120 | 0.480 | 0.783 |
| Literate | 0.830 | 0.013 | 574 | 355 | 0.803 | 0.015 | 0.805 | 0.856 |
| No education/primary school incomplete | 0.283 | 0.018 | 574 | 355 | 0.965 | 0.064 | 0.246 | 0.319 |
| Secondary school or higher | 0.435 | 0.023 | 574 | 355 | 1.125 | 0.054 | 0.388 | 0.481 |
| Never married | 0.351 | 0.025 | 574 | 355 | 1.261 | 0.072 | 0.301 | 0.401 |
| Currently married/in union | 0.618 | 0.025 | 574 | 355 | 1.243 | 0.041 | 0.568 | 0.669 |
| Married before age 20 | 0.412 | 0.029 | 481 | 289 | 1.277 | 0.070 | 0.355 | 0.470 |
| Currently pregnant | 0.047 | 0.010 | 574 | 355 | 1.148 | 0.215 | 0.027 | 0.068 |
| Children ever born | 1.981 | 0.085 | 574 | 355 | 0.933 | 0.043 | 1.812 | 2.151 |
| Children ever born to women over 40 | 3.856 | 0.215 | 112 | 64 | 0.914 | 0.056 | 3.427 | 4.286 |
| Children surviving | 1.874 | 0.079 | 574 | 355 | 0.939 | 0.042 | 1.715 | 2.032 |
| Knowing any contraceptive method | 0.996 | 0.003 | 382 | 219 | 0.912 | 0.003 | 0.989 | 1.002 |
| Knowing any modern contraceptive method | 0.996 | 0.003 | 382 | 219 | 0.912 | 0.003 | 0.989 | 1.002 |
| Ever used any contraceptive method | 0.882 | 0.015 | 382 | 219 | 0.890 | 0.017 | 0.853 | 0.911 |
| Currently using any method | 0.662 | 0.020 | 382 | 219 | 0.844 | 0.031 | 0.621 | 0.703 |
| Currently using a modern method | 0.402 | 0.030 | 382 | 219 | 1.203 | 0.075 | 0.341 | 0.462 |
| Currently using pill | 0.021 | 0.008 | 382 | 219 | 1.082 | 0.380 | 0.005 | 0.037 |
| Currently using IUD | 0.118 | 0.015 | 382 | 219 | 0.902 | 0.126 | 0.088 | 0.148 |
| Currently using male condoms | 0.155 | 0.019 | 382 | 219 | 1.003 | 0.120 | 0.118 | 0.192 |
| Currently using injectables | 0.005 | 0.004 | 382 | 219 | 0.999 | 0.699 | 0.000 | 0.013 |
| Currently using female sterilization | 0.103 | 0.014 | 382 | 219 | 0.873 | 0.132 | 0.075 | 0.130 |
| Currently using withdrawal | 0.258 | 0.027 | 382 | 219 | 1.208 | 0.105 | 0.203 | 0.312 |
| Currently using periodic abstinence | 0.003 | 0.003 | 382 | 219 | 1.016 | 1.007 | 0.000 | 0.008 |
| Using public sector source | 0.682 | 0.047 | 154 | 89 | 1.257 | 0.070 | 0.587 | 0.777 |
| Want no more children | 0.572 | 0.031 | 382 | 219 | 1.203 | 0.053 | 0.511 | 0.633 |
| Want to delay at least 2 years | 0.198 | 0.019 | 382 | 219 | 0.933 | 0.096 | 0.160 | 0.236 |
| Ideal number of children | 3.110 | 0.065 | 571 | 352 | 1.045 | 0.021 | 2.979 | 3.241 |
| Mothers received antenatal care for last birth | 0.972 | 0.011 | 200 | 115 | 0.978 | 0.012 | 0.949 | 0.995 |
| Tetanus injections at last ANC visit | 0.758 | 0.037 | 194 | 112 | 1.195 | 0.048 | 0.685 | 0.832 |
| Births with skilled attendant at delivery | 0.958 | 0.006 | 279 | 161 | 0.401 | 0.006 | 0.947 | 0.969 |
| Height-for-age (-2SD) | 0.094 | 0.017 | 205 | 118 | 0.834 | 0.177 | 0.061 | 0.127 |
| Weight-for-height (-2SD) | 0.020 | 0.009 | 204 | 117 | 0.963 | 0.466 | 0.001 | 0.039 |
| Weight-for-age (-2SD) | 0.030 | 0.012 | 208 | 119 | 1.005 | 0.393 | 0.006 | 0.054 |
| Body Mass Index (BMI) <18.5 | 0.060 | 0.010 | 460 | 283 | 0.877 | 0.162 | 0.041 | 0.080 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.561 | 0.029 | 460 | 283 | 1.264 | 0.052 | 0.502 | 0.619 |

Table B. 21 Sampling errors, South East Anatolia, Turkey DHS 2018

| Variable | Value <br> (R) | Standard Error (SE) | Number of cases |  | Design Effect (DEFT) | $\begin{gathered} \hline \text { Relative } \\ \text { Error } \\ \text { (SE/R) } \\ \hline \end{gathered}$ | Confidence limits |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unweighted <br> ( N ) | Weighted (WN) |  |  | R-2SE | R+2SE |
| Urban residence | 0.690 | 0.051 | 789 | 778 | 3.087 | 0.074 | 0.588 | 0.793 |
| Literate | 0.844 | 0.019 | 789 | 778 | 1.449 | 0.022 | 0.806 | 0.881 |
| No education/primary school incomplete | 0.250 | 0.028 | 789 | 778 | 1.836 | 0.113 | 0.193 | 0.307 |
| Secondary school or higher | 0.507 | 0.026 | 789 | 778 | 1.483 | 0.052 | 0.454 | 0.560 |
| Never married | 0.342 | 0.018 | 789 | 778 | 1.040 | 0.051 | 0.307 | 0.377 |
| Currently married/in union | 0.628 | 0.016 | 789 | 778 | 0.937 | 0.026 | 0.596 | 0.661 |
| Married before age 20 | 0.395 | 0.023 | 644 | 620 | 1.190 | 0.058 | 0.349 | 0.441 |
| Currently pregnant | 0.053 | 0.008 | 789 | 778 | 1.001 | 0.151 | 0.037 | 0.069 |
| Children ever born | 2.213 | 0.084 | 789 | 778 | 0.959 | 0.038 | 2.045 | 2.381 |
| Children ever born to women over 40 | 4.738 | 0.331 | 150 | 142 | 1.466 | 0.070 | 4.075 | 5.401 |
| Children surviving | 2.112 | 0.076 | 789 | 778 | 0.923 | 0.036 | 1.961 | 2.264 |
| Knowing any contraceptive method | 0.993 | 0.004 | 523 | 489 | 0.935 | 0.004 | 0.985 | 1.000 |
| Knowing any modern contraceptive method | 0.993 | 0.004 | 523 | 489 | 0.935 | 0.004 | 0.985 | 1.000 |
| Ever used any contraceptive method | 0.828 | 0.018 | 523 | 489 | 1.096 | 0.022 | 0.792 | 0.864 |
| Currently using any method | 0.666 | 0.020 | 523 | 489 | 0.946 | 0.029 | 0.627 | 0.705 |
| Currently using a modern method | 0.446 | 0.033 | 523 | 489 | 1.525 | 0.075 | 0.379 | 0.512 |
| Currently using pill | 0.071 | 0.012 | 523 | 489 | 1.056 | 0.167 | 0.047 | 0.095 |
| Currently using IUD | 0.127 | 0.018 | 523 | 489 | 1.233 | 0.142 | 0.091 | 0.163 |
| Currently using male condoms | 0.143 | 0.018 | 523 | 489 | 1.171 | 0.126 | 0.107 | 0.179 |
| Currently using injectables | 0.015 | 0.006 | 523 | 489 | 1.039 | 0.370 | 0.004 | 0.026 |
| Currently using female sterilization | 0.090 | 0.011 | 523 | 489 | 0.902 | 0.125 | 0.068 | 0.113 |
| Currently using withdrawal | 0.212 | 0.023 | 523 | 489 | 1.288 | 0.109 | 0.166 | 0.258 |
| Currently using periodic abstinence | 0.002 | 0.002 | 523 | 489 | 0.994 | 1.011 | 0.000 | 0.006 |
| Using public sector source | 0.614 | 0.037 | 235 | 220 | 1.170 | 0.061 | 0.539 | 0.689 |
| Want no more children | 0.563 | 0.019 | 523 | 489 | 0.898 | 0.035 | 0.524 | 0.602 |
| Want to delay at least 2 years | 0.202 | 0.020 | 523 | 489 | 1.142 | 0.099 | 0.162 | 0.242 |
| Ideal number of children | 3.581 | 0.085 | 775 | 765 | 1.350 | 0.024 | 3.411 | 3.750 |
| Mothers received antenatal care for last birth | 0.957 | 0.014 | 316 | 292 | 1.194 | 0.014 | 0.929 | 0.984 |
| Tetanus injections at last ANC visit | 0.797 | 0.022 | 304 | 280 | 0.931 | 0.027 | 0.754 | 0.840 |
| Births with skilled attendant at delivery | 0.989 | 0.005 | 457 | 424 | 0.961 | 0.005 | 0.980 | 0.999 |
| Height-for-age (-2SD) | 0.058 | 0.019 | 328 | 309 | 1.384 | 0.334 | 0.019 | 0.097 |
| Weight-for-height (-2SD) | 0.015 | 0.008 | 332 | 312 | 1.222 | 0.546 | 0.000 | 0.030 |
| Weight-for-age (-2SD) | 0.011 | 0.007 | 336 | 317 | 1.227 | 0.631 | 0.000 | 0.025 |
| Body Mass Index (BMI) <18.5 | 0.022 | 0.005 | 649 | 646 | 0.826 | 0.213 | 0.013 | 0.032 |
| Body Mass Index (BMI) $\geq 25.0$ | 0.595 | 0.021 | 649 | 646 | 1.115 | 0.036 | 0.552 | 0.638 |

## Table C. 1 Household age distribution

Single-year age distribution of the de facto household population by sex (weighted), Turkey DHS 2018

| Age | Female |  | Male |  | Age | Female |  | Male |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Percent | Number | Percent |  | Number | Percent | Number | Percent |
| 0 | 319 | 1.6 | 302 | 1.6 | 37 | 269 | 1.4 | 226 | 1.2 |
| 1 | 298 | 1.5 | 245 | 1.3 | 38 | 298 | 1.5 | 292 | 1.6 |
| 2 | 302 | 1.6 | 282 | 1.5 | 39 | 232 | 1.2 | 237 | 1.3 |
| 3 | 274 | 1.4 | 329 | 1.8 | 40 | 335 | 1.7 | 338 | 1.8 |
| 4 | 345 | 1.8 | 351 | 1.9 | 41 | 231 | 1.2 | 195 | 1.1 |
| 5 | 300 | 1.6 | 304 | 1.6 | 42 | 267 | 1.4 | 268 | 1.4 |
| 6 | 263 | 1.4 | 301 | 1.6 | 43 | 225 | 1.2 | 238 | 1.3 |
| 7 | 282 | 1.5 | 297 | 1.6 | 44 | 268 | 1.4 | 238 | 1.3 |
| 8 | 292 | 1.5 | 310 | 1.7 | 45 | 286 | 1.5 | 295 | 1.6 |
| 9 | 261 | 1.4 | 330 | 1.8 | 46 | 238 | 1.2 | 227 | 1.2 |
| 10 | 368 | 1.9 | 351 | 1.9 | 47 | 238 | 1.2 | 203 | 1.1 |
| 11 | 318 | 1.6 | 301 | 1.6 | 48 | 281 | 1.5 | 243 | 1.3 |
| 12 | 346 | 1.8 | 331 | 1.8 | 49 | 149 | 0.8 | 219 | 1.2 |
| 13 | 327 | 1.7 | 303 | 1.6 | 50 | 315 | 1.6 | 272 | 1.5 |
| 14 | 297 | 1.5 | 345 | 1.9 | 51 | 196 | 1.0 | 145 | 0.8 |
| 15 | 240 | 1.2 | 286 | 1.5 | 52 | 247 | 1.3 | 250 | 1.3 |
| 16 | 286 | 1.5 | 320 | 1.7 | 53 | 255 | 1.3 | 226 | 1.2 |
| 17 | 360 | 1.9 | 304 | 1.6 | 54 | 242 | 1.2 | 188 | 1.0 |
| 18 | 288 | 1.5 | 343 | 1.8 | 55 | 293 | 1.5 | 272 | 1.5 |
| 19 | 265 | 1.4 | 232 | 1.2 | 56 | 240 | 1.2 | 197 | 1.1 |
| 20 | 271 | 1.4 | 225 | 1.2 | 57 | 203 | 1.0 | 183 | 1.0 |
| 21 | 243 | 1.3 | 208 | 1.1 | 58 | 275 | 1.4 | 245 | 1.3 |
| 22 | 256 | 1.3 | 231 | 1.2 | 59 | 150 | 0.8 | 142 | 0.8 |
| 23 | 271 | 1.4 | 295 | 1.6 | 60 | 242 | 1.3 | 234 | 1.3 |
| 24 | 264 | 1.4 | 309 | 1.7 | 61 | 122 | 0.6 | 123 | 0.7 |
| 25 | 311 | 1.6 | 277 | 1.5 | 62 | 222 | 1.1 | 193 | 1.0 |
| 26 | 270 | 1.4 | 226 | 1.2 | 63 | 200 | 1.0 | 188 | 1.0 |
| 27 | 267 | 1.4 | 282 | 1.5 | 64 | 148 | 0.8 | 144 | 0.8 |
| 28 | 287 | 1.5 | 257 | 1.4 | 65 | 254 | 1.3 | 208 | 1.1 |
| 29 | 198 | 1.0 | 239 | 1.3 | 66 | 117 | 0.6 | 130 | 0.7 |
| 30 | 302 | 1.6 | 292 | 1.6 | 67 | 130 | 0.7 | 114 | 0.6 |
| 31 | 237 | 1.2 | 233 | 1.3 | 68 | 134 | 0.7 | 142 | 0.8 |
| 32 | 273 | 1.4 | 270 | 1.5 | 69 | 92 | 0.5 | 92 | 0.5 |
| 33 | 262 | 1.4 | 239 | 1.3 | 70+ | 1,309 | 6.8 | 1,082 | 5.8 |
| 34 | 271 | 1.4 | 259 | 1.4 | Don't know/ missing | 16 | 0.1 | 24 | 0.1 |
| 35 | 308 | 1.6 | 280 | 1.5 |  |  |  |  |  |
| 36 | 296 | 1.5 | 253 | 1.4 | Total | 19,340 | 100.0 | 18,557 | 100.0 |

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview.

## Table C. 2 Age distribution of eligible and interviewed women

De facto household population of women age 10-54, number and percent distribution of interviewed women age 15-49, and eligible women who were interviewed (weighted), by 5 -year age groups, Turkey DHS 2018

| Age group | Household population of women age 10-54 | Interviewed women age 15-49 |  | Percentage of eligible women interviewed |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Number | Percentage |  |
| 10-14 | 1,656 | - | - | - |
| 15-19 | 1,438 | 1,010 | 13.4 | 70.2 |
| 20-24 | 1,305 | 994 | 13.2 | 76.1 |
| 25-29 | 1,333 | 1,082 | 14.4 | 81.2 |
| 30-34 | 1,346 | 1,151 | 15.3 | 85.5 |
| 35-39 | 1,403 | 1,193 | 15.9 | 85.1 |
| 40-44 | 1,327 | 1,117 | 14.8 | 84.2 |
| 45-49 | 1,193 | 981 | 13.0 | 82.3 |
| 50-54 | 1,254 | - | - | - |
| 15-49 | 9,346 | 7,528 | 100.0 | 80.6 |

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview. Weights for both household population of women and interviewed women are household weights. Age is based on the Household Questionnaire.

## Table C. 3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Turkey DHS 2018

| Subject | Reference | Percentage with information missing | Number of cases |
| :---: | :---: | :---: | :---: |
| Birth date | Births in the 15 years preceding the survey |  |  |
| Day only |  | 1.82 | 7,483 |
| Day and month |  | 1.46 | 7,483 |
| Day, month, and year |  | 0.13 | 7,483 |
| Age at death | Deceased children born in the 15 years preceding the survey | 0.00 | 140 |
| Age/date at first union ${ }^{1}$ | Ever-married women age 15-49 | 0.74 | 5,141 |
| Respondent's education | Women age 15-49 | 0.00 | 7,346 |
| Anthropometry of children | Living children age 0-59 months (from the Individual Questionnaire) |  |  |
| Height |  | 23.57 | 2,568 |
| Weight |  | 21.18 | 2,568 |
| Height or weight |  | 24.08 | 2,568 |
| Anthropometry of children | Women age 15-49 (from the Individual Questionnaire) |  |  |
| Height |  | 7.90 | 7,346 |
| Weight |  | 8.72 | 7,346 |
| Height or weight |  | 8.53 | 7,528 |

[^27]
## Table C. 4 Births by calendar years

Number of births, percentage with complete birth date, sex ratio at birth, and calendar year ratio by calendar year, according to living, dead, and total children (weighted), Turkey DHS 2018

|  | Number of births |  |  | Percentage with year and month of birth given |  |  | Sex ratio at birth ${ }^{1}$ |  |  | Calendar year ratio ${ }^{2}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Calendar year | Living | Dead | Total | Living | Dead | Total | Living | Dead | Total | Living | Dead | Total |
| 2019 | 432 | 4 | 436 | 99.9 | 100.0 | 99.9 | 95.2 | 297.8 | 96.0 | - | - |  |
| 2018 | 455 | 8 | 463 | 99.2 | 100.0 | 99.2 | 82.5 | 405.3 | 84.7 | - | - | - |
| 2017 | 487 | 11 | 498 | 99.5 | 100.0 | 99.5 | 92.1 | 58.2 | 91.2 | 101.6 | 124.3 | 102.0 |
| 2016 | 503 | 9 | 512 | 99.2 | 84.0 | 98.9 | 115.3 | 98.4 | 115.0 | 95.6 | 82.6 | 95.3 |
| 2015 | 567 | 11 | 578 | 99.3 | 100.0 | 99.3 | 106.5 | 109.9 | 106.6 | 112.7 | 189.7 | 113.6 |
| 2014 | 502 | 3 | 505 | 99.3 | 65.4 | 99.1 | 99.3 | 52.8 | 99.0 | 93.5 | 27.0 | 92.3 |
| 2013 | 508 | 9 | 516 | 98.3 | 86.1 | 98.1 | 118.8 | 54.8 | 117.3 | 107.7 | 140.5 | 108.2 |
| 2012 | 440 | 10 | 450 | 98.0 | 65.3 | 97.3 | 107.8 | 115.2 | 107.9 | 90.4 | 116.9 | 90.9 |
| 2011 | 466 | 8 | 474 | 98.6 | 57.0 | 97.9 | 109.7 | 82.5 | 109.2 | 99.0 | 103.4 | 99.0 |
| 2010 | 502 | 6 | 508 | 98.6 | 66.4 | 98.2 | 124.7 | 128.2 | 124.7 | 102.6 | 61.0 | 101.9 |
| 2015-2019 | 2,444 | 43 | 2,487 | 99.4 | 96.6 | 99.4 | 98.3 | 122.9 | 98.7 | - | - | - |
| 2010-2014 | 2,419 | 35 | 2,453 | 98.6 | 68.8 | 98.1 | 111.9 | 85.3 | 111.4 | - | - |  |
| 2005-2009 | 2,444 | 62 | 2,507 | 98.2 | 80.3 | 97.8 | 101.6 | 120.7 | 102.1 | - | - |  |
| 2000-2004 | 1,996 | 87 | 2,083 | 96.3 | 79.3 | 95.6 | 106.8 | 81.6 | 105.6 | - | - | - |
| <2000 | 2,324 | 193 | 2,517 | 93.3 | 73.9 | 91.8 | 101.4 | 105.7 | 101.7 | - | - | - |
| All | 11,627 | 420 | 12,047 | 97.2 | 77.9 | 96.6 | 103.8 | 101.9 | 103.7 | - | - | - |

[^28]
## Table C. 5 Reporting of age at death in days

Distribution of reported deaths under age 1 month by age at death in days and percentage of neonatal deaths reported to occur at ages 06 days, for 5 -year periods preceding the survey (weighted), Turkey DHS 2018

|  | Number of years preceding <br> the survey |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |
| Age at death (days) | $0-4$ | $5-9$ | $10-14$ | $15-19$ | $0-19$ |
|  |  |  |  |  |  |
| $<1$ | 9 | 7 | 10 | 25 | 51 |
| 1 | 2 | 1 | 2 | 2 | 7 |
| 2 | 1 | 2 | 2 | 4 | 8 |
| 3 | 3 | 1 | 3 | 7 | 14 |
| 4 | 0 | 2 | 0 | 1 | 3 |
| 5 | 1 | 0 | 0 | 0 | 1 |
| 6 | 0 | 1 | 0 | 0 | 1 |
| 7 | 3 | 2 | 4 | 1 | 10 |
| 8 | 1 | 0 | 1 | 0 | 1 |
| 10 | 1 | 0 | 2 | 0 | 3 |
| 11 | 1 | 0 | 0 | 0 | 1 |
| 14 | 0 | 0 | 0 | 1 | 1 |
| 15 | 0 | 0 | 4 | 0 | 4 |
| 17 | 1 | 0 | 1 | 0 | 1 |
| 19 | 0 | 1 | 0 | 0 | 1 |
| 20 | 0 | 1 | 0 | 2 | 3 |
| 21 | 1 | 0 | 0 | 0 | 1 |
| 23 | 0 | 2 | 0 | 0 | 2 |
| 24 | 0 | 0 | 0 | 1 | 1 |
| 29 | 0 | 0 | 1 | 0 | 1 |
| 30 | 1 | 1 | 0 | 0 | 2 |
| Total 0-30 |  |  |  |  |  |
| Percentage early neonatal ${ }^{1}$ | 65.6 | 69.0 | 60.1 | 87.6 | 73.5 |
| ${ }^{1} 0-6$ days / 0-30 days |  |  |  |  |  |

## Table C. 6 Reporting of age at death in months

Distribution of reported deaths under age 2 years by age at death in months and percentage of infant deaths reported to occur at age under 1 month, for 5 -year periods preceding the survey (weighted), Turkey DHS 2018

|  | Number of years preceding <br> the survey |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |
| Age at death (months) | $0-4$ | $5-9$ | $10-14$ | $15-19$ | $0-19$ |
|  |  |  |  |  |  |
| $<1^{\text {a }}$ | 23 | 20 | 28 | 46 | 117 |
| 1 | 1 | 2 | 3 | 4 | 10 |
| 2 | 4 | 2 | 0 | 3 | 9 |
| 3 | 7 | 1 | 4 | 4 | 17 |
| 4 | 4 | 1 | 3 | 6 | 15 |
| 5 | 0 | 1 | 2 | 5 | 8 |
| 6 | 0 | 3 | 2 | 1 | 5 |
| 7 | 1 | 1 | 1 | 0 | 4 |
| 8 | 0 | 1 | 2 | 1 | 4 |
| 9 | 0 | 1 | 1 | 3 | 4 |
| 10 | 0 | 0 | 0 | 1 | 1 |
| 11 | 1 | 1 | 0 | 0 | 2 |
| 12 | 0 | 0 | 0 | 2 | 3 |
| 15 | 0 | 0 | 1 | 1 | 2 |
| 18 | 0 | 0 | 0 | 1 | 1 |
|  |  |  |  |  |  |
| Total 0-11 |  |  |  |  |  |
| Percentage neonatal |  |  |  |  |  |

[^29]
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## QUESTIONNAIRES

Appendix E

$\downarrow$





| $\begin{array}{\|l\|l\|} \hline \text { HHE } \\ \text { LINE } \\ \text { NO } \end{array}$ | Place of residence for visitors |  |  | maternal survival |  | paterval survival |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | RECORD LINENO. IF LISTEDIN THEHOUSEHOLD.RECORD "OO"IF LIVINGELSEWHERE. |
|  |  | CHECK Q. I3A, IF LIVES IN TURKEY ORSYRLA, ASK. IF NOT SKIP TO I4.In which province does .... usually live?Is it a provincecenter, district center, sub-districtor village?USE PROVINCE TRAFFIC CODESFOR TURKEY, USE PROVINCECODES FOR SYRIA. |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| (1) |  | $\xrightarrow{\text { (13B) }}$ |  | (14) | (15) | (16) | (17) |
| 01 | $\square$ | $D$ | $\square$ | ${ }_{1}^{1} \xrightarrow{28} 16$ | $\square$ | $1 \xrightarrow{\stackrel{8}{8}} 18$ |  |
| 02 | $\square$ |  | $\square$ | ${ }_{1}^{1} \xrightarrow{2 \xrightarrow[8]{8}} 16$ | 1 | $1 \xrightarrow{2}{ }_{4}^{8}$ | $\square$ |
| 03 |  |  | $\square$ | $1 \xrightarrow{\stackrel{8}{4}} 16$ | I | $1 \xrightarrow{2}{ }^{8} 18$ | $\square$ |
| 04 |  |  | $\square$ | ${ }^{1} \xrightarrow{\stackrel{8}{4}} 16$ | $\square$ | $1 \xrightarrow{2}{ }^{8} 18$ | $\square$ |
| 05 | $\square$ |  | $\square$ |  | $\square$ | $1 \xrightarrow{2}{ }^{8} 18$ | $\square$ |
| 06 | $\square$ |  | $\square$ | ${ }^{1} \stackrel{8}{\xrightarrow[8]{4}} 16$ | - | ${ }^{1} \xrightarrow{2} \stackrel{8}{4} 18$ | $\square$ |
| 07 |  | $\pm$ |  | ${ }^{1} \xrightarrow{\stackrel{8}{4}} 16$ | $\square$ | $1 \xrightarrow{2 \xrightarrow[8]{8}} 18$ | $\square$ |
| 08 |  | $0$ | $\square$ | $\stackrel{1}{\xrightarrow[L]{\xrightarrow[8]{8}} 16}$ | $\square$ | $1 \xrightarrow{2}{ }^{8} 18$ | $\square$ |
| 09 | $\square$ | $\square$ | $\square$ | ${ }_{1} \stackrel{L}{4}_{\xrightarrow[8]{4}}^{16}$ | - | ${ }^{1} \xrightarrow{2} 8_{\square}^{8}$ | $\square$ |
| 10 | $1$ | $\square$ | $\square$ | ${ }^{1} \stackrel{8}{4} 16$ | , | $1 \stackrel{2}{\xrightarrow[8]{8}} 18$ |  |
|  | cointre | ${ }_{\text {codes }}$ |  | C) |  |  |  |
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\] \& \multicolumn{4}{|l|}{educationstatus AGES 4 AND OVER} \& \multicolumn{2}{|l|}{Employment and income ages 12 And over} \\
\hline \&  \&  \& \begin{tabular}{l}
RECORD HIGHEST GRADE \\
COMPLETED IN PRIMARY
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CHOOL, \\
SCHOOL, UNDERGRADUATE
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\end{tabular} \&  \& Is ..... working
in a paid job?

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\hline \multicolumn{2}{|l|}{(21-23A-24A) Level codes} \& \multicolumn{2}{|l|}{(218-23B-248) GRADE CODES} \& \& \& <br>

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| 213 | Does anybody smoke in the kitchen，lounge or rooms in your house？ <br> （IF YES）How often does anyone smoke inside your house？ Would you say daily，weekly，monthly or less than once a month？ |  |
| :---: | :---: | :---: |
| 214 | What is the main material of the floor？ |  |
| 15 | Do you have the following in the household？ <br> Deep freezer <br> Gas／Electric oven <br> Microwave oven <br> Dishwasher <br> Garbage dispenser <br> Washing machine <br> Drying machine <br> Iron <br> Vacuum cleaner <br> LED／LCD Television <br> Home theater <br> Tea／Coffee machine <br> Kettle <br> Generator <br> Food processor／Blender <br> Paid TV services（Cable TV，Digiturk，D－Smart etc．） <br> Satellite TV <br> Computer <br> Internet connection <br> Air conditioner <br> Private car <br> Commercial vehicle <br> Tractor | DEEP FREEZER． <br> GAS／ELECTRIC OVEN <br> MICROWAVE OVEN． <br> DISHWASHER． <br> GARBAGE DISPENSER <br> WASHING MACHINE <br> DRYING MACHINE <br> IRON． <br> VACUUM CLEANER． <br> LED／LCD TELEVISION <br> HOME THEATER <br> TEA／COFFEE MACHINE． <br> KETTLE <br> GENERATOR <br> FOOD PROCESSOR／BLENDER <br> PAID TV SERVICES <br> SATELLITE TV <br> COMPUTER <br> INTERNET CONNECTION <br> AIR CONDITIONER <br> PRIVATE CAR <br> COMMERCIAL VEHICLE． TRACTOR．．． $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ $\qquad$ |


HACETTEPE UNIVERSITY INSTITUTE OF POPULATION STUDIES











| 01 HER/HIS OWN HOUSE <br> 02 SOMEONE ELSE'S HOUSE <br> PUBLIC SECTOR <br> 11 PUBLIC HOSPITAL <br> 12 MATERNITY HOSPITAL <br> 13 TRAINING AND RESEARCH HOSPITAL <br> 14 CITY HOSPITAL <br> PRIVATE SECTOR <br> 21 PRIVATE HOSPITAL <br> 22 PRIVATE POLICLINIC <br> 23 PRIVATE DOCTOR'S CLINIC <br> 31 UNIVERSITY HOSPITAL <br> 96 OTHER (SPECIFY) $\qquad$ |
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| 211 | Now I would like to talk to you about all of your births. It is very important to learn about all of your births, whether still alive or not. Please let's start with the first one you had. <br> RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES. MAKE SURE TO RECORD <br> DECEASED CHILDREN FROM MULTIPLE BIRTHS BEFORE THOSE SURVIVING. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 212 | What name was given to your (first/next) baby? <br> WRITE "BABY" <br> IF THE BABY DIED <br> BEFORE <br> A NAME GIVEN. | 213 <br> RECORD <br> SINGLE OR <br> MULTIPLE <br> BIRTH <br> status |  | 215 In what month and year..... was born? PROBE: <br> In what season was s/he born? <br> ATTENTION: FOR ALL CHILDREN, THE YEAR OF BIRTH; FOR CHILDREN BORN AFTER 2013, THE MONTH OF THE YEAR OF BIRTH MUST BE DETERMINED. | $216 \begin{gathered} \text { Is...... } \\ \text { still } \\ \text { alive? } \end{gathered}$ | 217 How old was ... at his/her last birthday? <br> RECORD AGE IN <br> COMPLETED YEARS. MAKE calculations FOR CONSISTENCY. |
| 01 | (NAME) | SINGLE.............. 1 <br> MULTIPLE........ 2 | male....... 1 female.... 2 |  | YES............. NO................ $220 \longleftarrow$ | AGE (IN YEARS) |
| 02 | (NAME) | SINGLE................ 1 <br> MULTIPLE $\qquad$ | male....... 1 female.... 2 |  | YES............. 1 NO................ $220 \longleftarrow$ | AGE (IN YEARS) |
| 03 | (NAME) | SINGLE............. 1 <br> MULTIPLE......... 2 | MALE........ 1 FEMALE.... 2 |  |  | AGE (IN YEARS) |
| 04 | (NAME) | SINGLE............. 1 <br> MULTIPLE $\qquad$ | MALE........ 1 <br> FEMALE.... 2 |  | YES............ NO............... $220 \longleftarrow$ | AGE (IN YEARS) |
| 05 | (NAME) | SINGLE............. 1 <br> MULTIPLE $\qquad$ | maLE....... 1 female.... 2 |  |  | AGE (IN YEARS) |
| 06 | (NAME) | SINGLE............. 1 <br> MULTIPLE......... ${ }^{2}$ | MALE....... 1 Female.... 2 |  | YES............ ${ }^{1}$ NO............... $220 \longleftarrow$ | AGE (IN YEARS) |




| 212 |  | 213 $\qquad$ SINGLE OR MULTIPLE BIRTH STATUS | $\begin{gathered} 214 \begin{array}{c} \text { Is ..... } \\ \text { a oby } \\ \text { ora } \\ \text { ginl? } \end{array} \end{gathered}$ |  | In what month and year was born? <br> PROBE <br> brit season was s/he born? <br> THE YEAR OF BIRTH: FOR THE YEAR OF BIRTH; FOR CHILDREN BORN AFTER 2008, THE MONTH OF THE YEAR OF BIRTH MUST BE |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\stackrel{07}{7}$ |  | Single $\quad$. 1 <br> MULTIPLE. ${ }^{2}$ | MALE........ 1 FEMALE.... 2 |  |  |  |  |
| ${ }^{08}$ | (NAME) | SINGLE................. 1 <br> MULTIPLE........... 2 | male. .i. female... |  |  |  |  |
| ${ }^{09}$ | (NAME) | SINGLE................. 1 <br> MULTIPLE. $\qquad$ | MALE........ <br> FEMALE.... 2 |  |  |  |  |
| ${ }^{10}$ | (NAME) | SINGLE................. 1 <br> MULTIPLE........... 2 | MALE........ <br> FEMALE.... 2 |  |  |  |  |
| 11 | (NAME) | SINGLE........... 1 <br> MULTIPLE........ ${ }^{2}$ | MALE........ <br> FEMALE.... 2 |  |  |  |  |
| 12 | (NAME) | Single............ 1 <br> MULTIPLE........ 2 | FEMALE.... 2 |  |  |  |  |
| TICK HERE IF NUMBER OF LIVE BIRTHS IS MORE THAN 12, USE ADDITIONAL QUESTIONNAIRE FORM. CONTINUE THE INTERVIEW FROM THIS FORM. |  |  |  |  |  |  |  |













|  |  | Name_ Last birth | NAME <br> NEXT-TO-LAST BIRTH |
| :---: | :---: | :---: | :---: |
| 413 | During one of your antenatal checks, have you ever been informed about the emergency edema, fever, etc.) at which you have to see health care? |  |  |
| 414 | Have you taken iron tablets during your pregnancy to ......? |  |  |
| 415 | Where did you give birth to ..........? <br> (NAME OF PLACE) $\qquad$ (NAME OF PLACE) |  | номе |
| 416 | Who assisted with the delivery of <br> Anyone else? <br> RECORD ALL MENTIONED. $\qquad$ | HEALTH PROFESSIONAL <br> DOCTOR. <br> MIDWIFE <br> OTHER PERSONS <br> NO ONE.$\qquad$.. <br> A <br> .. <br> B <br> TRADITIONAL MIDWIFE................. D RELATIVE/FRIENDS.................. E <br> OTHER <br> (SPECIFY) X .. Y |  |
| 417 | How did ...........'s birth occur? Was it vaginal birth or caesarean section? | NORMAL (VAGINAL) BIRTH <br> CAESAREAN $\qquad$ | NORMAL (VAGINAL) BIRTH <br> CAESAREAN. $\qquad$ |
| 418 | When was the decision made to have the caesarean section? Was it before or after your labor pains started? |  | $\begin{aligned} & \text { BEFFRE................................. } \\ & \hline \end{aligned}$ |





|  |  | $\begin{aligned} & \text { Last birth } \\ & \hline \end{aligned}$ | NAME <br> Next-To-LAST BiRth $\qquad$ |
| :---: | :---: | :---: | :---: |
| 440 | Where did the first check of ....... take place? <br> (NAME OF PLACE) | HOME <br> WOMAN'S HOME <br> OTHER HOME. <br> PUBLIC SECTOR <br> PUBLIC/NUMUNE HOSPITAL <br> MATERNITY HOUSE <br> TRAINING AND RESEARCH HOSP. <br> CITY HOSPITAL. <br> AMILY HEALTH CENTER ............................. 16 <br> COMMUNITY HEALTH CENTER...... <br> оTHER <br> PRIVATE SECTOR <br> OTHER_ <br> UNIVERSITY HOSPITAL MIGRANT HEALTH CENTER OTHER $\qquad$ $\qquad$ <br> SPECIFY) $\qquad$ <br> .17 $-19$ <br> PRIVATE HOSPITAL............................ 21 PRIVATE POLYCLINIC.............. 22 PRIVATE DOCTOR'S CLINIC ......... 23 29 $\qquad$ $1 . .31$ $\ldots . . .41$ $\ldots . .61$ -96 |  |
| 441 | When ........ was born, was he/she very large, larger than average, average, smaller than average or very small? |  |  |
| 412 | Was......weighed at birth? |  |  |
| 443 | How much did ...... weigh? <br> RECORD WEIGHT FROM HEALTH CARD, IF AVAILABLE |  |  |
| 44 | Has...... been through a test of feel lance? |  |  |
| 445 | Has...s's hearing been tested? |  |  |
| $445 A$ | Is .... currently attending creche/nursery/day care center or kindergarten? |  |  |



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SECTION 7B. WOMAN'S WORK

| ${ }_{71}$ | Now I want to ask questions about your working status, <br> As you know some women sell small things, sell goods at the market place, work on the family farm or business either paid or unpaid, do needlework for other people, look after children, work as housemaids, etc. Please include these kinds of jobs as well. <br> Since the age of 12 , have you ever worked in a job whether paid or unpaid for at least 6 months? |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 732 | Can you tell me the jobs you have worked in whether paid or unpaid, for at least 6 months, since you were 12 , starting from the first one? RECORD ALL JOBS THE WOMAN HAS WORKED FOR AT LEAST 6 MONTHS FROM AGE 12 UNTIL SURVEY DATE TO THE LIST WITH DETAILS, STARTING FROM THE FIRST ONE. <br> ADD THE CURRENT JOB IN THE LIST REGARDLESS OF ITS DURATION. ASK THE QUESTIONS FOR EACH JOB SEPARATELY. CAUTION: IF THE RESPONDENT HAS WORKED AT MORE THAN 10 JOBS, USE AN ADDITIONAL QUESTIONNAIRE. CARRY ON THE INTERVIEW WITH THIS NEW QUESTIONNAIRE. |  |  |  |  |
| 733 w | at was your job? | 734 In which year and month did you start working in this job? | 735 In which sector were you working? | 736 Was in public or private sect |  |
| RECORD THE IOB IN DETTALL |  |  |  |  |  |
| 01 | (Job) |  | Agriculture... 1 <br> INDUSTRYY $\quad 2$ <br> service $\quad 3$ | PUBLIC. 1 PRIVATE..... 2 | $\square$ ${ }_{\text {(SPRCIFY IF }}$ OTHER) |
| 02 | (JOB) | $\square$ | AGRICULTURE.... 1 <br> INDUSTRY............ 2 <br> SERVICE................ 3 | public .1 <br> PRIVATE..... 2 | $\square$ (SPECIFY IF OTHER) |
| 03 | (JОВ) |  | Agriculture... 1 <br> Industry $\quad{ }^{2}$ <br> SERVICR $\quad 3$ | PUBLIC $\quad 1$ private .... 2 | $\square$ (SPECIFY IF OTHER) (SPECIFY IFOTHER) |
| 04 | (JOB) |  | agriculture... 1 <br> Industry. . $\quad 2$ <br> SERVICR $\quad 3$ | PUBLIC.... 1 <br> PRIVATE . 2 | $\square$ (SPECIFY IF otrer <br> ( |
| 05 | (ЈОВ) |  | AGRICULTURE.... 1 <br> INDUSTRY......... ${ }^{2}$ <br> SERVICE.................. 3 | PUBLIC ${ }^{1}$ <br> PRIVATE 2 | (SPECIFY IF OTHER |

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## HEALTH COMES FIRST

## PARENTS LOVE THEIR CHILDREN

## THE EARLY BIRD CATCHES THE WORM

## A ROLLING STONE GATHERS NO MOSS





[^0]:    Note: Figures in parentheses are based on 25-49 unweighted cases.
    $\mathrm{nc}=$ Not calculated
    $a=$ omitted because less than $50 \%$ of the children in this group were exclusively or predominantly breastfeeding
    ${ }^{1}$ Equivalent to the age-specific fertility rate for women age 15-19 for the 3-year period preceding the survey, expressed in terms of births per 1,000 women age 15-19
    ${ }^{2}$ Measured for children age 36-59 months

[^1]:    ${ }^{1}$ Persons who were not usual household members but who were present in that household on the night before the interview were identified as "visitors" and were included in the household roster in order to obtain the de facto survey population.

[^2]:    ${ }^{1}$ Households interviewed/households occupied
    ${ }^{2}$ Respondents interviewed/eligible respondents

[^3]:    Note: Table is based on de jure members, i.e., usual residents.
    ${ }^{1}$ Includes children with father dead, mother dead, both dead and one parent dead but missing information on survival status of the other parent.

[^4]:    Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
    ${ }^{1}$ Completed $4-5$ grade at the primary level
    ${ }^{2}$ Completed 3-4 grade at the secondary level
    ${ }^{3}$ Completed at least 3 years of high school or above

[^5]:    ${ }^{1}$ The NAR for high school is the percentage of the high school-school age (14-17 years) population that is attending high school. By definition the NAR cannot exceed 100.0 percent.
    ${ }^{2}$ The GAR for high school is the total number of high school students, expressed as a percentage of the official high-school-age population.
    If there are significant numbers of overage and underage students at a given level of schooling, the GAR can exceed 100 percent.
    ${ }^{3}$ The Gender Parity Index for high school is the ratio of the high school NAR (GAR) for females to the NAR (GAR) for males.

[^6]:    ${ }^{1}$ Completed $4-5$ grade at the primary level
    ${ }^{2}$ Completed 3-4 grade at the secondary level
    ${ }^{3}$ Completed at least 3 years of high school or above

[^7]:    ${ }^{1}$ Refers to women who attended schooling higher than the secondary level and women who can read a whole sentence or part of a sentence

[^8]:    1 "Currently employed" is defined as having done work in the past seven days. Includes persons who did not work in the past seven days but

[^9]:    Note: The age at first marriage is defined as the age at which the respondent began living with her/his first spouse/partner na $=$ Not applicable due to censoring
    a = Omitted because less than $50 \%$ of the women or men began living with their spouse or partner for the first time before reaching the beginning of the age group

[^10]:    ${ }^{1}$ The number of living children includes the current pregnancy
    ${ }^{2}$ Wants next birth within 2 years
    ${ }^{3}$ Wants to delay next birth for 2 or more years
    ${ }^{4}$ Includes both female and male sterilization

[^11]:    ${ }^{1}$ The number of living children includes current pregnancy for women
    ${ }^{2}$ Means are calculated excluding respondents who gave non-numeric responses.

[^12]:    Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
    ${ }^{1}$ Includes only the most recent birth in the five years preceding the survey

[^13]:    Note: Figures in parentheses are based on 25-49 unweighted cases.
    ${ }^{1}$ Includes women who received a check from a doctor, nurse and midwife
    ${ }^{2}$ Includes women who received a check after 41 days

[^14]:    Note: Figures in parentheses are based on 25-49 unweighted cases.
    ${ }^{1}$ Includes newborns who received a check from a doctor, midwife, nurse.
    ${ }^{2}$ Includes newborns who received a check after the first week of life

[^15]:    na $=$ Not applicable
    BCG = Bacille Calmette-Guérin
    DTaPHibIPV = Diphtheria, pertussis, tetanus, polio, haemophilus influenzae type $b$
    HepB $=$ Hepatitis $B$
    OPV = Oral polio vaccine
    $\mathrm{PCV}=$ Pneumococcal conjugate vaccine
    MMR = Measles, mumps, rubella
    HepA $=$ Hepatitis $A$
    Varicella = Chickenpox
    ${ }^{1}$ Vaccination card, booklet or other home-based record
    ${ }^{2}$ Received by age 12 months
    ${ }^{3}$ 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 of those children are assumed to be the same as for children with a written record of vaccination.
    ${ }^{4}$ Received by age 12 months for all vaccines except one dose of MMR, second dose of OPV (by age 18 months), one dose of varicella and two doses of hepatitis A (by age 18 and 24 months).
    ${ }^{5}$ BCG, three doses of DTaP-Hib-IPV and one dose of MMR
    ${ }^{6}$ For children 12-23 months: BCG, three doses of DTaP-Hib-IPV, three doses of hepatitis B, first dose of OPV and three doses of PCV. For children 24-35 months, all of these plus a second dose of OPV, one dose of MMR, one dose of varicella and two doses of hepatitis A.

[^16]:    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.
    ${ }^{1}$ Vaccination card, booklet or other home-based record

[^17]:    Note: Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards. 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.
    ${ }^{1}$ Recumbent length is measured for children under age 2, standing height is measured for all other children.
    ${ }^{2}$ Includes children who are below -3 standard deviations (SD) from the WHO Child Growth standards population median
    ${ }^{3}$ Excludes children whose mothers were not interviewed
    ${ }^{4}$ First-born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval
    ${ }^{5}$ Excludes children whose mothers were not weighed and measured, children whose mothers were not interviewed, and children whose mothers are pregnant or gave birth within the preceding 2 months. Mother's nutritional status in terms of BMI (Body Mass Index) is presented in Table 11.8

[^18]:    Note: Table is based on last-born children born in the 2 years preceding the survey regardless of whether the children are living or dead at the time of interview. Figures in parentheses are based on 25-49 unweighted cases.
    ${ }^{1}$ Includes children who started breastfeeding within one hour of birth
    ${ }^{2}$ Children given something other than breast milk during the first three days of life

[^19]:    ${ }^{1}$ For children age 0-5 months: exclusively breastfed, for children age 6-23 months: received breastmilk and complementary foods
    ${ }^{2}$ Either exclusively breastfed or received breast milk and plain water, and/or non-milk liquids only
    ${ }^{3}$ Received breast milk and fresh, tinned, or powdered animal milk, or commercial infant formula

[^20]:    Note: The Body Mass Index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters $\left(\mathrm{kg} / \mathrm{m}^{2}\right)$.
    ${ }^{1}$ Excludes pregnant women and women with a birth in the preceding 2 months

[^21]:    Note: An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed.
    ${ }^{1}$ MICS indicator TC.49a - Early stimulation and responsive care by any adult household member
    ${ }^{2}$ MICS Indicator TC.49b - Early stimulation and responsive care by father
    ${ }^{3}$ MICS Indicator TC.49c - Early stimulation and responsive care by mother

[^22]:    ${ }^{1}$ MICS indicator TC. 50 - Availability of children's books
    ${ }^{2}$ MICS indicator TC. 51 - Availability of playthings

[^23]:    ${ }^{1}$ Law number 6360 on Metropolitan Cities

[^24]:    ${ }^{2}$ In the former system, a settlement was defined in 4 levels: provinces, districts, sub-districts and villages. A city center would have a provincial code and all remaining fields would be coded 0 . Villages could be under districts (where subdistricts would be coded 0 ) or under sub-districts.
    ${ }^{3}$ Türkyılmaz A.S. and Hancıoğlu A. (2007). Region Definitions in 2003 Turkey Demographic and Health Survey: Appropriateness to European Union Regional Statistics System and Effects on Sample Design. The Turkish Journal of Population Studies, 26, pp. 3-14.

[^25]:    ${ }^{4}$ Although the target sample size was initially 15,834 households, 15,775 households were determined as eligible during the fieldwork. The difference has two components: 1) four missing clusters with 84 households excluded, 2) 25 additional households identified during data collection, due to multiple households sharing the same dwelling.

[^26]:    ${ }^{1}$ Information on the calculation on response rates is given in Table A.4.

[^27]:    ${ }^{1}$ Both year and age missing

[^28]:    ${ }^{1}(\mathrm{Bm} / \mathrm{Bf}) \times 100$, where Bm and Bf are the numbers of male and female births, respectively
    ${ }^{2}[2 B x /(B x-1+B x+1)] \times 100$, where $B x$ is the number of births in calendar year $x$

[^29]:    ${ }^{a}$ Includes deaths under one month reported in days
    ${ }^{1}$ Under one month / under one year

[^30]:    

[^31]:    

