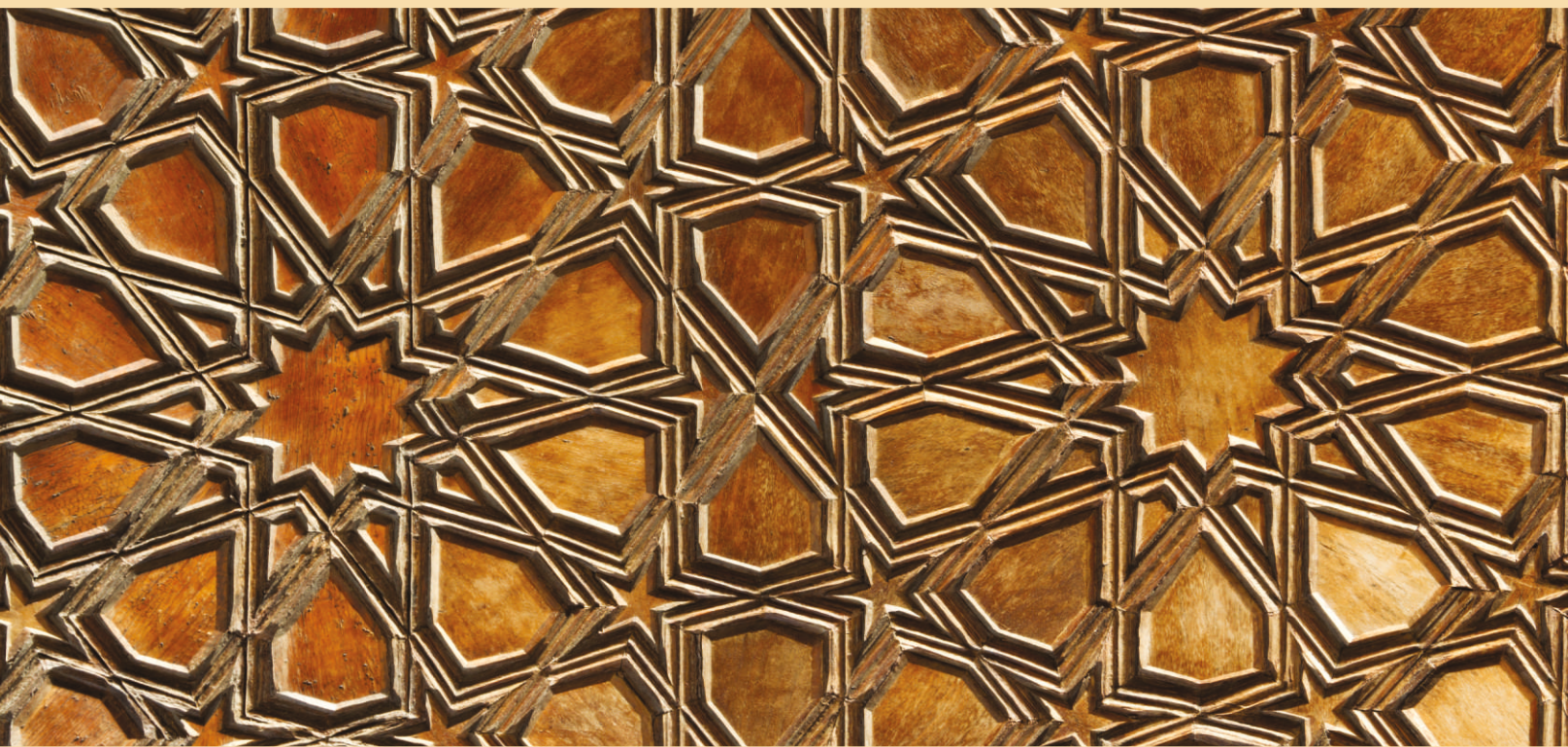# Turkey

Demographic and Health Survey

2013

2013
Turkey
Demographic and Health Survey

Hacettepe University Institute of Population Studies
Ankara, Turkey

with the contributions of

T.R. Ministry of Development
Ankara,Turkey

and

T.R. Ministry of Health
Ankara, Turkey

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November 2014

Hacettepe University **Institute of Population Studies**	**T.R. Ministry of Development**	**The Scientific and Technological** **Research Council of Turkey**

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FOREWORD

The importance of reliable and comparable information has increased significantly in today's world. If the data that involve information with aforementioned qualities also include details that cannot be collected by other data sources along with society related basic indicators, then they become more valuable for not only portraying the situation of the period that they were collected in, but also for enabling multivariate studies that cover several factors.

Nowadays, sample surveys are one of the most effective ways of collecting representative quantitative data. In Turkey and in the World, important experiences were obtained in the field of studying the population which is the common ground for all of the social studies with sample surveys. Concerning this subject, "Demographic and Health Surveys (DHS) are the most widespread surveys. They are being carried out in many countries with large numbers.

Our country has a unique series in this field owing to quinquennial Demographic Surveys conducted by Hacettepe University Institute of Population Studies since 1968. This survey series has become a part of "Demographic and Health Surveys" with "1993 Turkey Demographic and Health Survey (TDHS-1993)". "2013 Turkey Demographic and Health Survey (TDHS-2013)", whose descriptive findings are shared in this report, is the tenth demographic survey and fifth TDHS carried out by the Institute.

Hacettepe University Institute of Population Studies has increased its survey experience by carrying out qualitative and quantitative surveys at both national and regional level along with demographic survey series that started just one year after its establishment in 1967. Our Institute maintains its position as the only institution in Turkey that provides graduate education in the field of population. In addition to the department of "Demography" the institute established two new departments namely "Social Research Methodology" and "Policy and Strategy Studies". With these newly established departments, the Institute aims to share its survey experience through education and to transform the produced data into meaningful policies.

Following TDHS-2008, TDHS-2013 is the second survey, which was financed entirely from the national budget of Republic of Turkey. This financial support has been provided by the Scientific and Technological Research Council of Turkey (TÜBİTAK) within the scope of the Support Program for Research and Development Projects of Public Institutions (KAMAG) with the support of Ministry of Development as the beneficiary institution. Furthermore TDHS-2013 is also a part of the official statistics program prepared by the Turkish Statistical Institute.

TDHS-2013 was initiated in September 2012 as a 36-month project. After the completion of sample design, sample selection, and questionnaire design, the listing activity

took place in July-September 2013; and data collection and data entry activities in September 2013-January 2014. In TDHS-2013, interviews were completed with 11,794 households and 9,746 women in 15-49 age group in 641 clusters. Primary findings were disseminated to main beneficiary institutions and international organizations through the preliminary report meeting in April 2014.

This report descriptively reflects the situation and trends in the Demographic and Health indicators. The investigation and evaluation of the results by academics, decision-makers, service providers and users are of vital importance. It is considered that, along with academic studies, this study will have a key position in determining related policies and setting priorities.

In realization of TDHS-2013, many institutions and individuals had significant efforts, contributions and support at various stages.

T.R. Ministry of Development has played a significant role in the realization of this study by embracing the Project since the very beginning. I would like to thank the General Director and the officials of General Directorate of Social Sectors and Coordination, particularly Mr. Minister and Mr. Undersecretary.

I would like to thank the Scientific and Technological Research Council of Turkey (TÜBİTAK) and Support Program for Research and Development Projects of Public Institutions (KAMAG) unit, which enabled the realization of TDHS-2013 with our own resources for their support.

T.R. Ministry of Health, which is among the main beneficiary institutions, has provided enormous support at all stages of TDHS-2013, especially in the field work as in previous Demographic and Health Surveys. I owe Mr Minister and the Director of Public Health Institution of Turkey and its officials a debt of gratitude. Furthermore, I would like to express my gratitude to authorities of Provincial Directorates of Health and Provincial Directorates of Public Health as well as all health personnel in the provinces who contributed to the realization of the survey.

I would like to thank the President of the Turkish Statistical Institute and officials of Sampling and Analysis Techniques Department, who did not withhold any of their support and knowledge during sample design and selection, and computation of sampling weights.

I would also like to thank Mr./Ms. Governors and deputy Governors, district governors, and other public institution officials in the provinces for providing necessary approvals and for their support.

I would like to express my gratitude to the Rector of the Hacettepe University, Prof. Dr. Murat Tuncer for his support. I would also like to extend my thanks to the staff in the Scientific Research Projects Coordination Unit and The Directorate of Strategy Development of the University.

I pay tribute to valuable contributions of the Steering Committee members of TDHS-2013 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.

Last but not least, I express my gratitude to our Institute's professors, academic staff, project assistants and administrative personnel, who actualized the survey by contributing to all stages of TDHS-2013 with their endeavors and knowledge.

Assoc. Prof. Dr. Ahmet Sinan Türkyılmaz
Project Director

SUMMARY OF FINDINGS

The 2013 Turkey Demographic and Health Survey (TDHS-2013) is a nationally representative sample survey designed to provide information on levels and trends on fertility, infant and child mortality, family planning and maternal and child health. Survey results are presented at the national level, by urban and rural residence, for each of the five regions in the country, and for the 12 geographical regions (NUTS1) for some of the survey topics.

The funding for the TDHS-2013 was provided by the Government of Turkey through the Scientific and Technological Research Council of Turkey (TÜBİTAK) within the scope of the Support Program for Research and Development Projects of Public Institutions (KAMAG).

Hacettepe University Institute of Population Studies (HUIPS) carried out the TDHS-2013 in collaboration with the Ministry of Development and the Ministry of Health. TDHS-2013 is the most recent in the series of demographic surveys carried out in Turkey by HUIPS and it is the fifth survey conducted as part of the worldwide Demographic and Health Surveys program.

The survey was fielded between September 2013 and January 2014. Interviews were completed with 11,794 households and with 9,746 women at reproductive ages (15-49). Women at ages 15-49, who usually live in that household or who were present in the household on the night before the interview, were eligible for the survey. All tables in this report are based on women who spent the night before the interview at the selected household.

CHARACTERISTICS OF HOUSEHOLD POPULATION

Turkey has a young population structure; 26 percent of the population is under age 15. The population age 65 and over accounts for 8 percent of the total population in Turkey. The mean household size in Turkey is below 4 persons, varying from an average of 3.6 persons in the urban areas to 3.9 persons in rural areas.

The majority of the population in Turkey has attended school. Forty-nine percent of males, 36 percent of females have completed at least secondary school. The proportion of population with at least high school education is 29 percent for males and 21 percent for females. However, the indicators for successive cohorts show a substantial increase over time in the educational attainment of both men and women.

The results show that 99 percent of births in the past five years in Turkey were registered. The percentage of unregistered children decreased from 6 percent in TDHS-2008 to 1 percent in TDHS-2013.

CHARACTERISTICS OF RESPONDENTS

Almost half of women interviewed in the TDHS-2013 were less than 30 years of age; 68 percent were married at the time of interview. Fifty-three percent of women in Turkey graduated at least from secondary school, and the percentage of literate women is 93 percent. A significant proportion of women (31 percent) had completed at least

high school. Survey results show considerable improvement in the educational levels of women in reproductive ages. Thirty five percent of women had been in employment during the 12 month period preceding the survey. About six in ten of employed women work in the service sector, 24 percent work in the agriculture, and remaining 14 percent work in the industry. Half of employed women are not under the coverage of social security. However, 89 percent of women are under the coverage of health insurance.

FERTILITY BEHAVIOR

Levels and Trends
The findings of the TDHS-2013 indicate that if a woman was to maintain the current fertility rates throughout her reproductive years, she would be expected to have 2.26 children on the average by the end of her reproductive years. Women in Turkey experience their prime reproductive years during their twenties, yet the age specific fertility peaks at the 25-29 age group; a phenomena observed since the TDHS-2008. There has not been a significant change in the level of fertility since 2008; yet this finding shows that age patterns of fertility are changing in Turkey, due to postponements in childbearing towards later ages.

Socioeconomic and Demographic Differentials
The urban-rural gap in fertility levels appears to be closing. However, some regional differences remain. Fertility is below replacement level in the West and Central regions. Despite a pronounced decline in fertility in recent decades, period fertility in the East is still well above three children. Fertility decreases with increasing educational level. Women with no education have on average two more children than that of women who have high school and more edu-

cation. Another important trend is the steady rise in the age at first birth among women in Turkey. Older women are much more likely than younger women to have given birth to their first child while they were in their teens.

Age at Marriage
In Turkey, marriage is very important from a demographic perspective, because, besides being prevalent throughout the country, almost all births occur within marriage. Therefore, age at first marriage is a significant demographic indicator since it represents the onset of a woman's exposure to the risk of pregnancy.

The TDHS-2013 results document an increase in the median age at first marriage across age cohorts, from 20.2 years for the 45-49 age group to 22 years for the 25-29 age group. The results also show pronounced differences in the age at first marriage by educational level of women. Among women age 25-49 there is a difference of almost 6 years in the timing of entry into marriage between those with no education and those who has at least high school education.

FAMILY PLANNING USE

Family Planning Knowledge
Knowledge of family planning methods is almost universal among women in Turkey. Almost all women interviewed in the survey had heard of at least one modern method. The pill and IUD are the most widely known modern contraceptive methods among women followed by the female sterilization, male condom and injectables.

Levels and Trends

Ninety-two percent of currently married women have used a family planning method at some time in their life. Overall, 74 percent of currently married women are using contraception, with 47 percent depending on modern methods and 26 percent using traditional methods. The IUD is the most widely used modern method (17 percent) followed by male condom (16 percent). Withdrawal continues to be the most widely used traditional method. Twenty six percent of currently married women report current use of withdrawal.

Differentials in Use

The use of contraceptive methods varies by age. Current use of any method is the highest among currently married women (84 percent) in the 35-39 age group. The use of withdrawal peaks among women in the 15-19 age group (28 percent) while the highest level of IUD use (21 percent) is found among women age 35-39. Current use of contraceptive methods also varies according to urban rural residence, region, level of education, and number of living children.

Discontinuation of Use

Discontinuation of contraceptive use can highlight program areas that require improvement as well as groups of users who have particular concerns that need to be addressed. The TDHS-2013 results indicate that 32 percent of contraceptive users in Turkey stop using a contraceptive method within 12 months of starting use. The IUD, which is not generally intended as a short-term method, has the lowest discontinuation rate (11 percent). Coitus-related methods are more easily discontinued. For example, 33 percent of condom users discontinue within one year of use. Regarding future use, almost half of currently married non-users intend to use family planning at some time in the future.

Provision of Services

The public sector is the major source of contraceptive methods in Turkey. Fifty-six percent of current users obtain their contraceptives from the public sector. In the public sector more than half of the users obtain modern contraceptive methods from health centers or government hospitals. Pharmacies are the second most commonly used source, providing contraceptive methods to one-fourth of all users of modern methods.

INDUCED ABORTION

Overall, 20 percent of pregnancies during the five-year period before the survey terminated in other than a live birth. Induced and spontaneous abortions comprised the greatest share among non-live terminations, with relatively few women having had a stillbirth. There were 19 abortions per 100 pregnancies, of which 5 were induced. The total abortion rate (TAR) per woman is 0.14 for the five years preceding the TDHS-2013. The age-specific rates increase to a peak among women age 35-39, and decline among older women. Levels of induced abortions among women living in the East are less than among women in other regions.

Overall, a substantial proportion of abortions (63 percent) took place in the first month of pregnancy. Private sector providers are preferred for having had an abortion (62 percent). The need for family planning counseling after an abortion is highlighted by the finding that, in the month following an induced abortion, 48 percent of women did not use any method and 14 percent used withdrawal.

NEED FOR FAMILY PLANNING

Fertility Preferences
Fifty-seven percent of currently married women do not want to have more births in the future or are already sterilized for contraceptive purposes. An additional 18 percent of the women want to wait at least two years for another birth. Among the currently married women, the mean ideal number of children is 2.9 for women indicating that most women want small families. Results from the survey suggest that, if all unwanted births were prevented, the total fertility rate at the national level would be 1.9 children per woman, or 0.4 children less than the actual total fertility rate.

Unmet Need for Family Planning
The total demand for family planning is 79 percent, and 93 percent of this demand is satisfied. The total demand for limiting purposes is two times as high as the demand for spacing purposes (54 and 26 percent, respectively). The total unmet need among currently married women is 2 percentage points lower in TDHS 2013 than the total unmet need in TDHS-2008, which was 8 percent.

CHILD MORTALITY

Levels and Trends
For the five years preceding the TDHS-2013, the infant mortality rate is estimated at 13 per thousand, the child mortality rate at 2 per thousand, and the under five mortality rate at 15 per thousand. For the same period, the neonatal mortality rate is 7 per thousand. All the indicators of infant and child mortality have declined in recent years.

Socioeconomic and Demographic Differentials
The TDHS-2013 findings point out to significant differences in infant and child mortality between regions and by urban-rural residence. They also show that the educational level of mother is an important correlate of infant and child mortality. In addition to the differentials observed between socio-economic groups, infant and child mortality rates also correlate strongly with the age of the mother (young or older than 35) at birth, high-birth order and short birth intervals, with children in these categories facing an elevated risk of dying compared to children in other subgroups. In addition, low weight at birth affects children's chances of survival.

MATERNAL HEALTH

Care during Pregnancy
Ninety-seven percent of mothers received antenatal care during the pregnancy preceding their most recent birth in the five years preceding the survey, with 95 percent receiving care from a doctor. Overall, 95 percent of women made an antenatal care visit before the sixth month of pregnancy, and 89 percent of the woman made more than four visits. Low parity women, women living in urban areas and in the regions other than the East, and women with at least first primary level education are more likely to have received antenatal care compared to other women.

Delivery Care and Postnatal Care
In Turkey, 97 percent of all births in the five years preceding the survey were delivered at a health facility. Public sector health facilities were used to a much greater extent for delivery (60 percent) than private facilities. The proportion of all births delivered with the assistance of a doctor or trained health personnel is 97 percent.

Ninety-four percent of women reported that they had a postnatal checkup and the majority of postnatal care was provided by a doctor (70 percent). Among the women giving birth in the five years preceding the survey, 74 percent received care within less than four hours based on their last live birth. On the other hand, 6 percent did not receive any care after the delivery of their last live birth. In Turkey, high parity women (four births or more), women living in rural areas and in the East region and the women with no education were more likely to receive no postnatal care.

Postnatal checkups for the baby are important in reducing infant deaths. Approximately 95 percent of infants receive postnatal care from health personnel and most of these babies—61 percent of all last births—are seen for care within four hours following delivery in Turkey. The variations across subgroups in the likelihood of an infant receiving postnatal care from a health provider and in the timing when postnatal care is first received are similar to the patterns observed with respect to the mother's receipt of postnatal care.

CHILD HEALTH

Childhood Vaccination Coverage
Universal immunization of children against the preventable diseases (tuberculosis, diphtheria, pertussis, tetanus, poliomyelitis, meningitis, measles, mumps, rubella, hepatitis B and pneumonia) is one of the most cost-effective programs in reducing infant and child morbidity and mortality. Among children age 15-26 months, 74 percent of them had received all of the recommended five vaccines. The percentage of children who are fully vaccinated is lowest in the rural areas (65 percent) and in the Eastern region (68 percent). The vaccination coverage percentages are also

related to mother's education and the children's sex, birth order and household welfare.

NUTRITION INDICATORS FOR CHILDREN AND WOMEN

Breastfeeding and Supplemental Feeding
Breastfeeding is almost universal in Turkey; 96 percent of all children are breastfed for some period of time. Complementary feeding is on the way of decreasing in Turkey among very young children. In the first two months of life, 58 percent of children under three years old are exclusively breastfed. This percentage was 69 percent in the TDHS-2008. The median duration of breastfeeding for all children is 17 months. Among children who are breastfed and younger than six months, 28 percent received infant formula.

Nutritional Status of Children
By age five, 10 percent of children are stunted (short for their age), compared to an international reference population. Stunting is more prevalent in rural areas, in the East, among children of mothers with little or no education, among children who are of higher birth order, and among those born less than 24 months after a prior birth. Wasting is a less serious problem. Two percent of children are underweight for their age.

Obesity is a problem among women. According to BMI calculations, 55 percent of women are overweight, and 27 percent are obese. Mean BMI increases rapidly with age, from 22.5 in 15-19 age group to 30.7 for the age group of 40-49.

WOMEN'S STATUS

Interspousal Difference in Age and Education

Currently married women are, on average, 4.3 years younger than their husband. Only four percent women are two or more years older than their husband. Regarding the education difference, women are most likely to be married to men who have more education than they have.

The Reasons for Not Working and Child Care

Twenty-two percent of women reported being a housewife as the reason for not working; followed by child-care (19 percent) and being a student (17 percent). Eight percent of women reported that they did not need working. Of women who worked in the 12 months prior to the survey, 70 percent had no children under 6 years of age. Overall, in Turkey the main source of child care is either the mother or the relatives. The proportion of institutional care is approximately 15 percent.

Domestic Violence

In TDHS-2013, women were asked whether a husband would be justified in perpetrating physical violence to his wife for different reasons. The percentage of women who accept one reason as a justification for physical violence was found to be 13 percent.

TURKEY - 5 REGIONS

BLACK SEA

MARMARA SEA

AEGEAN SEA

MEDITERRANEAN SEA

NORTH

WEST

EAST

CENTRAL
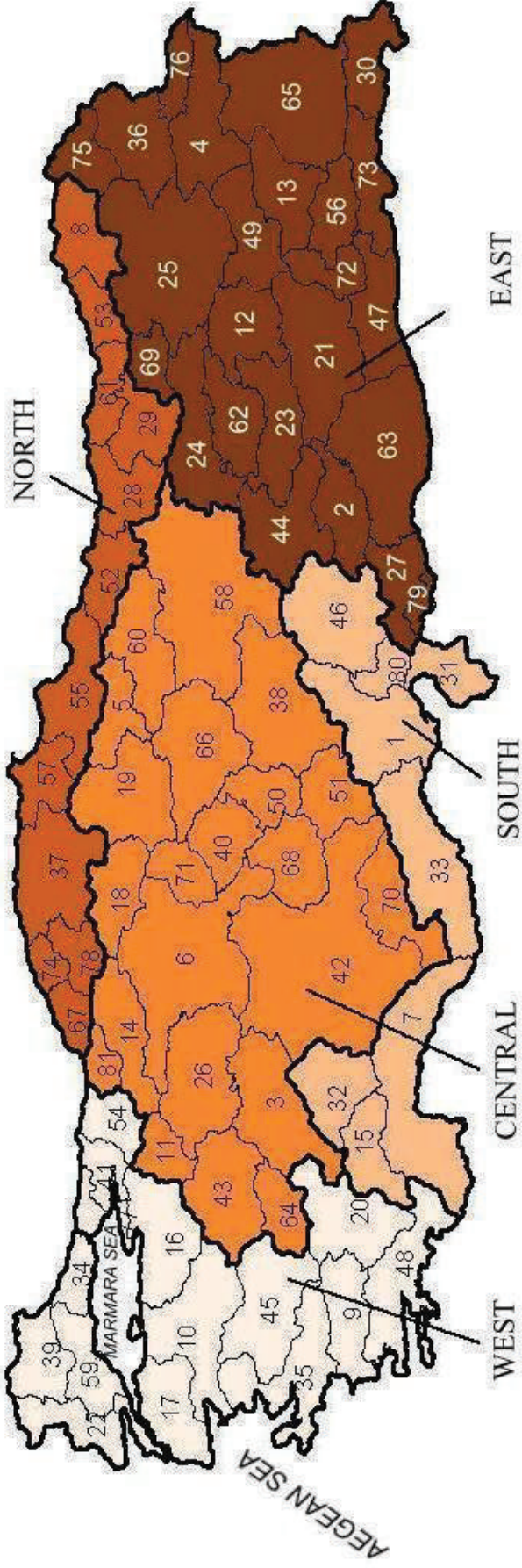
SOUTH

REGIONS AND PROVINCES

01 WEST
09 Aydın
10 Balıkesir
16 Bursa
17 Çanakkale
20 Denizli
22 Edirne
34 İstanbul
35 İzmir
39 Kırklareli
41 Kocaeli
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54 Sakarya
59 Tekirdağ
77 Yalova

02 SOUTH
01 Adana
07 Antalya
15 Burdur
31 Hatay
32 Isparta
33 İçel
46 K.Maraş
80 Osmaniye

03 CENTRAL
03 Afyon
05 Amasya
06 Ankara
11 Bilecik
14 Bolu
18 Çankırı
19 Çorum
26 Eskişehir
38 Kayseri
40 Kırşehir
42 Konya
43 Kütahya
50 Nevşehir
51 Niğde
58 Sivas
60 Tokat
64 Uşak
66 Yozgat
68 Aksaray
70 Karaman
71 Kırıkkale
81 Düzce

04 NORTH
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29 Gümüşhane
37 Kastamonu
52 Ordu
53 Rize
55 Samsun
57 Sinop
61 Trabzon
67 Zonguldak
74 Bartın
78 Karabük

05 EAST
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04 Ağrı
12 Bingöl
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23 Elazığ
24 Erzincan
25 Erzurum
27 Gaziantep
30 Hakkari
36 Kars
44 Malatya
47 Mardin
49 Muş
56 Siirt
62 Tunceli
63 Şanlıurfa
65 Van
69 Bayburt
72 Batman
73 Şırnak
75 Ardahan
76 Iğdır
79 Kilis

TURKEY - 12 REGIONS

WEST MARMARA

ISTANBUL

EAST MARMARA

BLACK SEA

WEST BLACK SEA

EAST BLACK SEA

NORTHEAST ANATOLIA

CENTRAL EAST ANATOLIA

SOUTHEAST ANATOLIA

CENTRAL ANATOLIA

WEST ANATOLIA

MEDITERRANEAN

AEGEAN

MARMARA SEA
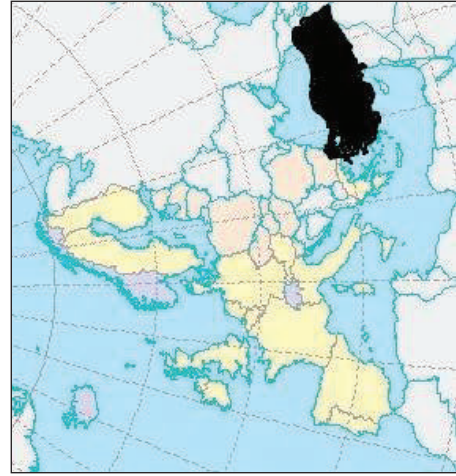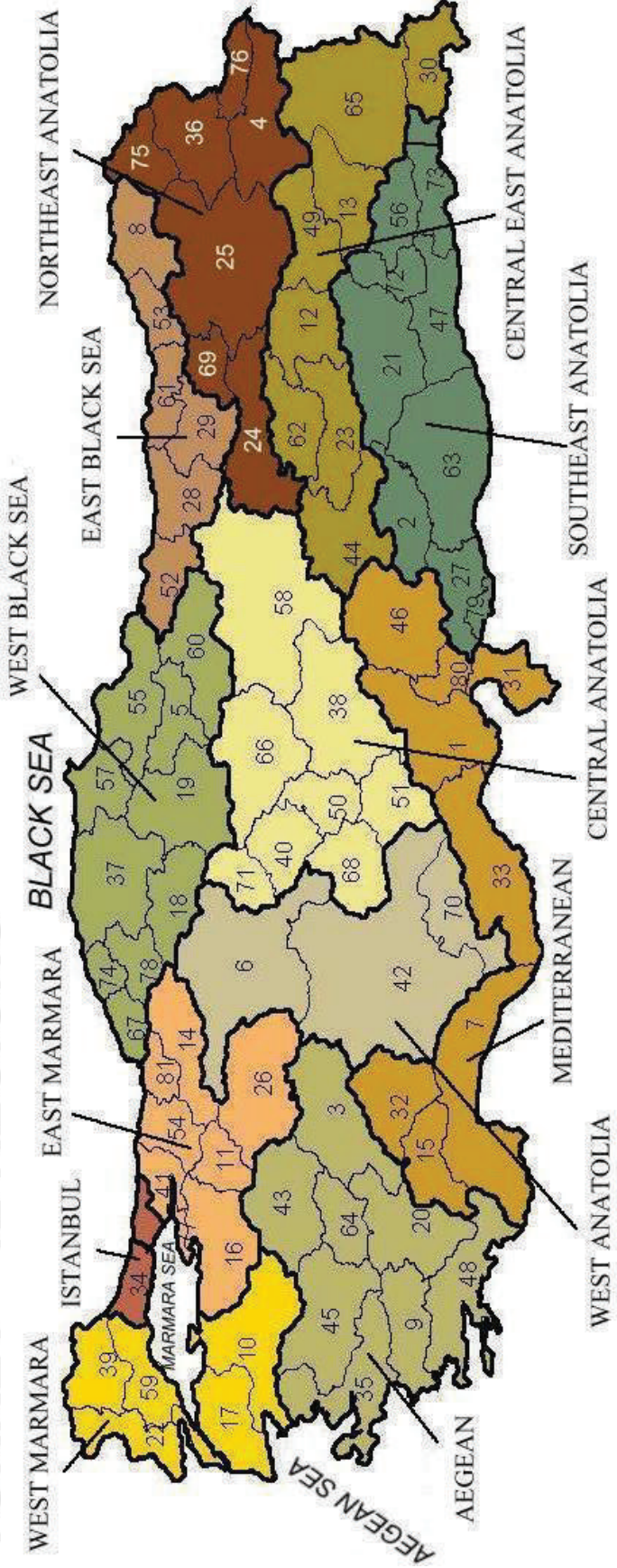
AEGEAN SEA

MEDITERRANEAN SEA

REGIONS AND PROVINCES

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34 İstanbul

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22 Edirne
39 Kırklareli
59 Tekirdağ

03 AEGEAN
03 Afyon
09 Aydın
20 Denizli
35 İzmir
43 Kütahya
45 Manisa
48 Muğla
64 Uşak

04 EAST MARMARA
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14 Bolu
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79 Kilis

1

INTRODUCTION
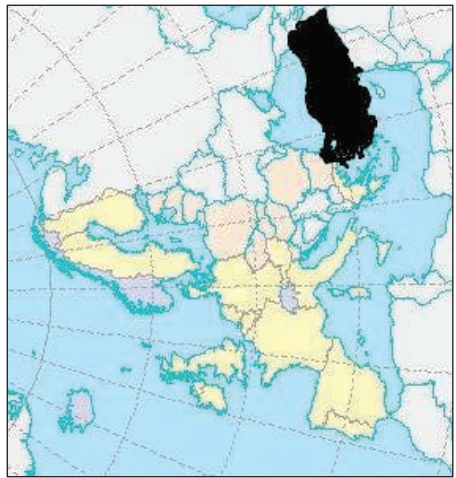
Ahmet Sinan Türkyılmaz

1.1   Geography

Turkey occupies a surface area of 774,815 square kilometers. About three percent of the total area lies in Southeastern Europe (Thrace) and the remainder in Southwestern Asia (Anatolia or Asia Minor). Turkey has borders with Greece and Bulgaria in the Thrace and with Syria, Iraq, Iran, Georgia, Armenia, and Nahcivan (Azerbaijan) in South and East Anatolia, also called Asia Minor. The shape of the country resembles a rectangle, stretching in the east-west direction for approximately 1,565 kilometers and in the north-south direction for nearly 650 kilometers. Three sides of Turkey are surrounded by seas: in the north, the Black Sea; in the northwest, the Sea of Marmara; in the west, the Aegean Sea; and in the south, the Mediterranean Sea. The total coastline of Turkey is around 8,333 kilometers.

The Anatolian peninsula consists of an elevated steppe-like and semi-arid central plateau surrounded by mountains on all sides, except the west. The Taurus Mountains in the south and the Northern Anatolia Mountains in the north stretch parallel to the coastline, meeting in the eastern part of the country. The average altitude of the country is around 1,130 meters above sea level. However, there are vast differences in altitude among the regions, ranging from an average of 500 meters in the west to 2,000 meters in the East Anatolia region.

The climate is characterized by variations of temperature and rainfall, depending on topography of the country. The average rainfall is 500 millimeters; however, it ranges from 2,000 millimeters in Rize, a province on the eastern Black Sea coast, to less than 300 millimeters in some parts of Central Anatolia. The typical climatic conditions of Turkey include dry, hot summers and cold, rainy, snowy winters especially in the central and eastern regions. In summer, temperatures do not display large variations across the country, whereas in winter, the temperature ranges from an average of –10°C in the east to +10°C in the south.

1.2   History

Anatolia was dominated by the Seljuqs for almost two centuries (1055-1243) and afterwards it became the core of the Ottoman Empire, which ruled also in Europe, the Middle East, and Africa for almost six centuries. At the end of the First World War, the Ottoman Empire collapsed, and an effort immediately began throughout the country to create a new state from the ruins of the Empire with the war of independence lead by Mustafa Kemal Atatürk. The Lausanne Treaty, signed on 24 July 1923, recognized the creation of a new Turkish State. The Republic was proclaimed on 29 October 1923; and the country's present borders were established following the annexing of Hatay, a province on the southern border, in 1939.

The founding of the Republic signified radical shifts from the previous social order as a succession of social and economic reforms occurred. The Sultanate and Caliphate were abolished. A modern Turkish Civil Code was introduced (17 February 1926) to replace the old civil code and the Shariah Laws which were the foundation stones of Ottoman law; the Latin alphabet was adopted instead of Arabic script and unity of basic education was accepted (1 November 1928). The schools where mostly religion-related instruction was given were closed, and a program of compulsory education was set up which aimed at applying contemporary teaching methods. In short, the direction of change, led by Atatürk, was one away from a religious, oriental Empire to a modern and secular Republic.

Turkey did not become actively involved in the Second World War; but just when the war was about to end, Turkey sided with the USA, Britain and the Soviet Union and declared war against Germany and Japan. Afterwards, Turkey signed the United Nations Treaty dated 24 January 1945. Being officially invited to the San Francisco Conference on 5 March 1945, Turkey become one the founding members of the United Nations.

From the foundation of the Republic to 1946, the country was governed by a one-party system. In the mid- and late-1940s, new political parties formed. The first multiparty election held in 1946, and the second was in 1950 when the Democrat Party won, putting the Republican People's Party into the opposition. With the introduction of the multi-party period, Turkey achieved a more liberal and democratic environment. Although Turkish political history included three military interventions (1960, 1971, and 1980), Turkey has succeeded in preserving a parliamentary, multi-party democratic system until today, and this makes it unique among other countries where Islam has prominence.

With the foundation of the Republic, Turkey turned her face to the 'Western world', as establishing close relations with European countries and the United States of America. Turkey is a member of the United Nations, the Council of Europe and the North Atlantic Treaty Organization (NATO), and an associate member of the European Union. Since 2000, Turkey has achieved a noteworthy achievement in introducing new social, economic and political reforms within the context of the harmonization process with the EU that was initiated with the Helsinki Summit of 1999. Turkey also maintains close relations with the countries of the Middle East, stemming from deep-rooted cultural and historical links.

1.3   Administrative Divisions and Political Organization

Since the foundation of the Republic, the Turkish administrative structure has been shaped by three Constitutions (1924, 1961, and 1982). These three constitutions proclaimed Turkey to be a Republic with a parliamentary system and specified that the will of the people is vested in the Turkish Grand National Assembly (TGNA). All three constitutions adopted basic individual, social and political rights, and accepted the principle of separation of powers, namely legislative, administrative, and judicial.

The TGNA is the legislative body of the Republic is. It is composed of 550 deputies, who are elected for four-year terms. The President of the Republic was elected by the TGNA for a seven-year term only one time before the constitutional amendment in 2007. According

to this amendment, the President of Republic can be elected by the public for no more than two five-year terms. The Prime Minister and other Cabinet Ministers compose the Council of Ministers, the executive branch of the Republic. The judiciary consists of the Court of Appeals, the Court of Jurisdictional Disputes, the Military Court of Appeals, the Constitutional Court, and the Civil and Military Courts.

Turkey is administratively divided into 81 provinces. These are further subdivided into districts *(ilçe)*, subdivisions *(bucak)*, and villages *(köy)*. The head of the province is the governor, who is appointed by the council of ministers and approved by the president of the republic and responsible to the central government. The governor, as the chief administrative officer in the province, carries out the policies of the central government, supervises the overall administration of the province, coordinates the activities of the various ministry representatives appointed by the central authority in the capital Ankara, and maintains law and order within his/her jurisdiction.

A mayor and a municipal council, elected by the municipal electoral body for a term of five years, govern local administration at the municipality level. According to Law No. 5393 adopted on July 3, 2005, every locality with a population of more than 5,000 population and province and district centers are entitled to form a municipality. Recent metropolitan administrative reform took place with the Law No. 6360 dated November 12, 2012 and came into effect on December 6, 2012. With the law, the number of metropolitan municipalities expanded to 30, and the special provincial administrations in the provinces holding metropolitan municipality status were abolished. In addition, towns and villages within the boundaries of metropolitan areas have been eliminated and villages have been transformed to neighborhoods. Due to the regulation, 47 percent of villages and 54 percent of municipalities have been eliminated from the local government system, and a considerable amount of rural area has been transformed into urban area. This law brought a new structure in the local administration system. With another law, Law No 6447 dated March 14, 2013, the establishment of metropolitan municipalities and twenty-seven districts in fourteen provinces was accepted. These laws changed the definition and boundaries of greater municipalities. This change also has an effect on administrative definition of urban/rural, which classifies settlements according to their administrative status. Municipalities are expected to provide basic services such as electricity, water, gas, building and maintenance of roads, and sewage and garbage disposal facilities within the boundaries of the municipality. Educational and health services are mainly provided by the central government, but municipalities of metropolitan areas also provide limited health services for those who are at lower economic and social strata.

1.4   Social and Cultural Features

Turkey varies in social and cultural structure, with 'modern' and 'traditional' life styles co-existing simultaneously within the society. For the inhabitants of metropolitan areas daily life is similar to the Western countries. On the other hand, people living in the outskirts of urban areas and in rural settlements are relatively conservative and traditional. Family ties are still strong and influential in the formation of values, attitudes, aspirations, and goals.

Although laws are considered to be quite liberal on gender equality, patriarchal ideology characterizes the social life in many ways.

The citizens of Turkey are predominantly Muslim. About 98 percent of the population belongs to Muslim religion. The rich and complex culture of the Turkish society pertains to its ethnic structure.

One of the most striking achievements since the founding of the Republic has been the increase in both literacy and education. In 1935, only 10 percent of females and 29 percent of males were literate in Turkey (TURKSTAT, 2006). According to the Address Based Population Registration System (ABPRS) in 2013, the female and male literacy rates for the population age 6 and over were 91 and 96 percent, respectively (2014). Educational attainment has also increased dramatically. The net primary education enrolment ratio for 2013-2014 educational year is around 99 percent (TURKSTAT, 2014). Five years compulsory education was enhanced to eight years in 1997, and to twelve years in 2012. Despite these developments, there are important differences in literacy and educational attainment between women and men, and among people by region and type of place of residence.

1.5 Economy

After the foundation of the Turkish Republic, various economic development strategies were adopted. In the early years of the Republic, the Turkish economy was very weak since a bankrupt country was inherited from the Ottoman Empire. The economy was almost exclusively based on agriculture, and it was underdeveloped and poor. The creation and development of industry was clearly the first step that had to be taken to achieve a healthy and balanced economy. Throughout the 1920s liberal policies were implemented; the government promoted the development of industry through private enterprise, encouraged and assisted by favorable legislation and the introduction of credit facilities. These liberal policies continued until 1929, and moderate improvements were realized in the mechanization of agriculture. In the following decade, the state, under the so-called *étatiste* system, assumed the role of entrepreneur, owning and developing large sectors of agriculture, industry, mining, commerce and public works. The origins of modern industrialization in Turkey can be traced to the era of the 1930s. Although the beginnings of the industrialization drive were evident in the immediate aftermath of the formation of the republic in 1923, the real breakthrough occurred in the context of the 1930s.

During the Second World War, the country was faced with heavy restraints on the economy, which slowed down the industrialization process - despite not being involved in the war. A "mixed economy" regime followed the war, with the transition to democracy in 1950 signifying a shift towards a more liberal economic order; private enterprise gained recognition side by side with the state economic enterprises. Also, more emphasis was placed on trade liberalization, agricultural and infrastructural development, and the encouragement of privatization and foreign capital.

A series of Five-Year Development Plans were prepared beginning in the 1960s. The first of these plans became operative in 1963. A basic objective was to replace the era of

unplanned and uncontrolled expansion during the 1950s. Before the 1980s, Turkey followed an economic policy based on the substitution of imports, and instead of importing it was aimed to manufacture those goods in the country to meet domestic demand. Newly established industrial branches were protected for long periods of time by customs tariffs and other taxes.

In the 1980s, governments followed a strategy of renewing economic growth based on an export-oriented strategy. In this way, substantial economic reforms were prepared and applied beginning in January 1980. Privatization implementations were started in the country in 1984. Following the stagnation of the late 1970s, growth recovered in response to a combination of an increased flow of exports and inputs of foreign capital. The liberal economic strategy followed in the 1980s was not unique to that period. The differences between the liberal and *étatiste* phases are not only the nature of the trade regime and the attitude toward foreign direct investment, but also the mode of state intervention in the economy.

Industrialization during the 1990s has been shaped by three dynamics. First, the state's direct influence on the distribution of the resources was lessened. Second, competition gained importance, with increased emphasis on industrial performance and reconstruction of the industry. Third, general globalization and integration into the European Union gained speed. During the 1990s, privatization also gained importance as a solution to economic capital problems. An autonomous committee was founded in order to regulate privatization. Some of the state enterprises have been privatized within the frame of this program, and further privatization is to continue.

Turkey is nearly self-sufficient country in terms of its agricultural production. Wheat, barley, sugar beets, potatoes, leguminous plants, and rice are grown, principally for domestic consumption; while cotton, tobacco, citrus, grapes, fig, hazelnuts, and pistachios are also grown for export. However, recently, some agricultural products have been imported. Turkey is not rich in mineral resources. One of the country's main problems is the inadequacy of primary energy resources. Copper, chromium, borax, coal, and bauxite are among the mineral resources in the country. The main industries are textiles, steel, cement, fertilizers, automotive, and electrical household goods. Machinery, chemicals, and some metals are imported mainly from the Organization for Economic Cooperation and Development (OECD) countries.

According to the World Bank, Turkey is an upper-middle income country. Since 2001, key structural reforms have been adopted within the context of the harmonization process with the EU. In her history, Turkey has been affected by global economic crises. The 2008 financial crisis had an effect on the Turkish economy in terms of national income and unemployment. Recent economic indicators show that the growth rate was 2.2 percent in 2012, compared to 12.4 percent in first quarter of 2011. Since the second quarter of 2011, the growth rate has been declining. The same trend has been observed in private investments and consumption expenditures. The decline in the growth rate was reflected in increases in the unemployment rate and the current account deficit. Since the first quarter of 2013, recovery signals were apparent. Turkey's economic agenda for the last ten years aimed to reduce

inflation pressure, increase export revenues, reduce unemployment and address insufficient capital for new investments. The 2013 priorities for growth for Turkey by the OECD have been determined as improving educational achievement at all levels, reducing the cost of employment of the low-skilled, and reforming employment protection legislation. Finally, income inequality and poverty are socio-economic issues to be dealt with; and are observed at higher levels compared to those of OECD and EU countries.

1.6   Regional Divisions

The diverse geographic, climatic, cultural, social, and economic characteristics of different parts of the country are the basis for the conventional regional breakdown within Turkey. Five regions (West, South, Central, North, and East) are distinguished, reflecting, to some extent, differences in socioeconomic development levels and demographic conditions within the country. This regional breakdown is frequently used for sampling and analysis purposes in social surveys. Additionally, from 2002 onwards, within the framework of the EU harmonization process, a new statistical region definition has been adopted which compromised Nomenclature of Units for Territorial Statistics (NUTS) I (12 regions), NUTS II (26 regions) and NUTS III (81 provinces).

The West region is the most densely settled, the most industrialized, and the most socio-economically advanced region of the country. The region includes both İstanbul, (until 1923, the capital of the Ottoman Empire), which is Turkey's largest city, and the country's manufacturing, commercial and cultural center, and İzmir, the country's third largest city. The coastal provinces within the West region form a relatively urbanized, fast-growing area. The Aegean coast is also a major agricultural area, where cotton and fruits, mostly grapes and fig, are cultivated on the fertile plains. With dry summers and mild, rainy winters, agricultural yields from the fertile soils are good. Most of the industrial establishments are situated in the West region, and this region contributes most of the gross domestic product of the country.

The South includes highly fertile plains and some rapidly growing industrial centers. Adana, Mersin, and Antalya are the new metropolises located in this region. Steep mountains cut off the semitropical coastal plains from the Anatolian highlands to the north. Hot, dry summers and mild, wet winters describe the climatic conditions of the region. Cultivation of cotton, sugar beets, and citrus provide high incomes and export earnings. Tourism centers in the region are another important source of revenue. The South region has witnessed an industrial boom and an inflow of migrants, especially from the East and Southeastern provinces in the recent decades.

The Central region is a dry grazing area and includes Ankara, the capital and second populous city. Industrial production in the region is rising modestly, as minor city centers rapidly develop, and Kayseri is the best example of this. Industrial production in the region specializes in cereal and related processed foods, furniture and marble. Given the dry, temperate climate, fruit tree cultivation and sheep and cattle rising are also common.

The North region has a fertile coastal strip, but in most places it is only a few kilometers wide; the coastal region is relatively isolated from the inner parts of the region and

the rest of the country by mountainous terrain. The region specializes in growing small-scale, labor-intensive crops like hazelnuts, tobacco, and tea. The region receives large quantities of rainfall throughout the year. Zonguldak, a western province, has extensive coal mine reserves and is a center for coal mining and the steel industry. The region has a great deal of tourism potential that has been improving recently.

The East region is considered as the least developed part of the country. Rugged mountainous terrain, short summers, and the severe climate are suited to animal husbandry rather than settled farming. However, with the "Southeast Anatolia Project", the economy in the Southeast has improved in the recent years. Atatürk Dam was built (1983–1992) and Urfa irrigation channels were constructed and water was provided to arid and semi-arid lands, leading to agricultural development in the Southeast Anatolia. In addition to economic benefits, the project is also expected to reverse the migration flow from the region to the rest of the country. Although the capacity of agriculture has increased, the region is still poor in terms of industrial production.

1.7   Population

In 1927, Turkey's population was 13.6 million according to the first national census, which was conducted four years after the establishment of the Republic. Beginning with the 1935 census, subsequent population censuses were undertaken regularly at 5-year intervals until 1990. After 1990, population censuses were carried out in years ending with 0. The latest, fourteenth, Population Census which was carried out on 22nd October 2000, put the population of Turkey at 67.4 million (SIS, 2003). Since the establishment of the ABPRS in 2007, TURKSTAT publishes the population of Turkey for the last day of each single year. This system includes every person who has a Citizen or resident ID number and counts everyone where he/she resides; it also includes institutional populations. According to ABPRS, Turkey's population is about 76.7 million at the end of year 2013 (TURKSTAT, 2014).

The population of Turkey continuously increased during the 1927-2013 period. The annual population growth rate reached its highest value (29 per thousand) in the 1955-1960 period. The latest intercensal estimate of the population growth rate was 18 per thousand for the 1990-2000 period. According to the projections of TURKSTAT, the population of Turkey will reach 84 million in year 2023, which is the centennial of the foundation of the Republic. It is also estimated that it will reach 93.5 million by the year 2050.

Turkey has a young population structure, as a result of the high fertility and growth rates of the recent past. One-third of the population is under 15 years of age, while the proportion age 65 and over comprises only 6 percent, according to the 2000 national census results. However, today's prevailing demographic forces of the population are altering the age structure in new ways. First of all, recent decades have witnessed dramatic declines especially in fertility rates. In the early 1970s, the total fertility rate was around 5 children per woman, whereas the estimates in the late 1990s indicate it had nearly halved to 2.6 children and it is estimated at 2.26 with this survey. As a result, the median age of the population in Turkey, which averaged around 20 years between 1940 and 1960, has increased continuously since

1970, reaching 30.4 years in 2013, while the median age for the world population is 29.4 (TURKSTAT, 2014).

There have been significant changes in the growth rates by age groups. The growth rates for young age groups have decreased whereas the population of older age groups has increased faster than the average for Turkey. The proportion of the elderly population is about 8 percent. According to projections, the elderly will comprise 10 percent of the population in 2023; and this will include Turkey in the group of countries with an "old" population according to the United Nations definitions (TURKSTAT, 2014).

The infant mortality rate in the late 1950s was around 200 per thousand live births. It declined to about 130 per thousand during the mid-1970s, and to an estimated 80 per thousand in mid-1980s. It has been estimated at 53, 43, 29 and 17 per thousand according last four Turkey Demographic and Health Surveys (TDHS) between 1993 and 2008. The latest estimate shows that this figure is just above 10 per thousand currently and puts the life expectancy at birth in Turkey as 75 years for men and 79 years for women (TURKSTAT, 2014).

Marriage, predominantly civil, is widely practiced in Turkey. Religious marriages also account for a significant proportion of the marriages; however, the widespread custom is to have a civil as well as a religious ceremony. In the recent decade, there has been a slight increase in divorces.

The population of Turkey has undergone an intensive process of urbanization, especially from the 1950s onwards. The share of the population living in cities, which was 25 percent in 1950, climbed to 76 percent in 2010. The rate of urbanization has been approximately 33 per thousand during the 1990-2000 period. The rapid urbanization has inevitably caused environmental and administrative problems in the provision of services and the emergence of large areas of squatter housing in unplanned settlements around metropolitan cities.

Turkey has had a long history of international migration. Throughout the 1960s and 1970s, the migrant flow was mainly directed to Western European countries, principally Germany. During the 1980s, however, it became more oriented towards the oil-producing countries of the Middle East. In the past two decades, the political turmoil in this region and changes in policies and practices governing the labor force in the European Union have continued to influence emigration patterns. At the same time, due to political conditions in neighboring countries, Turkey has found herself subjected to waves of asylum seekers from the Balkans, Middle East countries, and also from distant Asian and African countries. After the collapse of the Soviet Union, the migratory movement to CIS (Commonwealth of Independent States) countries and Middle Eastern countries turned out to be the new route for Turkish investors and workers. Turkey has been a country of emigration as well as of immigration and transit migration. Two migratory systems have remarkable influence in Turkey: the major reception zone of Europe and the emerging source regions of emigrants of Asia, Africa and the Middle East (İçduygu and Kirişçi, 2009). Although different periods can be constructed, the main periods of analysis can be set as 1960 and onwards as a period of

emigration, and 1980 and onwards as a period of immigration and transit. Especially, for the case of emigration, it should be noted that migration is a continuing process, and for the case of Turkey emigration started with labor-related reasons and continued as network migration. Another era started in terms of inflows to Turkey, after the beginning of the Arab Spring on 18th of December 2010. This has resulted in both regular and irregular migration waves to Turkey from the Middle East, making Turkey a country of destination.

Another influential phenomenon is irregular migration, which is mostly associated with economic and/or social poverty, social conflicts and political turmoil in neighboring countries. Although migrants from the Syrian Arab Republic (Syria) to Turkey are considered to belong to a specific migrant category given the status of regular migrants under "temporary protection" according to the Article 91 of the Law No. 6458 on Foreigners and International Protection, inflows have affected irregular migration as well. Perhaps, among all countries affected by the Arab Spring, flows from Syria have been affecting Turkey the most, as, tragically, Syria entered a period of civil war in June 2012. The Prime Ministry Disaster and Emergency Management Presidency (AFAD) report on Syrian Refugees in 2013 states that, "There is no accurate information on the total number of Syrian refugees living in Turkey." According to AFAD, there are a total of 200,386 Syrian refugees in the camps as of August 23, 2013 operated by AFAD. According to the AFAD guesstimates, it is believed that there are a total of 350,000 Syrian refugees outside the camps in various cities. According to the reports of the United Nations, at the end of 2013, the number of Syrian citizens in Turkey will exceed 1 million (AFAD, 2013). By October 22, 2013, news on the media suggested there were over 600,000 Syrian refugees in Turkey. As of September 22, 2014, the number was reported to reach almost 1.6 million according to the press. The dramatic migration movement from Syria and Iraq is expected to continue as the war continues.

1.8   Population and Family Planning Policies and Programs

In Turkey, policies related to population have been formulated since the establishment of the Republic in 1923. During the early years of the Republic, there was a perceived need to increase fertility, since the country had suffered from heavy human losses during the First World War and the War of Independence. The defense needs of the country and the shortage of manpower, as well as high infant and child mortality rates, led Turkey to continue to follow a pronatalist population policy until the late 1950s. A number of laws directly or indirectly encouraging population growth were passed during the period. These laws included monetary awards to women with more than 5 children, tax reduction incentives, prohibitions on the advertisement, import and sale of contraceptives (except for health reasons), and prohibition of abortions on social grounds.

The high population growth rates prevailing in the 1950s, which led to increased numbers of illegal abortions and, as a consequence, to high maternal mortality, brought the population debate into the political agenda. High urban population growth and employment problems were also factors contributing to the new anti-natalist environment in government circles. The State Planning Organization and the Ministry of Health pioneered the policy change, and the first Population Planning Law was enacted in 1965. The law mandated the Ministry of Health to have responsibility for implementing the new family planning policy.

The policy allowed the importation of modern contraceptives methods, provided services at state health institutions free of charge, and supported health education for couples. In addition, the State Planning Organization incorporated the notion of population planning in the First Five-Year Development Plan.

In 1983, a more liberal and comprehensive Population Planning Law was passed. The new law legalized induced abortions (up to the tenth week of pregnancy) on social and economic grounds, and voluntary surgical contraception. It also permitted the trained auxiliary health personnel to insert IUDs and included other measures to improve family planning services and mother and child health. The Ninth Five-Year Development Plan of the Ministry of Development, which is valid for 2007-2013, states that population policy seeks to reach a population structure which is in harmony with the balanced and sustainable development targets of the society. Thus, the strengthening of qualitative aspects of population including increased education, improved health levels, and a reduction in unbalanced development and inequalities among regions are primary objectives of population policy (Ministry of Development, 2006).

The Tenth Five-Year Development Plan for 2014-2018 puts some significant purposes and targets as determining policies for increasing the total fertility rate gradually, especially by attending to the needs of women in working life. It was proposed to develop birth-related permits and rights, to encourage nurseries, and to provide flexible working opportunities in the plan. However, no substantial change has been made in legislation yet.

1.9   Health Priorities and Programs

Maternal and child health and family planning services have been given a priority status in the policies of the government in recent decades. These services gained importance due to the large proportion of women of reproductive ages and children in the Turkish population; high infant, child, and maternal mortality rates; the demand for family planning services; and limited prenatal and postnatal care. A number of child survival programs to improve services have been implemented since 1985, with special emphasis on provinces which have been designated as priority development areas as well as on squatter housing districts in metropolitan cities, rural areas, and special risk groups. The initiatives include programs (GOBIFF) in growth monitoring, healthy and balanced nutrition, early diagnosis and prompt treatment of childhood diarrheal diseases, acute respiratory infections, promotion of breastfeeding, immunization, reproductive health, family planning, antenatal and delivery care, safe motherhood, and female education. Information, Education, and Communication (IEC) programs to promote the mother and child health and family planning activities are also being widely implemented. Additionally, the General Health Insurance Law was enacted by the Grand National Assembly of Turkey in 2006, and implementation started in October 2007. With this law, all people under 18 were included into the General Health Insurance system, regardless of their parents' social security status.

1.10   Health Care System in Turkey

The Ministry of Health is officially responsible for designing and implementing health policies and delivering health-care services nationwide. Besides the Ministry of Health, other public sector institutions and non-governmental and private organizations contribute to providing mostly curative health services.

At the central level, the Ministry of Health is responsible for providing curative and preventive health-care services throughout the country, within the principles of primary health care. The responsibility for delivering the services and implementing specific Primary Health Care programs is shared by various Institutes and General Directorates such as the Turkey Public Health Institution, the Turkey Public Hospitals Institution, the Drugs and Medical Devices Institution, the General Directorate of Health Services, the General Directorate of Emergency Health Services, and the General Directorate of Health Development. At the provincial level, the health-care system is the responsibility of Health Directorates, under the supervision of the Governor. The provincial Health Director is responsible for delivering all primary health-care services as well as curative services.

In 2003, Turkey launched a comprehensive health system reform (the Health Transformation Program), expanding health service delivery capacity and quality; reforming the health system financing, including the creation of a single social security risk pool and reforming the service provider payment mechanisms; and strengthening key public health programs, particularly those related to Maternal, Newborn, and Child Health (MNCH) and communicable diseases.

The major goal of the Health Transformation Program (HTP) was to organize, finance and deliver health care services in an effective and efficient way in conformity with equity. Before the implementation of the Health Transformation Program, Turkey's health system had a rather fragmented structure with limited coordination between Bağ-Kur (Self-Employed People's Retirement Fund), Emekli Sandığı (Government Employee's Retirement Fund), and SSK (Social Insurances Agency). The three social security institutions were working in silos with their own hospital network. Health care funding was provided by public, private, and philanthropic organizations, and financed by the government through the Ministry of Finance, social security institutions (SSK, Bağ-Kur and Emekli Sandığı), and out of pocket payments. All these institutions were using different reimbursement mechanisms. There was also a social assistance program, Green Card, for poor families.

The key aspects of the HTP were:
a) Increasing access to quality health care, including necessary health care infrastructure
b) Health system financing and insurance reforms
c) Strengthening public health

Moreover, in December of 2004 the Turkish family medicine legislation was passed by the National Assembly. Accordingly, each family medicine practitioner serves approximately 3,000-4,000 individuals and is responsible for providing preventive and

curative health services to all registered persons. The Family Medicine Practitioner System follows up persons and preventive health services given to these persons. Since 2010, this system has been implemented all over Turkey. The system has replaced the previous primary health-care system of Health Houses and Health Centres.

During the last decade, Turkey substantially increased the per-capita public expenditures in health, making a major investment in expanding health care infrastructure. A significant portion of this investment has been channeled for increasing access to primary and preventative health care with the family medicine practitioner system and implementing several measures in maternal, new born, and child health (MNCH). In the last decade, Turkey also witnessed a significant increase in the number of hospitals, the number of total beds, beds per 10,000 inhabitants, and the number of health care professionals. As a result of HTP, a substantial increase in overall primary care and inpatient care utilization/access, particularly in MNCH has been achieved.

1.11 Objectives and Organization of the Survey

1.11.1 Objectives

The 2013 Turkey Demographic and Health Survey (TDHS–2013) is the tenth in a series of national-level population and health surveys that have been conducted by the Hacettepe University Institute of Population Studies (HUIPS) in the last four decades. The primary objective of the TDHS-2013 is to provide data on socioeconomic characteristics of households and women between ages 15-49, fertility, childhood mortality, marriage patterns, family planning, maternal and child health, nutritional status of women and children, and reproductive health. The survey obtained detailed information on these issues from a sample of women of reproductive age (15-49). The TDHS-2013 was designed to produce information in the field of demography and health that to a large extent cannot be obtained from other sources.

Specifically, the objectives of the TDHS-2013 included:

- Collecting data at the national level that allows the calculation of some demographic and health indicators, particularly fertility rates and childhood mortality rates,
- Obtaining information on direct and indirect factors that determine levels and trends in fertility and childhood mortality,
- Measuring the level of contraceptive knowledge and practice by contraceptive method and some background characteristics, i.e., region and urban-rural residence,
- Collecting data relative to maternal and child health, including immunizations, antenatal care, and postnatal care, assistance at delivery, and breastfeeding,
- Measuring the nutritional status of children under five and women in the reproductive ages ,

- Collecting data on reproductive-age women about marriage, employment status, and social status.

The TDHS-2013 information is intended to provide data to assist policy makers and administrators to evaluate existing programs and to design new strategies for improving demographic, social and health policies in Turkey. Another important purpose of the TDHS-2013 is to sustain the flow of information for the interested organizations in Turkey and abroad on the Turkish population structure in the absence of a reliable and sufficient vital registration system. Additionally, like the TDHS-2008, TDHS-2013 is accepted as a part of the *Official Statistic Program.*

1.11.2 Administration and Funding of the Survey

The Turkey Demographic and Health Survey, 2013 (TDHS-2013) has been conducted by the Hacettepe University Institute of Population Studies in collaboration with the Ministry of Development and the Ministry of Health, Public Health Institution . The TDHS-2013 has been financed by the Scientific and Technological Research Council of Turkey (TÜBİTAK) under the Support Program for Research Projects of Public Institutions, as a 36-month project. The TDHS-2013 is the second demographic and health survey funded entirely from the national budget.

A steering committee consisting of the academic staff of HUIPS and representatives of the Ministry of Health, the Ministry of Development, and the Turkish Statistical Institute participated in all phases of the project.

The staff of the Institute and other persons involved in the various activities of the TDHS-2013 is listed in Appendix A.

1.11.3 Questionnaires

Two types of questionnaires were used in the TDHS-2013: the Household Questionnaire and the Individual Questionnaire for all women of reproductive ages, 15 to 49. The contents of the questionnaires were based on the international DHS Program survey project model questionnaires and on the questionnaires that had been employed in previous Turkish population and health surveys. In developing the questionnaire, close attention was paid to obtaining the data needed for program planning in Turkey as specified during consultations with the general directorate of MCH/FP and representatives of other related public institutions. Additionally, input was obtained from other institutions studying demographic and health issues. Ensuring that the findings of the TDHS-2013 would be comparable with previous demographic surveys, particularly with the TDHS-1993, TDHS-1998, TDHS-2003, and TDHS-2008, was an important goal during questionnaire development. A pretest of the questionnaire was conducted in June 2013, and some minor modifications were made to the questionnaires based on the pretest results.

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.

The Women'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
- Marriage history and information on marriage
- Pregnancy, birth history, and fertility preferences
- Assisted reproductive techniques
- Knowledge and use of contraceptive methods
- Antenatal and postnatal care
- Breastfeeding, nutrition, and immunization of children under age five
- Women's work history and status
- Husband's background characteristics
- Anthropometric measurements of women and their children under five

The calendar module in the Women's Questionnaire was used to record on a monthly basis fertility and contraceptive use for five years from January 2008 through the month of the survey.

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

1.11.4 Sample

The sample design and sample size for the TDHS-2013 makes 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 TDHS-2013 sample is of sufficient size to allow for analysis on some of the survey topics at the level of the 12 geographical regions (NUTS 1) which were adopted at the second half of the year 2002 within the context of Turkey's move to join the European Union.

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[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.

In the selection of the TDHS-2013 sample, a weighted, multi-stage, stratified cluster sampling approach was used. Sample selection for the TDHS-2013 was undertaken in two stages. The first stage of selection included the selection of blocks as primary sampling units from each strata and this task was requested from the TURKSTAT. The frame for the block selection was prepared using information on the population sizes of settlements obtained from the 2012 Address Based Population Registration System. Settlements with a population of 10,000 and more were defined as "urban", while settlements with populations less than 10,000 were considered "rural" for purposes of the TDHS-2013 sample design. Systematic selection was used for selecting the blocks; thus settlements were given selection probabilities proportional to their sizes. Therefore more blocks were sampled from larger settlements.

The second stage of sample selection involved the systematic selection of a fixed number of households from each block, after block lists were obtained from TURKSTAT and were updated through a field operation; namely the listing and mapping fieldwork. Twenty-five households were selected as a cluster from urban blocks, and 18 were selected as a cluster from rural blocks. The total number of households selected in TDHS-2013 is 14,490.

The total number of clusters in the TDHS-2013 was set at 642. 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 and mapping activities.

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 Women's Questionnaire and were interviewed. All analysis in this report is based on *de facto* women.

A more technical and detailed description of the TDHS-2013 sample design, selection and implementation is presented in Appendix B.

1.11.5 Fieldwork and Data Processing

The TDHS-2013 data collection was carried out by teams. Each team consisted of 8-9 people; 4-5 female interviewers, 1 male measurer, 1-2 field editors and a team supervisor. Project assistants also worked in the field as team supervisors. An instructor of the Institute served as the field director. Other academic staff of the Institute visited teams as regional coordinators during the survey and coordinated communications between the teams and field director. All were responsible to an instructor of Institute who was in charge of the overall project.

A three-week training was given to the field staff in September 2013. The fieldwork began on 15 September 2013, and completed in January 2014. The questionnaires completed in the field were returned to the Institute of Population Studies for data entry. Once the questionnaires arrived at the Institute, data entry and editing were done using the CSPro package. During the data entry process, full verification between the field data and the data entered was achieved by having each questionnaire keyed by two different data editors,

comparing the results and resolving any differences. The office editing and processing activities in the Institute began in September 2013 and were completed in the third week of January 2014.

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, 14,490 households were selected for the TDHS-2013. At the time of the listing phase of the survey, 12,640 households were considered occupied and, thus, eligible for interview. Of the eligible households, 93 percent (11,794) 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.

Table 1.1 Results of the household and individual interviews

Number of households, number of interviews, and response rates by residence, Turkey 2013

Result	Urban	Rural	Total
Household interviews			
Households selected	10,484	4,006	14,490
Households occupied	9,239	3,401	12,640
Households interviewed	8,482	3,312	11,794
Household response rate	91.8	97.4	93.3
Individual interviews			
Eligible women	8,019	2,821	10,840
Eligible women interviewed	7,162	2,584	9,746
Eligible women response rate	89.3	91.6	89.9

In the interviewed 11,794 households, 10,840 women were identified as eligible for the individual interview, aged 15-49 and were present in the household on the night before the interview. Interviews were successfully completed with 9,746 of these women (90 percent). 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 fieldwork, coverage of the sample, and data processing is presented in Appendix B

HOUSEHOLD POPULATION AND HOUSING CHARACTERISTICS

2

Mehmet Ali Eryurt, Ayşe Abbasoğlu Özgören and İsmet Koç

This chapter provides a summary of the demographic and socioeconomic profile of the sampled households in the TDHS-2013. The household questionnaire (Appendix F) collected information regarding general characteristics of the household population such as age-sex composition, literacy and education, household arrangements (headship, household size), housing facilities (sources of water supply, sanitation facilities and dwelling characteristics), and household possessions.

Besides providing a background for better understanding the social, demographic and health indices discussed throughout this report, this chapter will provide an assessment of the level of economic and social development of the population of Turkey. In addition, it may assist in the assessing the representativeness of the survey sample.

2.1   Characteristics of the Household Population

The TDHS-2013 collected information from all the usual residents who live in the selected household (the *de jure* population) and persons who stayed in the selected household the night before the interview (the *de facto* population). Because the differences between these populations are very small, the sampling probabilities were based on *de facto* population information, and to maintain comparability with past surveys and censuses all tables in this report are based on *de facto* populations, unless otherwise stated.

2.1.1   Age and Sex Composition

Age and sex are important demographic variables for the study of a variety of demographic processes such as fertility, nuptiality and mortality. Table 2.1 gives the percent distribution of the TDHS-2013 population by five-year age groups, according to urban-rural residence and sex. The population age structure is a reflection of the past history of demographic events in the population, especially fertility and mortality. The *de facto* population (persons who stayed in the selected household the night before the interview) in the selected TDHS-2013 households included 41,476 persons, of which 20,587 were male and 20,889 were female. Results indicate a sex ratio of 99 males per 100 females. By residence, the sex ratio is higher in urban areas (100 male per 100 female) than in rural areas (94 males per 100 females).

Table 2.1 Household population by age, sex, and residence

Percent distribution of the *de facto* household population by five-year age groups, according to sex and residence, Turkey 2013

	Urban			Rural			Total		
Age	Male	Female	Total	Male	Female	Total	Male	Female	Total
<5	9.0	8.1	8.5	9.4	7.7	8.5	9.0	8.0	8.5
5-9	8.8	8.2	8.5	9.5	8.6	9.1	9.0	8.3	8.6
10-14	8.8	9.0	8.9	9.9	9.4	9.6	9.1	9.1	9.1
15-19	8.5	8.0	8.2	7.8	7.4	7.6	8.4	7.8	8.1
20-24	8.1	7.3	7.7	5.1	6.2	5.7	7.4	7.0	7.2
25-29	8.1	8.5	8.3	5.1	5.7	5.4	7.5	7.9	7.7
30-34	8.7	8.9	8.8	6.1	6.1	6.1	8.1	8.3	8.2
35-39	7.6	8.3	7.9	5.7	5.8	5.7	7.2	7.7	7.5
40-44	6.7	6.6	6.6	6.0	5.9	6.0	6.6	6.4	6.5
45-49	6.1	5.2	5.6	6.0	6.1	6.0	6.1	5.4	5.7
50-54	5.5	6.8	6.1	6.4	6.7	6.5	5.7	6.7	6.2
55-59	4.5	4.8	4.7	5.7	5.8	5.7	4.8	5.0	4.9
60-64	3.6	3.3	3.5	5.3	4.9	5.1	4.0	3.7	3.8
65-69	2.3	2.4	2.3	3.4	4.3	3.9	2.5	2.8	2.7
70-74	1.6	1.8	1.7	3.4	3.6	3.5	2.0	2.2	2.1
75-79	0.9	1.2	1.0	2.4	2.6	2.5	1.2	1.5	1.4
80 +	1.2	1.8	1.5	2.6	3.2	2.9	1.5	2.1	1.8
Don't know/missing	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.0	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	16,186	16,204	32,391	4,401	4,684	9,085	20,587	20,889	41,476

Figure 2.1 Population Pyramid
The population pyramid for *de facto* household population, Turkey 2013
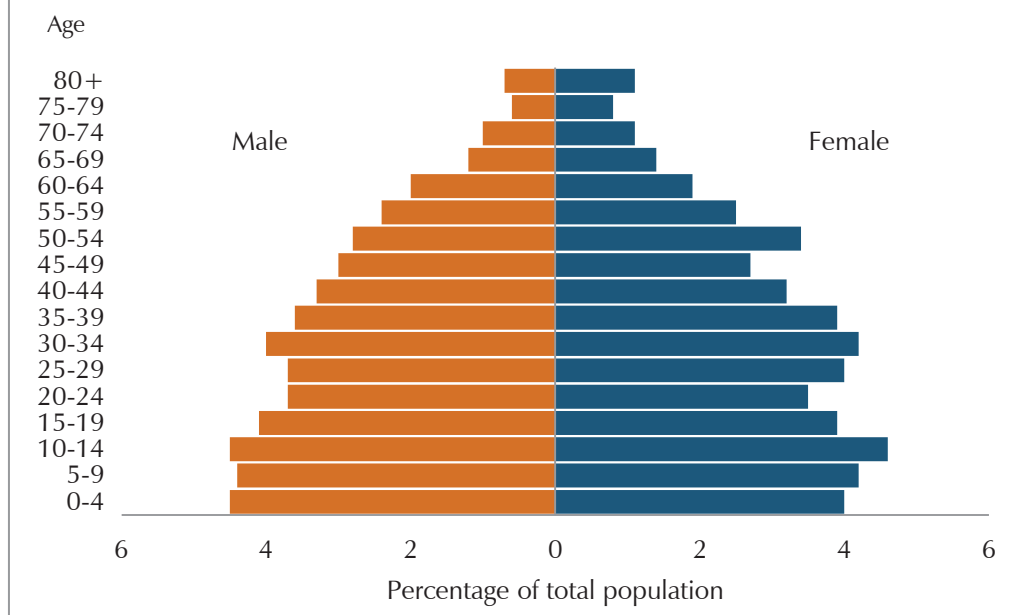
The population pyramid in figure 2.1 shows the sex and age distribution of the population. It is indicative of a constricted population pyramid transitioning from a high fertility and high mortality regime to a declining fertility and mortality regime. The number of children less than 15 years old account for 26 percent of the total population whereas less than one tenth (8 percent) of the total population are 65 or older. The shift to more conservative birth rates (fertility decline) is evidenced by lower proportion of children age 0-4 than children age 5-14 age. Declining mortality rates have resulted in a higher proportion of elderly, the highest recorded in the history of Turkey. This trend is the result of the convergence of three demographic changes experienced recently in Turkey: rapidly declining fertility which has reduced the numbers in the youngest age groups, increasing life expectancy at all ages, and the growth in size of the cohorts reaching age 65 years of age, due to high fertility in earlier decades.

Looking at urban-rural differences, the proportion of children (under age 15) and elderly is slightly greater in rural areas than in urban areas (27 and 26 percent for children and 13 and 7 percent for elderly). Another important urban-rural difference is among the working age population (age 15-64), who represent 68 percent of the urban population and 60 percent of the rural population. The significantly higher urban working age population may reflect the effects of rural-to-urban migration of the economically active population.

Table 2.2.1 Age distribution of the household population

Percent distribution of the *de facto* household population by major age groups and residence, Turkey 2013

Age group	Urban	Rural	Total
0-14	25.9	27.2	26.2
15-64	67.5	59.9	65.8
65+	6.6	12.8	7.9
Don't know/missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Number	32,391	9,085	41,476

Table 2.2.2 compares the distribution of the household population by age groups for the last five demographic surveys, the last two censuses carried out in 1990 and 2000 and population information derived from address based population registration system for 2013. The table reveals that between 1990 and 2013, the share of population under age 15 has decreased from 35 percent to 26 percent,whereas the share of the elderly population has increased from 4 percent to 8 percent. The dependency ratio, defined as the ratio of the non-productive population (persons under age 15 and age 65 and over) to the population age 15-64, is calculated based on these figures. Estimates show that the dependency ratio was around 65 percent at the time of the 1990 Population Census and has declined to nearly 52 percent in the TDHS-2013. The decline reflects a significant decrease in the burden placed on persons in the productive ages (ages 15-64) to support older and younger household members. In line

with this finding,the median age increased 7.3 years from 22.2 years in 1990 to 29.5 years in 2013. Changes in the median age are consistent with the gradual aging of the population that occurs as fertility declines and life expectancy increases.

Table 2.2.2 Population by age from selected sources

Percent distribution of the population by age group, selected sources, Turkey 1990-2013

Age group	PC 1990	TDHS 1993	TDHS 1998	PC 2000	TDHS 2003	TDHS 2008	ABPRS 2013	TDHS 2013
0-14	35.0	33.0	31.5	29.8	29.1	27.4	24.6	26.2
15-64	60.7	61.4	62.6	64.5	64.0	65.8	67.7	65.8
65+	4.3	5.6	5.9	5.7	6.9	6.8	7.7	7.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Median age	22.2	23.1	24.3	24.8	24.8	24.7	30.4	29.5
Dependency ratios	64.7	62.7	59.7	55.1	55.1	56.3	47.6	51.9

Sources: 1990 and 2000 Population Census (PC), TDHS-1993, TDHS-1998, TDHS-2003, TDHS-2008, TDHS-2013 and Address Based Population Registration System (ABPRS)

2.1.2   Household Composition

Table 2.3 presents the distribution of households in the TDHS-2013 sample by sex of the head of household, by the number of household members, and by households with orphans and foster children. These characteristics are important because they are associated with socioeconomic differences between households. Unlike previous tables, Table 2.3 is based on *de jure* members, i.e., usual residents.

The household composition usually affects the allocation of financial and other resources available to household members. In female headed households, financial resources are usually more limited relative to male-headed households. Similarly, the size of the household affects the overall well being of its members. Household size is also associated with crowding in the dwelling, which can lead to unfavorable health conditions. As expected, given cultural patterns in Turkey, male- headed households are predominant in the TDHS-2013 sample: 85 percent of households are headed by a male and 15 percent of households are female headed. On average, there are 3.6 persons per household: slightly more than half of the households have three or fewer members (52 percent), 24 percent have four members, and a quarter (25 percent) have five or more members. There are some differences in urban and rural household composition. The proportion of female-headed households is same in rural and urban areas (15 percent), however, in urban areas, 23 percent of households have five or more members compared with 32 percent in rural areas. The mean household size is 3.6 persons in the urban areas and 3.9 persons in the rural areas.

2.2   Fosterhood and Orphanhood

Foster children are children under 18 years of age who are not living with either of their biological parents. Orphaned children are children under 18 years of age who have lost one or both of their biological parents. To measure the prevalence of child fostering and orphanhood, four questions were asked in the Household Questionnaire on the survival and residence of the parents of children under 18 years of age.

Table 2.3 shows that only 1 percent of households include foster children, namely children under age 18 living in households with neither their mother nor their father present. Household with foster and/or orphan children, on the other hand, corresponds to 2.3 of all households.

Table 2.4 presents the percent distribution of children under age 18 by living arrangements and survival status of parents.

Table 2.3 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 2013

	Residence		
Characteristic	Urban	Rural	Total
Household headship			
Male	85.0	85.3	85.1
Female	15.0	14.7	14.9
Total	100.0	100.0	100.0
Number of usual members			
1	8.1	10.0	8.5
2	21.1	26.5	22.3
3	22.4	15.8	21.0
4	25.8	15.6	23.7
5	12.7	11.3	12.4
6	4.9	8.0	5.5
7	2.3	4.7	2.8
8	1.2	2.7	1.5
9+	1.5	5.4	2.3
Total	100.0	100.0	100.0
Mean size of households	3.6	3.9	3.6
Percentage of households with orphans and foster children under 18 years of age			
Foster children[1]	1.1	1.3	1.1
Double orphans	0.1	0.0	0.0
Single orphans[2]	1.2	1.6	1.3
Foster and/or orphan children	2.1	2.7	2.3
Number of households	9,325	2,469	11,794

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

Table 2.4 Children's living arrangements and orphanhood

Percent distribution of *de jure* children under age 18 by living arrangements and survival status of parents, the percentage of children not living with a biological parent, and the percentage of children with one or both parents dead, according to background characteristics, Turkey 2013

Background characteristic	Living with both parents	Living with mother but not with father		Living with father		Not living with either parent					Total	% not living with a biol. parent	% 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 dead	Missing info. on father/mother				
Age														
0-4	97.3	1.9	0.2	0.1	0.0	0.3	0.0	0.0	0.1	0.1	100.0	0.4	0.3	3,487
<2	97.7	1.9	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.2	100.0	0.2	0.1	1,407
2-4	97.0	2.0	0.3	0.2	0.0	0.4	0.1	0.0	0.1	0.0	100.0	0.5	0.5	2,080
5-9	93.7	3.6	0.8	0.9	0.2	0.6	0.2	0.1	0.0	0.0	100.0	0.9	1.3	3,554
10-14	91.4	4.4	2.0	0.6	0.5	0.9	0.0	0.1	0.0	0.0	100.0	1.0	2.7	3,857
15-17	86.5	5.1	2.9	1.3	0.8	2.8	0.2	0.2	0.1	0.1	100.0	3.4	4.2	2,266
Sex														
Male	92.9	3.5	1.3	0.9	0.3	0.9	0.1	0.1	0.0	0.0	100.0	1.1	1.8	6,770
Female	92.5	3.8	1.5	0.4	0.4	1.1	0.1	0.1	0.1	0.1	100.0	1.4	2.1	6,394
Residence														
Urban	92.5	4.0	1.2	0.7	0.4	1.0	0.1	0.1	0.1	0.0	100.0	1.2	1.8	10,092
Rural	93.6	2.4	1.9	0.5	0.3	1.1	0.1	0.1	0.0	0.1	100.0	1.3	2.5	3,072
Region														
West	91.8	4.6	0.8	0.9	0.6	1.1	0.2	0.0	0.1	0.0	100.0	1.4	1.7	4,789
South	91.0	4.8	2.0	0.6	0.4	0.9	0.1	0.2	0.0	0.0	100.0	1.2	2.7	1,805
Central	92.3	4.1	1.2	0.8	0.2	1.2	0.0	0.1	0.0	0.0	100.0	1.3	1.6	2,284
North	94.2	2.3	1.1	0.6	0.2	1.5	0.0	0.0	0.1	0.0	100.0	1.6	1.4	831
East	94.9	1.7	1.9	0.3	0.2	0.7	0.0	0.2	0.0	0.1	100.0	0.9	2.3	3,454
Region (NUTS 1)														
Istanbul	92.9	4.6	0.1	0.7	0.7	0.7	0.2	0.0	0.1	0.0	100.0	1.0	1.1	2,579
West Marmara	89.3	5.2	1.0	2.6	0.5	1.4	0.0	0.0	0.0	0.0	100.0	1.4	1.5	326
Aegean	89.6	4.9	1.6	1.4	0.4	1.5	0.4	0.1	0.0	0.0	100.0	2.0	2.6	1,212
East Marmara	91.1	3.7	2.7	0.3	0.3	1.5	0.0	0.0	0.1	0.2	100.0	1.7	3.1	1,059
West Anatolia	93.1	4.5	0.7	0.8	0.1	0.7	0.0	0.0	0.0	0.0	100.0	0.7	0.8	1,010
Mediterranean	91.0	4.8	2.0	0.6	0.4	0.9	0.1	0.2	0.0	0.0	100.0	1.2	2.7	1,805
Central Anatolia	92.6	4.2	0.7	0.5	0.3	1.1	0.1	0.2	0.1	0.2	100.0	1.5	1.4	657
West Black Sea	93.2	2.3	0.6	1.1	0.3	2.5	0.0	0.0	0.0	0.0	100.0	2.5	0.8	635
East Black Sea	95.6	1.7	1.3	0.2	0.2	0.8	0.0	0.0	0.2	0.0	100.0	1.0	1.6	427
Northeast Anat.	92.9	2.5	2.3	0.4	0.5	0.7	0.0	0.6	0.0	0.0	100.0	1.3	3.4	556
Central East An.	94.9	1.6	1.9	0.5	0.3	0.6	0.0	0.1	0.0	0.1	100.0	0.7	2.3	895
Southeast Anat.	95.4	1.6	1.9	0.2	0.0	0.7	0.1	0.1	0.0	0.1	100.0	0.8	2.0	2,003
Wealth quintile														
Lowest	93.9	2.0	2.0	0.5	0.4	1.0	0.0	0.2	0.0	0.1	100.0	1.2	2.6	3,110
Second	90.7	3.9	2.2	0.6	0.5	1.6	0.2	0.1	0.1	0.1	100.0	2.0	3.1	2,805
Middle	91.9	4.3	1.4	0.7	0.6	0.9	0.1	0.0	0.0	0.1	100.0	1.1	2.1	2,554
Fourth	93.5	4.1	0.6	0.8	0.0	0.8	0.1	0.1	0.0	0.0	100.0	0.9	0.9	2,397
Highest	93.7	4.2	0.2	0.8	0.3	0.6	0.1	0.0	0.1	0.0	100.0	0.8	0.6	2,298
Total <15	94.0	3.3	1.0	0.5	0.3	0.6	0.1	0.1	0.0	0.0	100.0	0.8	1.5	10,898
Total <18	92.7	3.6	1.4	0.7	0.4	1.0	0.1	0.1	0.0	0.0	100.0	1.2	1.9	13,164

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.

In the previously mentioned table, results indicate that majority of children under age 18 (93 percent) live with both parents. By background characteristics, differences in children's living arrangement 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.

Six percent of children under 18 live with only one parent, 5 percent only with their mother and 1 percent only with their father. Two percent of children live with only one parent because the other parent is dead. Foster children–children not living with either parent– account for only 1 percent of children under 18, whereas orphaned children–children who have lost one or both parents–account for 2 percent.

2.3   Education of the Household Population

Educational attainment is an important determinant of individual economic and social well-being. Many phenomena such as reproductive behavior, use of contraception, and the health of children are affected by the education of household members. In Turkey prior to 2012, basic education was 8 years of compulsory education consisting of 5 years of first level primary education and 3 years of secondary level primary education. As of August 2012, compulsory education starts at age 5 and continues for 12 years, including 4 years primary school, 4 years secondary school and 4 years high school. To keep comparability with previous TDHSs, results in this section are presented for the population 6 years or older and years of high school are interpreted as three years and over in this section. The household questionnaire can be used to look at both educational attainment among household members and school attendance among children and young adults.

2.3.1   Educational Attainment of Household Members

Tables 2.5.1 and 2.5.2 show the distribution of the *de facto* male and female household population age six and over by the highest level of education attended, respectively. A comparison of these tables highlights gender differentials in educational attainment. Overall, 84 percent of men in the 2013 TDHS household have completed primary school or more, compared with 72 percent of women. The median years of schooling completed by men (6.9 years) is higher than the median for women (4.7 years).

An examination of the changes in educational attainment by age groups indicates that there has been a marked improvement in the educational attainment of both men and women. For example, the median years of schooling among 20-24 age group (10.5 years for men and 9.9 years for women) is almost double that of 40-44 age group (5.7 years for men and 4.6 years for women).

Although differentials in educational attainment between men and women still persists, the gap has narrowed among younger cohorts; gender difference is 0.6 for 20-24 age group while 4.3 years for 30-34 age group.

Table 2.5.1 Educational attainment of the male household population

Percent distribution of the de facto male household population age six and over by highest level of schooling attended or completed and median years completed, according to background characteristics, Turkey 2013

Background characteristic	No educ./Prim. incompl.	Primary school[1]	Secondary school[2]	High school and higher[3]	Missing	Total	Number	Median years completed
Age								
6-9	98.4	1.5	0.0	0.0	0.1	100.0	1,461	0.8
10-14	14.2	70.2	15.4	0.1	0.1	100.0	1,866	5.6
15-19	1.3	5.2	78.8	14.7	0.0	100.0	1,720	8.7
20-24	3.4	7.9	29.7	58.6	0.3	100.0	1,532	10.5
25-29	4.3	16.5	23.0	56.1	0.1	100.0	1,535	10.3
30-34	4.6	29.8	16.4	48.9	0.4	100.0	1,673	9.2
35-39	3.6	38.9	13.0	44.4	0.1	100.0	1,482	7.8
40-44	4.1	49.2	12.2	34.1	0.4	100.0	1,349	5.7
45-49	5.8	50.6	13.3	30.3	0.0	100.0	1,247	5.0
50-54	6.7	46.6	14.3	31.8	0.6	100.0	1,176	5.0
55-59	10.5	50.8	10.5	27.7	0.5	100.0	978	4.8
60-64	13.2	55.7	10.0	20.3	0.7	100.0	821	4.7
65+	37.0	43.4	4.9	13.5	1.1	100.0	1,489	4.3
Residence								
Urban	14.2	31.4	20.7	33.4	0.3	100.0	14,440	7.3
Rural	22.8	45.8	17.6	13.4	0.4	100.0	3,904	4.7
Region								
West	13.0	35.3	20.4	30.9	0.3	100.0	7,840	7.1
South	18.0	37.2	20.4	24.2	0.2	100.0	2,291	5.7
Central	12.8	32.6	18.8	35.6	0.2	100.0	3,750	7.4
North	16.5	36.4	18.3	28.2	0.5	100.0	1,280	6.0
East	25.8	31.7	20.9	21.1	0.4	100.0	3,181	5.3
Region (NUTS 1)								
Istanbul	13.6	33.7	21.7	30.8	0.2	100.0	3,832	7.2
West Marmara	10.8	42.2	14.7	32.1	0.2	100.0	724	5.9
Aegean	11.9	40.4	18.6	28.2	0.9	100.0	2,181	6.2
East Marmara	14.4	31.3	20.9	33.3	0.1	100.0	1,748	7.3
West Anatolia	10.2	29.1	17.7	43.0	0.0	100.0	1,887	7.9
Mediterranean	18.0	37.2	20.4	24.2	0.2	100.0	2,291	5.7
Central Anatolia	17.2	33.1	21.5	28.0	0.3	100.0	855	7.0
West Black Sea	15.4	37.3	19.0	28.0	0.4	100.0	1,013	6.1
East Black Sea	16.8	35.3	19.5	27.8	0.6	100.0	630	6.2
Northeast Anatolia	21.8	38.5	19.0	20.2	0.4	100.0	553	5.0
Central East Anatolia	23.6	32.7	22.9	20.3	0.6	100.0	864	5.7
Southeast Anatolia	28.2	29.1	20.5	21.9	0.3	100.0	1,764	5.4
Wealth quintile								
Lowest	30.6	44.4	17.5	7.1	0.5	100.0	3,468	4.5
Second	19.2	43.2	20.8	16.2	0.6	100.0	3,545	4.9
Middle	14.1	37.2	23.4	25.2	0.2	100.0	3,749	6.7
Fourth	9.5	30.7	21.8	37.8	0.2	100.0	3,824	7.8
Highest	8.4	18.0	16.5	56.9	0.2	100.0	3,756	10.4
Total	16.1	34.4	20.0	29.1	0.3	100.0	18,343	6.9

[1] Completed 4 or 5 years at the primary school
[2] Completed 3 or 4 years at the secondary school depending on the years of schooling (prior to year 2012 or later)
[3] Completed at least 3 years at the high school

Table 2.5.2 Educational attainment of the female household population

Percent distribution of the de facto female household population age six and over by highest level of schooling attended or completed and median years completed, according to background characteristics, Turkey 2013

Background characteristic	No educ./Prim. İncomp.	Primary school[1]	Sec. school[2]	High sch. & higher[3]	Missing	Total	Number	Median years compl.
Age								
6-9	98.6	1.4	0.0	0.0	0.0	100.0	1,380	0.8
10-14	12.4	69.9	17.5	0.1	0.0	100.0	1,897	5.7
15-19	3.1	7.3	70.7	18.9	0.1	100.0	1,635	8.9
20-24	10.8	10.3	30.2	48.6	0.0	100.0	1,467	9.9
25-29	13.2	27.0	14.7	45.1	0.0	100.0	1,643	7.8
30-34	13.5	40.7	10.9	35.0	0.0	100.0	1,727	4.9
35-39	11.1	53.4	7.8	27.7	0.0	100.0	1,609	4.8
40-44	17.8	53.4	7.9	20.8	0.1	100.0	1,343	4.6
45-49	24.3	51.3	6.0	18.4	0.1	100.0	1,125	4.5
50-54	28.1	48.0	5.9	17.7	0.4	100.0	1,407	4.5
55-59	37.0	45.9	3.9	12.9	0.3	100.0	1,054	4.3
60-64	49.1	37.3	2.8	10.2	0.6	100.0	770	4.0
65+	67.5	24.4	1.9	5.6	0.6	100.0	1,800	0.0
Residence								
Urban	24.1	35.5	15.8	24.5	0.1	100.0	14,615	4.9
Rural	42.5	38.1	12.5	6.6	0.2	100.0	4,249	4.2
Region								
West	21.5	38.6	15.7	23.9	0.2	100.0	7,858	4.9
South	28.8	36.8	16.0	18.2	0.1	100.0	2,310	4.7
Central	24.1	38.7	13.8	23.3	0.1	100.0	3,839	4.8
North	33.2	34.4	13.5	18.7	0.3	100.0	1,414	4.6
East	45.8	27.4	14.9	11.8	0.1	100.0	3,444	4.2
Region (NUTS 1)								
Istanbul	21.6	35.6	17.8	24.8	0.2	100.0	3,682	5.0
West Marmara	18.8	46.2	12.3	22.7	0.0	100.0	775	4.7
Aegean	22.9	41.5	13.5	22.0	0.1	100.0	2,357	4.8
East Marmara	23.7	39.3	14.3	22.5	0.2	100.0	1,783	4.8
West Anatolia	17.2	39.9	13.0	29.9	0.0	100.0	1,793	5.0
Mediterranean	28.8	36.8	16.0	18.2	0.1	100.0	2,310	4.7
Central Anatolia	31.2	34.6	15.2	18.8	0.1	100.0	907	4.7
West Black Sea	31.5	35.7	15.1	17.4	0.4	100.0	1,117	4.6
East Black Sea	34.6	33.2	13.3	18.8	0.1	100.0	698	4.6
Northeast Anatolia	45.1	28.7	15.2	10.8	0.2	100.0	621	4.2
Central East Anatolia	42.5	30.0	14.6	12.8	0.1	100.0	965	4.3
Southeast Anatolia	47.7	25.7	15.0	11.6	0.1	100.0	1,858	4.1
Wealth quintile								
Lowest	52.6	33.6	11.3	2.3	0.2	100.0	3,672	3.1
Second	35.7	41.3	15.1	7.7	0.2	100.0	3,744	4.4
Middle	25.8	42.5	16.5	15.0	0.1	100.0	3,738	4.7
Fourth	17.4	38.6	17.4	26.5	0.1	100.0	3,849	5.1
Highest	11.0	24.6	14.8	49.5	0.2	100.0	3,862	10.1
Total	28.2	36.1	15.1	20.5	0.1	100.0	18,864	4.7

[1] Completed 4 or 5 years at the primary school
[2] Completed 3 or 4 years at the secondary school depending on the years of schooling (prior to year 2012 or later)
[3] Completed at least 3 years at the high school

The median years of schooling completed is greater in urban than in rural areas. Results from tables 2.5.1 and 2.5.2 demonstrate that gender differences in educational attainment are greater in urban areas. In rural areas, there is a 0.5 year difference in the median years of schooling completed (4.7 years for men and 4.2 for women), whereas in urban areas, there is a 2.4 year difference (7.3 years for men and 4.9 years for women).

By place of residence, gender differences in educational attainment are evident in the East region where 74 percent of men have completed primary school compared with 54 percent of women. However, in the East region, the difference between median years of schooling for males and females is 1.1 years compared with 2.3 years in the West and 2.6 in the South regions. Among NUTS-1 regions, Southeast Anatolia and Northeast Anatolia stand out as having the lowest educational attainment in terms of median years completed.

Educational attainment is strongly associated with the wealth status of the household. For example, in the lowest wealth quintile, 31 percent of men and 53 percent of women have no education or have not completed primary school and only 7 percent of men and 2 percent of women have attended high school or higher. In the highest wealth quintile, only 8 percent of men and 11 percent of women have not attended school or have completed less than the primary school and half of women (50 percent) and 57 percent of men have attended high school or higher. Furthermore, the median years of schooling in the highest wealth quintile is more than twice that of the lowest quintile for men males and more than three times higher for women.

2.3.2   School Attendance Ratios

The TDHS-2013 collected information on current school attendance for the population age 4-24, however, for comparability, results are presented for the population 6-24 years. The age-specific attendance rates for the population by sex are shown in Figure 2.2.

The comparatively low age-specific attendance rate for children age 6 may indicate that some of these children turned six after the start of the school year. Overall, the majority of children age 15 or less were attending school. However, school attendance rates are generally higher for boys. The gender gap in school attendance increases somewhat with age, particularly among the post-first level primary ages and higher (i.e., 13 and older).

Tables 2.6.1 and 2.6.2 show net attendance ratios (NAR) and gross attendance ratios (GAR) for men and women by residence, region and wealth quintiles. The NAR indicates participation among men and women of official school age, which is 6-13 for primary and secondary school, 14-16 for high school. The GAR indicates total attendance of men and women, of any age, up to 24 years, and is expressed as a percentage of the school age population for that level of schooling. The GAR is generally higher than the NAR for the same level because the GAR includes participation by those who may be older or younger than the official age range for that level. Children are considered to be currently attending school if they were in school at any point during the current school year.

Figure 2.2 Age-specific attendance ratios
Percentage of the *de facto* household population attending school by age and sex , Turkey 2013
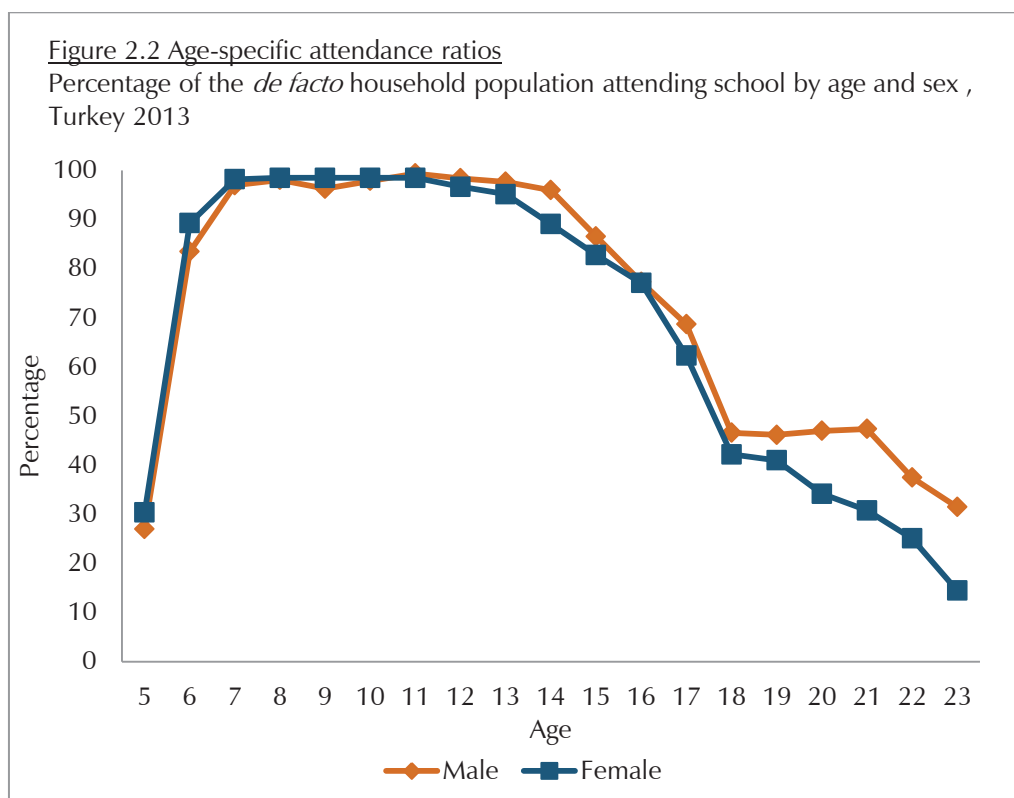
Tables 2.6.1 and 2.6.2 show that, among children 6 to 13 years, 94 percent attended primary and secondary school and among children age 14 to 16, 76 percent attended high school. Since primary and secondary school is compulsory, males and females were almost equally likely to be in school; more than nine in ten males and females were enrolled in primary and secondary school. Although enrollment in high school is noticeably lower than enrollment in primary and secondary school, the gap between male and female is also relatively small (77 percent for men and 76 percent for women).

At the primary and secondary school level, the NAR and GAR do not differ much by urban-rural residence. At the high school level, the urban NAR is 81 percent compared to 59 in rural areas and the urban GAR is 127 compared to 88 in the rural areas. The disparity in educational attainment between the East and other regions is significant both at the high school level. NUTS 1 regional disparities are especially pronounced at the high school level: the NAR, for example, ranges from a low of 55 percent in Central East Anatolia, to a high of 90 percent in West Marmara. By wealth quintile, results indicate that attendance is higher among wealthy households at primary, secondary and high school levels. However, wealth quintile has a greater impact on high school attendance,the high school NAR is 50 percent in the lowest wealth quintile compared with 94 percent in the highest wealth quintile.

Table 2.6.1 School attendance ratios: Primary and secondary school[1]

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 2013

Background characteristic	Net attendance ratio[2]				Gross attendance ratio[3]			
	Male	Female	Total	Gender Parity Index[4]	Male	Female	Total	Gender Parity Index[4]
Residence								
Urban	94.0	94.8	94.4	1.01	101.5	102.2	101.8	1.01
Rural	94.1	94.0	94.1	1.00	104.6	104.8	104.7	1.00
Region								
West	94.8	95.5	95.1	1.01	102.4	101.3	101.8	0.99
South	93.8	93.6	93.7	1.00	102.2	99.9	101.2	0.98
Central	94.3	96.0	95.1	1.02	101.4	104.8	103.0	1.03
North	96.1	96.5	96.3	1.00	104.7	104.1	104.4	0.99
East	92.5	92.7	92.6	1.00	102.0	104.8	103.4	1.03
Region (NUTS 1)								
Istanbul	93.2	95.4	94.3	1.02	99.4	99.2	99.3	1.00
West Marmara	95.7	97.7	96.6	1.02	101.2	100.4	100.8	0.99
Aegean	97.5	95.9	96.7	0.98	106.1	105.0	105.5	0.99
East Marmara	95.7	94.3	95.0	0.99	105.0	104.5	104.7	1.00
West Anatolia	92.7	97.0	94.9	1.05	100.6	104.4	102.6	1.04
Mediterranean	93.8	93.6	93.7	1.00	102.2	99.9	101.2	0.98
Central Anatolia	95.7	93.5	94.7	0.98	104.1	103.0	103.6	0.99
West Black Sea	96.3	96.9	96.6	1.01	105.4	104.8	105.1	0.99
East Black Sea	95.3	96.9	96.1	1.02	101.7	104.8	103.2	1.03
Northeast Anatolia	94.6	92.6	93.6	0.98	106.2	102.0	104.0	0.96
Central East Anatolia	92.2	91.7	92.0	0.99	101.8	104.2	103.1	1.02
Southeast Anatolia	92.1	93.2	92.6	1.01	101.0	105.8	103.4	1.05
Wealth quintile								
Lowest	90.7	90.9	90.8	1.00	101.2	102.8	102.0	1.02
Second	95.4	94.6	95.0	0.99	105.4	102.0	103.7	0.97
Middle	95.8	98.0	96.9	1.02	105.9	105.6	105.7	1.00
Fourth	93.9	95.1	94.5	1.01	99.3	102.5	100.9	1.03
Highest	95.3	95.7	95.5	1.00	98.8	101.1	99.9	1.02
Total	94.1	94.6	94.3	1.01	102.2	102.8	102.5	1.01

[1] It includes the ones completed an 8-year-education.
[2] The NAR for primary and secondary school is the percentage of the primary and secondary-school age (6-13 years) population that is attending primary and secondary school.
[3] 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.
[4] 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 2.6.2 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 2013

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	80.1	82.0	81.0	1.02	131.0	122.2	126.7	0.93
Rural	64.3	53.2	58.6	0.83	98.0	77.9	87.7	0.79
Region								
West	80.2	84.6	82.4	1.05	128.8	122.7	125.8	0.95
South	76.2	78.9	77.5	1.04	125.4	113.1	119.3	0.90
Central	80.7	83.2	81.9	1.03	137.2	124.2	130.9	0.91
North	89.0	84.9	87.1	0.95	133.7	129.0	131.5	0.96
East	64.6	51.7	57.9	0.80	101.7	82.6	91.9	0.81
Region (NUTS 1)								
Istanbul	82.4	81.8	82.1	0.99	138.2	116.7	127.4	0.84
West Marmara	87.8	92.0	90.0	1.05	124.1	144.9	134.9	1.17
Aegean	72.9	87.2	80.0	1.20	110.5	121.1	115.8	1.10
East Marmara	75.8	85.5	80.2	1.13	119.2	129.6	123.9	1.09
West Anatolia	80.6	83.9	82.1	1.04	138.7	124.9	132.3	0.90
Mediterranean	76.2	78.9	77.5	1.04	125.4	113.1	119.3	0.90
Central Anatolia	86.9	81.5	84.4	0.94	151.8	133.1	143.0	0.88
West Black Sea	88.7	86.7	87.7	0.98	144.9	131.7	138.0	0.91
East Black Sea	91.4	82.0	87.0	0.90	129.4	117.4	123.8	0.91
Northeast Anatolia	64.1	49.5	56.7	0.77	112.2	76.6	94.1	0.68
Central East Anatolia	64.8	46.3	54.5	0.71	109.0	83.0	94.5	0.76
Southeast Anatolia	64.6	54.9	59.8	0.85	95.9	84.1	90.0	0.88
Wealth quintile								
Lowest	58.4	42.1	50.2	0.72	89.4	66.3	77.8	0.74
Second	65.3	74.5	70.0	1.14	103.0	106.6	104.8	1.03
Middle	80.2	83.7	81.8	1.04	125.4	127.1	126.2	1.01
Fourth	88.3	85.5	87.0	0.97	152.1	134.5	143.7	0.88
Highest	94.0	94.5	94.3	1.01	154.3	131.0	141.9	0.85
Total	76.7	75.5	76.1	0.98	124.0	112.1	118.1	0.90

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

The Gender Parity Index (GPI), which represents the ratio of the NAR (GAR) for females to the NAR (GAR) for males is also presented at the primary, secondary and high school levels in Tables 2.6.1 and 2.6.2. The GPI indicates the magnitude of the gender gap in attendance. If there is no gender difference in attendance, the GPI will equal one.The wider the disparity in favor of males, the closer the GPI will be to 0 and if the gender gap favors females, the GPI will exceed one.

The GPI (NAR) for primary and secondary school is 1.01 indicating almost no difference in male and female attendance. Likewise, the GPI for high school is 0.9 indicating a small difference in male-female attendance rates. The situation has improved between the TDHS-2008 and TDHS-2013; in the 2008 TDHS, these values were 0.98 for primary and secondary school and 0.88 for high school.

Urban-rural differentials in the GPI do not exist at the primary and secondary school level (1.01 and 1.00), however, there are marked differences in rural areas at the high school level (0.93 for urban areas and 0.79 in rural areas). It should be noted that the gender gap in all regions vanished at the primary and secondary school level. However as expected, there are significant regional differentials at the high school level; girls residing in the eastern part of Turkey are particularly disadvantaged. Looking at wealth quintiles, the gender gap for high school is widest (0.74) in the lowest wealth quintile and in favor of girls in the second and middle wealth quintiles (1.03 and 1.01, respectively).

2.3.3   Repetition and Dropout Rates

Repetition and dropout rates describe the flow of students through the school system. The repetition rate is the percentage of students who attended school in the previous school year and are repeating that grade in the current school year. The dropout rate is the percentage of students who were enrolled in school in the previous school year but are not attending school during the current school year. By asking about the grade children attended during the previous school year, it is possible to calculate dropout rates and repetition rates. Repetition and dropout rates approach zero when most students progress to the next grade at the end of the school year. Repetition and dropout rates can vary across grades, indicating points in the school system where students are not regularly promoted to the next grade or where they decide or are forced to drop out of school.

Table 2.7.1 indicates the grade repetition rates among the de facto population age 4-24 who attended primary school in the previous school year. The table indicates that in most cases repetition rates are all less than 1 percent.

Table 2.7.1 Grade repetition rates

Repetition rates for the *de facto* household population age 4-24 who attended primary or secondary school in the previous school year by school grade, according to background characteristics, Turkey 2013

Background characteristic	School grade							
	1	2	3	4	5	6	7	8
Sex								
Male	0.4	0.6	0.0	0.5	1.1	0.4	0.2	0.5
Female	0.2	0.0	0.3	0.0	0.5	0.0	0.0	0.1
Residence								
Urban	0.2	0.3	0.2	0.2	0.9	0.3	0.1	0.4
Rural	0.5	0.3	0.0	0.5	0.5	0.0	0.0	0.0
Region								
West	0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.4
South	0.0	1.4	0.0	0.6	1.2	0.0	0.0	0.0
Central	0.0	0.0	0.0	1.0	0.0	0.0	0.5	0.0
North	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
East	0.9	0.4	0.0	0.0	2.2	0.9	0.0	0.4
Region (NUTS 1)								
Istanbul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
West Marmara	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aegean	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
East Marmara	0.0	0.0	2.1	0.0	0.0	0.0	0.0	1.6
West Anatolia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mediterranean	0.0	1.4	0.0	0.6	1.2	0.0	0.0	0.0
Central Anatolia	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0
West Black Sea	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0
East Black Sea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
Northeast Anatolia	0.0	3.0	0.0	0.0	2.8	0.0	0.0	0.0
Central East Anatolia	1.6	0.0	0.0	0.0	2.0	1.0	0.0	0.0
Southeast Anatolia	0.8	0.0	0.0	0.0	2.2	1.1	0.0	0.7
Wealth quintile								
Lowest	1.0	0.5	0.0	0.0	1.0	0.0	0.0	0.0
Second	0.0	0.0	0.0	1.3	0.0	0.7	0.0	0.6
Middle	0.3	0.0	0.0	0.0	0.0	0.3	0.5	0.0
Fourth	0.0	1.1	0.0	0.0	3.0	0.0	0.0	0.9
Highest	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Total	0.3	0.3	0.2	0.3	0.8	0.2	0.1	0.3

Note: The repetition rate is the percentage of students in a given grade in the previous school year who are repeating that grade in the current school year.

Similarly, Table 2.7.2 indicates the grade dropout rates for the de facto population age 4-24 who attended primary or secondary school in the previous school year. From grade level 1-5, dropout rates increase modestly as grade level increases. However, amongst 8th graders, there is a considerable increase in the dropout rate (6.5 percent). The high dropout rate at grade 8 reflects the fact that many students who complete the 8-year primary education are unable, for various reasons, to move to the next educational level (i.e., high school).

Table 2.7.2 Grade dropout rates

Dropout rates for the *de facto* household population age 4-24 who attended primary or secondary school in the previous school year by school grade, according to background characteristics, Turkey 2013

Background characteristic	School grade							
	1	2	3	4	5	6	7	8
Sex								
Male	0.3	0.0	1.4	0.7	0.4	0.4	1.2	4.5
Female	0.0	0.7	0.0	0.4	4.7	1.0	2.5	8.8
Residence								
Urban	0.1	0.4	0.9	0.7	2.8	0.7	1.9	4.6
Rural	0.3	0.0	0.0	0.0	2.3	0.8	1.6	12.4
Region								
West	0.0	0.0	1.8	0.2	3.0	0.8	3.4	4.6
South	0.0	1.0	0.0	1.8	5.5	0.9	0.0	6.5
Central	0.4	0.0	0.0	0.0	0.0	0.0	0.0	4.5
North	0.0	0.0	0.0	0.0	0.0	0.4	1.4	0.5
East	0.3	0.7	0.0	0.6	2.1	1.1	2.1	11.7
Region (NUTS 1)								
Istanbul	0.0	0.0	3.3	0.0	4.5	0.0	4.9	6.2
West Marmara	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0
Aegean	0.0	0.0	0.0	0.0	0.0	0.0	2.4	5.6
East Marmara	0.0	0.0	0.0	0.0	0.0	3.7	0.0	1.6
West Anatolia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0
Mediterranean	0.0	1.0	0.0	1.8	5.5	0.9	0.0	6.5
Central Anatolia	1.4	0.0	0.0	0.0	0.0	0.0	0.0	5.3
West Black Sea	0.0	0.0	0.0	0.0	0.0	0.0	1.9	2.6
East Black Sea	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.9
Northeast Anatolia	0.0	0.0	0.0	0.0	0.0	0.9	0.0	16.8
Central East Anatolia	1.0	0.0	0.0	0.0	5.9	0.0	3.3	7.1
Southeast Anatolia	0.0	1.2	0.0	1.1	0.8	1.7	2.3	12.4
Wealth quintile								
Lowest	0.5	0.5	2.5	2.2	6.6	3.3	2.7	15.4
Second	0.0	0.9	0.0	0.0	2.8	0.3	3.0	9.1
Middle	0.0	0.0	0.0	0.0	0.0	0.0	1.4	3.9
Fourth	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Highest	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0
Total	0.1	0.3	0.7	0.5	2.7	0.7	1.8	6.5

Note: The dropout rate is the percentage of students in a given grade in the previous year who are not attending school in the current school year.

In general, dropout rates are higher in rural than in urban areas. For example, the dropout rates of rural children at grade 8 is more than double that of urban children (12 percent and 5 percent respectively). Regional differentials in the dropout rate are also noteworthy. At grade 8, the North region has the lowest dropout rate (1 percent) and the East region has the highest rate (12 percent). Dropout rates are negatively associated with wealth. In the lowest wealth quintile, 15 percent of students dropout in grade 8; as wealth increases, the dropout rates amongst 8th graders reduces significantly to less than 1 percent.

2.4   Housing Characteristics

The physical characteristics as well as availability and accessibility of basic household facilities are important in assessing the general welfare and socioeconomic conditions of the population. The TDHS-2013 gathered information on housing characteristics such as sources of drinking water, time to the nearest water source, type of toilet facilities, main material of the floor, and number of sleeping rooms in the house. These characteristics are correlated with health and are indicative of socioeconomic status. Tables 2.8, 2.9 and 2.10 present this information for households and the total de jure population.

2.4.1   Drinking Water

Increasing the proportion of people with sustainable access to improved drinking water is one of the Millennium Development Goals that Turkey, along with other nations, has adopted (United Nations General Assembly, 2001). The source of drinking water is an indicator of whether it is suitable for drinking. Sources that are likely to be of suitable quality are classified under "Improved source", and sources that may not be of suitable quality are grouped under "Non-improved source" (WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation (JMP), 2004). In TDHS-2013, improved sources included: (i) piped water in dwelling or to yard/plot, (ii) public tap or standpipe, (iii) tube well or borehole, (iv) protected well, (v) protected spring, and (vi) bottled water. Non-improved source included: (i) unprotected well, (ii) unprotected spring, (iii) tanker truck or cart with drum, (iv) surface water, and (v) other water sources. Households with no access to drinking water within their own premises were also asked about the time required to obtain water. Lack of ready access to a water source may limit the amount of safe drinking water. Moreover, the water may be contaminated during transport or storage.

Table 2.8 provides information on the source of drinking water and the time to obtain drinking water by urban-rural residence. Overall, 99 percent of households in Turkey have access to an improved source of drinking water. Urban households are slightly more likely than rural households to have an improved water source (100 percent and 97 percent, respectively). Half of all households (50 percent) use piped water within their dwelling, 36 percent use bottled water and 8 percent 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 dwelling (51 percent) and bottled water (44 percent), whereas in rural areas, the most common source of drinking water is piped waterin dwelling (48 percent), protected spring (22 percent) and tube well or borehole (10 percent).

More than nine in ten households (93 percent) report having water on their premises. By residence, drinking water is available on the premises in 95 percent of households in urban areas and 87percent in rural areas. Including those with water on premises, 97 percent of households have access to water within 30 minutes and 3 percent 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.

Percent distribution of households and *de jure* population by source of drinking water, time to obtain drinking water, and treatment of drinking water, according to residence, Turkey 2013

Characteristic	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Source of drinking water						
Improved source	99.6	96.8	99.0	99.6	96.5	98.9
Piped into dwelling	50.5	47.6	49.9	56.1	45.1	53.6
Piped to yard/plot	0.1	1.8	0.4	0.1	1.4	0.4
Public tap/standpipe	0.8	5.0	1.7	0.8	6.7	2.1
Tube well or borehole	0.2	9.9	2.2	0.2	12.4	3.0
Protected well	0.7	3.4	1.3	0.8	3.6	1.4
Protected spring	3.8	22.0	7.6	3.8	21.9	7.9
Bottled water	43.5	7.1	35.8	37.8	5.4	30.5
Non-improved source	0.3	2.8	0.8	0.3	3.0	0.9
Unprotected well	0.0	0.4	0.1	0.0	0.6	0.2
Unprotected spring	0.2	1.4	0.4	0.2	1.5	0.5
Tanker truck/cart with drum	0.0	0.7	0.2	0.0	0.6	0.2
Surface water	0.1	0.2	0.1	0.1	0.3	0.1
Other	0.1	0.4	0.1	0.1	0.4	0.2
Missing	0.0	0.0	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Time to obtain drinking water (round trip)						
Water on premises	94.7	86.7	93.0	94.8	86.8	93.0
Less than 30 minutes	3.1	8.1	4.1	3.1	7.9	4.2
30 minutes or longer	2.1	4.2	2.5	2.0	4.0	2.5
Don't know/missing	0.1	1.0	0.3	0.1	1.3	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	9,325	2,469	11,794	33,109	9,609	42,719

2.4.2   Sanitation Facilities

Ensuring adequate sanitation facilities is another Millennium Development Goal. The lack of availability of hygienic sanitation facilities poses a serious health problem. Table 2.9 shows the proportion of households and *de jure* population with access to hygienic sanitation facilities. Hygienic status is determined on the basis of the type of facility used and whether or not it is a shared facility. A household's toilet/latrine facility is classified as hygienic if it is used only by household members (i.e., not shared with other households) and if the type of facility effectively separates human waste from human contact (WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation, 2004). The types of facilities most likely to meet this criteria are flush or pour flush into a piped sewer system and pit latrine with a slab.

Table 2.9 Household sanitation facilities

Percent distribution of households and *de jure* population by type of toilet/latrine facilities, according to residence, Turkey 2013

Type of toilet/latrine facility	Households			Population		
	Urban	Rural	Total	Urban	Rural	Total
Toilet inside or outside						
No facility/bush/public toilet	0.0	0.9	0.2	0.0	1.4	0.3
Inside	96.6	64.5	89.9	95.9	60.0	87.8
Outside	2.9	29.0	8.3	3.4	33.0	10.0
Inside and outside	0.5	5.7	1.6	0.6	5.7	1.8
Missing	0.0	0.0	0.0	0.0	0.0	0.0
Type of toilet facility						
No toilet	0.0	0.9	0.2	0.0	1.4	0.3
Flush toilet	97.0	47.9	86.7	96.4	43.5	84.5
Open pit	0.4	9.9	2.4	0.5	11.3	2.9
Closed pit	2.6	40.8	10.6	3.0	43.4	12.1
Other	0.0	0.5	0.1	0.0	0.5	0.1
Missing	0.0	0.0	0.0	0.0	0.0	0.0
Share toilet with other households						
No	99.2	96.5	98.6	99.2	95.7	98.4
Yes	0.4	2.5	0.9	0.4	2.7	0.9
Improved, not shared facility						
Flush/pour flush to piped sewer system	96.3	47.1	86.0	95.7	42.9	83.8
Pit latrine with slab/closed pit	2.5	39.5	10.3	2.9	41.9	11.7
Total	98.8	86.6	96.3	98.6	84.8	95.5
Shared facility[1]						
Flush/pour flush to piped sewer system	0.4	0.7	0.4	0.3	0.6	0.4
Pit latrine with slab	0.1	1.2	0.3	0.1	1.3	0.4
Total	0.4	1.9	0.7	0.4	1.9	0.7
Non-improved facility						
Pit latrine without slab/open pit	0.4	9.9	2.4	0.5	11.3	2.9
No facility/bush/field	0.0	0.9	0.2	0.0	1.4	0.3
Other	0.0	0.5	0.1	0.0	0.5	0.1
Missing	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.5	11.3	2.7	0.6	13.1	3.4
Total	99.7	99.8	99.7	99.6	99.8	99.7
Number	9,325	2,469	11,794	33,109	9,609	42,719

[1] Facilities that would be considered improved if they were not shared by two or more households

Ninety-six percent of households have access to an improved toilet facility that is not shared with other households, of which 86 percent are flushed to a piped sewer system and 10 percent are pit latrines with a slab. These improved sanitation facilities are more common in urban areas (99 percent) than in rural areas (87 percent). Most urban householdsand less than half of rural households have flush toilets (96 percent and 47 percent, respectively). Among rural households, use of pit latrines (40 percent pit latrine with slab and 10 percent open pit) is common as well.

2.4.3   Other Household 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, type of heating, and number of rooms used for sleeping are shown in Table 2.10.

With regard to flooring, the most commonly used material is parquet (polished wood) (28 percent) followed by laminate (23 percent), cement (16 percent), tile (12 percent), and wood planks (8 percent). There are substantial differences in the flooring materials in urban and rural dwellings. Among rural households, 39 percent have a cement floor compared with about 10 percent of urban households. Two fifth of the urban households live in dwellings with parquet or laminate floors and 7 percent of households in rural areas have earth floors.

Information on heating systems was also collected in TDHS-2013. Substantial differences in the types of systems used for heating are observed among urban and rural households. Urban households are more likely than rural households to use central and flat heating, while rural households are more likely than urban households to use stoves. Eighty-one percent of rural households burn wood or coal in the stove and 12 percent burn dried cow dung. Fifty-one percent of urban households use natural gas to heat their houses, and 39 percent use wood/coal.

Finally, data on the number of sleeping rooms per household was collected in the TDHS-2013 to help assess the extent of crowding. Table 2.10 shows that 80 percent of households have one or two rooms for sleeping and 20 percent have three or more rooms for sleeping. On average, there are 1.9 persons per sleeping room and rural households tend to have more people per sleeping room than urban households (2.2 and 1.8 persons per sleeping room, respectively).

Table 2.10 Housing characteristics

Percent distribution of households by housing characteristics and percentage using solid fuel for cooking, according to residence, Turkey 2013

Housing characteristic	Residence		Total
	Urban	Rural	
Main material of floor			
Earth, sand	0.3	7.1	1.7
Wood planks	5.1	19.7	8.1
Parquet, polished wd	33.0	11.2	28.4
Tile	12.5	7.5	11.5
Cement	10.2	38.5	16.1
Wall-to-wall carpet	1.3	1.9	1.4
Vinly covering (marley)	6.5	2.9	5.7
Mozaic	1.4	0.7	1.2
Laminate	27.0	8.1	23.0
Other	2.6	1.5	2.3
Missing	0.2	0.9	0.3
Total	100.0	100.0	100.0
Rooms used for sleeping			
One	32.1	45.8	35.0
Two	46.6	37.3	44.6
Three or more	21.3	16.9	20.4
Missing	0.0	0.0	0.0
Total	100.0	100.0	100.0
Heating			
Central heating-natural gas	7.0	0.1	5.5
Central heating-diesel oil/gas oil	0.1	0.0	0.1
Central heating-wood/coal	5.4	2.0	4.7
Central heating-other	0.2	0.0	0.2
Flat heating-natural gas	40.8	1.3	32.5
Flat heating-diesel oil/gas oil	0.1	0.1	0.1
Flat heating-other	0.8	1.4	0.9
Stove-natural gas	2.9	0.3	2.4
Stove-diesel oil/gas oil	0.0	0.2	0.1
Stove-wood/coal	33.8	80.9	43.7
Stove-dried cow dung	0.5	11.8	2.9
Stove-other	0.2	0.2	0.2
Electric heater	3.2	0.9	2.7
Air conditioner	4.2	0.7	3.5
Other	0.7	0.2	0.6
Missing	0.0	0.0	0.0
Total	100.0	100.0	100.0
Mean number of persons per sleeping room	1.8	2.2	1.9
Number	9,325	2,469	11,794

2.4.4 Household Durable Goods

Ownership of household effects and other possessions is a useful indicator of a household's social and economic well-being. Moreover, particular goods have specific benefits. For example, having access to a radio or television exposes household members to innovative ideas, a refrigerator prolongs the wholesomeness of foods, and a means of transport allows greater access to many services away from the local area. Table 2.11 presents the availability of selected household possessions by residence.

Table 2.11 Household possessions

Percentage of households possessing various household effects, means of transportation by residence, Turkey 2013

| | Residence | | |
Possession	Urban	Rural	Total
Household effects			
Television	98.2	96.6	97.9
Mobile telephone	97.0	90.2	95.6
Non-mobile telephone	37.5	32.0	36.3
Refrigerator	99.1	96.8	98.6
Deep freezer	18.7	23.5	19.7
Gas/electric oven	83.2	60.5	78.5
Microwave oven	23.1	7.9	19.9
Dishwasher	65.5	25.9	57.2
Garbage grinder	1.0	0.2	0.8
Washing machine	97.5	90.1	95.9
Washer dryer	3.0	0.6	2.5
Iron	93.4	73.5	89.3
Vacuum cleaner	93.2	72.9	89.0
LCD/Plasma television	47.0	20.3	41.4
Home theather	4.5	0.8	3.7
Satellite antenna	83.9	83.1	83.7
Cable TV/Digiturk	16.8	3.7	14.0
DVD/VCD player	31.1	13.1	27.3
Laptop	38.1	13.7	33.0
Desktop computer	29.0	10.5	25.1
Internet	43.5	13.7	37.2
Air conditioner	21.0	9.5	18.6
Taxi/minibus	3.5	4.6	3.8
Means of transport			
Motorcycle/scooter	4.8	13.7	6.7
Car/truck	39.0	32.2	37.6
Number	9,325	2,469	11,794

A majority of households in Turkey own most basic appliances. Refrigerators, television sets, washing machine, and mobile phone are present in over 90 percent of households. More than eight in ten households have an iron, vacuum cleaner, and satellite antenna and 78 percent have an oven. Fifty-seven percent of households have a dishwasher, 41 percent have an LCD/Plasma television, and 37 percent have internet connection in their dwellings. With regard to other household effects shown in Table 2.11, ownership rates vary

from less than 1 percent of households for garbage grinders and to 36 percent for non-mobile telephones.

Relatively few households have a means of transportation in rural areas. The most common means of transportation is a car ot truck. Urban households are more likely to rely on a car/truck than rural households (39 percent and 32 percent respectively), whereas a greater poportion of rural households than urban rely on motorcycle/scooters (14 percent and 5 percent, respectively) and taxi/minibus (5 percent for rural and 4 percent for urban households).

2.5   Household Wealth

In addition to standard background characteristics, most of the results throughout this report are shown by wealth quintiles, an indicator of the economic status of households. Although TDHS-2013 did not collect data on consumption or income, the survey did create a measure of socio-economic status using detailed information on dwelling and household characteristics, access to a variety of consumer goods and services, as well as assets. The wealth index is a recently developed measure that has been tested in a number of countries in relation to inequities in household income, use of health services, and health outcomes (Rutstein et al., 2000). The resulting wealth index is a proxy for long-term standard of living of the household and an indicator that is consistent with expenditure and income measures (Rutstein, 1999; Rutstein and Johnson, 2004). The wealth index was constructed using household asset data including ownership of a number of possessions ranging from a television to a car, as well as dwelling characteristics, such as source of drinking water, sanitation facilities, and type of flooring material.

A single asset index was developed on the basis of data from the survey sample and used in all the tabulations presented in the report. Each asset was assigned a weight (factor score) generated through principal component analysis, and the resulting asset scores were standardized in relation to a standard normal distribution with a mean of zero and standard deviation of one (Gwatkin et al., 2000). Each household was then assigned a score for each asset, and the scores were summed for each household. Individuals were ranked according to the total score of the household in which they reside and divided into population quintiles (five groups with the same number of individuals in each category).

Table 2.12 shows the distribution of the *de jure* population by the five wealth quintiles and the Gini coefficient according to urban-rural residence, region and NUTS 1 region. These distributions indicate the degree to which wealth is evenly (or unevenly) distributed by geographic areas. Three fifths of households (60 percent) in rural areas are in the lowest quintile in contrast to 9 percent in urban areas. On the other hand, half of the urban households (50 percent) are in the fourth and highest wealth quintiles as opposed to 6 percent of rural households. As expected, there are huge variations in wealth quintile distribution across regions in terms. The East region has the largest proportion in the lowest wealth quintile (44 percent) and West region has the largest proportion in the highest quintile (29 percent). In line with this finding, the NUTS1 regions located in the eastern part of Turkey, namely Northeast Anatolia, Southeast Anatolia, and Central East Anatolia regions have the

largest proportions in the lowest quintile (56, 42 and 42 percent, respectively) and İstanbul, West Anatolia, and East Marmara regions have the smallest proportions in the lowest quintile (2, 6 and 14 percent, respectively).

Table 2.12 Wealth quintiles

Percent distribution of the *de jure* population by wealth quintiles, and the Gini Coefficient, according to residence and region, Turkey 2013

Residence/region	Wealth quintile					Total	Number of persons
	Lowest	Second	Middle	Fourth	Highest		
Residence							
Urban	8.5	18.6	23.1	24.7	25.1	100.0	33,109
Rural	59.7	24.8	9.2	3.8	2.5	100.0	9,609
Region							
West	8.7	15.0	21.9	25.2	29.3	100.0	17,547
South	25.0	27.3	20.9	14.1	12.6	100.0	5,351
Central	16.0	18.5	21.0	23.7	20.8	100.0	8,540
North	22.8	27.4	22.0	16.2	11.6	100.0	3,114
East	44.2	24.6	13.6	10.4	7.3	100.0	8,167
Region (NUTS 1)							
Istanbul	2.2	10.8	21.4	29.4	36.2	100.0	8,440
West Marmara	14.8	21.4	22.5	19.0	22.4	100.0	1,622
Aegean	18.9	20.4	22.1	17.9	20.7	100.0	5,097
East Marmara	13.6	18.6	21.1	24.1	22.6	100.0	3,976
West Anatolia	6.2	13.7	22.9	29.9	27.2	100.0	4,034
Mediterranean	25.0	27.3	20.9	14.1	12.6	100.0	5,351
Central Anatolia	26.0	20.8	18.6	17.9	16.7	100.0	2,056
West Black Sea	20.1	25.2	22.7	19.6	12.4	100.0	2,443
East Black Sea	25.5	28.5	21.1	14.5	10.4	100.0	1,534
Northeast Anatolia	55.6	20.9	8.6	8.6	6.3	100.0	1,453
Central East Anatolia	41.6	24.4	16.4	11.6	6.1	100.0	2,245
Southeast Anatolia	41.7	25.9	13.8	10.4	8.2	100.0	4,469
Total	20.0	20.0	20.0	20.0	20.0	100.0	42,719

2.6 Birth Registration

The registration of births is the inscription of the facts of each birth into an official log kept at the registrar's office. Birth registration is basic to ensuring a child's legal status and, thus, basic rights and services. In the TDHS-2013, mothers of children were asked if their child's birth had been registered. A childborn in 2003 or later was considered as registered if the mother reported that the birth was registered. Mothers were not asked if the child actually had a birth certificate since some birth certificates may have been lost or never issued. Table 2.13 shows the percentage of children under five years of age whose births were officially registered.

Table 2.13 Birth registration of children under age five

Percentage of *de jure* children under five years of age whose births are registered and unregistered with the civil authorities, according to background characteristics, Turkey 2013

Background characteristic	Birth registration			
	Percentage who had a birth certificate	Percentage who did not have birth certificate	Total	Number of children
Child's age				
<2	98.4	1.6	100.0	1,622
2-4	99.0	1.0	100.0	2,415
Child sex				
Male	98.6	1.4	100.0	2,154
Female	99.0	1.0	100.0	1,883
Residence				
Urban	99.1	0.9	100.0	3,176
Rural	97.7	2.3	100.0	861
Region				
West	98.7	1.3	100.0	1,533
South	99.2	0.8	100.0	549
Central	98.4	1.6	100.0	800
North	100.0	0.0	100.0	263
East	98.5	1.5	100.0	891
Region (NUTS 1)				
Istanbul	98.6	1.4	100.0	815
West Marmara	100.0	0.0	100.0	135
Aegean	96.5	3.5	100.0	363
East Marmara	100.0	0.0	100.0	366
West Anatolia	99.0	1.0	100.0	349
Mediterranean	99.2	0.8	100.0	549
Central Anatolia	99.6	0.4	100.0	230
West Black Sea	98.4	1.6	100.0	204
East Black Sea	100.0	0.0	100.0	134
Northeast Anatolia	98.7	1.3	100.0	138
Central East Anatolia	98.0	2.0	100.0	206
Southeast Anatolia	98.7	1.3	100.0	547
Wealth quintile				
Lowest	98.1	1.9	100.0	799
Second	98.7	1.3	100.0	870
Middle	99.0	1.0	100.0	890
Fourth	99.1	0.9	100.0	747
Highest	99.0	1.0	100.0	732
Total	98.8	1.2	100.0	4,037

Table 2.13 presents a little variation in birth registration rates by the child`s sex, region, region of residence, and wealth quintile. Accordingly, it is shown that 99 percent of births in the past five years were registered. Regarding the place of residence, urban children are somewhat more likely to be registered than rural children.

The results have shown that from 2008 to 2013, the percentage of unregistered children decreased 5 percentage points, from 6 percent in the TDHS-2008 to 1 percent in TDHS-2013. In addition to this, the percentage of unregistered children has decreased both in urban and rural areas since the TDHS-2008 (5 and 8 percent respectively).

CHARACTERISTICS OF SURVEY RESPONDENTS 3

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The aim of this chapter is to provide descriptive information of the situation of reproductive age women in Turkey by their basic demographic and socioeconomic characteristics such as age, marital status, region, urban-rural residence, education, and wealth quintiles. This information is useful for understanding the context of reproduction and health status 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 situation of reproductive age women in Turkey help for a better understanding of demographic phenomena discussed in the following chapters.

The TDHS-2013 is the first TDHS since 1998 to gather information from all women irrespective of their marital status; previous TDHS had sampled only ever-married women. Only Table 3.1 includes information from both all women and ever-married women in this chapter, however data for ever-married women are also presented in Appendix E for comparison with previous surveys.

3.1 Background Characteristics

Table 3.1 presents a description of the background characteristics of the 9,746 women, 7,219 of which are ever-married women, interviewed in the TDHS-2013.

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. The data indicate that 45 percent of all women and 28 percent of ever-married women are less than 30 years of age.

When comparing all women with ever-married women, smaller proportions of ever-married women are noticeable in the younger age groups: 16 percent of all women are age 15-19 and 14 percent are age 20-24 while 2 percent of ever-married women are age 15-19 and 9 percent are age 20-24. These findings likely reflect the significant proportion of Turkish women that are not yet married by these ages. Sixty-eight percent of all women are married, 28 percent have never married, 3 percent are divorced/separated, and 1 percent are widowed.

Eighty-one percent of women live in urban areas. Respondents were most likely to live in the West (43 percent) and least likely to live in the North (7 percent). Regarding the NUTS 1 regions, 20 percent of women lived in İstanbul, followed by 13 percent in the Aegean and the Mediterranean, and 10 percent West Anatolia and Southeast Anatolia regions.

Table 3.1 Background characteristics of respondents

Percent distribution of all women and ever-married women age 15-49 by selected background characteristics, Turkey 2013

	All women			Ever-married women		
Background characteristic	Weighted percent	Weighted number	Unweighted number	Weighted percent	Weighted number	Unweighted number
Age						
15-19	16.1	1,572	1,526	1.6	113	136
20-24	13.7	1,337	1,373	9.0	634	705
25-29	15.3	1,492	1,462	17.1	1,207	1,212
30-34	16.1	1,565	1,552	20.6	1,455	1,458
35-39	15.5	1,513	1,477	20.4	1,444	1,420
40-44	12.7	1,238	1,276	17.2	1,212	1,240
45-49	10.6	1,029	1,080	14.1	998	1,048
Marital status						
Never married	27.5	2,683	2,527	-	-	-
Married	68.3	6,655	6,835	94.2	6,655	6,835
Divorced/separated	3.0	297	264	4.2	297	264
Widowed	1.1	112	120	1.6	112	120
Residence						
Urban	81.1	7,905	7,162	80.6	5,696	5,284
Rural	18.9	1,841	2,584	19.4	1,367	1,935
Region						
West	42.6	4,154	2,439	43.3	3,061	1,847
South	12.7	1,235	1,324	13.0	915	1,012
Central	20.6	2,004	1,864	21.0	1,486	1,424
North	6.7	654	1,437	6.6	465	1,042
East	17.4	1,699	2,682	16.1	1,137	1,894
Region (NUTS 1)						
Istanbul	20.0	1,948	852	20.1	1,419	648
West Marmara	4.1	395	536	4.1	292	404
Aegean	12.8	1,244	663	13.3	941	511
East Marmara	9.5	931	629	9.4	667	462
West Anatolia	10.0	971	716	10.1	716	525
Mediterranean	12.7	1,235	1,324	13.0	915	1,012
Central Anatolia	4.9	479	721	5.2	369	578
West Black Sea	5.5	539	796	5.5	392	586
East Black Sea	3.1	306	827	3.0	215	599
Northeast Anatolia	2.7	263	760	2.5	178	552
Central East Anatolia	4.7	460	768	4.3	302	530
Southeast Anatolia	10.0	976	1,154	9.3	656	812
Education						
No education/pri. incomplete	12.0	1,168	1,468	15.0	1,062	1,337
Primary school	34.6	3,371	3,449	44.5	3,142	3,210
Secondary school	22.3	2,173	2,113	14.0	990	987
High school and higher	31.1	3,034	2,716	26.5	1,870	1,685
Wealth quintile						
Lowest	15.0	1,460	2,076	15.4	1,085	1,555
Second	19.7	1,921	2,177	19.7	1,390	1,630
Middle	20.9	2,035	1,972	21.0	1,482	1,457
Fourth	21.7	2,118	1,819	21.3	1,501	1,299
Highest	22.7	2,212	1,702	22.7	1,605	1,278
Total 15-49	100.0	9,746	9,746	100.0	7,063	7,219

Note: The educational categories refer to the highest level of education completed.

Twelve percent of all women and 15 percent of ever-married women have no education or have not completed primary school. On the other hand, 31 percent of all women and 27 percent of ever-married women have completed at least high school. When compared with results of previous surveys, one finds that women today are more educated than the women in the past.

In order to check consistency of current figures with the results from previous surveys, socio-economic characteristics also presented for ever-married women. When marital status is considered, although there appears to have been a small differentiation in the percentage of divorced or separated, these figures are consistent with the results of the previous surveys and indicate the rarity of marital dissolution in Turkey.

3.2 Education and Literacy Level

Table 3.2 shows the distribution of women by educational attainment according to age, residence, region, and wealth quintiles. Due to the spread of education in recent decades in Turkey, younger women are more educated than older women. Twenty-two percent of women age 45-49 have no education or have not completed primary school compared with only 13 percent of women age 25-29. Forty-four percent of women age 25-29 have completed at least high school compared to 18 percent of women age 45-49. Finally, the increase in compulsory education from 5 years of age to 8 years in 1997 clearly impacted the educational attainment of the youngest cohort; 69 percent of women age 15-19 have completed secondary school.

Women who live in urban areas are much more likely to have higher education than their rural counterparts. Thirty-five percent of urban women have completed at least high school while only 13 of rural women have. Meanwhile, only 10 percent of urban women have not completed any educational level compared to 21 percent of rural women. Regional disparities in education still exist but are less strong than seen in TDHS-2003 and TDHS-2008. The least educated women are in the East, where the median years of schooling is 4.8 years, compared with the national average of 7.3 years. Regarding the NUTS 1 regions, women living in Southeast Anatolia, Central East Anatolia and Northeast Anatolia regions are least likely to access education (35, 28 and 29 percent, respectively, have no education or less than primary school level). On the other hand, in six of the other NUTS 1 regions, the median years of schooling are equal to or exceed the national average (7.3 years).

Educational attainment increases with wealth. Thirty-three percent of women in the lowest wealth quintile have no education or have not completed primary school compared with 1 percent of women in the highest quintile. The median number of years of schooling is 4.5 for the lowest quintile, while it is 10.7 for women in the highest wealth quintile.

Table 3.2 Educational attainment

Percent distribution of women age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, Turkey 2013

Background characteristic	Education				Total	Median years completed	Number of women
	No education/ Primary incomplete	Primary school[1]	Secondary school[2]	High school and higher[3]			
Age							
15-24	6.2	8.4	51.8	33.6	100.0	9.1	2,909
15-19	2.2	7.5	69.4	20.8	100.0	9.0	1,572
20-24	10.9	9.5	31.0	48.5	100.0	9.9	1,337
25-29	12.5	28.6	14.6	44.4	100.0	7.8	1,492
30-34	12.4	41.8	11.1	34.7	100.0	5.0	1,565
35-39	11.0	54.1	7.7	27.2	100.0	4.8	1,513
40-44	17.0	54.5	7.9	20.5	100.0	4.6	1,238
45-49	22.1	53.7	6.0	18.2	100.0	4.5	1,029
Residence							
Urban	9.9	32.6	22.1	35.3	100.0	7.6	7,905
Rural	20.9	43.1	22.9	13.1	100.0	4.7	1,841
Region							
West	7.2	35.8	22.5	34.4	100.0	7.6	4,154
South	12.4	37.1	23.5	27.0	100.0	7.1	1,235
Central	5.5	36.2	21.3	37.0	100.0	7.7	2,004
North	8.3	38.6	21.3	31.7	100.0	7.2	654
East	32.3	26.3	22.4	18.9	100.0	4.8	1,699
Region (NUTS 1)							
Istanbul	9.0	32.9	25.0	33.1	100.0	7.6	1,948
West Marmara	3.9	36.2	20.1	39.7	100.0	8.1	395
Aegean	5.6	42.3	19.7	32.4	100.0	7.2	1,244
East Marmara	6.7	36.7	21.2	35.4	100.0	7.6	931
West Anatolia	3.6	32.2	19.5	44.7	100.0	9.1	971
Mediterranean	12.4	37.1	23.5	27.0	100.0	7.1	1,235
Central Anatolia	9.1	36.4	22.9	31.6	100.0	7.4	479
West Black Sea	5.7	39.9	24.1	30.3	100.0	7.3	539
East Black Sea	10.8	37.0	21.1	31.0	100.0	7.2	306
Northeast Anatolia	28.5	29.6	24.2	17.7	100.0	4.8	263
Central East Anatolia	28.4	28.7	21.9	20.9	100.0	4.9	460
Southeast Anatolia	35.2	24.2	22.2	18.3	100.0	4.7	976
Wealth quintile							
Lowest	33.4	40.5	21.5	4.6	100.0	4.5	1,460
Second	18.5	44.1	23.8	13.6	100.0	4.8	1,921
Middle	10.3	42.2	24.3	23.2	100.0	5.2	2,035
Fourth	4.6	33.3	23.3	38.8	100.0	7.9	2,118
Highest	0.9	16.6	18.6	63.9	100.0	10.7	2,212
Total	12.0	34.6	22.3	31.1	100.0	7.3	9,746

[1] Completed 4 or 5 years in primary school
[2] Completed the years necessary in secondary school, according to the system that applied to the student
[3] Completed at least 3 years at the high school

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 2013

| Background characteristic | Secondary school or higher | Ability to read for women with no schooling or primary school | | | | Total | Percentage literate[1] | Number of women |
		Not at all	With difficulty	Easily	Missing			
Age								
15-24	88.4	2.4	2.0	7.1	0.1	100.0	97.5	2.909
15-19	94.2	1.0	1.0	3.8	0.0	100.0	99.0	1.572
20-24	81.6	4.0	3.3	10.9	0.2	100.0	95.8	1.337
25-29	61.4	6.7	4.8	27.1	0.0	100.0	93.3	1.492
30-34	48.7	6.8	5.8	38.6	0.1	100.0	93.1	1.565
35-39	38.3	6.6	7.2	47.8	0.1	100.0	93.3	1.513
40-44	31.9	9.4	9.4	49.3	0.0	100.0	90.6	1.238
45-49	25.9	14.2	13.7	46.1	0.1	100.0	85.8	1.029
Residence								
Urban	60.5	4.8	5.2	29.4	0.1	100.0	95.2	7.905
Rural	38.4	14.0	9.6	37.8	0.2	100.0	85.9	1.841
Region								
West	60.3	3.1	5.0	31.6	0.0	100.0	96.9	4.154
South	53.1	6.4	7.5	32.9	0.1	100.0	93.4	1.235
Central	60.2	3.6	4.0	32.1	0.1	100.0	96.3	2.004
North	55.2	4.0	6.3	34.4	0.1	100.0	95.9	654
East	45.0	19.5	9.7	25.7	0.1	100.0	80.4	1.699
Region (NUTS 1)								
Istanbul	61.5	3.4	6.5	28.6	0.0	100.0	96.6	1.948
West Marmara	61.7	2.6	3.0	32.7	0.0	100.0	97.4	395
Aegean	57.1	3.3	3.9	35.6	0.1	100.0	96.7	1.244
East Marmara	58.0	3.0	3.5	35.6	0.0	100.0	97.0	931
West Anatolia	65.5	2.9	3.4	28.1	0.1	100.0	97.0	971
Mediterranean	53.1	6.4	7.5	32.9	0.1	100.0	93.4	1.235
Central Anatolia	57.6	4.7	4.6	33.0	0.1	100.0	95.2	479
West Black Sea	56.2	3.0	6.4	34.3	0.1	100.0	97.0	539
East Black Sea	53.9	4.5	7.0	34.3	0.3	100.0	95.3	306
Northeast Anatolia	43.7	14.7	11.7	30.0	0.0	100.0	85.3	263
Central East Anatolia	47.3	15.8	10.0	26.9	0.0	100.0	84.1	460
Southeast Anatolia	44.3	22.6	9.1	23.9	0.1	100.0	77.4	976
Wealth quintile								
Lowest	29.9	22.6	12.8	34.5	0.2	100.0	77.1	1.460
Second	41.0	9.3	8.8	40.8	0.1	100.0	90.6	1.921
Middle	50.8	4.7	6.2	38.2	0.1	100.0	95.3	2.035
Fourth	64.4	1.2	4.0	30.4	0.0	100.0	98.8	2.118
Highest	84.5	0.3	0.9	14.2	0.1	100.0	99.7	2.212
Total	56.3	6.5	6.0	31.0	0.2	100.0	93.4	9.746

[1] Refers to women who attended secondary school or higher and women who can read with difficulty or easily.

Table 3.3 shows the literacy level of women by age, residence, region, and wealth quintile. The level of literacy is based on women's self-reported ability to read a newspaper or a letter easily, with difficulty or not at all. This question was asked only to the 43 percent of women who had completed primary school or less since the TDHS-2013 assumed women with more than five years of schooling are literate. Overall, 93 percent of women are literate; this includes 36 percent with no or less than primary school education who reported they were able to read.

As expected, literacy decreases with age, from 98 percent in the 15-19 age group to 86 percent among women age 45-49 years. Urban women are more likely than rural women to be literate (95 percent and 86 percent, respectively). The percent literate is highest in the West (97 percent) and lowest in the East (80 percent). Among the NUTS 1 regions, Southeast Anatolia and Central East Anatolia have the lowest literacy rates (77 and 84 percent, respectively). In four regions, more than 97 percent of women are literate: West Marmara, East Marmara, West Anatolia, and West Black Sea. The literacy level increases with the wealth quintile; virtually all women in the highest wealth quintile are literate compared to 77 percent in the lowest quintile.

3.3   Employment and Occupation

3.3.1   Employment status

Employment, like education, can be a source of empowerment for women. Table 3.4 presents the employment status of all women interviewed in the TDHS-2013 by age, marital status, number of children, region, residence, educational level, and wealth quintiles. The data were collected with work histories. In TDHS-2013, information was obtained about all of women's employment experiences which were longer than 6 months. Additionally, data was collected about women's current employment, which refers to paid or unpaid employment 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 TDHS-2013, a number of complementary questions were also asked to ensure that undocumented, informal or differently-defined employment activities were captured in the interview.

Table 3.4 indicates that 31 percent of women were currently working at the time of the survey, and 4 percent were not currently employed but had worked at some point during the 12 months prior to the survey. Women age 15-19 were less likely to be employed than their older counterparts. An association exists between employment and marital status; women who were divorced, separated, or widowed were more likely to be employed than never married and currently married women, possibly because women who were not married assume the role of breadwinner in the absence of a husband.

Table 3.4 Employment status

Percent distribution of women age 15-49 by employment status, according to background characteristics, Turkey 2013

| | Employment status | | | | | Number of women |
Background characteristic	Currently employed[1]	Not currently employed[2]	Not employed in last 12 months	DK/ Missing	Total	
Age						
15-19	16.9	4.6	78.3	0.2	100.0	1,572
20-24	27.5	7.4	63.5	1.6	100.0	1,337
25-29	31.5	3.9	62.3	2.3	100.0	1,492
30-34	32.2	2.9	62.1	2.8	100.0	1,565
35-39	38.2	2.4	56.5	3.0	100.0	1,513
40-44	37.1	2.6	57.1	3.2	100.0	1,238
45-49	37.3	1.6	56.2	4.9	100.0	1,029
Marital status						
Never married	29.0	5.4	65.0	0.5	100.0	2,683
Married	31.0	3.0	62.8	3.2	100.0	6,655
Divorced/separated/widowed	45.3	3.5	48.0	3.2	100.0	409
Number of living children						
0	30.6	6.0	62.5	0.9	100.0	3,393
1-2	33.5	2.8	60.7	3.1	100.0	4,035
3-4	29.0	2.0	65.3	3.7	100.0	1,833
5+	22.3	1.5	72.8	3.4	100.0	485
Residence						
Urban	28.8	3.9	64.8	2.6	100.0	7,905
Rural	40.8	2.8	54.5	1.9	100.0	1,841
Region						
West	36.6	4.5	56.8	2.1	100.0	4,154
South	25.1	3.7	65.4	5.8	100.0	1,235
Central	27.0	2.1	69.1	1.8	100.0	2,004
North	49.5	3.8	45.3	1.5	100.0	654
East	19.6	3.5	75.0	1.9	100.0	1,699
Region (NUTS 1)						
Istanbul	33.2	5.8	60.1	0.9	100.0	1,948
West Marmara	36.6	2.4	59.0	2.0	100.0	395
Aegean	45.1	3.1	49.6	2.3	100.0	1,244
East Marmara	31.3	3.6	61.4	3.8	100.0	931
West Anatolia	25.5	2.0	71.5	1.0	100.0	971
Mediterranean	25.1	3.7	65.4	5.8	100.0	1,235
Central Anatolia	22.7	2.5	70.2	4.6	100.0	479
West Black Sea	36.5	3.0	58.8	1.7	100.0	539
East Black Sea	61.3	4.1	33.4	1.2	100.0	306
Northeast Anatolia	13.6	2.7	81.7	1.9	100.0	263
Central East Anatolia	20.2	3.0	75.3	1.6	100.0	460
Southeast Anatolia	20.9	4.0	73.0	2.1	100.0	976
Education						
No education/primary incomplete	23.5	2.1	70.6	3.8	100.0	1,168
Primary school	31.6	2.2	62.8	3.4	100.0	3,371
Secondary school	21.6	4.2	72.7	1.5	100.0	2,173
High school and higher	40.1	5.5	52.7	1.6	100.0	3,034
Wealth quintile						
Lowest	33.2	2.3	62.2	2.3	100.0	1,460
Second	27.5	2.8	67.6	2.1	100.0	1,921
Middle	26.9	4.3	65.6	3.1	100.0	2,035
Fourth	29.1	5.0	63.4	2.5	100.0	2,118
Highest	38.4	3.5	55.9	2.2	100.0	2,212
Total	31.1	3.7	62.8	2.4	100.0	9,746

[1] "Currently employed" is defined as current employment at the time of survey date regardless of length of employment. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.
[2] "Not currently employed" is defined as having done work in the last 12 months but not employed at the time of survey, excludes persons who did not work in the last 12 months.

As expected, the proportion of currently working women was higher in rural than urban areas (41 and 29 percent, respectively) due to the large share of women working in agriculture. Across regions, working women was highest at 50 percent in the North compared with lowest at 20 percent of women in the East. Regarding the NUTS 1 regions, 61 percent of women in East Black Sea region were currently working. This majority, however, is followed by a sharp drop across all other NUTS 1 regions with 45 percent in the Aegean, 37 percent in both West Marmara and the West Black Sea region, and smaller percentages elsewhere. Women with high school education and women in the lowest and highest wealth quintiles were more likely to be economically active than other women.

3.3.2 Type of Occupation

Table 3.5 presents the distribution of women who are currently working or worked in the 12 months before the survey into three main occupational sectors. Findings indicate that 61 percent of women work in the service sector, while 24 percent work in agriculture and 14 percent in industry. Women age 15-19 and 40-49 were more likely to work in agriculture and less likely to have service jobs than other women. Married women are more likely to work in the agriculture, while formerly married women are more likely to be employed in the service sector.

Women with more children are more likely to work in the agricultural section and less likely to work in the service sector. This may reflect a rural-urban relationship in that, in rural areas, there are higher parity women and agricultural work is more common, while lower parity women are concentrated in urban areas where women have more access to service sector jobs. Indeed, 75 percent of women in rural areas work in agriculture compared to 9 percent of urban women while 74 percent of urban women work in the service industry compared to 20 percent of rural women.

Regarding the regions, the percentage of women working in agriculture was highest in the North followed closely by the East region. On the other hand, the highest levels of employment in the service sector were among women in the West, Central and South regions. Only in the West region was employment in industry higher than the national average (21 percent versus 14 percent).

In NUTS 1 regions, the highest proportion of women working in agriculture is observed in the East Black Sea, while the highest proportion of women working in the service sector are in West Anatolia, İstanbul, and Central Anatolia. Twenty-two percent of women in İstanbul work in the industry sector, closely followed by West Marmara, Aegean and East Marmara (20, 20 and 19 percent, respectively). As may be expected, the percentage employed in agricultural occupations falls as education and wealth increase, while the percentage employed in service occupations increases directly with education level and wealth quintile.

3.3.3 Employment by Economic Sector

Table 3.6 presents information on the public or private sector of the economy in which women are employed. Twelve percent of employed women work in the public sector while 88 percent work in the private sector. Public sector employment is highest for women in the West Anatolia and Central Anatolia regions (23 and 22 percent, respectively), women with high school or higher education (28 percent), and women in the highest wealth quintile (28 percent).

Table 3.5 Type of occupation

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Turkey 2013

Background characteristic	Sector			Total	Number of women
	Agriculture	Industry	Service		
Age					
15-19	35.4	22.0	42.6	100.0	338
20-24	18.1	19.5	62.3	100.0	466
25-29	14.8	16.6	68.6	100.0	528
30-34	17.8	7.3	74.9	100.0	549
35-39	20.8	15.4	63.8	100.0	613
40-44	31.8	11.9	56.3	100.0	492
45-49	39.2	9.8	51.0	100.0	400
Marital status					
Never married	19.6	18.7	61.7	100.0	924
Married	27.3	12.7	60.1	100.0	2,261
Divorced/separated/widowed	11.3	13.0	75.7	100.0	200
Number of living children					
0	16.8	17.5	65.7	100.0	1,240
1-2	19.6	13.7	66.6	100.0	1,462
3-4	42.5	11.3	46.2	100.0	568
5+	72.8	3.0	24.2	100.0	115
Residence					
Urban	8.6	17.1	74.3	100.0	2,582
Rural	74.6	5.5	19.9	100.0	803
Region					
West	12.9	20.8	66.4	100.0	1,708
South	27.6	8.3	64.1	100.0	356
Central	24.3	10.1	65.6	100.0	582
North	53.6	5.4	41.0	100.0	348
East	44.6	6.0	49.4	100.0	392
Region (NUTS 1)					
Istanbul	2.3	22.4	75.3	100.0	759
West Marmara	20.8	19.9	59.3	100.0	154
Aegean	25.7	19.5	54.8	100.0	599
East Marmara	20.3	18.5	61.3	100.0	325
West Anatolia	14.6	9.3	76.1	100.0	268
Mediterranean	27.6	8.3	64.1	100.0	356
Central Anatolia	27.5	3.8	68.7	100.0	121
West Black Sea	35.7	7.3	57.0	100.0	213
East Black Sea	65.0	4.9	30.1	100.0	200
Northeast Anatolia	43.5	4.2	52.3	100.0	43
Central East Anatolia	38.2	4.5	57.3	100.0	106
Southeast Anatolia	47.6	6.9	45.4	100.0	243
Education					
No education/primary incomplete	59.9	14.6	25.5	100.0	299
Primary school	37.8	17.1	45.1	100.0	1,140
Secondary school	26.3	26.9	46.8	100.0	561
High school and higher	4.6	6.9	88.5	100.0	1,386
Wealth quintile					
Lowest	78.4	7.8	13.8	100.0	519
Second	41.3	19.9	38.9	100.0	582
Middle	16.7	20.0	63.4	100.0	636
Fourth	6.7	19.7	73.5	100.0	722
Highest	2.1	6.4	91.5	100.0	927
Total	24.2	14.3	61.4	100.0	3,385

Table 3.6 Employment in public/private sector

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Turkey 2013

Background characteristic	Public/Private sector		Total	Number of women
	Public	Private		
Age				
15-19	2.1	97.9	100.0	338
20-24	7.0	93.0	100.0	466
25-29	16.5	83.5	100.0	528
30-34	18.5	81.5	100.0	549
35-39	12.0	88.0	100.0	613
40-44	11.8	88.2	100.0	492
45-49	11.7	88.3	100.0	400
Marital status				
Never married	8.3	91.7	100.0	924
Married	13.7	86.3	100.0	2,261
Divorced/separated/widowed	9.7	90.3	100.0	200
Number of living children				
0	12.5	87.5	100.0	1,240
1-2	15.4	84.6	100.0	1,462
3-4	4.5	95.5	100.0	568
5+	0.5	99.5	100.0	115
Residence				
Urban	14.5	85.5	100.0	2,582
Rural	4.1	95.9	100.0	803
Region				
West	8.4	91.6	100.0	1,708
South	12.5	87.5	100.0	356
Central	20.1	79.9	100.0	582
North	11.4	88.6	100.0	348
East	15.8	84.2	100.0	392
Region (NUTS 1)				
Istanbul	6.9	93.1	100.0	759
West Marmara	12.2	87.8	100.0	154
Aegean	7.8	92.2	100.0	599
East Marmara	13.0	87.0	100.0	325
West Anatolia	22.8	77.2	100.0	268
Mediterranean	12.5	87.5	100.0	356
Central Anatolia	21.9	78.1	100.0	121
West Black Sea	16.0	84.0	100.0	213
East Black Sea	9.5	90.5	100.0	200
Northeast Anatolia	15.3	84.7	100.0	43
Central East Anatolia	16.9	83.1	100.0	106
Southeast Anatolia	15.4	84.6	100.0	243
Education				
No education/primary incomplete	1.2	98.8	100.0	299
Primary school	0.6	99.4	100.0	1,140
Secondary school	1.7	98.3	100.0	561
High school and higher	27.9	72.1	100.0	1,386
Wealth quintile				
Lowest	1.0	99.0	100.0	519
Second	1.6	98.4	100.0	582
Middle	4.4	95.6	100.0	636
Fourth	14.0	86.0	100.0	722
Highest	28.4	71.6	100.0	927
Total	12.0	88.0	100.0	3,385

Table 3.7 Type of employment

Percent distribution of women age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Turkey 2013

				Status							
Background characteristic	Employer[1]	Waged, worker (regular)	Salaried, government offical	Daily waged (seasonal/ temporal)	For her own (regular)	For her own (irregular)	Unpaid family worker	Other	Missing	Total	Number of women
Age											
15-19	0.0	47.8	1.6	14.0	0.3	4.3	26.2	5.9	0.0	100.0	338
20-24	1.1	64.1	4.7	8.4	2.3	6.8	12.2	0.4	0.0	100.0	466
25-29	2.6	54.2	14.6	5.5	3.0	8.7	10.4	1.0	0.0	100.0	528
30-34	1.4	46.4	17.1	5.7	3.1	10.1	15.6	0.4	0.2	100.0	549
35-39	2.6	42.8	11.0	9.2	4.6	13.9	15.5	0.4	0.0	100.0	613
40-44	4.7	33.5	9.5	7.7	4.5	12.0	27.0	0.7	0.4	100.0	492
45-49	2.2	26.6	10.9	11.8	6.9	11.6	29.5	0.3	0.2	100.0	400
Marital status											
Never married	0.7	61.2	7.3	8.9	1.4	3.9	14.2	2.5	0.0	100.0	924
Married	2.8	37.4	12.0	8.6	4.4	12.4	21.7	0.6	0.2	100.0	2,261
Divorced/separated/widowed	1.9	61.8	8.6	6.0	4.4	11.7	5.3	0.3	0.0	100.0	200
Number of living children											
0	1.2	59.8	10.8	7.1	1.5	4.4	12.9	2.1	0.0	100.0	1,240
1-2	3.2	43.1	14.0	6.6	4.1	12.6	15.7	0.5	0.2	100.0	1,462
3-4	2.1	26.3	3.0	13.0	7.1	15.1	33.1	0.3	0.1	100.0	568
5+	0.0	11.0	0.0	25.6	2.1	12.5	47.1	1.2	0.5	100.0	115
Residence											
Urban	2.8	55.0	12.9	5.0	4.0	11.7	7.3	1.3	0.1	100.0	2,582
Rural	0.4	14.2	2.6	19.9	2.5	4.6	55.3	0.4	0.0	100.0	803
Region											
West	2.8	59.1	6.8	5.1	3.3	9.9	11.5	1.4	0.2	100.0	1,708
South	2.5	38.5	11.8	15.1	4.9	9.5	16.8	1.1	0.0	100.0	356
Central	1.9	36.6	19.5	6.8	3.7	12.3	18.6	0.6	0.1	100.0	582
North	1.0	23.9	9.6	5.7	5.1	5.3	48.8	0.6	0.0	100.0	348
East	0.7	23.4	12.9	22.5	2.2	12.0	25.2	1.0	0.1	100.0	392
Region (NUTS 1)											
Istanbul	2.3	70.0	5.0	1.8	3.7	11.0	4.7	1.4	0.0	100.0	759
West Marmara	3.9	44.7	9.8	5.5	5.0	6.9	20.5	3.2	0.6	100.0	154
Aegean	3.5	49.0	6.5	10.2	2.4	9.5	17.8	1.1	0.0	100.0	599
East Marmara	1.5	51.2	12.4	6.0	2.4	7.3	17.4	1.1	0.6	100.0	325
West Anatolia	2.1	42.7	21.8	3.6	5.2	15.7	8.7	0.2	0.0	100.0	268
Mediterranean	2.5	38.5	11.8	15.1	4.9	9.5	16.8	1.1	0.0	100.0	356
Central Anatolia	2.0	29.8	20.5	6.7	3.4	10.8	25.6	0.5	0.5	100.0	121
West Black Sea	1.3	28.0	15.3	5.4	4.8	8.7	36.1	0.4	0.0	100.0	213
East Black Sea	0.9	18.0	7.7	7.1	4.8	4.7	56.2	0.5	0.0	100.0	200
Northeast Anatolia	0.9	26.5	13.0	7.1	3.0	13.3	34.7	1.4	0.0	100.0	43
Central East Anatolia	0.7	24.9	14.0	6.4	5.0	14.1	33.4	1.4	0.0	100.0	106
Southeast Anatolia	0.7	22.2	12.3	32.2	0.9	10.8	19.8	0.8	0.1	100.0	243
Education											
No education/primary incomplete	0.9	20.1	0.1	26.5	2.4	15.4	34.3	0.2	0.1	100.0	299
Primary school	1.8	34.9	0.0	12.3	5.2	15.5	29.7	0.6	0.1	100.0	1,140
Secondary school	1.4	53.4	0.8	9.0	3.4	9.3	20.9	1.8	0.0	100.0	561
High school and higher	3.1	56.1	25.3	1.4	2.6	4.5	5.3	1.4	0.2	100.0	1,386
Wealth quintile											
Lowest	0.0	11.2	0.5	28.0	1.3	8.4	50.0	0.6	0.1	100.0	519
Second	0.5	36.9	0.4	13.8	3.6	12.8	30.9	1.0	0.0	100.0	582
Middle	1.2	54.9	3.5	6.2	5.7	11.9	15.5	1.1	0.0	100.0	636
Fourth	2.6	58.5	11.4	2.3	2.8	13.2	8.3	0.9	0.0	100.0	722
Highest	4.9	52.9	26.5	0.6	4.1	5.4	3.7	1.5	0.4	100.0	927
Total	2.2	45.3	10.5	8.5	3.6	10.0	18.7	1.1	0.1	100.0	3,385

[1]Employers are women who have at least one paid employee.

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3.3.4 Type of Employment

Table 3.7 shows the different types of employment in which women are engaged, according to background characteristics. Fifty-four percent are waged workers, either regular or daily, and 11 percent were salaried government employees. Around one-fifth of working women are employed as unpaid family workers while 14 percent are self-employed. Since TDHS-2008, the number of women engaged in paid labor has increased, yet the number of women employers remained stable. Only 2 percent of women are employers. Regular waged or salaried employment is associated with education and wealth quintile. Working as unpaid family worker is most common among rural women (more than half), and among women in the East Black Sea, Northeast Anatolia and Central East Anatolia regions.

3.4 Social Security Coverage

In the TDHS-2013, women who worked at any time in the last year were asked whether women were provided a social security plan by their employer. Information on the type of social security coverage that the woman had was also obtained. The Social Security Institution (SGK) in Turkey has provided governmental social security for workers since 2006. Previously, there were three public institutions namely the Social Insurance Institution (SSK), the Retirement Fund (Emekli Sandığı) and the Social Insurance Institution for the Craftsmen and Artisans and Other Self Employers (Bağ-Kur) in Turkey. Women who declared these institutions are also presented under the Social Security Institution in this report. The percent distribution of employed women by social security coverage, by background characteristics, is presented in Table 3.8.

As seen in Table 3.8, half of working women do not have social security. Among employed women with social security, the SGK provided the highest coverage at 49 percent. Private insurance coverage, less than 1 percent, is quite limited in Turkey.

The variation in social security coverage by basic characteristics is similar to the patterns observed with respect to women's employment and occupational status. Working women who lived in urban areas, resided in the more developed regions, had higher education and were wealthier are more likely to have social security compared to their counterparts. Considering regional differentials, women were least likely to have social security in the East (28 percent covered by SGK) and, within the NUTS 1 Regions, South East Anatolia (25 percent covered by SGK).

3.5 Health Insurance Coverage

All women age 15-49 interviewed in the TDHS-2013 were asked whether or not they were covered by any health insurance. Health insurance is provided by the Social Security Institution and private insurance companies. Additionally, there is a national program called the General Health Insurance since 2012. 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 3.9.

According to Table 3.9, 11 percent of women are not covered by any health insurance in Turkey. This figure is 17 percent among rural women and women who have no education or have not completed primary school, and 22 percent among women in the lowest wealth quintiles. In the NUTS 1 regions, the proportion of who are not covered by health insurance is under 15 percent, except for Northeast Anatolia. Among the different health insurance systems, 77 percent of women are covered by SGK, followed by GSS (11 percent). Younger women ages 15-19 are more likely to have GSS as are rural women, women in the lower wealth quintiles, least educated women and women who live in the East region.

Table 3.8 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 2013

	Social security							Number of
Background characteristic	None	SGK	Private insurance	Other	DK	Missing	Total	women
Age								
15-19	72.3	26.9	0.0	0.4	0.0	0.4	100.0	338
20-24	45.5	54.3	0.0	0.2	0.0	0.0	100.0	466
25-29	34.6	64.5	0.1	0.8	0.0	0.0	100.0	528
30-34	39.3	59.0	0.9	0.8	0.0	0.0	100.0	549
35-39	46.9	52.5	0.3	0.3	0.0	0.0	100.0	613
40-44	58.5	41.3	0.0	0.2	0.0	0.1	100.0	492
45-49	66.1	33.4	0.2	0.0	0.1	0.2	100.0	400
Marital status								
Never married	45.8	53.6	0.0	0.4	0.0	0.1	100.0	924
Married	52.1	47.4	0.2	0.3	0.0	0.1	100.0	2,261
Divorced/separated/widowed	46.7	50.5	1.4	1.3	0.0	0.0	100.0	200
Number of living children								
0	40.3	58.8	0.2	0.6	0.0	0.1	100.0	1,240
1-2	45.3	53.9	0.3	0.4	0.0	0.0	100.0	1,462
3-4	74.4	25.4	0.0	0.0	0.1	0.2	100.0	568
5+	94.9	5.1	0.0	0.0	0.0	0.0	100.0	115
Residence								
Urban	39.8	59.5	0.3	0.4	0.0	0.0	100.0	2,582
Rural	82.9	16.2	0.1	0.5	0.0	0.3	100.0	803
Region								
West	41.5	57.6	0.3	0.4	0.0	0.2	100.0	1,708
South	51.1	48.2	0.2	0.6	0.0	0.0	100.0	356
Central	48.1	51.2	0.2	0.4	0.0	0.0	100.0	582
North	70.1	29.9	0.1	0.0	0.0	0.0	100.0	348
East	71.3	28.2	0.1	0.3	0.1	0.0	100.0	392
Region (NUTS 1)								
Istanbul	42.0	57.2	0.6	0.3	0.0	0.0	100.0	759
West Marmara	39.0	58.7	0.4	0.5	0.0	1.4	100.0	154
Aegean	44.4	54.9	0.0	0.8	0.0	0.0	100.0	599
East Marmara	40.6	59.3	0.0	0.0	0.0	0.2	100.0	325
West Anatolia	42.5	57.5	0.0	0.0	0.0	0.0	100.0	268
Mediterranean	51.1	48.2	0.2	0.6	0.0	0.0	100.0	356
Central Anatolia	53.5	44.2	1.1	1.1	0.0	0.0	100.0	121
West Black Sea	59.1	40.4	0.0	0.5	0.0	0.0	100.0	213
East Black Sea	76.4	23.5	0.1	0.0	0.0	0.0	100.0	200
Northeast Anatolia	63.1	35.9	1.0	0.0	0.0	0.0	100.0	43
Central East Anatolia	66.0	33.5	0.0	0.5	0.0	0.0	100.0	106
Southeast Anatolia	75.1	24.5	0.0	0.3	0.1	0.0	100.0	243
Education								
No education/primary incomplete	87.7	11.9	0.0	0.0	0.1	0.3	100.0	299
Primary school	71.4	28.3	0.1	0.2	0.0	0.0	100.0	1,140
Secondary school	64.6	34.2	0.0	1.0	0.0	0.2	100.0	561
High school and higher	18.5	80.6	0.4	0.4	0.0	0.0	100.0	1,386
Wealth quintile								
Lowest	92.0	7.5	0.1	0.1	0.1	0.2	100.0	519
Second	75.0	24.4	0.0	0.6	0.0	0.0	100.0	582
Middle	52.8	46.3	0.0	0.9	0.0	0.0	100.0	636
Fourth	40.4	59.3	0.3	0.0	0.0	0.0	100.0	722
Highest	16.5	82.4	0.5	0.4	0.0	0.2	100.0	927
Total	50.0	49.3	0.2	0.4	0.0	0.1	100.0	3,385

Table 3.9 Health insurance coverage

Percentage of women age 15-49 with specific types of health insurance coverage, according to background characteristics, Turkey 2013

	Type of health insurance							Number of
Background characteristic	None	SGK	Private insurance	GSS	Other	Missing	Total	women
Age								
15-19	9.7	73.4	0.5	15.3	0.9	0.2	100.0	1,572
20-24	12.7	75.0	0.4	11.5	0.4	0.0	100.0	1,337
25-29	10.3	78.5	0.6	9.8	0.7	0.1	100.0	1,492
30-34	10.2	78.1	0.9	9.9	0.9	0.0	100.0	1,565
35-39	11.7	74.7	1.3	11.2	1.1	0.0	100.0	1,513
40-44	8.8	80.9	1.2	8.4	0.7	0.0	100.0	1,238
45-49	10.3	80.7	0.9	6.9	1.2	0.0	100.0	1,029
Residence								
Urban	8.9	81.4	1.0	7.9	0.7	0.1	100.0	7,905
Rural	17.4	58.5	0.2	22.4	1.4	0.0	100.0	1,841
Region								
West	8.9	83.6	1.4	5.2	0.9	0.1	100.0	4,154
South	10.5	74.1	0.6	13.7	1.1	0.0	100.0	1,235
Central	11.0	82.8	0.5	5.2	0.5	0.0	100.0	2,004
North	10.3	82.4	0.1	6.5	0.8	0.0	100.0	654
East	14.2	54.6	0.3	29.8	0.9	0.1	100.0	1,699
Region (NUTS 1)								
Istanbul	9.6	82.6	1.9	5.0	0.8	0.1	100.0	1,948
West Marmara	8.6	84.8	0.5	5.1	0.9	0.2	100.0	395
Aegean	10.7	81.7	0.6	5.9	1.0	0.0	100.0	1,244
East Marmara	6.4	86.6	1.3	5.0	0.7	0.0	100.0	931
West Anatolia	10.5	84.7	0.6	3.9	0.2	0.0	100.0	971
Mediterranean	10.5	74.1	0.6	13.7	1.1	0.0	100.0	1,235
Central Anatolia	12.6	77.8	0.2	8.9	0.5	0.0	100.0	479
West Black Sea	8.5	86.1	0.3	4.0	1.1	0.0	100.0	539
East Black Sea	10.9	79.7	0.0	8.4	1.0	0.0	100.0	306
Northeast Anatolia	18.6	45.3	0.3	35.5	0.4	0.0	100.0	263
Central East Anatolia	11.4	57.7	0.4	29.4	0.9	0.1	100.0	460
Southeast Anatolia	14.4	55.6	0.3	28.5	1.1	0.1	100.0	976
Education								
No education/primary incomplete	17.2	49.6	0.2	31.9	1.1	0.0	100.0	1,168
Primary school	12.6	76.1	0.6	9.7	1.0	0.0	100.0	3,371
Secondary school	10.9	75.3	0.5	12.2	0.9	0.2	100.0	2,173
High school and higher	5.4	90.0	1.5	2.5	0.5	0.0	100.0	3,034
Wealth quintile								
Lowest	22.0	40.1	0.1	36.0	1.7	0.0	100.0	1,460
Second	15.7	67.0	0.2	16.1	1.0	0.1	100.0	1,921
Middle	8.4	84.0	0.9	6.0	0.6	0.0	100.0	2,035
Fourth	6.9	89.3	0.5	2.6	0.6	0.0	100.0	2,118
Highest	4.0	92.1	2.0	1.2	0.6	0.2	100.0	2,212
Total	10.5	77.1	0.8	10.7	0.8	0.1	100.0	9,746

4

FERTILITY

İsmet Koç, Ahmet Sinan Türkyılmaz and Tuğba Adalı

This chapter presents the TDHS-2013 results on fertility levels, trends, patterns and differentials. The analysis is based on the birth histories collected from women age 15-49 interviewed during the survey. To obtain this information, women were first asked a series of questions to determine the total number of live births they had in their lifetime. For each live birth, information was then collected on the sex, date of birth and survival status of the child. For deceased children, age at death was recorded. Information from the birth history is used to assess current and completed fertility and to look at other factors related to fertility, including age at first birth, birth intervals, and teenage childbearing.

The level of current fertility is one of the most important topics in this report because of its direct relevance to population policies and programs. The various measures of current fertility presented in this chapter are calculated for the three-year period preceding the survey, which roughly corresponds to the calendar period 2011-2013. A three-year period was chosen because it reflects the current situation, while also allowing the rates to be calculated on a sufficient number of cases so as not to compromise the statistical precision of estimates. Moreover, a three-year total fertility rate was calculated in almost all previous TDHS surveys, so this allows for a more suitable comparison across surveys.

The following measures of current fertility are derived from birth history data and presented in this chapter: *Age-specific fertility rates*[1] (ASFR) are expressed as the number of births per thousand women in the age group and represent a valuable measure for assessing the current age pattern of childbearing. They are defined in terms of the number of live births during a specified period to women in the particular age group divided by the number of woman-years lived in that age group during the specified period. *Total fertility rate* (TFR) is defined as the total number of births a woman would have by the end of her childbearing period if she were to pass through those years bearing children at the currently observed rates of age-specific fertility. The TFR is obtained by summing the age-specific fertility rates and multiplying by five. *General fertility rate* (GFR) is the number of live births occurring during a specified period per 1,000 women age 15-44. *Crude birth rate* (CBR) is the number of births per 1,000 population during a specified period.

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[1] Numerators of age-specific fertility rates are calculated by summing the live births that occurred in the 1-36 months preceding the survey (determined from the date of interview and date of birth of the child), and classifying them by the age of the mother (in five-year age groups) at the time of the child's birth. The denominators of these rates are the number of woman-years lived in each of the specified five-year age groups during the 1-36 months preceding the survey.

4.1   Current Fertility

Table 4.1 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 2.26 births (0.16 higher than the replacement level of 2.10) per woman. This rate, which is not statistically different than the TFR observed in TDHS-2008 (2.16), indicates that period fertility has not declined in the past five years but has rather stabilized. As before, fertility is considerably higher in rural areas compared to urban areas. The TFR in rural areas is 2.73, which is 21 percent higher than the TFR in urban areas (2.16). When compared with results from previous demographic surveys in Turkey, the urban-rural gap in fertility levels appears to be closing in Turkey.

Table 4.1 Current fertility

Age-specific and total fertility rates, the general fertility rate, and the crude birth rate for the three years preceding the survey, by residence, Turkey 2013

Age group	Residence		
	Urban	Rural	Total
15-19	28	45	31
20-24	114	168	124
25-29	131	161	136
30-34	102	111	104
35-39	46	54	48
40-44	7	7	7
40-45	3	1	2
TFR (15-49)	2.16	2.73	2.26
GFR	75	90	78
CBR	17.6	17.2	17.5

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

Considering the age-specific fertility, the tendency for women to have children early in their reproductive years is still evident in Turkey (Table 4.1 and Figure 4.1). About 64 percent of births take place before age 30. Births to women below age 20 and over age 35, to which morbidity and mortality risks related to pregnancy and birth are the highest, constitute about one-fifth of all births. The highest the age-specific fertility rate was observed in the 25-29 age group in TDHS-2013. While the highest age-specific fertility rates were seen in the 20-24 age group in previous surveys, for the first time in TDHS-2008, it shifted to the 25-29 age group. This finding shows that age-specific patterns of fertility are changing in Turkey as childbearing is increasingly postponed to later ages.

In every age group, rural women bear as many or more children than urban women. The rural age-specific fertility rates rise sharply from ages 15-19, peak at ages 20-24, decrease

marginally at ages 25-29, and then steadily decline. On the other hand, the urban age-specific fertility rates exhibit a more gradual increase to a peak in the 25-29 age groups.

Figure 4.1 Age-specific fertility rates

Age specific fertility rates per 1,000 women by urban-rural residence, Turkey 2013
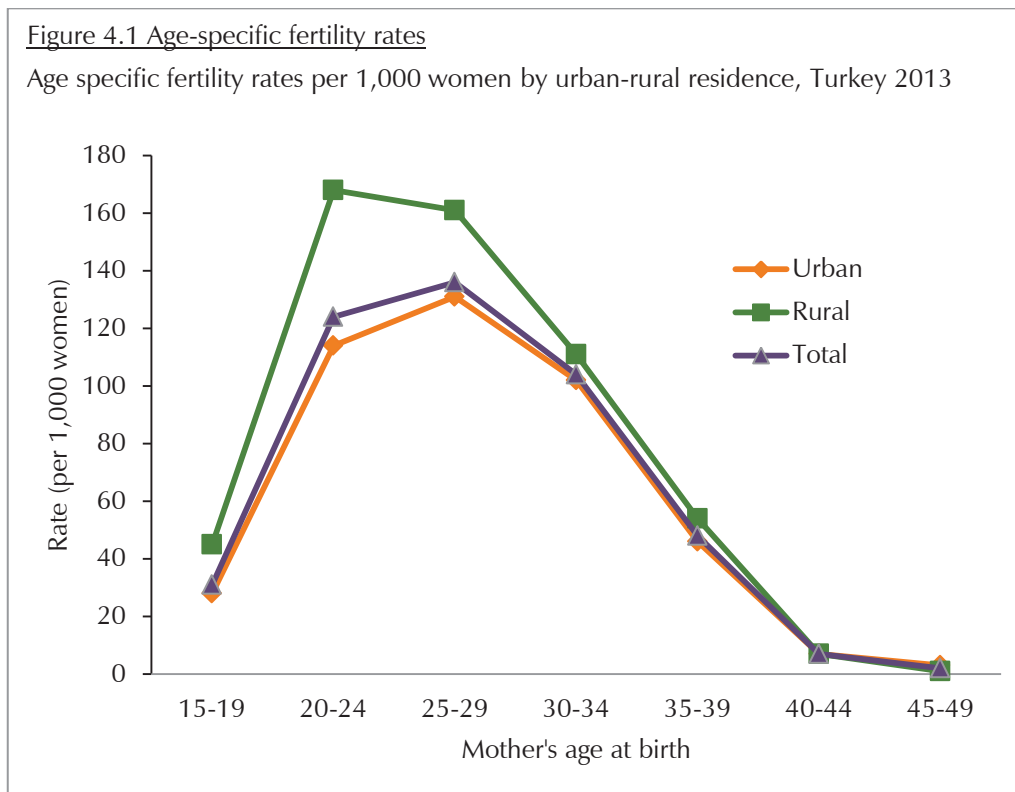
Table 4.1 also presents two other summary measures of fertility: the general fertility rate and the crude birth rate. The GFR is 78 per 1,000 women age 15-44. The crude birth rate in Turkey is 17.5 births per 1,000 population. As with TFR, the GFR and CBR vary by urban-rural residence. Thus, with a GFR of 90, the average annual number of births to rural women is nearly 20 percent higher than that for urban women (75 births per 1,000 women). The CBR in rural areas, however, is very close to the CBR in urban areas.

4.2   Fertility Differentials

Table 4.2 shows several indicators of fertility, including the total fertility rate, the percentage of women age 15-49 who are currently pregnant, and the mean number of children ever born to women age 40-49, by key background characteristics. The mean number of children ever born to women age 40-49 is an indicator of cumulative fertility; it reflects the fertility performance of older women who are nearing the end of their reproductive period. If fertility remains stable over time, the two fertility measures, total fertility rate (TFR) and mean number of children ever born (CEB), tend to be very similar. On the other hand, if fertility levels have been falling, the TFR will be substantially lower than the mean CEB among women age 40-49. The percentage of women age 15-49 who are pregnant provides a useful additional measure of current fertility, although it is recognized that it may not capture all early stage pregnancies since some women may be unaware of their pregnancy or reluctant to disclose a pregnancy in its early stages.

Table 4.2 Fertility by background characteristics

Total fertility rate for the three 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, by background characteristics, Turkey 2013

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	2.16	4.28	2.74
Rural	2.73	5.02	3.54
Region			
West	1.93	4.13	2.44
South	2.48	3.79	3.06
Central	1.89	3.40	2.66
North	2.08	4.01	2.84
East	3.41	6.94	4.83
Education			
No education/primary incomplete	3.76	6.71	4.63
Primary school	2.75	3.79	2.82
Secondary school	2.45	4.07	2.31
High school and higher	1.66	4.49	1.72
Wealth quintile			
Lowest	3.32	5.87	4.38
Second	2.61	4.00	3.31
Middle	2.27	4.71	2.86
Fourth	1.71	3.49	2.53
Highest	1.72	4.44	2.14
Total	2.26	4.42	2.92

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

The comparison of the TFR with the mean CEB among women age 40-49 suggests that fertility has fallen in Turkey over the past two decades. Women age 40-49 had an average of 2.92 births during their lifetime, 0.7 births more than women will have at the current rates. The decline in fertility implied by the comparison of current fertility with completed fertility has been greater in rural than in urban areas. The largest implied decline in fertility by region is observed in the East, where the TFR is about one and a half births lower than the mean number of children ever born to women age 40-49. The differentials in completed fertility across educational groups are even more striking. Considering wealth quintiles, the comparison between TFR and CEB suggests that, during the past few decades, the greatest fertility decline occurred among women in the lowest wealth quintile, with a difference of 1.1 births between CEB and TFR.

Table 4.2 indicates that there are substantial variations in TFR by residence, region,

education and wealth quintile. The regional variations in fertility are marked, ranging from 3.41 births in the East to 1.89 births in Central region. All regions in Turkey, except the East and the South, exhibit TFRs below 2.10, the replacement level of fertility. The TFR is inversely related to the level of education. The TFR decreases rapidly with increasing educational level, from 3.76 births among women with less than primary school education to 1.66 births among women who have completed high school or higher. Fertility also decreases with increasing wealth, from 3.32 births among women in the lowest wealth quintile to 1.72 births among women in the highest wealth quintile.

The TDHS-2013 results show that slightly more than 4 percent of all women of reproductive age were pregnant at the time of the survey. The regional variation in the proportion of pregnant women follows a pattern similar to that of the TFR. Surprisingly, the percentage of women currently pregnant is higher for women with high school or higher education than for women with primary school or secondary school education, as it was in the past two TDHSs. There does not appear to be a marked trend in the proportion of women currently pregnant across wealth quintiles although the largest percentage of pregnant women is in the lowest wealth quintile.

4.3   Fertility Trends

In addition to comparison of current and completed fertility, trends in fertility in Turkey can be assessed in two other ways. First, the TFR estimates from the TDHS-2013 can be compared with estimates obtained in earlier surveys. Second, fertility trends can be investigated by using the retrospective data from the birth histories collected in the TDHS-2013.

Table 4.3 Trends in fertility

Age-specific fertility rates (per 1,000 women) and total fertility rate, the 1978 Turkey Fertility Survey (TFS), the 1988 Turkey Population and Health Survey (TPHS), and the 1993, 1998, 2003, 2008 and 2013 Turkey Demographic and Health Surveys (TDHS)

Age at birth	TFS-1978	TPHS-1988	TDHS-1993	TDHS-1998	TDHS-2003	TDHS-2008	TDHS-2013
15-19	93	45	56	60	46	35	31
20-24	259	193	179	163	136	126	124
25-29	218	183	151	150	134	133	136
30-34	154	102	94	93	78	91	104
35-39	101	55	38	42	38	36	48
40-44	38	19	12	13	12	10	7
45-49	2	7	0	1	2	1	2
TFR (15-49)	4.33	3.02	2.65	2.61	2.23	2.16	2.26

Note: 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 and 2013 refer to the 1-36 months period before the survey.

4.3.1 Comparison with Previous Surveys

A comparison of fertility rates obtained from surveys conducted throughout 1978-2008 with the fertility rates from the TDHS-2013 is shown in Table 4.3 and Figure 4.2. The timeframes for which the TFRs are estimated vary depending on the survey. For example, the rates from the 1978, 1988 and 1993 surveys are based on births in the one-year period before the survey, while the rates for the TDHS-1998, TDHS-2003, TDHS-2008 and TDHS-2013 surveys are based on the three-year period before the survey.

Table 4.3 and Figure 4.2 show that both fertility levels and patterns have changed since 1978. The total fertility rate in Turkey, which was greater than four births per woman during the late 1970s, decreased to three births during the late 1980s and, in the 1990s, stabilized at around 2.6 births. This stabilization gave way to a declining trend in the last decade, and the level of fertility further dropped to 2.16 births at the time of the TDHS-2008. Although the TFR observed in the TDHS-2013 is 2.26, it is slightly (not statistically) different from the 2.16 observed in the TDHS-2008. Thus, it would appear that the decreasing fertility trend is stalled. Considering the overall long-term trends in Turkey, fertility has declined substantially; it has almost halved within the 35-year period, 1978-2013.

Figure 4.2 Trends in age-specific fertility rates
Trends in age-specific fertility rates per 1,000 women, Turkey, 1978-2013
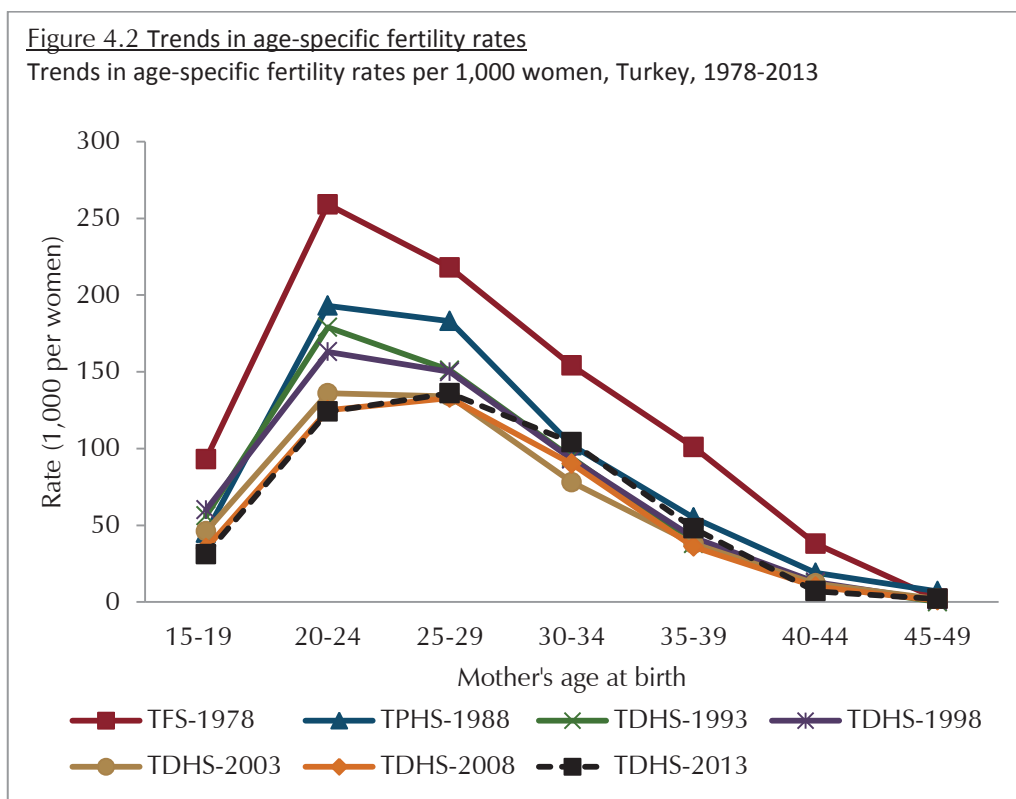
This substantial decline is depicted in Figure 4.2 which graphs the age-specific fertility rates since 1978. Over time, fertility decreased consistently in the 20-24 age group. As indicated by trends in the TFR, the most dramatic decline in the age-specific fertility rates occurs between 1978 and 1988 when fertility decreased in all but the low fertility age group, 45-49. Around the time of the TDHS-2003, there was a shift in the age-specific fertility pattern. Until the TDHS-2003, fertility was measured to be highest among women age 20-24. From the TDHS-2003 forward, fertility became more equitably distributed across women ages 20-34. Many factors which may have contributed to the decline in total fertility and to the shift in age-specific fertility patterns, including greater access to and acceptability of modern contraceptive use, a desire to postpone births, changes in people's ideal number of children and changes in marriage patterns are discussed in greater detail in following chapters.

4.3.2   Retrospective Data from TDHS-2013 Birth Histories

One way of examining fertility trends over time is to compare age-specific fertility rates from the TDHS-2013 for successive five-year periods preceding the survey, as presented in Table 4.4 and Figure 4.3. Births are classified by five-year segments of time preceding the survey and the mother's age at the time of birth. Because women age 50 years and over were not interviewed in the TDHS-2013, the rates for older age groups become progressively more truncated for periods more distant from the survey date. For example, rates cannot be calculated for women age 35-39 for the period 15-19 years prior to the survey, because women in that age group would have been 50 years or older at the time of the survey and were not interviewed.

The age-specific fertility rates calculated over a 20-year time frame from the TDHS-2013 provide further evidence of a substantial decline in fertility at all ages until the most recent five year period where the age-specific fertility rates for age 25 and higher stopped decreasing. The results show that fertility is still declining for women who are younger than 25. Women in the childbearing ages between 15-29 experienced a decline in fertility in the five years preceding the survey, as opposed to an incline among women age 30 and above.

Table 4.4 Trends in age-specific fertility rates

Age-specific fertility rates for five-year periods preceding the survey, by mother's age at the time of the birth, Turkey 2013

Mother's age at birth	Number of years preceding survey			
	0-4	5-9	10-14	15-19
15-19	34	43	58	66
20-24	126	145	157	183
25-29	140	138	156	156
30-34	101	84	92	[115]
35-39	45	40	[49]	*
40-44	8	[13]	*	*
45-49	[2]	*	*	*

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

Figure 4.3 Age-specific fertility rates during the last two decades

Age-specific fertility rates per 1,000 women for five-year periods preceding the survey, Turkey 2013
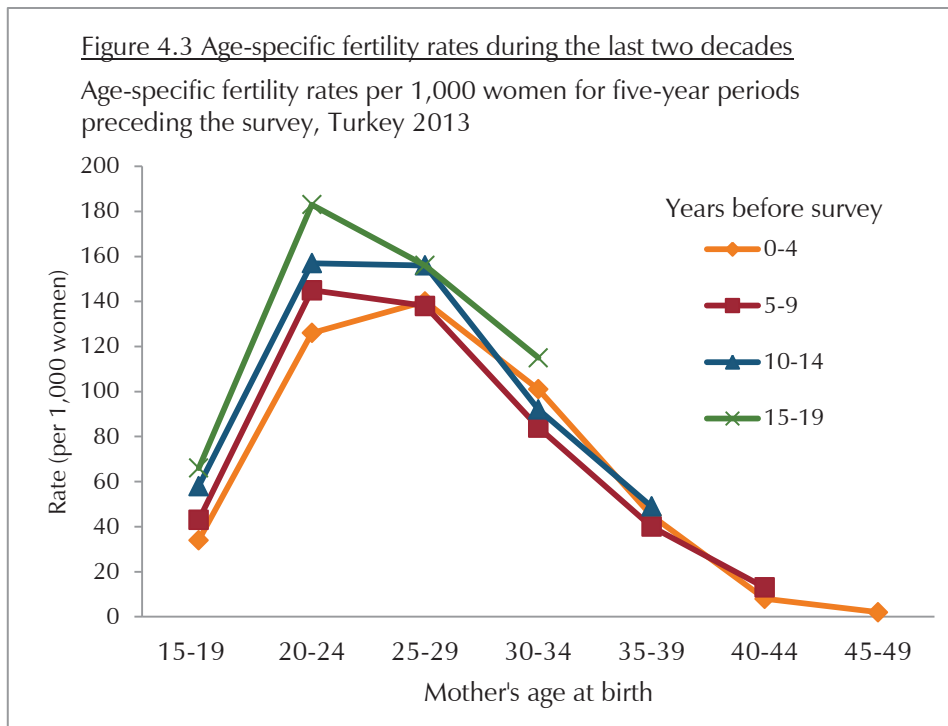
4.4   Children Ever Born and Children Surviving

Data on the number of children ever born reflect the accumulation of births over the past 30 years and therefore have limited relevance to current fertility levels, particularly when the country has experienced a decline in fertility. Moreover, the data are subject to recall error, which is typically greater for older than younger women. Nevertheless, the information on children ever born (or parity) is useful in looking at a number of issues. The parity data show how average family size varies across age groups. The percentage of women in their forties who have never had children also provides an indicator of the level of primary infertility or the inability to bear children since voluntary childlessness is rare in developing countries like Turkey. A comparison of the differences in the mean number of children ever born and surviving reflects the cumulative effects of mortality levels during the period in which women have been bearing children.

Table 4.5 shows the percent distribution of all women and currently married women by the number of children ever born, the mean number of children even born, and the mean number of children surviving. The distribution of children ever born by age shows that early childbearing is not common in Turkey: nearly 97 percent of women age 15-19 have never given birth. However, this proportion declines rapidly to 33 percent for women age 25-29, and to 8 percent or less among women age 35 and older. Only 7 percent of women age 45-49 have never given birth, indicating that childbearing among women in Turkey is nearly universal. Women who have reached the end of their reproductive period have an average of three children, which is 0.77 higher than the total fertility rate; this difference is likely due to the decline in fertility that took place in the past decade.

Compared to all women, fertility levels among currently married women are higher for all age groups, especially younger age groups. Overall, currently married women age 45-49 have had an average of 3.19 children compared with 3.03 children among all women age 45-49. The marked differences observed in the younger age groups between currently married women and all women are likely due to the comparatively large numbers of never-married women in those age groups who have almost no births. Virtually all births in Turkey occur within marriage.

As may be expected, the mean number of children ever born and mean number of living children rise consistently with women's age, thus suggesting minimal or no recall lapse, which reinforces confidence in the birth history reports. Comparison of the mean number of children ever born with the mean number of living children reveals the experience of child loss among women in Turkey. On average, by the end of their reproductive years (age 45-49), women in Turkey have given birth to 3.03 children with 2.81 surviving.

Voluntary childlessness is uncommon in Turkey, and currently married women with no children are likely to be unable to bear children. 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. The TDHS-2013 results indicate that in Turkey, primary sterility among older currently married women is 4 percent.

Table 4.5 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 2013

	Number of children ever born												Number of women	Mean number of children ever born	Mean number of living children
Age	0	1	2	3	4	5	6	7	8	9	10+	Total			
ALL WOMEN															
15-19	96.7	2.9	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1,572	0.04	0.04
20-24	67.2	18.8	11.6	1.9	0.4	0.1	0.0	0.0	0.0	0.0	0.0	100.0	1,337	0.50	0.48
25-29	33.4	24.3	29.7	8.2	3.2	0.9	0.3	0.0	0.0	0.0	0.0	100.0	1,492	1.28	1.25
30-34	12.6	20.9	36.4	18.6	7.1	1.7	1.7	0.6	0.3	0.1	0.0	100.0	1,565	2.05	2.00
35-39	7.8	13.4	38.0	22.6	8.6	3.7	3.1	1.2	0.9	0.3	0.4	100.0	1,513	2.51	2.43
40-44	5.7	10.1	35.3	27.2	8.7	4.7	2.6	2.1	1.4	1.1	0.9	100.0	1,238	2.82	2.68
45-49	7.0	8.9	31.8	22.7	11.8	7.3	3.6	2.6	2.0	0.7	1.5	100.0	1,029	3.03	2.81
Total	34.6	14.4	25.8	13.9	5.4	2.4	1.5	0.8	0.6	0.3	0.3	100.0	9,746	1.67	1.60
CURRENTLY MARRIED WOMEN															
15-19	53.0	41.4	5.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	111	0.53	0.51
20-24	30.5	39.4	25.0	4.1	0.9	0.2	0.0	0.0	0.0	0.0	0.0	100.0	619	1.06	1.03
25-29	16.4	30.1	37.5	10.3	4.1	1.2	0.4	0.0	0.0	0.0	0.0	100.0	1,166	1.61	1.57
30-34	5.3	21.7	39.7	20.3	7.8	1.9	1.9	0.7	0.3	0.2	0.0	100.0	1,394	2.24	2.19
35-39	2.9	13.4	39.9	24.3	9.1	3.9	3.4	1.4	1.0	0.3	0.5	100.0	1,351	2.68	2.60
40-44	3.6	9.4	35.9	28.8	9.0	4.6	2.7	2.3	1.6	1.3	0.9	100.0	1,127	2.92	2.78
45-49	4.1	7.6	33.4	23.8	12.4	7.2	4.0	3.0	2.2	0.7	1.7	100.0	888	3.19	2.95
Total	9.4	19.5	36.0	19.4	7.5	3.1	2.2	1.2	0.8	0.4	0.5	100.0	6,655	2.32	2.23

4.5   Birth Intervals

Examination of birth intervals, defined as the length of time between two successive live births, 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. Studies have shown that children born less than 24 months after a previous sibling are at risk of poorer health. Short birth intervals also threaten maternal health.

Table 4.6 shows the percent distribution of non-first births that occurred in the five years preceding the TDHS-2013 by number of months preceding birth and the median number of months since the previous birth, by background characteristics. Findings suggest long birth intervals in Turkey and a median birth interval of 45.0 months. Lengthy breastfeeding and a long period of postpartum amenorrhea are likely to contribute to the long birth intervals observed in Turkey. Approximately two-thirds of non-first births occur three or more years after the previous birth, while nearly 19 percent of births take place 24-35 months after the previous birth. Eighteen percent of children are born after an interval that is considered "too short," i.e., less than 24 months. The median birth interval remained almost stable between TDHS-2008 and TDHS-2013 (44.0 and 45.0 months, respectively).

Birth intervals do not vary much by sex of the preceding child. In general, younger women have shorter birth intervals than older women. While 24 percent of women age 20-29 space their births less than 24 months apart, only 14 percent of women age 30-39 do. Generally, birth intervals also increase with birth order. The birth interval varies markedly by the survival status of the preceding birth. About three times as many births occurred within a 7-17 month interval when the preceding child had died than when the child was still alive. The median birth interval is 45 months if the previous child is living, but falls to 31 months if the preceding child is dead.

In general, variations in birth intervals by residence, region, education, and wealth are consistent with differences in fertility levels; birth intervals are shorter when the TFR is high and longer when TFR is low. Thus, births to urban mothers have a longer median interval than do rural births (47.9 months and 35.3 months, respectively). Median birth intervals are shortest in the East (35.3 months), and substantially longer in the West (55.6 months). Births to mothers with less than primary school education have shorter intervals than births to mothers who have high school or higher education. The median birth interval increases with wealth, from 33.8 months among non-first births in the lowest wealth quintile to 57.8 months in the highest quintile.

Table 4.6 Birth intervals

Percent distribution of non-first births in the five years preceding the survey by number of months since preceding birth, and median number of months since preceding birth, according to background characteristics, Turkey 2013

Background characteristic	Months since preceding birth						Total	Number of non-first births	Median number of months since preceding birth
	7-17	18-23	24-35	36-47	48-59	60+			
Age									
20-29	11.6	12.8	26.2	23.0	11.8	14.6	100.0	861	35.7
30-39	5.4	8.5	14.1	14.4	12.4	45.2	100.0	1,167	56.0
40-49	1.4	3.2	10.6	11.0	9.4	64.4	100.0	144	78.4
Sex of preceding birth									
Male	7.1	10.5	17.4	17.2	13.6	34.4	100.0	1,092	46.1
Female	8.2	9.4	20.1	18.0	10.2	34.1	100.0	1,087	43.8
Survival of preceding birth									
Living	7.3	9.8	18.7	17.6	11.9	34.6	100.0	2,134	45.3
Dead	22.2	16.4	18.6	14.2	10.7	18.0	100.0	45	30.6
Birth order									
2-3	7.6	9.1	18.5	17.5	12.7	34.5	100.0	1,684	45.5
4-6	7.3	12.3	18.3	16.9	8.3	36.8	100.0	396	44.8
7+	8.5	14.9	24.1	20.5	11.8	20.2	100.0	99	36.9
Residence									
Urban	6.6	8.1	17.3	18.1	12.8	37.1	100.0	1,682	47.9
Rural	11.2	16.0	23.3	15.9	8.8	24.7	100.0	496	35.5
Region									
West	6.1	9.1	11.7	16.0	12.7	44.5	100.0	753	55.6
South	6.5	8.6	18.9	21.9	11.3	32.8	100.0	316	44.9
Central	3.8	7.2	20.7	15.8	12.8	39.8	100.0	362	50.6
North	7.2	8.5	19.5	13.2	16.4	35.2	100.0	120	50.5
East	12.3	13.5	25.8	19.2	9.9	19.3	100.0	628	35.3
Education									
No educ./primary incomp.	12.5	13.5	27.1	18.0	9.1	19.7	100.0	512	34.1
Primary school	6.0	8.0	15.6	17.0	10.4	43.1	100.0	910	51.8
Secondary school	8.1	11.1	19.6	22.0	13.8	25.4	100.0	310	42.2
High school and higher	5.1	9.1	14.7	15.1	16.9	39.1	100.0	447	52.4
Wealth quintile									
Lowest	12.4	13.9	27.8	16.6	8.1	21.3	100.0	548	33.8
Second	9.5	10.7	20.3	18.5	11.5	29.5	100.0	500	41.3
Middle	5.6	5.8	18.6	20.4	14.8	34.8	100.0	447	47.8
Fourth	3.4	11.2	9.5	14.9	14.6	46.4	100.0	362	57.6
Highest	4.1	6.4	11.3	16.9	11.9	49.4	100.0	322	57.8
Total	7.6	9.9	18.7	17.6	11.9	34.2	100.0	2,179	45.0

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.

4.6. Age at First Birth

The age at which childbearing begins is an important determinant of the overall level of fertility since early childbearing generally leads to a larger family size compared to later onset of childbearing. A rise in the median age at first birth is typically a sign of transition from high to low fertility. Finally, women's age at first birth can impact the health and welfare of the mother and child. Early childbearing, for example, tends to restrict educational and economic opportunities for women.

Table 4.7 presents the percentage of women who gave birth by exact age and the median age at first birth for different age cohorts. Women under age 25 were not included in the calculation of median ages at first birth because more than half had not yet given birth. Overall, the TDHS-2013 found that, the median age at first birth for women 25-49 years old was 22.9 years. A comparison with the TDHS-2008 results, where the median age was 22.3 years, indicates that the average age at which women have their first birth increased by a half year between surveys.

The variation in the median age at first birth across age groups, shown in the last column of Table 4.7, indicates that the age at first birth has increased over the recent decades in Turkey. Women over age 40 had their first birth around age 22 whereas women currently age 25-29 are having their first birth later, at age 24. Women aged 25-29 give birth for the first time 0.5 years later on average than women aged 30-34, and 2 years later than women aged 45-49. Further evidence of a trend toward delayed onset of childbearing is found in the changes across age cohorts in the percentages giving birth for the first time at various ages: for example, while 13 percent of women age 45-49 had their first birth by exact age 18, only 5-6 percent of women age 20-29 had started childbearing by age 18.

Table 4.7 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 2013

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	0.0	NA	NA	NA	NA	96.7	1,572	a
20-24	0.1	5.7	16.9	na	na	67.2	1,337	a
25-29	0.5	6.4	18.8	35.6	55.4	33.4	1,492	24.0
30-34	1.1	8.9	23.8	38.9	60.6	12.6	1,565	23.5
35-39	0.9	12.3	28.6	45.2	65.1	7.8	1,513	22.6
40-44	1.1	12.1	30.2	49.3	70.7	5.7	1,238	22.1
45-49	1.1	12.7	31.0	50.2	72.0	7.0	1,029	22.0
20-49	0.8	9.5	24.5	NA	NA	22.7	8,174	a
25-49	0.9	10.2	26.0	43.2	64.0	14.0	6,837	22.9

NA = Not applicable due to censoring
 a = Omitted because less than 50 percent of women had a birth before reaching the beginning of the age group

Table 4.8 presents women's median age at first birth, by background characteristics. The median age at first birth is higher in urban areas than in rural areas, with a difference of almost one and a half years for women age 25-49. The results indicate that the urban-rural difference in median age at first birth has increased over time, with a gap of 2.3 years among younger (25-29) women than compared to 1.2 years among older women (45-49). Across regions, the North region has the highest median age at first birth (23.9 years) for women age 25-49, while the East and Central region have the lowest median age at first birth (22.1 and 22.3 years respectively). There is a positive relationship between educational attainment and median age at first birth. Women with at secondary school education begin childbearing about 1.5 years later than women with no education (22.3 and 20.8 respectively). The data also show that women who belong to the fourth wealth quintile had their first child 1.7 years later than women in the lowest wealth quintile.

Table 4.8 Median age at first birth

Median age at first birth among women age 25-49 years, according to age at survey date and background characteristics, Turkey 2013

| Background characteristic | Age[1] | | | | | Women age |
	25-29	30-34	35-39	40-44	45-49	25-49
Residence						
Urban	24.6	23.7	22.8	22.2	22.3	23.2
Rural	22.3	22.3	21.8	21.6	21.1	21.8
Region						
West	a	24.0	23.0	22.3	22.4	23.3
South	23.6	22.7	22.7	23.2	21.6	22.7
Central	23.5	23.1	21.8	21.0	21.8	22.3
North	24.8	24.6	24.1	22.8	23.1	23.9
East	23.4	22.5	21.7	21.4	21.0	22.1
Education						
No education/primary incomplete	22.3	20.6	20.5	20.0	21.0	20.8
Primary school	21.7	21.7	21.5	21.5	21.2	21.5
Secondary school	21.7	22.7	22.1	22.8	23.6	22.3
High school and higher	a	a	a	a	a	a
Wealth quintile						
Lowest	21.5	21.1	21.5	21.3	20.6	21.2
Second	22.5	21.7	22.1	21.5	21.9	22.0
Middle	23.7	23.0	21.6	22.4	21.1	22.4
Fourth	23.9	23.7	22.5	22.0	21.9	22.9
Highest	a	a	a	23.0	23.4	a
Total	24.0	23.5	22.6	22.1	22.0	22.9

[1] The medians for cohorts 15-19 and 20-24 could not be determined because less than 50 percent of these women had a birth before the beginning of the age group
a = Omitted because less than 50 percent of the women had a birth before reaching the beginning of the age group

4.7   Teenage Pregnancy and Motherhood

The issue of teenage fertility is important for both health and social reasons. Children born to very young mothers face an increased risk of illness and death. Teenage mothers are more likely to experience adverse pregnancy outcomes and maternity-related mortality than more mature women. In addition, early childbearing limits a teenager's ability to pursue educational opportunities and their access to job opportunities. It should be noted the formal age of marriage is eighteen in Turkey.

Table 4.9 shows the percentage of women aged 15-19 who are mothers or are pregnant with their first child by background characteristics. The TDHS-2013 shows that nearly 5 percent of adolescents have started childbearing: 3 percent have had a live birth, and 1 percent is currently pregnant with their first child. Since TDHS-2008, there has been decline in the proportion of adolescents who have begun childbearing, from 6 percent to the current level of 5 percent.

The proportion of teenagers who have started having children sharply increases after age 18. Childbearing before age 17 is rare; however, 16 percent of women age 19 are either a mother or pregnant with their first child. Rural teenagers are slightly more likely than urban teenagers to have started childbearing (6 percent compared to 4 percent). Teenage childbearing varies across region, ranging from 3 percent in the West to 6 percent or more in the South, Central and East regions.

There is an inverse relationship between early childbearing and education. Teenagers with less education are more likely to start childbearing than better-educated women; 17 percent of teenagers with less than a primary school education had begun childbearing compared with 8 percent of those with at least primary school education. By wealth status, 6-8 percent of teenagers in the lowest three wealth quintiles have begun childbearing compared to less than 3 percent of teenagers living in households in the highest wealth quintiles.

Table 4.9 Teenage pregnancy and motherhood

Percentage of women age 15-19 who have had a live birth or who are pregnant with their first child, and percentage who have begun childbearing, by background characteristics, Turkey 2013

| Background characteristic | Percentage of women age 15-19 who: | | | Number of women |
	Have had a live birth	Are pregnant with first child	Begun childbearing	
Age				
15	0.0	0.0	0.0	321
16	0.2	0.3	0.5	330
17	2.8	0.6	3.4	318
18	3.3	1.4	4.6	322
19	11.5	4.7	16.2	282
Residence				
Urban	3.1	1.2	4.2	1,260
Rural	4.5	1.8	6.3	312
Region				
West	2.2	0.9	3.1	635
South	4.1	2.1	6.1	183
Central	4.6	1.1	5.7	306
North	3.6	1.1	4.7	95
East	3.8	1.8	5.7	353
Education				
No education/primary incomplete	10.0	7.1	17.1	35
Primary school	5.5	2.3	7.8	117
Secondary school	3.7	1.4	5.1	1,092
High school and higher	0.6	0.1	0.8	328
Wealth quintile				
Lowest	6.2	1.4	7.7	266
Second	4.4	1.6	6.0	341
Middle	3.6	2.1	5.7	326
Fourth	1.7	1.4	3.1	338
Highest	1.0	0.0	1.0	301
Total	3.3	1.3	4.6	1,572

5

FAMILY PLANNING

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One of the objectives of the TDHS-2013 is to assess the level of knowledge and use of contraceptive methods among women of reproductive ages. This chapter focuses on findings of the TDHS-2013 with respect to knowledge, attitudes, as well as previous and current use of family planning methods. In addition, among those who are sterilized, the timing of sterilization is reviewed. Special attention is given to sources of contraception, non-use, as well as reasons for discontinuation and intention of future use.

5.1   Knowledge of Family Planning Methods

An understanding of family planning methods is essential in decisions on whether to use a contraceptive method and which method to use. Familiarity with contraceptive methods is also an important first step in gaining access to and choosing the right contraceptive method. To assess knowledge of contraceptive methods, the interviewer read a description of the method and respondents were asked if they had heard of the method. In this report, contraceptive methods are grouped as either modern or traditional. Modern methods include: female sterilization, male sterilization, the pill, intrauterine device (IUD), injectables, implants, male condom, female condom, diaphragm, vaginal ring, and emergency contraception. Traditional methods include: rhythm method (periodic abstinence) and withdrawal. Any other method mentioned by the respondent was also recorded, including lactational amenorrhoea and any folk methods identified named by the respondent. However, it is noteworthy that information obtained through these questions does not reflect the quality of knowledge regarding these methods. Therefore, information on "knowledge of a family planning method" is indicative of whether or not the respondent had heard of that method.

Knowledge of contraceptive methods among all women and currently married women by specific methods is presented in Table 5.1. Knowledge of at least one family planning method is almost universal among all women and currently married women. Results show that 99 percent of all women and 100 percent of currently married women have heard of a family planning method. The same pattern exists for all women and currently married women regarding knowledge of any modern method. Of the modern methods, the most widely known methods are the pill, female sterilization, and male condom among all women (96, 87, and 86 percent respectively) and IUD, pill, female sterilization, and male condom among currently married women (98, 98, 93, and 92 percent respectively). Among modern methods, the vaginal ring and female condom, which are new methods in Turkey, appear as the least known methods (10 percent and 20 percent respectively for all women). Among traditional methods, withdrawal is the most commonly known method among all women and currently married women (80 and 93 percent respectively). Less than half of all women and currently married women knew of rhythm as a contraceptive method (39 percent of all women and 43 percent of currently married women).

The mean numbers of methods recognized by all women and currently married women are similar; on average, all women knew 7.6 and currently married woman know 8.2 methods.

Table 5.1 Knowledge of contraceptive methods

Percentage of all respondents and currently married respondents age 15-49 who know any contraceptive method, by specific method, Turkey 2013

Method	All women	Currently married women
Any method	98.8	99.8
Any modern method	98.7	99.7
Female sterilization	87.3	92.8
Male sterilization	35.5	41.4
Pill	95.7	97.8
IUD	92.1	98.0
Injectables	77.3	87.0
Implants	32.9	39.7
Male condom	86.2	92.3
Female condom	19.8	19.6
Diaphragm/Foam/Jelly	28.9	32.0
Vaginal ring	9.8	8.9
Emergency contraception	42.0	42.9
Any traditional method	83.8	95.0
Rhythm	38.9	42.9
Withdrawal	79.5	93.3
Other	2.9	3.6
Mean number of methods known by respondents 15-49	7.6	8.2
Number of respondents	9,746	6,655

Table 5.2 presents the percentage of currently married women who have heard of any method of contraception and any modern method, by background characteristics. There is little variation worth discussing across age groups, residence, education, and wealth quintile. Across all these categories, the proportion of currently married women with knowledge of any method and any modern method is almost 100 percent for at least one any method of contraception and one modern method.

Table 5.2 Knowledge of contraceptive methods by 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 2013

Background characteristic	Heard of any method	Heard of any modern method[1]	Number
Age			
15-19	100.0	98.3	111
20-24	99.7	99.4	619
25-29	99.8	99.8	1,166
30-34	100.0	99.8	1,394
35-39	99.8	99.7	1,351
40-44	100.0	99.7	1,127
45-49	99.7	99.6	888
Residence			
Urban	99.9	99.7	5,341
Rural	99.8	99.5	1,314
Region			
West	99.9	99.8	2,864
South	99.9	99.7	856
Central	99.8	99.8	1,391
North	99.5	99.3	445
East	99.8	99.4	1,100
Region (NUTS 1)			
Istanbul	99.8	99.8	1,330
West Marmara	100.0	100.0	275
Aegean	99.8	99.6	869
East Marmara	100.0	99.8	627
West Anatolia	100.0	100.0	671
Mediterranean	99.9	99.7	856
Central Anatolia	99.8	99.6	344
West Black Sea	99.5	99.5	378
East Black Sea	99.9	99.6	206
Northeast Anatolia	99.5	99.2	173
Central East Anatolia	99.9	99.9	292
Southeast Anatolia	99.8	99.3	635
Education			
No education/Primary incomplete	99.1	98.7	1,019
Primary school	99.9	99.8	2,956
Secondary school	100.0	100.0	934
High school and higher	100.0	100.0	1,746
Wealth quintile			
Lowest	99.6	99.0	1,038
Second	99.8	99.6	1,299
Middle	100.0	99.9	1,366
Fourth	99.8	99.8	1,433
Highest	100.0	99.9	1,519
Total 15-49	99.8	99.7	6,655

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

5.2   Ever Use of Contraceptive Methods

Women who reported having heard of a method of family planning were subsequently asked if they had ever used that method. Ever use of a family planning method is defined as the use of a contraceptive method at any time during a woman's reproductive age.

Table 5.3 shows the percentages of all and currently married women who have ever used any contraceptive method by specific method and age. Overall, 92 percent of currently married women and 67 percent of all women have used a family planning method at some time. When comparing all women with currently married women, results show that ever use of modern methods (77 percent) and traditional methods (66 percent) are higher among currently married women than all women (56 percent and 47 percent). The methods most commonly ever used by currently married women are withdrawal (64 percent), male condom (46 percent), IUD (39 percent) and the pill (31 percent). A similar pattern is evident for all women; however, the percentages who have ever used these methods are slightly lower for all women.

Table 5.3 Ever use of contraception by age

Percent distribution of all women and currently married women 15-49 by contraceptive method currently used, according to age, Turkey 2013

Age	Any method	Any modern method	Female sterile-zation	Male sterile-zation	Pill	IUD	Injec-tables	Implants	Male condom	Female condom	Diaphragm /Foam /Jelly	Vaginal ring	Emer-gency contra-ception	Any tradi-tional method	Rhythm	With-drawal	Other	Number of women
									Modern methods					Traditional methods				
								ALL WOMEN										
15-19	4.8	2.5	0.0	0.0	0.7	0.4	0.4	0.0	1.8	0.0	0.1	0.0	0.0	3.6	0.1	3.4	0.2	1,572
20-24	38.1	28.2	0.1	0.0	9.9	7.1	3.0	0.0	21.1	0.1	0.3	0.1	2.2	29.4	1.2	29.0	0.2	1,337
25-29	75.2	60.8	1.4	0.0	23.8	21.6	7.9	0.0	40.9	0.0	0.6	0.0	6.2	53.4	4.4	52.4	0.3	1,492
30-34	88.7	74.8	5.8	0.0	31.2	33.5	7.1	0.2	48.7	0.1	1.6	0.0	6.0	64.4	5.0	62.7	0.8	1,565
35-39	90.3	79.0	12.7	0.2	31.1	44.7	9.5	0.5	46.1	0.0	1.7	0.1	4.9	64.3	6.1	62.7	1.1	1,513
40-44	90.9	80.0	16.7	0.1	33.8	49.2	6.7	0.4	40.2	0.0	3.3	0.2	3.3	61.5	6.5	58.4	1.1	1,238
45-49	87.2	74.6	13.1	0.1	29.8	49.1	6.8	0.2	31.5	0.1	3.8	0.0	2.5	60.8	6.8	57.3	1.9	1,029
Total	66.5	55.9	6.6	0.1	22.4	28.1	5.9	0.2	32.9	0.0	1.5	0.1	3.7	47.3	4.1	45.8	0.8	9,746
								CURRENTLY MARRIED WOMEN										
15-19	67.4	35.5	0.0	0.0	9.7	5.5	5.2	0.0	25.3	0.0	1.0	0.0	0.6	50.6	1.0	48.5	2.2	111
20-24	78.6	57.3	0.2	0.0	20.0	15.3	6.5	0.0	42.6	0.2	0.6	0.1	3.8	61.4	2.1	60.5	0.5	619
25-29	92.5	74.4	1.8	0.0	29.2	26.6	10.1	0.0	50.6	0.0	0.7	0.1	6.9	66.1	5.2	64.8	0.4	1,166
30-34	95.3	80.4	6.5	0.0	32.6	36.6	7.7	0.2	52.6	0.1	1.8	0.0	6.2	69.6	5.5	67.7	1.0	1,394
35-39	95.0	83.0	13.8	0.2	32.4	46.5	10.2	0.4	49.2	0.1	1.7	0.2	5.3	68.1	6.5	66.4	1.2	1,351
40-44	93.3	81.9	17.5	0.1	35.0	49.8	7.2	0.4	41.7	0.0	3.5	0.2	3.0	63.4	6.8	60.3	1.1	1,127
45-49	90.6	76.7	14.7	0.1	31.3	50.9	7.5	0.3	32.1	0.1	4.0	0.0	2.4	64.6	7.3	60.7	2.0	888
Total	91.7	76.7	9.4	0.1	30.6	38.5	8.4	0.2	45.6	0.1	2.0	0.1	4.8	65.9	5.7	63.8	1.0	6,655

By age groups, results for all women indicate a positive relationship between age and ever use of any method as well as between age and ever use of any modern method. Ever use of any family planning method and any modern method is lowest among all married women in the 15-19 age group. After ages 25-29, 75 percent or more of all women have used any method or any modern method. Among currently married women, ever use of any method and

any modern method is lowest in the 15-19 age group (67 percent and 36 percent respectively). Use of any method is highest among currently married women in the 30-34 age range and highest for any modern method among women in the 35-39 age group (95 percent and 83 percent respectively). As expected, a comparison of the proportion of use amongst all women and currently married women indicates that use of any method and any modern methods is greater in all age groups for currently married women.

5.3   Current Use of Contraceptive Methods

Table 5.4 shows that current use of contraception by age amongst all women and currently married women. Results indicate that the contraceptive prevalence rate (percentage of currently married women age 15-49 who are currently using any method of family planning) at the time of the survey is 74 percent. The same rate for all women is 51 percent, possibly due to the fact that currently married women are more likely to be sexually active than all women. With regards to specific methods, 33 percent of all women and 47 percent of currently married women use a modern contraceptive method whereas 18 percent of all women and 26 percent of currently married women use a traditional method.

Table 5.4 Current use of contraception by age

Percent distribution of all women and currently married women 15-49 by contraceptive method currently used, according to age, Turkey 2013

Age	Any method	Any modern method	Female steril.	Male steril.	Pill	IUD	Inject-ables	Imp-lants	Male condom	Diaphr agm	LAM	Any tradi-tional method	Rhythm	With-drawal	Other	Not current ly using	Total	Number of women
ALL WOMEN																		
15-19	3.3	1.2	0.0	0.0	0.1	0.3	0.1	0.0	0.7	0.0	0.0	2.1	0.0	2.0	0.1	96.7	100.0	1,572
20-24	26.5	14.7	0.1	0.0	1.9	4.5	0.2	0.0	8.0	0.0	0.0	11.8	0.0	11.8	0.0	73.5	100.0	1,337
25-29	55.8	34.8	1.4	0.0	4.2	12.8	0.8	0.0	15.4	0.1	0.1	21.0	0.2	20.8	0.0	44.2	100.0	1,492
30-34	71.4	47.1	5.8	0.0	6.3	15.8	0.6	0.1	18.2	0.0	0.2	24.3	0.2	24.0	0.0	28.6	100.0	1,565
35-39	76.2	54.0	12.7	0.0	4.3	19.6	0.7	0.0	16.5	0.1	0.0	22.3	0.3	21.8	0.2	23.8	100.0	1,513
40-44	74.2	49.7	16.7	0.1	3.9	18.2	0.2	0.0	10.5	0.1	0.0	24.5	0.7	23.8	0.0	25.8	100.0	1,238
45-49	52.4	31.8	13.1	0.0	1.1	12.2	0.0	0.0	5.3	0.1	0.0	20.6	0.5	19.8	0.3	47.6	100.0	1,029
Total	51.0	33.2	6.6	0.0	3.2	11.8	0.4	0.0	10.9	0.1	0.1	17.8	0.3	17.5	0.1	49.0	100.0	9,746
CURRENTLY MARRIED WOMEN																		
15-19	46.9	17.6	0.0	0.0	1.7	4.2	2.1	0.0	9.5	0.0	0.0	29.2	0.0	28.1	1.1	53.1	100.0	111
20-24	55.6	30.2	0.2	0.0	3.4	9.7	0.4	0.0	16.5	0.0	0.0	25.4	0.0	25.4	0.0	44.4	100.0	619
25-29	70.7	44.2	1.8	0.0	5.4	16.0	1.0	0.0	19.7	0.2	0.1	26.5	0.1	26.4	0.0	29.3	100.0	1,166
30-34	79.6	52.3	6.5	0.0	7.0	17.6	0.6	0.2	20.2	0.0	0.3	27.3	0.3	26.9	0.1	20.4	100.0	1,394
35-39	84.0	59.1	13.8	0.1	4.8	21.3	0.8	0.0	18.3	0.1	0.0	24.9	0.4	24.4	0.2	16.0	100.0	1,351
40-44	79.8	52.9	17.5	0.1	4.3	19.1	0.3	0.0	11.6	0.1	0.0	26.9	0.7	26.1	0.0	20.2	100.0	1,127
45-49	59.0	35.1	14.7	0.0	1.3	13.1	0.0	0.0	5.9	0.1	0.0	23.9	0.5	23.0	0.4	41.0	100.0	888
Total	73.5	47.4	9.4	0.0	4.6	16.8	0.6	0.0	15.8	0.1	0.1	26.0	0.3	25.5	0.1	26.5	100.0	6,655

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

By specific methods, results indicate that the most common method is withdrawal, which is used by one in every four currently married women (26 percent). Of the modern methods, the most commonly used among currently married women is IUD (17 percent), followed by male condom (16 percent). It is also noteworthy that female sterilization is used by 9 percent of currently married women, which is a larger than the proportion of currently married women using the pill (5 percent).

Use of any contraceptive method varies by age. Current use of any method is lowest among currently married women age 15-19 (47 percent), then rises to a peak of 84 percent in the 35-39 age group and subsequently declines to 59 percent in the age group 45-49. The most popular method among all ages is withdrawal, with the highest proportion of women using this method between the ages of 15-19 (28 percent). Of the most commonly used modern methods, the IUD is use by a greater proportion of currently married women age 35-39 age group (21 percent) than women in other age groups.

Table 5.5 shows the percent distribution of currently married women by contraceptive method currently used according to background characteristics. Results for the number of living children indicate that current use of family planning increases rapidly after the birth of the first child. Among currently married women with no children, approximately one in four uses any method of family planning (26 percent); this level drastically increases to more than three quarters of currently married with 1 or 2 living children (77 percent).

By place of residence and region, there are marked differences in the proportion of women using a contraceptive method at the time of survey. In urban areas, the percentage of women using a method of family planning is higher (75 percent) than that in rural areas (69 percent). Much of the urban-rural gap in family planning use is due to greater use of modern methods by women in urban areas (49 percent in urban versus 40 percent in rural areas). By region, the lowest proportion of women currently using any form of contraception is observed in the East (62 percent); in the remaining regions, more than three quarters of the currently married women are currently using some form of contraception (79 percent in the Central, 76 percent in the West, and 75 percent in North region). Despite having one of the highest proportions of current use of any method, use of any use of modern methods is lower in the North than in any of the other regions except for the East whereas current use of any traditional method is highest in the North (33 percent) than in any of the other regions. With regard to NUTS 1 regions, current use is lowest in the Southeast Anatolia (60 percent) and highest in the West Anatolia Region (83 percent).

Table 5.5 Current use of contraception by background characteristics

Percent distribution of currently married women age 15-49 by contraceptive method currently used, according to background characteristics, Turkey 2013

Background characteristic	Any method	Any modern method	Modern method										Traditional method				Not currently using	Total	Number of women
			Female steril.	Male steril.	Pill	IUD	Injec-tables	Imp-lants	Male condom	Dia phragm	LAM	Any tradi-tional method	Rhythm	With-drawal	Other			
Number of living children																			
0	26.1	15.4	0.0	0.0	4.5	0.0	0.0	0.0	10.9	0.0	0.0	10.7	0.1	10.4	0.2	73.9	100.0	645
1-2	76.9	47.6	3.5	0.0	5.2	17.9	0.6	0.1	20.2	0.1	0.1	29.3	0.4	28.8	0.1	23.1	100.0	3,801
3-4	83.5	57.8	21.5	0.0	3.6	20.8	0.5	0.0	11.0	0.2	0.1	25.7	0.4	25.1	0.2	16.5	100.0	1,743
5+	73.1	51.5	25.3	0.0	4.3	15.5	1.4	0.0	4.9	0.0	0.1	21.6	0.1	21.4	0.1	26.9	100.0	466
Residence																			
Urban	74.7	49.3	9.1	0.0	5.0	17.3	0.5	0.0	17.2	0.0	0.1	25.4	0.4	24.9	0.1	25.3	100.0	5,341
Rural	68.5	40.0	10.7	0.0	3.2	14.6	0.9	0.0	10.2	0.3	0.2	28.5	0.3	28.2	0.0	31.5	100.0	1,314
Region																			
West	75.7	47.0	8.9	0.0	4.6	15.5	0.3	0.1	17.4	0.1	0.1	28.7	0.5	28.0	0.2	24.3	100.0	2,864
South	70.8	47.8	10.9	0.2	4.2	15.3	1.1	0.0	15.9	0.1	0.0	23.0	0.0	23.0	0.0	29.2	100.0	856
Central	78.8	56.3	8.3	0.0	6.1	24.6	0.5	0.0	16.7	0.0	0.1	22.4	0.3	22.0	0.1	21.2	100.0	1,391
North	75.4	42.3	14.2	0.0	2.7	9.4	0.3	0.0	15.6	0.2	0.0	33.1	0.3	32.8	0.0	24.6	100.0	445
East	62.2	39.2	9.2	0.0	3.9	14.2	1.1	0.0	10.6	0.0	0.2	23.0	0.3	22.5	0.2	37.8	100.0	1,100
Region (NUTS 1)																			
Istanbul	74.8	46.4	8.4	0.0	4.5	16.6	0.0	0.2	16.8	0.0	0.0	28.4	0.0	28.0	0.3	25.2	100.0	1,330
West Marmara	74.4	42.9	7.3	0.2	5.7	10.3	1.0	0.0	18.4	0.0	0.0	31.5	1.3	29.9	0.3	25.6	100.0	275
Aegean	76.8	49.9	10.3	0.0	4.9	15.6	0.8	0.0	18.1	0.2	0.0	26.9	1.1	25.8	0.0	23.2	100.0	869
East Marmara	76.9	46.3	9.2	0.0	4.1	15.6	0.3	0.0	16.4	0.3	0.5	30.6	0.0	30.4	0.2	23.1	100.0	627
West Anatolia	83.1	64.2	6.6	0.0	7.9	30.8	0.1	0.0	18.7	0.0	0.1	18.8	0.6	18.2	0.0	16.9	100.0	671
Mediterranean	70.8	47.8	10.9	0.2	4.2	15.3	1.1	0.0	15.9	0.1	0.0	23.0	0.0	23.0	0.0	29.2	100.0	856
Central Anatolia	73.4	49.9	8.2	0.0	4.9	21.0	1.2	0.0	14.5	0.0	0.0	23.6	0.2	23.4	0.0	26.6	100.0	344
West Black Sea	75.2	45.5	13.0	0.0	2.2	13.3	0.2	0.0	16.6	0.2	0.0	29.8	0.2	29.6	0.0	24.8	100.0	378
East Black Sea	75.6	40.9	15.8	0.0	3.2	7.5	0.3	0.0	14.2	0.0	0.0	34.7	0.4	34.3	0.0	24.4	100.0	206
Northeast Anatolia	68.2	42.7	9.5	0.0	4.3	18.5	0.4	0.0	9.3	0.0	0.7	25.5	0.4	24.8	0.3	31.8	100.0	173
Central East Anatolia	63.9	37.3	5.7	0.0	3.5	15.1	1.4	0.0	11.6	0.0	0.0	26.7	0.0	26.5	0.2	36.1	100.0	292
Southeast Anatolia	59.7	39.1	10.7	0.0	4.0	12.7	1.1	0.0	10.5	0.0	0.1	20.6	0.4	20.1	0.1	40.3	100.0	635
Education																			
No educ./Prim. Incomp.	62.5	36.4	12.0	0.1	2.8	14.9	0.8	0.0	5.6	0.0	0.2	26.1	0.0	25.8	0.3	37.5	100.0	1,019
Primary school	76.8	48.7	12.3	0.0	4.0	18.5	0.6	0.0	13.1	0.1	0.0	28.1	0.2	27.7	0.2	23.2	100.0	2,956
Secondary sch.	71.7	44.0	4.5	0.0	3.6	17.7	0.6	0.0	17.4	0.2	0.0	27.8	0.5	27.2	0.0	28.3	100.0	934
High sch. and higher	75.1	53.7	5.7	0.0	7.3	14.3	0.4	0.1	25.6	0.0	0.2	21.5	0.6	20.8	0.0	24.9	100.0	1,746
Wealth quintile																			
Lowest	64.1	38.2	10.9	0.1	3.2	15.3	1.3	0.0	7.0	0.3	0.2	26.0	0.1	25.8	0.0	35.9	100.0	1,038
Second	70.5	42.2	10.2	0.0	3.2	17.4	0.5	0.0	10.8	0.0	0.1	28.4	0.2	28.1	0.1	29.5	100.0	1,299
Middle	75.8	47.2	9.1	0.0	4.4	17.9	1.0	0.0	14.6	0.2	0.2	28.6	0.1	28.3	0.2	24.2	100.0	1,366
Fourth	77.3	51.7	8.9	0.0	5.2	18.0	0.2	0.0	19.4	0.0	0.0	25.7	0.5	24.9	0.3	22.7	100.0	1,433
Highest	76.5	54.5	8.6	0.1	6.6	15.0	0.2	0.1	23.9	0.0	0.0	22.0	0.7	21.3	0.0	23.5	100.0	1,519
Total	73.5	47.4	9.4	0.0	4.6	16.8	0.6	0.0	15.8	0.1	0.1	26.0	0.3	25.5	0.1	26.5	100.0	6,655

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

Figure 5.1 displays the current use of family planning by method within each region. As to the method mix of five regions, the North region has the lowest IUD use (9 percent) and the highest female sterilization (14 percent) and withdrawal use (33 percent). When the NUTS 1 regions are considered (Table 5.4), the East Black Sea has the highest use of female sterilization (16 percent) and the lowest rates of use of the IUD (8 percent). The highest proportion of currently married women using withdrawal (34 percent) among the NUTS 1 regions is also observed in the East Black Sea (34 percent).

Current use of family planning is lowest among women who never attended school or did not complete primary school (63 percent) and rises, although not uniformly, to 75 percent among women with a high school or higher education (Table 5.5). Differences in use of family planning methods are also apparent by wealth quintile. Contraceptive use is lowest in the lowest wealth quintile (64 percent) and gradually rises to 77 percent in the highest wealth quintile. Current use of any modern method ranges from 38 percent of currently married women in the lowest wealth quintile to 55 in the highest quintile. Middle wealth quintile has the highest proportion (29 percent) for current use of any traditional method.

Figure 5.1 Current use of contraception
Current use of contraception among currently married women by type of method and region, Turkey 2013
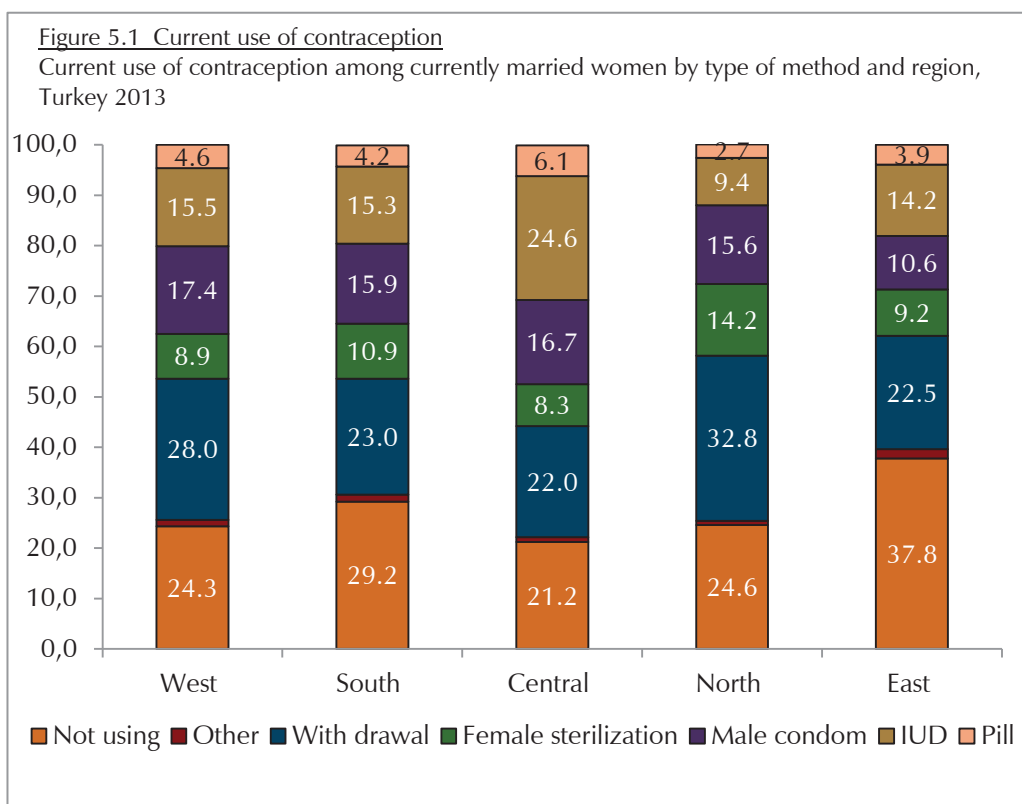
5.4   Trends in Current Use of Family Planning

Table 5.6 presents trends in the use of contraceptive methods for the last 25 years. There was little variation in contraceptive use in the 10-year period from 1988 to 1998, however, since the TDHS-2003, contraceptive use increased substantially, reaching 71 percent in 2003 and 74 percent in 2013. Use of modern contraceptives followed a similar pattern, and has risen over the past 25-year period, from 31 percent to 47 percent in 2013. In line with the increase in the use of modern methods, an overall decline has been observed in traditional methods, although withdrawal continues to be used at nearly the same rate.

Table 5.6 Trends in current use of contraception

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

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

Figure 5.2, shows the trend in family planning use for selected methods between 1993 and 2013. Overall, there has been a significant and positive increase in the use of modern methods; values range from 35 percent in 1993 to 47 percent in 2013. In the most two most recent TDHS, use of current family planning methods has continue to increase at a diminishing rate. Much of the overall increase in use over the past 20 years has been due to greater use of male condom and female sterilization. Use of the pill has remained stable at approximately 5 percent since 1993 while use of the IUD dropped off slightly, from 19 percent to 17 percent. The prevalence of withdrawal as a traditional method has not changed significantly, with approximately 1 in every 4 married couples relying on withdrawal over the past 20 years.

Figure 5.2 Trends in the use of contraception

Trends in the use of contraception among currently married women , Turkey 1993-2013

Percentage

TDHS-1993   TDHS-1998   TDHS-2003
TDHS-2008   TDHS-2013
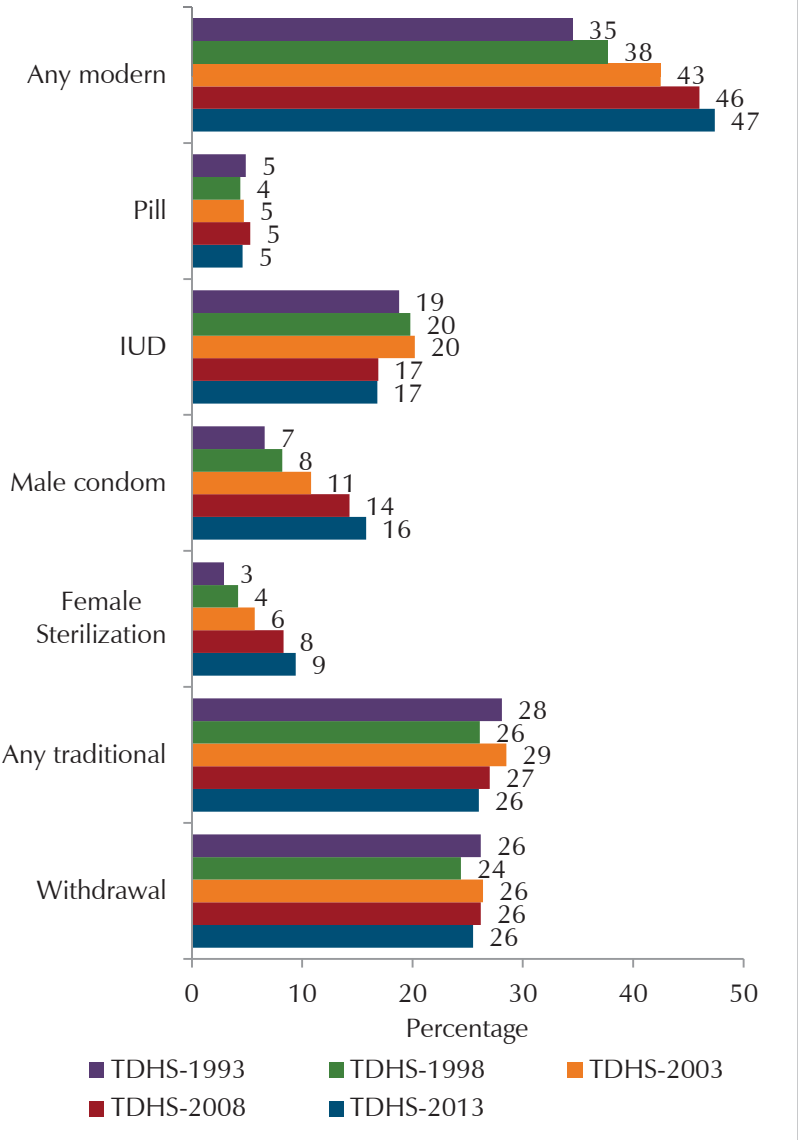
Table 5.7 shows the trend in contraceptive use by residence and region during the last 20 years. The use of modern contraceptive methods has increased in urban and rural areas as well as across all regions over time. Use of traditional methods was more erratic during the entire period; however, between 2003 and 2013, use of traditional methods has declined in all regions except for the West region. Overall, the increase in use of all contraceptive methods was greater over the 20-year period in rural areas (an increase of 22 percent), in Central and East regions (an increase of 26 percent and 47 percent, respectively).

Table 5.7 Trends in current use of contraception by residence and region

Percentage of currently married women 15-49 currently using any method, a modern method and a traditional method by residence and region, TDHS-1993, TDHS-1998, TDHS-2003, TDHS-2008 and TDHS-2013

	Residence		Region					
Surveys	Urban	Rural	West	South	Central	North	East	Total
TDHS-1993								
Any method	66.2	56.1	71.5	62.8	62.7	64.2	42.3	62.6
Any modern	38.9	26.8	37.3	36.7	36.6	29.8	26.3	34.5
Any traditional	27.3	29.3	34.2	26.0	26.1	34.4	16.0	28.1
TDHS-1998								
Any method	66.7	58.1	70.5	60.3	68.3	67.0	42.0	63.9
Any modern	40.8	31.4	40.5	35.1	42.8	35.2	26.7	37.7
Any traditional	25.2	31.4	29.2	24.6	24.7	31.5	15.2	25.5
TDHS-2003								
Any method	73.6	64.5	74.2	70.8	74.2	71.9	57.9	71.0
Any modern	45.8	34.4	45.7	44.8	46.6	32.5	31.4	42.5
Any traditional	27.8	30.1	28.6	26.0	27.6	39.4	26.5	28.5
TDHS-2008								
Any method	74.3	68.9	76.3	70.4	75.5	75.6	61.4	73.0
Any modern	47.8	40.4	48.2	45.8	48.8	41.4	37.8	46.0
Any traditional	26.5	28.6	28.1	24.6	26.7	34.2	23.5	27.0
TDHS-2013								
Any method	74.7	68.5	75.7	70.8	78.8	75.4	62.2	73.5
Any modern	49.3	40.0	47.0	47.8	56.3	42.3	39.2	47.4
Any traditional	25.4	28.5	28.7	23.0	22.4	33.1	23.0	26.0

5.5 Number of Children at First Use of Contraception

Table 5.8 shows the percent distribution of ever-married women by current age group and number of living children at the time of first use of contraception. This information is useful in identifying the stage in the family-building process when women began using family planning as well as their motivation for using family planning.

Table 5.8 Number of children at first use of contraception

Percent distribution of ever-married women age 15-49 by number of living children at the time of first use of contraception, according to current age, Turkey 2013

| Current age | Never used | Number of living children at time of first use of contraception | | | | | | Total | Number of women |
		0	1	2	3	4+	Missing		
Age									
15-19	33.7	39.4	25.6	1.3	0.0	0.0	0.0	100.0	113
20-24	21.8	43.0	30.6	4.2	0.4	0.0	0.0	100.0	634
25-29	7.6	46.1	36.7	7.2	1.6	0.8	0.1	100.0	1,207
30-34	4.8	42.3	36.2	9.6	3.7	3.3	0.1	100.0	1,455
35-39	5.5	31.4	40.1	13.3	4.3	5.3	0.1	100.0	1,444
40-44	7.3	24.4	37.6	17.6	6.6	6.4	0.0	100.0	1,212
45-49	10.1	17.1	37.7	17.4	8.3	9.1	0.3	100.0	998
Total	8.6	34.1	36.9	11.8	4.3	4.3	0.1	100.0	7,063

Overall, ever-married women are adopting family planning at lower parities; less than 10 percent of ever married women have never used any contraception and more than one third (34 percent) of ever-married women began using contraception before they gave birth to their first child (Table 5.8). Among women 15-34 years, the proportion of ever married women who first began using contraception is inversely related with the number children. On the other hand, among older women age 35-49, the proportion of ever married women who first began using contraception peaks after the first child and then follows a decreases pattern. The results indicate that younger women are adopting family planning to delay or space births, while older women are adopting family planning to limit births.

5.6   Knowledge of the Fertile Period

Successful use of natural family planning methods depends largely on an understanding of when throughout the course of the menstrual cycle a woman is most likely to conceive. An elementary knowledge of reproductive physiology is thus the foundation for the successful practice of coitus-associated methods such s withdrawal, and especially, periodic abstinence.

In the TDHS-2013, women were asked whether there are certain days when a woman is more likely to become pregnant if she has sexual intercourse. Those who responded affirmatively to that question were subsequently asked whether this is just before the period begins, during the period, right after the period or halfway between two periods. Figure 5.3 displays the percent distribution of women according to their knowledge if fertile period. Twenty seven percent of women reported the correct timing of the fertile period and, 35 percent do not know when the fertile period is.

Figure 5.3 Knowledge of the fertile period

Percent distribution of women age 15-49 by knowledge of the fertile period during the ovulatory cycle, Turkey 2013

Don't know 34.5

Missing 0.1

Just before menstrual period begins 2.5

During menstrual period 0.6

Right after menstrual period ended 21.7

Halfway between two menstrual periods 27.0

Other 0.9

No specific time 12.6
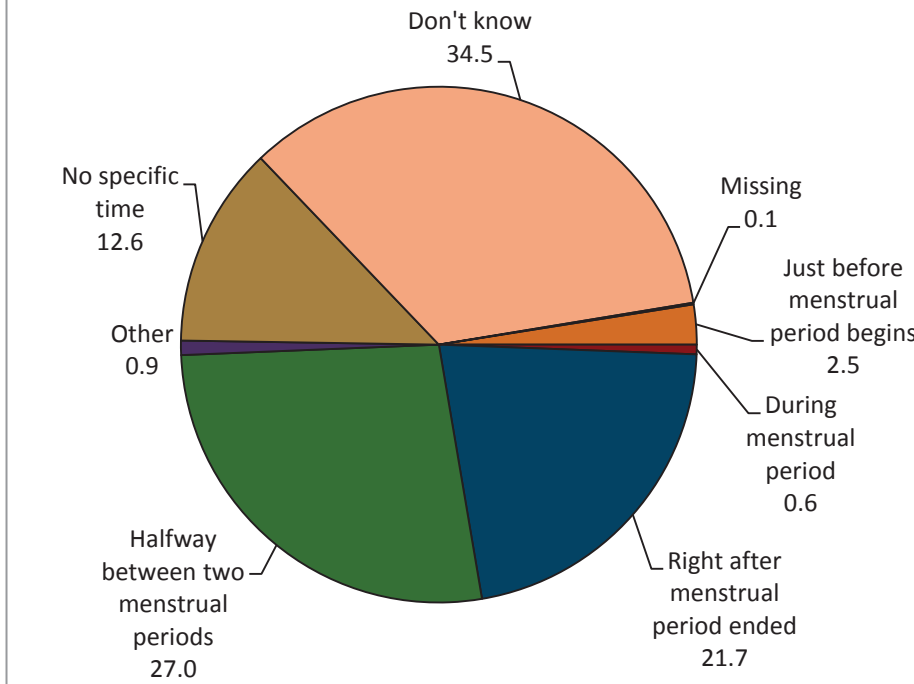
5.7   Timing of Female Sterilization

Table 5.9 shows the proportion of sterilized women by age at the time of sterilization. According to results, 12 percent of women were sterilized in the age category: less than 25, age 40-44, and 45-49. On the other hand, 62 percent of sterilized women had the operation between ages of 25 and 34 and 32 percent of women were sterilized after age 35. The median reported age at female sterilization was 32.4 years. A comparison of the TDHS-2013 median age with that of the four previous surveys (31.8 in the TDHS-1993, 31.7 in TDHS-1998, 31.6 in TDHS-2003, and 31.5 in TDHS-2008) shows that the median age at sterilization did not changed substantially between 1993 and 2008, but increased over the past 5 years in Turkey.

Table 5.9 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 2013

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	3.8	11.8	43.9	32.1	6.6	1.9	100.0	111	33.8
2-3	2.3	13.3	35.3	30.9	17.6	0.7	100.0	97	33.6
4-5	2.5	13.3	36.5	42.5	5.2	0.0	100.0	96	34.6
6-7	1.2	17.1	41.4	31.2	9.1	0.0	100.0	79	33.5
8-9	1.0	35.0	37.6	22.1	4.3	0.0	100.0	65	31.0
10+	12.3	34.8	41.8	11.1	0.0	0.0	100.0	198	a
Total	5.4	22.3	39.9	25.9	6.1	0.4	100.0	647	32.4

a = Not calculated due to censoring
[1] Median age at sterilization is calculated only for women sterilized before age 40 at less than 40 years of age to avoid problems of censoring

5.8   Source for Family Planning Methods

Information on the sources of contraceptives for women is useful for logistics planning. In the TDHS-2013, women who reported using a modern contraceptive method at the time of the survey were subsequently asked where they obtained the method the last time they acquired it. Table 5.10 indicates the source of contraception, by type of source. Results suggest that, in Turkey, public sector providers are the generally preferred source for modern contraceptives. Of the modern method users, 56 percent named a public sector provider as the source of their method, 37 percent mentioned a private sector source and the remaining 7 percent reported using other sources, such as markets/shops.

Among public sector providers, health centers/health houses, government hospitals, and maternity houses are most often cited as the source of modern contraceptive methods (23 percent, 17 percent and 8 percent respectively). Among private sector providers, private hospitals and pharmacies are the main sources (11 percent and 23 percent respectively). With regard to specific methods, public sector providers are the principal source for female sterilization and the IUDs; 7 in 10 women who had had female sterilization report that the operation took place in a public institution. Similarly, 79 percent of IUD users obtain the method from a public institution, most often from health center/health house. Pills are obtained primarily from pharmacies (67 percent), followed by health centers/health houses (25 percent). Pharmacies (49 percent) also are the principal source for male condoms, followed again by health centers/ health houses (27 percent). Markets/shops are the providers of condom for 20 percent of users.

Trends in sources for modern methods during the five-year period between the TDHS-2008 and TDHS-2013 are presented in Table 5.11. With regards to female sterilization, the pill and condom, the proportion of users who relied on public sector sources decreased over the course of this period. On the other hand, the proportion of condom users served by other sources such as market/shops almost doubled increasing from 13 to 20 percent.

Table 5.10 Source of modern contraception methods[1]

Percent distribution of users of modern contraceptive methods age 15-49 by most recent source of method, according to method, Turkey 2013

Source	Female sterili- zation	Pill	IUD	Inject- ables	Male condom	Total
Public sector	69.8	29.7	79.0	(69.1)	30.1	55.9
Government hospital	42.9	2.3	21.7	(0.0)	1.1	17.0
Maternity house	16.1	0.1	12.6	(2.4)	0.2	7.8
MCHFP Centre	0.0	0.8	3.9	(5.8)	0.4	1.6
Health Centre	0.0	24.5	32.6	(53.6)	26.5	23.4
Health house	0.0	0.0	0.2	(1.7)	0.1	0.1
SSK Hospital/Dispensary	2.3	0.0	1.8	(0.0)	0.0	1.1
Training and Research Hospital	4.9	0.0	2.2	(0.0)	0.0	1.7
Family Health Center/ Family Doctor.	0.0	2.0	3.2	(4.7)	1.7	1.9
University Hospital	2.7	0.0	0.6	(0.0)	0.0	0.8
Other public sector	0.9	0.0	0.3	(1.0)	0.2	0.3
Private medical	29.7	69.8	20.7	(30.9)	49.1	37.0
Private hospital	29.4	1.6	13.5	(4.1)	0.3	11.0
Private Polyclinic	0.0	0.0	1.7	(0.0)	0.0	0.6
Private Doctor	0.0	1.4	5.0	(0.0)	0.0	2.0
Private Midwife/Nurse	0.0	0.0	0.2	(0.0)	0.0	0.1
Pharmacy	0.0	66.8	0.3	(26.8)	48.8	23.2
Other private sector	0.2	0.0	0.1	(0.0)	0.0	0.1
Voluntary Organization Association/ Foundation	0.0	0.0	0.0	(0.0)	0.0	0.0
Other sources	0.0	0.0	0.0	(0.0)	19.9	6.6
Market/Shop	0.0	0.0	0.0	(0.0)	19.9	6.6
Friends, relatives	0.0	0.0	0.0	(0.0)	0.0	0.0
Traditional Midwife	0.0	0.0	0.0	(0.0)	0.0	0.0
Other	0.4	0.0	0.0	(0.0)	0.3	0.2
Don't know	0.0	0.0	0.0	(0.0)	0.0	0.0
Missing	0.1	0.5	0.3	(0.0)	0.5	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	647	314	1,151	39	1,065	3,226

Note: Total includes other modern methods but excludes lactational amenorrhea method (LAM).
[1]Weighted number of cases for male sterilization, implants and diaphragm are not presented in the table as they are less than 6

Table 5.11 Trends in source of supply for selected modern methods

Percent distribution of current users of the female sterilization the pill, the IUD and the male condom by the most recent source of supply of the method, Turkey 2008-2013

Source of supply for method	Female Sterilization		Pill		IUD		Male condom	
	TDHS 2008	TDHS 2013	TDHS 2008	TDHS 2013	TDHS 2008	TDHS 2013	TDHS 2008	TDHS 2013
Public sector	81.0	69.8	36.8	29.7	78.0	79.0	39.1	30.1
Private sector	18.9	29.7	62.6	69.8	21.9	20.7	48.0	49.1
Other	0.2	0.4	0.4	0.0	0.0	0.0	12.6	20.2
Missing	0.9	0.1	0.2	0.5	0.1	0.3	0.3	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

5.9   Discontinuation of Contraceptive Use

Reproductive goals can only be realized when couples use contraceptive methods effectively and continuously. In countries like Turkey, where ideal family size has declined and contraceptive prevalence has risen, contraceptive effectiveness becomes an increasingly important determinant of fertility. In addition, discontinuation of methods is of primary concern since it guides policy makers and health professionals in their efforts to improve service delivery. Thus, information on discontinuation can highlight program areas that require development, as well as groups of users who have particular concerns that should be addressed.

Table 5.12 presents first-year contraceptive discontinuation rates by reason for discontinuation, according to the method discontinued. The discontinuation rate refers to the proportion of women who have started using a contraception method at some time in the 5 years prior to the survey, but then stopped using that method within 12 months of having started it. The rate is calculated using information from the event calendar included in the TDHS-2013. In the calendar, all contraceptives used between January 2008 and the date of interview were recorded, and if applicable, the reasons for any discontinuation of use during the period.

Table 5.12 Twelve-month contraceptive discontinuation rates

Among women age 15-49 who started an episode of contraceptive use within the five years preceding the survey, the percentage of episodes discontinued within 12 months, by reason for discontinuation and specific method, Turkey 2013

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	Any reason[3]	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	272
Pill	4.7	10.1	4.0	21.0	2.1	3.4	2.4	47.5	22.8	638
IUD	0.8	1.1	0.2	7.3	0.0	0.1	1.3	10.8	6.5	792
Injectables	(6.7)	(6.8)	(1.8)	(40.0)	(3.2)	(2.7)	(4.9)	(66.1)	(41.9)	204
Male condom	4.5	10.7	2.2	1.0	5.8	3.3	5.2	32.7	13.5	1,503
Withdrawal	9.4	11.6	1.2	0.2	8.5	0.1	3.2	34.0	10.3	2,108
All methods	5.9	8.9	1.7	5.3	5.3	1.4	3.4	31.8	12.9	5,597

Note: Figures are based on life table calculations using information on episodes of use that began 3-62 months preceding the survey.
[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] The episodes of use included in this column are a subset of the discontinued episodes included in the discontinuation rate. 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] Number of episodes of use includes both episodes of use that were discontinued during the period of observation and episodes of use that were not discontinued during the period of observation

The results indicate that nearly one third of contraceptive users stop using a contraceptive method within 12 months of starting use (32 percent). The rates of discontinuation vary by method. Discontinuation rates are highest for the pill (48 percent) followed by withdrawal (34 percent) and male condom (33 percent). The one-year discontinuation rate is lowest for IUD (11 percent). A low discontinuation rate is to be expected since IUDs are not generally intended for short-term use.

Among those who discontinued a method, switching to another method is common (13 percent). Nine percent of users discontinued a method of contraception within 12 months with the desire of becoming pregnant. Another 6 percent of users discontinued because of method failure, and the remaining 17 percent stopped due to fertility related reasons, side effects, desire for a more effective method, and/or other method related reasons or other reasons. Switching to another method accounts for an especially large portion of the relatively high discontinuation of the pill (23 percent).

Table 5.13 presents the percent distribution of discontinuation of contraceptive methods during the five years prior to the survey by main reason for discontinuation according to the method used. The desire to become pregnant accounted for 34 percent of all discontinuations. Almost one-fifth of user discontinued because they became pregnant while using. Side effects and wanting a more effective method were also frequently mentioned as reasons for discontinuation of modern methods (12 percent and 10 percent respectively).

Table 5.13 Reasons for discontinuation

Percent distribution of discontinuations of contraceptive methods in the five years preceding the survey by main reason stated for discontinuation, according to specific method, Turkey 2013

Reason	Pill	IUD	Injection	Male condom	Rhythm	With-drawal	Other	All methods
Became pregnant while using	9.1	5.5	9.1	15.6	(51.0)	29.9	(32.7)	18.8
Wanted to become pregnant	26.7	27.4	13.8	43.3	(29.9)	36.6	(10.3)	34.0
Husband disapproved	0.7	0.3	1.3	5.6	(0.7)	1.2	(0.0)	2.0
Wanted a more effective method	2.8	1.4	3.7	10.9	(5.4)	16.2	(25.5)	10.0
Side effects/health concerns	32.9	30.4	41.9	1.3	(0.0)	0.1	(0.0)	11.8
Lack of access/too far	1.4	0.0	4.0	3.1	(0.0)	0.0	(0.0)	1.1
Cost too much	1.2	0.0	0.4	0.9	(0.0)	0.0	(0.0)	0.4
Inconvenient to use	2.8	0.7	2.1	4.3	(0.0)	0.2	(0.0)	1.7
Up to God/fatalistic	0.0	0.2	0.0	0.1	(0.0)	0.2	(0.0)	0.1
Difficult to get pregnant/menopausal	1.8	3.7	0.6	2.0	(8.2)	3.7	(0.0)	2.9
Infrequent sex/husband away	2.9	1.7	2.8	3.5	(0.0)	1.9	(3.6)	2.4
Marital dissolution/separation	3.1	2.6	0.0	2.3	(0.0)	2.2	(0.0)	2.3
Other	2.1	10.6	3.3	3.3	(3.2)	2.2	(12.5)	3.9
Don't know	0.0	0.0	0.0	0.1	(0.0)	0.0	(0.0)	0.0
Missing	12.5	15.5	17.0	3.7	(1.5)	5.6	(15.3)	8.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of discontinuations	666	709	194	1,073	34	1,772	33	4,493

Note: Parentheses indicate that a figure is based on 25-49 unweighted cases.

Method failure was more common among users of withdrawal (30 percent) than among users of other methods. Sixteen percent of condom discontinuations were due to method failure. Side effects were also a frequently cited reason for discontinuing use of pill, IUD and injection. Forty-two percent of the injectable discontinuations were due to side effects.

5.10   Intention to Use Contraception among Non-Users

A key indicator of the changing demand for family planning is the extent to which non-users of contraception plan to use family planning in the future. To obtain information on intentions, the TDHS-2013 survey asked women currently not using contraception at time of survey if they planned to use a method of contraception within the next 12 months or at some time in the future. Table 5.14 presents the results according to the number of living children. Overall, 45 percent of currently married non-users do not intend to use a method of contraception at any time in the future. Additionally, 5 percent say that they are unsure of their future intentions. On the other hand, almost half of currently married women who are not using a contraceptive method stated that they intend to use family planning at some time in the future; 26 percent state that they intend to use a method within the next 12 months, and 21 percent intend to use later. The percent of married women who intend to use a method of family planning in next 12 months is higher for higher parities while who intend to use later is high for lower parities.

Table 5.14 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 2013

Intention	Number of living children[1]					Total
	0	1	2	3	4+	
In next 12 months	4.2	27.0	33.9	38.9	26.5	26.3
Use later	42.9	30.3	11.4	8.7	6.9	21.1
Unsure about timing	3.3	3.2	1.0	2.0	0.4	2.1
Unsure about use	7.8	3.1	4.4	2.2	5.2	4.5
Does not intend	41.0	34.5	47.4	46.6	60.2	44.5
Missing	0.7	2.0	1.9	1.7	0.8	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	330	453	486	259	238	1,767

[1] Includes current pregnancy

The TDHS-2013 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 (30 percent) is by far the most popular method among these nonusers, followed by condom (17 percent) and withdrawal (13 percent) (Table 5.15).

Twelve percent expressed a preference for the pill and 8 percent mentioned female sterilization. Method preferences vary somewhat with age; nonusers age 30 and above are more likely to prefer a long-term method such as female sterilization while nonusers under age 30 were somewhat more likely to prefer the pill, IUD, injection or male condom.

Table 5.15 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 2013

Method	Women's age		Percent distribution
	15-29	30-49	
Preferred future method			
Pill	13.1	9.4	11.6
IUD	30.9	27.4	29.5
Injections	4.4	3.1	3.9
Condom	17.6	16.3	17.1
Female sterilization	2.4	15.6	7.6
Male sterilization	0.4	0.0	0.2
Periodic abstinence	0.2	0.1	0.2
Withdrawal	13.8	11.5	12.9
Other	0.3	1.7	0.8
Implant	0.6	1.0	0.8
Lactational amenorrhea	0.2	0.0	0.1
Female condom	0.0	0.2	0.1
Other modern method (vaginal ring)	1.0	0.0	0.6
Don't know	14.9	13.8	14.4
Missing	0.1	0.0	0.1
Total	100.0	100.0	100.0
Number of women	529	345	874

5.11   Reasons for Non-Use of Contraception

Table 5.16 presents reasons given by nonusers who do not intend to use in the future. Nonusers who do not intend to use in the future are mainly over age 30 and their reasons for non-use are quite different from the reasons of younger nonusers. In particular, nonusers over age 30 are more likely than younger nonusers to cite a lack of exposure to pregnancy as the reason they do not plan to use family planning; for example, 42 percent mention they are menopausal or have had a hysterectomy and 34 percent report that they are infecund. However, the latter reason is also among the most commonly cited reasons for not intending to use a method among younger non-users (48 percent).

Table 5.16 Reason for not intending to use contraception in the future

Percent distribution of currently married women age 15-49 who are not using contraception and who do not intend to use in the future by main reason for not intending to use, Turkey 2013

| | Women's age | | |
Reason	15-29	30-49	Percent distribution
Fertility-related reasons			
Not having sex	0.8	3.4	3.1
Infrequent sex	1.2	3.3	3.0
Menopausal, hysterectomy	0.0	42.2	37.4
Subfecund, infecund	47.6	34.2	35.7
Opposition to use			
Husband opposed	7.0	1.0	1.7
Religious prohibition	6.3	1.1	1.7
Lack of knowledge			
Knows no method	1.0	0.3	0.4
Knows no source	0.0	0.2	0.2
Method-related reasons			
Health concerns	6.8	1.6	2.2
Fears side effects	0.4	0.4	0.4
Other	27.2	12.2	13.9
Don't know	1.7	0.1	0.3
Missing	0.0	0.1	0.1
Total	100.0	100.0	100.0
Number of women	89	697	786

ABORTIONS AND STILLBIRTHS   6

Tuğba Adalı, İsmet Koç and Mehmet Ali Eryurt

This chapter presents the findings from the TDHS-2013 concerning induced abortions, spontaneous abortions (miscarriages), and stillbirths. Spontaneous abortions and stillbirths are different compared to induced abortions in the sense that while the former occur without women's control, the latter is the result of a conscious decision. Induced abortions are important from a maternal health perspective, since the practice can adversely affects 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: induced abortions are likely to increase if there are problems with availability and accessibility of contraceptive services. Likewise, induced abortions are likely to increase if there is 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.

The TDHS-2013 questionnaire included questions to determine the total number of induced, spontaneous abortions, and stillbirths a woman had in her lifetime. The individual questionnaire collected detailed information in the contraceptive calendar section on the duration of each pregnancy that resulted in a miscarriage, induced abortion, or stillbirth since January 2008. For pregnancies that resulted in an induced abortion, questions were asked on: who decided on the abortion procedure; the woman's childbearing preference at the time; the place where pregnancy was terminated; and whether the woman was given consulting on contraception afterwards.

6.1   Life-time Experience with Pregnancy Terminations

Table 6.1 presents the percent distribution of ever-married women by the total number of abortions (spontaneous and induced) and stillbirths they reported having in their lifetime. According to the table, approximately one in five ever married women (23 percent) had at least one spontaneous abortions, 14 percent had at least one induced abortion, and less than one in twenty had a stillbirth (3 percent). The lifetime mean number of spontaneous abortions, induced abortions, and stillbirths per woman was 0.33, 0.20, and 0.04, respectively.

Table 6.1 Number of abortions and stillbirths

Percent distribution of ever-married women by number of abortions (spontaneous and induced) and stillbirths, Turkey 2013

Number of terminations	Abortions		Stillbirths
	Spontaneous	Induced	
None	77.2	86.4	96.7
1	16.3	9.5	2.9
2	4.4	2.6	0.2
3	1.2	1.0	0.1
4	0.6	0.2	0.0
5 or more	0.4	0.2	0.1
Total	100.0	100.0	100.0
Mean number	0.33	0.20	0.04
Number of women	7,063	7,063	7,063

6.2   Current Levels and Trends in Abortion Rates

Table 6.2 presents the proportion of ever-married women age 15-49 who had ever had an induced abortion, by background characteristics. There is a positive relationship between induced abortions and age; the proportion of women ever having an induced abortion increases from 2 percent of ever-married women aged 15-19 to 27 percent among women age 45-49. In fact, the proportion of women having had an induced abortion among women age 45-49 is about three times more than that of women age 30-34 (27 percent and 9 percent respectively).

Results indicate a positive association between induced abortions and the number of living children. As the number of living children increases, the proportion of women who have ever had an induced abortion also increases. The proportion of women with five or more children who had an induced abortion is approximately 5 times higher than that of women with no living children (19 percent and 4 percent respectively).

There is almost no difference in the proportion of women who ever had an induced abortion by urban and rural areas (13 percent and 14 percent respectively). On the other hand, there are some differences by region. The proportion of women who ever had an induced abortion is highest in the West (16 percent), and lowest among women in the East (10 percent). By NUTS 1 regions, the percentage of women who had an induced abortion is the highest in West Marmara (20 percent) and lowest in Southeast Anatolia (8 percent).

There is some variation in the proportion of women ever having an induced abortion by educational status; however, there is no clear pattern. On the other hand, there is a direct relationship between the proportion of women ever having an induced abortion and wealth quintile. The percentage of women ever having an induced abortion ranges from 12 percent among women in the lowest quintile to 17 percent among women in the highest wealth quintile.

Table 6.2 Induced abortions by background characteristics

Percentage of ever-married women ever having an induced abortion, by selected background characteristics, Turkey 2013

	Induced abortions	Number
Age		
15-19	1.5	113
20-24	3.0	634
25-29	5.2	1,207
30-34	9.4	1,455
35-39	14.7	1,444
40-44	21.1	1,212
45-49	26.9	998
Number of living children		
0	3.8	710
1-2	9.4	1,442
3-4	14.7	2,594
5+	18.8	1,352
Residence		
Urban	13.4	5,696
Rural	14.0	1,367
Region		
West	16.0	3,061
South	12.0	915
Central	12.8	1,486
North	12.4	465
East	9.8	1,137
Region (NUTS 1)		
Istanbul	15.6	1,419
West Marmara	19.7	292
Aegean	18.7	941
East Marmara	11.4	667
West Anatolia	9.3	716
Mediterranean	12.0	915
Central Anatolia	13.2	369
West Black Sea	16.1	392
East Black Sea	12.3	215
Northeast Anatolia	12.6	178
Central East Anatolia	11.8	302
Southeast Anatolia	8.1	656
Education		
No education/primary incomplete	12.7	1,062
Primary school	16.2	3,142
Secondary school	9.6	990
High school and higher	11.6	1,870
Wealth quintile		
Lowest	11.8	1,085
Second	11.6	1,390
Middle	14.5	1,482
Fourth	12.4	1,501
Highest	16.7	1,605
Total	13.5	7,063

Table 6.3 shows the rates of abortions (spontaneous and induced) and stillbirths per 100 pregnancies for the five-year period prior to the TDHS-2013. According to this table, there were 19 abortions and stillbirths per 100 pregnancies. Of these, 14 per 100 pregnancies were spontaneous abortions, 5 per 100 pregnancies were induced abortions, and one per 100 was a stillbirth.

Table 6.3 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 2013

Outcome	Number per 100 pregnancies
Abortions	18.7
Spontaneous	14.0
Induced	4.7
Stillbirths	0.9
Number	4,080

Table 6.4 displays the number of induced abortions per 100 pregnancies for the five previous TDHS surveys, by background characteristics. Overall, there has been a substantial decline in the rate of induced abortions during this 20-year period, from 18 per 100 pregnancies in TDHS-1993 to 5 induced abortions per 100 pregnancies in TDHS-2013. The declining trend is valid for each subgroup, but is more evident in some than others.

Over the past 20 years, there has been a decline in the number of induced abortions per 100 pregnancies across all age groups. Furthermore, in each of the five surveys, the patterns have been the same, in other words, as age increases the number of induced abortions also increases.

In the TDHS-2013, current levels of induced abortions in urban and rural areas are 5 and 3 per 100 pregnancies respectively. Moreover, current levels of induced abortions in urban areas are a quarter of the observed level in TDHS-1993 (21 per 100 pregnancies in TDHS-1993). Similarly, TDHS-2013 levels of induced abortions in rural areas are substantially lower than TDHS-1993 levels (12 per 100 pregnancies versus 3 per 100). By regions, current levels of induced abortions are highest in the West (7 per 100 pregnancies) and lowest in the East (3 per 100 pregnancies). Over time, decreases have been most evident in the West, South and Central regions.

As was the case with other background characteristics, the number of induced abortions has decreased over time across all education categories and wealth quintiles. Table 6.4 indicates that in the five previous surveys, the highest levels of induced abortions were among women with high school or higher education, and, over time, levels of induced abortions (per 100 pregnancies) have decreased across all education levels. Concerning wealth quintiles, the percentage of induced abortions per 100 pregnancies has almost halved for each wealth quintile from TDHS-2008 to TDHS-2013; preserving the pattern of highest levels of induced abortions among wealthiest women.

Table 6.4 Trends in induced abortions

Number of induced abortions per 100 pregnancies for 5 previous TDHS surveys, by selected background characteristics, Turkey 1993-2013

	TDHS-1993	TDHS-1998	TDHS-2003	TDHS-2008	TDHS-2013
Age					
15-19	3.8	5.8	3.4	3.2	1.2
20-24	8.3	7.7	5.6	4.1	2.5
25-29	20.4	12.6	9.5	9.7	3.9
30-34	27.9	23.3	19.1	12.8	4.9
35-39	36.2	33.4	25.5	25.5	10.4
40-44	47.1	42.5	33.7	29.9	19.9
45-49	47.6	66.2	27.6	-	25.4
Residence					
Urban	21.3	16.1	13.2	10.8	5.1
Rural	12.4	11.6	7.2	7.8	3.4
Region					
West	24.9	18.0	14.7	14.1	6.5
South	16.3	13.7	10.2	9.9	3.5
Central	19.8	16.7	14.9	8.8	4.2
North	17.0	15.6	8.8	11.5	5.0
East	8.7	7.6	5.2	4.6	3.0
Region (NUTS 1)					
Istanbul	NA	NA	15.1	17.9	6.4
West Marmara	NA	NA	13.0	13.6	8.7
Aegean	NA	NA	20.4	13.6	8.7
East Marmara	NA	NA	7.4	7.0	2.3
West Anatolia	NA	NA	15.5	6.2	5.7
Mediterranean	NA	NA	10.2	9.9	3.5
Central Anatolia	NA	NA	10.0	6.7	3.0
West Black Sea	NA	NA	17.0	13.9	4.3
East Black Sea	NA	NA	6.3	11.5	4.8
Northeast Anatolia	NA	NA	10.8	5.5	3.8
Central East Anatolia	NA	NA	4.4	5.1	3.8
Southeast Anatolia	NA	NA	3.9	4.1	2.6
Education					
No education/primary incomplete	13.9	11.8	8.3	5.5	3.4
Primary school	19.4	15.1	11.5	11.1	5.7
Secondary school	22.6[1]	17.3[2]	12.8	7.1	3.2
High school and higher	NA	NA	14.8	13.1	5.3
Wealth quintile					
Lowest	NA	NA	NA	5.3	2.7
Second	NA	NA	NA	8.4	3.5
Middle	NA	NA	NA	10.9	5.4
Fourth	NA	NA	NA	8.8	4.1
Highest	NA	NA	NA	18.4	8.5
Total	18.0	14.5	11.3	10.0	4.7

[1,2] These categories correspond to the combination of secondary school and high school and higher in the later surveys.
NA=Not applicable
Note: Information by NUTS 1 regions is only available since TDHS-2003.
 Abortion per 100 pregnancies by wealth was presented in the main reports from since TDHS-2008.

6.3   Patterns of 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. According to the results of the TDHS-2013 results, all of these above factors are valid for Turkey. Standard procedure of post abortion care involves introduction of effective contraceptive methods. However, findings show that almost half of women (48 percent) do not use any contraception after abortion.

Table 6.5 shows the percent distribution of women by methods used in the calendar month preceding the last aborted pregnancy, among women who had an abortion in the five years preceding the survey. The highest proportion of these women relied on withdrawal (37 percent), suggesting an elevated risk of pregnancy from this traditional method of contraception. Nearly one-third of these women did not use any contraceptive methods. Seventeen percent of women relied on a male condom, 6 percent on an IUD, and 4 percent on the pill prior to the pregnancy that resulted in an abortion.

Table 6.5 Method used before induced abortion

Among women who had an abortion in the five years preceding the survey, percent distribution of women by method used in the calendar month preceding the last aborted pregnancy, Turkey 2013

Method of Contraception	Percentage using method before abortion
Pill	3.6
IUD	6.1
Injections	1.2
Diaphragm/ Foam/ Jelly	0.9
Condom	17.2
Withdrawal	36.9
Not using	34.2
Total	100.0
Number	183

Table 6.6 Method used after induced abortion

Among women who had an abortion in the five years preceding the survey, percent distribution of women by methods used in the calendar month following the last aborted pregnancy, Turkey 2013

Method of Contraception	Percentage using method after abortion
Pill	4.8
IUD	14.8
Injections	0.7
Condom	17.0
Female Sterilization	1.3
Withdrawal	13.7
Not using	47.6
Total	100.0
Number	183

Table 6.6 presents the percent distribution of women by methods used in the calendar month following the month of the last aborted pregnancy, among women who had an abortion in the five years preceding the survey. Approximately half of women reported not using any contraceptive methods a month after having an induced abortion. Among the other methods used, the most common ones included condom, IUD, and withdrawal (17, 15, and 14 percent respectively).

The findings from tables 6.5 and 6.6 highlight differences in the contraceptive mix before and after induced abortions: After an induced abortion, there is an increase in the use of modern methods over traditional methods. The use of IUD increased from 6 percent before to 15 percent after an induced abortion, whereas condom used remained constant before and after at 17 percent; on the other hand, the use of withdrawal decreased substantially, from 37 percent to 14 percent.

6.4   Characteristics of Induced Abortions

This section summarizes questions asked to women who had an induced abortion in the five years prior to TDHS-2013. Topics included decision-making on induced abortion, its timing and choice of provider.

Figure 6.1 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, approximately four out of ten women decided on the operation jointly with their partner (40 percent) and 37 percent proceeded with an abortion following their doctor's advice. In a distant third and fourth place, 17 percent of women decided on their own and 3 percent said that it was their partner who made decided the decision.

Figure 6.1 Decision maker for last induced abortion
Among women who had an abortion in the five years preceding the survey, percent distribution of women by person who decided to proceed with abortion for last induced abortion, Turkey 2013

Missing 2.9
Doctor 37.1
Herself and partner 40.0
Partner 2.6
Herself 17.4
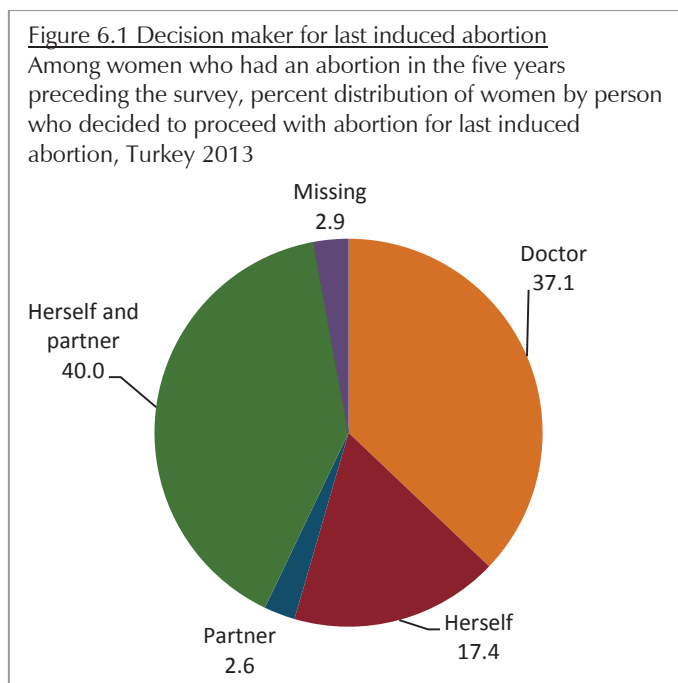
Induced abortions are legal until the end of the 10th week (2.5 months) of pregnancy. Figure 6.2 shows the percent distribution of women by number of months pregnant at time of last induced abortion, among women who had an abortion in the five years preceding the survey. The majority of women proceeded with an abortion within the first month of pregnancy (63 percent) and nearly one quarter of women proceeded with an abortion in the second month of pregnancy (24 percent). Thirteen percent of women reported having an abortion after three months or more of pregnancy, which is beyond the recommended time limit.

Figure 6.2 Timing of last induced abortion
Among women who had an abortion in the five year preceding
the survey, percent distribution of women by number of months
pregnant at time of last induced abortion, Turkey 2013

3+ months
13.4

2 months
23.9

1 month
62.7
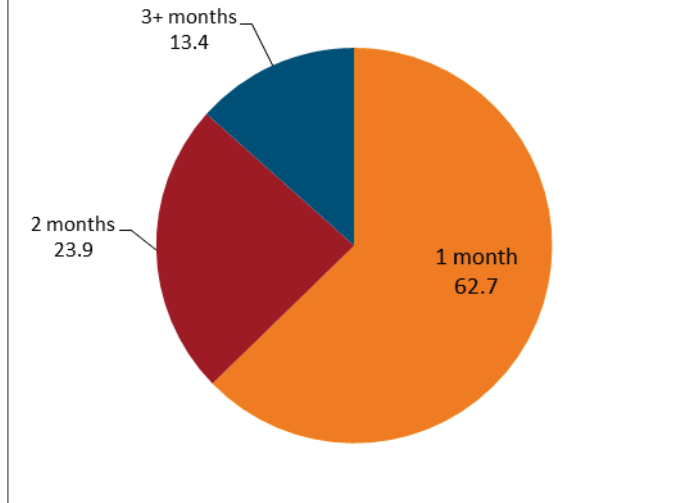
Figure 6.3 shows the distribution of women by place of provision for last induced abortion, among women who had an abortion in the five years preceding the survey. The majority of women reported that the abortion took place at a private doctor's office or at a private hospital or clinic (62 percent). Nearly 34 percent of women 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 (22 percent and 9 percent respectively).

Figure 6.3 Provider of last induced abortion
Among women who had an abortion in the five years
preceding the survey, percent distribution of women by place
of provision for last induced abortion, Turkey 2013

University
hospital
1.9

Other
1.6

Missing
2.9

State/
Sample
hospital
22.0

Private
61.9

Maternity
house
9.3

Other
public
0.4
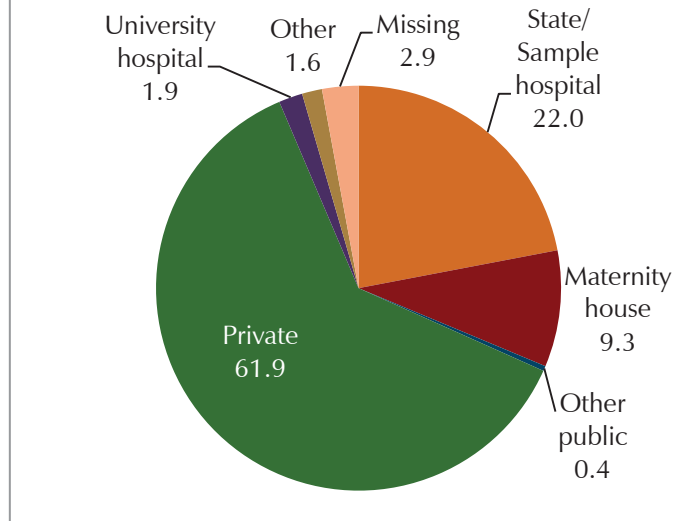
6.5   Age-specific and Total Abortion Rates

Age specific abortion rates for the five-year period preceding the survey are displayed in Table 6.7 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. Rates are displayed per 1,000 women. A useful summary index of the age-specific abortion rates is the total abortion rate (TAR). The TAR is analogous to the total fertility rate (TFR). The TAR is the lifetime average number of abortions a woman would have if she experienced the current age-specific abortion rates.

Table 6.7 Age-specific and total induced abortion rates

Age-specific and cumulative abortion rates for the five year period preceding the survey by residence, Turkey 2013

Current age	Urban	Rural	Total
15-19	0	2	0
20-24	4	2	4
25-29	7	5	6
30-34	6	6	6
35-39	7	3	7
40-44	3	4	4
45-49	2	0	1
TAR 15-49	0.15	0.11	0.14
TAR 15-44	0.14	0.11	0.13

TAR: Total abortion rate expressed per woman
Age-specific abortion rates are per 1000 women

The TAR per woman is 0.14 for the five years preceding TDHS-2013. Abortion rates have an inverse U relationship with age; in other words, age-specific abortion rates are increasing and peak among women in the 35-39 age group and then decline among older women. By place of residence, age-specific abortion rates are the same or higher in urban than rural areas, except among women in the 15-19 age group.

Total abortion rates by background characteristics are shown in Table 6.8. Regional variables indicate that total abortion rates are higher among women in urban areas, in the West region (0.16), and in Istanbul (0.20). There is little variation in the total abortion rates by education. On the other hand, an increasing pattern is evident with regards to wealth quintiles. The lowest quintile had a TAR of 0.12 whereas the highest wealth quintile had a TAR of 0.19.

Table 6.8 Total abortion rate by background characteristics

Total abortion rates for the five year period preceding the survey by background characteristics, Turkey 2013

Background characteristic	Total abortion rate (15-49)
Residence	
Urban	0.15
Rural	0.11
Region	
West	0.16
South	0.11
Central	0.10
North	0.13
East	0.14
Region (NUTS 1)	
Istanbul	0.20
West Marmara	0.18
Aegean	0.16
East Marmara	0.06
West Anatolia	0.12
Mediterranean	0.11
Central Anatolia	0.10
West Black Sea	0.12
East Black Sea	0.13
Northeast Anatolia	0.16
Central East Anatolia	0.15
Southeast Anatolia	0.13
Education	
No education/primary incomplete	0.14
First level primary	0.15
Second level primary	0.13
High school and higher	0.14
Wealth quintile	
Lowest	0.12
Second	0.12
Middle	0.15
Fourth	0.09
Highest	0.19
Total	0.14

TAR: Total abortion rate expressed per woman

OTHER PROXIMATE DETERMINANTS OF FERTILITY 7

Banu Akadlı Ergöçmen, Mehmet Ali Eryurt and Pelin Çağatay Seçkiner

Fertility levels in most populations can be explained by some key proximate determinants that affect a woman's risk of becoming pregnant. These determinants are nuptiality (including consensual unions), postpartum insusceptibility (including postpartum amenorrhea and sexual abstinence), the onset of menopause, contraceptive use and abortion. This chapter addresses the principal factors that affect fertility other than contraception and abortion (which are discussed separately in Chapters 5 and 6). Marriage is a principal indicator of women's exposure to the risk of pregnancy in societies where sexual activity usually takes place within marriage, such as Turkey. Populations in which age at marriage is low tend to experience early childbearing and high fertility. Therefore, an increase in the average age at which women marry can help to explain the downward trends in fertility levels. The durations of postpartum amenorrhea and sexual abstinence influence the length of time that a woman is insusceptible to pregnancy, which in turn influence birth spacing. The onset of menopause marks the end of a woman's reproductive life cycle. Taken together, these factors determine the length and pace of a woman's reproductive life and therefore are important in understanding fertility levels and differentials.

7.1   Current Marital Status

In the TDHS-2013, both ever-married and never-married women were interviewed through the individual questionnaire. As part of the interview, they were asked the basic questions on marital status and age at marriage that are included in the standard DHS questionnaire. Unlike the standard DHS questionnaire, however, the TDHS-2013 did not ask about the age at which women initiated sexual activity. In addition, a special country-specific nuptiality module included in the individual questionnaire obtained information on family formation, religious marriages, and consanguinity. Never-married women were asked about their plans for marriage, the decision makers for this plan, as well as the age at which they intend to get married.

The distribution of women age 15-49 by their marital status at the time of the survey is presented in Table 7.1.1. This is a descriptive table of basic importance in defining the population base for many of the subsequent tables in this chapter and others. In the table, the term married refers to all women who declared themselves as "currently married" regardless of their legal marital status. Table 7.1.1 shows that the majority of women at childbearing age are currently married (68 percent), nearly one-third (28 percent) are never married, and the remaining 4 percent are either divorced, separated or widowed. The proportion of never-married women declines rapidly with age, from 93 percent among teenagers age 15-19 to 19 percent among women in their late twenties. Five percent of women in their late thirties are never-married, and 3 percent of women age 45-49, who are approaching the end of the

reproductive years, are never-married. These data confirm the universality of marriage in Turkey.

Table 7.1.1 Current marital status

Percent distribution of women age 15-49 by current marital status, according to age, Turkey 2013

	Marital status						Number of respondents
Age	Never married	Married	Divorced	Separated	Widowed	Total	
15-19	92.8	7.1	0.0	0.1	0.0	100.0	1,572
20-24	52.6	46.3	0.9	0.2	0.1	100.0	1,337
25-29	19.1	78.1	1.9	0.7	0.2	100.0	1,492
30-34	7.1	89.1	2.4	0.8	0.6	100.0	1,565
35-39	4.5	89.3	3.5	1.6	1.1	100.0	1,513
40-44	2.1	91.0	3.4	1.6	1.9	100.0	1,238
45-49	3.0	86.3	4.5	0.6	5.7	100.0	1,029
Total	27.5	68.3	2.3	0.8	1.1	100.0	9,746

Table 7.1.1 also shows that, as age increases, the proportion of women widowed or divorced also increases. The proportion widowed rises from less than 1 percent of women under age 30 to 6 percent among women at ages 45-49. The percentage of women who are divorced markedly increases after mid-thirties and is highest among women age 45-49 (5 percent). Separation is socially discouraged, and therefore is uncommon in Turkey, remaining at 1 percent for women aged 15-49.

Table 7.1.2 Trends in proportion never married

Percent distribution of women who have never married, by age group, as reported in various surveys, Turkey 1978-2013

Age	TFS 1978	TFHS 1983	TPHS 1988	TDHS 1993	TDHS 1998	TDHS 2003	TDHS 2008	TDHS 2013
15-19	77.8	70.0	85.4	86.5	84.5	88.1	90.2	92.8
20-24	26.2	34.2	39.3	41.5	39.3	50.2	54.4	52.6
25-29	7.5	8.5	12.2	15.6	12.9	20.0	22.7	19.1
30-34	2.6	3.4	4.5	4.3	6.5	8.2	10.8	7.1
35-39	0.9	2.6	2.9	1.8	2.4	4.1	4.3	4.5
40-44	1.6	1.0	2.8	2.2	1.8	3.0	1.7	2.1
45-49	0.7	0.8	1.8	0.9	1.7	1.5	0.1	3.0

The proportion of the female population that remains single directly influences fertility levels because childbearing outside marriage is uncommon in Turkey. Table 7.1.2 shows the trend in the proportion of never-married women by age group from previous surveys conducted in Turkey. During the last three decades, this proportion increased in 15-19 age group and in the last decade remained almost the same for older ages.

7.2 Age at First Marriage

In Turkey, marriage marks the onset of the socially acceptable time for childbearing. The age at first marriage has a major impact on childbearing because women who marry early will have, on average, a longer period of exposure to pregnancy, which in turn often leads to a higher number of lifetime births. In Turkey, the minimum legal age at marriage with parental consent is 17 years for both males and females.

Information from the TDHS-2013 on women's age at first marriage is shown in Table 7.2. The survey showed that, among women age 25-49, 41 percent marry by age 20, 22 percent marry by age 18 and 4 percent enter marriage before their 15th birthday. Table 7.2 also shows that the median age at first marriage is 21 years, indicating that half of women in that age group married before that age. 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 7.2; the median increases from 20.2 years for women in their late forties to 22.0 for women in their late twenties. A comparison of the TDHS-2013 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 by 2 years during the 20-year period between the TDHS-1993 and the TDHS-2013.

Table 7.2 Age at first marriage

Percentage of women 15-49 who were first married by specific exact ages and median age at first marriage, according to current age, Turkey 2013

	Percentage first married by exact age:					Percentage never married	Number of respondents	Median age at first marriage
Current age	15	18	20	22	25			
15-19	0.2	NA	NA	NA	NA	92.8	1,572	a
20-24	1.1	14.7	28.5	NA	NA	52.6	1,337	a
25-29	2.4	15.2	31.7	49.9	70.0	19.1	1,492	22.0
30-34	3.4	20.2	38.3	55.7	73.2	7.1	1,565	21.4
35-39	4.3	24.5	43.9	60.2	77.3	4.5	1,513	20.7
40-44	4.3	26.0	46.6	63.9	80.3	2.1	1,238	20.4
45-49	5.0	26.3	47.7	66.1	82.1	3.0	1,029	20.2
20-49	3.3	20.8	39.0	NA	NA	15.0	8,174	a
25-49	3.8	22.0	41.0	58.5	76.1	7.6	6,837	21.0

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 percent of the women began living with their spouse or partner for the first time before reaching the beginning of the age group

Although the median is a convenient summary measure, not all changes in age at marriage are necessarily reflected in the median. Cohort trends in age at marriage can be more thoroughly examined by comparing the percentages who first marry at specific ages for successive 5-year age groups. These percentages also confirm that substantial changes have occurred in the age at which women marry in Turkey over the past several decades. The percentages of women married at each specific age are all lower for the younger cohorts than

for the older cohorts. For example, among the oldest cohort, 48 percent married by age 20, whereas only 32 percent of women in their late twenties married by age 20. There has been a marked decline in the proportion of women getting married at very young ages; for example, the proportion of women married by age 15 has dropped from 5 percent among women in the oldest cohort to 1 percent among women age 20-24.

Table 7.3 Median age at first marriage

Median age at first marriage among women by five-year age groups, and age 25-49, according to background characteristics, Turkey 2013

Background characteristic	Age					Women age 25-49
	25-29	30-34	35-39	40-44	45-49	
Residence						
Urban	22.4	21.5	20.9	20.4	20.6	21.2
Rural	20.7	20.3	19.9	20.1	19.4	20.0
Region						
West	22.6	21.8	21.1	20.6	20.6	21.3
South	21.7	20.9	21.1	21.0	19.9	20.9
Central	21.5	20.7	20.0	19.6	19.7	20.4
North	22.5	23.1	22.2	21.4	21.4	22.1
East	21.6	20.5	20.2	19.2	19.4	20.4
Region (NUTS 1)						
Istanbul	22.4	21.7	21.1	20.1	21.2	21.4
West Marmara	22.3	22.0	20.7	21.5	20.5	21.4
Aegean	22.0	21.7	20.4	20.8	19.6	20.8
East Marmara	23.3	21.7	21.4	20.3	20.2	21.2
West Anatolia	23.4	20.9	20.2	19.9	21.0	20.9
Mediterranean	21.7	20.9	21.1	21.0	19.9	20.9
Central Anatolia	20.2	20.8	19.9	19.8	19.2	19.9
West Black Sea	21.6	22.5	20.9	20.3	20.1	21.1
East Black Sea	22.1	23.0	21.5	21.2	21.9	21.9
Northeast Anatolia	21.0	19.9	20.1	19.3	19.7	20.2
Central East Anatolia	21.2	20.5	19.9	19.7	19.2	20.3
Southeast Anatolia	21.7	20.7	20.2	18.9	19.4	20.5
Education						
No education/Primary incomplete	20.5	18.8	18.3	18.3	19.1	18.9
Primary school	20.2	19.9	19.7	19.9	19.6	19.8
Secondary school	20.1	21.2	20.2	21.3	22.1	20.8
High school and higher	24.9	25.0	24.7	23.4	23.3	24.6
Wealth quintile						
Lowest	20.0	19.2	19.6	19.8	18.8	19.5
Second	20.7	20.0	20.2	19.6	19.8	20.2
Middle	21.5	21.2	19.9	20.4	19.8	20.6
Fourth	22.4	21.5	20.7	20.1	20.0	21.0
Highest	24.8	24.3	22.8	21.1	21.6	23.1
Total	22.0	21.4	20.7	20.4	20.2	21.0

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

Table 7.3 compares the current level and cohort trends in the median age at marriage for different subgroups of the population. Urban women tend to marry 1.2 years later than their rural counterparts (21.2 years and 20.0 years, respectively). This pattern is observed for all age groups. Looking at the regional variations, the median age at first marriage for women age 25-49 is lowest in the East and Central (20.4 years each) and above 21 in the West and North. Comparisons of the NUTS 1 regions indicate that East Black Sea has the highest median age (21.9 years) at marriage and Central Anatolia has the lowest (19.9 years). The upward trend in the age at marriage is observed for all regions, with the median age at first marriage for younger women generally higher than those for older women. For example, the median age at first marriage in the 25-29 age group in Southeast Anatolia is 21.7 years, more than two years later than the age at marriage reported for women age 45-49 (19.4 years). Likewise, in East Marmara, half of the women in the 25-29 age group married after age 23, which is about three years later than women in their late forties.

The level of education has a positive association with the median age at first marriage, with the differences between women who have completed at least high school and other women being especially pronounced (Table 7.3). The median age at first marriage for women with high school or higher education is 24.6 years, almost four years higher than the median age for women with secondary school (20.8 years) and nearly six years higher than the median age for women with less than primary education (18.9 years). The median age at first marriage also increases with household wealth. Women in the highest wealth quintile marry 3.6 years later than those from the lowest wealth quintile (23.1 years and 19.5 years, respectively).

7.3   Postpartum Amenorrhea, Postpartum Abstinence, and Insusceptibility

The period of postpartum amenorrhea is the interval between childbirth and the return of menstruation. This period is largely determined by the duration and intensity of breastfeeding. Postpartum abstinence refers to the voluntary sexual inactivity after childbirth. Delaying the resumption of sexual relations after a birth prolongs the period of postpartum protection against pregnancy. Postpartum amenorrhea and sexual abstinence after birth jointly determine the length of the period women are insusceptible to pregnancy following birth; women are insusceptible if they are either abstaining from sex after childbirth or are amenorrhoeic.

In TDHS-2013, women who gave birth in the five years preceding the survey were asked about the duration of amenorrhea and sexual abstinence after each birth that occurred during the period. Table 7.4 presents the percentage of births whose mothers were postpartum amenorrheic, abstaining, and postpartum insusceptibleby the number of months since birth for the three years preceding the survey. The estimates of the median and mean durations shown in the table are calculated from these current status proportions. In calculating these averages, the data were grouped by two-month intervals to minimize fluctuations.

The results in Table 7.4 show that a great majority of women (89 percent) are amenorrheic during the first two months following the birth, but this value decreases to 61

percent after the second month. Only 19 percent of women are amenorrheic after the sixth month.

In Turkey, the period of sexual abstinence after birth traditionally lasts 40 days. The estimates of postpartum abstinence in Table 7.4 are compatible with this tradition. Eighty-four 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 18 percent and by 6-7 months, to 4 percent (Figure 7.1).

Table 7.4 Postpartum amenorrhea, 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, and median and mean durations, Turkey 2013

| Months since birth | Percentage of births for which the mother is: | | | Number of births |
	Amenorrheic	Abstaining	Insusceptible[1]	
< 2	89.0	83.5	93.7	67
2-3	61.0	17.9	64.1	116
4-5	36.7	5.3	38.4	120
6-7	18.5	4.2	21.3	124
8-9	16.9	3.1	19.0	122
10-11	3.5	1.7	4.6	88
12-13	10.2	1.2	11.4	102
14-15	9.7	3.3	12.6	105
16-17	7.2	0.6	7.8	129
18-19	0.5	0.5	1.0	120
20-21	1.7	1.3	2.4	111
22-23	0.7	1.9	1.9	100
24-25	0.0	0.0	0.0	123
26-27	0.3	0.7	1.0	98
28-29	0.0	0.0	0.0	106
30-31	0.0	0.5	0.5	101
32-33	0.5	0.7	1.2	105
34-35	0.0	0.0	0.0	93
Total	13.2	5.4	14.5	1,929
Median	3.3	1.8	3.6	NA
Mean	5.4	2.9	5.9	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

Figure 7.1 Postpartum amenorrhea, 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, Turkey 2013
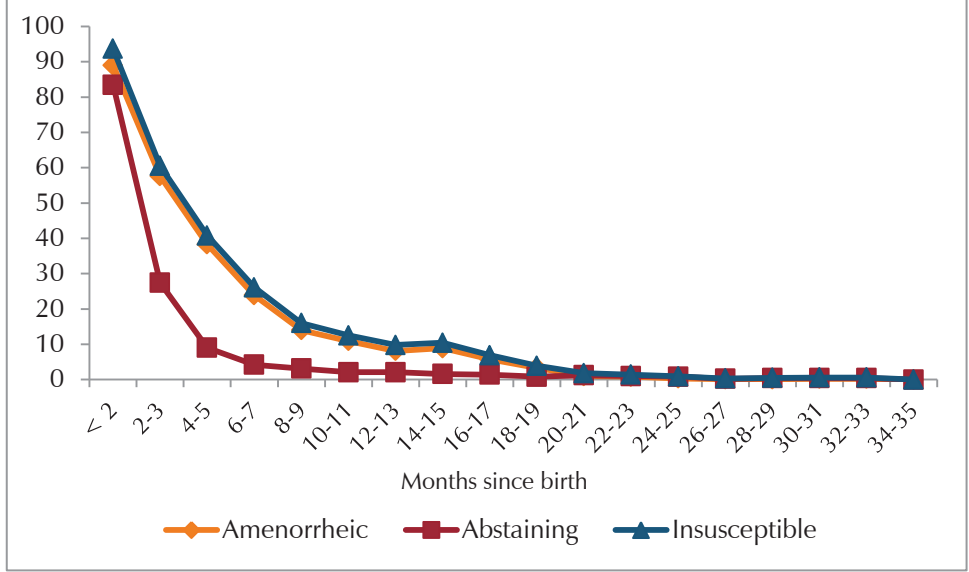
Overall, the median duration of postpartum amenorrhea is 3.3 months, abstinence is 1.8 months, and insusceptibility is 3.6 months. Thus, the TDHS-2013 results, which are similar to the findings of previous surveys, indicate that the period of postpartum amenorrhea is comparatively longer than the period of postpartum abstinence and therefore is the primary determinant of the length of postpartum insusceptibility to pregnancy in Turkey.

In the absence of contraception, variations in postpartum amenorrhea and abstinence are the most important determinants of the interval between births and, ultimately, of completed fertility. Table 7.5 shows the median duration of postpartum amenorrhea, abstinence, and insusceptibility by background characteristics of mothers. In general, the average duration of postpartum abstinence in Turkey does not vary much by background characteristics, except for minor differences across regions and by the mother's level of education. For example, postpartum abstinence seems to be practiced for a slightly longer period in the North than in other regions.

Given the generally similar durations of postpartum abstinence, variations in the period of insusceptibility mainly reflect differences in the duration of amenorrhea. Women above age 30 have a longer median duration of amenorrhea (4.2 months) than women under age 30 (2.7 months). Urban women have a longer median duration of amenorrhea than their rural counterparts (3.4 and 2.7 months, respectively). There are also regional variations in the period of amenorrhea. The shortest duration for postpartum amenorrhea is observed in the South region (2.3 months). The longest duration is observed in the West region (4.0 months).The median duration of amenorrhea is 2.4 months among women who do not have

education, while it is 3.8 months for women with at least high school education. Postpartum amenorrhea does not show a clear association with mothers' wealth status.

Table 7.5 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 three years preceding the survey, by background characteristics, Turkey 2013

Background characteristic	Postpartum amenorrhea	Postpartum abstinence	Postpartum insusceptibility[1]	Number of births
Mother's age				
15-29	2.7	1.7	3.0	1073
30+	4.2	2.0	4.6	856
Residence				
Urban	3.4	1.8	3.6	1523
Rural	2.7	1.9	3.6	406
Region				
West	4.0	1.8	4.4	691
South	(2.3)	(1.5)	(2.3)	263
Central	3.2	1.8	3.3	343
North	(3.6)	(2.1)	(4.0)	114
East	3.1	1.9	3.6	519
Education				
No education/Primary incomplete	2.4	1.9	2.7	362
Primary school	3.5	1.9	3.8	639
Secondary school	3.3	1.9	3.5	402
High school and higher	3.8	1.5	4.0	527
Wealth quintile				
Lowest	2.4	1.8	3.6	413
Second	3.4	2.1	3.5	445
Middle	3.9	1.7	4.0	414
Fourth	(2.6)	(1.5)	(2.7)	319
Highest	(3.9)	(1.9)	(4.0)	339
Total	3.3	1.8	3.6	1929

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

Durations of postpartum insusceptibility by sub-population groups exhibit a pattern similar to those for amenorrhea. In general, women over age 30, women living in the West region, women graduated from at least primary school, and the women living in the middle and highest quintile households are insusceptible for relatively longer periods.

7.4   Menopause

As age increases, women's susceptibility to pregnancy decreases; since the proportion of infecund women increases. The onset of menopause is a main determinant of infecundity.

Table 7.6 presents the percentage women age 30 and over who are menopausal. Menopausal women are defined as women who are neither pregnant nor postpartum amenorrheic, but who have not had a menstrual period in the six months preceding the survey. Women who report that they have had a hysterectomy are also defined as menopausal. Overall, 8 percent of women age 30-49 are estimated to be menopausal. The percentage of menopausal women increases with age, from less than 1 percent for women in their early thirties to 49 percent for women age 48-49.

Table 7.6 Menopause

Percentage of women age 30-49 who are menopausal, by age, Turkey 2013

Age	Percentage menopausal[1]	Number of women
30-34	0.4	1,565
35-39	1.5	1,513
40-41	3.8	512
42-43	5.6	515
44-45	13.1	425
46-47	27.3	403
48-49	49.1	412
Total	8.4	5,345

[1] Percentage of all women who are not pregnant and not postpartum amenorrheic whose last menstrual period occurred six or more months preceding the survey

8

FERTILITY PREFERENCES

Mehmet Ali Eryurt, İsmet Koç and Ayşe Abbasoğlu Özgören

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. Similar to the previous demographic surveys, the TDHS-2013 asked women a series of questions to ascertain their fertility preferences. Respondents were first asked if they wanted additional children and, if so, how long would they prefer to wait before the next child. They were also asked, if they could start afresh, how many children they would want in all. Bearing in mind that the underlying rationale of most family planning programs is to give couples the freedom and ability to bear the number of children they want and to achieve the spacing of births they prefer, the importance of this chapter is obvious.

The analysis and interpretation of data on fertility preferences have been criticized on the grounds that answers are misleading, because they do not take into account the effect of social pressures or the attitudes of other family members, particularly the husband, who may exert a major influence on reproductive decisions. Although the evidence from surveys in which both husbands and wives are interviewed suggests that there is no radical difference in between the views of the two sexes, the preferences of TDHS-2013 respondents expressed at the time of the survey are obviously subject to change in response to contemporary social and political discourse.

8.1   Desire for More Children

Fertility desires of currently married women were determined by asking whether or not they wanted to have another child and, if so, how soon.

The inclusion of women who are currently pregnant complicates the measurement of views on future childbearing. For these women, the question on desire for more children was rephrased to refer to desire for another child *after* the one that they were expecting. To take into account the way in which the preference variable was defined for pregnant women, when the results are classified by number of living children, the current pregnancy is counted as equivalent to a living child. A current pregnancy may also have influenced the responses to question of how soon a woman wanted the next child; i.e., in some cases, the answers of pregnant women with respect to preferred waiting time before the next birth may have included the remaining gestation period of the current pregnancy, and thus, may not be strictly comparable with the answers of non-pregnant women. Also, it should be noted that women who have been sterilized for contraceptive purposes were not asked about their desire for another child. However, for purposes of the fertility preference analysis, these women are classified as wanting no more children.

Table 8.1 and Figure 8.1 show the percent distribution of currently married women by desire for more children according to the number of living children (including any current pregnancy). The table allows the potential need for contraceptive services for spacing as well as for limiting births to be examined. Until recently, concern for providing appropriate contraceptive methods to couples who wish to have no further children has overshadowed contraception for child spacing purposes. The interest in spacing has been reinforced by recent evidence that: a) short birth intervals are harmful to the welfare of children and mothers and b) large numbers of couples wish to postpone childbearing by using contraception. The results indicate that the majority of currently married women in Turkey desire to control their future fertility. Fifty-seven percent of currently married want to limit child-bearing: 47 percent want no more children, and an additional 9 percent have been sterilized. Although 33 percent of currently married women want to have a child at some time in the future, 18 percent of them want to wait at least two years for another child. Thus, about seven out of ten currently married are potentially in need of contraception, for the purpose of either limiting their family size or spacing births. The proportion of currently married women who are undecided about having another child is only 3 percent.

As expected, the desire for more children declines noticeably as the number of living children increases. Seventy-two percent of currently married women with one child want to have a child in the future, whereas only 7 percent of women with four or more children want to have another. A strong desire to stop childbearing is evident among women who have had two living children and remains at high levels at higher order parities.

Table 8.1 Fertility preferences by number of living children

Percent distribution of currently married women and currently married men age 15-49 by desire for children, according to number of living children, Turkey 2013

Desire for children	Number of living children[1]					Total 15-49
	0	1	2	3	4+	
Have another soon[2]	68.7	25.1	6.6	3.5	2.4	13.7
Have another later[3]	14.5	43.3	16.7	6.8	4.4	18.1
Have another, undecided when	0.8	3.2	1.4	0.5	0.3	1.4
Undecided	1.5	4.1	5.0	2.2	1.1	3.4
Want no more	3.3	18.9	59.0	61.7	59.2	47.4
Sterilized[4]	0.0	0.4	5.1	19.3	24.7	9.4
Declared infecund	11.2	4.7	6.2	6.1	7.9	6.5
Missing	0.0	0.2	0.1	0.0	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	498	1,332	2,531	1,337	957	6,655

[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

Figure 8.1 Fertility preferences

Fertility preferences of currently married women age 15-49, Turkey 2013

Declared
infecund; 7%

Sterilized; 9%

Want no more;
47%

Want child
soon; 14%

Want child
later; 18%

Want, unsure
timing; 1%

Undecided; 3%
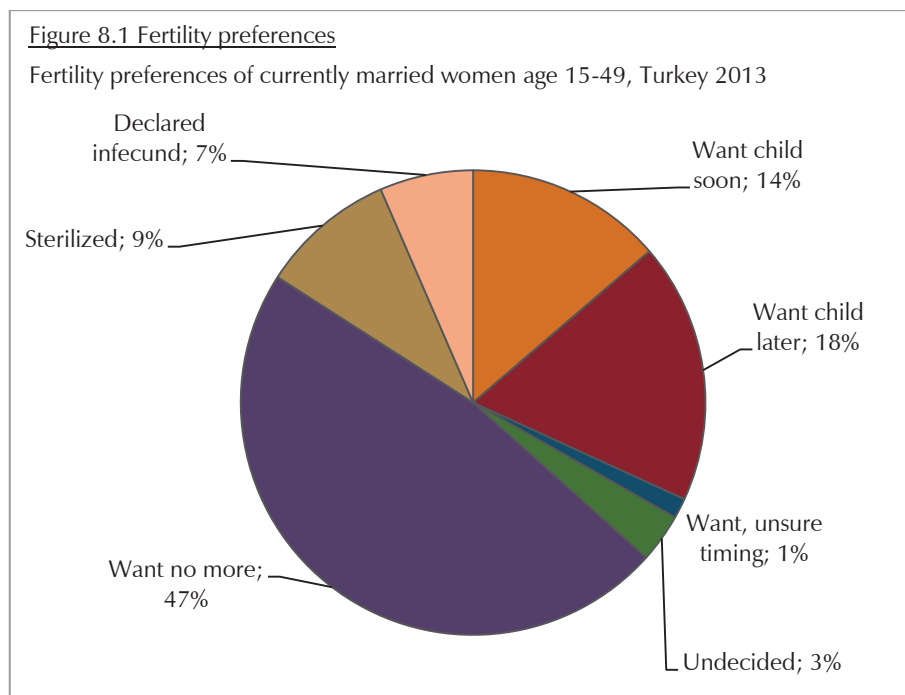
Table 8.2 shows the percent distribution of currently married women by the desire for more children according to current age. As expected, the proportion of women who want more children decreases with age. Ninety-five percent of women age 15-19 want more children, compared with 19 percent of women age 35-39 years. The proportion of women who want to delay the next birth for two or more years also decreases rapidly with age as women shift from wanting another birth to desiring to limit childbearing. Thus, the desire to space births is mainly concentrated among women under age 25.

Table 8.2 Fertility preference by age

Percent distribution of currently married women age 15-49 by desire for more children, according to age, Turkey 2013

	Age group							Total 15-49
Desire for children	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Have another soon[1]	32.3	27.8	18.9	16.2	11.7	7.2	2.1	13.7
Have another later[2]	61.1	50.5	38.4	20.9	5.8	0.6	0.0	18.1
Have another, undecided when	1.1	1.9	2.3	1.7	1.1	0.9	0.2	1.4
Undecided	0.8	2.8	5.3	6.6	3.1	0.9	0.4	3.4
Want no more	4.7	16.1	32.3	47.3	61.7	64.9	50.5	47.4
Sterilized[3]	0.0	0.2	1.8	6.5	13.8	17.6	14.7	9.4
Declared infecund	0.0	0.6	1.1	0.8	2.7	7.7	31.7	6.5
Missing	0.0	0.0	0.0	0.1	0.0	0.0	0.4	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number	111	619	1,166	1,394	1,351	1,127	888	6,655

[1] Wants next birth within 2 years
[2] Wants to delay next birth for 2 or more years
[3] Includes both female and male sterilization

Table 8.3 shows the percentage of respondents who want no more children by number of living children and selected background variables. The table provides information about subgroup variations in the potential demand for fertility control.

Table 8.3 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 2013

Background characteristic	Number of living children[1]					Total
	0	1	2	3	4+	
Residence						
Urban	3.3	20.0	64.1	81.8	84.6	55.8
Rural	3.6	15.4	63.9	78.1	82.4	61.0
Region						
West	4.7	24.8	69.3	86.0	81.1	57.8
South	0.0	15.7	58.0	81.6	80.9	57.0
Central	3.8	15.1	64.8	83.7	89.4	56.0
North	3.6	23.5	72.8	83.5	83.5	63.3
East	0.5	5.9	38.9	60.9	84.9	52.5
Region (NUTS 1)						
Istanbul	(4.5)	22.3	63.3	84.3	81.2	55.5
West Marmara	*	36.8	81.3	(86.9)	*	63.3
Aegean	(4.8)	23.9	71.7	88.0	(83.5)	58.8
East Marmara	(0.0)	20.5	70.2	86.5	(74.5)	58.1
West Anatolia	(4.3)	15.8	64.3	85.4	(93.5)	53.7
Mediterranean	0.0	15.7	58.0	81.6	80.9	57.0
Central Anatolia	(3.3)	14.4	64.4	84.6	87.4	59.6
West Black Sea	(7.7)	22.3	74.6	81.3	85.0	62.1
East Black Sea	(0.0)	18.8	65.3	81.1	90.8	62.3
Northeast Anatolia	(3.5)	7.8	46.0	77.9	86.3	57.8
Central East Anatolia	(0.0)	13.1	51.3	67.0	84.1	55.7
Southeast Anatolia	0.0	1.7	29.7	51.1	85.0	49.7
Education						
No education/Prim. incomplete	1.5	10.7	42.7	68.1	82.4	61.2
Primary school	2.4	27.6	65.9	83.8	84.1	66.4
Secondary school	0.0	9.0	63.0	83.2	(91.4)	44.0
High school and higher	5.4	20.4	68.2	83.4	*	44.9
Wealth quintile						
Lowest	0.0	9.3	52.7	68.2	80.0	57.3
Second	0.5	12.7	57.4	79.2	87.4	57.6
Middle	1.8	20.2	62.2	86.7	81.6	57.6
Fourth	8.2	17.9	66.7	82.0	86.3	56.0
Highest	3.7	26.8	73.5	86.3	94.1	56.0
Total	3.3	19.4	64.1	81.0	83.9	56.8

Note: Women who have been sterilized are considered to want no more children.
[1] The number of living children includes the current pregnancy
*There are less than 25 unweighted cases
Parentheses indicate that a figure is based on 25-49 unweighted cases.

As expected, the desire to limit the childbearing increases rapidly in all subgroups with the number of living children. Overall, roughly similar proportions of women want to terminate childbearing in urban and rural areas (56 and 61 percent, respectively).Women living in the North (63 percent) are the most likely to desire stop childbearing while those living in the East are the least likely (53 percent).

Education is known to be negatively associated with the desire to stop childbearing, largely because better-educated women tend to be younger and still in the early stages of the family-building process. The TDHS-2013 results conform to this pattern, with the proportion of women who desire to stop childbearing decreasing as the level of education increases. Thus, 66 percent of currently married women having primary school education want to stop childbearing, compared with 44 percent of those who have completed secondary school. A similar pattern was observed in the TDHS-2003 and TDHS-2008.

Overall, the desire to limit childbearing increases with increasing wealth status. This relationship is most notable for women with one or two children. Among women with one child, 9 percent of women in the lowest wealth quintile want to limit childbearing compared with 27 percent of women in the highest wealth quintile. For women with 2 children, 53 percent of women in the lowest wealth quintile want to limit childbearing, compared with 74 percent of those who are in the highest wealth quintile.

8.2   Need for Family Planning Services

The potential demand for contraception and identification of women who are in need of contraceptive services are among the major concerns of family planning programs. Currently married, fecund women who either want to postpone the next birth (need for spacing) or who want no more children (need for limiting), but who are not using a contraceptive method, are considered to have *unmet need* for family planning. Pregnant women are considered to have an unmet need for spacing or limiting if their pregnancy was mistimed or unwanted, respectively. Similarly, amenorrheic women are classified as having unmet need if their last birth was mistimed or unwanted. Non-users who are unsure as to whether or when they want another child are included in the unmet need for spacing purposes since they need to use a contraceptive until they decide they definitely want a child within a short time or do not want another at all. Women who are currently using family planning methods are said to have a *met need* for family planning. The sum of unmet need and met need constitute the *total demand* for family planning.

The definition of unmet need for family planning has been revised to make levels of unmet need comparable over time and across surveys. The aspect of the change in the definition that has the largest impact on levels of unmet need is the removal of information collected from the contraceptive calendar, which has not been included in all DHS surveys across countries. Previously, in surveys that included a calendar, women who were pregnant or postpartum amenorrheic resulting from contraceptive failure were not considered to have unmet need, even if their last pregnancy/birth was unwanted or mistimed. By contrast, if the survey did not collect information on contraceptive failure in the calendar, all pregnant and postpartum amenorrheic women whose last pregnancy/birth was unwanted or mistimed were considered to have unmet need. To make the definition of unmet need comparable in both

types of surveys, the new definition does not take information on contraceptive failure into account for any woman when assigning unmet need status. Removing contraceptive failure from the calculation can result in a small increase in the estimated level of unmet need by moving some women who were in the failure category into the unmet need category. All of the numbers in Figure 8.2 have been recalculated using the revised definition of unmet need and may differ slightly from numbers published in the final reports for each previous survey.

Figure 8.2 shows that there has been a steady decrease in unmet need for family planning in Turkey over the last 20 years. Unmet need for contraception in 2013 is almost one third of the unmet need in 1993.

Figure 8.2 Trends in unmet need for family planning, Turkey
Percent of currently married women age 15-49 with unmet need for family planning by years using the revised definition
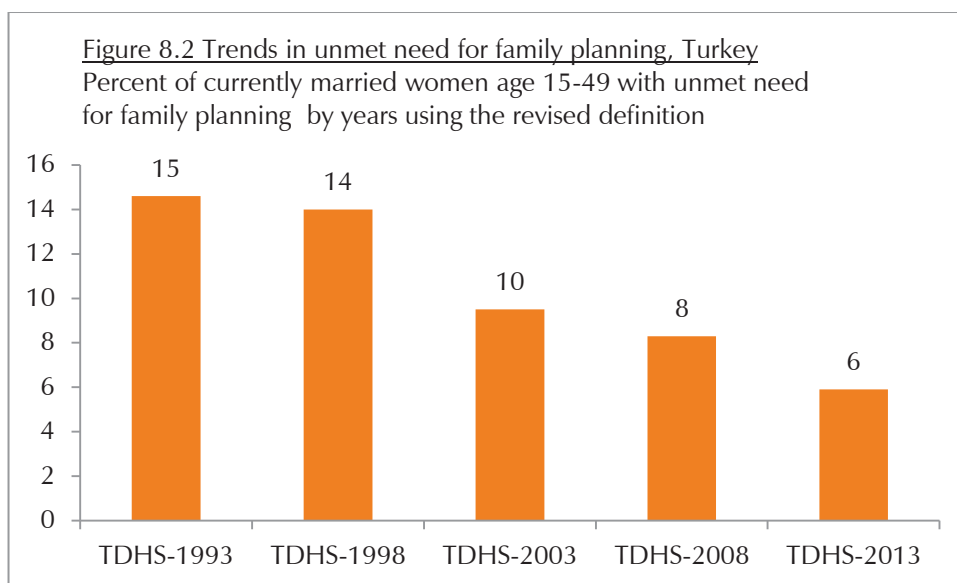
Table 8.4 presents the percentage of currently married women with unmet need, met need, and the total demand for family planning according to whether the need is for spacing births or limiting family size by selected background characteristics. Table also includes percentage of demand satisfied as well as percentage of demand satisfied by modern methods by background characteristics. The total demand for family planning among currently married women age 15-49 is 79 percent and 93 percent of this demand is satisfied. Sixty percent of the demand is satisfied with modern methods. The demand for limiting purposes is twice as the demand for spacing purposes (54 and 26 percent, respectively). Overall, 6 percent of currently married women in Turkey have an unmet need for family planning, 3 percent for limiting and 3 percent for spacing births.

As expected, unmet need for spacing purposes is higher among younger women, while unmet need for limiting childbirth is higher among older women. Women living in rural settlements tend to have greater unmet need than in urban settlements (8 percent and 5 percent, respectively). Among the regions, the West has the lowest unmet need (4 percent) and the East has the highest (12 percent). Similarly, unmet need varies substantially across the NUTS 1 regions from 3 percent in West Anatolia to 12 percent in Southeast Anatolia. Unmet need was highest among the least educated and the lowest wealth quintile women.

Table 8.4 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, the total demand for family planning, and the percentage of the demand for contraception that is satisfied, by background characteristics, Turkey 2013

Background characteristic	Unmet need for family planning			Met need for family planning (currently using)			Total demand for family planning[1]			Percentage of demand satisfied[2]	Percentage of demand satisfied by modern methods[3]	Number of women
	For spacing	For limiting	Total	For spacing	For limiting	Total	For spacing	For limiting	Total			
Age												
15-19	12.4	0.0	12.4	44.8	2.1	46.9	57.2	2.1	59.3	79.0	29.7	111
20-24	7.3	2.2	9.6	45.8	9.8	55.6	53.2	12.0	65.2	85.3	46.3	619
25-29	4.6	2.4	7.0	43.8	26.9	70.7	48.4	29.3	77.7	91.0	56.9	1,166
30-34	2.6	2.7	5.3	32.4	47.2	79.6	35.0	49.9	84.9	93.8	61.6	1,394
35-39	1.3	3.1	4.4	13.6	70.5	84.0	14.9	73.6	88.5	95.0	66.8	1,351
40-44	0.3	4.7	5.1	3.3	76.5	79.8	3.6	81.3	84.8	94.0	62.4	1,127
45-49	0.1	5.0	5.1	0.9	58.1	59.0	1.0	63.1	64.1	92.0	54.8	888
Residence												
Urban	2.3	2.9	5.2	24.6	50.1	74.7	26.9	53.0	79.9	93.4	61.7	5,341
Rural	3.6	4.8	8.4	16.2	52.3	68.5	19.8	57.1	77.0	89.0	52.0	1,314
Region												
West	1.8	2.5	4.2	22.7	53.0	75.7	24.5	55.5	79.9	94.7	58.8	2,864
South	3.4	2.9	6.3	19.8	51.0	70.8	23.2	53.9	77.1	91.8	62.0	856
Central	2.2	2.5	4.7	27.0	51.8	78.8	29.2	54.3	83.5	94.4	67.5	1,391
North	1.8	3.2	5.0	19.2	56.3	75.4	21.0	59.4	80.4	93.8	52.6	445
East	4.9	6.8	11.6	22.3	39.8	62.2	27.2	46.6	73.8	84.2	53.1	1,100
Region (NUTS 1)												
Istanbul	1.6	2.8	4.3	24.7	50.0	74.8	26.3	52.8	79.1	94.5	58.6	1,330
West Marmara	1.3	3.8	5.1	17.4	57.0	74.4	18.8	60.8	79.5	93.5	54.0	275
Aegean	2.1	1.7	3.8	21.5	55.3	76.8	23.6	57.1	80.7	95.2	61.9	869
East Marmara	2.0	2.2	4.2	22.8	54.1	76.9	24.8	56.3	81.1	94.8	57.1	627
West Anatolia	1.6	1.4	2.9	32.5	50.6	83.1	34.0	51.9	86.0	96.6	74.7	671
Mediterranean	3.4	2.9	6.3	19.8	51.0	70.8	23.2	53.9	77.1	91.8	62.0	856
Central Anatolia	2.9	4.4	7.3	20.1	53.3	73.4	23.0	57.8	80.8	90.9	61.7	344
West Black Sea	2.3	3.4	5.6	20.0	55.3	75.2	22.2	58.6	80.9	93.1	56.2	378
East Black Sea	2.6	2.9	5.4	19.7	56.0	75.6	22.2	58.9	81.1	93.3	50.5	206
Northeast Anatolia	4.4	6.4	10.8	20.7	47.4	68.2	25.1	53.9	79.0	86.3	54.0	173
Central East Anatolia	4.8	7.0	11.7	22.3	41.6	63.9	27.1	48.6	75.7	84.5	49.2	292
Southeast Anatolia	5.0	6.8	11.8	22.8	37.0	59.7	27.8	43.7	71.6	83.5	54.7	635
Education												
No educ./Primary incomp.	3.9	6.3	10.2	14.4	48.1	62.5	18.3	54.4	72.7	86.0	50.1	1,019
Primary school	1.6	3.6	5.2	15.4	61.4	76.8	17.0	65.0	82.0	93.7	59.4	2,956
Secondary school	4.0	2.1	6.1	34.1	37.7	71.7	38.1	39.8	77.8	92.1	56.5	934
High school and higher	2.7	1.7	4.4	34.7	40.5	75.1	37.4	42.1	79.5	94.5	67.5	1,746
Wealth quintile												
Lowest	4.5	5.7	10.2	16.7	47.4	64.1	21.2	53.1	74.3	86.3	51.3	1,038
Second	3.2	3.9	7.1	20.7	49.9	70.5	23.9	53.7	77.6	90.9	54.3	1,299
Middle	2.5	3.5	6.0	24.8	51.1	75.8	27.2	54.6	81.8	92.7	57.7	1,366
Fourth	2.2	1.9	4.1	24.7	52.6	77.3	27.0	54.4	81.4	95.0	63.5	1,433
Highest	1.2	2.3	3.5	25.6	50.9	76.5	26.8	53.1	80.0	95.7	68.2	1,519
Total	2.6	3.3	5.9	22.9	50.5	73.5	25.5	53.8	79.3	92.6	59.8	6,655

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, and lactational amenorrhea method (LAM)

8.3   Ideal Number of Children

Thus far in this chapter, interest was on the respondent's wishes for the future, implicitly taking into account the number of sons and daughters she already has. The TDHS-2013 attempted to obtain a measure of fertility preference 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 perform a more difficult task of considering abstractly and independently of her actual family size the number of children she would choose if she could start the family building process over again. To obtain this measure, respondents who had no children were asked, "If you could choose exactly the number of children to have in your whole life, how many would that be?" For respondents who had children, the question was, "If you could go back to the time when you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?"

There is usually a close association between 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 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 8.5 shows the distribution of ever-married 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, there is a positive relationship between the actual and ideal number of children. Forty percent of the respondents stated two children as the ideal number while only 25 percent of women consider four or more children as ideal. Among both ever-married and currently married women the mean ideal family size is 2.8 and 2.9 children respectively. Women with four or more children have a mean ideal family size of 3.7 children, compared to 2.5 children for women with one child. Interestingly, the mean ideal family size among currently married women has increased slightly compared with the previous TDHS surveys (2.4 in TDHS-1993 and 2.5 in TDHS-1998, TDHS-2003, and inTDHS-2008 and 2.9 in TDHS-2013).

Table 8.5 Ideal number of children by number of living children

Percent distribution of women 15-49 by ideal number of children, and mean ideal number of children for all respondents, ever-married respondents and for currently married respondents, according to the number of living children, Turkey 2013

Ideal number of children	Number of living children[1]					
	0	1	2	3	4+	Total
0	1.4	1.0	0.6	0.2	1.2	0.8
1	9.2	8.6	5.0	5.5	1.7	5.7
2	45.9	50.1	45.4	26.3	24.7	39.7
3	24.1	26.7	30.1	35.8	17.2	28.2
4	14.9	10.1	16.4	25.6	32.8	19.1
5	3.8	2.5	1.3	3.6	9.3	3.3
6+	0.6	0.6	1.1	2.5	11.7	2.7
Non-numeric responses	0.1	0.5	0.2	0.5	1.4	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	562	1,448	2,651	1,405	997	7,063
Mean ideal number of children for:[2]						
All women	2.4	2.5	2.7	3.1	3.7	2.7
Number	3,217	1,441	2,647	1,398	983	9,689
Ever-married	2.6	2.5	2.7	3.1	3.7	2.8
Number	561	1,441	2,647	1,398	983	7,030
Currently married	2.6	2.5	2.7	3.1	3.7	2.9
Number of currently married	497	1,325	2,529	1,330	943	6,623

[1] The number of living children includes current pregnancy for women
[2] Means are calculated excluding respondents who gave non-numeric responses.

Table 8.6 shows the mean ideal number of children for all women by age and selected background characteristics. The mean ideal number of children does not vary significantly by age. There is also little difference by residence, with the ideal family size only slightly higher in rural areas than urban areas. However, greater differences are observed across regions. The mean ideal number of children is lowest in North and Central regions (2.5 children) and highest in the East (3.2 children). Similarly, education and wealth status also show notable inverse relationships with the mean ideal number of children. The difference between women with less than a primary education and those who have high school or higher education is almost one child. Women in the three wealthiest quintiles have a lower mean ideal family size than women in the lowest two quintiles.

Table 8.6 Mean ideal number of children

Mean ideal number of children for all women age 15-49 by background characteristics, Turkey 2013

Background characteristic	Age							Total	Number of women[1]
	15-19	20-24	25-29	30-34	35-39	40-44	45-49		
Residence									
Urban	2.3	2.7	2.6	2.7	2.8	2.8	3.0	2.7	7,865
Rural	2.5	2.7	2.8	2.9	2.9	3.0	3.0	2.8	1,821
Region									
West	2.4	2.6	2.6	2.6	2.7	2.7	2.7	2.6	4,143
South	2.5	2.8	2.8	3.0	3.1	3.2	3.3	2.9	1,226
Central	2.1	2.4	2.3	2.5	2.6	2.5	2.7	2.5	1,992
North	2.2	2.2	2.4	2.5	2.7	2.7	2.9	2.5	653
East	2.7	3.1	3.1	3.4	3.5	3.6	3.9	3.2	1,672
Region (NUTS 1)									
Istanbul	2.4	2.8	2.8	2.8	2.9	3.0	2.8	2.8	1,943
West Marmara	2.0	2.0	2.2	2.3	2.2	2.3	2.2	2.2	393
Aegean	2.4	2.4	2.5	2.2	2.6	2.5	2.6	2.5	1,238
East Marmara	2.3	2.7	2.4	2.7	2.5	2.6	3.1	2.6	928
West Anatolia	2.0	2.3	2.3	2.5	2.7	2.5	2.8	2.4	963
Mediterranean	2.5	2.8	2.8	3.0	3.1	3.2	3.3	2.9	1,226
Central Anatolia	2.2	2.5	2.4	2.4	2.6	2.8	2.8	2.5	479
West Black Sea	2.1	2.2	2.3	2.5	2.5	2.5	2.6	2.4	539
East Black Sea	2.3	2.3	2.5	2.5	3.0	2.7	3.2	2.6	306
Northeast Anatolia	2.4	2.5	3.0	2.8	3.1	3.4	3.3	2.9	259
Central East Anatolia	2.5	2.9	2.8	3.2	3.3	3.1	3.8	3.0	457
Southeast Anatolia	2.8	3.4	3.2	3.6	3.7	3.9	4.2	3.4	956
Education									
No educ./Prim. İncompl.	3.0	3.4	3.2	3.4	3.5	3.4	3.6	3.4	1,141
Primary school	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	3,360
Secondary school	2.3	2.7	2.6	2.5	2.9	2.6	3.0	2.5	2,163
High school and higher	2.4	2.5	2.4	2.5	2.7	2.6	2.7	2.5	3,022
Wealth quintile									
Lowest	2.7	2.9	3.1	3.1	3.3	3.2	3.3	3.1	1,437
Second	2.5	2.9	2.8	3.0	3.0	2.9	3.0	2.9	1,907
Middle	2.4	2.7	2.5	2.8	2.7	2.9	2.8	2.7	2,028
Fourth	2.4	2.6	2.6	2.6	2.7	2.8	3.1	2.7	2,110
Highest	2.0	2.4	2.4	2.4	2.8	2.7	2.8	2.5	2,204
Total	2.4	2.7	2.7	2.7	2.9	2.9	3.0	2.7	9,686

[1] Number of women who gave a numeric response

8.4   Planning Status of Births

The issue of unplanned and unwanted fertility was further investigated in the TDHS-2013 by asking women for each child born in the preceding five years and for any current pregnancy, if the pregnancy was desired at the time ("planned"), not desired at the time but wanted at a later time, or unwanted at any time. The women's responses form a potentially powerful indicator of the degree to which couples successfully control childbearing. In addition, the data can be used to gauge the effect of the prevention of unwanted births on period fertility.

The questions on planning of births are extremely demanding. The respondent is required to recall accurately her wishes at one or more points in time during the last five years and to report them clearly and honestly. The danger of rationalization is clearly present; an unwanted conception may well have become a cherished child. Despite the potential problems of comprehension, recall, and truthfulness, results from many surveys have proved that answers to questions about the planning status of births are surprisingly plausible, indicating that respondents are willing to report unwanted and mistimed conceptions. Nevertheless, some postpartum rationalization undoubtedly occurs; therefore, this approach likely underestimates unwanted fertility.

Table 8.7 shows the percent distribution of births in the five 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, 74 percent of births in the five-year period preceding the survey were planned, 11 percent were mistimed, and 13 percent were unwanted. The percentage of unwanted births has decreased since the TDHS-2008 where 18 percent of births were unwanted.

Table 8.7 Fertility planning status

Percent distribution of births to women age 15-49 in the five years preceding the survey (including current pregnancies), by planning status of the birth, according to birth order and mother's age at birth, Turkey 2013

| Birth order and mother's age at birth | Planning status of birth | | | | Total | Number of births |
	Wanted then	Wanted later	Wanted no more	Missing		
Birth order						
1	90.6	6.0	1.6	1.7	100.0	1,292
2	75.7	15.6	6.6	2.2	100.0	1,281
3	59.1	14.7	22.8	3.5	100.0	629
4+	49.0	9.3	40.2	1.5	100.0	555
Mother's age at birth						
<20	80.5	15.8	3.2	0.4	100.0	262
20-24	79.8	12.0	6.6	1.6	100.0	974
25-29	75.4	12.8	9.4	2.4	100.0	1,218
30-34	70.5	9.2	18.3	1.9	100.0	878
35-39	63.7	7.2	26.2	3.0	100.0	359
40+	50.3	0.0	41.8	7.9	100.0	58
Total	74.1	11.2	12.5	2.1	100.0	3,757

Table 8.7 shows that, in general, the proportion of unwanted births increases sharply with increasing birth order, ranging from 2 percent of first births to 40 percent of fourth and higher births. On the other hand, the proportion of mistimed births has an inverted U-shaped relationship with birth order. As the mother's age increases, the larger the percentage of children that are unwanted. Only 7 percent of births to women age 20-24 are unwanted, compared with 42 percent of births to women age 40 and over. The percentage of mistimed births is highest among women under age 20 and drops off sharply among women age 30 and older.

8.5   Total Wanted Fertility

Another approach to measuring the extent of unwanted fertility is to compare the total wanted fertility rate (TWFR) with the total fertility rate (TFR). The total wanted fertility rate represents the level of fertility that theoretically would result if all unwanted births were avoided. The *wanted fertility rate* is calculated in a similar manner as the total fertility rates presented in Chapter 4, except that births classified as unwanted are omitted from the numerator. For this purpose, unwanted births are defined as those that exceed the number considered ideal by the respondent. The total wanted fertility rate provides another indicator of fertility aspirations and may be interpreted as the number of wanted births that a woman would bear by age 50, if she experienced the wanted fertility rates observed for the past three years. 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.

There is a difference between ideal family size and the wanted fertility rate in that the wanted fertility rate takes observed fertility as its starting point and can never be larger than the actual TFR; ideal family size can be and often is larger than the number of children ever born. This characteristic of the wanted fertility rate has an advantage and a disadvantage. It may be the more realistic measure, because it takes into account the fact that fecundity impairment prevents some women from having wanted births and from achieving their desired family size. But it has the disadvantage of interpretive complexity and, like any period measure, is vulnerable to temporary influences on the level of recent fertility.

Table 8.8 show that, the total wanted fertility rate for Turkey is 1.9 children, which is 17 percent less than the actual total fertility rate of 2.3 children. In other words, if all unwanted births were prevented, the TFR would be 0.4 children less than the observed level. The gap between actual and wanted fertility rates is highest among poorest women, women living in the East region, women who have no education, and rural women. On the other hand, the gap is smallest for the richest women and women who have completed secondary or higher education.

Table 8.8 Wanted fertility rates

Total wanted fertility rates and total fertility rates for the three years preceding the survey, by background characteristics, Turkey 2013

Background characteristic	Total wanted fertility rates	Total fertility rate
Residence		
Urban	1.8	2.2
Rural	2.2	2.7
Region		
West	1.7	1.9
South	2.1	2.5
Central	1.6	1.9
North	1.9	2.1
East	2.5	3.4
Education		
No educ. /Primary incomplete	2.8	3.8
Primary school	2.3	2.8
Secondary school	2.1	2.4
High school and higher	1.5	1.7
Wealth quintile		
Lowest	2.4	3.3
Second	2.2	2.6
Middle	1.9	2.3
Fourth	1.5	1.7
Highest	1.5	1.7
Total	1.9	2.3

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 4.2.

INFANT AND CHILD MORTALITY

9

İsmet Koç, İlknur Yüksel-Kaptanoğlu and Mehmet Ali Eryurt

This chapter describes levels, trends, and differentials in mortality among children under five years of age as well as the prevalence of high risk fertility behavior of women in Turkey. The information is disaggregated by socioeconomic and demographic characteristics that have been shown to influence mortality and help identify subgroups that are at high risk. Information on infant and child mortality rates contributes to a better understanding of Turkey's socio-economic situation and sheds light on the quality of life of the population. Mortality levels, both infant and childhood, are often used as broad indicators of social development or as specific indicators of health status. Childhood mortality analyses are thus useful in identifying promising directions for health programmes and advancing child survival efforts. Measures of childhood mortality are also useful for population projections.

One of the targets of the Millennium Development Goals (MDGs) is a two-thirds reduction in infant and child mortality by 2015, to be achieved through upgrading the proportion of births attended by skilled health personnel, increasing immunization against the eight vaccine preventable diseases, and upgrading the status of women through education and enhancing their participation in the labor force. Results from the TDHS-2013 are timely in evaluating the impact of some of the major national policies on the achievement of this fundamental MDG goal.

9.1   Assessment of Data Quality

The mortality rates[1] in this chapter are computed from information gathered from the birth history section of the Women's Questionnaire. Women age 15-49 were asked whether they had ever given birth, and if they had, they were asked to report the number of sons and daughters who live with them, the number who live elsewhere, and the number who have died. In addition, interviewed women were asked to provide a detailed birth history of their children in chronological order, starting with the first child. Furthermore, women were asked if it was a single or multiple birth; the sex of the child; date of birth (month and year); survival status, if alive, the age of the child on the date of the interview, and if deceased, the age at death of the child. Age at death was recorded in days for children who died in the first month of life, in months for children who died before their second birthday, and in years for children

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[1]A detailed description of the method for calculating the probabilities presented here is given in Rutstein (1984). The mortality estimates are not rates but are true probabilities calculated according to the conventional life-table approach. Deaths and exposure in any period are first tabulated for the age intervals 0, 1-2, 3-5, 6-11, 12-23, 24-35, 36-47, and 48-59 months. Then age-interval-specific probabilities of survival are calculated. Finally, probabilities of mortality for larger age segments are produced by multiplying the relevant age-interval survival probabilities together and subtracting the product from one:

$$nqx = 1 - \sum_{i=x}^{x+n} (1-qi)$$

who died at age 2 or later. In this chapter, the following direct estimates of infant and child mortality derived from the birth history data are used:

- **Neonatal mortality:** the probability of dying in the first month of life;
- **Post-neonatal mortality:** the probability of dying after the first month of life but before the first birthday;
- **Infant mortality:** the probability of dying in the first year of life;
- **Child mortality:** the probability of dying between the first and fifth birthday;
- **Under-five mortality:** the probability of dying before the fifth birthday.

The rates of childhood mortality are expressed as deaths per 1,000 live births, except in the case of child mortality, which is expressed as deaths per 1,000 children surviving to age one. Additionally, TDHS-2013 women were asked questions about pregnancies that ended in miscarriage, abortions, or stillbirths. In order to minimize recall errors, this information was collected for the five years that preceded the survey. The information on stillbirths and deaths that occurred within seven days of birth is used to estimate perinatal mortality, which is the number of stillbirths and early neonatal deaths per 1,000 stillbirths and live births.

The accuracy of mortality estimates derived from the birth history depends on both the sampling variability associated with the estimates and the nonsampling errors. Sampling variability and sampling errors are discussed in detail in Appendix C. Nonsampling errors depend on the extent to which the date of birth and age at death are accurately reported and recorded as well as the completeness with which child deaths are reported. Omission of births and deaths affects mortality estimates, displacement of dates of birth and death may impact mortality trends, and misreporting of age at death may distort the age pattern of mortality.

Typically, the most significant source of nonsampling errors in a survey that collects retrospective information on births and deaths is underreporting of births and deaths of children who were dead at the time of the survey. Several tables are presented in Appendix D which may be used to examine the occurrence of such problems in the TDHS-2013. Underreporting of deaths is usually assumed to be higher for deaths that occur early in infancy. Omission of deaths or misclassification of deaths as stillbirths may also be more common among women who have had several children or in cases where death took place a long time ago. In order to assess the impact of omission on measures of child mortality, two indicators are used: the percentage of deaths that occurred under seven days among all deaths that occurred under one month and the percentage of neonatal among all infant deaths.

It is hypothesized that omission will be more prevalent among those who died immediately after birth than those who lived longer and that it will be more serious for events that took place in the distant past rather than those in the more recent past. Selective underreporting of early neonatal deaths would result in an abnormally low ratio of deaths within the first seven days of life to all neonatal deaths. Table D.5 in Appendix D shows data on age at death for early infant deaths. Early infant deaths do not seem to have been underreported in the TDHS-2013 survey as suggested by the high ratio of deaths in the first seven days of life to all neonatal deaths (81 percent for the most recent period). It should be noted that the number of cases become too low to estimate especially early and post neonatal

mortality. When the subdomain level estimates are considered, the number of cases becomes insufficient to produce reliable estimates.

An unusual pattern in the distribution of births is an indication of omission of children or age displacement. Table D.3 in Appendix D presents the percentage of live births in the 15 years preceding the survey for which information on year of birth was missing. Less than two percent of births had information on the year but not the month of birth; both month and year of birth were missing for less than 1 percent of all live births; and approximately 1 percent of deaths recorded in the birth histories lacked age at death. The overall percentage of births for which a month and year of birth was reported is relatively complete, with incomplete information being slightly higher for children who have died than those who are alive (82 percent versus 98 percent, Table D.4 in Appendix D) There is deterioration in the completeness of birth date information the further back one goes from the survey date, but the percentage is above 98 percent for births occurring since 2004, and 100 percent for births occurring in 2008 or later, i.e., in the period covered by the calendar.

Age displacement is common in surveys that include demographic and health information for children under a specified age. In an attempt to reduce workload, interviewers may shift ages and transfer births out of the five-year period for which data are collected on maternal and child health indicators (January 2008 to date of interview for the TDHS-2013). The distribution of births in Table D.4 in Appendix D shows that there is some age displacement referring an excess of births in 2007. The transference of children and especially deceased children out of the five-year period preceding the survey is likely to underestimate the true level of childhood mortality for that period. Furthermore, there is evidence of a possible omission of the number of children who died, as evidenced by the lower number of dead children in 2008-2010 compared with 2005-2007. However, since cutoff dates for the most recent 5-year period in TDHS only include two months from 2008 (November and December), the underestimation resulting from the transference of deceased children out of the five-year period, is negligible.

Another problem common in the collection of birth history information is heaping of the age at death, especially at age 12 months. Errors in reporting of age at death bias the age pattern estimates of mortality, if the errors result in transference of deaths between age segments for which the rates are calculated. For example, child mortality may be overestimated relative to infant mortality if children who died in their first year of life are reported as having died at age one or older. In an effort to minimize misreporting of age at death, TDHS-2013 interviewers were instructed to record deaths under one month in days and under two years in months. In addition, they were trained to probe age at deaths reported exactly 1 year or 12 months to ensure that they had actually occurred at 12 months. Table D.6 in Appendix D shows the distribution of deaths under 2 years during the 20 years prior to the survey, by month of death. Results indicate that there is definite heaping at 12, and 18 months of age with corresponding deficits in adjacent months. However, heaping is less pronounced for deaths in the five years preceding the survey, for which the most recent mortality rates are calculated.

An additional check to assess reliability of birth history data is to calculate a sex ratio at birth for all live births. This ratio should fluctuate around 105 male births per 100 female births. Table D.4 in Appendix D shows that the overall sex ratio for all live births in the birth history is 108, which is slightly higher than the expected biological range of 103-106. From 2009 to 2013, the sex ratio of live births is 112 on average, higher than expected. In earlier periods, the sex ratio at birth fluctuates between 103 and 114.

9.2   Levels and Trends in Infant and Child Mortality

Mortality rates for children under five years of age are presented in Table 9.1 for the three five-year periods preceding the survey. Data from the TDHS-2013 shows that under-five mortality for the five years preceding the survey (which roughly corresponds to the date December 2008-November 2013) is 15 per 1,000 live births. This means that approximately 1 in every 66 children born in Turkey will die before the fifth birthday. The infant mortality rate is 13 deaths per 1,000 live births and the neonatal mortality rate is 7 deaths per 1,000 births. Based on these rates, approximately 87 percent of early childhood deaths are taking place before a child's first birthday, of which 47 percent occur during the first month of life.

Table 9.1 Early childhood mortality rates

Neonatal, post neonatal, infant, child and under-five mortality rates by five-year periods preceding the TDHS-2013, TDHS-2008 and TDHS-2003

Years preceding the survey	Approximate reference date	Neonatal mortality (NN)	Post-neonatal mortality (PNN)[1]	Infant mortality (1q0)	Child mortality (4q1)	Under-five mortality (5q0)
TDHS-2013						
0-4	2008-2013	7	6	13	2	15
5-9	2003-2008	11	11	22	4	25
10-14	1998-2003	19	8	26	5	32
TDHS-2008						
0-4	2003-2008	13	4	17	6	24
5-9	1998-2003	17	16	33	9	41
TDHS-2003						
0-4	1998-2003	17	12	29	9	37

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

Results in Table 9.1 show a relatively fast pace of decline in infant and child mortality rates in Turkey. A decrease about 24 percent is observed in infant mortality rate for the five-year between 2003-2008 (TDHS-2008) and 2008-2013 (TDHS-2013). In the same period, there was a 38 percent decrease in overall under-five mortality. The decline in child mortality rate during the last five years is especially noteworthy, considering the stability in child mortality rate at a level of 9-10 per thousand during the period of 10-19 years before the TDHS-2013.

Figure 9.1 Trends in childhood mortality rates

Estimates for 5-year periods preceding the TDHS-1993, TDHS-1998, TDHS-2003, TDHS-2008 and TDHS-2013
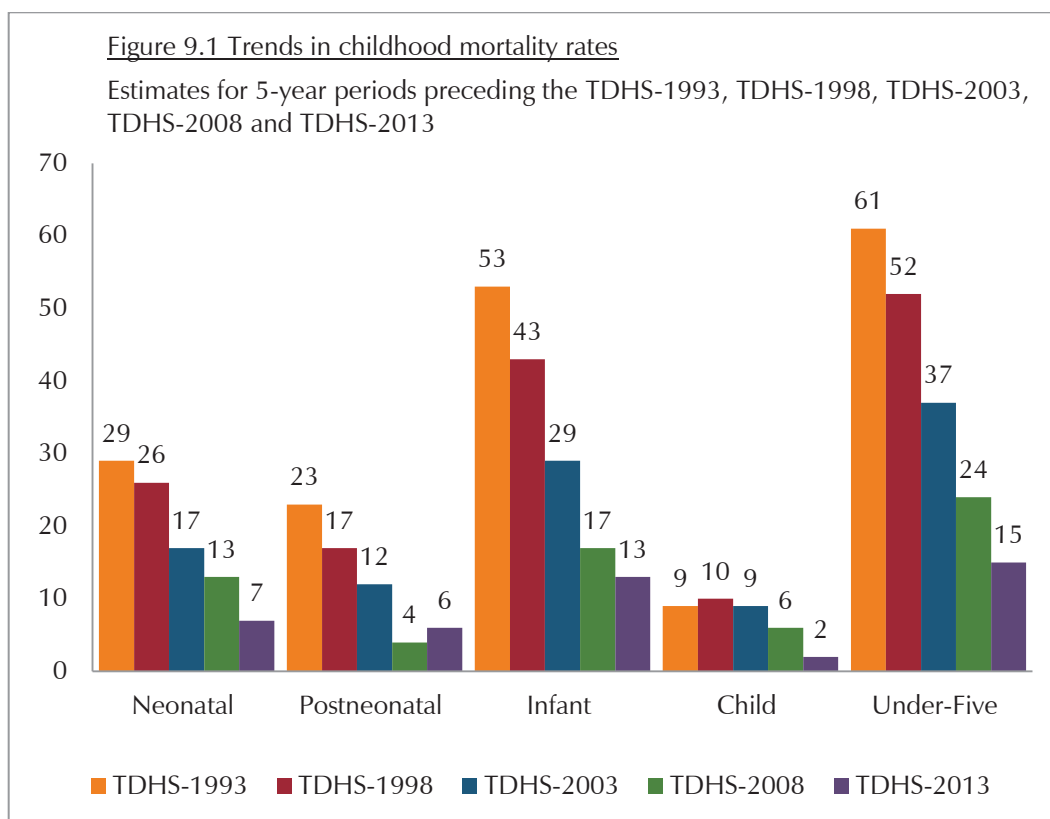
According to comparable mortality estimates from the TDHS-2003, TDHS-2008 and TDHS-2013 in the Table 9.1, the early age mortality rates obtained from TDHS-2013 are consistent with the findings from previous surveys calculated for the same reference periods. The difference between early age mortality rates calculated from the TDHS-2013 for reference periods of TDHS-2008 and TDHS-2003 and findings obtained from those two previous surveys is less than 5 deaths per 1000 births. This difference is negligible and constitutes virtually full agreement between independent estimates in the last three surveys. Once again, this finding highlights the quality of birth history data for the three surveys from which early childhood mortality rates are calculated. Both approaches to examining mortality trends, i.e., comparisons of the rates from the TDHS-2013 across successive 5-year periods preceding survey as well as comparison of TDHS-2013 rates to those of TDHS-2008 and TDHS-2003, indicate that the decrease in infant and child mortality rates in Turkey has accelerated in recent years, especially in the last 10 years (Table 9.1 and Figure 9.1).

9.3   Differentials in Infant and Child Mortality

Table 9.2 shows differentials in infant and under-five mortality by residence, region, mother's education, and wealth quintile. In order to obtain enough cases in each category, a ten-year period is used to calculate mortality rates by background characteristics. Although, the use of the ten-year reference period improves reliability of mortality estimates, these findings must be interpreted with caution given the comparatively large sampling errors associated with ten-year rates.

Table 9.2 Early childhood mortality rates by socioeconomic characteristics

Infant and under-five mortality rates for the 10-year period preceding the survey, by background characteristics, Turkey 2013

Background characteristic	Infant mortality (1q0)	Under-five mortality (5q0)
Residence		
Urban	16	18
Rural	22	26
Region		
West	13	15
South	21	26
Central	15	15
North	13	15
East	24	30
Education		
No education/Primary incomplete	26	30
Primary school	19	22
Secondary school	16	16
High school and higher	9	12
Wealth quintile		
Lowest	23	28
Second	21	23
Middle	18	21
Fourth	16	16
Highest	8	8
Total	17	20

The under-five mortality rate in urban areas is 18 per 1000 births, 31 percent lower than the under-five mortality rate in rural areas (26 per 1000). Likewise, the infant mortality rate in urban areas is 16 per 1000 births, 27 percent lower than the infant mortality rate in rural areas (22 per 1000). Variations in mortality levels are also evident by region. Mortality rates are highest in the East region at all ages. With regards to under-five mortality, the East region (30 per 1000) is 50 percent higher than the under-five mortality in the West region (15 per 1000).

In general, mortality rates are inversely related to the mother's level of education. For example, children born to women with no or incomplete primary education are approximately three times as likely than children born to women with high school or higher to die within the first year of life (26 per 1000 versus 9 per 1000, respectively). Likewise, children born to women with no or incomplete primary education are more than twice as likely than children born to women with high school or higher to die by their fifth birthday (30 per 1000 versus 12 per 1000, respectively). This pattern is expected, given that increased education increases women's exposure to and understanding of nutrition, contraceptive use, health care during

pregnancy, childhood illnesses, vaccinations, and treatments, all of which contribute to lower mortality risks for children. All childhood mortality rates are lowest for those in the highest wealth quintile.

Table 9.3 Early childhood mortality rates by demographic characteristics

Infant and under-five mortality rates for the 10-year period preceding the survey, by demographic characteristics, Turkey 2013

Demographic characteristic	Infant mortality $(1q0)$	Under-five mortality $(5q0)$
Child's sex		
Male	15	18
Female	20	23
Mother's age at birth		
<20	25	30
20-29	14	16
30-39	25	26
Birth order		
1	17	19
2-3	15	19
4-6	22	25
7+	(32)	(33)
Previous birth interval[1]		
<2 years	34	37
2 years	20	26
3 years	9	14
4+ years	12	14
Birth size[2]		
Small/very small	18	*
Average or larger	8	NA

NA= Not available
[1] Excludes first-order births
[2] Rates for the five-year period before the survey
*There are less than 25 unweighted cases

Besides socio-economic characteristics, a number of demographic characteristics of the child and mother affect mortality risks, including the sex of the child, mother's age at birth, birth order, length of previous birth interval, and the size of the child at birth. The relationship between these demographic characteristics and childhood mortality is shown in Table 9.3. Mortality estimates for all demographic variables, except birth size, are calculated based on a ten-year period before the survey to reduce sampling variability.

The relationship between mother's age at delivery and infant mortality generally exhibits a U-shaped curve. The infant mortality rate is substantially higher among children born to mothers less than 20 and those age 30-39. Results from TDHS-2013 show that there is a clear positive association between birth order and the probability of dying -risk of dying increases with higher order births-. Mortality among children is negatively associated with the length of the previous birth interval. For example, under-five mortality decreases sharply from 37 per 1,000 live births for children born less than two years after a previous birth to 14 per 1,000 live births for children born four years or more after a previous birth. Children's weight at birth is also associated with their chances of survival, particularly during the first year of life. Mothers who reported their children as "small or very small" at birth were more than twice as likely to die in the first year of life compared to children who were reported as "average or larger."

9.4   Perinatal Mortality

Perinatal deaths are composed of pregnancy losses occurring after seven completed months of gestation (stillbirths) and deaths within the first seven days of life (early neonatal deaths). Causes of stillbirths and early neonatal deaths may overlap, however, examining just one or the other can understate the true level of mortality around delivery. For these reasons, it is suggested that both events should be combined and examined together. The perinatal death rate is calculated by dividing the total number of perinatal deaths by the total number of pregnancies reaching seven months of gestation. The distinction between a stillbirth and an early neonatal death is a delicate one, often depending on the observed presence or absence of some signs of life after delivery. In the TDHS-2013, information on stillbirths was obtained for the five years preceding the survey, using the calendar at the end of the Women's Questionnaire.

Table 9.4 presents the number of stillbirths and early neonatal deaths and the perinatal mortality rate for the five-year period preceding the TDHS-2013, by selected demographic and socio-economic characteristics. Out of the 3,343 reported pregnancies of at least seven months' gestation during the five years preceding the survey, 17 ended in stillbirths and 21 in early neonatal deaths, yielding an overall perinatal mortality rate of 11 per 1,000 stillbirths and live births. Comparable data suggest that perinatal mortality has declined from 19 per 1,000 in TDHS-2008 to 11 per 1000 in TDHS-2013.

Perinatal mortality is highest among women 40-49 years old at the time of the birth. The interval between the previous and current pregnancies appears to be associated with perinatal mortality. Perinatal mortality is 64 percent higher in rural areas than in urban areas (22 per 1000 versus 8 per 1000, respectively). There is an inverse relationship with regards to mother's education and the perinatal mortality rate. The perinatal mortality rate is three times higher among women with no or incomplete primary education (15 per 1000) than among woman with high school and higher education (5 per 1000) In line with this finding, the perinatal mortality rate among women in the top quintile is about one-fifth that of women in the lower quintile.

Table 9.4 Perinatal mortality

Number of stillbirths and early neonatal deaths, and the perinatal mortality rate for the five-year period preceding the survey, by background characteristics, Turkey 2013

Background characteristic	Number of stillbirths[1]	Number of early neonatal deaths[2]	Perinatal mortality rate[3]	Number of pregnancies of 7+ months duration
Mother's age at birth				
<20	0	1	2	241
20-29	8	12	10	1,955
30-39	6	8	13	1,093
40-49	2	0	42	54
Previous pregnancy interval in months[4]				
First pregnancy	1	8	10	989
<15	2	3	9	591
15-26	3	1	10	406
27-38	3	4	20	345
39+	8	4	12	1,012
Residence				
Urban	8	14	8	2,629
Rural	9	7	22	713
Region				
West	7	6	11	1,211
South	1	1	5	470
Central	2	8	17	587
North	2	0	10	197
East	5	5	11	878
Education				
No education/Primary incomplete	6	4	15	653
Primary school	8	7	13	1,158
Secondary school	2	5	12	608
High school and higher	0	4	5	924
Wealth quintile				
Lowest	11	5	22	735
Second	2	7	12	751
Middle	1	4	7	681
Fourth	3	3	9	580
Highest	0	2	4	596
Total	17	21	11	3,343

[1] Stillbirths are fetal deaths in pregnancies lasting seven or more months.
[2] Early neonatal deaths are deaths at age 0-6 days among live-born children.
[3] The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration, expressed per 1,000.
[4] Categories correspond to birth intervals of <24 months, 24-35 months, 36-47 months, and 48+ months.

9.5   High-risk Fertility Behavior

Many studies have found a strong relationship between a child's probability of dying and maternal fertility patterns. In general, the probability of dying in early childhood is much greater if children are born to mothers who are "too young" or "too old", if they are born after a short birth interval, or if they are born to mothers with high parity. For this purpose of analyzing high-risk fertility behavior, mothers are classified as "too young" if they are less than 18 years of age and "too old" if they are over 34 years of age at the time of delivery. Furthermore, a short birth interval is defined as a birth occurring within 24 months of a previous birth, and a child of high birth order is one that was born after three or more previous births (birth order four or higher). After cross-classification of births by combinations of all three characteristics, a birth may have anywhere between zero and three high-risk characteristics.

Table 9.5 shows the percent distribution of births in the five-year period of currently married women according to these elevated risks. The table also displays the relative risk of children dying by comparing the proportion of dead children among births in each specific high-risk category with the proportion of dead children among births not in any high-risk category. All risk categories are potentially avoidable except for one: first births to mothers age 18-34.The purpose of this table is to identify areas in which changes in reproductive behavior would likely reduce infant and child mortality.

Approximately one-third of births (31 percent) were in at least one of the avoidable high-risk categories and 8 percent were in the category with two or more high-risk factors. Another one third of births (32 percent) fell into the category of unavoidable risk, that is, first order births to women age 18-34. Thus, 63 percent of births in Turkey were in some elevated risk category. The most common single high risk categories are the birth interval less than 24 months (8 percent) and the birth order greater than three (8 percent).

In general, risk ratios are higher for children in multiple high risk categories than in single high-risk categories. Of the multiple high risk categories, the most vulnerable births are births at an interval less than 24 months and of birth order 4 and higher. These children are more than 4 times as likely to die as children who were not in any high-risk category. One percent and 4 percent of births, respectively, fall into these two categories.

The last column of Table 9.5 shows the distribution of currently married women who have the potential for having a high-risk birth by category. This column is hypothetical and does not account for protection provided by family planning, postpartum insusceptibility, and prolonged abstinence. However, as a tool, it provides insight into the magnitude of high risk births. Sixty-one percent of women who were married at the time of the TDHS-2013 can be classified as at risk of conceiving a child with an increased risk of dying. Of these, a higher proportion of women have the potential of having a birth in a single high-risk category (38 percent) than women in a multiple high-risk category (23 percent).

Table 9.5 High-risk fertility behavior

Percent distribution of children born in the five 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 2013

	Births in the 5 years preceding the survey		Percentage of currently married women[1]
Risk category	Percentage of births	Risk ratio	
Not in any high risk category	37.3	1.00	32.0[a]
Unavoidable risk category			
First order births between ages 18 and 34 years	31.6	1.40	7.5
Single high-risk category			
Mother's age <18	1.8	0.52	0.1
Mother's age >34	6.0	0.81	25.4
Birth interval <24 months	8.2	1.06	7.0
Birth order >3	7.6	1.34	5.5
Subtotal	23.6	1.05	38.0
Multiple high-risk category			
Age <18 and birth interval <24 months[2]	0.1	*	0.0
Age >34 and birth interval <24 months	0.2	*	0.6
Age >34 and birth order >3	4.2	0.00	18.5
Age >34 and birth interval <24 months and birth order >3	0.5	*	1.2
Birth interval <24 months and birth order >3	2.6	4.15	2.1
Subtotal	7.5	1.43	22.5
In any avoidable high-risk category	31.1	1.14	60.5
Total	100.0	NA	100.0
Number of births/women	3,326	NA	6,655

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.
 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
[a] Includes sterilized women
*There are less than 25 unweighted cases

REPRODUCTIVE HEALTH

10

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This chapter provides information from the TDHS-2013 on the use of maternal and child health services. Specifically, it presents the findings on antenatal care, delivery and postnatal care. This information can be used to identify the subgroups that are at risk because they are not using reproductive health services and help policymakers in the planning and implementing of appropriate strategies to improve those services.

The results in this section are based on data obtained from mothers on all live births that occurred in the five years preceding the survey. It should be mentioned that questions about postnatal care were asked only for the last birth occurred in the five years preceding the survey.

Aspects of antenatal care (ANC) that are examined include the type of provider, number of visits made, components of the antenatal care, and the stage of pregnancy at the time of the first visit. With regard to delivery services, information is presented on the person assisting delivery and the type and place of delivery. Postnatal care services are assessed according to the timing of first checkup and type of service provider.

10.1   Antenatal Care

Table 10.1 shows the percent distribution of women who had a live birth in the five years preceding the survey by the provider of antenatal care during pregnancy for the last birth, according to the selected background characteristics. In collecting the information about the ANC provider, interviewers were instructed to record all providers a woman had consulted for care if more than one source of ANC was mentioned for the same pregnancy. However, for this tabulation, only the provider with the highest qualifications is considered if there were more than one provider. It is important to take into account in reviewing these results that the quality of antenatal services is not reflected in these figures.

 As shown in Table 10.1, 97 percent of women received antenatal care from a medical provider (doctor or nurse/midwife) at least once for the last birth in the five years preceding the survey. Almost all women (95 percent) sought ANC from the doctor.

When compared to the results of the previous demographic survey conducted in 2008, there are substantial improvements in ANC coverage. The proportion of last births with ANC from skilled health personnel increased from 92 percent to 97 percent within the five-year period between the surveys. This represents around a 64 percent decrease in the proportion of women who did not have any antenatal care.

Table 10.1 Antenatal care

Percent distribution of women age 15-49 who had a live birth in the five 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 2013

Background characteristic	Antenatal care provider				No ANC	Total	Percentage receiving antenatal care from a skilled provider[1]	Number of women
	Doctor	Nurse/ midwife	Other	Missing				
Mother's age at birth								
<20	90.0	4.1	0.0	0.2	5.7	100.0	94.0	148
20-34	94.9	2.4	0.1	0.1	2.4	100.0	97.3	2,188
35-49	93.7	2.6	0.0	0.5	3.2	100.0	96.3	336
Birth order								
1	96.6	2.0	0.0	0.0	1.3	100.0	98.6	793
2-3	94.7	2.3	0.1	0.3	2.6	100.0	97.0	1,468
4-5	90.0	4.7	0.0	0.4	4.8	100.0	94.8	280
6+	88.3	3.4	0.0	0.0	8.3	100.0	91.7	131
Residence								
Urban	95.8	2.3	0.1	0.2	1.7	100.0	98.1	2,155
Rural	88.9	3.8	0.0	0.3	7.0	100.0	92.7	517
Region								
West	97.7	1.3	0.0	0.0	1.0	100.0	99.0	1,026
South	95.7	2.7	0.0	0.0	1.6	100.0	98.4	370
Central	95.5	1.6	0.0	0.2	2.7	100.0	97.1	496
North	91.6	4.3	0.0	0.3	3.8	100.0	95.8	162
East	88.3	4.9	0.3	0.6	5.9	100.0	93.2	618
Region (NUTS 1)								
Istanbul	97.5	1.8	0.0	0.0	0.6	100.0	99.4	558
West Marmara	94.5	2.2	0.0	0.0	3.3	100.0	96.7	81
Aegean	98.2	0.5	0.0	0.0	1.3	100.0	98.7	252
East Marmara	98.0	0.5	0.0	0.0	1.4	100.0	98.6	217
West Anatolia	98.0	0.0	0.0	0.0	2.0	100.0	98.0	206
Mediterranean	95.7	2.7	0.0	0.0	1.6	100.0	98.4	370
Central Anatolia	91.6	3.7	0.0	0.0	4.8	100.0	95.2	157
West Black Sea	91.8	3.7	0.0	1.1	3.4	100.0	95.5	132
East Black Sea	94.2	3.6	0.0	0.0	2.1	100.0	97.9	80
Northeast Anatolia	80.7	4.3	0.0	0.4	14.6	100.0	84.9	86
Central East Anatolia	86.1	4.7	0.0	0.0	9.3	100.0	90.7	152
Southeast Anatolia	90.9	5.1	0.5	0.9	2.6	100.0	96.0	380
Education								
No education/Primary incomplete	86.9	4.6	0.3	0.5	7.7	100.0	91.5	448
Primary school	95.0	2.4	0.0	0.3	2.3	100.0	97.5	956
Secondary school	95.4	3.0	0.0	0.1	1.5	100.0	98.4	479
High school and higher	97.5	1.3	0.1	0.0	1.2	100.0	98.8	789
Wealth quintile								
Lowest	87.2	4.0	0.0	0.6	8.2	100.0	91.2	509
Second	92.2	4.4	0.2	0.0	3.2	100.0	96.6	581
Middle	95.7	2.8	0.0	0.5	1.1	100.0	98.5	568
Fourth	98.4	0.6	0.0	0.0	1.0	100.0	99.0	506
Highest	99.0	0.7	0.1	0.0	0.2	100.0	99.7	508
Total	94.5	2.5	0.1	0.2	2.7	100.0	97.0	2,672

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 doctor, nurse, midwife, and auxiliary nurse/midwife

Although ANC coverage levels are generally high, the results in Table 10.1 document some differences in the proportions of women receiving ANC from a health provider by background characteristics. Considering the mother's age at birth, women age 20-34 had somewhat higher antenatal care rates (97 percent) than women age younger than 20 (94 percent) or women age 35 and older (96 percent). More noticeable differences are observed when birth order is considered. Almost all mothers sought ANC from a doctor (97 percent) and nurse/midwife (2 percent) for their first births. However, the proportion of women who received ANC from a trained provider decreased as birth order increased, to a level of 92 percent among mothers of children of birth order sixth or higher.

Variations are evident by residence and region as well. The percentage of rural women who did not receive ANC is more than two times higher than the national average, and more than three times the level among urban women. Although there have been significant improvements in ANC coverage between 2008 and 2013, the gap between the East and other regions is still comparatively wide; ANC coverage exceeded 96 percent in all regions except the East (93 percent). In the NUTS 1 regions, ANC coverage was lowest in Northeast Anatolia and Central East Anatolia (85 percent and 91 percent, respectively).

There is a close relationship between education and the use of antenatal care services. As women's educational level increased, the proportion of last live births having ANC also increased. Almost all births to women with at least high school education received antenatal care from health personnel compared to 9 out of 10 births to women with no or incomplete primary education. Similarly, wealth was closely associated with receiving antenatal care. Women in households in the lowest wealth quintile were much less likely to receive ANC than women in households in middle and higher quintiles (91 percent and more than 99 percent, respectively).

10.2   Number and Timing of Antenatal Care Visits

Antenatal care is most beneficial and effective in avoiding adverse pregnancy outcomes when it is sought early during pregnancy. The first antenatal visit should take place before the third month of pregnancy. The advantage of early detection of pregnancy is that a woman's normal baseline health status can be assessed, making early diagnosis of any negative condition easier. The total number of antenatal visits is also important in assessing the adequacy of ANC since regular visits allow proper monitoring of the mother and child throughout pregnancy. According to the recommended schedule, antenatal care visits should be done monthly until the 7th month (28 weeks' gestation), then every two weeks until 36 weeks gestation, and then every week until 40 weeks or delivery. This represents a minimum of 10 visits throughout the pregnancy.

Information on the number and timing of antenatal visits made to health providers for the last live birth in the five years preceding the survey is presented in Table 10.2 by place of residence. In Turkey, 89 percent of women had four or more antenatal visits. Noticeable improvements with regard to the number of ANC visits occurred among rural mothers during the period between the 2008 and 2013 TDHS surveys; the percentage of rural women who reported making at least four ANC visits in 2013 is almost 1.4 times the figure in 2008 (55

percent). Nevertheless, significant differences in the proportion of women having four or more visits still exist between urban and rural areas (92 percent and 75 percent, respectively).

With regard to the timing of the first ANC visit, overall, women made an ANC visit before the fourth month for 90 percent of last births in the five years preceding the survey. Considering the differences by residence, 93 percent of women in urban areas sought care before the fourth month of pregnancy compared to 78 percent in rural areas. This represents a marked increase over the levels reported at the time of the 2008 TDHS (74 percent at the national level and 79 percent and 61 percent in urban and rural areas, respectively). Thus, when compared to the TDHS-2008, the TDHS-2013 findings show that not only more women are receiving antenatal care; they appear also to be more aware of the importance of early ANC visits than before.

Considering only the births for which care was received, the median duration of pregnancy at first visit is 1.7 months in Turkey. On average, women living in rural areas seek antenatal care later in their pregnancy (2.1 months) than urban women (1.7 months).

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

Percent distribution of women age 15-49 who had a live birth in the five 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 2013

	Residence		
Number and timing of ANC visits	Urban	Rural	Total
Number of ANC visits			
None	1.7	7.0	2.7
1	0.6	4.5	1.4
2-3	5.0	13.1	6.5
4+	92.4	74.7	88.9
Don't know/missing	0.4	0.7	0.4
Total	100.0	100.0	100.0
Number of months pregnant at time of first ANC visit			
No antenatal care	1.7	7.0	2.7
<4	92.8	78.0	89.9
4-5	4.5	9.2	5.4
6-7	0.5	4.4	1.2
8+	0.3	1.1	0.5
Don't know/missing	0.3	0.3	0.3
Total	100.0	100.0	100.0
Number of women	2,155	517	2,672
Median months pregnant at first visit (for those with ANC)	1.7	2.1	1.7
Number of women with ANC	2,115	479	2,594

10.3   Components of Antenatal Care

Pregnancy complications are an important cause of maternal and early neonatal child mortality and morbidity. Thus, the effectiveness of ANC in ensuring safe motherhood depends in part on the tests and measurements done during the checkups to detect potential complications. To obtain information on the nature of the ANC women are receiving, the TDHS-2013 included a series of questions about the care mothers received during ANC visits for the last birth during the five years prior to the survey. Women who had at least one ANC visit were asked if they had their weight taken, their blood pressure measured, urine and blood samples taken, an ultrasound performed, an external examination conducted, tetanus vaccination and if they informed of signs of pregnancy complications during any of their ANC visits. In addition, regardless of whether or not a woman received ANC, women were asked if they took iron supplements at any time during pregnancy.

Table 10.3 shows that, among women receiving antenatal care, 96 percent had their blood pressure measured, which is one of the most important components of antenatal care for mothers. Urine and blood samples were taken for 90 and 94 percent of women, respectively. Ninety-eight percent of women had ultrasound performed during at least one of their visits to a medical provider. Ninety-one percent had their weight measured. Women were much less likely to have an external examination (73 percent) during ANC than the other tests or procedures shown in Table 10.3. Including both women who had ANC and those that did not get any care, 86 percent reported taking iron supplements. Overall, the levels of use reported in TDHS-2013 for all services mentioned above are notably higher than the levels reported in TDHS-2008 except for external examination.

Differences by age at birth in the proportions of women reporting having had the various components of care are not large for most components, however, women under age 20 at birth were less likely to have taken iron supplements or have had an abdominal exam (82 percent and 65 percent, respectively). There is an inverse relationship between the proportions reporting have the various antenatal care procedures and the child's birth order. The likelihood of receiving all components of ANC (except for abdominal examination) is the highest for first births.

By residence, urban women were more likely than rural women to have had all of the ANC components except abdominal exam. Although regional differences are smaller than in 2008, variations are still observed. Women in the East were least likely to have had the various routine ANC screening procedures. Especially notable is the low level of iron supplementation among women in the East compared to women in the other regions (77 percent compared to 89 percent or more). In NUTS 1 regions, the proportions having the various ANC procedures were lowest in Northeast and Southeast Anatolia. Northeast and Central East Anatolia had the lowest percentages of women reporting they received iron tablets or syrup (66 percent and 75 percent, respectively).

As expected, the likelihood of having the various components of ANC is positively associated with both education and wealth. The education and wealth differentials were smallest for ultrasound and largest for being informed of signs of pregnancy complications and weight measurement.

Table 10.3 Components of antenatal care

Among women age 15-49 with a live birth in the five years preceding the survey, the percentage who took iron tablets or syrup during the pregnancy of the most recent birth, and among women receiving antenatal care (ANC) for the most recent live birth in the five years preceding the survey, the percentage receiving specific antenatal services, according to background characteristics, Turkey 2013

Background characteristic	Among women with a live birth in the past five years, the percentage who during the pregnancy of their last birth:		Among women who received antenatal care for their most recent birth in the past five years, the percentage with selected services								
	Took iron tablets or syrup	Number of women	Informed of signs of pregnancy complications	Blood pressure measured	Urine sample taken	Blood sample taken	Weight measured	Ultra-sound	Abdo-minal exam	Tetanus vaccine	Number of women
Mother's age at birth											
<20	81.5	148	71.3	95.7	87.2	93.1	92.9	98.8	64.5	83.2	139
20-34	86.2	2,188	67.0	96.4	90.1	93.6	91.3	98.4	73.2	81.0	2,131
35-49	86.6	336	70.5	96.5	85.8	93.0	89.9	98.7	73.7	76.8	323
Birth order											
1	89.8	793	71.7	98.4	93.9	97.9	95.8	99.7	73.3	82.6	783
2-3	86.4	1,468	67.2	96.4	90.0	93.0	92.0	98.6	73.3	82.4	1,426
4-5	81.1	280	62.6	91.9	80.3	86.8	82.8	96.0	67.5	71.2	265
6+	70.0	131	57.8	92.7	74.1	85.7	70.8	93.1	76.2	66.5	120
Residence											
Urban	87.7	2,155	69.1	97.0	90.4	94.5	93.2	98.9	71.9	81.0	2,115
Rural	79.0	517	61.1	93.6	85.2	89.3	82.5	96.3	76.9	78.9	479
Region											
West	88.7	1,026	75.0	97.4	91.8	94.8	94.7	99.3	69.4	79.7	1,015
South	88.5	370	65.1	96.7	88.1	92.3	94.8	98.1	72.4	87.7	364
Central	88.7	496	68.1	99.5	95.4	98.2	96.8	99.6	82.8	88.7	481
North	90.8	162	66.7	98.2	94.2	97.7	94.0	98.9	70.0	84.0	155
East	76.6	618	56.1	91.1	79.9	87.0	77.5	96.0	71.6	70.1	578
Region (NUTS 1)											
Istanbul	87.9	558	76.9	96.6	89.6	93.6	93.4	99.2	65.1	72.7	555
West Marmara	90.8	81	77.2	96.4	94.8	96.4	93.9	99.2	83.9	92.1	79
Aegean	90.1	252	76.7	99.2	93.1	96.1	98.5	99.2	77.9	90.5	249
East Marmara	89.9	217	66.5	99.1	95.5	97.7	95.5	100.0	71.2	85.5	214
West Anatolia	87.9	206	54.5	99.7	95.7	97.6	96.2	100.0	80.4	86.9	202
Mediterranean	88.5	370	65.1	96.7	88.1	92.3	94.8	98.1	72.4	87.7	364
Central Anatolia	88.4	157	82.2	99.6	94.4	97.4	98.1	98.7	88.1	88.6	150
West Black Sea	89.8	132	66.1	97.6	96.9	99.3	93.7	99.6	70.3	85.7	126
East Black Sea	90.5	80	72.3	98.8	93.5	96.5	93.0	98.5	70.8	85.0	78
Northeast Anatolia	66.0	86	49.9	91.3	75.1	84.9	75.5	94.3	73.5	74.5	73
Central East Anatolia	75.3	152	59.1	94.4	90.0	91.4	77.9	94.9	80.3	73.1	138
Southeast Anatolia	79.5	380	56.2	89.8	77.1	85.8	77.7	96.8	68.0	68.1	367
Education											
No educ./Prim. Incomp.	71.8	448	53.4	91.1	77.3	84.3	76.2	94.7	68.4	67.6	411
Primary school	88.1	956	63.7	96.3	87.7	92.5	90.6	98.6	73.8	82.4	932
Secondary school	88.8	479	69.9	97.1	93.2	95.5	95.2	99.3	73.0	83.6	471
High school and higher	90.0	789	78.5	98.7	95.7	98.4	97.5	99.7	73.9	83.5	780
Wealth quintile											
Lowest	74.2	509	55.1	90.6	79.0	86.4	78.2	95.4	73.0	75.5	465
Second	85.2	581	62.8	96.7	85.1	89.9	90.5	98.2	71.4	81.6	562
Middle	87.6	568	68.7	96.8	91.4	95.4	94.5	99.0	74.3	79.9	559
Fourth	89.6	506	70.4	97.8	93.6	96.7	93.8	99.5	74.8	83.5	501
Highest	93.6	508	80.6	99.4	97.4	98.7	97.8	99.7	70.7	82.0	507
Total	86.0	2,672	67.6	96.4	89.4	93.5	91.2	98.4	72.8	80.6	2,594

10.4   Place of Delivery

The TDHS-2013 collected information on the place of delivery for all children born in the five years preceding the survey. Table 10.4 presents these results by background characteristics. Overall, the TDHS-2013 found that 97 percent of all births were delivered at a health facility compared to 90 percent in the TDHS-2008. Women were more than 1.6 times as likely to deliver in a public sector facility as in a private facility (60 percent and 37 percent, respectively).

While there is little difference in the percentage of women delivering in a health facility by mother's age at birth, a higher percentage of younger women delivered in the public sector where 68 percent of women under age 20 at birth delivered in the public sector compared with 58 percent of women age 35-49. The percentage of women delivering at a health facility declined as the birth order increased, from 99 percent among first births to 85 percent for sixth and higher order births. Furthermore, there was a positive relationship between the number of antenatal care visits and the likelihood of delivering in a health facility delivery. Almost all births to women having at least four or more antenatal checkups occurred at a health facility (99 percent). On the other hand, deliveries were much more likely to occur at home if the mother had no antenatal visits (20 percent).

Deliveries at health facilities are more common in urban areas (99 percent) than in rural areas, where 7 percent of deliveries occur at home. The proportion of health facility deliveries is above the national average of 97 percent in all regions except the East, where 92 percent occur at a health facility. In the NUTS 1 regions, in West Marmara and East Marmara, virtually all deliveries occur at a health facility. On the other hand, Northeast Anatolia, Central East Anatolia and Southeast Anatolia have the lowest percentages of health facility deliveries (89 percent, 91 percent, and 92 percent, respectively).

Both level of education and wealth status are positively associated with the likelihood of delivering in a health facility. The proportions of births occurring at a health facility rise from 90 percent among women in the lowest education and wealth quintile levels to nearly 100 percent among women in the highest education and wealth categories.

Regarding the type of facility, the majority of births to women in İstanbul delivered in private institutions (69 percent). The proportion choosing a private sector facility increases with educational attainment and wealth level. Fifty-four percent of women with at least high school education and 66 percent of women in the highest wealth quintile chose to deliver their baby in a private health facility. On the other hand, women in the lowest education and wealth quintile are the least likely among all of the subgroups in Table 10.4 to deliver in a private facility (19 percent and 10 percent, respectively).

Table 10.4 Place of delivery

Percent distribution of live births in the five years preceding the survey by place of delivery and percentage delivered in a health facility, according to background characteristics, Turkey 2013

	Health facility						Percentage delivered in a health facility	Number of births
Background characteristic	Public sector	Private sector	Home	Other	Missing	Total		
Mother's age at birth								
<20	67.6	29.7	2.2	0.0	0.5	100.0	97.3	241
20-34	59.9	37.5	2.2	0.1	0.4	100.0	97.3	2,724
35-49	57.7	38.6	3.2	0.2	0.3	100.0	96.3	361
Birth order								
1	56.1	43.3	0.4	0.0	0.3	100.0	99.4	1,147
2-3	61.5	36.4	1.6	0.1	0.4	100.0	97.9	1,684
4-5	62.8	29.6	6.6	0.3	0.6	100.0	92.5	331
6+	69.7	15.1	13.8	1.2	0.3	100.0	84.8	164
Antenatal care visits[1]								
None	67.3	12.0	20.0	0.7	0.0	100.0	79.3	73
1-3	74.2	18.2	6.3	1.3	0.0	100.0	92.4	211
4+	57.4	41.8	0.8	0.0	0.0	100.0	99.1	2,377
Residence								
Urban	56.2	42.5	1.0	0.0	0.2	100.0	98.7	2,621
Rural	75.0	16.7	6.9	0.5	0.9	100.0	91.7	705
Region								
West	46.3	53.6	0.2	0.0	0.0	100.0	99.8	1,204
South	63.6	34.2	2.0	0.1	0.0	100.0	97.9	469
Central	71.8	27.3	0.4	0.0	0.6	100.0	99.1	585
North	70.8	28.0	0.9	0.0	0.3	100.0	98.8	195
East	67.4	24.3	6.9	0.4	1.0	100.0	91.7	873
Region (NUTS 1)								
Istanbul	30.3	69.3	0.3	0.0	0.0	100.0	99.7	655
West Marmara	61.8	38.2	0.0	0.0	0.0	100.0	100.0	93
Aegean	66.9	32.6	0.0	0.0	0.5	100.0	99.5	284
East Marmara	65.4	34.6	0.0	0.0	0.0	100.0	100.0	275
West Anatolia	81.9	17.4	0.7	0.0	0.0	100.0	99.3	237
Mediterranean	63.6	34.2	2.0	0.1	0.0	100.0	97.9	469
Central Anatolia	63.7	35.5	0.4	0.0	0.4	100.0	99.2	186
West Black Sea	67.5	31.5	0.0	0.0	0.9	100.0	99.1	157
East Black Sea	72.6	25.6	1.8	0.0	0.0	100.0	98.2	97
Northeast Anatolia	81.3	7.4	10.2	0.0	1.0	100.0	88.8	119
Central East Anatolia	76.7	14.8	7.7	0.0	0.9	100.0	91.4	210
Southeast Anatolia	60.8	31.7	5.9	0.7	1.0	100.0	92.4	545
Education								
No educ./Prim. incompl.	71.2	19.1	8.2	0.6	0.9	100.0	90.3	647
Primary school	64.5	33.4	1.6	0.1	0.4	100.0	97.9	1,150
Secondary school	62.6	36.9	0.4	0.0	0.1	100.0	99.5	606
High school and higher	45.5	54.2	0.1	0.0	0.2	100.0	99.7	923
Wealth quintile								
Lowest	80.3	10.0	8.2	0.6	0.9	100.0	90.4	723
Second	72.5	25.7	1.4	0.0	0.4	100.0	98.2	750
Middle	58.0	40.9	0.8	0.0	0.2	100.0	99.0	680
Fourth	48.4	51.4	0.1	0.0	0.1	100.0	99.8	578
Highest	34.1	65.8	0.0	0.0	0.1	100.0	99.9	596
Total	60.2	37.0	2.3	0.1	0.4	100.0	97.2	3,326

[1] Includes only the most recent birth in the five years preceding the survey

10.5   Assistance during Delivery

Assistance by medically trained birth attendants during delivery is considered to be essential in the reduction of maternal and neonatal mortality. The type of assistance a woman receives during the birth of her child depends to a great extent on the place of delivery. Births that are delivered outside the health facility are much less likely to be assisted by a doctor or other trained health personnel. Overall, as Table 10.5 shows, medically trained providers assisted at the delivery of 97 percent of all births in the five years preceding the survey, compared to 91 percent at the time of the TDHS-2008. Almost eight in ten births are assisted by doctors, one in five by nurses/midwives and less than 2 percent by traditional birth attendants or relatives/friends.

The likelihood that trained health personnel assisted at delivery varies according to background characteristics, as shown in Table 10.5. Births to older women are slightly less likely than births among women under age 35 to be assisted by medical personnel. The proportion of births assisted at delivery by a medical provider declines sharply with birth order, from 99 percent among first births to 86 percent among sixth and higher order births. Furthermore, urban women are more likely than rural women to have medical assistance at delivery (99 percent and 92 percent, respectively). Medical assistance at delivery is least likely for births in the East region, births to women with no education or incomplete primary and births in the lowest wealth quintile. On the other hand, almost all births to women in the highest wealth quintile and to women with high school or more education are delivered with medical assistance. Among the NUTS 1 regions, the proportions of medically assisted deliveries are much lower than the national average in Northeast Anatolia, Central East Anatolia and Southeast Anatolia.

There are also differences in the percentage of deliveries assisted by specific types of providers. For instance, in the East the proportion of births assisted by a doctor is the lowest (61 percent), and by the nurse or midwife is the highest (31 percent). Not surprisingly, the place of delivery is closely associated with the type of assistance at delivery. Very few (1 percent) of the deliveries taking place outside a facility are assisted by a doctor and only 16 percent are assisted by a nurse or midwife. The proportions of births delivered with the assistance of a traditional birth attendant or a relative of friend is highest among births of order 6 or higher (11 percent), births in rural areas (6 percent), in the East (6 percent) and Central East Anatolia (6 percent), and births in the lowest wealth quintile (7 percent) and education category (7 percent).

In Turkey, caesarean deliveries are very common; 48 percent of all deliveries are delivered by caesarean section. The caesarean delivery is substantially higher than that reported at the time of the TDHS-2008 (37 percent). The likelihood of delivering by caesarean section increases with the age of the mother and decreases with child's birth order. In addition to this, 52 percent of first births are caesarean deliveries. Caesarean deliveries are more common among women living in urban areas (52 percent) than rural areas (36 percent). More than 50 percent of births are caesarean deliveries in all regions except the East, where 32 percent of births are delivered by caesarean section. The caesarean section rate increases with education and wealth; 66 percent or more of births in the highest education and wealth categories are delivered by caesarean section, more than two times the rate among births in the lowest education and wealth levels.

Table 10.5 Assistance during delivery

Percent distribution of live births in the five years preceding the survey by person providing assistance during delivery, percentage of birth assisted by a skilled provider and percentage delivered by caesarean-section, according to background characteristics, Turkey 2013

Background characteristic	Doctor	Nurse/ midwife	Traditional birth attendant	Relative/ other	No one	Don't know/ missing	Total	Percentage delivered by a skilled provider[1]	Percentage delivered by C-section	Number of births
Mother's age at birth										
<20	70.0	27.6	0.0	2.0	0.0	0.5	100.0	97.6	29.2	241
20-34	78.8	18.7	0.6	1.2	0.3	0.5	100.0	97.5	48.7	2,724
35-49	83.4	13.0	0.6	2.1	0.5	0.3	100.0	96.4	56.6	361
Birth order										
1	85.2	14.0	0.0	0.5	0.0	0.3	100.0	99.2	52.4	1,147
2-3	78.8	19.2	0.5	0.8	0.2	0.5	100.0	98.0	48.9	1,684
4-5	64.6	29.0	1.9	3.1	0.5	1.0	100.0	93.5	39.5	331
6+	60.4	25.9	2.8	8.6	2.1	0.3	100.0	86.3	28.3	164
Antenatal care visits[2]										
None	55.5	25.9	5.8	11.1	1.7	0.0	100.0	81.4	29.7	73
1-3	62.3	31.3	1.5	4.6	0.3	0.0	100.0	93.6	29.7	211
4+	83.4	15.8	0.2	0.4	0.2	0.0	100.0	99.2	53.4	2,377
Place of delivery										
Health facility	80.9	18.9	0.0	0.1	0.1	0.1	100.0	99.8	49.5	3,234
Elsewhere	1.4	15.6	23.7	52.7	5.7	0.9	100.0	17.0	0.0	80
Residence										
Urban	82.2	16.6	0.3	0.5	0.2	0.3	100.0	98.8	51.5	2,621
Rural	65.6	26.7	1.6	4.4	0.5	1.1	100.0	92.3	35.8	705
Region										
West	89.1	10.8	0.0	0.2	0.0	0.0	100.0	99.8	55.5	1,204
South	77.8	20.4	0.3	1.3	0.3	0.0	100.0	98.2	52.7	469
Central	84.1	14.5	0.1	0.2	0.5	0.6	100.0	98.7	51.1	585
North	79.2	19.9	0.0	0.5	0.2	0.3	100.0	99.0	55.0	195
East	61.1	31.3	2.0	3.9	0.5	1.3	100.0	92.4	32.1	873
Region (NUTS 1)										
Istanbul	95.0	4.7	0.0	0.3	0.0	0.0	100.0	99.7	53.2	655
West Marmara	85.3	14.7	0.0	0.0	0.0	0.0	100.0	100.0	66.3	93
Aegean	83.1	15.6	0.0	0.0	0.8	0.5	100.0	98.7	56.4	284
East Marmara	76.9	23.1	0.0	0.0	0.0	0.0	100.0	100.0	57.0	275
West Anatolia	89.9	9.5	0.2	0.4	0.0	0.0	100.0	99.3	48.2	237
Mediterranean	77.8	20.4	0.3	1.3	0.3	0.0	100.0	98.2	52.7	469
Central Anatolia	81.6	17.6	0.0	0.0	0.4	0.4	100.0	99.2	49.3	186
West Black Sea	84.4	14.7	0.0	0.0	0.0	0.9	100.0	99.1	56.5	157
East Black Sea	75.1	23.5	0.0	1.1	0.3	0.0	100.0	98.6	53.7	97
Northeast Anatolia	60.2	29.1	1.0	7.7	0.9	1.0	100.0	89.3	33.5	119
Central East Anatolia	67.5	24.5	2.0	4.2	0.3	1.5	100.0	91.9	31.1	210
Southeast Anatolia	58.8	34.5	2.1	2.9	0.5	1.3	100.0	93.2	32.1	545
Education										
No educ./Prim. incompl	60.7	30.2	2.2	4.9	0.7	1.2	100.0	90.9	27.1	647
Primary school	76.9	21.2	0.3	0.8	0.3	0.4	100.0	98.1	47.9	1,150
Secondary school	80.6	18.9	0.0	0.4	0.0	0.1	100.0	99.5	43.7	606
High school and higher	92.2	7.5	0.1	0.0	0.0	0.2	100.0	99.7	66.1	923
Wealth quintile										
Lowest	61.2	29.9	1.7	5.6	0.4	1.2	100.0	91.1	27.9	723
Second	70.5	27.3	0.7	0.2	0.7	0.5	100.0	97.8	43.8	750
Middle	83.4	15.9	0.2	0.3	0.0	0.2	100.0	99.3	51.5	680
Fourth	90.4	9.4	0.0	0.0	0.1	0.1	100.0	99.8	55.8	578
Highest	93.4	6.5	0.0	0.0	0.0	0.1	100.0	99.9	66.9	596
Total	78.7	18.7	0.6	1.3	0.3	0.4	100.0	97.4	48.1	3,326

Note: If the respondent mentioned more than one person attending during delivery, only the most qualified person is considered in this tabulation.
[1] Skilled provider includes doctor, nurse, midwife and auxiliary nurse/midwife.
[2] Includes only the most recent birth in the five years preceding the survey.

10.6   Postnatal Care

Care after delivery is very important for both the mother and her child, especially for births occurring at home. In order to assess the extent of postnatal care utilization, women whose last live birth occurred in the five years preceding the survey were asked, whether they and/or that child had received a postnatal checkup from a health provider and, if yes, within how many days of delivery the checkup was received. These questions were asked both of women who delivered in a health facility and women who delivered at home.

Table 10.6 and Table 10.7 present the type of the provider and the timing of the first postnatal checkup for the mother, respectively. Ninety-four percent of women reported that they had a postnatal checkup, almost all by a doctor.

The proportion of women receiving postnatal care for the last birth does not vary markedly with age, but is substantially higher among women with three or fewer births than among higher parity mothers. The likelihood of receiving postnatal care is also higher for women in urban areas than women in rural areas. The East region has the highest percentage of women receiving no postnatal care (14 percent). By NUTS 1 regions, variation in postnatal checkup prevalence ranges from a high in İstanbul of 98 percent to a low of 81 percent in Northeast Anatolia. Furthermore, there is a positive relationship between postnatal checkups and education and wealth quintile. Eighty-five percent of women with no education or incomplete primary education and 87 percent of women in the lowest wealth quintile had a postnatal checkup compared with 96 percent of women with high school or higher education and 98 percent of women in the highest wealth quintile.

With respect to the timing of the first postnatal care visit, the results in Table 10.7 indicates that 74 percent of women have the first checkup within four hours after delivery. Considering regional differences, the likelihood of receiving postnatal care shortly after delivery is lowest in the East (61 percent) and varies between the NUTS 1 regions from 55 percent in the Central East Anatolia to 87 percent in Istanbul. Postnatal checkups within four hours of delivery increase markedly with education and the wealth quintile.

Postnatal checkups for the baby are important in reducing infant deaths. Ninety-five percent of infants receive postnatal care from health personnel and 61 percent of all last births are seen for care within four hours following delivery in Turkey. As Tables 10.8 and 10.9 show, variations across subgroups in the likelihood of an infant receiving postnatal care from a health provider and in the timing when postnatal care is first received are similar to the patterns observed with respect to the mother's receipt of postnatal care.

Table 10.6 Type of provider of first postnatal checkup for the mother

Among women age 15-49 giving birth in the five years preceding the survey, the percent distribution by type of provider of the mother's first postnatal health check in the 41 days after the last live birth, according to background characteristics, Turkey 2013

Background characteristic	Type of health provider of mother's first postnatal checkup				Number of women
	Doctor	Nurse/midwife	No postnat chec.[1]	Total	
Mother's age at birth					
<20	66.1	28.0	5.9	100.0	148
20-34	69.6	24.2	6.2	100.0	2,188
35-49	75.6	18.6	5.8	100.0	336
Birth order					
1	75.3	19.9	4.8	100.0	793
2-3	71.0	23.3	5.7	100.0	1,468
4-5	57.5	32.4	10.2	100.0	280
6+	56.3	32.5	11.3	100.0	131
Place of delivery					
Health facility	71.1	23.9	5.0	100.0	2,618
Elsewhere	22.7	16.4	60.9	100.0	51
Residence					
Urban	72.8	22.1	5.2	100.0	2,155
Rural	59.2	30.6	10.2	100.0	517
Region					
West	74.6	21.8	3.6	100.0	1,026
South	71.2	25.1	3.7	100.0	370
Central	77.3	17.8	4.8	100.0	496
North	71.3	25.2	3.5	100.0	162
East	56.0	30.4	13.7	100.0	618
Region (NUTS 1)					
Istanbul	78.0	20.0	2.0	100.0	558
West Marmara	71.5	23.2	5.3	100.0	81
Aegean	71.4	24.8	3.9	100.0	252
East Marmara	70.1	23.4	6.5	100.0	217
West Anatolia	79.0	14.0	7.0	100.0	206
Mediterranean	71.2	25.1	3.7	100.0	370
Central Anatolia	76.6	19.7	3.7	100.0	157
West Black Sea	75.9	21.1	3.0	100.0	132
East Black Sea	69.7	26.9	3.4	100.0	80
Northeast Anatolia	47.8	32.9	19.3	100.0	86
Central East Anatolia	57.1	29.3	13.7	100.0	152
Southeast Anatolia	57.4	30.2	12.4	100.0	380
Education					
No educ./Primary incomp.	53.3	32.0	14.7	100.0	448
Primary school	69.9	24.8	5.3	100.0	956
Secondary school	72.0	23.7	4.4	100.0	479
High school and higher	78.8	17.7	3.5	100.0	789
Wealth quintile					
Lowest	55.2	31.6	13.2	100.0	509
Second	65.0	27.8	7.2	100.0	581
Middle	72.8	23.5	3.7	100.0	568
Fourth	72.6	23.0	4.4	100.0	506
Highest	85.6	12.0	2.4	100.0	508
Total	70.1	23.7	6.2	100.0	2,672

[1] Includes women who received a checkup after 41 days

Table 10.7 Timing of first postnatal checkup for the mother

Among women age 15-49 giving birth in the five years preceding the survey, the percent distribution of the mother's first postnatal check-up for the last live birth by time after delivery, and the percentage of women with a live birth in the five years preceding the survey who received a postnatal checkup in the first 41 days after giving birth, according to background characteristics, Turkey 2013

Background characteristic	Less than 4 hours	4-23 hours	1-2 days	3-6 days	7-41 days	Don't know/ missing	No postnatal checkup[1]	Total	Percentage of women with a postnatal checkup in the first 41 days after birth	Number of women
Mother's age at birth										
<20	77.4	9.6	3.0	0.0	2.7	1.4	5.9	100.0	92.7	148
20-34	73.9	9.6	4.0	1.4	4.2	0.7	6.2	100.0	93.1	2,188
35-49	72.2	10.9	4.9	0.9	4.9	0.6	5.8	100.0	93.7	336
Birth order										
1	73.0	9.9	5.6	1.3	4.8	0.7	4.8	100.0	94.5	793
2-3	76.1	9.6	3.2	1.1	3.8	0.6	5.7	100.0	93.8	1,468
4-5	69.9	8.7	5.0	1.6	3.4	1.2	10.2	100.0	88.6	280
6+	62.9	12.2	2.4	2.7	6.8	1.8	11.3	100.0	86.9	131
Place of delivery										
Health facility	75.2	9.9	4.1	1.2	3.9	0.7	5.0	100.0	94.3	2,618
Elsewhere	11.2	0.8	2.9	4.4	19.9	0.0	60.9	100.0	39.1	51
Residence										
Urban	75.6	9.4	3.8	1.2	4.1	0.7	5.2	100.0	94.1	2,155
Rural	66.5	11.1	5.4	1.6	4.3	0.9	10.2	100.0	88.9	517
Region										
West	81.8	8.1	2.5	0.7	3.2	0.2	3.6	100.0	96.2	1,026
South	75.3	11.5	4.3	1.0	3.3	0.8	3.7	100.0	95.5	370
Central	75.6	8.0	6.6	2.2	2.8	0.1	4.8	100.0	95.1	496
North	66.2	11.3	6.9	1.6	8.4	2.1	3.5	100.0	94.4	162
East	60.5	12.4	3.9	1.5	6.3	1.7	13.7	100.0	84.6	618
Region (NUTS 1)										
Istanbul	86.5	7.8	1.8	0.4	1.2	0.4	2.0	100.0	97.6	558
West Marmara	79.8	5.9	6.0	0.0	3.0	0.0	5.3	100.0	94.7	81
Aegean	75.8	13.0	2.7	0.0	4.6	0.0	3.9	100.0	96.1	252
East Marmara	73.7	6.5	3.9	3.2	6.1	0.0	6.5	100.0	93.5	217
West Anatolia	74.6	4.9	7.9	2.6	2.7	0.3	7.0	100.0	92.8	206
Mediterranean	75.3	11.5	4.3	1.0	3.3	0.8	3.7	100.0	95.5	370
Central Anatolia	74.7	10.2	5.8	2.0	3.5	0.0	3.7	100.0	96.3	157
West Black Sea	70.5	6.5	7.7	1.4	9.0	1.9	3.0	100.0	95.2	132
East Black Sea	72.3	13.2	4.2	2.1	3.7	1.1	3.4	100.0	95.5	80
Northeast Anatolia	57.6	9.5	4.7	2.1	6.2	0.5	19.3	100.0	80.2	86
Central East Anatolia	55.1	17.8	2.8	3.3	5.9	1.4	13.7	100.0	84.9	152
Southeast Anatolia	63.3	10.9	4.1	0.6	6.5	2.1	12.4	100.0	85.5	380
Education										
No educ./Primary incomp.	65.1	9.0	3.9	1.6	3.7	1.9	14.7	100.0	83.4	448
Primary school	74.1	10.5	4.5	0.9	4.1	0.6	5.3	100.0	94.1	956
Secondary school	75.9	9.4	4.3	0.8	4.4	0.8	4.4	100.0	94.8	479
High school and higher	77.3	9.3	3.6	1.8	4.4	0.1	3.5	100.0	96.4	789
Wealth quintile										
Lowest	64.8	10.5	5.2	1.8	3.3	1.3	13.2	100.0	85.6	509
Second	71.3	10.2	4.0	1.5	5.2	0.7	7.2	100.0	92.1	581
Middle	75.2	9.5	5.4	0.7	4.9	0.7	3.7	100.0	95.6	568
Fourth	78.6	10.5	2.7	0.1	3.1	0.6	4.4	100.0	95.0	506
Highest	79.7	7.9	3.1	2.3	4.1	0.4	2.4	100.0	97.1	508
Total	73.9	9.7	4.1	1.3	4.2	0.7	6.2	100.0	93.1	2,672

[1] Includes women who received a checkup after 41 days

Table 10.8 Type of provider of first postnatal checkup for the newborn

Percent distribution of last births in the five years preceding the survey by type of provider of the newborn's first postnatal health check during the 41 days after the last live birth, according to background characteristics, Turkey 2013

Background characteristic	Type of health provider of newborn's first postnatal checkup			No postnatal checkup[1]	Total	Number of births
	Doctor	Nurse/midwife	Missing			
Mother's age at birth						
<20	75.5	15.7	0.0	8.8	100.0	148
20-34	82.2	12.4	0.2	5.2	100.0	2,188
35-49	84.5	10.4	0.2	4.9	100.0	336
Birth order						
1	87.3	9.6	0.3	2.7	100.0	793
2-3	82.2	12.2	0.2	5.5	100.0	1,468
4-5	75.3	16.9	0.0	7.8	100.0	280
6+	64.4	21.5	0.0	14.1	100.0	131
Place of delivery						
Health facility	82.9	12.1	0.2	4.8	100.0	2,618
Elsewhere	44.3	26.9	0.0	28.8	100.0	51
Residence						
Urban	84.2	11.6	0.2	4.0	100.0	2,155
Rural	73.3	15.5	0.1	11.1	100.0	517
Region						
West	88.5	9.9	0.3	1.4	100.0	1,026
South	83.9	12.0	0.0	4.2	100.0	370
Central	86.9	9.1	0.0	4.1	100.0	496
North	80.8	15.0	0.0	4.1	100.0	162
East	67.0	18.6	0.4	14.1	100.0	618
Region (NUTS 1)						
Istanbul	90.2	8.6	0.5	0.8	100.0	558
West Marmara	86.7	11.5	0.0	1.8	100.0	81
Aegean	82.3	12.3	0.0	5.4	100.0	252
East Marmara	89.0	10.6	0.0	0.4	100.0	217
West Anatolia	94.3	5.2	0.0	0.5	100.0	206
Mediterranean	83.9	12.0	0.0	4.2	100.0	370
Central Anatolia	81.1	13.4	0.0	5.6	100.0	157
West Black Sea	82.9	12.0	0.0	5.1	100.0	132
East Black Sea	79.3	15.8	0.0	4.9	100.0	80
Northeast Anatolia	60.9	22.7	0.0	16.3	100.0	86
Central East Anatolia	72.3	12.9	0.0	14.8	100.0	152
Southeast Anatolia	66.2	19.9	0.6	13.3	100.0	380
Education						
No educ./Primary incompl.	64.6	20.7	0.2	14.5	100.0	448
Primary school	80.9	13.8	0.1	5.2	100.0	956
Secondary school	83.2	12.5	0.0	4.3	100.0	479
High school and higher	92.8	5.9	0.3	1.0	100.0	789
Wealth quintile						
Lowest	66.1	19.7	0.2	13.9	100.0	509
Second	78.2	15.5	0.0	6.3	100.0	581
Middle	82.8	12.4	0.2	4.6	100.0	568
Fourth	91.0	6.9	0.5	1.6	100.0	506
Highest	92.9	6.9	0.0	0.2	100.0	508
Total	82.1	12.4	0.2	5.4	100.0	2,672

[1] Includes newborns who received a checkup after 41 days

Table 10.9 Timing of first postnatal checkup for the newborn

Percent distribution of last births in the five years preceding the survey by time after birth of first postnatal checkup, and the percentage of births with a postnatal checkup in the first 41 days after birth, according to background characteristics, Turkey 2013

Background characteristic	Time after birth of newborn's first postnatal checkup							No postnatal checkup[1]	Total	Percentage of births with a postnatal checkup in the first 41 days after birth	Number of births
	Less than 1 hour	1-3 hours	4-23 hours	1-2 days	3-6 days	7-41 days	Don't know/ missing				
Mother's age at birth											
<20	36.1	20.1	6.7	5.8	3.2	18.8	0.4	8.8	100.0	90.8	148
20-34	40.7	20.5	4.4	6.1	7.1	15.4	0.7	5.2	100.0	93.9	2,188
35-49	44.5	15.8	4.9	6.3	6.4	16.0	1.3	4.9	100.0	93.6	336
Birth order											
1	44.7	20.4	3.8	7.3	7.0	13.5	0.6	2.7	100.0	96.3	793
2-3	41.1	19.8	4.7	5.9	6.4	15.8	0.7	5.5	100.0	93.6	1,468
4-5	33.4	21.8	5.2	5.0	8.2	17.4	1.2	7.8	100.0	91.0	280
6+	32.2	14.1	6.8	3.3	6.2	22.5	0.7	14.1	100.0	85.2	131
Place of delivery											
Health facility	41.7	20.2	4.6	6.2	6.7	15.0	0.8	4.8	100.0	94.3	2,618
Elsewhere	3.5	3.8	4.0	4.0	9.7	46.3	0.0	28.8	100.0	71.2	51
Residence											
Urban	44.4	19.2	4.4	6.1	6.8	14.6	0.5	4.0	100.0	95.4	2,155
Rural	26.2	22.9	5.1	6.3	6.7	19.8	1.8	11.1	100.0	86.9	517
Region											
West	64.1	15.9	3.7	3.6	2.8	7.6	0.8	1.4	100.0	97.6	1,026
South	24.9	25.1	3.4	8.6	11.7	21.8	0.4	4.2	100.0	95.4	370
Central	31.5	25.5	4.3	8.2	11.3	15.0	0.1	4.1	100.0	95.8	496
North	35.0	20.3	9.1	8.5	6.3	13.8	2.9	4.1	100.0	92.9	162
East	21.1	18.8	5.7	6.5	6.9	26.2	0.8	14.1	100.0	84.9	618
Region (NUTS 1)											
Istanbul	80.0	8.8	3.7	2.0	1.6	2.6	0.6	0.8	100.0	98.1	558
West Marmara	36.7	23.7	1.5	8.7	6.1	20.7	0.9	1.8	100.0	97.3	81
Aegean	54.7	13.4	6.8	5.8	3.4	9.2	1.3	5.4	100.0	93.3	252
East Marmara	37.8	33.0	4.5	3.3	4.6	15.9	0.4	0.4	100.0	99.2	217
West Anatolia	28.9	29.5	3.5	9.1	16.5	12.1	0.0	0.5	100.0	99.5	206
Mediterranean	24.9	25.1	3.4	8.6	11.7	21.8	0.4	4.2	100.0	95.4	370
Central Anatolia	21.9	24.9	2.2	9.6	11.8	23.6	0.4	5.6	100.0	94.0	157
West Black Sea	41.4	25.9	5.1	8.0	3.1	8.9	2.5	5.1	100.0	92.4	132
East Black Sea	32.4	19.2	10.1	8.5	7.8	15.4	1.8	4.9	100.0	93.3	80
Northeast Anatolia	12.1	21.0	2.3	4.7	7.1	35.5	1.0	16.3	100.0	82.7	86
Central East Anatolia	12.3	29.6	9.7	6.8	4.9	20.5	1.3	14.8	100.0	83.9	152
Southeast Anatolia	26.6	14.0	4.8	6.8	7.7	26.5	0.5	13.3	100.0	85.8	380
Education											
No educ./Prim. incompl.	28.6	17.0	6.1	4.9	7.0	21.0	1.1	14.5	100.0	84.3	448
Primary school	40.5	20.6	4.7	5.8	6.5	15.6	1.1	5.2	100.0	93.6	956
Secondary school	39.8	20.6	5.4	7.1	6.4	15.7	0.7	4.3	100.0	94.9	479
High school and higher	49.0	20.4	3.0	6.6	7.3	12.6	0.1	1.0	100.0	98.5	789
Wealth quintile											
Lowest	24.9	19.9	6.3	5.7	7.3	20.6	1.4	13.9	100.0	84.5	509
Second	31.7	22.2	4.7	7.5	7.8	18.8	1.0	6.3	100.0	92.7	581
Middle	43.2	20.7	4.2	5.8	6.3	14.1	1.1	4.6	100.0	94.1	568
Fourth	48.9	19.7	4.2	5.8	6.0	13.5	0.2	1.6	100.0	97.6	506
Highest	56.9	16.6	3.4	5.6	6.4	11.0	0.0	0.2	100.0	99.8	508
Total	40.9	19.9	4.6	6.1	6.8	15.6	0.7	5.4	100.0	93.7	2,672

[1] Includes newborns who received a checkup after 41 days

NUTRITIONAL STATUS AND CHILD HEALTH 11

Ahmet Sinan Türkyılmaz, Tuğba Adalı and Pelin Çağatay Seçkiner

This chapter focuses on breastfeeding practices of newborns, feeding practices of children under age 3; nutritional status of women age 15-49 and children under age of 5 based on anthropometric measurements, birth weight and size and finally vaccination status of children under 3.

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 TDHS-2013 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. To further assess the nutritional status of all children under age five and women age 15-49, anthropometric (height and weight) measurements were also obtained.

Anthropometric measurements are directly related to nutritional status, which influences the risk of morbidity and mortality of young children. Both the duration and intensity of breastfeeding are crucial, 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.

Nutritional status of all women is assessed in this chapter, different from the earlier approach of presenting only women who have had a birth in the five years preceding. In the TDHS-2013, an opportunity arose to provide nationally representative results on the anthropometric measurements for women age 15-49, as all women, regardless of marital status, were interviewed in this survey. The findings that are comparable to the earlier TDHS surveys are presented in Appendix E Table E.10.

11.1   Initiation of Breastfeeding

Breastfeeding of infants is among the most important factors contributing to the maintenance of healthy growth. Breast milk contains all the nutrients needed by children in the first 4-6 months of life. Moreover, breast milk is clean, safe and always available at just the right temperature, and it promotes a close mother-child relationship. In addition, it provides some immunity to disease through the mother's antibodies, helps in reducing the prevalence of nutritional deficiencies, and avoids food-borne infections.

Table 11.1 shows the percentage of children born in the five years preceding the survey according to breastfeeding status and the timing of the initial breastfeeding by selected background characteristics. Breastfeeding is almost universal in Turkey; 96 percent of all children are breastfed for some period of time, with minimal variation by background characteristics.

Table 11.1 Initial breastfeeding

Among all children who were born in the five years preceding the survey, the percentage who were ever breastfed and the percentages who started breastfeeding within one hour and within one day of birth; and among children born in the five years preceding the survey who were ever breastfed, the percentage who received a prelacteal feed, by background characteristics, Turkey 2013

Background characteristic	Among all children born in the past five years:				Among all children born in the past five 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 children	Percentage who received a prelacteal feed[2]	Number of children ever breastfed
Sex						
Male	96.7	50.1	70.1	1,757	26.5	1,700
Female	95.9	49.7	70.4	1,569	24.8	1,505
Assistance at delivery						
Health professional[3]	96.7	50.5	70.9	3,239	25.7	3,133
Traditional birth attendant	(100.0)	(27.2)	(55.7)	19	(20.0)	19
Other	97.3	37.7	49.1	44	28.8	43
Place of delivery						
Health facility	96.6	50.5	70.9	3,234	25.8	3,125
At home	98.4	35.3	55.2	76	23.3	75
Residence						
Urban	96.6	51.5	72.2	2,621	26.5	2,532
Rural	95.5	44.1	62.9	705	22.5	673
Region						
West	96.9	52.9	75.7	1,204	27.1	1,166
South	97.2	53.3	69.6	469	24.8	456
Central	96.6	56.6	71.4	585	25.2	565
North	96.9	51.3	73.1	195	27.3	189
East	94.9	39.3	61.6	873	24.2	829
Region (NUTS 1)						
Istanbul	96.7	52.2	77.9	655	26.1	633
West Marmara	97.6	57.2	74.8	93	27.8	91
Aegean	95.8	52.5	73.9	284	26.9	272
East Marmara	97.5	52.3	68.9	275	30.8	268
West Anatolia	97.8	60.8	74.3	237	23.5	232
Mediterranean	97.2	53.3	69.6	469	24.8	456
Central Anatolia	98.1	53.9	71.2	186	23.5	182
West Black Sea	93.7	54.7	71.0	157	30.3	147
East Black Sea	97.8	50.7	74.5	97	22.9	95
Northeast Anatolia	95.8	42.1	64.3	119	22.5	114
Central East Anatolia	96.9	37.1	64.7	210	23.6	203
Southeast Anatolia	94.0	39.6	59.8	545	24.8	512
Education						
No education/Primary incomplete	95.1	39.8	59.7	647	19.7	615
Primary school	96.8	50.8	74.6	1,150	24.2	1,113
Secondary school	95.7	53.2	68.9	606	26.5	580
High school and higher	97.2	53.8	73.0	923	31.3	897
Wealth quintile						
Lowest	95.7	40.8	60.3	723	20.1	693
Second	95.3	47.9	68.4	750	23.0	715
Middle	97.0	53.8	74.5	680	26.2	660
Fourth	97.4	55.7	77.0	578	26.9	562
Highest	96.6	53.6	73.2	596	34.1	576
Total	96.4	49.9	70.2	3,326	25.7	3,205

Note: Table is based on all children born in the five years preceding the survey regardless of whether the children are living or dead at the time of interview.
[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
[3] Doctor or nurse/midwife
Figures in parenthesis are based on 25-49 unweighted cases.

Early initiation of breastfeeding is of benefit to both mother and infant. Suckling stimulates the production of oxytocin, a hormone that causes the mother's uterus to contract thus returning it back to normal size and function. The first breast milk, colostrum, protects the newborn infant from infections because of its high concentration of antibodies. Information from the TDHS-2013 indicates that 50 percent of children are put to breast within the first hour after birth.

Initiation of breastfeeding within one hour of birth is more common among births assisted by health professionals and among births that took place at health facilities. It does not differ by the sex of child. Early initiation of breastfeeding is less common in rural areas than urban areas (44 percent and 52 percent, respectively). By region early initiation of breast feeding ranges from a low of 39 percent in the East to a high of 57 percent in the Central region. The proportion of breastfeeding within the first hour is highest in West Anatolia at 61 percent. Early initiation of breastfeeding has a positive association with education and wealth. Forty percent of children of mothers with no education or incomplete primary school initiated breastfeeding within the first hour after birth compared to 54 percent of children of women with high school or higher education. Similarly, 41 percent of children in the lowest wealth quintile initiated breastfeeding within one hour of birth compared to 54 percent of children in the highest wealth quintile.

The proportion of children who started breastfeeding within the first day of birth varies less between subgroups as compared with breastfeeding in the first hour. However, it is still less common in the rural areas, East region and Southeast Anatolia in particular. A difference of about 10 percentage points is observed again between children of mothers with less than primary school education and others. Sixty percent of children in the lowest wealth quintile start breastfeeding within the first day of birth, compared to 73 percent in the highest wealth quintile.

Prelacteal feeding is the practice of giving other liquids to an infant before breastmilk. Table 11.1 shows that 26 percent of children received a prelacteal feed. This percentage does not differ greatly by background characteristics except for mothers' education and household wealth. The proportion of prelacteal fed babies is highest for children in the highest wealth quintile (34 percent) and lowest for children in the lowest wealth quintile (20 percent).

11.2   Breastfeeding Status by the Age of the Child

According to the recommendations of UNICEF and WHO, children should be exclusively breastfed (i.e., without receiving other liquids, solid foods, or plain water) during the first 6 months of life and that solid or mushy supplements should be given after the age of six months. In addition to the supplements, it is recommended that breastfeeding should be continued throughout the second year of life. Use of bottles with nipples is not recommended at any age.

Table 11.2 Breastfeeding status by age

Percent distribution of youngest children under three years who are living with their mother by breastfeeding status and the percentage currently breastfeeding; and the percentage of all children under three years using a bottle with a nipple, according to age in months, Turkey 2013

| | Breastfeeding status | | | | | | | | Number of youngest child under three years living with their mother | Percentage using a bottle with a nipple | Number of all children under three years |
Age in months	Not breast-feeding	Exclusively breastfed	Breast-feeding and consuming plain water only	Breast-feeding and consuming non milk liquids[1]	Breast-feeding and consuming other milk	Breast-feeding and consuming comple-mentary foods	Total	Percent-age currently breast-feeding			
0-1	7.3	57.9	9.5	0.0	25.3	0.0	100.0	92.7	67	31.4	66
2-3	6.0	35.4	26.6	1.0	29.5	1.5	100.0	94.0	116	36.6	116
4-5	10.6	9.5	26.1	0.6	23.9	29.3	100.0	89.4	120	47.3	118
6-7	17.2	4.7	9.7	1.2	10.1	57.1	100.0	82.8	124	61.3	125
8-9	27.9	0.0	3.4	0.0	2.0	66.7	100.0	72.1	122	64.4	125
10-11	33.0	0.0	1.1	2.6	0.5	62.8	100.0	67.0	88	54.5	88
12-15	31.8	0.2	0.0	0.0	2.8	65.1	100.0	68.2	205	59.5	209
16-19	52.5	0.6	0.2	1.1	0.5	45.1	100.0	47.5	242	60.0	249
20-23	66.1	0.0	0.8	0.0	0.0	33.1	100.0	33.9	177	53.4	209
24-27	85.9	0.0	0.0	0.0	0.0	14.1	100.0	14.1	198	51.9	221
28-31	92.2	0.0	0.0	0.0	0.3	7.5	100.0	7.8	169	45.1	208
32-35	97.7	0.0	0.4	0.0	0.0	1.9	100.0	2.3	160	45.3	196
0-5	8.1	30.1	22.6	0.6	26.3	12.2	100.0	91.9	302	39.7	300
6-9	22.5	2.4	6.6	0.6	6.1	61.9	100.0	77.5	246	62.8	250

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, non-milk 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

The percent distribution of youngest living children under age three by breastfeeding status and age at the time of the survey is shown in Table 11.2. The child's breastfeeding status is based on information collected from mothers on feeding practices in the last 24 hours before the interview. "Exclusively breastfed" refers to children who received breast milk only within this time period. "Children who are fully breastfed" includes those who are exclusively breastfed and those who receive only plain water in addition to breast milk. Table 11.2 also shows the percentage of babies who drank anything from a bottle with a nipple in the day or night before the interview. The table allows for an assessment of the timing of the introduction of liquid and solid supplements. This is important, since the early introduction of supplementary food increases the risk of gastrointestinal infections, a risk factor for morbidity and mortality.

The TDHS-2013 results in Table 11.2 indicate that in the first two months of life, 58 percent of babies are exclusively breastfed. This proportion decreases rapidly with the age of child, dropping to 10 percent for babies who are 4-5 months old. The table also shows that the proportion of babies under two months of age that are predominantly breastfed, i.e., receiving

only water, water-based liquids or juices in addition to breast milk is 10 percent. One in four babies less than 2 months of age are given milk other than breast milk. The table shows that, after the sixth month until the 16th month, more than half of babies are both breastfed and given complementary foods. After the 16th month, continued breastfeeding with supplements starts to decrease among children, reaching 14 percent at the 24-27 months of age.

Bottle-feeding is discouraged among very young children, because it contributes to an increased risk of gastrointestinal infections. Table 11.2 shows that, 40 percent of children less than six months of age used a bottle with a nipple, this increases to a peak of 64 percent among children age 8-9 months.

11.3   Duration and Frequency of Breastfeeding

Table 11.3 shows the median durations of any, exclusive and predominant breastfeeding by background characteristics. The median duration of any breastfeeding among children born in the three years before TDHS-2013 is 16.7 months. Male children (18.0 months) are breastfed longer than the female children (16.3 months). The median duration of breastfeeding is higher in rural areas (17.9 months) than urban areas (16.4 months).

Median durations for exclusive breastfeeding are very short, under two months for all subgroups except among women with high school or higher education. The median duration for predominant breastfeeding is 2.9 months. Children in the West region, with higher educated mothers and in wealthier households have a somewhat longer period of predominant breastfeeding than other children.

11.4   Types of Complementary Foods

Table 11.4 shows the percentage of breastfeeding and non-breastfeeding children receiving different types of supplements. Infant formula is the most widely given food to babies under 6 months, with 28 percent of breastfeeding babies having received it. Although the number of observations are small for the first year of life for non-breastfed children, the results for this group also suggest that infant formula is also commonly given in the first months of life, with other types of milk being given more often as babies grow older.

Twenty-three percent of breastfeeding babies who are 0-1 months old are fed baby formula; this proportion is above 30 percent for babies 4-9 months old. Proportion of baby formula receivers drops sharply after the 9th month. For babies 6-9 months old, cheese, yogurt and other milk products are given the most (57 percent). For both breastfeeding and non-breastfeeding children under 3 in total, food made from grains is the most widely given.

In summary, although breastfeeding is widespread in Turkey, exclusive breastfeeding has decreased from 42 percent in the TDHS-2008 to 30 percent in the TDHS-2013 for children under 6 months, thus exclusive breastfeeding is not widely practiced as recommended. However, more children are breastfed within the first hour and first day in TDHS-2013 (50 and 70 percent, respectively) than TDHS-2008 (39 percent and 73 percent, respectively). Early introduction of infant formula and other liquids is common, and bottle-feeding is a popular feeding practice in Turkey. Twelve percent of babies received complementary foods before the

6th month in the TDHS-2013, compared with 8 percent in the TDHS-2008. Efforts to promote exclusive breastfeeding should continue in the future.

Table 11.3 Median duration of breastfeeding

Median duration of any breastfeeding, exclusive breastfeeding, and predominant breastfeeding among children born in the three years preceding the survey, by background characteristics, Turkey 2013

Background characteristic	Median duration (months) of breastfeeding among children born in the past three years[1]			Number of children
	Any breast-feeding	Exclusive breast-feeding	Predominant breast- feeding[2]	
Sex				
Male	18.0	1.3	2.8	1,024
Female	16.3	1.1	2.9	938
Residence				
Urban	16.4	1.4	3.0	1,549
Rural	17.9	(0.7)	2.4	413
Region				
West	17.0	1.9	3.4	702
South	(13.5)	(1.3)	(2.7)	268
Central	18.6	1.5	3.4	348
North	(18.9)	*	*	114
East	16.4	(0.7)	2.0	529
Education				
No education/Primary incomplete	17.6	1.4	2.3	365
First level primary	17.4	*	2.3	647
Second level primary	15.1	*	2.7	406
High school and higher	16.6	2.1	3.5	543
Wealth quintile				
Lowest	17.9	*	2.2	421
Second	16.5	1.2	3.0	450
Middle	15.4	1.4	2.0	416
Fourth	19.0	*	4.6	325
Highest	(15.6)	2.0	3.3	351
Total	16.7	1.2	2.9	1,962
Mean for all children	16.5	2.7	4.2	-

Note: Median and mean durations are based on the distributions at the time of the survey of the proportion of births by months since birth. Includes children living and deceased at the time of the survey.
[1] It is assumed that children not currently living with the mother are not currently breastfeeding

[2] Either exclusively breastfed or received breast milk and plain water, and/or non-milk liquids only

Percentage of last child under three years of age by type of foods consumed in the day or night preceding the interview, according to breastfeeding status and age, Turkey 2013

	Liquids			Solid or semi-solid foods							
Age in months	Infant formula	Other milk[1]	Other liquids[2]	Food made from grains[3]	Other fruits and vege-tables	Food made from legumes and nuts	Meat, fish, poultry	Eggs	Cheese, yogurt, other milk product	Any solid or semi-solid food	Number of children
					BREASTFEEDING CHILDREN						
0-1	22.5	5.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62
2-3	25.8	7.2	2.7	0.0	0.0	0.0	0.0	0.0	1.0	1.6	109
4-5	32.2	16.9	18.3	15.7	12.4	1.1	2.3	6.5	23.7	32.8	107
6-7	31.3	26.1	45.3	43.1	40.4	2.1	4.7	20.4	47.2	69.0	102
8-9	32.4	29.9	73.5	77.9	64.0	24.7	23.6	45.7	68.9	92.5	88
10-11	22.3	23.0	69.2	76.1	72.6	9.3	23.8	40.4	79.8	93.6	59
12-15	18.4	35.6	83.1	88.6	74.4	29.1	54.9	59.2	78.6	95.5	140
16-19	9.7	54.0	81.9	93.8	81.2	26.6	41.0	43.1	69.9	95.1	115
20-23	6.6	40.9	75.7	96.7	77.9	26.6	59.1	60.9	62.1	97.7	60
24-35	0.6	55.9	77.6	97.3	79.7	35.1	50.0	53.7	75.0	97.3	45
0-5	27.5	10.6	8.1	6.1	4.8	0.4	0.9	2.5	9.5	13.3	278
6-9	31.8	27.9	58.3	59.2	51.3	12.6	13.4	32.1	57.3	79.8	190
Total	21.6	29.0	52.4	57.3	48.9	15.1	25.2	32.1	50.0	66.4	886
					NONBREASTFEEDING CHILDREN						
0-1	*	*	*	*	*	*	*	*	*	*	5
2-3	*	*	*	*	*	*	*	*	*	*	7
4-5	*	*	*	*	*	*	*	*	*	*	13
6-7	*	*	*	*	*	*	*	*	*	*	21
8-9	(89.1)	(44.4)	(87.3)	(73.0)	(65.5)	(32.3)	(45.7)	(43.7)	(76.2)	(93.5)	34
10-11	(73.7)	(46.7)	(90.7)	(85.0)	(73.9)	(22.5)	(30.2)	(37.4)	(71.5)	(89.6)	29
12-15	48.4	68.5	84.1	92.3	68.6	25.6	41.4	62.6	65.8	96.2	65
16-19	21.4	73.3	84.5	91.0	76.1	30.8	56.4	63.4	78.7	95.2	127
20-23	10.2	69.6	92.1	94.2	83.9	41.1	56.1	67.1	72.5	98.1	117
24-35	3.9	68.5	88.3	98.5	87.3	37.3	61.2	66.4	77.6	99.7	482
0-5	(72.7)	(18.1)	(2.5)	(0.9)	(3.4)	(0.0)	(0.0)	(0.0)	(12.6)	(13.5)	24
6-9	91.5	45.9	71.9	58.7	57.0	26.8	30.8	40.3	65.4	84.3	55
Total	19.9	65.8	84.7	90.9	79.3	33.9	53.9	61.5	73.5	95.0	900

Note: Breastfeeding status and food consumed refer to a 24-hour" period (yesterday and last night).
[1] Other milk includes fresh, tinned and powdered cow or other animal milk
[2] Doesn't include plain water
[3] Includes bread, cereals and grains
An asterisk indicates that a figure is based on fewer than 25 unweighted cases and has been suppressed. Figures in parentheses are based on 25-49 unweighted cases.

11.5 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 TDHS-1993. Both weight and height (length) measurements were obtained for all children under 5 years of age whose mother was interviewed in the TDHS-2013 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 both malnutrition and overweight/obesity among children.

In any large population, there is a natural variation in height and weight. This variation approximates a normal distribution. It is standard practice to use a reference population to compare the findings when analyzing anthropometric data, using the properties of the normal distribution. The reference population serves as a point of comparison, facilitating the examination of differences in the anthropometric status of subgroups in a population and of changes in nutritional status over time. In the TDHS-1993, TDHS-1998, TDHS-2003 and TDHS-2008 surveys, the nutritional status of children in the survey population was compared to an international reference population defined by the 1977 U.S. National Center for Health Statistics (NCHS) and accepted by the U.S. Centers for Disease Control (CDC) and the World Health Organization (WHO).

The latest reference, the 2006 WHO Child Growth Standards, was first used in the TDHS-2008, and the results were presented as a table in the Appendix E of the survey report. Tables for both references were produced for the TDHS-2013 to ensure comparability. This chapter includes the findings for the 2006 WHO reference, while Appendix E Table E.9. includes the tables for the NCHS/CDC/WHO references. The use of these international reference populations is based on the finding that well-nourished young children of all population groups (for which data exist) follow very similar growth patterns before puberty.

As recommended by the World Health Organization (WHO), the evaluation of the nutritional status of young children involves three basic indices. The height-for-age index provides an indicator of linear growth retardation among children. Children who are more than two standard deviations below the median of the reference population in terms of height-for-age are considered stunted (short for their age), or chronically malnourished. Children who are below minus three standard deviations (-3 SD) from the median of the reference population are considered severely stunted. Stunting reflects the outcome of a failure to receive adequate balanced nutrition over a long period of time and is also affected by recurrent and chronic illness. 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. Stunted children are not immediately obvious in a population; a stunted three-year-old child could look like a well-fed two-year-old. It should be noted that, stunting usually will be greater using the 2006 WHO Child Growth Standards than the 1977 NCHS/CDC/WHO reference, but not necessarily at all ages.

The weight-for-height index measures body mass in relation to body length. Children who are more than two standard deviations below the median of the reference population in terms of their weight-for-height may be considered too thin (wasted) or acutely malnourished. 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. Wasting will be substantially higher during infancy when using the 2006 WHO Standards compared to the 1977 Reference, particularly in the first six months of life.

The weight-for-age index takes into account both acute and chronic malnutrition and often is 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. Children whose weight-for-age is below minus two standard deviations from the median of the reference population are classified as "underweight". 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. As is the case for the other indicators, the use of the 2006 WHO Standards usually will result in substantial increases in underweight during the first 0-5 months and a decrease thereafter when compared to the 1977 reference.

In addition to malnutrition, overweight and obesity are becoming problems for some children in developing countries. The percentage of children more than two standard deviations above the median for weight-for-height indicates the level of this potential problem. The percentage of children more than two standard deviations above the median for weight-for-age is included here in order to compare with other data sources that did not measure height.

The mean z-score is calculated as one of the summary statistics to represent the nutritional status of children in a population. This indicator describes the nutritional status of the population as a whole without the use of a cut-off. A mean z-score of less than 0, i.e., a negative value, for stunting, wasting, or underweight, suggests the nutritional status of the survey population is poorer on average than that of the WHO Growth Standards population.

In the TDHS-2013, all children under five years of age whose mother was interviewed are included in the anthropometric data collection. However, 21 percent of eligible children's height or weight measurements are missing (see Table D.3 in Appendix D).

Table 11.5 presents how the percentage of children under five years of age classified as malnourished or overweight according to the height-for-age, weight-for-height, and weight-for-age indices vary with the child's age and selected other characteristics.

Table 11.5 shows that one in 10 children under age five is stunted (i.e., short for their age), with around one-third of stunted children classified as severely stunted. A small percentage of children in Turkey are wasted; less than 2 percent have a weight-for-height z-score below -2SDs. The proportion of underweight children is close to the proportion of wasted children (2 percent).

The youngest children show little evidence of malnutrition. However, the proportion classified as stunted exhibits a steady increase starting in the first year of life. Among children 24-59 months of age, around 12 percent are classified as stunted. Severe stunting peaks in the 24-35 month age range. Among children age 48-59 months, around 3 percent are still considered severely stunted. These patterns reflect inadequate, unbalanced feeding practices and/or the presence of recurrent and chronic infections.

The proportion of underweight increases to around 4 percent in the 24-35 month age range and then declines to below 2 percent at age 48 months. Finally, as the figure shows, the percentages of children who are wasted are at very low levels across all ages.

More male children are stunted than female children (11 and 8 percent, respectively). However, the proportion of wasted and underweight children do not differ greatly by sex. An increasing proportion of stunting was observed with increasing birth order, however no such pattern was seen for the other two indices. Birth interval is also related to the prevalence of stunting. Children who are born with an interval of less than two years are much more prone to be stunted. Of these children, 16 percent are stunted (-2 SD) and 7 percent are severely stunted (-3SD). The same pattern applies for weight-for-age. As expected, children with smaller size at birth have a higher proportion of malnutrition. While the proportion of stunted children among those who were reported by their mothers to be very small at birth is 25 percent, it is as low as 7 percent for those reported as average or larger.

Table 11.6 shows the percentage of children under five years of age classified as malnourished according to the three anthropometric indices by selected socio-economic characteristics of mothers. The proportion of being stunted, wasted or underweight is higher in rural areas than urban areas. By region, chronic malnutrition (15 percent) and low weight-for-age (3 percent) is most common in the East. The prevalence of stunting peaks in Northeast Anatolia where 18 percent of children are stunted. The proportion of underweight children is also highest in this region, 5 percent of children are thin for their age. Aegean region in particular has the lowest proportion of children who are short for their age (5 percent). There are also striking differences in the percentage classified as stunted according to the mother's level of education. The percentage of children whose mothers have high school education or higher who are below the -2 SD cut-off point (6 percent) is substantially lower than the percentage of children whose mothers have no education or not completed primary school (14 percent).

Malnutrition among children has not changed by much since the TDHS-2008 survey. The proportion of stunted children decreased from 12 percent to 10 percent. The percentage of wasted children remains low overall despite increasing from 1 percent to 2 percent. The indicator of both acute and chronic malnutrition, weight-for-age suggests no changes since TDHS-2008: The percentage of underweight children has remained at 2 percent for both surveys[1].

For the first time in the TDHS-2013, findings related to overweight/obesity among children are presented from anthropometrical data collected in Turkey DHS surveys. Both the weight-for-height and the weight-for-age indices are presented in Tables 11.5 and 11.6 by background characteristics. Children who are two standard deviations above the reference median for weight-for-height are considered as overweight/obese in this report, and the weight-for-age +2SD values are presented for comparison with other data sources without information on height.

According to Table 11.5, 11 percent of children under 5 years of age are overweight/obese. The proportion of overweight/obese children generally shows similar trends to malnutrition indicators - but reversed. It is mostly common between 6 and 36 months of age. Overweight and obesity does not differ by sex of child, and is higher among children in lower birth orders (13 percent for the birth order 2-3, and 9 percent for 6 or higher).

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[1] The comparison with TDHS-2008 is made using the 2006 WHO Child Growth Standard table presented in the Appendix E section of this survey report.

Overweight/obesity is more common among children born after longer birth intervals (12 percent for children born after 48 or more months), and among children who were reported as average or larger sized at birth by their mothers (12 percent).

Table 11.6 shows overweight/obesity among young children is higher in urban areas than rural areas (12 percent and 8 percent, respectively), higher in the West region than the East (14 percent and 5 percent, respectively), and especially high in East Marmara (18 percent). Children whose mothers are more educated are more prone to being overweight/obese; while 8 percent of children whose mothers have not completed primary school have this problem, it rises to 13 percent for those whose mothers have high school and higher education. Wealth quintile shows a wider variety: The level of obesity is as high as 16 percent in the fourth wealth quintile. In general; while malnutrition in Turkey is a problem of the lower socio-economic status population, overweight/obesity is a problem of the higher socio-economic status population.

Table 11.5 Nutritional status of children by children's characteristics

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by children's characteristics, Turkey 2013

Background characteristic	Height-for-age			Weight-for-height				Weight-for-age				Number of children
	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	
Age in months												
<6	4.5	10.3	0.3	1.8	8.3	9.8	0.1	1.0	5.4	4.8	0.2	196
6-8	1.2	4.9	0.4	0.0	3.8	13.4	0.5	0.4	1.4	4.2	0.5	144
9-11	0.9	5.6	(0.0)	0.0	1.1	10.6	0.5	0.0	0.0	5.2	0.4	123
12-17	3.5	9.0	(0.3)	0.2	1.1	18.6	0.8	0.4	1.2	12.2	0.5	270
18-23	3.0	9.9	(0.4)	1.1	1.9	11.9	0.7	0.0	0.8	5.2	0.3	248
24-35	4.2	13.2	(0.6)	0.1	0.9	12.6	0.7	0.3	2.3	6.3	0.2	475
36-47	3.3	9.4	(0.5)	0.1	1.0	6.3	0.5	0.4	1.5	2.3	0.1	523
48-59	2.6	8.5	(0.5)	0.2	0.6	9.2	0.6	0.4	2.2	3.8	0.1	539
Sex												
Male	3.7	10.9	(0.4)	0.3	1.4	11.7	0.6	0.4	1.8	5.2	0.2	1,358
Female	2.6	8.0	(0.3)	0.4	2.1	9.9	0.5	0.4	2.1	5.2	0.2	1,161
Birth order												
2-3	3.0	8.8	(0.2)	0.4	1.4	12.6	0.6	0.7	2.4	6.6	0.3	809
4-5	2.9	8.7	(0.3)	0.3	2.2	11.1	0.6	0.2	1.2	5.1	0.2	1,318
6+	3.1	12.4	(0.6)	0.0	0.3	8.5	0.7	0.2	3.3	3.3	0.2	255
Birth interval in months												
First birth[2]	3.0	9.0	(0.2)	0.4	1.3	12.5	0.6	0.7	2.5	6.7	0.3	824
<24	7.4	15.5	(0.8)	0.4	1.9	8.9	0.5	0.3	3.7	3.8	(0.1)	311
24-47	3.1	10.6	(0.4)	0.7	2.9	8.1	0.4	0.5	1.8	3.0	0.1	602
48+	1.7	6.9	(0.2)	0.0	1.2	12.0	0.7	0.0	0.8	5.8	0.4	782
Size at birth												
Very small	8.0	24.6	(1.0)	0.0	1.9	8.3	0.4	1.4	4.3	3.0	(0.3)	218
Small	5.0	12.9	(0.6)	0.6	3.5	6.0	0.2	0.8	2.8	3.1	(0.2)	370
Average or larger	2.3	7.2	(0.2)	0.4	1.4	12.1	0.7	0.2	1.5	5.9	0.3	1,923
Total	3.2	9.5	(0.3)	0.4	1.7	10.9	0.6	0.4	1.9	5.2	0.2	2,519

Note: Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards adopted in 2006. The indices in this table are NOT comparable to those based on the previously used NCHS/CDC/WHO reference.
 Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.
[1] Includes children who are below -3 standard deviations (SD) from the WHO Child Growth standards population median
[2] First-born twins (triplets, etc.) are counted as first births because they do not have a previous birth interval

Table 11.6 Nutritional status of children by mothers' characteristics

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by mothers' characteristics, Turkey 2013

Background characteristic	Height-for-age			Weight-for-height				Weight-for-age				Number of children
	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	
Residence												
Urban	2.7	8.2	(0.2)	0.3	1.6	11.7	0.6	0.3	1.7	5.9	0.3	1,970
Rural	4.9	14.4	(0.7)	0.7	2.1	7.7	0.4	0.8	2.7	2.6	(0.1)	549
Region												
West	2.6	7.2	(0.2)	0.5	1.6	14.1	0.7	0.0	1.6	6.8	0.4	918
South	2.5	7.1	(0.3)	0.7	1.1	10.1	0.5	0.2	1.1	4.5	0.2	377
Central	3.9	10.8	(0.4)	0.0	1.7	13.8	0.7	0.3	1.2	6.0	0.3	415
North	1.9	5.6	(0.3)	0.8	2.4	10.2	0.6	0.8	1.8	4.6	0.3	165
East	4.2	14.5	(0.6)	0.1	2.1	5.0	0.3	1.0	3.4	2.8	(0.2)	645
Region (NUTS 1)												
Istanbul	2.0	7.0	(0.2)	0.5	1.4	13.3	0.8	0.0	1.1	5.9	0.4	521
West Marmara	3.7	7.6	0.1	0.8	0.8	15.0	0.7	0.0	2.7	8.2	0.5	69
Aegean	1.7	5.1	(0.0)	0.0	1.8	11.5	0.7	0.0	0.0	4.6	0.5	213
East Marmara	4.8	9.8	(0.5)	0.7	1.8	18.4	0.8	0.0	3.7	9.9	0.3	184
West Anatolia	4.4	12.5	(0.4)	0.0	2.8	16.1	0.9	0.8	0.8	9.6	0.4	149
Mediterranean	2.5	7.1	(0.3)	0.7	1.1	10.1	0.5	0.2	1.1	4.5	0.2	377
Central Anatolia	3.6	10.4	(0.3)	0.0	1.3	12.8	0.6	0.0	2.4	5.5	0.3	153
West Black Sea	3.5	8.1	(0.4)	0.8	3.0	9.8	0.7	1.0	1.9	3.0	0.2	131
East Black Sea	0.9	5.7	(0.3)	0.4	1.5	11.6	0.7	0.0	0.6	5.9	0.3	77
Northeast Anatolia	7.2	17.5	(0.8)	0.0	0.2	5.2	0.5	0.8	5.2	3.5	(0.1)	87
Central East Anatolia	3.4	15.2	(0.6)	0.3	0.6	4.6	0.4	0.0	2.3	2.7	(0.1)	154
Southeast Anatolia	3.9	13.5	(0.6)	0.0	3.0	5.1	0.2	1.4	3.4	2.7	(0.2)	404
Education												
No education/ Primary incomp.	4.9	14.3	(0.7)	0.0	1.7	7.7	0.4	1.0	3.0	2.4	(0.1)	521
Primary school	3.0	10.5	(0.5)	0.2	2.0	9.9	0.6	0.3	2.2	3.7	0.1	894
Secondary school	2.7	7.1	(0.2)	0.6	2.1	13.8	0.6	0.3	1.7	7.9	0.3	472
High school and higher	2.4	6.1	0.0	0.6	1.2	12.6	0.7	0.1	0.8	7.5	0.5	632
Wealth quintile												
Lowest	5.9	18.3	(0.9)	0.4	1.4	7.3	0.4	0.9	3.5	1.1	(0.2)	575
Second	2.5	9.2	(0.4)	0.2	2.3	8.4	0.5	0.4	2.1	3.8	0.1	583
Middle	2.2	7.0	(0.2)	0.8	2.5	11.0	0.6	0.1	1.4	6.0	0.3	525
Fourth	2.6	6.3	(0.2)	0.4	2.0	15.7	0.7	0.1	1.4	6.4	0.4	430
Highest	2.2	4.3	0.2	0.0	0.2	14.2	0.9	0.2	0.8	10.6	0.7	406
Total	3.2	9.5	(0.3)	0.4	1.7	10.9	0.6	0.4	1.9	5.2	0.2	2,519

Note: Each of the indices is expressed in standard deviation units (SD) from the median of the WHO Child Growth Standards adopted in 2006. The indices in this table are NOT comparable to those based on the previously used NCHS/CDC/WHO reference.
 Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight.
[1] Includes children who are below -3 standard deviations (SD) from the WHO Child Growth standards population median

11.6 Nutritional Status of Women

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 Body Mass Index (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.

According to the TDHS-2013 results (Table 11.7), the mean height of women age 15-49 is 158.1 centimeters. While the mean height of women aged 40-49 is 156.6 cm, it is 159.5 cm for women age 15-19. Women are taller in the Central region (159.6 cm), West Anatolia (161.4 cm), and shorter in the East (157.3 cm) and East Black Sea (156.4 cm). Women who have high school or higher education (160.3 cm) and women who live in wealthier households (160.4 cm) are also taller. Only 1 percent of women in Turkey are shorter than 145 centimeters.

The BMI is presented in Table 11.7, which assesses the relation between height and weight. It is calculated by dividing the weight in kilograms by the squared height in meters. A body mass index of less than 18.5 is used to identify cases of chronic malnutrition. According to the WHO definition, a BMI higher than 25.0 is often used to identify overweight women, and a BMI over 30.0 implies obesity. In the TDHS-2013, the mean BMI of women 15-49 was 26.7. Women's BMI fell below 18.5 in 3.6 percent of cases. Fifty five percent of the women had a BMI above 25.0, including the 27 percent who had a BMI of at least 30.

Table 11.7 shows the nutritional status of women by selected background characteristics. BMI increases steadily with age, exceeding 25.0 for the majority of women age 30 and older. Strikingly, 84 percent of women aged 40-49 are overweight or obese, and more than half of women (51 percent) in this age group are obese. Residential variations in the BMI are relatively small; both in terms of urban and rural areas and regions. Body mass index also appears to be related to educational level. Women with less than primary school education have an average BMI of 29.1, while women with high school or higher education have an average BMI of 24.6. Further, the proportion of women with a BMI of 30 and above is 42 percent for the former group, and 13 percent for the latter group. As wealth quintile increases, the proportion of women with a BMI over 30 decreases, 19 percent for women in the wealthiest quintile are obese compared to 32 percent of women in the lowest wealth quintile.

Table 11.7 Nutritional status of women

Among women age 15-49, the percentage with height under 145 cm, mean Body Mass Index (BMI), and the percentage with specific BMI levels, by background characteristics, Turkey 2013

Background characteristic	Height			Body Mass Index[1]								
	Mean height in cm	Percent-age below 145 cm	Number of women	Mean Body Mass Index (BMI)	18.5-24.9 (Total normal)	<18.5 (Total thin)	17.0-18.4 (Mildly thin)	<17 (Moderat-ely and severely thin)	>=25.0 (Total over-weight or obese)	25.0-29.9 (Over-weight)	>=30.0 (Obese)	Number of women
Age												
15-19	159.5	0.9	1,447	22.5	69.8	10.8	8.5	2.3	19.4	15.0	4.5	1,415
20-29	158.9	0.6	2,497	24.6	56.7	4.6	3.8	0.8	38.7	25.4	13.3	2,257
30-39	157.8	1.2	2,695	28.0	31.1	1.1	0.9	0.2	67.8	36.0	31.8	2,547
40-49	156.6	2.3	1,958	30.7	15.8	0.3	0.3	0.0	83.8	32.7	51.1	1,946
Residence												
Urban	158.5	1.1	6,879	26.6	41.9	3.7	3.0	0.7	54.4	29.1	25.3	6,552
Rural	156.6	2.0	1,717	27.4	38.5	2.9	2.3	0.6	58.6	27.0	31.6	1,612
Region												
West	158.1	1.1	3,572	26.9	40.3	3.8	3.2	0.6	55.9	28.7	27.2	3,417
South	158.0	1.5	1,100	27.3	38.4	3.8	2.8	1.0	57.8	28.0	29.8	1,043
Central	159.6	0.7	1,765	26.4	44.6	2.7	2.3	0.4	52.8	28.9	23.9	1,696
North	156.7	2.7	629	27.1	37.9	2.9	2.1	0.8	59.1	29.9	29.2	597
East	157.3	1.4	1,531	26.3	43.1	4.2	3.2	1.0	52.7	28.1	24.5	1,412
Region (NUTS 1)												
Istanbul	157.8	1.4	1,731	26.6	41.9	4.1	3.5	0.6	54.0	28.9	25.1	1,644
West Marmara	159.3	0.2	340	26.7	41.5	4.3	3.5	0.8	54.1	26.1	28.0	326
Aegean	157.7	1.2	1,126	27.6	38.1	2.4	2.1	0.3	59.5	27.0	32.6	1,087
East Marmara	158.8	0.9	693	26.6	40.4	4.1	3.2	0.8	55.5	30.7	24.9	666
West Anatolia	161.4	0.2	837	25.7	48.9	2.5	2.1	0.3	48.6	29.2	19.5	805
Mediterranean	158.0	1.5	1,100	27.3	38.4	3.8	2.8	1.0	57.8	28.0	29.8	1,043
Central Anatolia	158.1	0.8	446	26.8	39.3	4.4	3.8	0.6	56.3	30.4	25.9	425
West Black Sea	157.2	2.4	504	27.4	38.3	1.9	1.6	0.2	59.8	30.4	29.5	481
East Black Sea	156.4	2.4	288	26.9	38.8	3.4	2.0	1.4	57.7	29.9	27.8	275
Northeast Anatolia	157.2	0.7	218	25.6	48.5	5.3	4.2	1.1	46.2	25.1	21.0	206
Central East Anatolia	157.6	1.7	424	26.0	42.8	5.0	4.0	1.0	52.2	30.6	21.6	389
Southeast Anatolia	157.1	1.4	889	26.6	41.9	3.5	2.5	1.0	54.5	27.7	26.8	816
Education												
No education/ Primary incomplete	155.5	3.0	1,066	29.1	27.2	1.2	0.8	0.4	71.6	29.3	42.3	994
Primary school	156.8	1.7	2,997	29.3	22.6	1.0	1.0	0.0	76.4	34.7	41.7	2,865
Secondary school	158.9	0.9	1,966	24.2	58.2	7.0	5.4	1.6	34.8	22.6	12.2	1,872
High school and higher	160.3	0.3	2,566	24.6	55.9	4.9	3.9	0.9	39.3	26.0	13.3	2,434
Wealth quintile												
Lowest	156.0	2.5	1,381	27.4	38.5	2.8	2.5	0.3	58.7	26.4	32.3	1,287
Second	157.0	1.6	1,740	27.3	38.6	3.1	2.3	0.8	58.2	28.4	29.9	1,652
Middle	158.0	1.4	1,804	27.1	38.6	3.6	2.7	1.0	57.8	29.3	28.5	1,715
Fourth	158.7	0.7	1,816	26.7	40.3	3.5	3.1	0.4	56.1	31.1	25.1	1,751
Highest	160.4	0.4	1,855	25.5	49.2	4.5	3.6	0.9	46.3	27.5	18.8	1,759
Total	158.1	1.2	8,596	26.7	41.3	3.6	2.9	0.7	55.2	28.6	26.5	8,165

Note: Body Mass Index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m2).
[1] Excludes pregnant women and women with a birth in the preceding 2 months.

11.7 Child's Weight and Size at Birth

For all births in the five years preceding the survey, the birth weight was recorded in the TDHS-2013 questionnaire from either a written record if available or the mother's recall. In addition, the mother's perception of the baby's size at birth was obtained. Table 11.8 presents the percent distribution of live births in the five years preceding the survey by the mother's perception of the baby's size at birth and the proportion of children under 2.5 kg whose birth weights were recorded, according to mother's background characteristics. Children whose birth weight is less than 2.5 kilograms or children reported to be "very small" or "smaller than average" at birth have been shown to have a higher than average risk of dying during early childhood.

Overall, Table 11.8 shows that data on the child's weight at birth were available for 95 percent of births during the five-year period prior to the TDHS-2013. Birth weight information was less likely to be available for births of order four and higher, rural births, births in the East, and births to mothers in the lowest education and wealth categories than for other births.

Among births with a reported weight, 10 percent had a low birth weight (less than 2.5 kg.). In addition, 8 percent of all babies were reported to be "very small" and 14 percent were reported to be "smaller than average" by their mothers. Low birth weight was most common among young mothers (under age 20) and although the differentials are not large, the proportions of babies reported as "very small" or "smaller than average" were higher among births to mothers age 35 and older; and mothers under age 20. Low birth weight and small size were also somewhat more common among births of order four and higher than lower parity births.

Among the five geographical regions of Turkey the East had the highest proportion of babies with low birth weight (15 percent) and very small birth size (11 percent). The percentage of children weighing less than 2.5 kilograms at birth varies from 8 percent in West Anatolia to 18 percent in Northeast Anatolia. West Anatolia also held the lowest proportion of women considering their babies as "very small" at birth (3 percent), while this proportion was 14 percent in Northeast Anatolia. Women with higher education had a lower proportion of babies with low birth weight and reported fewer babies as "very small" at birth than less educated mothers. The proportion of births with a low birth weight or considered "very small" also declined with increasing wealth. Low birth weight is especially common among women in the lowest wealth quintile (1 in 5).

Table 11.8 Child's size and weight at birth

Percent distribution of live births in the five years preceding the survey by mother's estimate of baby's size at birth, percentage of live births in the five years preceding the survey that have a reported birth weight, and among live births in the five years preceding the survey with a reported birth weight, percentage less than 2.5 kg, according to background characteristics, Turkey 2013

Background characteristic	Percent distribution of all live births by size of child at birth					Percentage of all births that have a reported birth weight[1]	Number of births	Births with a reported birth weight[1]	
	Very small	Smaller than average	Average or larger	Don't know/ missing	Total			Percentage less than 2.5 kg	Number of births
Mother's age at birth									
<20	9.8	17.8	71.7	0.6	100.0	94.3	241	13.4	227
20-34	7.9	13.9	77.2	1.0	100.0	94.8	2,724	10.2	2,583
35-49	10.4	13.0	76.2	0.3	100.0	95.2	361	10.3	343
Birth order									
1	9.8	14.3	75.3	0.6	100.0	96.4	1,147	11.0	1,105
2-3	6.1	13.9	79.1	0.9	100.0	96.4	1,684	8.6	1,623
4-5	12.0	14.3	72.0	1.7	100.0	88.0	331	13.7	291
6+	13.7	14.6	70.8	0.9	100.0	81.6	164	19.7	34
Residence									
Urban	7.6	13.8	77.9	0.6	100.0	97.3	2,621	9.4	2,550
Rural	10.9	15.2	72.1	1.8	100.0	85.6	705	14.6	604
Region									
West	7.1	11.5	81.0	0.4	100.0	98.7	1,204	8.4	1,188
South	9.6	16.9	73.5	0.0	100.0	97.9	469	9.8	459
Central	6.5	14.6	78.1	0.8	100.0	98.4	585	9.7	576
North	5.6	14.0	80.2	0.3	100.0	98.0	195	9.5	192
East	11.3	15.9	70.6	2.2	100.0	84.7	873	14.6	740
Region (NUTS 1)									
Istanbul	5.9	11.7	82.1	0.4	100.0	99.3	655	8.5	650
West Marmara	11.5	12.9	75.6	0.0	100.0	98.3	93	8.6	91
Aegean	7.2	9.7	81.4	1.8	100.0	97.2	284	8.5	276
East Marmara	9.9	12.8	76.8	0.5	100.0	98.8	275	10.1	272
West Anatolia	3.3	16.1	80.6	0.0	100.0	98.1	237	7.6	232
Mediterranean	9.6	16.9	73.5	0.0	100.0	97.9	469	9.8	459
Central Anatolia	8.9	14.5	76.7	0.0	100.0	99.3	186	9.8	185
West Black Sea	5.6	15.3	78.2	0.9	100.0	97.7	157	10.1	154
East Black Sea	4.3	11.4	84.4	0.0	100.0	97.7	97	10.1	95
Northeast Anatolia	13.4	18.1	65.2	3.3	100.0	87.5	119	17.7	104
Central East Anatolia	13.1	18.2	66.5	2.2	100.0	80.5	210	16.0	169
Southeast Anatolia	10.1	14.5	73.4	2.0	100.0	85.8	545	13.5	467
Education									
No education/Primary incomplete	14.2	16.7	66.7	2.4	100.0	81.0	647	16.9	524
Primary school	7.6	14.7	77.0	0.8	100.0	97.2	1,150	9.3	1,119
Secondary scool	7.2	14.6	77.7	0.5	100.0	98.2	606	11.5	595
High school and higher	6.0	11.3	82.6	0.2	100.0	99.3	923	7.4	916
Wealth quintile									
Lowest	15.9	16.6	65.3	2.2	100.0	81.9	723	19.7	593
Second	7.0	15.0	77.0	0.9	100.0	96.4	750	9.3	723
Middle	5.7	14.5	79.2	0.6	100.0	98.8	680	7.8	672
Fourth	6.5	10.1	83.0	0.4	100.0	99.2	578	7.9	573
Highest	5.6	13.3	81.0	0.1	100.0	99.6	596	7.7	594
Total	8.3	14.1	76.7	0.9	100.0	94.8	3,326	10.4	3,154

[1] Based on either a written record or the mother's recall

11.8   Vaccination of Children

Immunization of children against common vaccine-preventable diseases (for example: tuberculosis, diphtheria, pertussis, tetanus, poliomyelitis, and measles) 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 TDHS-2008, one in 2010 and one in 2013; accompanied by changed contents of certain immunization shots. The TDHS-2013 definition of full immunization excludes some of the vaccinations that entered the schedule in 2013, because they were very recently introduced at the time of the survey. The definition of full immunization in this section includes: one dose of BCG, three doses of DTaP-IPV-Hib, one dose of MMR, three doses of Hepatitis B and three doses of PCV. BCG, which is given in the second month of life or at first clinical contact, protects against tuberculosis. The 5-in-1 vaccine protects against diphtheria, acellular pertussis, tetanus, inactive polio and haemophilus influenzae type b. The 5-in-1 vaccine needs to be repeated at the the end of the 4th and 6th months of life, after the initial dose at the end of the 2nd month. However, since this regime is not always carefully followed, the goal is for a child to have all three doses by 12 months of age. Similar to the schedule in TDHS-2008, the recommendation during TDHS-2013 was that children receive their measles vaccination at 12 months of age. The MMR vaccine is a combined shot of measles, mumps and rubella, given around 12-14 months of age. In addition to receiving protection against the preventable diseases mentioned, it is also recommended that children be given three doses of Hepatitis B vaccine in the context of the Ministry's of Health "extended immunisation program" that has been in place since August 1998; and three doses of PCV (pneumococcal conjugate vaccine), recommended since November 2008.

In the TDHS-2013, information was collected on immunization status (hepatitis B, BCG, DTaP-IPV-Hib, MMR, oral polio vaccine and PCV) of all children born in or after January 2010. 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 hepatitis B, DTaP-IPV-Hib, oral polio or PCV, the mother was asked to report the number of doses of the vaccine that the child had received.

11.8.1 Vaccination Coverage of Children Age 15-26 Months

Table 11.9 presents information on vaccination coverage according to the source of information used to determine coverage, i.e., the child's vaccination card or the mother's report. Data are presented for children age 15-26 months. This is the same age range as TDHS-2008, and differs from the age range of 12-23 months that was used in TDHS-2003 and earlier reports. The change in the age range reflects the fact that, with the introduction of the MMR vaccine into the immunization schedule in 2006, the age by which children should have received all of the recommended vaccines has shifted upward from 12 to 15 months; because the remaining vaccinations listed in Table 11.9 are all expected to be complete before the age of 12 months.

With regard to the source of information on the child's vaccination status, Table 11.9 implies that information was recorded from a vaccination card for 75 percent of children while mothers provided the information for the remaining 25 percent.

Table 11.9 Vaccinations by source of information

Percentage of children age 15-26 months who received specific vaccines at any time before the survey, by source of information (vaccination card or mother's report), and percentage vaccinated 15 months of age, Turkey 2013

Source of information	BCG	DTaP-IPV-Hib			MMR	Hepatitis B			PCV			All basic vaccina - tions[1]	No vaccina - tions	Number of children
		1	2	3		1	2	3	1	2	3			
Vaccinated at any time before survey														
Vaccination card	73.2	74.4	73.8	72.6	69.3	75.2	75.0	72.2	72.9	72.4	70.8	63.6	0.0	516
Mother's report	21.2	20.0	15.3	13.8	20.5	21.2	17.0	14.9	16.6	12.6	10.8	10.5	2.9	170
Either source	94.4	94.4	89.1	86.4	89.8	96.4	91.9	87.1	89.5	85.0	81.6	74.1	2.9	687
Vaccinated by 15 months of age[2]	94.4	94.4	88.6	84.3	88.5	96.4	91.9	86.5	89.5	84.8	80.6	70.0	3.0	687

[1] BCG, MMR, and three doses each of DTaP-IPV-Hib, Hepatits B, and PCV.
[2] For children whose information is based on the mother's report, the proportion of vaccinations given during the first year of life is assumed to be the same as for children with a written record of vaccination.

Taking into account both the card information and the mother's report, Table 11.9 shows that 74 percent of the children received the full schedule of vaccinations against the full list of diseases in the Table during the first 15 months of life. The contribution of children for whom a written record was seen was 64 percent, while this proportion was 11 percent for those whose information was based on the mother's report. Only 3 percent of all children between ages 15-26 months had not received any vaccinations at all.

11.8.2 Coverage Rates by Background Characteristics

Table 11.10 presents information on differentials in the various vaccination indicators by background characteristics. The proportion of children for whom a vaccination card was seen differs across subgroups. For example, the proportion of children with a card seen was 68 percent in the East compared to 86 percent in the Central region. The proportion of full immunization does not differ by the sex of child, however it differs by birth order: The proportion of children fully immunized is 78 percent for second and third order births, and declines to 65 percent for fourth and fifth order births. The percentage of children with no vaccinations was the highest with 9 percent for fourth and fifth order births.

As expected, there are differences in coverage by place of residence. The percentage of children receiving the first dose of the 5-in-1 DTaP-IPV-Hib vaccine was similar for children living in urban and rural areas (94 and 95 percent, respectively). However, the percentages receiving the second and third doses were 91 and 89 for urban children compared to 83 and 77 percent for rural children. The coverage rates for the second and third hepatitis B and PCV vaccines were also higher for urban children than for rural children. Overall, 77 percent of urban children received all vaccinations listed in Table 11.10, compared to 65 percent of rural children.

Table 11.10 Vaccinations by background characteristics

Percentage of children age 15-26 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card, by background characteristics, Turkey 2013

Background characteristic	BCG	DTaP-IPV-Hib			MMR	Hepatitis B			PCV			All basic vaccina-tions[1]	No vaccina-tions	Percentage with a vaccination card seen	Number of children
		1	2	3		1	2	3	1	2	3				
Sex															
Male	95.1	95.8	90.5	88.4	91.4	97.8	92.9	87.5	89.9	85.7	81.7	73.9	1.6	75.4	329
Female	93.8	93.1	87.8	84.6	88.4	95.0	91.1	86.7	89.1	84.4	81.5	74.2	4.1	75.0	358
Birth order															
1	96.1	92.6	86.3	83.0	90.5	97.4	93.5	88.9	88.1	83.2	81.7	73.4	1.2	71.5	194
2-3	95.9	96.8	92.0	90.6	91.8	97.7	93.6	87.8	91.8	87.5	84.2	77.7	2.0	78.4	380
4-5	89.0	90.6	84.8	79.4	83.4	90.6	85.3	84.0	84.6	79.6	73.0	64.4	9.4	70.1	79
6+	(81.3)	(87.0)	(81.7)	(76.1)	(78.8)	(89.4)	(80.4)	(76.3)	(82.9)	(79.6)	(71.8)	(59.5)	(7.1)	(72.4)	34
Residence															
Urban	94.4	94.2	90.6	88.9	90.6	96.3	93.3	89.0	90.1	87.1	84.0	76.5	3.1	76.6	546
Rural	94.3	95.3	83.4	77.0	86.8	96.7	86.7	79.5	87.3	77.0	72.4	64.7	2.0	69.9	141
Region															
West	93.5	93.5	89.5	87.4	89.0	94.5	91.1	85.0	90.2	85.8	81.8	76.4	4.7	72.2	247
South	96.4	95.8	93.4	91.7	97.1	99.1	97.2	90.9	90.3	88.5	85.1	77.4	0.9	83.9	104
Central	96.7	94.7	90.5	88.6	87.5	98.7	96.4	92.8	94.5	91.6	91.1	77.3	0.4	86.1	115
North	97.0	96.8	88.9	83.2	90.1	98.8	93.6	86.6	90.7	82.1	78.7	71.1	0.0	71.0	42
East	92.4	94.0	85.1	81.4	88.0	95.3	86.9	84.2	84.6	78.2	73.9	67.6	3.8	68.3	179
Education															
No edu./pri. incomplete	86.0	86.4	79.3	75.9	81.3	88.9	81.2	77.4	81.9	76.1	71.7	63.8	9.2	69.5	138
Primary school	95.6	96.2	90.2	88.0	91.2	97.4	92.2	87.9	91.7	86.5	83.9	77.2	2.4	79.1	225
Secondary school	98.4	95.2	90.6	87.1	91.7	97.5	94.9	91.1	91.1	87.4	83.6	74.1	1.1	76.0	136
High school and higher	96.2	97.6	93.8	91.8	92.9	99.8	97.4	90.3	91.3	88.0	84.6	77.8	0.2	74.1	188
Wealth quintile															
Lowest	92.5	92.8	83.2	79.0	85.1	95.0	86.5	80.0	85.4	76.4	71.9	63.2	4.1	74.5	151
Second	93.3	93.5	88.2	85.1	89.6	94.7	89.8	85.5	89.1	84.3	81.3	75.6	3.5	77.6	157
Middle	92.7	92.5	88.5	87.5	90.0	95.1	91.6	87.1	91.0	88.3	86.8	77.7	4.6	76.5	155
Fourth	97.1	98.3	95.9	93.3	90.2	98.5	96.1	93.4	91.0	89.0	86.1	76.6	0.9	78.5	99
Highest	98.1	96.7	92.7	90.3	95.2	100.0	98.4	92.7	92.0	89.0	83.7	78.7	0.0	68.9	124
Total	94.4	94.4	89.1	86.4	89.8	96.4	91.9	87.1	89.5	85.0	81.6	74.1	2.9	75.2	687

[1] BCG, MMR, and three doses each of DTaP-IPV-Hib 1, Hepatits B, and PCV.

Considering regional differences, the percentage of children who were fully immunized was lowest in the East (68 percent) and highest in the South and Central regions (77 percent). The data in Table 11.10 also show that drop-out rates for the DTaP-IPV-Hib, hepatitis B and PCV vaccinations were higher in the North and East regions compared to other regions.

Mother's educational status was closely related to the vaccination of children. The percentage of children who were fully vaccinated varied from 63 percent among children whose mothers had less than primary school education to 78 percent among children whose mothers had high school education or higher. Proportion of children with no vaccinations was highest for children whose mothers had less than primary school education (9 percent). Coverage rates also rose rapidly with wealth; 63 percent of children in the lowest wealth quintile were fully immunized, compared to 79 percent of children in the highest quintile.

11.8.3 Trends in Vaccination Coverage

Table 11.11 shows the percentage of children age 12-35 months who received specific vaccines according to the child's current age. The table can be used to look at trends over time in the proportion of children who have received all of the recommended vaccinations. In considering the trends, it is important to remember that, for children whose information was based on the mother's recall, the proportion of vaccinations given is assumed to be the same as that for children for whom a vaccination record was available.

Table 11.11 Vaccinations by current age of child

Percentage of children age 12-35 months who received specific vaccines at any time before the survey (according to a vaccination card or the mother's report), and percentage with a vaccination card, by age of child, Turkey 2013

Vaccine	Children's age in months		
	12-23	24-35	Total
BCG	94.4	94.9	94.7
DTaP-IPV-Hib 1	94.0	95.4	94.8
DTaP-IPV-Hib 2	87.9	89.5	88.8
DTaP-IPV-Hib 3	83.6	84.7	84.3
MMR	88.8	89.7	89.4
Hepatitis B 1	96.3	96.7	96.5
Hepatitis B 2	91.6	91.9	91.8
Hepatitis B 3	86.2	85.6	86.0
PCV 1	88.1	91.8	90.1
PCV 2	83.7	83.7	83.8
PCV 3	78.3	81.1	79.9
All basic vaccinations[1]	68.2	71.1	69.9
No vaccinations	3.0	2.5	2.7
Percentage with a vaccination card seen	74.7	66.3	70.0
Number of children	512	625	1,138

[1] BCG, MMR, and three doses each of DTaP-IPV-Hib, Hepatitis B, and PCV.

The proportion of children for whom vaccination cards were seen declines with increasing age of child, from 75 percent among children age 12-23 months to 66 percent among children age 24-35 months. This suggests that either there has been an increase in vaccination levels in the recent past or the mothers misplaced vaccination cards for a greater proportion of older children. However, the proportion of children who received all vaccines is slightly lower for children age 12-23 months (68 percent) than for children in the 24-35 age groups (71 percent). This decrease could be caused by the recent change in the national vaccination program in 2010, from which the timing of vaccination completion might have been affected.

WOMEN'S STATUS

12

İlknur Yüksel-Kaptanoğlu, Alanur Çavlin and Banu Akadlı Ergöçmen

This chapter highlights information on a range of factors that influence women's status, namely marital relations, work and child care, and attitudes towards violence against women. First of all, basic data collected on the husband's age and education during the interviews with TDHS-2013 respondents provide insights into interspousal differences and these indicators can be important in determining familial roles. Information on child care arrangements among women who work and the reasons women have for not working provide insights into the factors that influence women's employment opportunities. Finally, data on attitudes towards physical violence, controlling behaviors of husbands, and household decision-making roles further contribute to an understanding of the factors determining women's status.

12.1   Interspousal Differences in Age and Education

Large differences in age and education levels between spouses may be associated with differences in relative power. Table 12.1 presents data from the TDHS-2013 on differences in age and education levels between spouses. With regard to interspousal age differences, only 4 percent of women are two or more years older than their husband. Twenty-two percent of women are about the same age (less than two years older or younger than their spouse). Forty-three percent of currently married women are married to men who are at least five years older than they are and, in the case of 10 percent of the women, the husband is 10 or more years older. The mean difference in age between currently married women and their spouses is 4.3 years.

Considering the variation in interspousal ages across subgroups, the mean difference is greatest among young women, particularly among those under age 20 (7.0 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 differences, Northeast Anatolia and Central East Anatolia regions are well above the national average with a mean age difference between spouses of 4.7 years.

The longstanding education gap between women and men in Turkey, has been in a decreasing trend for some time. An increase in women's educational level is reflected in the educational differences between spouses. The results in Table 12.1 show that husbands have attained, on average, higher educational levels than their wives. Forty-two percent of women are married to men who have more education than they have; this proportion was 46 percent in the TDHS-2008. A rather small proportion of women is more educated than their spouses (18 percent) and this percentage indicates an increase of five percentage points when compared to that of the previous survey. Overall, the mean difference in educational attainment between women and their spouses decreased from 1.6 years to 1.0 year from 2008 to 2013.

Table 12.1 Differences in age and education between spouses

Percent distribution of currently married women by interspousal age and education differences and mean difference in age and education, according to background characteristics, Turkey 2013

	Interspousal age difference							Interspousal education differential					
Background characteristic	Wife older by 2+ years	About the same age	Husband older 2-4 years	Husband older 5-9 years	Husband older 10+ years	Mean difference in age (husband-wife)	Number	Husband better educated	Wife better educated	Both have equal education	Neither educated	Mean difference in education (husband-wife)	Number
Age													
15-19	0.0	3.4	20.6	53.7	22.3	7.0	111	49.1	26.4	24.5	0.0	0.9	110
20-24	0.6	12.0	30.7	45.8	10.9	5.3	619	41.7	29.5	28.8	0.0	0.5	596
25-29	2.4	22.1	33.2	33.3	8.9	4.3	1,163	38.3	24.4	37.2	0.2	0.6	1,134
30-34	3.1	23.9	31.5	32.3	9.2	4.2	1,390	42.2	18.6	38.9	0.2	1.0	1,370
35-39	5.5	23.5	31.2	30.1	9.7	4.0	1,349	40.4	14.8	44.8	0.0	1.1	1,314
40-44	4.2	24.4	29.7	32.2	9.5	4.1	1,126	42.6	13.8	43.5	0.2	1.3	1,094
45-49	6.8	24.4	30.3	27.8	10.7	3.8	888	43.5	13.1	43.3	0.2	1.3	847
Employment													
Not employed	3.4	20.9	31.2	33.9	10.5	4.4	4,175	45.5	17.4	37.0	0.2	1.3	4,043
Employed	4.5	24.7	30.3	31.5	9.0	4.0	2,259	33.5	20.7	45.7	0.1	0.5	2,216
Missing	4.8	20.9	35.1	31.8	7.5	3.9	212	48.2	15.4	36.4	0.0	1.4	206
Number of living children													
0	5.2	26.6	32.4	25.5	10.3	3.9	645	37.6	25.8	36.6	0.0	0.4	638
1-2	3.6	22.2	31.8	33.4	9.0	4.2	3,795	40.5	21.0	38.3	0.2	1.0	3,752
3-4	3.7	20.4	29.9	35.1	10.8	4.4	1,741	43.2	12.2	44.5	0.1	1.4	1,684
5+	4.5	22.8	27.2	32.6	12.9	4.6	464	48.8	8.6	42.6	0.0	0.9	391
Residence													
Urban	3.4	22.7	31.5	33.0	9.4	4.2	5,335	41.9	19.7	38.3	0.2	1.0	5,219
Rural	5.5	20.3	29.3	33.1	11.8	4.5	1,311	39.7	13.2	47.1	0.0	0.9	1,247
Region													
West	3.1	23.5	32.0	31.9	9.6	4.2	2,863	37.5	20.9	41.6	0.0	0.8	2,823
South	4.5	19.1	27.7	37.3	11.4	4.6	854	37.6	21.1	41.2	0.0	0.7	833
Central	2.9	21.5	34.0	32.7	8.9	4.2	1,388	42.9	16.3	40.2	0.6	1.3	1,378
North	6.8	23.9	31.1	29.8	8.4	3.8	444	44.0	15.1	40.9	0.0	1.4	440
East	5.3	21.5	27.3	34.5	11.4	4.4	1,096	52.8	13.7	33.5	0.0	1.3	991
Region (NUTS 1)													
Istanbul	3.7	25.8	28.9	31.6	10.1	4.1	1,330	38.4	21.7	39.9	0.0	0.8	1,314
West Marmara	2.4	21.6	31.9	32.1	11.9	4.4	274	39.9	15.6	44.5	0.0	1.0	273
Aegean	3.8	21.9	33.8	32.0	8.6	4.1	869	35.1	20.7	43.2	1.0	0.7	857
East Marmara	2.3	23.1	34.7	31.3	8.6	4.2	627	40.7	18.8	40.5	0.0	1.1	614
West Anatolia	1.5	21.0	37.5	31.1	9.0	4.1	669	41.8	15.8	42.3	0.0	1.2	664
Mediterranean	4.5	19.1	27.7	37.3	11.4	4.6	854	37.6	21.1	41.2	0.0	0.7	833
Central Anatolia	3.8	21.0	32.3	34.5	8.5	4.4	344	41.2	18.1	40.6	0.0	1.2	340
West Black Sea	5.8	22.8	30.7	32.0	8.7	4.0	377	46.0	16.5	37.5	0.0	1.5	374
East Black Sea	5.5	20.5	32.0	33.8	8.3	4.0	206	43.2	15.6	41.2	0.0	1.2	205
Northeast Anatolia	4.6	20.0	23.3	40.0	12.1	4.7	172	46.5	16.4	37.1	0.0	1.1	163
Central East Anatolia	4.9	18.1	26.3	36.7	14.0	4.7	290	57.5	12.0	30.6	0.0	1.4	274
Southeast Anatolia	5.6	23.4	28.9	32.0	10.0	4.2	635	52.3	13.8	33.9	0.0	1.4	554
Education													
No educ./pri. incomp.	4.9	23.1	28.0	30.8	13.2	4.6	1,013	62.2	10.5	26.4	1.0	1.4	865
Primary school	4.4	20.1	31.1	34.2	10.2	4.3	2,955	46.0	3.5	50.5	0.0	2.2	2,926
Secondary school	1.8	14.9	30.6	41.1	11.7	5.0	934	44.2	36.0	19.8	0.0	0.5	931
High school and higher	3.3	29.3	32.9	28.1	6.4	3.6	1,744	22.1	38.1	39.9	0.0	(0.8)	1,743
Wealth quintile													
Lowest	4.9	21.0	29.2	32.1	12.8	4.6	1,035	39.4	13.9	45.9	0.7	0.7	925
Second	5.6	21.1	29.9	33.9	9.5	4.2	1,295	39.2	15.6	45.1	0.1	1.0	1,254
Middle	3.5	19.7	31.5	35.9	9.5	4.3	1,366	42.7	17.1	40.2	0.0	1.1	1,343
Fourth	4.0	20.2	33.2	32.7	9.9	4.3	1,433	47.4	20.6	32.1	0.0	1.3	1,428
Highest	1.8	28.2	30.7	30.8	8.5	4.0	1,517	37.9	22.7	39.4	0.0	0.9	1,517
Total	3.8	22.2	31.0	33.0	9.9	4.3	6,646	41.5	18.4	40.0	0.1	1.0	6,465

With regards the variation in interspousal education differences, the gap tends to rise with age and especially parity; 49 percent of women with at least five children are less educated than their spouse compared to 38 percent among women with no children. Regional variations in interspousal education differences are also observed. For instance, women living in Central East Anatolia and Southeast are most likely to be less educated than their spouses (58 and 52 percent, respectively) while women in Aegean and Mediterranean regions are most likely to have equal (43 and 41 percent respectively) or more education than their husbands (21 percent each).

The interspousal gap in education is greatest among women with the least education. Sixty-two 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, 78 percent of women with high school or higher education have attained the same or more years of schooling than their husbands. As wealth level increases, women are also more likely to be more educated than their husbands, 14 percent of women in the lowest wealth quintile are more educated than their husbands compared with 23 percent of women in the highest wealth quintile.

12.2 Factors Influencing Women's Employment

In the TDHS-2013, data were collected on a number of aspects of women's work histories. The information obtained about the level of women's employment and about their occupations is presented in detail in Chapter 3. This chapter focuses on the data obtained in the TDHS-2013 that help to better understand the factors that shape women's employment opportunities, which in turn can be an important influence on her status.

12.2.1 Reasons for Not Working and Quitting Job

Table 12.2 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-two percent of women reported being a housewife, 19 percent reported caring for children and 17 percent reported being a student as the main reason for not working. Fifteen percent of women indicated that their husband or family would not allow them to work. Eight percent of women reported that they did not need or want to work.

As expected, the proportion of women who report their main reason for not working as being housewife increases with increasing age. Reasons for not working clearly differs with marital status; being student was the main reason of not working among never married women (57 percent) whereas being housewife and caring for children (29 and 28 percent, respectively) were the main reasons among married women. It is worth mentioning that 17 percent 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 highest in rural areas and in the East and it decreased with increasing education and wealth. The highest proportions of women saying that they were not allowed to work were observed for women living in Central East Anatolia and North East Anatolia (24 and 22 percent, respectively).

Table 12.3 shows the percent distribution of women who had worked at some time after age 12 and were not working at the time of the survey by the main reason that they had for quitting their last job. The findings indicate that 25 percent of women quit their jobs when they married. The proportion of women citing marriage as the main reason they quit a job is higher for women age 25-29 and for the lowest education level. The results show that the proportion of women who quit their jobs because of pregnancy or to provide child care is 14 percent. Nineteen percent of women quit for work-related reasons such as shutdown of the workplace, problems at work or because they were fired. Nine percent of women who quit their job reported that they left their job because they no longer wanted to work. Education was the main reason for quitting job for the youngest age group (18 percent).

Table 12.2. Main 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 2013

								Main reason not to work						
Background characteristic	Student	House-wife	Retired	Disabled /Sick	Caring for elderly	Caring for children	Looking for a job/ un-employed	Partner/ Family does not allow to work	Just moved/ migrated	Does not need (want) to work	Pregnant/ just delivered a baby	Other	Missing	Number
Age														
15-19	65.9	3.1	0.0	0.7	0.7	1.9	3.3	11.5	0.0	7.5	0.5	4.8	0.1	1,306
20-24	20.6	12.1	0.0	1.4	0.4	17.9	11.2	17.2	0.6	8.4	4.0	5.9	0.2	970
25-29	3.4	19.0	0.0	0.6	1.0	34.8	7.6	17.0	0.2	8.7	3.8	3.3	0.6	1,022
30-34	0.7	23.4	0.0	2.0	2.3	37.9	5.3	15.4	0.3	5.8	3.1	3.8	0.1	1,062
35-39	0.2	30.7	0.0	4.8	3.0	26.6	5.3	16.2	0.0	7.3	1.7	3.7	0.6	935
40-44	0.5	38.7	0.4	8.2	2.8	9.9	7.0	15.4	0.2	10.5	0.1	6.1	0.1	779
45-49	0.0	41.5	6.3	13.8	3.3	1.6	4.7	10.5	0.0	13.1	0.0	4.4	0.7	645
Employment														
Not employed	17.4	22.4	0.6	3.4	1.7	19.3	5.0	15.3	0.2	8.6	1.5	4.4	0.3	6,122
Employed	11.0	10.7	0.5	3.4	1.7	15.2	26.0	7.1	0.8	5.5	9.7	8.3	0.0	358
Missing	0.7	20.7	2.9	11.4	4.2	24.2	9.8	11.8	0.0	8.1	2.5	3.8	0.0	238
Marital status														
Never married	57.2	3.0	0.3	1.5	2.1	0.0	10.5	9.7	0.0	9.2	0.0	6.4	0.1	1,903
Married	0.4	29.4	0.8	4.2	1.5	27.6	4.1	17.4	0.3	7.6	2.9	3.6	0.3	4,592
Divorced/separated/widowed	0.9	22.8	0.3	13.1	4.6	10.4	14.5	4.9	0.0	17.2	1.3	8.6	1.2	223
Number of living children														
0	46.7	7.0	0.5	1.9	1.9	0.2	10.5	11.7	0.3	10.6	2.1	6.5	0.2	2,356
1-2	0.2	22.8	1.0	3.5	1.5	34.7	4.8	16.8	0.2	7.7	2.8	3.6	0.3	2,685
3-4	0.2	37.8	0.2	6.6	1.9	23.4	2.6	16.2	0.0	7.1	0.4	2.9	0.6	1,302
5+	0.0	50.3	0.7	6.2	2.2	13.5	3.2	14.4	0.0	4.1	0.7	4.3	0.4	376
Residence														
Urban	17.8	20.5	0.7	3.5	1.7	20.2	6.3	14.4	0.2	8.6	2.0	3.8	0.3	5,629
Rural	9.6	28.0	0.2	4.8	2.0	14.3	6.0	16.7	0.1	7.2	1.8	8.7	0.5	1,090
Region														
West	17.1	19.3	1.1	4.3	1.8	23.4	6.4	12.8	0.1	7.2	2.3	3.9	0.2	2,633
South	14.7	21.7	0.6	4.7	1.5	22.1	6.1	14.3	0.2	7.5	1.9	4.7	0.0	925
Central	20.2	22.8	0.4	2.3	1.9	16.6	5.4	13.8	0.3	10.4	1.7	3.8	0.3	1,464
North	18.1	15.2	0.3	5.5	2.7	19.2	10.7	9.4	0.2	8.0	2.1	7.8	0.9	330
East	12.2	26.6	0.2	2.8	1.6	12.1	5.9	21.2	0.1	9.3	1.8	5.7	0.5	1,367
Region (NUTS 1)														
Istanbul	16.7	21.5	1.0	3.7	2.0	22.6	6.1	12.5	0.2	5.9	3.4	4.3	0.2	1,301
West Marmara	20.5	16.8	1.2	4.4	1.8	23.4	9.6	9.1	0.6	5.1	0.6	6.5	0.3	251
Aegean	16.9	11.7	1.4	7.3	2.4	23.0	4.9	17.7	0.0	9.5	1.2	4.0	0.0	683
East Marmara	17.7	21.0	0.8	2.6	0.6	22.8	6.9	11.5	0.2	10.2	1.2	3.4	0.9	639
West Anatolia	21.7	25.6	0.6	0.8	2.3	17.2	6.5	11.2	0.3	9.6	2.5	1.7	0.0	723
Mediterranean	14.7	21.7	0.6	4.7	1.5	22.1	6.1	14.3	0.2	7.5	1.9	4.7	0.0	925
Central Anatolia	17.3	21.8	0.0	2.0	1.8	18.3	3.7	15.8	0.0	11.4	1.4	6.5	0.0	370
West Black Sea	18.4	20.2	0.0	5.5	2.0	15.9	8.6	12.7	0.4	8.6	1.0	6.1	0.7	342
East Black Sea	22.0	16.6	0.7	6.6	1.8	17.9	10.1	6.5	0.2	7.1	3.0	6.0	1.6	118
Northeast Anatolia	11.5	27.2	0.2	2.7	1.7	9.2	4.1	22.0	0.1	10.0	1.5	9.2	0.6	227
Central East Anatolia	11.9	24.3	0.1	3.1	1.5	12.1	6.2	23.9	0.3	8.3	1.2	5.8	1.2	367
Southeast Anatolia	12.6	27.5	0.2	2.7	1.6	12.9	6.3	19.7	0.0	9.5	2.2	4.6	0.2	773
Education														
No educ./pri. incomp.	0.0	39.3	0.0	7.2	2.5	15.5	3.7	21.8	0.5	3.2	1.3	4.7	0.3	893
Primary school	0.4	32.2	0.3	5.8	2.5	21.3	4.7	18.2	0.2	8.4	1.5	4.3	0.3	2,307
Secondary school	38.6	11.5	0.2	2.0	0.9	15.1	3.4	13.7	0.0	8.5	2.0	4.0	0.1	1,704
High school and higher	24.3	9.2	1.8	0.9	1.3	22.3	12.2	8.0	0.2	10.9	3.0	5.4	0.5	1,816
Wealth quintile														
Lowest	6.0	27.8	0.0	6.4	2.8	16.2	4.4	20.7	0.1	5.6	1.6	8.0	0.5	975
Second	12.7	23.0	0.3	4.7	1.7	18.3	6.4	18.3	0.2	7.1	1.9	5.1	0.3	1,392
Middle	17.1	23.8	0.0	2.8	1.8	21.2	6.5	14.5	0.4	6.7	2.1	3.0	0.2	1,487
Fourth	19.6	19.9	0.7	3.4	2.3	21.4	6.0	12.4	0.1	8.5	2.3	3.3	0.1	1,502
Highest	23.9	15.6	2.2	2.0	0.4	17.8	7.4	9.9	0.1	13.5	2.0	4.6	0.6	1,361
Total	16.5	21.7	0.7	3.7	1.8	19.2	6.3	14.8	0.2	8.4	2.0	4.6	0.3	6,719

Table 12.3. Main reason for quitting job

Percent distribution of women who worked for at least 6 months after age 12 and were not working at the time of the survey by the main reason for quitting the last job, according to background characteristics, Turkey 2013

Background characteristic	Marri-age	Got preg-nant/ child care	Just moved/ migrated	Oppo-sition of partner/ elderly	Work-place closed	Fired	To find a better job	Prob. at work-place	Sea-sonal/ Tem-porary	Sick/ elderly care in family	Sick/ dis-abled	Retire-ment	Did not need to work	Did not want to work	Edu-cation	Other	Mis-sing	Number
Age																		
15-19	14.1	1.7	7.9	4.7	0.2	0.6	1.3	7.3	20.1	0.0	0.5	0.0	1.9	16.7	17.8	5.2	0.0	134
20-24	25.6	13.4	4.6	3.4	9.3	1.0	2.5	12.4	3.6	0.8	4.1	0.0	2.2	8.8	6.1	2.0	0.2	298
25-29	35.0	11.5	2.1	3.9	4.3	2.3	1.8	11.4	4.0	2.6	5.2	0.0	1.4	10.1	2.6	1.8	0.1	436
30-34	27.1	22.9	4.9	4.1	5.8	3.2	2.3	6.3	3.0	0.6	5.5	0.0	1.4	8.3	0.9	3.6	0.2	456
35-39	24.8	19.0	4.8	3.4	5.5	2.7	2.4	10.3	1.3	2.2	9.4	0.0	1.8	8.9	0.0	3.3	0.3	423
40-44	19.7	13.3	7.7	0.9	9.6	1.6	1.4	8.8	2.2	0.5	15.1	1.6	4.1	9.5	0.2	3.2	0.4	302
45-49	15.4	5.8	8.3	1.8	12.7	5.0	0.0	5.7	2.1	3.3	16.4	6.9	6.3	7.4	0.0	2.8	0.0	286
Employment																		
Not employed	28.1	14.5	5.5	2.9	6.5	2.6	1.2	8.8	2.9	1.5	8.6	1.0	2.2	9.0	1.9	2.6	0.2	1,737
Employed	10.7	18.0	5.9	3.9	7.4	1.9	3.2	12.4	8.7	1.6	3.6	0.6	1.6	9.4	7.1	3.9	0.0	358
Missing	21.9	7.4	2.2	4.5	9.4	2.9	3.8	6.3	2.2	1.9	12.6	1.7	6.4	12.0	0.2	4.0	0.6	238
Marital status																		
Never married	2.4	0.3	6.0	2.4	9.7	2.4	5.0	17.2	11.5	4.0	1.9	0.4	2.6	15.9	14.9	3.3	0.0	319
Married	29.6	17.1	5.1	3.1	6.2	2.5	1.2	7.3	2.5	1.1	9.4	1.1	2.5	8.0	0.5	2.7	0.2	1,888
Divorced/separated./widowed	10.5	7.9	6.2	6.4	10.6	3.5	2.5	15.3	1.8	3.2	7.8	2.6	3.4	12.8	0.0	5.5	0.0	127
Number of living children																		
0	15.1	2.8	5.5	2.4	9.2	1.9	3.3	15.2	9.4	3.7	4.0	1.0	2.0	11.6	9.4	3.2	0.0	527
1-2	28.9	18.9	3.5	3.1	5.7	3.2	1.7	7.7	2.2	0.8	8.6	1.3	2.1	9.2	0.6	2.4	0.3	1,277
3-4	24.3	14.7	7.8	3.8	8.2	1.7	0.7	7.5	1.9	1.5	10.7	0.7	4.5	8.1	0.0	3.7	0.2	430
5+	26.1	14.0	15.0	6.5	5.8	0.6	0.0	0.4	1.6	0.9	16.5	0.0	3.2	3.9	0.0	5.6	0.0	99
Residence																		
Urban	24.6	14.6	5.4	3.3	6.7	2.5	1.8	9.6	3.4	1.5	7.4	1.2	2.4	9.7	2.7	3.0	0.2	2,016
Rural	26.2	12.5	4.6	2.8	8.5	2.6	1.5	5.5	5.6	1.9	13.7	0.0	3.5	7.3	1.4	2.3	0.1	318
Region																		
West	23.8	15.9	5.8	3.1	7.4	3.3	1.2	9.2	3.3	1.5	7.4	1.3	0.9	9.7	2.5	3.5	0.0	1,219
South	30.1	12.2	2.6	2.9	4.8	3.2	1.6	6.4	4.0	1.5	10.2	1.1	4.7	11.1	1.9	1.1	0.8	318
Central	23.4	13.6	5.0	3.9	9.5	0.9	3.9	9.4	4.0	2.2	6.8	0.6	4.5	7.4	2.7	1.7	0.4	328
North	21.6	12.0	7.2	1.0	8.6	1.5	3.8	13.2	2.7	1.6	10.5	1.0	2.4	6.8	2.9	3.2	0.0	135
East	26.2	12.1	5.3	4.1	3.9	1.0	1.1	9.1	5.1	1.1	10.0	0.6	4.7	9.2	2.6	3.7	0.1	334
Region (NUTS 1)																		
Istanbul	23.7	16.1	7.1	3.0	6.2	3.3	0.6	9.3	2.9	1.8	5.6	1.3	0.0	10.7	3.7	4.4	0.0	642
West Marmara	34.4	10.9	3.6	4.1	8.3	4.2	0.7	8.1	2.8	0.6	6.8	2.8	0.7	8.6	1.4	2.0	0.0	106
Aegean	20.8	16.5	4.3	2.5	9.1	3.3	0.4	10.9	6.6	1.4	12.0	1.2	1.9	7.0	0.7	1.4	0.0	288
East Marmara	23.4	15.7	6.0	3.6	8.8	2.6	3.9	7.0	1.8	1.1	6.8	0.4	3.4	9.4	2.1	4.0	0.0	244
West Anatolia	20.6	17.1	1.8	4.4	10.3	0.0	7.9	8.4	0.9	3.9	7.9	1.6	3.2	7.5	3.1	1.4	0.0	136
Mediterranean	30.1	12.2	2.6	2.9	4.8	3.2	1.6	6.4	4.0	1.5	10.2	1.1	4.7	11.1	1.9	1.1	0.8	318
Central Anatolia	27.7	8.6	4.6	3.7	7.0	0.4	2.4	14.1	6.6	0.8	3.8	0.0	4.0	11.3	1.9	1.7	1.5	95
West Black Sea	22.5	11.9	7.8	0.9	9.6	1.4	2.3	10.0	3.2	2.2	10.0	0.7	3.5	6.5	4.0	3.5	0.0	118
East Black Sea	18.1	14.6	8.3	1.8	8.8	3.0	4.6	13.2	1.6	1.6	12.2	0.9	4.5	4.8	0.0	2.0	0.0	53
Northeast Anatolia	25.8	11.1	1.6	3.9	5.9	1.4	0.0	14.3	5.6	1.7	6.9	1.1	4.2	8.1	3.6	3.9	1.0	37
Central East Ant.	20.9	10.1	9.7	3.7	7.2	2.5	1.6	6.1	3.7	2.7	8.1	0.8	5.0	11.5	2.0	4.4	0.0	65
Southeast Anatolia	27.8	12.8	4.7	4.2	2.7	0.6	1.2	9.1	5.4	0.5	11.1	0.5	4.8	8.7	2.5	3.4	0.0	232
Education																		
No educ./pri. inc.	29.8	11.9	9.8	7.4	5.8	1.8	0.2	3.3	3.6	0.5	13.7	0.1	5.2	4.3	0.0	2.0	0.7	260
Primary school	28.3	12.1	6.3	3.0	7.9	2.2	0.9	7.0	1.3	2.6	11.7	0.3	3.4	10.0	0.1	3.0	0.0	853
Secondary school	27.2	15.2	3.7	4.2	5.4	1.9	1.2	9.1	3.4	0.9	6.2	0.6	2.0	14.1	2.9	1.9	0.3	405
High school/higher	18.4	16.9	3.5	1.6	7.0	3.5	3.6	13.1	6.5	1.2	4.0	2.4	1.1	7.9	5.6	3.7	0.2	816
Wealth quintile																		
Lowest	27.3	13.7	4.5	3.2	4.5	1.6	0.8	8.3	4.4	1.5	14.4	0.0	2.9	6.3	1.3	4.7	0.4	260
Second	30.4	11.2	4.8	4.4	7.6	2.9	1.6	4.2	3.9	2.5	10.6	0.0	3.3	7.5	2.8	2.3	0.0	414
Middle	25.3	15.1	4.7	5.6	7.6	2.1	2.5	12.1	2.0	1.2	6.0	0.2	3.1	9.9	2.1	0.6	0.0	524
Fourth	21.8	14.5	5.9	2.0	5.5	3.1	1.5	9.9	3.9	2.0	7.9	1.3	2.6	11.0	2.6	4.3	0.2	580
Highest	22.1	15.9	5.9	1.3	8.3	2.5	2.1	9.2	4.8	0.8	6.1	2.9	1.3	9.8	3.1	3.4	0.4	556
Total	24.8	14.3	5.3	3.2	6.9	2.5	1.8	9.1	3.7	1.6	8.3	1.1	2.6	9.3	2.5	2.9	0.2	2,334

Table 12.4 Child care while working

Percent distribution of currently employed ever-married women with and without child under six years of age and percent distribution of employed mothers of a child under six years of age by person who cares for child while the mother is at work, according to background characteristics, Turkey 2013

Background characteristics	No children under 6 years	One or more children	Person looks after youngest child when respondent at work												Total	Number of women
			Her-self	Husb.	Female children	Respond. mother	Mother in law	Male child	Other relatives	Baby sistter	Kinder-garden	Not worked since last birth	Other	Missing		
Residence																
Urban	70.0	30.0	24.6	2.2	5.1	19.0	13.1	1.3	4.6	7.3	18.3	2.2	1.0	1.4	100.0	1,670
Rural	70.0	30.0	34.3	1.4	10.4	9.1	26.0	1.6	8.1	3.0	4.3	0.0	1.8	0.0	100.0	578
Education																
No educ./pri. incomp.	69.4	30.6	39.7	2.6	22.4	7.4	15.6	0.8	7.7	0.9	0.5	0.0	1.1	1.3	100.0	237
Primary school	79.6	20.4	40.0	2.8	12.1	13.0	12.8	4.1	6.8	1.4	2.6	0.1	2.8	1.5	100.0	996
Secondary school	60.7	39.3	38.0	0.4	2.4	8.4	34.4	0.0	3.9	5.2	5.5	0.3	0.0	1.4	100.0	221
High school and higher	60.8	39.2	12.6	1.8	0.2	23.0	14.0	0.1	4.6	10.9	28.5	3.3	0.5	0.5	100.0	794
Region																
West	73.8	26.2	28.4	0.2	4.8	19.2	10.8	1.4	5.3	4.8	21.1	1.7	1.3	0.9	100.0	1,137
South	66.3	33.7	27.6	2.5	8.6	12.2	15.6	0.4	5.4	7.9	16.1	0.0	2.0	1.7	100.0	217
Central	70.2	29.8	22.6	5.3	4.3	18.6	23.9	1.4	4.4	7.4	10.3	0.0	0.5	1.1	100.0	436
North	67.4	32.6	19.6	2.3	3.0	16.0	29.5	2.1	8.8	5.0	6.8	2.8	2.1	1.9	100.0	240
East	56.8	43.2	34.7	2.4	16.1	8.3	13.3	1.3	5.0	8.6	6.0	3.8	0.5	0.0	100.0	217
Region (NUTS 1)																
Istanbul	70.7	29.3	26.2	0.0	8.5	26.8	3.4	1.5	8.3	3.7	21.8	0.0	0.0	0.0	100.0	462
West Marmara	77.0	23.0	15.8	2.7	2.1	27.0	13.3	2.7	2.9	5.0	12.8	4.7	0.0	10.9	100.0	109
Aegean	76.6	23.4	29.3	1.6	4.0	8.3	22.6	1.6	1.8	7.9	15.4	3.7	3.7	0.0	100.0	446
East Marmara	72.2	27.8	32.3	0.0	0.0	16.2	17.2	0.0	6.3	2.3	25.7	0.0	0.0	0.0	100.0	215
West Anatolia	74.4	25.6	29.7	5.0	0.0	24.5	22.1	3.6	4.6	2.3	8.3	0.0	0.0	0.0	100.0	203
Mediterranean	66.3	33.7	27.6	2.5	8.6	12.2	15.6	0.4	5.4	7.9	16.1	0.0	2.0	1.7	100.0	217
Central Anatolia	57.3	42.7	14.9	4.5	9.6	9.7	18.6	0.0	4.0	13.3	20.1	0.0	1.5	3.7	100.0	92
West Black Sea	72.6	27.4	21.0	3.0	0.0	23.1	27.3	0.0	3.1	9.2	7.3	3.4	2.6	0.0	100.0	147
East Black Sea	63.5	36.5	20.8	2.7	4.6	13.6	29.5	3.3	11.0	4.0	4.7	1.6	1.2	2.9	100.0	140
Northeast Anatolia	50.5	49.5	44.7	4.3	3.2	8.3	16.1	0.0	9.9	4.7	8.7	0.0	0.0	0.0	100.0	24
Central East Anatolia	63.1	36.9	36.6	0.0	12.9	13.3	15.4	0.0	7.8	3.3	8.8	0.0	2.0	0.0	100.0	62
Southeast Anatolia	55.0	45.0	31.9	3.0	20.0	6.4	12.0	2.0	3.0	11.6	4.3	6.0	0.0	0.0	100.0	130
Wealth quintile																
Lowest	64.9	35.1	39.6	2.0	16.9	5.6	26.2	1.0	5.6	0.0	1.0	0.0	2.1	0.0	100.0	343
Second	70.9	29.1	38.0	2.8	5.3	16.1	21.1	5.0	6.6	0.6	1.2	0.2	1.3	1.8	100.0	382
Middle	74.5	25.5	35.5	2.6	10.8	16.0	9.9	2.2	9.0	3.1	4.6	0.7	2.5	3.1	100.0	401
Fourth	74.7	25.3	32.1	0.0	5.6	13.5	13.4	0.3	2.3	6.0	22.1	3.7	1.0	0.2	100.0	435
Highest	66.5	33.5	9.1	2.3	0.1	23.9	13.3	0.0	4.9	13.7	29.3	2.5	0.2	0.6	100.0	687
Sector																
Agriculture	70.3	29.7	33.1	1.1	14.0	6.0	32.0	2.4	8.1	0.0	0.2	0.4	1.7	0.9	100.0	619
Industry	75.1	24.9	49.5	0.0	4.4	26.6	9.0	2.3	3.1	1.9	2.3	0.8	0.0	0.0	100.0	281
Service	68.8	31.2	20.7	2.7	3.5	19.3	10.8	0.8	4.8	9.7	23.1	2.2	1.2	1.2	100.0	1,348
Total	70.0	30.0	27.1	2.0	6.5	16.4	16.4	1.4	5.5	6.2	14.7	1.6	1.2	1.0	100.0	2,248

12.3   Child Care While Working

Of currently working women, 70 percent had no children under age six. For the 30 percent of women who have one or more children under age six, child care is an important issue in participating in the labor force. Table 12.4 focuses on the primary child care provider for currently employed women with at least one child under age six. Family members (including the mother) are superior in child care. For 27 percent of the cases, mother takes care of children which indicates that she is either taking the child with her to work or she is working at home. Grandmothers are the main care givers for working women with children under age six, 16 percent of mothers reported their mother-in-law, and 16 percent reported their own mother as the caregiver. Additionally, 13 percent of children are cared by other family members (female children, male children and other relatives). The results indicate that the proportion of children who are cared for in kindergarten increased between the two surveys; 15 percent of women currently use kindergarten for childcare while it was only 7 percent in the TDHS-2008.

12.4   Women's Attitudes towards Being Subject to Physical Violence and Controlling Behaviors

Domestic violence is one form of violation of human rights of women. Tolerance as well as the experience of domestic violence form significant barriers to the empowerment of women 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. In the TDHS-2013, women were asked whether a husband would be justified in beating his wife in each of the following situations: "if she burns the food", "if she argues with him", "if she neglects the children", "if she refuses to have sex with him" and "if she goes out without telling him". Table 12.5 presents differences by background characteristics in the percentages of women who agreed that wife beating would be justified in each of these circumstances. Overall, 13 percent women accepted at least one of the situations as a justification for physical violence which shows a decrease from the TDHS-2008 when 25 percent agreed that physical violence was justified in at least one of the situations. With regard to the specific situations, more women agree that physical violence is justified if woman neglects the children or if woman argues with husband (9 and 6 percent, respectively) and few women say that violence is justified if a wife burns the food (1 percent).

There are notable differences by background characteristics in the proportions agreeing that physical violence may be justified. For example, while 24 percent of women in rural areas think that physical violence would be justified in at least one of the circumstances specified, the proportion drops to 11 percent for urban women. For both urban and rural women, "neglects the children" is the most cited reason justifying violence.

Table 12.5 Attitude towards 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 2013

	Husband is justified in hitting or beating his wife if she:					Percentage who agree with at least one specified reason	Number
Background characteristic	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	5.1	2.5	5.6	1.5	10.0	1,572
20-24	0.8	5.3	3.6	6.9	1.8	11.8	1,337
25-29	1.3	4.5	3.6	7.7	2.6	11.5	1,492
30-34	0.6	5.5	4.5	8.4	1.6	11.7	1,565
35-39	1.1	6.9	4.3	9.3	2.8	13.2	1,513
40-44	2.0	9.0	6.0	12.1	3.9	16.6	1,238
45-49	2.1	8.0	8.0	14.2	4.4	21.0	1,029
Number of living children							
0	0.6	4.2	2.3	5.4	1.3	8.8	3,393
1-2	0.8	4.3	3.5	7.7	1.9	11.2	4,035
3-4	2.0	9.9	7.1	13.1	3.7	19.5	1,833
5+	4.9	21.9	17.2	26.4	12.0	37.1	485
Marital status							
Never married	0.6	4.3	2.3	5.3	1.2	8.8	2,683
Married	1.3	6.9	5.2	10.3	3.0	15.0	6,655
Divorced/separated/ widowed	1.8	7.4	6.3	8.8	3.4	15.1	409
Residence							
Urban	0.8	4.7	3.2	7.3	1.8	10.8	7,905
Rural	2.8	12.6	9.5	15.5	5.7	23.8	1,841
Region							
West	0.6	4.6	2.6	7.7	1.7	10.3	4,154
South	1.0	7.0	6.2	10.4	2.4	15.9	1,235
Central	0.6	4.5	3.1	6.6	1.7	10.4	2,004
North	1.3	7.5	5.0	8.6	3.2	14.0	654
East	3.0	10.9	8.9	13.3	5.4	21.6	1,699
Region (NUTS 1)							
Istanbul	0.6	5.5	3.7	8.4	2.2	11.1	1,948
West Marmara	0.7	3.1	1.5	8.1	1.8	10.0	395
Aegean	0.5	4.2	1.4	6.7	1.5	10.2	1,244
East Marmara	0.6	3.4	2.1	6.6	0.8	8.3	931
West Anatolia	0.7	2.3	1.4	3.1	1.0	4.9	971
Mediterranean	1.0	7.0	6.2	10.4	2.4	15.9	1,235
Central Anatolia	1.1	10.3	6.5	13.8	3.5	22.3	479
West Black Sea	0.7	6.1	5.4	8.6	2.6	13.4	539
East Black Sea	1.7	7.6	5.3	8.3	3.1	13.5	306
Northeast Anatolia	2.3	9.0	8.5	12.8	4.6	21.1	263
Central East Anatolia	3.1	11.9	8.2	13.0	6.5	22.0	460
Southeast Anatolia	3.2	11.0	9.4	13.7	5.1	21.6	976
Education							
No educ./pri. incomp.	5.2	16.9	15.2	23.1	9.3	34.1	1,168
Primary school	1.2	8.0	5.4	11.4	3.0	16.6	3,371
Secondary school	0.4	4.2	2.5	5.6	1.3	9.7	2,173
High school and higher	0.1	1.5	0.6	2.8	0.3	4.0	3,034
Wealth quintile							
Lowest	3.8	15.7	12.6	19.1	7.5	29.9	1,460
Second	1.6	7.9	6.3	11.5	3.2	17.9	1,921
Middle	0.7	5.5	3.2	8.0	1.9	11.8	2,035
Fourth	0.3	3.5	1.5	5.9	1.4	8.0	2,118
Highest	0.2	1.6	1.3	3.4	0.4	4.5	2,212
Total	1.2	6.2	4.4	8.8	2.5	13.3	9,746

Twenty-two percent of women in the East agree that physical violence is justified in at least one of the circumstance compared with 10 percent in the West and Central. Regarding the NUTS 1 regions, the highest proportion agreeing that physical violence may sometimes be justified is observed in Central Anatolia (22 percent) and the lowest proportion in West Anatolia region (5 percent). Acceptance of wife beating is inversely associated with education and wealth level. Women with no education or incomplete primary education are more than 8 times as likely to agree with at least one reason that justifies violence as women with high school or higher education. Women in the lowest wealth quintile are more than 6 times as likely to agree with at least one reason that justifies violence as women in the highest wealth quintile.

In the TDHS-2013, ever-married women and women who have marriage plans were also asked about selected controlling behaviors that they had experienced in their relations with their (last) husbands and husbands-to-be. The behaviors about which they were asked included: "preventing the woman from seeing female friends", "limiting her contact with her family", "insisting on knowing where she is", "distrusting her with money" and "accusing her being unfaithful". Women were asked to categorize the frequency with which they experienced each behavior (i.e., "often", "sometimes" and "never"), and the results are presented in Table 12.6. Table 12.7 shows that the controlling behavior women most often experienced involved the husband insisting on knowing where the woman is and preventing the woman from seeing female friends (33 percent and 9 percent, respectively).

Table 12.6 Frequency of controlling behaviours

Percentage of ever-married or to-be-married women age 15-49 whose husband/partner ever demonstrates specific types of controlling behaviours, Turkey 2013

Behaviours	Frequency of behaviours			Number
	Often	Sometimes	Never	
Preventing from seeing female friends	2.8	5.6	90.7	7,485
Limiting to contact with her family	2.4	3.9	92.9	7,485
Insisting on knowing	21.7	11.4	66.1	7,485
Distrusting with money	2.2	2.8	94.2	7,485
Accusing of being unfaithful	1.6	2.5	95.1	7,485

Note: Husband/partner refers to the current husband/partner for currently married women and the most recent husband/partner for divorced, separated or widowed women or the intended husband/partner for to be married women.
Note: The percentage of missing cases for each listed behaviours is 0.8.

Table 12.7 Controlling behaviours

Percentage of women age 15-49 whose husband/partner ever demonstrates specific types of controlling behaviours, by background characteristics, Turkey 2013

Background characteristic	Husband/partner:					Percentage who lives husbands behaviour	Number
	Prevent from seeing female friends	Limit to contact with her family members	Insist of knowing	Distrust with money	Accuse of being unfaithful		
Age							
15-19	13.1	6.5	51.1	1.5	4.4	54.3	261
20-24	10.8	6.5	47.8	2.7	4.2	51.8	795
25-29	9.4	7.0	36.3	6.0	4.2	42.9	1,291
30-34	7.7	5.9	30.4	4.4	3.6	36.0	1,471
35-39	8.2	5.7	28.5	5.5	4.9	33.9	1,453
40-44	6.3	5.8	27.7	5.5	4.0	33.1	1,213
45-49	8.4	6.8	30.1	6.2	3.0	35.4	1,001
Employment							
Not employed	8.3	6.1	34.2	4.2	3.8	39.0	4,585
Employed	8.7	6.4	31.5	6.3	4.4	37.9	2,672
Missing	7.8	7.7	31.1	7.1	4.2	37.4	227
Marital status							
Never married	12.9	4.2	47.9	1.7	2.6	51.8	421
Married	6.8	4.8	31.0	4.2	3.2	36.3	6,655
Divorced/separated/widowed	30.5	31.8	52.9	21.1	19.9	61.3	409
Number of living children							
0	10.5	5.9	44.3	4.1	4.1	48.2	1,131
1-2	7.0	5.9	29.8	4.7	3.9	34.8	4,035
3-4	9.8	6.9	32.9	6.2	4.4	39.6	1,833
5+	10.9	7.8	35.7	5.2	4.2	43.0	485
Residence							
Urban	8.5	6.2	31.9	5.1	4.2	37.3	6,045
Rural	8.3	6.5	38.5	4.6	3.6	43.9	1,439
Region							
West	7.8	5.4	29.5	4.8	4.0	34.3	3,267
South	7.6	6.7	33.8	5.2	3.9	39.8	969
Central	8.8	7.2	33.1	5.2	4.2	38.4	1,550
North	6.6	5.0	33.1	4.4	2.9	38.0	484
East	11.2	7.4	42.4	5.4	4.5	49.5	1,215
Region (NUTS 1)							
Istanbul	6.9	4.4	25.5	4.1	3.3	29.8	1,505
West Marmara	7.2	3.1	37.1	6.5	8.5	44.0	312
Aegean	8.6	7.3	32.9	6.5	4.4	38.9	997
East Marmara	9.4	6.1	31.2	3.4	2.9	36.7	726
West Anatolia	8.8	7.3	29.8	4.5	3.0	31.7	742
Mediterranean	7.6	6.7	33.8	5.2	3.9	39.8	969
Central Anatolia	10.8	8.9	38.5	7.2	5.2	46.9	381
West Black Sea	5.7	4.3	34.4	4.3	5.2	38.9	413
East Black Sea	7.0	5.3	32.6	3.9	2.3	37.7	224
Northeast Anatolia	12.2	7.1	48.8	6.6	4.2	54.2	192
Central East Anatolia	12.4	9.1	47.2	5.3	3.6	54.1	324
Southeast Anatolia	10.3	6.8	38.4	5.2	5.0	46.0	699
Education							
No educ./pri. incomp.	11.6	9.1	37.0	5.7	5.2	44.3	1,076
Primary school	8.3	6.3	32.6	5.4	4.3	38.4	3,171
Secondary school	10.6	7.0	37.7	3.8	4.0	42.4	1,127
High school and higher	6.0	4.4	29.5	4.8	3.1	33.9	2,111
Wealth quintile							
Lowest	11.9	9.6	42.8	5.6	5.2	49.3	1,142
Second	9.9	6.7	36.8	5.0	5.5	43.0	1,473
Middle	9.2	8.0	32.7	5.3	4.3	38.1	1,563
Fourth	8.1	5.0	31.6	4.6	2.7	37.2	1,612
Highest	4.6	3.1	25.2	4.8	3.0	29.2	1,695
Total	8.5	6.2	33.1	5.0	4.0	38.6	7,485

Table 12.7 presents variations across subgroups in the percentages of women reporting that their husband had often, sometimes, or never exhibited the five controlling behaviors. Thirty-nine percent of women reported that they are faced with at least one controlling behavior by their husbands or husbands-to-be. The percentage of women reporting that they experienced the various controlling behaviors generally decreases with the women's age. The percentages experiencing the behaviors are uniformly higher for the never married and divorced/separated women than their married counterparts. Regarding the regional differentials, the percentages experiencing the specific controlling behaviors were highest in the East.

12.5   Attitudes towards Gender Roles

In order to better understand attitudes towards gender roles, women were asked in the TDHS-2013 whether they agreed or disagreed with a series of six statements about women's roles in the household, society, political life and about the education of male and female children. The statements for which they were asked if they agreed included: "the important decisions in the family should be made only by men of the family", "men should also do the housework like cooking, washing, ironing, and cleaning", "it is better to educate a son than a daughter", "woman with children should not work outside the home", "women should be more involved in politics", and "women should be virgin when they get married".

Table 12.8 presents the percentages of women who agreed or disagreed with these six statements by background characteristics. Women are least likely to agree with the statements that "decisions in the family should be made only by men" and "it is better to educate a son than a daughter" (10 percent). Seventy-five percent of women are agree that "men should also do the housework like cooking, washing, ironing, and cleaning" and "women should be more involved in politics". However, 52 percent of women agree that "woman with children should not work outside the home" and 73 percent of women agree "women should be virgin when they get married".

Table 12.8 Attitude towards gender roles

Percentage of women who agree or disagree with various attitudes towards gender roles, by background characteristics, Turkey 2013

Background characteristic	Opinion on: family decision by men		Opinion on: husband should help		Opinion on: educated son better than daughter		Opinion on: women should not work		Opinion on: more women politician		Opinion on: women should be virgin at wedding night		Number
	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree	
Age													
15-19	9.2	90.8	78.2	21.8	7.2	92.8	56.6	43.4	68.9	31.1	74.3	25.4	1,572
20-24	8.2	91.8	76.8	23.2	9.1	90.9	50.5	49.4	70.0	30.0	69.3	30.7	1,337
25-29	9.0	90.9	72.3	27.6	9.2	90.7	50.8	49.1	72.1	27.8	68.3	31.6	1,492
30-34	8.8	91.2	74.4	25.6	7.1	92.9	51.2	48.4	75.5	24.5	70.2	29.8	1,565
35-39	9.8	90.2	75.5	24.5	10.1	89.9	51.9	47.9	80.9	19.1	74.7	25.3	1,513
40-44	12.1	87.9	75.2	24.8	11.9	88.1	52.7	47.2	80.8	19.1	79.6	20.3	1,238
45-49	15.8	84.2	73.2	26.8	15.4	84.6	49.6	50.3	78.9	21.1	78.9	20.6	1,029
Employment													
Not employed	10.7	89.3	72.3	27.7	8.8	91.2	53.9	45.9	72.9	27.0	75.2	24.7	6,122
Employed	9.3	90.7	80.3	19.7	11.0	89.0	48.8	51.0	78.9	21.0	69.7	30.1	3,385
Missing	8.2	91.8	76.0	24.0	11.1	88.9	50.2	49.8	73.4	26.6	73.3	26.7	238
Marital status													
Never married	6.8	93.2	81.6	18.4	7.6	92.4	50.4	49.5	72.3	27.7	66.9	32.9	2,683
Married	11.5	88.4	72.4	27.6	10.4	89.6	53.2	46.7	75.7	24.3	76.4	23.5	6,655
Divorced/ sep./widowed	8.6	91.4	78.8	21.2	11.1	88.9	44.8	55.2	82.6	17.1	63.9	36.1	409
Number of living children													
0	7.3	92.7	80.3	19.7	7.7	92.3	50.9	49.0	73.2	26.8	66.0	33.8	3,393
1-2	8.3	91.6	76.3	23.6	8.7	91.2	48.1	51.9	76.9	23.0	72.6	27.3	4,035
3-4	14.6	85.4	69.3	30.7	13.0	87.0	57.2	42.4	75.3	24.7	84.3	15.5	1,833
5+	27.8	72.2	51.9	48.1	18.2	81.8	73.8	26.1	71.0	29.0	87.5	12.4	485
Residence													
Urban	7.5	92.5	77.6	22.4	8.3	91.7	50.1	49.7	75.6	24.4	71.4	28.5	7,905
Rural	21.5	78.5	64.7	35.3	15.4	84.6	60.6	39.4	72.7	27.2	81.2	18.7	1,841
Region													
West	6.7	93.3	78.1	21.9	8.4	91.6	50.7	49.0	77.2	22.8	70.4	29.5	4,154
South	9.3	90.7	76.4	23.6	8.9	91.1	48.3	51.6	73.8	26.2	69.2	30.8	1,235
Central	9.6	90.4	78.3	21.7	11.1	88.9	50.0	50.0	76.1	23.9	73.7	26.2	2,004
North	14.9	85.1	73.2	26.8	12.9	87.1	49.3	50.7	70.0	30.0	77.2	22.8	654
East	17.9	82.0	64.2	35.7	10.5	89.5	61.5	38.3	71.4	28.5	81.2	18.5	1,699
Region (NUTS 1)													
Istanbul	4.9	95.1	73.9	26.1	7.6	92.4	52.1	47.5	77.3	22.7	71.0	28.9	1,948
West Marmara	8.2	91.8	83.3	16.7	9.6	90.4	39.0	60.8	77.7	22.1	62.4	37.6	395
Aegean	8.9	91.1	81.3	18.7	10.7	89.3	53.0	47.0	77.2	22.7	72.0	28.0	1,244
East Marmara	8.5	91.5	80.3	19.7	10.0	90.0	52.6	47.1	73.7	26.3	73.8	26.0	931
West Anatolia	8.0	92.0	81.6	18.4	7.1	92.9	47.0	53.0	78.1	21.9	69.6	30.1	971
Mediterranean	9.3	90.7	76.4	23.6	8.9	91.1	48.3	51.6	73.8	26.2	69.2	30.8	1,235
Central Anatolia	12.4	87.6	67.6	32.4	14.9	85.1	52.6	47.4	74.9	25.1	77.7	22.2	479
West Black Sea	12.2	87.8	77.5	22.5	10.3	89.7	47.5	52.5	72.2	27.8	76.8	23.2	539
East Black Sea	15.3	84.7	75.2	24.8	15.3	84.7	49.1	50.8	73.2	26.7	75.3	24.7	306
Northeast Anatolia	18.6	81.4	64.3	35.7	11.6	88.4	60.6	39.4	74.9	25.1	73.3	26.6	263
Central East Anatolia	21.6	78.2	64.5	35.2	10.8	88.9	63.0	36.6	68.4	31.4	83.7	16.1	460
Southeast Anatolia	16.0	84.0	64.1	35.9	10.0	90.0	61.0	38.8	71.8	28.2	82.2	17.5	976
Education													
No educ./pri. incomp.	26.4	73.6	56.2	43.8	18.4	81.6	69.5	30.1	71.2	28.8	87.0	12.9	1,168
Primary school	13.5	86.5	70.9	29.0	12.3	87.7	56.1	43.7	74.2	25.7	83.1	16.8	3,371
Secondary school	7.5	92.5	75.9	24.1	6.6	93.4	52.9	47.1	70.3	29.7	74.1	25.7	2,173
High school and higher	2.0	98.0	86.6	13.3	5.5	94.4	40.2	59.7	80.8	19.2	56.5	43.4	3,034
Wealth quintile													
Lowest	26.0	74.0	59.2	40.8	16.1	83.9	66.5	33.4	72.1	27.9	81.9	18.0	1,460
Second	15.0	85.0	68.9	31.0	11.6	88.4	57.8	41.8	71.1	28.7	80.3	19.5	1,921
Middle	9.1	90.9	76.2	23.8	9.0	91.0	53.0	46.8	72.6	27.4	76.5	23.5	2,035
Fourth	4.1	95.8	79.8	20.2	8.3	91.7	49.1	50.8	75.4	24.6	73.3	26.5	2,118
Highest	2.1	97.9	85.8	14.2	5.6	94.4	39.4	60.5	82.2	17.8	58.4	41.5	2,212
Total	10.1	89.9	75.2	24.8	9.7	90.3	52.0	47.8	75.0	24.9	73.3	26.6	9,746

12.6   Women's Roles in Reproductive Decisions

The decisions taken by women themselves about important social and demographic events such as marriage, divorce and induced abortion are related to women's status. Table 12.9 shows the person that women reported were responsible for these decisions in their own lives.

Ever-married women were asked if the marriage to their spouse was arranged. Forty-nine percent of women reported that they and their husbands decided by themselves to marry. If marriages arranged by families but with the consent of women are included, the proportion of women who have a say who they married rises to 88 percent. Table 12.9 shows that the decision about divorce was most often taken by women (49 percent) or jointly with their former spouse (30 percent). When induced abortion is considered, the decision is most often jointly taken by couples and the doctor (38 percent and 39 percent, respectively).

Table 12.9 Decision making

Percent distribution of ever-married women age 15-49 by the person they perceived as responsible for decisions relating to marriage, divorce and induced abortion, Turkey 2013.

	Percentage
Decision about marriage	
Families-with consent	39.6
Families-without consent	6.9
Couple	48.8
Eloped	4.1
Abducted	0.2
Other	0.2
Total	100.0
Number of women	7,063
Decision about divorce	
Herself	48.7
Husband	16.4
Both	30.3
Other	1.1
Total	100.0
Number of women	297
Decision about induced abortion	
Doctor	38.2
Herself	17.9
Partner	2.9
Herself and partner	38.6
Missing	2.4
Total	100.0
Number of women	225

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SURVEY DESIGN

APPENDIX B

Ahmet Sinan Türkyılmaz, Tuğba Adalı and Alanur Çavlin

The major features of sample design and implementation for the Turkish Demographic and Health Survey, 2013 (TDHS-2013) are described in this section. Sample design features that are discussed include: target sample size, choice of domains, sampling stages, stratification, degree of clustering, and the relationship of design decisions to the nature of the sample frame[1]. Aspects of the sample implementation include the cartographic and listing work that was needed to update, improve, or generate the ultimate sample lists of households or individuals, as well as the procedures for the final household selection.

This section also presents information on fieldwork, including descriptions of the recruitment and training of interviewers, the composition of interviewing teams, quality control procedures, and various practical problems encountered. Response rates[2] for urban and rural areas and regions are presented. An account is also given of the data processing and analysis, including a description of the calculation of the final weighting factors (design and non-response weights).

B.1 Sample Design and Implementation

A weighted, multistage, stratified cluster sampling approach was used in the selection of the TDHS-2013 sample. The sample was designed in this fashion because of the need to provide estimates for a variety of characteristics for various domains. These domains, which are frequently employed in the tabulation of major indicators from the survey, are:

- Turkey as a whole;
- Urban and rural areas (each as a separate domain);
- Each of the conventional major five regions of the country, namely the West, South, Central, North, and East regions;
- The 12 Nomenclature of Territorial Units for Statistics (NUTS) 1[3] regions, for selected indicators which are based on sufficient number of observations;
- The seven largest metropolitan cities (each with populations above one million: allowing for comparison to TDHS-2008; İstanbul, Ankara, İzmir, Bursa, Adana, Konya, Gaziantep).

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[1] For an additional description of these aspects of sample designs for DHS surveys, see the DHS *Sampling Manual* htttp://dhsprogram.com/pubs/pdf/DHSM4/DHS6_Sampling_Manual_Sept2012_DHSM4.pdf,ICF International. 2012. Demographic and Health Survey Sampling and Household Listing Manual. MEASURE DHS, Calverton, Maryland, U.S.A.: ICF International

[2] For a more complete discussion of the calculation of response rates, see the DHS *Sampling Manual,* htttp://dhsprogram.com/pubs/pdf/DHSM4/DHS6_Sampling_Manual_Sept2012_DHSM4.pdf,ICF International. 2012. Demographic and Health Survey Sampling and Household Listing Manual. MEASURE DHS, Calverton, Maryland, U.S.A.: ICF International

[3] Information is provided on NUTS regions in the sections that follow.

The major objective of the TDHS-2013 sample design was to ensure that the survey would provide estimates with acceptable precision for these domains for most of the important demographic characteristics, such as fertility, infant and child mortality, and contraceptive prevalence, as well as for the health indicators. The different populations targeted by the TDHS-2013 survey included the total population for the Household Questionnaire and all women between the ages of 15-49 for the Individual Questionnaire. The aim was to survey these populations by selecting a representative sample of households. An adult member in every household was interviewed in order to collect information on household members. All women aged 15-49 in the household who were identified as eligible in the household schedule were interviewed.

B.2   Sample Frame

Different criteria have been used to describe "urban" and "rural" settlements in Turkey. In the demographic surveys of the 1970s, a population size of 2,000 was used to differentiate between urban and rural settlements. In the 1980s, the cut-off point was increased to 10,000 and, in some surveys in the 1990s, to 20,000. A number of surveys used information on the administrative status of settlements in combination with population size to differentiate settlement types. The urban frame of the TDHS-2013 consisted of a list of provincial centers, district centers, and other settlements with populations larger than 10,000, regardless of administrative status. The rural frame consisted of all district centers, sub-districts and villages not included in the urban frame. The urban-rural definitions of the TDHS-2013 are identical with those in the TDHS-1998, TDHS-2003 and TDHS-2008.

Initial information on all settlements in Turkey was obtained from the 2012 Address-Based Population Registration System (ABPRS-2012). The results of ABPRS-2012 provided a computerized list of all settlements (provincial and district centers, sub-districts and villages as forming the base for sampling frame of TDHS-2013) and their populations.

The Address Based Population Registration System (ABPRS) is a system developed in the last decade, which registers each person who has a citizen ID number (or a special number for resident aliens) at a specific address. The National Address Data Base (NABD) was also developed by municipalities in collaboration with Turkey Statistical Institute (TURKSTAT) to support ABPRS.

B.3   Stratification

Currently Turkey is divided administratively into 81 provinces. For purposes of selection and reporting in prior surveys 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- West, South, Central, North, and East -include varying numbers of provinces. A list of the provinces in each of the regions is provided in Table B.1.

Table B.1 List of strata by region, NUTS 1 region, residence, type and province, Turkey 2013

Stratum	Region	NUTS 1 Region	Type	Province
1	West	İstanbul	Urban/Metropol	İstanbul
2	West	İstanbul	Rural	İstanbul
3	West	West Marmara	Urban	Edirne, Kırklareli, Tekirdağ, Balıkesir, Çanakkale
4	West	West Marmara	Rural	Edirne, Kırklareli, Tekirdağ, Balıkesir, Çanakkale
5	West	Aegean	Urban/Metropol	İzmir
6	West	Aegean	Urban	İzmir, Aydın, Denizli, Muğla, Manisa
7	West	Aegean	Rural	İzmir, Aydın, Denizli, Muğla, Manisa
8	Central	Aegean	Urban	Afyon, Kütahya, Uşak
9	Central	Aegean	Rural	Afyon, Kütahya, Uşak
10	West	East Marmara	Urban/Metropol	Bursa
11	West	East Marmara	Urban	Bursa, Kocaeli, Sakarya, Yalova
12	West	East Marmara	Rural	Bursa, Kocaeli, Sakarya, Yalova
13	Central	East Marmara	Urban	Bilecik, Eskişehir, Bolu, Düzce
14	Central	East Marmara	Rural	Bilecik, Eskişehir, Bolu, Düzce
15	Central	West Anatolia	Urban/Metropol	Ankara
16	Central	West Anatolia	Urban/Metropol	Konya
17	Central	West Anatolia	Urban	Ankara, Konya, Karaman
18	Central	West Anatolia	Rural	Ankara, Konya, Karaman
19	South	Mediterranean	Urban/Metropol	Adana
20	South	Mediterranean	Urban	Antalya, Burdur, Isparta, Adana, İçel, Hatay, K. Maraş, Osmaniye
21	South	Mediterranean	Rural	Antalya, Burdur, Isparta, Adana, İçel, Hatay, K. Maraş, Osmaniye
22	Central	Central Anatolia	Urban	Kırşehir, Nevşehir, Niğde, Aksaray, Kırıkkale, Kayseri, Sivas, Yozgat
23	Central	Central Anatolia	Rural	Kırşehir, Nevşehir, Niğde, Aksaray, Kırıkkale, Kayseri, Sivas, Yozgat
24	North	West Black Sea	Urban	Zonguldak, Bartın, Karabük, Kastamonu, Sinop, Samsun
25	North	West Black Sea	Rural	Zonguldak, Bartın, Karabük, Kastamonu, Sinop, Samsun
26	Central	West Black Sea	Urban	Çankırı, Amasya, Çorum, Tokat
27	Central	West Black Sea	Rural	Çankırı, Amasya, Çorum, Tokat
28	North	East Black Sea	Urban	Artvin, Giresun, Gümüşhane, Ordu, Rize, Trabzon
29	North	East Black Sea	Rural	Artvin, Giresun, Gümüşhane, Ordu, Rize, Trabzon
30	East	Northeast Anatolia	Urban	Erzincan, Erzurum, Bayburt, Ağrı, Kars, Ardahan, Iğdır
31	East	Northeast Anatolia	Rural	Erzincan, Erzurum, Bayburt, Ağrı, Kars, Ardahan, Iğdır
32	East	Central East Anatolia	Urban	Bingöl, Elazığ, Malatya, Tunceli, Bitlis, Hakkari, Muş, Van
33	East	Central East Anatolia	Rural	Bingöl, Elazığ, Malatya, Tunceli, Bitlis, Hakkari, Muş, Van
34	East	Southeast Anatolia	Urban/Metropol	Gaziantep
35	East	Southeast Anatolia	Urban	Adıyaman, Gaziantep, Kilis, Diyarbakır, Şanlıurfa, Mardin, Siirt, Batman, Şırnak
36	East	Southeast Anatolia	Rural	Adıyaman, Gaziantep, Kilis, Diyarbakır, Şanlıurfa, Mardin, Siirt, Batman, Şırnak

In addition to the conventional five geographic regions, a new system of regional breakdown was adopted in late 2002. In accordance with the accession process of Turkey to the European Union, the State Planning Office and the Turkish 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 TDHS-2013 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 TDHS-1993, the five-region breakdown of the country was used for stratification. In TDHS-1993, a more detailed stratification taking into account sub-regions was employed to obtain a better dispersion of the sample. The criteria for subdividing the five major regions into sub-regions were the infant mortality rates of each province, estimated from the 1990 Population Census using indirect techniques[4]. Using the infant mortality estimates as well as geographic proximity, the provinces in each region were grouped into 14 sub-regions at the time of the TDHS-1993. The sub-regional division developed during the TDHS-1993 was also used in TDHS-1998.

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 sample domains. How this issue was tackled is explained in detail in a paper by Türkyılmaz and Hancıoğlu[5]. Fifteen artificial regions were designed to aggregate and provide either the five regions or the NUTS 1 regions. Each of the 15 regions consisted of urban and rural areas, leading to a total of 30 strata. Seven metropolitan areas were also of interest. One of them was Istanbul, which is already a NUTS1 region by itself; thus the final number of strata was 36 in TDHS-2013. The basis of this stratification approach was used first for the sample design of TDHS-2003, and then repeated for TDHS-2008 and TDHS-2013.

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[4] See Hancıoğlu, A. 1991. *Indirect estimation of mortality from information on the survival status of a close relative: Turkey 1970-1985,* Unpublished Doctoral Dissertation, Hacettepe University Institute of Population Studies, Ankara.
[5] Türkyılmaz A.S. and Hancıoğlu A., 2004. *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, 2007, Vol. 26, pp. 3-14.

B.4   Sample Allocation

The target sample size of the TDHS-2013 was set at 14,496 households. This sample size is 1,336 households larger than that of TDHS-2003 and 986 households larger than that of TDHS-2008. The increased sample size was mainly designed to ensure optimum allocation among the NUTS 1 regions and take the increasing non-response trend into account. It also reflected a concern to allocate at least 800 households for each NUTS 1 region (Table B.2).

Table B.2 Allocation of sample households

Number of targeted households by region for the last five TDHS surveys in Turkey

Regional categories	TDHS-1993	TDHS-1998	TDHS-2003	TDHS-2008	TDHS-2013
Region					
West	2,700	2,800	4,330	3,860	4,478
South	1,700	1,800	1,840	1,900	1,984
Central	2,100	2,100	2,450	2,690	3,014
North	1,500	1,500	1,580	1,910	2,198
East	2,000	1,800	2,960	3,150	2,822
NUTS 1 Regions					
İstanbul	-	-	2,080	1,210	1,422
West Marmara	-	-	740	940	1,124
Aegean	-	-	1,000	1,050	1,260
East Marmara	-	-	1,040	1,030	1,152
West Anatolia	-	-	890	1,110	1,202
Mediterranean	-	-	1,840	1,900	1,984
Central Anatolia	-	-	740	920	1,024
West Black Sea	-	-	1,030	1,230	1,210
East Black Sea	-	-	840	970	1,296
Northeast Anatolia	-	-	740	900	838
Central East Anatolia	-	-	740	900	838
Southeast Anatolia	-	-	1,480	1,350	1,146
Total	10,000	10,000	13,160	13,510	14,496

Note: The number of households for TDHS-1993 and TDHS-1998 are not shown since NUTS 1 regions have been used only since 2002.

To have an adequate representation of clusters within each of the five major regions, it was decided to select 25 households per standard urban segment (under the assumption of each cluster consisting of roughly 100 households) and 18 households per standard rural segment. On this basis, the total number of selected standard segments by regions is shown in Table B.3.

Table B.3 Distribution of sample clusters

Number of clusters by region, NUTS 1 Regions and urban-rural residence, Turkey 2013

Regional categories	Urban segments (Population ≥ 10,000) (Cluster size= 25 HHs)	Rural segments (Population < 10,000) (Cluster size= 18 HHs)	Number of segments
Region			
West	146	46	192
South	52	38	90
Central	86	48	134
North	62	36	98
East	74	54	128
NUTS 1 Regions			
İstanbul	54	4	58
West Marmara	32	18	50
Aegean	36	20	56
East Marmara	36	14	50
West Anatolia	38	14	52
Mediterranean	52	38	90
Central Anatolia	28	18	46
West Black Sea	34	20	54
East Black Sea	36	22	58
Northeast Anatolia	22	16	38
Central East Anatolia	22	16	38
Southeast Anatolia	30	22	52
Total	420	222	642

B.5   Sample Selection

Selection Procedures

Sample selection activities began with the classification of settlements into 36 strata, and specification of the number of clusters from these lists of settlements. After these numbers were specified, the first stage of sample selection of the TDHS-2013 took place.

The first stage of selection included the selection of blocks as primary sampling units from each strata and this task was requested from TURKSTAT. Systematic selection was used for selecting the blocks; thus settlements were given selection probabilities proportional to their sizes. Therefore more blocks were sampled from larger settlements.

In Turkey, settlements are not divided into small area units with well-defined boundaries (e.g., census enumeration areas) that can be used for conducting surveys. However, for all settlements, household lists are available from the 2012 National Address Data Base, prepared for the first time in 2007 by municipalities in collaboration with the TURKSTAT, to be the base for ABPRS. Thus TURKSTAT was able to provide household lists for all selected blocks. In urban areas, the lists consisted of approximately 100 households. In rural areas, different situations arose. Some rural blocks were located in district centers with populations less than 10,000, in this case blocks were similar to urban

blocks. Some other situations observed were: 1) blocks consisted of a whole village, 2) blocks consisted of a section of a village covering approximately 100 households, 3) blocks consisted of two villages. TURKSTAT provided a list of the dwellings units with their full addresses (quarter, area, 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. As mentioned above, 25 households were selected as a cluster from urban blocks, and 18 were selected as a cluster from rural blocks at the Hacettepe University Institute of Population Studies (HUIPS). The details of the listing and mapping activities are provided in the next section.

Listing and Mapping Activities

Although TURKSTAT had dwelling lists for all clusters, they do not have maps that correspond to them. Therefore, some of the clusters were formed of streets that were not adjacent to each other. Moreover, the lists provided by TURKSTAT did not reflect the changes that may have occurred during the period between when they were formed and the survey date. Two types of changes were possible: those that could be updated during listing, such as the construction of a new building on the street, a change in the use of a building (e.g., a flat can be used as an office instead of a dwelling), or changes in the names of streets, and those that were more problematic, e.g., the establishment of new quarters in urban centers as new residential areas.

In an effort to develop strategies for dealing with these as well as other possible problems that might arise, a pilot listing activity was undertaken in the capital, Ankara, before the actual listing activity began. The final listing forms, sketch map formats, and listing and mapping manuals were developed based on this pilot activity.

Forty-six university students/graduates were trained during a five-day training program in August 2013. Thirty-nine of them completed the training; and nineteen listing teams were then formed each including one mapper and one lister. 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. The listing operation started in mid-August 2013 and it was carried out under the supervision of the 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. In such cases, the village that was nearest to the selected village was included in the sample, and the names of these villages were provided to the listing teams.

The listing operation was completed in the last week of October 2013. Although there were difficulties in some areas, only one cluster was not listed as the whole block consisted of military housing, and necessary permissions could not be obtained despite all efforts.

Free satellite photos and maps from "Google Earth" and "Google Maps" were also used frequently by listing teams to create sketch and location maps.

B.6   Questionnaire Development and Pre-test

Questionnaires

Two main types of questionnaires were used to collect the TDHS-2013 data: the Household Questionnaire and the Individual Questionnaire for all women of reproductive age. The contents of these questionnaires were based on the DHS core questionnaire. Additions, deletions and modifications were made to the DHS model questionnaire in order to collect information particularly relevant to Turkey. Attention also was paid to ensuring the comparability of the TDHS-2013 findings with previous demographic surveys carried out by the Hacettepe Institute of Population Studies. In the process of designing the TDHS-2013 questionnaires, national and international population and health agencies were consulted for their comments.

All TDHS-2013 questionnaires were developed in Turkish and translated into English. English versions of the Household and Individual questionnaires are reproduced in Appendix F.

The Household Questionnaire was used to enumerate all usual members of and visitors to the selected households and to collect information relating to the socioeconomic status of the households. In the first section 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 key objective of the first section of the Household Questionnaire was to obtain the information needed to identify women who were eligible for the individual interview as well as to provide basic demographic data for Turkish households. The second section of the Household Questionnaire was used to collect information on housing characteristics, such as the number of rooms, the flooring material, the heating system, the source of water, and the type of toilet facilities, and on the household's ownership of a variety of consumer goods.

The Women's Questionnaire for women aged 15-49 obtained information on the following subjects:

- Background characteristics
- Migration history
- Pregnancy, birth history and fertility preferences
- Knowledge and use of contraceptive methods
- Antenatal and postnatal care
- Breastfeeding and nutrition
- Immunization
- Marriage history and information on marriage
- Women's work history and status
- Basic characteristics of husbands

- Women's status
- Women's and children's anthropometry.

The Women's Questionnaire also included a monthly calendar, which was used to record fertility and contraception for a period of approximately 6 years (depending on the month of interview) beginning in January 2008 up to the survey month. In addition, fieldwork teams measured the heights and weights of women between the ages of 15-49 and their children under age five.

Pre-test

In order to finalize the questionnaires a four-day pre-test was conducted in June 2013. The pre-test made us to ensure that the questions in the TDHS-2013 questionnaires were in a logical sequence, that the wording of the questions was comprehensible, appropriate and meaningful, and that the pre-coded answers were adequate.

For the pre-test, 12 interviewers were trained at the Hacettepe University Institute of Population Studies for a period of three days. The interviewers, some being research assistants, were all experienced in field surveys, mainly in previous TDHS surveys. In addition to the interviewers, project assistants of the TDHS-2013, who would later become supervisors and regional coordinators, also received training.

Fieldwork for the pre-test was carried out in four clusters – two in central Ankara, one in squatter housing areas of Ankara, and one village in Ankara province. A total of 161 households and 225 women interviews were completed during the pre-tests. Frequency distributions and cross tabulations were obtained shortly after the completion of the interviews. Based on the evaluation of these results and on the feedback obtained from the interviewers, as well as from the collaborating institutions, several minor changes were made to the TDHS-2013 questionnaires.

B.7   Data Collection Activities

Staff Recruitment and Training

Candidates for the positions of interviewers, field editors, supervisors and measurers were solicited in announcements sent to all universities in Ankara. All candidates for the field staff positions were interviewed in four groups by the staff of the Hacettepe Institute of Population Studies using interview guidelines prepared for this purpose. Individuals who met a number of the requirements and had the necessary qualifications were accepted into the training program.

All candidates accepted into the training program for the field staff positions were university students or university graduates. Previous survey experience was not among the qualifications for the candidates for the position of interviewers in order to ensure that the

trainees had no biases that might result from their previous experience. 323 candidates were interviewed, and 176 applicants were accepted for the training program.

Training of the candidates for the fieldwork was conducted in August and September 2013 for three weeks by the Hacettepe University Institute of Population Studies. The training program included general lectures related to the demographic situation in Turkey, family planning and mother and child health; questionnaire training; role playing and mock interviews; and quizzes to test the progress and capabilities of the candidates. A variety of materials were used during the training sessions, including manuals for supervisors and editors, and for interviewers.

All trainees received the in-class training during the first two weeks of the training period; after the completion of classroom training, a three-day pilot study was conducted in the urban and rural areas of Ankara to complement the training program. Based on the performance of candidates during the training and pilot study, 128 individuals were selected for the main fieldwork. Additional in-class training sessions were organized for supervisors, field editors, and measurers.

Fieldwork

Fieldwork for the TDHS-2013, began in the third week of September 2013, and was completed in the third week of January 2014. The fieldwork of TDHS-2013 was carried out with a break during this period taken due to an official religious holiday. Ten teams were formed before the break, and 13 teams were formed after the break. Each team consisted of a supervisor, 1-2 field editors, a measurer, and 4-5 female interviewers. Fieldwork teams visited all 81 provinces in Turkey. Academic staffs of HUIPS were responsible for visiting the field teams in order to check the quality of data collection and guide them in the field.

A total of 642 clusters were selected for the TDHS-2013 sample. Of these, interviews were successfully completed in 641 clusters. The only missing cluster consisted of military housing; and could neither be listed nor interviewed despite all legal efforts since the authorities did not grand permission.

B.8   Data Processing and Analysis

TDHS-2013 questionnaires were returned to the Hacettepe University Institute of Population Studies by the fieldwork teams for data processing as soon as interviews were completed in a province. The office editing staff checked that the questionnaires for all selected households and eligible respondents were returned from the field. A total of 29 data entry staff were trained for data entry activities of the TDHS-2013. The data entry of the TDHS-2013 began in late September 2013 and was completed at the end of January 2014.

The data were entered and edited on microcomputers using the Census and Survey Processing System (CSPro) software. CSPro is designed to fulfill the census and survey data processing needs of data-producing organizations worldwide. CSPro is developed by MEASURE partners, the U.S. Bureau of the Census, ICF International's DHS Program, and

SerPro S.A. CSPro allows range, skip, and consistency errors to be detected and corrected at the data entry stage. During the data entry process, 100% verification was performed by entering each questionnaire twice using different data entry operators and comparing the entered data.

Firstly, the raw data sets were prepared and standard recoded DHS data sets were developed during the first visit to ICF in July 2014. The data sets and quality standards were also double checked with the ICF team during this visit. Following that, the tables of main report were produced according to the DHS tabulation plan with some country specific modifications. ICF were visited for the second time to finalize the main report and review the tables in September 2014. Sampling errors were also calculated and checked during this visit.

B.9   Calculation of Sample Weights

As mentioned earlier, the TDHS-2013 sample is not self-weighted. A disproportionate number of sample units were chosen from some of the strata, since there would have been inadequate numbers of observations for these areas if the target number of households had been proportionally allocated across regions. The following describes the procedure for calculating the weights used in the analysis of the TDHS-2013 results. Since the final selection was not implemented proportionally in each strata, and since there was some variation in non-response rates in terms of urban and rural settlements, regions, ever-married and never-married women; as well as differences in cluster sizes as provided by TURKSTAT and from the updated block sizes after the listing, separate weights were calculated for each of the 642 clusters.

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 speaking about the population. Thus units are multiplied by the inverse of the non-response rates in their domains.

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).

The design weight, d_{hi}, for cluster i in the hth stratum is the reciprocal of the sampling fraction employed in calculating the number of units in that particular cluster:

$$d_{hi} = 1/P_{hi}$$

The term P_{hi}, the sampling fraction of households in cluster i in the hth stratum, is the product of the probabilities of selection at every stage for the households in this cluster:

$$P_{hi} = P_{1hi} \times P_{2hi}$$

where P_{1hi} is the probability of selecting the i-th block in stratum h in the first stage of selection, and P_{2hi} is the probability of sampling households in the same block in the second stage of sample selection:

$$P_{1hi} = \frac{n_h \times M_{hi}}{\sum M_{hi}}$$

$$P_{2hi} = \frac{t_{hi}}{L_{hi}}$$

Where h denotes stratum, M denotes the measure of size of the block (number of households in the block), n denotes the number of blocks to be selected from the stratum, t denotes the number of HHs selected from the block (25 in urban areas, 18 in rural areas) and L denotes the updated size of the block obtained from listing.

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[6], non-response rates used in the calculation of sample weights are also weighted by the design weight (d_{hi}) explained above. The adjustment for household non-response is equal to the inverse value of:

$$R_{hh} = \frac{\sum d_{hi} \times m^*_{hi}}{\sum d_{hi} \times m_{hi}}$$

Where m^*_{hi} is the number of HHs in cluster hi where interviews were possible, and m_{hi} denotes the total number of HHs in cluster hi in stratum h.

Eligible households include households where interviews were completed, households where there were no competent respondents, households where interviews were postponed and eventually not completed, refusals, and those dwellings that were not found by the fieldwork teams.

Similarly, individual level non-response for stratum h is calculated as:

$$R^{EM}{}_h = \frac{\sum_i d_{hi} \times k^{EM*}{}_{hi}}{\sum_i d_{hi} \times k^{EM}{}_{hi}}$$

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[6] ICF International. 2012, Demographic and Health Survey Sampling and Household Listing Manual. MEASURE DHS, Calverton, Maryland, USA.: ICF International

$$R^{NM}{}_h = \frac{\sum_i d_{hi} \times k^{NM*}{}_{hi}}{\sum_i d_{hi} \times k^{NM}{}_{hi}}$$

where $k^{EM*}{}_{hi}$ is the number of interviewed ever-married women in cluster hi, and $k^{EM}{}_{hi}$ denotes the total number of ever-married women in cluster hi (and 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 (Table B.5.2). 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 TDHS-2013 also include an adjustment for missing clusters. The household weight was computed as follows:

$$D_{hi} = \frac{d_{hi}}{(R_{ch} \times R_{hh})}$$

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:

$$W^{EM}{}_{hi} = \frac{d_{hi}}{(R_{ch} \times R_{hh} \times R^{EM}{}_h)}$$

$$W^{NM}{}_{hi} = \frac{d_{hi}}{(R_{ch} \times R_{hh} \times R^{NM}{}_h)}$$

where R_{ch} is the cluster level response rate in stratum h.

The unadjusted weights for the households (D_{hi}) were calculated by multiplying the above factors for each stratum; they were then 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 $HV005_{hi} = D_{hi} \times \frac{\sum\sum m^*{}_{hi}}{\sum\sum D_{hi} \times m^*{}_{hi}}$

A similar normalization procedure was followed in obtaining the weights for the individual women's data. However, it was not done separately for the two marital status groups, because this would force the marital distribution of the weighted sample to be the same with that of the unweighted sample. Such an approach would still result in the underestimation of never married women.

Therefore a combined normalization factor (*FW*) was computed, that would preserve the marital distribution in the population, rather than that of the sample:

$$FW = \frac{\sum \sum k^{EM*}_{hi} + k^{NM*}_{hi}}{\sum \sum W^{EM}_{hi} \times k^{EM*}_{hi} + \sum \sum W^{NM}_{hi} \times k^{NM*}_{hi}}$$

And the weight for women is $V005_{hi} = \begin{cases} W^{EM}_{hi} \times FW \ if \ ever \ married, \\ W^{NM}_{hi} \times FW \ if \ never \ married. \end{cases}$

An additional step was added to the calculation of the sample weight in TDHS-2013 because the regional distribution of the interviewed women did not match the regional distribution in the Address Based Population Registration System (ABPRS-2013) population figures for the corresponding age group of women (15-49). The distributions are shown in Table B.4.

The findings below show that the East regions (Northeast Anatolia, Central East Anatolia, Southeast Anatolia) are overestimated in the data set. Ideally, the distributions would be expected to match; the small deviances observed are related to sampling and non-sampling errors, or possibly due to interviewers omitting some eligible women in other regions. The overestimation of the East would result in an overestimation of fertility, an underestimation of contraception, etc. Therefore the sampling weight for the women's data set was adjusted to provide the same regional distribution as the ABPRS, 2013.

This adjustment was made as follows:

$$V005^{new}_{hi} = V005_{hi} \times \left(\frac{P_{region}}{\sum P_{region}} \Big/ \frac{\sum V005_{region}}{\sum \sum V005_{region}} \right)$$

where P_{region} is the population of women age 15-49 of the region and $\sum V005_{region}$ is the weighted sum of the number of women in the region from the data set.

Table B.4 Distribution of women aged 15-49

Percent distribution of women age 15-49 by NUTS 1 regions according to TDHS-2013 using the original $V005_{hi}$ and the Address Based Population Registration System (ABPRS) populations, Turkey 2013

	Proportions from TDHS-2013, using original $V005_{hi}$	Proportions from the ABPRS, 2013
NUTS 1 Regions		
İstanbul	21.5	20.0
West Marmara	3.5	4.1
Aegean	11.7	12.8
East Marmara	9.3	9.5
West Anatolia	8.6	10.0
Mediterranean	12.4	12.7
Central Anatolia	4.9	4.9
West Black Sea	5.6	5.5
East Black Sea	3.5	3.1
Northeast Anatolia	3.2	2.7
Central East Anatolia	5.4	4.7
Southeast Anatolia	10.4	10.0
Total	100.0	100.0

B.10   Coverage of the Sample

The results of sample implementation for the household and the individual interviews for the country as a whole, for urban and rural areas, and for the five regions of Turkey are shown in Tables B.5.1 and for NUTS 1 regions in Table B.5.3 The results indicate that, of the 14,496[7] households selected, the TDHS fieldwork teams successfully completed interviews with 11,794 (81 percent). The main reasons that eligible households were not interviewed were that some of the listed dwelling units were found to be vacant at the time of the interview or the household was away for an extended period. A total of 12,640 households were located and visited, of which 11,794 households were successfully interviewed. Overall, the household response rate was calculated as 93 percent.

The household response rate was higher in rural areas than in urban areas, and highest in the East and North regions (95 percent). Among NUTS 1 regions, the household response rate was the lowest in İstanbul (85 percent) and highest in West Black Sea, Northeast Anatolia and Southeast Anatolia (96 percent).

In the interviewed households, 10,840 eligible women were identified, of whom 90 percent were interviewed. Among the number of eligible women not interviewed in the

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[7] Although the target sample size was initially 14,496 households, 14,490 households were determined as eligible during the fieldwork. The difference has two components: 1) One missing cluster with 25 households excluded 2) 19 additional households identified during data collection, due to multiple households sharing the same dwelling.

survey, the principal reason for non-response was the failure to find the woman at home after repeated visits to the household.

The overall response rate in the TDHS-2013 was calculated as 84 percent. It ranged from 80 percent in the West region to 86 percent in the South, Central and North regions. In terms of NUTS 1 regions, the overall response rates ranged from 74 percent in İstanbul to 89 percent in West Anatolia.

The eligible woman response rate was similar in urban and rural areas, and it varied across the five regions from 89 to 91 percent. The response rate for eligible women in İstanbul (87 percent) was the lowest among the NUTS 1 regions and highest in West Anatolia (95 percent) (Table B.5.3).

The eligible woman response rate, as mentioned earlier, differed by marital status. For ever-married women, the overall response rate was 93 percent; lowest in the West region with 91 percent, highest in the South region with 94 percent. Response rates were lower for never married women - 82 percent for all of Turkey - probably due to higher proportions of working and school attending never married women than ever married women. It was lowest in the East region (80 percent) and highest in the North with 84 percent (Table B.5.2).

Table B.5.1 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 2013

	Residence		Region					
Result	Urban	Rural	West	South	Central	North	East	Total
Selected households								
Completed (C)	80.9	82.7	77.9	83.1	82.0	80.7	85.6	81.4
Household present but no competent respondent at home (HP)	1.1	1.0	0.8	1.9	1.3	1.0	0.8	1.1
Postponed (P)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Refused (R)	5.8	1.0	7.2	3.4	3.4	3.1	3.0	4.5
Dwelling not found (DNF)	0.2	0.2	0.1	0.0	0.2	0.3	0.4	0.2
Household absent (HA)	4.1	4.3	4.1	2.4	4.2	5.5	4.5	4.2
Dwelling vacant/address not a dwelling (DV)	7.6	10.7	9.6	8.7	8.7	9.2	5.5	8.4
Dwelling destroyed (DD)	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
Partly completed (PC)	0.1	0.0	0.1	0.2	0.1	0.0	0.0	0.1
Other (O)	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	10,484	4,006	4,457	1,985	3,025	2,200	2,823	14,490
Household response rate (HRR)[1]	91.8	97.4	90.4	93.7	94.3	94.8	95.3	93.3
Eligible women								
Completed (EWC)	89.3	91.6	88.5	91.4	91.2	90.7	89.2	89.9
Not at home (EWNH)	5.5	4.7	5.9	3.4	3.9	5.7	6.4	5.3
Postponed (EWP)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Refused (EWR)	3.7	1.5	4.2	3.5	3.3	1.6	2.6	3.1
Partly completed (EWPC)	0.4	0.4	0.4	0.5	0.3	0.6	0.4	0.4
Incapacitated (EWI)	0.7	1.5	0.6	0.9	1.1	1.2	0.8	0.9
Other (EWO)	0.4	0.4	0.3	0.3	0.2	0.1	0.6	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	8,019	2,821	2,756	1,448	2,044	1,584	3,008	10,840
Eligible women response rate (EWRR)[2]	89.3	91.6	88.5	91.4	91.2	90.7	89.2	89.9
Overall women response rate (ORR)[3]	82.0	89.2	80.0	85.7	86.0	86.0	84.9	83.9

Note: The household response rate is calculated for completed households as a proportion of completed, no competent respondent, postponed, refused, dwelling not found and partly completed. The eligible woman response rate is calculated for completed interviews as a proportion of completed, not at home, postponed, refused, partially completed and "other." The overall response rate is the product of the household and woman response rates.

[1] Using the number of households falling into specific response categories, the household response rate (HRR) is calculated as:

$$\frac{C}{C + HP + P + R + DNF + PC}$$

[2] Using the number of eligible women falling into specific response categories, the eligible woman response rate (EWRR) is calculated as:

$$\frac{EWC}{EWC + EWNH + EWP + EWR + EWPC + EWI + EWO}$$

[3] The overall response rate (ORR) is calculated as:

$$ORR = HRR * EWRR$$

Table B.5.2 Sample implementation according to residence and region, ever-married and never-married women

Percent distribution of ever and never marries eligible women by results of the household and individual interviews, eligible women and overall response rates, according to urban-rural residence and region, Turkey 2013

Result	Residence		Region					Total
	Urban	Rural	West	South	Central	North	East	
Eligible ever-married women								
Completed (EWC)	92.6	94.5	91.2	94.2	93.7	93.5	93.9	93.1
Not at home (EWNH)	3.4	3.2	4.3	2.3	2.9	3.5	3.2	3.4
Postponed (EWP)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Refused (EWR)	2.8	1.2	3.3	2.4	2.6	1.5	1.8	2.4
Partly completed (EWPC)	0.6	0.5	0.5	0.6	0.3	0.8	0.6	0.5
Incapacitated (EWI)	0.2	0.5	0.3	0.1	0.5	0.4	0.2	0.3
Other (EWO)	0.3	0.0	0.3	0.4	0.1	0.2	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	5,704	2,048	2,025	1,074	1,520	1,115	2,018	7,752
Eligible women response rate								
(EWRR)	92.6	94.5	91.2	94.2	93.7	93.5	93.9	93.1
Eligible never-married women								
Completed (EWC)	81.1	84.0	81.0	83.4	84.0	84.2	79.6	81.8
Not at home (EWNH)	10.7	8.7	10.4	6.4	6.9	10.9	12.9	10.2
Postponed (EWP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Refused (EWR)	5.9	2.1	6.8	6.4	5.3	1.9	4.1	4.9
Partly completed (EWPC)	0.1	0.1	0.0	0.3	0.4	0.0	0.1	0.1
Incapacitated (EWI)	1.7	4.0	1.5	3.2	2.9	3.0	1.8	2.3
Other (EWO)	0.5	1.2	0.3	0.3	0.6	0.0	1.4	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	2.315	773	731	374	524	769	990	3,088
Eligible women response rate								
(EWRR)	81.1	84.0	81.0	83.4	84.0	84.2	79.6	81.8

Table B.5.3 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 response rates, according to NUTS 1 regions, Turkey 2013

						NUTS 1 Regions							
Result	Istanbul	West Marmara	Aegean	East Marmara	West Anatolia	Mediterranean	Central Anatolia	West Black Sea	East Black Sea	Northeast Anatolia	Central East Anatolia	Southeast Anatolia	Total
Selected households													
Completed (C)	73.4	81.7	80.7	77.0	82.0	83.1	83.4	83.5	78.7	87.1	80.5	88.1	81.4
Household present but no competent respondent at home (HP)	0.8	1.5	0.7	0.6	0.7	1.9	1.9	0.7	1.2	1.2	0.8	0.5	1.1
Postponed (P)	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refused (R)	11.6	3.0	5.3	6.2	4.7	3.4	2.3	2.7	3.3	2.1	3.9	3.1	4.5
Dwelling not found (DNF)	0.0	0.1	0.3	0.1	0.1	0.0	0.5	0.2	0.4	0.5	0.5	0.2	0.2
Household absent (HA)	3.8	3.4	4.3	5.3	3.9	2.4	4.7	5.7	4.6	3.3	7.4	3.1	4.2
Dwelling vacant/address not a dwelling (DV)	10.2	10.2	8.4	10.6	8.3	8.7	7.1	6.9	11.6	5.5	6.7	4.7	8.4
Dwelling destroyed (DD)	0.0	0.0	0.2	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0
Partly completed (PC)	0.1	0.1	0.1	0.1	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Other (O)	0.1	0.0	0.0	0.1	0.1	0.2	0.0	0.2	0.2	0.2	0.0	0.2	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of sampled households	1,426	1,124	1,240	1,154	1,203	1,984	1,028	1,211	1,297	838	838	1,146	14,490
Household response rate (HRR)	85.5	94.5	92.6	91.6	93.6	93.7	94.6	95.8	94.2	95.8	93.9	95.8	93.3
Eligible women													
Completed (EWC)	86.6	93.7	91.4	84.7	94.5	91.4	88.8	91.2	90.0	88.9	89.2	89.4	89.9
Not at home (EWNH)	5.9	3.5	4.4	8.9	1.5	3.4	5.7	5.2	6.2	5.7	7.2	6.2	5.3
Postponed (EWP)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Refused (EWR)	6.2	1.9	2.5	5.1	3.2	3.5	3.4	1.5	1.8	3.5	1.5	2.7	3.1
Partly completed (EWPC)	0.3	0.5	0.6	0.1	0.5	0.5	0.1	0.6	0.5	0.2	0.6	0.5	0.4
Incapacitated (EWI)	0.4	0.3	1.1	0.8	0.3	0.9	1.8	1.3	1.2	0.9	0.7	0.7	0.9
Other (EWO)	0.6	0.0	0.0	0.4	0.1	0.3	0.1	0.3	0.1	0.7	0.8	0.5	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	984	572	724	744	758	1,448	812	873	919	855	861	1,289	10,840
Eligible women response rate (EWRR)	86.6	93.7	91.4	84.7	94.5	91.4	88.8	91.2	90.0	88.9	89.2	89.4	89.9
Overall women response rate (ORR)	74.0	88.6	84.7	77.6	88.4	85.7	84.0	87.4	84.8	85.2	83.7	85.7	83.9

Tuğba Adalı and Ahmet Sinan Türkyılmaz

The estimates from a sample survey are affected by two types of errors: (1) nonsampling errors, and (2) sampling errors. Nonsampling errors are the results of mistakes made in implementing data collection and data processing, such as failure to locate and interview the correct household, misunderstanding of the questions on the part of either the interviewer or the respondent, and data entry errors. Although numerous efforts were made during the implementation of the TDHS-2013 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 TDHS-2013 is only one of many samples that could have been selected from the same population, using the same design and expected size. Each of these samples would yield results that differ somewhat from the results of the actual sample selected. Sampling errors are a measure of the variability between all possible samples. Although the degree of variability is not known exactly, it can be estimated from the survey results.

A sampling error is usually measured in terms of the *standard error* for a particular statistic (mean, percentage, etc.), which is the square root of the variance. The standard error can be used to calculate confidence intervals within which the true value for the population can reasonably be assumed to fall. For example, for any given statistic calculated from a sample survey, the value of that statistic will fall within a range of plus or minus two times the standard error of that statistic in 95 percent of all possible samples of identical size and design.

If the sample of respondents had been selected as a simple random sample, it would have been possible to use straightforward formulas for calculating sampling errors. However, the TDHS-2013 sample is the result of a three-stage stratified design, and, consequently, it was necessary to use more complex formulae. The computer software used to calculate sampling errors for the TDHS-2013 is a SAS program. This program used the Taylor linearization method of variance estimation for survey estimates that are means or proportions. The Jackknife repeated replication method is used for variance estimation of more complex statistics such as fertility and mortality rates.

The Taylor linearization method treats any percentage or average as a ratio estimate, $r = y/x$, where y represents the total sample value for variable y, and x represents the total number of cases in the group or subgroup under consideration. The variance of r is computed using the formula given below, with the standard error being the square root of the variance in which:

$$SE^2 = var(r) = \frac{1}{x^2} \sum_{h=1}^{H} \left[(1 - f_h) \frac{m_h}{m_h - 1} \left(\sum_{i=1}^{m_h} z_{hi}^2 - \frac{z_h^2}{m_h} \right) \right]$$

in which

$$z_{hi} = y_{hi} - r \cdot x_{hi}, \text{ and } z_h = y_h - r \cdot x_h$$

where h represents the stratum which varies from 1 to H,

      m_h is the total number of blocks selected in the hth stratum,

      y_{hi} is the sum of the weighted values of variable y in i^{th} cluster in the hth stratum,

      x_{hi} is the sum of the weighted number of cases in i^{th} cluster in the hth stratum, and

      f_h is the sampling fraction of PSU in the hth stratum which is so small that it is ignored.

The Jackknife repeated replication method derives estimates of complex rates from each of several replications of the parent sample, and calculates standard errors for these estimates using simple formulae. Each replication considers *all but one* cluster in the calculation of the estimates. Pseudo-independent replications are thus created. In the TDHS-2013, there were 641 non-empty clusters. Hence, 641 replications were created. The variance of a rate r is calculated as follows:

$$SE^2 = var(r) = \frac{1}{k(k-1)} \sum_{i=1}^{k} (r_i - r)^2$$

in which

$$r_i = k\, r - (k-1)\, r_{(i)}$$

where r is the estimate computed from the full sample of 641 clusters,

      $r_{(i)}$ is the estimate computed from the reduced sample of 640 clusters (i^{th} cluster excluded), and

      k is the total number of clusters.

In addition to the standard error, the program computes the design effect (DEFT) for each estimate, which is defined as the ratio between the standard error using the given sample design and the standard error that would result if a simple random sample had been used. A DEFT value of 1.0 indicates that the sample design is as efficient as a simple random sample, while a value greater than 1.0 indicates the increase in the sampling error due to the use of a more complex and less statistically efficient design. The program also computes the relative error and confidence limits for the estimates.

Sampling errors for the TDHS-2013 are calculated for a number of variables considered to be of primary interest. Results for women are presented in this appendix for the country as a whole, for urban and rural areas, for each of the five regions, and for the twelve

NUTS 1 regions. For each variable, the type of statistic (mean, proportion, or rate) and the base population are given in Table C.1. Tables C.2-C.21 present the value of the statistic (R), its standard error (SE), the number of unweighted (N) and weighted (WN) cases, the design effect (DEFT), the relative standard error (SE/R), and the 95 percent confidence limits (R±2SE), for each variable. The DEFT is considered undefined when the standard error considering simple random sample is zero (when the estimate is close to 0 or 1).

In general, the relative standard errors for most estimates for the country as a whole are small, except for estimates of very small proportions. There are some differentials in the relative standard errors for the estimates for sub-populations. For example, for the current use of any method, i.e. the proportion of currently married women aged 15-49 who were using any method of contraception at the time of the interview, the relative standard error for the country as a whole, for urban areas, and for rural areas are 1.0 percent, 1.1 percent, and 1.9 percent, respectively.

To obtain the 95 percent confidence limits for current contraceptive use, one adds and subtracts twice the standard error to the sample estimate, i.e. $0.735 \pm 2\times0.007$. The results indicate that there is a high probability (95 percent) that the *true* value of the current level of contraceptive for the country as a whole is between 72.0 percent and 74.9 percent.

For the total sample, the value of the DEFT, averaged over all variables, is 1.238. This means that, due to multi-stage clustering of the sample, the average standard error is increased by a factor of 1.238 over that in an equivalent simple random sample.

Table C.1 List of indicators for sampling errors, Turkey 2013

Variable	Estimate	Base Population
Urban residence	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
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 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 periodic abstinence	Proportion	Currently married women 15-49
Currently using withdrawal	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
Mothers received medical care at delivery	Proportion	Births occurring 1-59 months before survey
Vaccination card seen	Proportion	Children 15-26 months
Received BCG vaccination	Proportion	Children 15-26 months
Received DaBT-İPA-Hib vacc. (3 doses)	Proportion	Children 15-26 months
Received MMR vaccination	Proportion	Children 15-26 months
Received Hepatitis B vaccination (3 doses)	Proportion	Children 15-26 months
Received PCV vaccination (3 doses)	Proportion	Children 15-26 months
Fully immunized	Proportion	Children 15-26 months
Height-for-age	Proportion	Children under 5 who were measured
Weight-for-height	Proportion	Children under 5 who were measured
Weight-for-age	Proportion	Children under 5 who were measured
BMI<18.5	Proportion	All women 15-49 who were measured
Total fertility rate (3 years)	Rate	Women-years of exposure to childbearing
Neonatal mortality rate[1]	Rate	Children exposed to the risk of mortality
Post-Neonatal mortality rate[1]	Rate	Children exposed to the risk of mortality
Infant mortality rate[1]	Rate	Children exposed to the risk of mortality
Child mortality rate[1]	Rate	Children exposed to the risk of mortality
Under-five mortality rate[1]	Rate	Children exposed to the risk of mortality

[1] Mortality rates are calculated for the last 0-4 years before the survey for the national sample, and last 0-9 years before the survey for regional samples.

Table C.2 Sampling errors, National Sample, Turkey 2013

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
Urban residence	0.811	0.006	9746	9746	1.453	0.007	0.800	0.823
No education/primary school incomplete	0.120	0.006	9746	9746	1.862	0.051	0.108	0.132
Secondary school or higher	0.534	0.009	9746	9746	1.866	0.018	0.515	0.553
Never married	0.275	0.006	9746	9746	1.277	0.021	0.264	0.287
Currently married/in union	0.683	0.006	9746	9746	1.276	0.009	0.671	0.695
Currently pregnant	0.044	0.003	9746	9746	1.271	0.060	0.039	0.049
Children ever born	1.667	0.020	9746	9746	1.133	0.012	1.627	1.707
Children ever born to women over 40	2.919	0.050	2356	2267	1.252	0.017	2.819	3.018
Children surviving	1.600	0.018	9746	9746	1.111	0.012	1.563	1.637
Knowing any contraceptive method	0.998	0.001	6835	6655	1.074	0.001	0.997	0.999
Knowing any modern contraceptive method	0.997	0.001	6835	6655	1.089	0.001	0.995	0.998
Ever used any contraceptive method	0.917	0.004	6835	6655	1.206	0.004	0.909	0.926
Currently using any method	0.735	0.007	6835	6655	1.347	0.010	0.720	0.749
Currently using a modern method	0.474	0.008	6835	6655	1.398	0.018	0.458	0.491
Currently using pill	0.046	0.003	6835	6655	1.272	0.070	0.040	0.053
Currently using IUD	0.168	0.006	6835	6655	1.338	0.036	0.155	0.180
Currently using condoms	0.158	0.006	6835	6655	1.439	0.040	0.146	0.171
Currently using injectables	0.006	0.001	6835	6655	1.055	0.167	0.004	0.008
Currently using female sterilization	0.094	0.004	6835	6655	1.201	0.045	0.086	0.103
Currently using periodic abstinence	0.003	0.001	6835	6655	1.475	0.302	0.001	0.006
Currently using withdrawal	0.255	0.007	6835	6655	1.349	0.028	0.241	0.270
Using public sector source	0.559	0.011	3140	3226	1.268	0.020	0.537	0.582
Want no more children	0.474	0.007	6835	6655	1.202	0.015	0.459	0.488
Want to delay at least 2 years	0.181	0.006	6835	6655	1.318	0.034	0.169	0.193
Ideal number of children	2.721	0.019	9679	9686	1.507	0.007	2.683	2.759
Mothers received antenatal care for last birth	0.971	0.003	2865	2672	0.946	0.003	0.965	0.977
Tetanus injections at last ANC visit	0.806	0.009	2740	2594	1.197	0.011	0.788	0.824
Mothers received medical care at delivery	0.974	0.003	3648	3326	1.039	0.003	0.968	0.980
Vaccination card seen	0.752	0.020	764	687	1.192	0.026	0.713	0.791
Received BCG vaccination	0.944	0.010	764	687	1.203	0.011	0.923	0.965
Received DaBT-İPA-Hib vacc. (3 doses)	0.864	0.015	764	687	1.118	0.017	0.835	0.893
Received MMR vaccination	0.898	0.015	764	687	1.295	0.016	0.868	0.927
Received Hepatitis B vaccination (3 doses)	0.871	0.015	764	687	1.203	0.018	0.840	0.901
Received PCV vaccination (3 doses)	0.816	0.014	764	687	0.990	0.018	0.787	0.845
Fully immunized	0.741	0.019	764	687	1.125	0.025	0.703	0.778
Height-for-age (below -2SD)	0.095	0.007	2777	2519	1.143	0.074	0.081	0.110
Weight-for-height (below -2SD)	0.017	0.003	2777	2519	1.155	0.169	0.011	0.023
Weight-for-age (below -2SD)	0.019	0.003	2777	2519	1.050	0.149	0.014	0.025
BMI < 18.5	0.036	0.003	8208	8165	1.325	0.076	0.030	0.041
Total fertility rate (3 years)	2.258	0.069	27805	27733	1.360	0.031	2.120	2.397
Neonatal mortality rate (5 years)	7.416	1.646	3688	3364	1.062	0.222	4.125	10.707
Post-Neonatal mortality rate (5 years)	5.866	1.738	3687	3369	1.230	0.296	2.390	9.343
Infant mortality rate (5 years)	13.282	2.345	3689	3364	1.111	0.177	8.592	17.972
Child mortality rate (5 years)	1.657	0.617	3681	3375	0.851	0.372	0.423	2.891
Under-five mortality rate (5 years)	14.917	2.422	3692	3366	1.092	0.162	10.073	19.762

Table C.3 Sampling errors, Urban, Turkey 2013

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	7162	7905	.	0.000	1.000	1.000
No education	0.099	0.007	7162	7905	1.980	0.071	0.085	0.113
With secondary education or higher	0.575	0.011	7162	7905	1.933	0.020	0.552	0.597
Never married/in union	0.279	0.007	7162	7905	1.271	0.024	0.266	0.293
Currently married/in union	0.676	0.007	7162	7905	1.268	0.010	0.662	0.690
Currently pregnant	0.043	0.003	7162	7905	1.283	0.072	0.037	0.049
Children ever born	1.562	0.022	7162	7905	1.136	0.014	1.518	1.605
Children ever born to women over 40	2.736	0.054	1644	1752	1.278	0.020	2.627	2.845
Children surviving	1.508	0.020	7162	7905	1.116	0.013	1.468	1.549
Knowing any contraceptive method	0.999	0.001	4976	5341	1.178	0.001	0.997	1.000
Knowing any modern contraceptive method	0.997	0.001	4976	5341	1.135	0.001	0.996	0.999
Ever used any contraceptive method	0.926	0.004	4976	5341	1.191	0.005	0.917	0.935
Currently using any method	0.747	0.008	4976	5341	1.350	0.011	0.730	0.763
Currently using a modern method	0.493	0.010	4976	5341	1.421	0.020	0.473	0.513
Currently using pill	0.050	0.004	4976	5341	1.252	0.078	0.042	0.057
Currently using IUD	0.173	0.007	4976	5341	1.299	0.040	0.159	0.187
Currently using condoms	0.172	0.008	4976	5341	1.432	0.045	0.157	0.188
Currently using injectables	0.005	0.001	4976	5341	1.018	0.203	0.003	0.007
Currently using female sterilization	0.091	0.005	4976	5341	1.184	0.053	0.081	0.101
Currently using periodic abstinence	0.004	0.001	4976	5341	1.514	0.355	0.001	0.006
Currently using withdrawal	0.249	0.008	4976	5341	1.381	0.034	0.232	0.266
Using public sector source	0.530	0.013	2397	2696	1.244	0.024	0.505	0.556
Want no more children	0.467	0.008	4976	5341	1.179	0.018	0.450	0.483
Want to delay at least 2 years	0.191	0.007	4976	5341	1.325	0.039	0.176	0.206
Ideal number of children	2.694	0.020	7124	7865	1.434	0.008	2.654	2.735
Mothers received antenatal care for last birth	0.981	0.003	2076	2155	0.980	0.003	0.975	0.987
Tetanus injection at last ANC	0.810	0.010	2015	2115	1.185	0.013	0.789	0.831
Mothers received medical assistance at delivery	0.988	0.003	2556	2621	1.090	0.003	0.983	0.993
Having health card, seen	0.766	0.023	542	546	1.202	0.030	0.720	0.812
Received BCG vaccination	0.944	0.012	542	546	1.212	0.013	0.920	0.969
Received DaBT-İPA-Hib vacc. (3 doses)	0.889	0.017	542	546	1.205	0.019	0.855	0.922
Received MMR vaccination	0.906	0.017	542	546	1.285	0.018	0.872	0.939
Received Hepatitis B vaccination (3 doses)	0.890	0.018	542	546	1.264	0.020	0.855	0.925
Received PCV vaccination (3 doses)	0.840	0.016	542	546	1.012	0.020	0.807	0.873
Fully immunized	0.765	0.022	542	546	1.150	0.028	0.722	0.808
Height-for-age (below -2SD)	0.082	0.008	1928	1970	1.216	0.101	0.065	0.098
Weight-for-height (below -2SD)	0.016	0.003	1928	1970	1.098	0.196	0.010	0.023
Weight-for-age (below -2SD)	0.017	0.003	1928	1970	1.117	0.201	0.010	0.024
BMI < 18.5	0.037	0.003	5955	6552	1.330	0.088	0.031	0.044
Total fertility rate (3 years)	2.156	0.076	20462	22517	1.398	0.035	2.004	2.309
Neonatal mortality rate (10 years)	8.366	1.839	5086	5229	1.139	0.220	4.687	12.044
Post-neonatal mortality rate (10 years)	7.971	1.858	5086	5233	1.292	0.233	4.256	11.686
Infant mortality rate (10 years)	16.336	2.558	5088	5231	1.248	0.157	11.221	21.452
Child mortality rate (10 years)	2.146	0.755	5046	5216	0.977	0.352	0.635	3.656
Under-five mortality rate (10 years)	18.447	2.599	5095	5234	1.188	0.141	13.249	23.644

Table C.4 Sampling errors, Rural,Turkey 2013

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confidence limits R-2SE	R+2SE
Urban residence	0.000	0.000	2584	1841	.	.	0.000	0.000
No education	0.209	0.012	2584	1841	1.524	0.058	0.184	0.233
With secondary education or higher	0.360	0.013	2584	1841	1.387	0.036	0.334	0.387
Never married/in union	0.258	0.010	2584	1841	1.133	0.038	0.238	0.277
Currently married/in union	0.714	0.010	2584	1841	1.122	0.014	0.694	0.734
Currently pregnant	0.050	0.005	2584	1841	1.095	0.094	0.041	0.060
Children ever born	2.121	0.046	2584	1841	1.060	0.021	2.030	2.212
Children ever born to women over 40	3.539	0.113	712	516	1.247	0.032	3.312	3.765
Children surviving	1.993	0.040	2584	1841	1.016	0.020	1.913	2.073
Knowing any contraceptive method	0.998	0.001	1859	1314	0.630	0.001	0.996	0.999
Knowing any modern contraceptive method	0.995	0.002	1859	1314	0.983	0.002	0.991	0.998
Ever used any contraceptive method	0.883	0.009	1859	1314	1.254	0.011	0.864	0.902
Currently using any method	0.685	0.013	1859	1314	1.216	0.019	0.659	0.711
Currently using a modern method	0.400	0.013	1859	1314	1.143	0.032	0.374	0.426
Currently using pill	0.032	0.005	1859	1314	1.163	0.148	0.023	0.042
Currently using IUD	0.146	0.011	1859	1314	1.400	0.079	0.123	0.169
Currently using condoms	0.102	0.008	1859	1314	1.122	0.077	0.086	0.118
Currently using injectables	0.009	0.003	1859	1314	1.191	0.289	0.004	0.014
Currently using female sterilization	0.107	0.009	1859	1314	1.190	0.080	0.090	0.124
Currently using periodic abstinence	0.003	0.001	1859	1314	0.606	0.269	0.001	0.004
Currently using withdrawal	0.282	0.011	1859	1314	1.078	0.040	0.259	0.304
Using public sector source	0.707	0.022	743	530	1.320	0.031	0.663	0.751
Want no more children	0.503	0.015	1859	1314	1.258	0.029	0.474	0.532
Want to delay at least 2 years	0.141	0.008	1859	1314	1.003	0.057	0.125	0.157
Ideal number of children	2.834	0.050	2555	1821	1.809	0.017	2.735	2.934
Mothers received antenatal care for last birth	0.927	0.009	789	517	0.964	0.010	0.908	0.945
Tetanus injection at last ANC	0.789	0.018	725	479	1.138	0.023	0.753	0.825
Mothers received medical assistance at delivery	0.923	0.010	1092	705	1.080	0.011	0.903	0.943
Having health card, seen	0.699	0.036	222	141	1.100	0.052	0.626	0.772
Received BCG vaccination	0.943	0.017	222	141	1.047	0.018	0.908	0.977
Received DaBT-İPA-Hib vacc. (3 doses)	0.770	0.029	222	141	0.952	0.038	0.712	0.828
Received MMR vaccination	0.868	0.032	222	141	1.327	0.037	0.805	0.932
Received Hepatitis B vaccination (3 doses)	0.795	0.030	222	141	1.047	0.038	0.734	0.856
Received PCV vaccination (3 doses)	0.724	0.032	222	141	0.978	0.044	0.661	0.787
Fully immunized	0.647	0.036	222	141	1.032	0.055	0.576	0.718
Height-for-age (below -2SD)	0.144	0.013	849	549	0.933	0.088	0.119	0.170
Weight-for-height (below -2SD)	0.021	0.007	849	549	1.375	0.340	0.007	0.034
Weight-for-age (below -2SD)	0.027	0.005	849	549	0.793	0.168	0.018	0.037
BMI < 18.5	0.029	0.004	2253	1612	1.015	0.124	0.022	0.036
Total fertility rate (3 years)	2.733	0.158	7342	5216	1.040	0.058	2.416	3.050
Neonatal mortality rate (10 years)	12.603	2.737	2236	1458	1.071	0.217	7.128	18.078
Post-neonatal mortality rate (10 years)	9.065	2.033	2232	1454	0.917	0.224	4.998	13.132
Infant mortality rate (10 years)	21.668	3.568	2237	1458	0.972	0.165	14.532	28.804
Child mortality rate (10 years)	4.221	1.770	2226	1450	0.985	0.419	0.682	7.761
Under-five mortality rate (10 years)	25.798	3.715	2237	1458	0.937	0.144	18.368	33.228

Table C.5 Sampling errors, West, Turkey 2013

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
Urban residence	0.903	0.006	2439	4154	1.028	0.007	0.890	0.915
No education	0.072	0.008	2439	4154	1.593	0.115	0.056	0.089
With secondary education or higher	0.569	0.016	2439	4154	1.614	0.028	0.537	0.602
Never married/in union	0.263	0.009	2439	4154	1.020	0.035	0.245	0.281
Currently married/in union	0.689	0.010	2439	4154	1.062	0.014	0.670	0.709
Currently pregnant	0.041	0.005	2439	4154	1.183	0.116	0.032	0.051
Children ever born	1.470	0.030	2439	4154	1.034	0.020	1.410	1.530
Children ever born to women over 40	2.439	0.070	649	1021	1.211	0.029	2.298	2.579
Children surviving	1.427	0.029	2439	4154	1.025	0.020	1.370	1.484
Knowing any contraceptive method	0.999	0.001	1727	2864	1.221	0.001	0.997	1.001
Knowing any modern contraceptive method	0.998	0.001	1727	2864	1.083	0.001	0.996	1.000
Ever used any contraceptive method	0.941	0.006	1727	2864	1.042	0.006	0.930	0.953
Currently using any method	0.757	0.013	1727	2864	1.281	0.017	0.730	0.783
Currently using a modern method	0.470	0.015	1727	2864	1.249	0.032	0.440	0.500
Currently using pill	0.046	0.006	1727	2864	1.213	0.133	0.034	0.058
Currently using IUD	0.155	0.010	1727	2864	1.126	0.063	0.135	0.174
Currently using condoms	0.174	0.011	1727	2864	1.167	0.061	0.153	0.196
Currently using injectables	0.003	0.001	1727	2864	0.888	0.375	0.001	0.006
Currently using female sterilization	0.089	0.006	1727	2864	0.881	0.068	0.077	0.101
Currently using periodic abstinence	0.005	0.002	1727	2864	1.370	0.488	0.000	0.009
Currently using withdrawal	0.280	0.013	1727	2864	1.171	0.045	0.255	0.306
Using public sector source	0.465	0.019	822	1385	1.095	0.041	0.427	0.503
Want no more children	0.489	0.013	1727	2864	1.078	0.027	0.463	0.515
Want to delay at least 2 years	0.171	0.010	1727	2864	1.119	0.059	0.151	0.191
Ideal number of children	2.621	0.031	2430	4143	1.327	0.012	2.559	2.683
Mothers received antenatal care for last birth	0.990	0.004	590	1026	0.974	0.004	0.982	0.998
Tetanus injection at last ANC	0.797	0.020	581	1015	1.203	0.025	0.758	0.836
Mothers received medical assistance at delivery	0.998	0.002	691	1204	1.140	0.002	0.995	1.002
Having health card, seen	0.722	0.043	143	247	1.180	0.060	0.635	0.809
Received BCG vaccination	0.935	0.024	143	247	1.196	0.026	0.887	0.983
Received DaBT-İPA-Hib vacc. (3 doses)	0.874	0.030	143	247	1.088	0.034	0.815	0.933
Received MMR vaccination	0.890	0.030	143	247	1.166	0.034	0.830	0.950
Received Hepatitis B vaccination (3 doses)	0.850	0.035	143	247	1.186	0.041	0.781	0.919
Received PCV vaccination (3 doses)	0.818	0.029	143	247	0.933	0.036	0.759	0.876
Fully immunized	0.764	0.035	143	247	1.021	0.046	0.693	0.834
Height-for-age (below -2SD)	0.072	0.013	518	918	1.162	0.184	0.045	0.098
Weight-for-height (below -2SD)	0.016	0.004	518	918	0.822	0.269	0.008	0.025
Weight-for-age (below -2SD)	0.016	0.006	518	918	1.108	0.368	0.004	0.028
BMI < 18.5	0.038	0.005	1985	3417	1.242	0.140	0.027	0.048
Total fertility rate (3 years)	1.933	0.109	6986	11826	1.111	0.056	1.715	2.152
Infant mortality rate (10 years)	13.354	3.822	1428	2473	1.208	0.286	5.711	20.998
Under-five mortality rate (10 years)	14.567	3.925	1428	2473	1.203	0.269	6.717	22.417

Table C.6 Sampling errors, South, Turkey 2013

| 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	0.799	0.015	1324	1235	1.360	0.019	0.770	0.829
No education	0.124	0.021	1324	1235	2.318	0.169	0.082	0.166
With secondary education or higher	0.505	0.027	1324	1235	1.928	0.053	0.452	0.558
Never married/in union	0.259	0.015	1324	1235	1.236	0.058	0.229	0.288
Currently married/in union	0.693	0.014	1324	1235	1.131	0.021	0.664	0.722
Currently pregnant	0.038	0.005	1324	1235	0.908	0.126	0.028	0.047
Children ever born	1.834	0.055	1324	1235	1.132	0.030	1.724	1.943
Children ever born to women over 40	3.058	0.120	360	311	1.175	0.039	2.818	3.298
Children surviving	1.748	0.051	1324	1235	1.131	0.029	1.646	1.849
Knowing any contraceptive method	0.999	0.001	948	856	1.105	0.001	0.996	1.001
Knowing any modern contraceptive method	0.997	0.002	948	856	1.078	0.002	0.992	1.001
Ever used any contraceptive method	0.905	0.013	948	856	1.318	0.014	0.880	0.930
Currently using any method	0.708	0.019	948	856	1.263	0.026	0.671	0.746
Currently using a modern method	0.478	0.023	948	856	1.426	0.048	0.432	0.524
Currently using pill	0.042	0.007	948	856	1.080	0.168	0.028	0.056
Currently using IUD	0.153	0.014	948	856	1.166	0.089	0.126	0.181
Currently using condoms	0.159	0.018	948	856	1.548	0.116	0.122	0.196
Currently using injectables	0.011	0.003	948	856	0.910	0.279	0.005	0.017
Currently using female sterilization	0.109	0.011	948	856	1.058	0.098	0.088	0.131
Currently using periodic abstinence	0.000	0.000	948	856	0.576	1.000	0.000	0.001
Currently using withdrawal	0.230	0.015	948	856	1.109	0.066	0.200	0.260
Using public sector source	0.622	0.028	452	419	1.230	0.045	0.566	0.678
Want no more children	0.459	0.016	948	856	1.001	0.035	0.427	0.491
Want to delay at least 2 years	0.161	0.019	948	856	1.606	0.119	0.122	0.199
Ideal number of children	2.936	0.051	1314	1226	1.347	0.017	2.834	3.037
Mothers received antenatal care for last birth	0.984	0.006	404	370	1.000	0.006	0.972	0.997
Tetanus injection at last ANC	0.877	0.014	397	364	0.874	0.016	0.849	0.906
Mothers received medical assistance at delivery	0.982	0.009	514	469	1.329	0.009	0.964	0.999
Having health card, seen	0.839	0.037	115	104	1.059	0.044	0.764	0.913
Received BCG vaccination	0.964	0.018	115	104	1.062	0.019	0.927	1.001
Received DaBT-İPA-Hib vacc. (3 doses)	0.917	0.029	115	104	1.066	0.031	0.859	0.974
Received MMR vaccination	0.971	0.014	115	104	0.898	0.014	0.943	0.999
Received Hepatitis B vaccination (3 doses)	0.909	0.027	115	104	0.964	0.030	0.855	0.963
Received PCV vaccination (3 doses)	0.851	0.030	115	104	0.889	0.036	0.790	0.912
Fully immunized	0.774	0.039	115	104	0.969	0.050	0.696	0.851
Height-for-age (below -2SD)	0.071	0.016	411	377	1.143	0.225	0.039	0.104
Weight-for-height (below -2SD)	0.011	0.004	411	377	0.703	0.326	0.004	0.018
Weight-for-age (below -2SD)	0.011	0.005	411	377	1.056	0.496	0.000	0.021
BMI < 18.5	0.038	0.006	1120	1043	1.058	0.160	0.026	0.050
Total fertility rate (3 years)	2.483	0.127	3788	3515	1.198	0.051	2.228	2.738
Infant mortality rate (10 years)	21.096	5.877	1022	932	1.104	0.279	9.342	32.849
Under-five mortality rate (10 years)	25.643	6.009	1024	934	1.037	0.234	13.626	37.661

Table C.7 Sampling errors, Central, Turkey 2013

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	0.825	0.014	1864	2004	1.596	0.017	0.796	0.853
No education	0.055	0.008	1864	2004	1.578	0.152	0.038	0.071
With secondary education or higher	0.583	0.019	1864	2004	1.620	0.032	0.546	0.620
Never married/in union	0.259	0.014	1864	2004	1.375	0.054	0.231	0.287
Currently married/in union	0.694	0.014	1864	2004	1.291	0.020	0.666	0.721
Currently pregnant	0.034	0.005	1864	2004	1.115	0.138	0.025	0.043
Children ever born	1.536	0.041	1864	2004	1.246	0.027	1.454	1.617
Children ever born to women over 40	2.657	0.080	450	458	1.244	0.030	2.498	2.817
Children surviving	1.485	0.037	1864	2004	1.191	0.025	1.411	1.560
Knowing any contraceptive method	0.998	0.001	1334	1391	1.151	0.001	0.996	1.001
Knowing any modern contraceptive method	0.998	0.001	1334	1391	1.088	0.001	0.995	1.001
Ever used any contraceptive method	0.932	0.009	1334	1391	1.280	0.009	0.914	0.949
Currently using any method	0.788	0.010	1334	1391	0.861	0.012	0.769	0.807
Currently using a modern method	0.563	0.015	1334	1391	1.134	0.027	0.533	0.594
Currently using pill	0.061	0.007	1334	1391	1.037	0.111	0.048	0.075
Currently using IUD	0.246	0.015	1334	1391	1.239	0.059	0.217	0.275
Currently using condoms	0.167	0.016	1334	1391	1.573	0.096	0.135	0.199
Currently using injectables	0.005	0.002	1334	1391	1.045	0.402	0.001	0.009
Currently using female sterilization	0.083	0.012	1334	1391	1.570	0.143	0.059	0.106
Currently using periodic abstinence	0.003	0.002	1334	1391	1.221	0.569	0.000	0.007
Currently using withdrawal	0.220	0.015	1334	1391	1.317	0.068	0.190	0.250
Using public sector source	0.628	0.024	715	800	1.321	0.038	0.581	0.676
Want no more children	0.477	0.015	1334	1391	1.063	0.030	0.448	0.506
Want to delay at least 2 years	0.196	0.014	1334	1391	1.254	0.070	0.169	0.223
Ideal number of children	2.451	0.027	1857	1992	1.151	0.011	2.398	2.505
Mothers received antenatal care for last birth	0.971	0.008	508	496	1.092	0.009	0.954	0.988
Tetanus injection at last ANC	0.887	0.015	489	481	1.057	0.017	0.856	0.918
Mothers received medical assistance at delivery	0.987	0.006	602	585	1.201	0.006	0.975	0.998
Having health card, seen	0.861	0.035	120	115	1.024	0.041	0.791	0.931
Received BCG vaccination	0.967	0.015	120	115	0.896	0.016	0.937	0.997
Received DaBT-İPA-Hib vacc. (3 doses)	0.886	0.036	120	115	1.193	0.041	0.814	0.958
Received MMR vaccination	0.875	0.038	120	115	1.220	0.044	0.799	0.952
Received Hepatitis B vaccination (3 doses)	0.928	0.021	120	115	0.855	0.023	0.886	0.970
Received PCV vaccination (3 doses)	0.911	0.024	120	115	0.895	0.027	0.863	0.959
Fully immunized	0.773	0.053	120	115	1.312	0.068	0.668	0.878
Height-for-age (below -2SD)	0.108	0.017	457	415	1.036	0.160	0.073	0.142
Weight-for-height (below -2SD)	0.017	0.009	457	415	1.393	0.516	0.000	0.035
Weight-for-age (below -2SD)	0.012	0.004	457	415	0.810	0.364	0.003	0.021
BMI < 18.5	0.027	0.005	1608	1696	1.140	0.173	0.018	0.036
Total fertility rate (3 years)	1.889	0.130	5338	5735	1.393	0.069	1.630	2.149
Infant mortality rate (10 years)	14.934	3.812	1235	1204	1.050	0.255	7.310	22.559
Under-five mortality rate (10 years)	15.397	3.832	1235	1204	1.043	0.249	7.733	23.061

Table C.8 Sampling errors, North, Turkey 2013

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
Urban residence	0.569	0.023	1437	654	1.778	0.041	0.522	0.615
No education	0.083	0.013	1437	654	1.793	0.157	0.057	0.109
With secondary education or higher	0.531	0.019	1437	654	1.436	0.036	0.493	0.569
Never married/in union	0.289	0.015	1437	654	1.261	0.052	0.259	0.319
Currently married/in union	0.680	0.015	1437	654	1.242	0.022	0.650	0.711
Currently pregnant	0.040	0.006	1437	654	1.111	0.143	0.029	0.052
Children ever born	1.611	0.047	1437	654	1.157	0.029	1.517	1.705
Children ever born to women over 40	2.845	0.125	376	175	1.551	0.044	2.594	3.095
Children surviving	1.530	0.045	1437	654	1.205	0.030	1.440	1.621
Knowing any contraceptive method	0.995	0.001	994	445	0.471	0.001	0.993	0.997
Knowing any modern contraceptive method	0.993	0.002	994	445	0.655	0.002	0.990	0.997
Ever used any contraceptive method	0.927	0.009	994	445	1.070	0.010	0.909	0.944
Currently using any method	0.754	0.014	994	445	1.014	0.018	0.726	0.782
Currently using a modern method	0.423	0.017	994	445	1.114	0.041	0.388	0.458
Currently using pill	0.027	0.005	994	445	0.883	0.169	0.018	0.036
Currently using IUD	0.094	0.014	994	445	1.466	0.145	0.066	0.121
Currently using condoms	0.156	0.013	994	445	1.093	0.081	0.130	0.181
Currently using injectables	0.003	0.002	994	445	1.132	0.670	0.000	0.007
Currently using female sterilization	0.142	0.017	994	445	1.510	0.118	0.109	0.176
Currently using periodic abstinence	0.003	0.002	994	445	0.997	0.546	0.000	0.007
Currently using withdrawal	0.328	0.019	994	445	1.259	0.057	0.290	0.365
Using public sector source	0.626	0.028	434	190	1.197	0.044	0.570	0.682
Want no more children	0.491	0.020	994	445	1.234	0.040	0.452	0.530
Want to delay at least 2 years	0.126	0.012	994	445	1.126	0.094	0.102	0.149
Ideal number of children	2.505	0.033	1436	653	1.260	0.013	2.439	2.571
Mothers received antenatal care for last birth	0.958	0.012	376	162	1.126	0.012	0.935	0.982
Tetanus injection at last ANC	0.840	0.019	363	155	0.972	0.023	0.802	0.878
Mothers received medical assistance at delivery	0.990	0.005	445	195	1.133	0.005	0.980	1.001
Having health card, seen	0.710	0.053	95	42	1.128	0.074	0.605	0.815
Received BCG vaccination	0.970	0.022	95	42	1.262	0.023	0.925	1.014
Received DaBT-İPA-Hib vacc. (3 doses)	0.832	0.041	95	42	1.062	0.049	0.751	0.914
Received MMR vaccination	0.901	0.031	95	42	1.015	0.034	0.839	0.964
Received Hepatitis B vaccination (3 doses)	0.866	0.035	95	42	1.002	0.040	0.796	0.936
Received PCV vaccination (3 doses)	0.787	0.051	95	42	1.219	0.065	0.685	0.890
Fully immunized	0.711	0.055	95	42	1.185	0.078	0.600	0.821
Height-for-age (below -2SD)	0.056	0.012	365	165	0.960	0.213	0.032	0.080
Weight-for-height (below -2SD)	0.024	0.009	365	165	1.117	0.369	0.006	0.042
Weight-for-age (below -2SD)	0.018	0.008	365	165	1.121	0.463	0.001	0.035
BMI < 18.5	0.029	0.006	1302	597	1.223	0.194	0.018	0.041
Total fertility rate (3 years)	2.079	0.125	4122	1880	1.014	0.060	1.829	2.330
Infant mortality rate (10 years)	12.894	7.495	894	391	1.051	0.581	0.000	27.883
Under-five mortality rate (10 years)	15.453	7.747	895	391	1.043	0.501	0.000	30.947

Table C.9 Sampling errors, East, Turkey 2013

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	0.673	0.014	2682	1699	1.539	0.021	0.645	0.701
No education	0.323	0.022	2682	1699	2.393	0.067	0.280	0.367
With secondary education or higher	0.414	0.023	2682	1699	2.428	0.056	0.368	0.460
Never married/in union	0.331	0.013	2682	1699	1.423	0.039	0.305	0.357
Currently married/in union	0.647	0.013	2682	1699	1.446	0.021	0.621	0.674
Currently pregnant	0.069	0.007	2682	1699	1.435	0.101	0.055	0.084
Children ever born	2.205	0.058	2682	1699	1.186	0.026	2.088	2.321
Children ever born to women over 40	4.830	0.177	521	303	1.415	0.037	4.476	5.184
Children surviving	2.078	0.051	2682	1699	1.115	0.024	1.977	2.180
Knowing any contraceptive method	0.998	0.001	1832	1100	0.890	0.001	0.996	1.000
Knowing any modern contraceptive method	0.994	0.002	1832	1100	1.234	0.002	0.990	0.999
Ever used any contraceptive method	0.844	0.010	1832	1100	1.195	0.012	0.823	0.864
Currently using any method	0.622	0.016	1832	1100	1.455	0.027	0.589	0.655
Currently using a modern method	0.392	0.018	1832	1100	1.556	0.045	0.356	0.427
Currently using pill	0.039	0.004	1832	1100	0.972	0.112	0.031	0.048
Currently using IUD	0.142	0.013	1832	1100	1.532	0.088	0.117	0.167
Currently using condoms	0.106	0.009	1832	1100	1.231	0.084	0.088	0.124
Currently using injectables	0.011	0.003	1832	1100	1.382	0.312	0.004	0.017
Currently using female sterilization	0.092	0.008	1832	1100	1.206	0.089	0.075	0.108
Currently using periodic abstinence	0.003	0.001	1832	1100	0.432	0.179	0.002	0.004
Currently using withdrawal	0.225	0.014	1832	1100	1.402	0.061	0.198	0.253
Using public sector source	0.643	0.025	717	432	1.404	0.039	0.593	0.693
Want no more children	0.434	0.014	1832	1100	1.238	0.033	0.405	0.462
Want to delay at least 2 years	0.227	0.011	1832	1100	1.125	0.049	0.205	0.249
Ideal number of children	3.215	0.059	2642	1672	2.023	0.018	3.097	3.333
Mothers received antenatal care for last birth	0.935	0.008	987	618	0.979	0.008	0.920	0.950
Tetanus injection at last ANC	0.701	0.016	910	578	1.096	0.023	0.668	0.733
Mothers received medical assistance at delivery	0.924	0.009	1396	873	1.170	0.010	0.906	0.942
Having health card, seen	0.683	0.031	291	179	1.132	0.046	0.621	0.746
Received BCG vaccination	0.924	0.016	291	179	1.011	0.017	0.893	0.955
Received DaBT-İPA-Hib vacc. (3 doses)	0.814	0.024	291	179	1.042	0.029	0.767	0.862
Received MMR vaccination	0.880	0.028	291	179	1.487	0.032	0.824	0.936
Received Hepatitis B vaccination (3 doses)	0.842	0.024	291	179	1.137	0.029	0.793	0.890
Received PCV vaccination (3 doses)	0.739	0.027	291	179	1.036	0.036	0.686	0.792
Fully immunized	0.676	0.031	291	179	1.113	0.045	0.615	0.737
Height-for-age (below -2SD)	0.145	0.014	1026	645	1.219	0.098	0.116	0.173
Weight-for-height (below -2SD)	0.021	0.007	1026	645	1.638	0.341	0.007	0.035
Weight-for-age (below -2SD)	0.034	0.006	1026	645	1.056	0.174	0.022	0.046
BMI < 18.5	0.042	0.005	2193	1412	1.226	0.124	0.032	0.052
Total fertility rate (3 years)	3.412	0.197	7571	4777	1.801	0.058	3.018	3.807
Infant mortality rate (10 years)	24.446	4.516	2746	1689	1.344	0.185	15.413	33.479
Under-five mortality rate (10 years)	29.500	4.487	2750	1691	1.188	0.152	20.526	38.475

Table C.10 Sampling errors, Istanbul, Turkey 2013

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	0.995	0.001	852	1948	0.372	0.001	0.993	0.997
No education	0.090	0.012	852	1948	1.222	0.133	0.066	0.114
With secondary education or higher	0.581	0.027	852	1948	1.578	0.046	0.527	0.634
Never married/in union	0.271	0.015	852	1948	1.013	0.057	0.241	0.302
Currently married/in union	0.683	0.015	852	1948	0.964	0.023	0.652	0.714
Currently pregnant	0.048	0.008	852	1948	1.156	0.177	0.031	0.065
Children ever born	1.525	0.053	852	1948	1.014	0.035	1.418	1.632
Children ever born to women over 40	2.639	0.125	202	437	1.064	0.047	2.390	2.888
Children surviving	1.476	0.051	852	1948	1.016	0.035	1.374	1.578
Knowing any contraceptive method	0.998	0.002	607	1330	1.062	0.002	0.994	1.002
Knowing any modern contraceptive method	0.998	0.002	607	1330	1.062	0.002	0.994	1.002
Ever used any contraceptive method	0.942	0.009	607	1330	0.943	0.010	0.924	0.960
Currently using any method	0.748	0.023	607	1330	1.295	0.031	0.702	0.793
Currently using a modern method	0.464	0.024	607	1330	1.169	0.051	0.417	0.511
Currently using pill	0.045	0.010	607	1330	1.138	0.213	0.026	0.064
Currently using IUD	0.166	0.016	607	1330	1.049	0.096	0.134	0.197
Currently using condoms	0.168	0.018	607	1330	1.216	0.110	0.131	0.205
Currently using injectables	0.000	0.000	607	1330	.	.	0.000	0.000
Currently using female sterilization	0.084	0.010	607	1330	0.847	0.114	0.065	0.103
Currently using periodic abstinence	0.000	0.000	607	1330	.	.	0.000	0.000
Currently using withdrawal	0.280	0.021	607	1330	1.134	0.074	0.239	0.322
Using public sector source	0.383	0.032	290	637	1.106	0.083	0.319	0.446
Want no more children	0.471	0.022	607	1330	1.079	0.046	0.428	0.515
Want to delay at least 2 years	0.210	0.017	607	1330	1.043	0.082	0.175	0.244
Ideal number of children	2.776	0.055	850	1943	1.334	0.020	2.667	2.886
Mothers received antenatal care for last birth	0.994	0.005	254	558	0.925	0.005	0.984	1.003
Tetanus injection at last ANC	0.727	0.032	252	555	1.128	0.043	0.663	0.790
Mothers received medical assistance at delivery	0.997	0.003	298	655	0.981	0.003	0.990	1.003
Height-for-age (below -2SD)	0.070	0.018	236	521	1.022	0.254	0.034	0.105
Weight-for-height (below -2SD)	0.014	0.004	236	521	0.511	0.279	0.006	0.022
Weight-for-age (below -2SD)	0.011	0.007	236	521	1.006	0.612	0.000	0.025
BMI < 18.5	0.041	0.007	715	1644	0.973	0.176	0.027	0.055

Table C.11 Sampling errors, West Marmara, Turkey 2013

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
Urban residence	0.739	0.033	536	395	1.711	0.044	0.673	0.804
No education	0.039	0.010	536	395	1.136	0.243	0.020	0.058
With secondary education or higher	0.599	0.032	536	395	1.520	0.054	0.534	0.663
Never married/in union	0.261	0.020	536	395	1.072	0.078	0.221	0.302
Currently married/in union	0.695	0.023	536	395	1.137	0.033	0.650	0.741
Currently pregnant	0.029	0.007	536	395	0.988	0.247	0.015	0.043
Children ever born	1.230	0.043	536	395	0.936	0.035	1.143	1.316
Children ever born to women over 40	1.807	0.079	163	119	1.035	0.044	1.649	1.965
Children surviving	1.199	0.041	536	395	0.930	0.035	1.116	1.282
Knowing any contraceptive method	1.000	0.000	379	275	.	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	379	275	.	0.000	1.000	1.000
Ever used any contraceptive method	0.927	0.014	379	275	1.032	0.015	0.900	0.955
Currently using any method	0.744	0.024	379	275	1.050	0.032	0.697	0.791
Currently using a modern method	0.429	0.022	379	275	0.870	0.052	0.385	0.474
Currently using pill	0.057	0.011	379	275	0.918	0.192	0.035	0.079
Currently using IUD	0.103	0.009	379	275	0.560	0.085	0.085	0.120
Currently using condoms	0.184	0.021	379	275	1.051	0.114	0.142	0.226
Currently using injectables	0.010	0.004	379	275	0.701	0.362	0.003	0.017
Currently using female sterilization	0.073	0.012	379	275	0.889	0.163	0.049	0.097
Currently using periodic abstinence	0.013	0.004	379	275	0.699	0.309	0.005	0.022
Currently using withdrawal	0.299	0.028	379	275	1.187	0.094	0.243	0.355
Using public sector source	0.476	0.041	170	121	1.060	0.086	0.394	0.557
Want no more children	0.558	0.020	379	275	0.774	0.035	0.518	0.597
Want to delay at least 2 years	0.108	0.010	379	275	0.624	0.092	0.088	0.127
Ideal number of children	2.179	0.041	533	393	1.112	0.019	2.097	2.261
Mothers received antenatal care for last birth	0.967	0.020	115	81	1.197	0.021	0.927	1.007
Tetanus injection at last ANC	0.921	0.031	111	79	1.207	0.034	0.858	0.983
Mothers received medical assistance at delivery	1.000	0.000	131	93	.	0.000	1.000	1.000
Height-for-age (below -2SD)	0.076	0.033	97	69	1.261	0.435	0.010	0.143
Weight-for-height (below -2SD)	0.008	0.008	97	69	0.887	0.987	0.000	0.025
Weight-for-age (below -2SD)	0.027	0.011	97	69	0.661	0.401	0.005	0.049
BMI < 18.5	0.043	0.011	442	326	1.102	0.246	0.022	0.065

Table C.12 Sampling errors, Aegean, Turkey 2013

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
Urban residence	0.780	0.019	663	1244	1.203	0.025	0.742	0.819
No education	0.056	0.014	663	1244	1.516	0.242	0.029	0.083
With secondary education or higher	0.521	0.027	663	1244	1.401	0.052	0.467	0.576
Never married/in union	0.243	0.018	663	1244	1.086	0.074	0.207	0.279
Currently married/in union	0.699	0.020	663	1244	1.145	0.029	0.658	0.739
Currently pregnant	0.034	0.007	663	1244	0.999	0.206	0.020	0.049
Children ever born	1.434	0.058	663	1244	1.135	0.040	1.319	1.549
Children ever born to women over 40	2.398	0.119	175	319	1.227	0.050	2.160	2.635
Children surviving	1.388	0.050	663	1244	1.056	0.036	1.287	1.488
Knowing any contraceptive method	0.998	0.002	473	869	0.949	0.002	0.994	1.002
Knowing any modern contraceptive method	0.996	0.003	473	869	0.906	0.003	0.991	1.001
Ever used any contraceptive method	0.948	0.009	473	869	0.902	0.010	0.929	0.966
Currently using any method	0.768	0.017	473	869	0.898	0.023	0.733	0.803
Currently using a modern method	0.499	0.027	473	869	1.182	0.054	0.445	0.554
Currently using pill	0.049	0.010	473	869	1.016	0.206	0.029	0.069
Currently using IUD	0.156	0.019	473	869	1.131	0.121	0.119	0.194
Currently using condoms	0.181	0.017	473	869	0.979	0.096	0.146	0.216
Currently using injectables	0.008	0.004	473	869	0.997	0.504	0.000	0.017
Currently using female sterilization	0.103	0.014	473	869	0.971	0.132	0.076	0.130
Currently using periodic abstinence	0.011	0.007	473	869	1.537	0.678	0.000	0.025
Currently using withdrawal	0.258	0.020	473	869	1.006	0.078	0.218	0.299
Using public sector source	0.601	0.026	239	445	0.823	0.043	0.549	0.654
Want no more children	0.485	0.025	473	869	1.087	0.052	0.435	0.535
Want to delay at least 2 years	0.136	0.018	473	869	1.112	0.129	0.101	0.171
Ideal number of children	2.480	0.035	660	1238	0.842	0.014	2.411	2.550
Mothers received antenatal care for last birth	0.987	0.009	136	252	0.943	0.009	0.969	1.005
Tetanus injection at last ANC	0.905	0.022	134	249	0.878	0.025	0.860	0.949
Mothers received medical assistance at delivery	0.987	0.009	154	284	1.012	0.009	0.968	1.005
Height-for-age (below -2SD)	0.051	0.019	115	213	0.915	0.366	0.014	0.088
Weight-for-height (below -2SD)	0.018	0.012	115	213	0.969	0.647	0.000	0.042
Weight-for-age (below -2SD)	0.000	0.000	115	213	.	.	0.000	0.000
BMI < 18.5	0.024	0.008	581	1087	1.265	0.335	0.008	0.040

Table C.13 Sampling errors, East Marmara, Turkey 2013

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	0.872	0.014	629	931	1.030	0.016	0.844	0.899
No education	0.067	0.023	629	931	2.287	0.341	0.021	0.113
With secondary education or higher	0.565	0.033	629	931	1.655	0.058	0.500	0.631
Never married/in union	0.283	0.016	629	931	0.909	0.058	0.251	0.316
Currently married/in union	0.673	0.019	629	931	1.014	0.028	0.635	0.711
Currently pregnant	0.039	0.008	629	931	1.007	0.200	0.023	0.055
Children ever born	1.484	0.047	629	931	0.806	0.032	1.390	1.579
Children ever born to women over 40	2.421	0.149	163	227	1.375	0.062	2.122	2.719
Children surviving	1.445	0.046	629	931	0.810	0.032	1.354	1.536
Knowing any contraceptive method	1.000	0.000	432	627	.	0.000	1.000	1.000
Knowing any modern contraceptive method	0.998	0.003	432	627	1.052	0.003	0.993	1.003
Ever used any contraceptive method	0.927	0.014	432	627	1.153	0.016	0.898	0.956
Currently using any method	0.769	0.025	432	627	1.227	0.032	0.719	0.819
Currently using a modern method	0.463	0.027	432	627	1.142	0.059	0.408	0.518
Currently using pill	0.041	0.013	432	627	1.395	0.324	0.015	0.068
Currently using IUD	0.156	0.015	432	627	0.855	0.096	0.126	0.185
Currently using condoms	0.164	0.020	432	627	1.122	0.122	0.124	0.204
Currently using injectables	0.003	0.003	432	627	1.104	1.027	0.000	0.008
Currently using female sterilization	0.092	0.012	432	627	0.839	0.127	0.068	0.115
Currently using periodic abstinence	0.000	0.000	432	627	.	.	0.000	0.000
Currently using withdrawal	0.304	0.025	432	627	1.147	0.084	0.253	0.355
Using public sector source	0.502	0.040	201	294	1.124	0.079	0.423	0.582
Want no more children	0.490	0.020	432	627	0.840	0.041	0.449	0.530
Want to delay at least 2 years	0.156	0.015	432	627	0.844	0.095	0.126	0.185
Ideal number of children	2.611	0.058	626	928	1.270	0.022	2.496	2.726
Mothers received antenatal care for last birth	0.986	0.011	145	217	1.086	0.011	0.965	1.007
Tetanus injection at last ANC	0.855	0.039	143	214	1.336	0.045	0.778	0.932
Mothers received medical assistance at delivery	1.000	0.000	184	275	.	0.000	1.000	1.000
Height-for-age (below -2SD)	0.098	0.035	122	184	1.286	0.358	0.028	0.168
Weight-for-height (below -2SD)	0.018	0.013	122	184	1.079	0.701	0.000	0.044
Weight-for-age (below -2SD)	0.037	0.020	122	184	1.211	0.534	0.000	0.077
BMI < 18.5	0.041	0.015	449	666	1.631	0.373	0.010	0.071

Table C.14 Sampling errors, West Anatolia, Turkey 2013

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
Urban residence	0.925	0.017	716	971	1.676	0.018	0.891	0.958
No education	0.036	0.011	716	971	1.528	0.297	0.015	0.057
With secondary education or higher	0.642	0.027	716	971	1.494	0.042	0.588	0.696
Never married/in union	0.262	0.020	716	971	1.216	0.076	0.222	0.302
Currently married/in union	0.691	0.021	716	971	1.216	0.030	0.649	0.733
Currently pregnant	0.035	0.008	716	971	1.148	0.226	0.019	0.051
Children ever born	1.426	0.055	716	971	1.105	0.039	1.315	1.536
Children ever born to women over 40	2.487	0.090	177	227	0.994	0.036	2.307	2.668
Children surviving	1.394	0.051	716	971	1.060	0.037	1.292	1.497
Knowing any contraceptive method	1.000	0.000	489	671	.	0.000	1.000	1.000
Knowing any modern contraceptive method	1.000	0.000	489	671	.	0.000	1.000	1.000
Ever used any contraceptive method	0.941	0.015	489	671	1.378	0.016	0.912	0.971
Currently using any method	0.831	0.014	489	671	0.809	0.017	0.803	0.858
Currently using a modern method	0.642	0.028	489	671	1.292	0.044	0.586	0.698
Currently using pill	0.079	0.013	489	671	1.027	0.158	0.054	0.104
Currently using IUD	0.308	0.027	489	671	1.293	0.088	0.254	0.362
Currently using condoms	0.187	0.029	489	671	1.620	0.153	0.130	0.245
Currently using injectables	0.001	0.001	489	671	0.616	0.992	0.000	0.002
Currently using female sterilization	0.066	0.019	489	671	1.687	0.288	0.028	0.104
Currently using periodic abstinence	0.006	0.004	489	671	1.124	0.658	0.000	0.014
Currently using withdrawal	0.182	0.027	489	671	1.544	0.148	0.128	0.237
Using public sector source	0.618	0.036	289	441	1.269	0.059	0.545	0.690
Want no more children	0.471	0.019	489	671	0.852	0.041	0.433	0.510
Want to delay at least 2 years	0.245	0.025	489	671	1.298	0.103	0.195	0.296
Ideal number of children	2.435	0.041	711	963	1.033	0.017	2.353	2.517
Mothers received antenatal care for last birth	0.980	0.013	154	206	1.144	0.013	0.954	1.006
Tetanus injection at last ANC	0.869	0.028	150	202	1.035	0.033	0.813	0.926
Mothers received medical asisstance at delivery	0.993	0.007	177	237	1.064	0.007	0.980	1.006
Height-for-age (below -2SD)	0.125	0.035	120	149	1.129	0.283	0.054	0.196
Weight-for-height (below -2SD)	0.028	0.022	120	149	1.450	0.799	0.000	0.072
Weight-for-age (below -2SD)	0.008	0.006	120	149	0.727	0.744	0.000	0.021
BMI < 18.5	0.025	0.008	610	805	1.272	0.328	0.009	0.041

Table C.15 Sampling errors, Mediterranean, Turkey 2013

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
Urban residence	0.799	0.015	1324	1235	1.360	0.019	0.770	0.829
No education	0.124	0.021	1324	1235	2.318	0.169	0.082	0.166
With secondary education or higher	0.505	0.027	1324	1235	1.928	0.053	0.452	0.558
Never married/in union	0.259	0.015	1324	1235	1.236	0.058	0.229	0.288
Currently married/in union	0.693	0.014	1324	1235	1.131	0.021	0.664	0.722
Currently pregnant	0.038	0.005	1324	1235	0.908	0.126	0.028	0.047
Children ever born	1.834	0.055	1324	1235	1.132	0.030	1.724	1.943
Children ever born to women over 40	3.058	0.120	360	311	1.175	0.039	2.818	3.298
Children surviving	1.748	0.051	1324	1235	1.131	0.029	1.646	1.849
Knowing any contraceptive method	0.999	0.001	948	856	1.105	0.001	0.996	1.001
Knowing any modern contraceptive method	0.997	0.002	948	856	1.078	0.002	0.992	1.001
Ever used any contraceptive method	0.905	0.013	948	856	1.318	0.014	0.880	0.930
Currently using any method	0.708	0.019	948	856	1.263	0.026	0.671	0.746
Currently using a modern method	0.478	0.023	948	856	1.426	0.048	0.432	0.524
Currently using pill	0.042	0.007	948	856	1.080	0.168	0.028	0.056
Currently using IUD	0.153	0.014	948	856	1.166	0.089	0.126	0.181
Currently using condoms	0.159	0.018	948	856	1.548	0.116	0.122	0.196
Currently using injectables	0.011	0.003	948	856	0.910	0.279	0.005	0.017
Currently using female sterilization	0.109	0.011	948	856	1.058	0.098	0.088	0.131
Currently using periodic abstinence	0.000	0.000	948	856	0.576	1.000	0.000	0.001
Currently using withdrawal	0.230	0.015	948	856	1.109	0.066	0.200	0.260
Using public sector source	0.622	0.028	452	419	1.230	0.045	0.566	0.678
Want no more children	0.459	0.016	948	856	1.001	0.035	0.427	0.491
Want to delay at least 2 years	0.161	0.019	948	856	1.606	0.119	0.122	0.199
Ideal number of children	2.936	0.051	1314	1226	1.347	0.017	2.834	3.037
Mothers received antenatal care for last birth	0.984	0.006	404	370	1.000	0.006	0.972	0.997
Tetanus injection at last ANC	0.877	0.014	397	364	0.874	0.016	0.849	0.906
Mothers received medical assistance at delivery	0.982	0.009	514	469	1.329	0.009	0.964	0.999
Height-for-age (below -2SD)	0.071	0.016	411	377	1.143	0.225	0.039	0.104
Weight-for-height (below -2SD)	0.011	0.004	411	377	0.703	0.326	0.004	0.018
Weight-for-age (below -2SD)	0.011	0.005	411	377	1.056	0.496	0.000	0.021
BMI < 18.5	0.038	0.006	1120	1043	1.058	0.160	0.026	0.050

Table C.16 Sampling errors, Central Anatolia, Turkey 2013

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
Urban residence	0.735	0.027	721	479	1.623	0.036	0.681	0.788
No education	0.091	0.014	721	479	1.340	0.158	0.062	0.119
With secondary education or higher	0.546	0.026	721	479	1.390	0.047	0.494	0.597
Never married/in union	0.230	0.019	721	479	1.223	0.083	0.192	0.269
Currently married/in union	0.719	0.019	721	479	1.132	0.026	0.681	0.757
Currently pregnant	0.040	0.008	721	479	1.092	0.198	0.024	0.056
Children ever born	1.777	0.072	721	479	1.242	0.040	1.633	1.921
Children ever born to women over 40	3.103	0.154	175	108	1.267	0.050	2.795	3.412
Children surviving	1.704	0.068	721	479	1.249	0.040	1.568	1.839
Knowing any contraceptive method	0.998	0.002	542	344	1.004	0.002	0.994	1.002
Knowing any modern contraceptive method	0.996	0.003	542	344	1.099	0.003	0.989	1.002
Ever used any contraceptive method	0.928	0.013	542	344	1.213	0.014	0.902	0.955
Currently using any method	0.734	0.022	542	344	1.140	0.029	0.691	0.778
Currently using a modern method	0.499	0.020	542	344	0.927	0.040	0.459	0.538
Currently using pill	0.049	0.008	542	344	0.912	0.173	0.032	0.066
Currently using IUD	0.210	0.013	542	344	0.769	0.064	0.183	0.237
Currently using condoms	0.145	0.019	542	344	1.270	0.133	0.106	0.183
Currently using injectables	0.012	0.005	542	344	0.959	0.368	0.003	0.022
Currently using female sterilization	0.082	0.012	542	344	1.041	0.150	0.058	0.107
Currently using periodic abstinence	0.002	0.002	542	344	1.116	0.999	0.000	0.007
Currently using withdrawal	0.234	0.021	542	344	1.132	0.088	0.192	0.275
Using public sector source	0.640	0.042	277	176	1.450	0.066	0.556	0.724
Want no more children	0.514	0.027	542	344	1.267	0.053	0.460	0.569
Want to delay at least 2 years	0.143	0.015	542	344	0.997	0.105	0.113	0.173
Ideal number of children	2.524	0.041	721	479	1.141	0.016	2.441	2.607
Mothers received antenatal care for last birth	0.952	0.015	244	157	1.089	0.016	0.923	0.982
Tetanus injection at last ANC	0.886	0.020	231	150	0.953	0.022	0.846	0.925
Mothers received medical assistance at delivery	0.992	0.005	289	186	1.074	0.006	0.981	1.003
Height-for-age (below -2SD)	0.104	0.024	240	153	1.056	0.235	0.055	0.152
Weight-for-height (below -2SD)	0.013	0.007	240	153	0.998	0.565	0.000	0.027
Weight-for-age (below -2SD)	0.024	0.010	240	153	1.004	0.407	0.005	0.044
BMI < 18.5	0.044	0.008	640	425	0.979	0.180	0.028	0.060

Table C.17 Sampling errors, West Black Sea, Turkey 2013

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	0.657	0.028	796	539	1.632	0.042	0.602	0.712
No education	0.057	0.013	796	539	1.628	0.235	0.030	0.084
With secondary education or higher	0.544	0.020	796	539	1.110	0.036	0.505	0.584
Never married/in union	0.273	0.018	796	539	1.121	0.065	0.237	0.308
Currently married/in union	0.701	0.018	796	539	1.125	0.026	0.665	0.738
Currently pregnant	0.032	0.005	796	539	0.787	0.153	0.022	0.042
Children ever born	1.615	0.049	796	539	0.913	0.030	1.517	1.713
Children ever born to women over 40	2.888	0.101	197	129	0.918	0.035	2.686	3.090
Children surviving	1.530	0.048	796	539	0.965	0.031	1.434	1.625
Knowing any contraceptive method	0.995	0.001	560	378	0.358	0.001	0.992	0.997
Knowing any modern contraceptive method	0.995	0.001	560	378	0.358	0.001	0.992	0.997
Ever used any contraceptive method	0.927	0.012	560	378	1.074	0.013	0.903	0.951
Currently using any method	0.752	0.014	560	378	0.758	0.018	0.725	0.780
Currently using a modern method	0.455	0.021	560	378	1.000	0.046	0.413	0.497
Currently using pill	0.022	0.005	560	378	0.741	0.208	0.013	0.031
Currently using IUD	0.133	0.017	560	378	1.217	0.132	0.098	0.167
Currently using condoms	0.166	0.013	560	378	0.854	0.081	0.139	0.193
Currently using injectables	0.002	0.002	560	378	1.071	1.021	0.000	0.006
Currently using female sterilization	0.130	0.017	560	378	1.174	0.129	0.096	0.163
Currently using periodic abstinence	0.002	0.002	560	378	1.071	1.021	0.000	0.006
Currently using withdrawal	0.296	0.022	560	378	1.158	0.076	0.251	0.340
Using public sector source	0.639	0.032	263	175	1.075	0.050	0.575	0.703
Want no more children	0.491	0.025	560	378	1.193	0.051	0.441	0.542
Want to delay at least 2 years	0.143	0.014	560	378	0.933	0.097	0.116	0.171
Ideal number of children	2.378	0.032	795	539	1.014	0.014	2.313	2.443
Mothers received antenatal care for last birth	0.955	0.016	202	132	1.091	0.017	0.922	0.987
Tetanus injection at last ANC	0.857	0.025	193	126	0.980	0.029	0.807	0.907
Mothers received medical assistance at delivery	0.991	0.007	238	157	1.128	0.007	0.977	1.005
Height-for-age (below -2SD)	0.081	0.021	204	131	1.024	0.264	0.038	0.123
Weight-for-height (below -2SD)	0.030	0.012	204	131	1.020	0.411	0.005	0.055
Weight-for-age (below -2SD)	0.019	0.010	204	131	1.012	0.520	0.000	0.039
BMI < 18.5	0.019	0.006	720	481	1.180	0.321	0.007	0.031

Table C.18 Sampling errors, East Black Sea, Turkey 2013

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
Urban residence	0.520	0.035	827	306	1.984	0.066	0.451	0.589
No education	0.108	0.020	827	306	1.888	0.189	0.067	0.149
With secondary education or higher	0.521	0.025	827	306	1.417	0.047	0.472	0.571
Never married/in union	0.297	0.019	827	306	1.212	0.065	0.259	0.336
Currently married/in union	0.673	0.019	827	306	1.176	0.029	0.634	0.711
Currently pregnant	0.038	0.009	827	306	1.379	0.241	0.020	0.057
Children ever born	1.675	0.074	827	306	1.338	0.044	1.527	1.824
Children ever born to women over 40	2.842	0.208	223	88	1.962	0.073	2.426	3.258
Children surviving	1.602	0.066	827	306	1.272	0.041	1.470	1.734
Knowing any contraceptive method	0.999	0.001	573	206	0.815	0.001	0.997	1.001
Knowing any modern contraceptive method	0.996	0.003	573	206	1.148	0.003	0.990	1.002
Ever used any contraceptive method	0.924	0.014	573	206	1.259	0.015	0.897	0.952
Currently using any method	0.756	0.023	573	206	1.305	0.031	0.710	0.803
Currently using a modern method	0.409	0.019	573	206	0.902	0.045	0.372	0.446
Currently using pill	0.032	0.007	573	206	0.936	0.215	0.018	0.046
Currently using IUD	0.075	0.013	573	206	1.191	0.175	0.049	0.101
Currently using condoms	0.142	0.017	573	206	1.186	0.122	0.107	0.176
Currently using injectables	0.003	0.002	573	206	0.865	0.712	0.000	0.006
Currently using female sterilization	0.158	0.028	573	206	1.819	0.176	0.102	0.213
Currently using periodic abstinence	0.004	0.001	573	206	0.513	0.356	0.001	0.006
Currently using withdrawal	0.343	0.019	573	206	0.975	0.056	0.305	0.382
Using public sector source	0.613	0.042	242	85	1.346	0.069	0.528	0.697
Want no more children	0.465	0.018	573	206	0.870	0.039	0.429	0.502
Want to delay at least 2 years	0.121	0.017	573	206	1.254	0.141	0.087	0.155
Ideal number of children	2.617	0.053	827	306	1.418	0.020	2.510	2.723
Mothers received antenatal care for last birth	0.979	0.010	224	80	1.012	0.010	0.959	0.998
Tetanus injection at last ANC	0.850	0.024	219	78	1.011	0.029	0.801	0.898
Mothers received medical assistance at delivery	0.986	0.009	267	97	1.272	0.009	0.968	1.004
Height-for-age (below -2SD)	0.057	0.022	206	77	1.276	0.388	0.013	0.102
Weight-for-height (below -2SD)	0.015	0.009	206	77	1.071	0.594	0.000	0.032
Weight-for-age (below -2SD)	0.006	0.006	206	77	0.805	1.000	0.000	0.018
BMI < 18.5	0.034	0.008	738	275	1.228	0.239	0.018	0.051

Table C.19 Sampling errors, North East Anatolia, Turkey 2013

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	0.487	0.028	760	263	1.537	0.057	0.431	0.542
No education	0.285	0.036	760	263	2.164	0.125	0.213	0.356
With secondary education or higher	0.419	0.040	760	263	2.204	0.094	0.340	0.498
Never married/in union	0.321	0.020	760	263	1.182	0.062	0.281	0.361
Currently married/in union	0.658	0.019	760	263	1.089	0.028	0.621	0.696
Currently pregnant	0.047	0.010	760	263	1.245	0.204	0.028	0.066
Children ever born	2.159	0.140	760	263	1.618	0.065	1.880	2.438
Children ever born to women over 40	4.402	0.318	164	54	1.706	0.072	3.767	5.038
Children surviving	1.978	0.113	760	263	1.474	0.057	1.752	2.205
Knowing any contraceptive method	0.995	0.003	536	173	0.949	0.003	0.990	1.001
Knowing any modern contraceptive method	0.992	0.004	536	173	0.931	0.004	0.984	0.999
Ever used any contraceptive method	0.890	0.017	536	173	1.256	0.019	0.856	0.924
Currently using any method	0.682	0.025	536	173	1.225	0.036	0.632	0.731
Currently using a modern method	0.427	0.029	536	173	1.355	0.068	0.369	0.485
Currently using pill	0.043	0.013	536	173	1.463	0.299	0.017	0.069
Currently using IUD	0.185	0.022	536	173	1.320	0.120	0.141	0.229
Currently using condoms	0.093	0.016	536	173	1.283	0.173	0.061	0.125
Currently using injectables	0.004	0.003	536	173	1.043	0.735	0.000	0.009
Currently using female sterilization	0.095	0.012	536	173	0.916	0.122	0.072	0.118
Currently using periodic abstinence	0.004	0.002	536	173	0.866	0.590	0.000	0.009
Currently using withdrawal	0.248	0.035	536	173	1.846	0.139	0.179	0.317
Using public sector source	0.766	0.054	227	73	1.893	0.070	0.659	0.873
Want no more children	0.483	0.018	536	173	0.841	0.038	0.446	0.519
Want to delay at least 2 years	0.162	0.016	536	173	1.004	0.099	0.130	0.194
Ideal number of children	2.861	0.086	750	259	1.801	0.030	2.688	3.034
Mothers received antenatal care for last birth	0.849	0.021	256	86	0.939	0.024	0.808	0.891
Tetanus injection at last ANC	0.745	0.038	221	73	1.294	0.051	0.670	0.821
Mothers received medical assistance at delivery	0.893	0.025	356	119	1.316	0.028	0.843	0.943
Height-for-age (below -2SD)	0.175	0.028	251	87	1.113	0.162	0.118	0.232
Weight-for-height (below -2SD)	0.002	0.002	251	87	0.761	0.993	0.000	0.007
Weight-for-age (below -2SD)	0.052	0.016	251	87	1.181	0.307	0.020	0.084
BMI < 18.5	0.053	0.009	581	206	0.933	0.162	0.036	0.070

Table C.20 Sampling errors, Central East Anatolia, Turkey 2013

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
Urban residence	0.618	0.027	768	460	1.536	0.044	0.564	0.672
No education	0.284	0.021	768	460	1.258	0.072	0.243	0.325
With secondary education or higher	0.428	0.025	768	460	1.414	0.059	0.378	0.479
Never married/in union	0.343	0.015	768	460	0.894	0.045	0.312	0.374
Currently married/in union	0.634	0.014	768	460	0.811	0.022	0.606	0.662
Currently pregnant	0.064	0.010	768	460	1.192	0.165	0.043	0.085
Children ever born	1.975	0.082	768	460	0.986	0.042	1.810	2.140
Children ever born to women over 40	4.177	0.323	144	82	1.415	0.077	3.532	4.823
Children surviving	1.868	0.072	768	460	0.934	0.039	1.724	2.012
Knowing any contraceptive method	0.999	0.001	513	292	0.867	0.001	0.996	1.001
Knowing any modern contraceptive method	0.999	0.001	513	292	0.867	0.001	0.996	1.001
Ever used any contraceptive method	0.850	0.021	513	292	1.310	0.024	0.808	0.891
Currently using any method	0.639	0.029	513	292	1.371	0.046	0.581	0.697
Currently using a modern method	0.373	0.031	513	292	1.471	0.084	0.310	0.435
Currently using pill	0.035	0.008	513	292	1.037	0.239	0.018	0.052
Currently using IUD	0.151	0.025	513	292	1.563	0.164	0.101	0.200
Currently using condoms	0.116	0.022	513	292	1.548	0.189	0.072	0.160
Currently using injectables	0.014	0.007	513	292	1.413	0.519	0.000	0.029
Currently using female sterilization	0.057	0.013	513	292	1.243	0.224	0.031	0.082
Currently using periodic abstinence	0.000	0.000	513	292	.	.	0.000	0.000
Currently using withdrawal	0.265	0.027	513	292	1.403	0.103	0.210	0.320
Using public sector source	0.690	0.035	189	109	1.037	0.051	0.620	0.760
Want no more children	0.500	0.025	513	292	1.125	0.050	0.450	0.550
Want to delay at least 2 years	0.196	0.014	513	292	0.772	0.069	0.169	0.223
Ideal number of children	2.979	0.085	763	457	1.633	0.029	2.809	3.150
Mothers received antenatal care for last birth	0.907	0.019	265	152	1.066	0.021	0.869	0.945
Tetanus injection at last ANC	0.731	0.033	242	138	1.149	0.045	0.666	0.797
Mothers received medical assistance at delivery	0.919	0.025	362	210	1.671	0.027	0.870	0.969
Height-for-age (below -2SD)	0.152	0.027	264	154	1.139	0.180	0.097	0.206
Weight-for-height (below -2SD)	0.006	0.005	264	154	1.001	0.755	0.000	0.016
Weight-for-age (below -2SD)	0.023	0.005	264	154	0.436	0.193	0.014	0.032
BMI < 18.5	0.050	0.012	649	389	1.392	0.238	0.026	0.074

Table C.21 Sampling errors, South East Anatolia, Turkey 2013

Variable	Value (R)	Standard Error (SE)	Number of cases Unweighted (N)	Number of cases Weighted (WN)	Design Effect (DEFT)	Relative Error (SE/R)	Confidence limits R-2SE	Confidence limits R+2SE
Urban residence	0.749	0.018	1154	976	1.417	0.024	0.712	0.785
No education	0.352	0.035	1154	976	2.502	0.100	0.281	0.423
With secondary education or higher	0.406	0.037	1154	976	2.550	0.091	0.332	0.480
Never married/in union	0.328	0.021	1154	976	1.498	0.063	0.286	0.369
Currently married/in union	0.651	0.022	1154	976	1.549	0.033	0.607	0.694
Currently pregnant	0.078	0.011	1154	976	1.397	0.141	0.056	0.100
Children ever born	2.325	0.087	1154	976	1.103	0.038	2.151	2.500
Children ever born to women over 40	5.292	0.240	213	166	1.175	0.045	4.812	5.773
Children surviving	2.204	0.077	1154	976	1.040	0.035	2.051	2.358
Knowing any contraceptive method	0.998	0.001	783	635	0.871	0.001	0.995	1.001
Knowing any modern contraceptive method	0.993	0.004	783	635	1.201	0.004	0.986	1.000
Ever used any contraceptive method	0.828	0.014	783	635	1.032	0.017	0.800	0.856
Currently using any method	0.597	0.024	783	635	1.373	0.040	0.549	0.646
Currently using a modern method	0.391	0.026	783	635	1.488	0.066	0.339	0.443
Currently using pill	0.040	0.006	783	635	0.794	0.138	0.029	0.051
Currently using IUD	0.127	0.017	783	635	1.461	0.137	0.092	0.162
Currently using condoms	0.105	0.011	783	635	0.972	0.101	0.084	0.127
Currently using injectables	0.011	0.005	783	635	1.226	0.420	0.002	0.020
Currently using female sterilization	0.107	0.013	783	635	1.144	0.118	0.082	0.132
Currently using periodic abstinence	0.004	0.001	783	635	0.313	0.169	0.003	0.006
Currently using withdrawal	0.201	0.018	783	635	1.232	0.088	0.166	0.236
Using public sector source	0.587	0.035	301	251	1.243	0.060	0.516	0.658
Want no more children	0.390	0.021	783	635	1.190	0.053	0.348	0.431
Want to delay at least 2 years	0.258	0.017	783	635	1.086	0.066	0.224	0.292
Ideal number of children	3.423	0.094	1129	956	2.034	0.027	3.236	3.610
Mothers received antenatal care for last birth	0.965	0.008	466	380	0.919	0.008	0.949	0.980
Tetanus injection at last ANC	0.681	0.021	447	367	0.968	0.031	0.638	0.723
Mothers received medical assistance at delivery	0.932	0.009	678	545	0.859	0.010	0.914	0.950
Height-for-age (below -2SD)	0.135	0.019	511	404	1.165	0.141	0.097	0.174
Weight-for-height (below -2SD)	0.030	0.011	511	404	1.503	0.377	0.007	0.053
Weight-for-age (below -2SD)	0.034	0.009	511	404	1.079	0.254	0.017	0.052
BMI < 18.5	0.035	0.007	963	816	1.092	0.183	0.022	0.048

Table D.1 Age distribution of *de facto* household population

Single-year age distribution of the *de facto* household population by sex (weighted), Turkey 2013

	Males		Females			Males		Females	
Age	Number	Percent	Number	Percent	Age	Number	Percent	Number	Percent
0	373	1.8	329	1.6	37	262	1.3	283	1.4
1	357	1.7	368	1.8	38	311	1.5	297	1.4
2	351	1.7	300	1.4	39	299	1.5	312	1.5
3	389	1.9	323	1.5	40	345	1.7	293	1.4
4	392	1.9	351	1.7	41	248	1.2	275	1.3
5	383	1.9	353	1.7	42	273	1.3	288	1.4
6	392	1.9	347	1.7	43	268	1.3	283	1.4
7	351	1.7	379	1.8	44	215	1.0	205	1.0
8	359	1.7	321	1.5	45	258	1.3	251	1.2
9	359	1.7	333	1.6	46	201	1.0	197	0.9
10	357	1.7	342	1.6	47	260	1.3	228	1.1
11	391	1.9	341	1.6	48	297	1.4	270	1.3
12	381	1.8	405	1.9	49	232	1.1	178	0.9
13	407	2.0	424	2.0	50	251	1.2	318	1.5
14	331	1.6	386	1.8	51	202	1.0	314	1.5
15	349	1.7	328	1.6	52	235	1.1	261	1.2
16	397	1.9	345	1.7	53	282	1.4	300	1.4
17	360	1.7	327	1.6	54	207	1.0	215	1.0
18	322	1.6	339	1.6	55	256	1.2	244	1.2
19	291	1.4	295	1.4	56	173	0.8	202	1.0
20	308	1.5	289	1.4	57	211	1.0	238	1.1
21	279	1.4	305	1.5	58	173	0.8	213	1.0
22	329	1.6	272	1.3	59	165	0.8	157	0.7
23	320	1.6	316	1.5	60	250	1.2	255	1.2
24	295	1.4	286	1.4	61	142	0.7	121	0.6
25	321	1.6	368	1.8	62	131	0.6	121	0.6
26	328	1.6	287	1.4	63	183	0.9	138	0.7
27	318	1.5	350	1.7	64	114	0.6	135	0.6
28	321	1.6	338	1.6	65	148	0.7	175	0.8
29	246	1.2	300	1.4	66	87	0.4	115	0.6
30	347	1.7	354	1.7	67	109	0.5	101	0.5
31	329	1.6	341	1.6	68	92	0.4	122	0.6
32	335	1.6	342	1.6	69	83	0.4	70	0.3
33	340	1.7	355	1.7	70+	971	4.7	1,217	5.8
34	321	1.6	336	1.6	DK/ missing	15	0.1	6	0.0
35	311	1.5	357	1.7					
36	298	1.4	360	1.7	Total	20,587	100	20,889	100

Note: The de facto population includes all residents and nonresidents who stayed in the household the night before the interview.

Table D.2 Age distribution of eligible and interviewed women

De facto household population of women age 10-54, interviewed women age 15-49; and percent distribution and percentage of eligible women who were interviewed (weighted), by five-year age groups, Turkey 2013

| Age group | Household population of women age 10-54 | Interviewed women age 15-49 | | Percentage of eligible women interviewed |
		Number	Percentage	
10-14	1,897	-	-	-
15-19	1,635	1,413	15.0	86.4
20-24	1,467	1,260	13.4	85.9
25-29	1,643	1,468	15.6	89.4
30-34	1,727	1,553	16.5	89.9
35-39	1,609	1,490	15.8	92.6
40-44	1,343	1,228	13.0	91.4
45-49	1,125	1,015	10.8	90.2
50-54	1,407	-	-	-
15-49	10,551	9,428	100.0	89.4

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 D.3 Completeness of reporting

Percentage of observations missing information for selected demographic and health questions (weighted), Turkey 2013

Subject	Percentage with information missing	Number of cases
Month Only (Births in the 15 years preceding the survey)	1.31	10,018
Month and Year (Births in the 15 years preceding the survey)	0.04	10,018
Age at Death (Deceased children born in the 15 years preceding the survey)	0.86	240
Age/date at first union[1] (Ever married women age 15-49)	0.58	7,063
Respondent's education (All women age 15-49)	0.02	9,746
Height (Living children age 0-59 months from the Women's Questionnaire)	22.67	3,379
Weight (Living children age 0-59 months from the Women's Questionnaire)	20.06	3,379
Height or weight (Living children age 0-59 months from the Women's Questionnaire)	22.73	3,379
Height (Women age 15-49 from the Women's Questionnaire)	11.54	9,428
Weight (Women age 15-49 from the Women's Questionnaire)	11.58	9,428
Height or weight (Women age 15-49 from the Women's Questionnaire)	11.66	9,428

[1] Both year and age missing

Table D.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 (L), dead (D), and total (T) children (weighted), Turkey 2013

Calendar year	Number of births			Percentage with complete birth date[1]			Sex ratio at birth[2]			Calendar year ratio[3]		
	L	D	T	L	D	T	L	D	T	L	D	T
2013	561	7	568	100.0	100.0	100.0	122.3	90.7	121.8	-	-	-
2012	665	10	675	100.0	100.0	100.0	100.4	8.7	97.9	-	-	-
2011	642	10	652	100.0	100.0	100.0	109.7	103.5	109.6	97.4	96.9	97.4
2010	653	11	664	100.0	100.0	100.0	118.5	137.7	118.8	98.9	118.8	99.2
2009	678	8	686	100.0	100.0	100.0	114.4	173.8	115.0	102.5	68.8	102.0
2008	670	12	683	99.5	100.0	99.5	110.6	57.5	109.3	97.1	134.6	97.6
2007	702	10	713	98.9	94.2	98.8	103.8	78.1	103.3	104.8	79.3	104.3
2006	670	14	684	99.6	88.0	99.3	93.2	49.9	92.1	103.0	80.5	102.4
2005	599	24	623	98.6	96.6	98.5	117.6	162.7	119.0	92.0	139.0	93.2
2004	631	21	652	98.7	82.6	98.2	106.4	83.6	105.6	104.4	99.7	104.3
2009-2013	3,198	46	3,245	100.0	100.0	100.0	112.5	81.0	112.0	-	-	-
2004-2008	3,273	81	3,354	99.1	91.8	98.9	105.7	87.7	105.2	-	-	-
1999-2003	3,241	107	3,348	97.4	87.8	97.1	101.9	118.5	102.4	-	-	-
1994-1998	2,818	156	2,974	96.5	79.2	95.6	103.6	115.9	104.2	-	-	-
<1994	3,063	264	3,328	95.0	75.6	93.5	112.2	140.9	114.2	-	-	-
All	15,593	655	16,249	97.7	82.2	97.0	107.1	118.4	107.5	-	-	-

[1] Both year and month of birth given.
[2] (Bm/Bf)x100, where Bm and Bf are the numbers of male and female births, respectively.
[3] [2Bx/(Bx-1+Bx+1)]x100, where Bx is the number of births in calendar year x.

Table D.5 Reporting of age at death in days

Distribution of reported deaths under one month of age by age at death in days and the percentage of neonatal deaths reported to occur at ages 0-6 days, for five-year periods of birth preceding the survey (weighted), Turkey 2013

Age at death (days)	Number of years preceding the survey				Total 0-19
	0-4	5-9	10-14	15-19	
<1	10	11	14	21	56
1	4	9	15	17	45
2	2	2	6	4	14
3	3	3	4	4	15
4	1	2	2	2	6
5	1	0	3	0	3
6	0	2	2	0	5
7	1	1	1	5	8
10	1	0	4	1	5
11	0	0	0	1	1
12	1	0	1	0	2
13	1	1	0	1	3
15	0	2	3	2	7
16	0	0	1	0	1
17	0	1	1	0	1
18	0	0	0	0	0
19	0	0	2	0	2
20	0	0	1	2	4
21	0	0	0	1	1
23	0	0	0	0	0
24	0	0	3	0	3
25	0	0	0	0	0
28	1	0	1	0	2
29	1	0	0	0	1
30	0	0	1	0	2
Total 0-30	26	35	63	60	184
Percentage early neonatal[1]	80.8	85.2	72.4	78.3	78.0

[1] (0-6 days / 0-30 days)*100

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Table D.6 Reporting of age at death in months

Distribution of reported deaths under two years of age by age at death in months and the percentage of infant deaths reported to occur at age under one month, for five-year periods of birth preceding the survey, Turkey 2013

| Age at death (months) | Number of years preceding the survey | | | | Total 0-19 |
	0-4	5-9	10-14	15-19	
<1[a]	26	35	63	60	184
1	1	8	3	12	24
2	1	6	3	13	23
3	1	3	4	9	18
4	4	1	3	2	10
5	2	1	2	5	9
6	5	3	2	11	21
7	1	5	4	2	12
8	1	0	0	1	4
9	1	6	1	4	12
10	0	0	1	0	1
11	0	0	0	1	2
12	1	2	5	4	13
13	0	0	1	0	1
14	0	0	1	0	1
15	0	0	0	2	2
16	0	0	0	2	2
17	0	0	0	2	2
18	1	2	1	2	5
19	0	0	0	1	1
Total 0-11	44	69	86	120	319
Percentage neonatal[1]	58.5	50.4	73.1	50.2	57.5

[a] Includes deaths under one month reported in days
[1] (Under one month / under one year)*100

ADDITIONAL TABLES

APPENDIX E

Table E.1 Educational attainment: *Ever Married Women*

Percent distribution *of ever married women* age 15-49 by highest level of schooling attended or completed, and median years completed, according to background characteristics, Turkey 2013

Background characteristic	No education/Primary incomplete	Primary school	Secondary school	High school and higher[3]	Total	Median years completed	Number of women
Age							
15-24	15.0	16.1	47.9	20.9	100.0	7.5	747
15-19	6.0	14.8	73.5	5.8	100.0	7.4	113
20-24	16.7	16.4	43.3	23.7	100.0	7.5	634
25-29	13.3	32.6	16.2	37.8	100.0	7.3	1,207
30-34	13.0	42.7	11.6	32.7	100.0	4.9	1,455
35-39	11.5	55.5	7.8	25.2	100.0	4.7	1,444
40-44	17.2	54.7	7.9	20.2	100.0	4.6	1,212
45-49	22.6	54.3	5.9	17.2	100.0	4.5	998
Residence							
Urban	12.6	42.4	14.2	30.7	100.0	4.9	5,696
Rural	25.2	53.0	13.1	8.7	100.0	4.5	1,367
Region							
West	9.4	46.0	14.4	30.2	100.0	5.0	3,061
South	15.2	47.3	15.5	22.0	100.0	4.8	915
Central	7.2	47.6	14.7	30.6	100.0	4.9	1,486
North	11.1	51.7	13.0	24.1	100.0	4.8	465
East	42.0	31.1	11.5	15.5	100.0	4.3	1,137
Region (NUTS 1)							
Istanbul	11.6	42.7	15.8	29.8	100.0	5.0	1,419
West Marmara	4.8	48.4	12.6	34.2	100.0	5.0	292
Aegean	7.2	53.9	13.5	25.4	100.0	4.9	941
East Marmara	9.4	46.9	13.1	30.6	100.0	4.9	667
West Anatolia	4.5	42.3	13.1	40.0	100.0	7.3	716
Mediterranean	15.2	47.3	15.5	22.0	100.0	4.8	915
Central Anatolia	11.5	45.8	15.8	26.8	100.0	4.9	369
West Black Sea	7.8	53.8	16.6	21.8	100.0	4.8	392
East Black Sea	14.1	48.5	12.0	25.4	100.0	4.8	215
Northeast Anatolia	38.2	36.3	11.4	14.1	100.0	4.3	178
Central East Anatolia	38.4	34.9	12.3	14.4	100.0	4.4	302
Southeast Anatolia	44.6	27.9	11.1	16.3	100.0	4.2	656
Wealth quintile							
Lowest	39.9	48.1	10.0	2.0	100.0	4.2	1,085
Second	22.6	55.9	14.0	7.4	100.0	4.5	1,390
Middle	13.4	54.5	15.8	16.3	100.0	4.7	1,482
Fourth	6.4	44.8	17.1	31.7	100.0	6.1	1,501
Highest	1.2	22.5	12.3	64.0	100.0	10.5	1,605
Total	15.0	44.5	14.0	26.5	100.0	4.8	7,063

[1] Completed 4 or 5 years in primary school

[2] Completed the years necessary in secondary school, according to the system that applied to the student

[3] Completed at least 3 years at the high school

Percent distribution of *ever married women* age 15-49 by level of schooling attended and level of literacy, and percentage literate, according to background characteristics, Turkey 2013

Background characteristic	Secondary school or higher	Read a newspaper				Total	Percentage literate[1]	Number of women
		Not at all	With difficulty	Easily	Missing			
Age								
15-24	73.5	5.3	5.0	15.9	0.3	100.0	94.5	747
..15-19	87.0	2.8	1.9	8.3	0.0	100.0	97.2	113
..20-24	71.1	5.7	5.6	17.3	0.3	100.0	94.0	634
25-29	56.9	7.2	5.1	30.9	0.0	100.0	92.8	1,207
30-34	47.4	7.0	6.1	39.4	0.1	100.0	92.8	1,455
35-39	36.6	6.8	7.6	48.9	0.1	100.0	93.1	1,444
40-44	31.5	9.6	9.6	49.4	0.0	100.0	90.4	1,212
45-49	24.9	14.4	14.0	46.6	0.1	100.0	85.5	998
Residence								
Urban	48.5	6.1	6.8	38.5	0.1	100.0	93.8	5,696
Rural	23.5	17.3	11.9	47.1	0.2	100.0	82.5	1,367
Region								
West	48.8	4.0	6.6	40.6	0.0	100.0	96.0	3,061
South	40.2	7.7	9.7	42.1	0.3	100.0	92.0	915
Central	47.6	4.7	5.4	42.3	0.0	100.0	95.2	1,486
North	39.9	5.3	8.4	46.2	0.2	100.0	94.5	465
East	29.0	26.4	12.5	32.0	0.1	100.0	73.5	1,137
Region (NUTS 1)								
Istanbul	49.9	4.3	8.5	37.3	0.0	100.0	95.7	1,419
West Marmara	49.2	3.0	4.1	43.8	0.0	100.0	97.0	292
Aegean	45.3	4.4	5.2	45.1	0.0	100.0	95.6	941
East Marmara	45.0	4.1	4.9	46.0	0.0	100.0	95.9	667
West Anatolia	54.7	3.8	4.5	36.9	0.1	100.0	96.1	716
Mediterranean	40.2	7.7	9.7	42.1	0.3	100.0	92.0	915
Central Anatolia	46.3	5.7	6.0	41.8	0.2	100.0	94.2	369
West Black Sea	40.5	4.2	8.9	46.4	0.0	100.0	95.8	392
East Black Sea	39.9	5.8	9.0	45.1	0.2	100.0	93.9	215
Northeast Anatolia	26.7	21.2	14.9	37.2	0.0	100.0	78.8	178
Central East Anatolia	29.0	22.5	13.8	34.5	0.2	100.0	77.3	302
Southeast Anatolia	29.6	29.6	11.2	29.5	0.1	100.0	70.3	656
Wealth quintile								
Lowest	14.6	27.7	15.2	42.1	0.4	100.0	71.9	1,085
Second	24.9	11.9	11.7	51.5	0.0	100.0	88.0	1,390
Middle	36.1	6.0	8.3	49.6	0.0	100.0	94.0	1,482
Fourth	51.7	1.6	5.5	41.2	0.0	100.0	98.4	1,501
Highest	79.1	0.5	1.3	19.2	0.0	100.0	99.5	1,605
Total	43.6	8.3	7.8	40.1	0.2	100.0	91.6	7,063

[1] Refers to women who attended secondary school or higher and women who can read a whole sentence or part of a sentence

Table E.3 Employment status: *Ever Married Women*

Percent distribution of *ever married women* age 15-49 by employment status, according to background characteristics, Turkey 2013

Background characteristic	Employment status				Total	Number of women
	Currently employed[1]	Not currently employed[2]	Not employed last 12 months	DK/Missing		
Age						
15-19	10.4	8.8	80.8	0.0	100.0	113
20-24	15.4	7.4	74.3	2.9	100.0	634
25-29	27.2	3.1	67.2	2.6	100.0	1,207
30-34	30.6	2.5	63.8	3.0	100.0	1,455
35-39	37.9	2.4	56.8	3.0	100.0	1,444
40-44	36.9	2.6	57.2	3.2	100.0	1,212
45-49	37.2	1.6	56.3	4.9	100.0	998
Marital status						
Married	31.0	3.0	62.8	3.2	100.0	6,655
Divorced/separated/widowed	45.3	3.5	48.0	3.2	100.0	409
Number of living children						
0	36.3	8.2	53.1	2.4	100.0	710
1-2	33.5	2.8	60.7	3.1	100.0	4,035
3-4	29.0	2.0	65.3	3.7	100.0	1,833
5+	22.3	1.5	72.8	3.4	100.0	485
Residence						
Urban	29.3	3.1	64.2	3.4	100.0	5,696
Rural	42.3	2.5	52.8	2.4	100.0	1,367
Region						
West	37.2	4.0	56.2	2.6	100.0	3,061
South	23.7	2.2	66.4	7.7	100.0	915
Central	29.4	2.1	66.1	2.4	100.0	1,486
North	51.7	3.3	43.1	1.9	100.0	465
East	19.1	2.2	76.1	2.6	100.0	1,137
Region (NUTS 1)						
Istanbul	32.6	5.1	61.2	1.1	100.0	1,419
West Marmara	37.2	2.4	57.7	2.7	100.0	292
Aegean	47.4	2.6	47.2	2.8	100.0	941
East Marmara	32.2	2.8	60.1	4.9	100.0	667
West Anatolia	28.3	2.6	67.8	1.3	100.0	716
Mediterranean	23.7	2.2	66.4	7.7	100.0	915
Central Anatolia	24.9	2.3	66.8	6.0	100.0	369
West Black Sea	37.6	2.5	57.7	2.2	100.0	392
East Black Sea	65.2	3.9	29.4	1.6	100.0	215
Northeast Anatolia	13.7	1.9	81.9	2.5	100.0	178
Central East Anatolia	20.6	2.4	75.4	1.6	100.0	302
Southeast Anatolia	19.8	2.2	74.9	3.0	100.0	656
Education						
No educ. /primary incomplete	22.4	1.8	71.7	4.1	100.0	1,062
Primary school	31.7	2.0	62.8	3.5	100.0	3,142
Secondary school	22.3	4.6	70.4	2.7	100.0	990
High school and higher	42.5	4.5	50.7	2.4	100.0	1,870
Wealth quintile						
Lowest	31.6	1.3	64.2	2.9	100.0	1,085
Second	27.5	1.5	68.1	2.8	100.0	1,390
Middle	27.0	4.2	64.8	4.0	100.0	1,482
Fourth	29.0	4.8	63.1	3.1	100.0	1,501
Highest	42.8	2.7	51.4	3.0	100.0	1,605
Total	31.8	3.0	62.0	3.2	100.0	7,063

[1] "Currently employed" is defined as current employment at the time of survey date regardless of length of employment. Includes persons who did not work in the past seven days but who are regularly employed and were absent from work for leave, illness, vacation, or any other such reason.
[2] "Not currently employed" is defined as having done work in the last 12 months but not employed at the time of survey, excludes persons who did not work in the last 12 months.

Percent distribution of *ever married women* age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Turkey 2013

Background characteristic	Sector			Total	Number of women
	Agriculture	Industry	Service		
Age					
15-19	*	*	*	100.0	22
20-24	28.2	20.0	51.8	100.0	144
25-29	18.6	16.7	64.7	100.0	365
30-34	18.7	7.3	74.0	100.0	483
35-39	21.7	15.4	62.9	100.0	581
40-44	31.8	12.1	56.2	100.0	479
45-49	39.7	10.1	50.2	100.0	387
Marital status					
Married	27.3	12.7	60.1	100.0	2,261
Divorced/separated/widowed	11.3	13.0	75.7	100.0	200
Number of living children					
0	8.5	14.0	77.5	100.0	316
1-2	19.6	13.7	66.6	100.0	1,462
3-4	42.5	11.3	46.2	100.0	568
5+	72.8	3.0	24.2	100.0	115
Residence					
Urban	9.1	15.0	75.9	100.0	1,848
Rural	76.7	5.7	17.5	100.0	613
Region					
West	15.8	17.8	66.4	100.0	1,259
South	30.8	5.6	63.5	100.0	238
Central	26.2	10.2	63.6	100.0	467
North	55.0	6.0	39.0	100.0	255
East	43.4	4.8	51.8	100.0	242
Region (NUTS 1)					
Istanbul	2.8	16.0	81.2	100.0	535
West Marmara	24.2	22.9	52.9	100.0	116
Aegean	29.7	20.7	49.6	100.0	471
East Marmara	25.6	13.0	61.4	100.0	233
West Anatolia	13.9	9.8	76.3	100.0	221
Mediterranean	30.8	5.6	63.5	100.0	238
Central Anatolia	29.2	3.5	67.3	100.0	100
West Black Sea	40.5	8.7	50.8	100.0	157
East Black Sea	64.1	5.6	30.3	100.0	148
Northeast Anatolia	48.9	5.6	45.6	100.0	28
Central East Anatolia	39.0	4.8	56.3	100.0	69
Southeast Anatolia	44.4	4.7	50.8	100.0	145
Education					
No educ. /primary incomplete	61.1	13.9	25.0	100.0	257
Primary school	38.0	16.1	45.8	100.0	1,060
Secondary school	20.9	20.0	59.1	100.0	266
High school and higher	2.7	5.9	91.3	100.0	878
Wealth quintile					
Lowest	81.9	6.4	11.7	100.0	357
Second	48.2	14.2	37.7	100.0	403
Middle	20.3	19.7	60.0	100.0	463
Fourth	8.0	19.9	72.1	100.0	507
Highest	2.5	5.5	92.1	100.0	731
Total	26.0	12.7	61.3	100.0	2,461

Table E.5 Employment in public/private sector: *Ever Married Women*

Percent distribution of *ever married women* age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Turkey 2013

Background characteristic	Public/Private sector			Number of women
	Public	Private	Total	
Age				
15-19	*	*	100.0	22
20-24	2.9	97.1	100.0	144
25-29	19.2	80.8	100.0	365
30-34	18.6	81.4	100.0	483
35-39	10.9	89.1	100.0	581
40-44	11.6	88.4	100.0	479
45-49	11.2	88.8	100.0	387
Marital status				
Married	13.7	86.3	100.0	2,261
Divorced/separated/widowed	9.7	90.3	100.0	200
Number of living children				
0	24.7	75.3	100.0	316
1-2	15.4	84.6	100.0	1,462
3-4	4.5	95.5	100.0	568
5+	0.5	99.5	100.0	115
Residence				
Urban	16.4	83.6	100.0	1,848
Rural	4.2	95.8	100.0	613
Region				
West	10.0	90.0	100.0	1,259
South	13.6	86.4	100.0	238
Central	20.5	79.5	100.0	467
North	12.6	87.4	100.0	255
East	18.0	82.0	100.0	242
Region (NUTS 1)				
Istanbul	9.3	90.7	100.0	535
West Marmara	11.5	88.5	100.0	116
Aegean	8.6	91.4	100.0	471
East Marmara	14.4	85.6	100.0	233
West Anatolia	25.4	74.6	100.0	221
Mediterranean	13.6	86.4	100.0	238
Central Anatolia	21.1	78.9	100.0	100
West Black Sea	16.1	83.9	100.0	157
East Black Sea	10.0	90.0	100.0	148
Northeast Anatolia	15.2	84.8	100.0	28
Central East Anatolia	14.4	85.6	100.0	69
Southeast Anatolia	20.3	79.7	100.0	145
Education				
No educ. /primary incomplete	1.4	98.6	100.0	257
Primary school	0.6	99.4	100.0	1,060
Secondary school	2.3	97.7	100.0	266
High school and higher	35.7	64.3	100.0	878
Wealth quintile				
Lowest	0.3	99.7	100.0	357
Second	1.0	99.0	100.0	403
Middle	3.5	96.5	100.0	463
Fourth	13.0	87.0	100.0	507
Highest	33.2	66.8	100.0	731
Total	13.4	86.6	100.0	2,461

Table E.6 Type of employment: *Ever Married Women*

Percent distribution of *ever married women* age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Turkey 2013

Background characteristic	Employer[1]	Waged, worker (regular)	Salaried, government offical	Daily waged (seasonal/ temporal)	For her own (regular)	For her own (irregular)	Unpaid family worker	Other	Missing	Total	Number of women
Age											
15-19	*	*	*	*	*	*	*	*	*	100.0	22
20-24	0.5	52.6	1.6	10.5	3.7	11.0	20.2	0.0	0.0	100.0	144
25-29	3.1	45.2	16.8	5.5	3.5	11.4	13.4	1.1	0.0	100.0	365
30-34	1.6	44.6	16.3	6.1	3.0	11.2	16.5	0.4	0.2	100.0	483
35-39	2.7	41.4	10.3	9.8	4.9	14.5	16.0	0.5	0.0	100.0	581
40-44	4.8	33.6	9.2	7.9	4.6	11.9	26.8	0.8	0.4	100.0	479
45-49	2.3	26.6	10.4	11.8	6.8	12.0	29.6	0.3	0.2	100.0	387
Marital status											
Married	2.8	37.4	12.0	8.6	4.4	12.4	21.7	0.6	0.2	100.0	2,261
Divorc/separat./widow	1.9	61.8	8.6	6.0	4.4	11.7	5.3	0.3	0.0	100.0	200
Numb.of living children											
0	2.7	55.9	21.1	2.0	2.0	6.0	9.1	1.1	0.0	100.0	316
1-2	3.2	43.1	14.0	6.6	4.1	12.6	15.7	0.5	0.2	100.0	1,462
3-4	2.1	26.3	3.0	13.0	7.1	15.1	33.1	0.3	0.1	100.0	568
5+	0.0	11.0	0.0	25.6	2.1	12.5	47.1	1.2	0.5	100.0	115
Residence											
Urban	3.5	48.8	14.6	4.7	4.9	14.5	8.2	0.7	0.2	100.0	1,848
Rural	0.5	10.9	3.1	19.5	3.2	5.5	57.1	0.3	0.1	100.0	613
Region											
West	3.5	51.9	7.8	6.5	3.9	12.1	13.4	0.7	0.2	100.0	1,259
South	2.4	31.5	13.6	14.5	6.7	10.4	20.6	0.3	0.0	100.0	238
Central	2.4	32.2	19.8	7.2	4.4	14.3	19.4	0.1	0.1	100.0	467
North	1.4	19.1	10.9	5.2	6.2	7.2	49.7	0.4	0.0	100.0	255
East	1.0	17.4	15.5	17.8	3.4	16.6	26.9	1.3	0.1	100.0	242
Region (NUTS 1)											
Istanbul	3.3	63.8	6.6	2.6	4.3	13.5	5.0	0.8	0.0	100.0	535
West Marmara	4.5	41.3	9.8	7.4	6.0	7.0	22.2	1.0	0.8	100.0	116
Aegean	3.9	42.7	6.9	12.3	2.6	11.2	20.3	0.0	0.0	100.0	471
East Marmara	2.1	40.8	13.4	6.9	3.4	9.5	21.9	1.2	0.8	100.0	233
West Anatolia	2.5	37.7	24.2	2.6	6.0	19.0	8.0	0.0	0.0	100.0	221
Mediterranean	2.4	31.5	13.6	14.5	6.7	10.4	20.6	0.3	0.0	100.0	238
Central Anatolia	2.4	27.7	19.1	8.1	4.1	12.1	25.2	0.6	0.6	100.0	100
West Black Sea	1.7	20.7	14.8	6.0	5.5	11.8	39.5	0.0	0.0	100.0	157
East Black Sea	1.2	15.8	8.4	6.0	6.3	6.3	55.3	0.7	0.0	100.0	148
Northeast Anatolia	0.0	17.9	14.6	6.7	2.2	16.5	41.4	0.8	0.0	100.0	28
Central East Anatolia	1.1	19.3	12.4	7.4	7.7	18.3	31.5	2.2	0.0	100.0	69
Southeast Anatolia	1.2	16.3	17.2	24.9	1.5	15.9	21.8	0.9	0.2	100.0	145
Education											
No educ./primary incomp.	1.1	17.1	0.1	23.6	2.8	16.9	38.1	0.2	0.1	100.0	257
Primary school	1.9	33.9	0.0	11.4	5.4	16.5	30.2	0.6	0.1	100.0	1,060
Secondary school	3.0	52.2	0.7	4.9	6.7	14.8	17.6	0.0	0.0	100.0	266
High school and higher	4.1	48.6	32.6	1.3	3.1	5.1	4.1	0.8	0.3	100.0	878
Wealth quintile											
Lowest	0.0	8.0	0.0	26.7	1.8	9.0	54.0	0.4	0.1	100.0	357
Second	0.0	26.3	0.0	14.3	5.0	16.8	37.4	0.1	0.0	100.0	403
Middle	1.7	46.7	2.6	6.8	7.3	15.9	18.3	0.6	0.0	100.0	463
Fourth	3.3	53.8	10.8	3.1	2.9	17.4	8.2	0.5	0.0	100.0	507
Highest	5.8	47.3	30.3	0.8	4.7	5.5	4.2	0.9	0.5	100.0	731
Total	2.7	39.4	11.7	8.4	4.4	12.3	20.3	0.6	0.2	100.0	2,461

[1] [1]Employers are women who have at least one paid employee.

Table E.7 Social security coverage: _Ever Married Women_

Percent distribution of _ever married women_ age 15-49 employed in the 12 months preceding the survey by occupation, according to background characteristics, Turkey 2013

Background characteristic	Social security						Total	Number of women
	No	SGK	Private insurance	Other	DK	Missing		
Age								
15-19	*	*	*	*	*	*	100.0	22
20-24	56.6	42.9	0.0	0.5	0.0	0.0	100.0	144
25-29	41.2	58.3	0.0	0.4	0.0	0.0	100.0	365
30-34	41.6	56.5	1.0	0.9	0.0	0.0	100.0	483
35-39	48.8	50.6	0.3	0.3	0.0	0.0	100.0	581
40-44	58.7	41.0	0.0	0.2	0.0	0.1	100.0	479
45-49	67.4	32.1	0.2	0.0	0.1	0.2	100.0	387
Marital status								
Married	52.1	47.4	0.2	0.3	0.0	0.1	100.0	2,261
Divorced/separated/widowed	46.7	50.5	1.4	1.3	0.0	0.0	100.0	200
Number of living children								
0	24.2	73.9	0.7	1.2	0.0	0.0	100.0	316
1-2	45.3	53.9	0.3	0.4	0.0	0.0	100.0	1,462
3-4	74.4	25.4	0.0	0.0	0.1	0.2	100.0	568
5+	94.9	5.1	0.0	0.0	0.0	0.0	100.0	115
Residence								
Urban	40.8	58.5	0.4	0.3	0.0	0.0	100.0	1,848
Rural	84.1	14.9	0.1	0.6	0.1	0.2	100.0	613
Region								
West	43.8	55.4	0.4	0.3	0.0	0.1	100.0	1,259
South	53.3	45.5	0.3	0.9	0.0	0.0	100.0	238
Central	51.9	47.3	0.3	0.5	0.0	0.0	100.0	467
North	72.4	27.5	0.1	0.0	0.0	0.0	100.0	255
East	68.3	31.1	0.0	0.5	0.1	0.0	100.0	242
Region (NUTS 1)								
Istanbul	40.8	58.0	0.8	0.4	0.0	0.0	100.0	535
West Marmara	40.9	57.8	0.5	0.0	0.0	0.8	100.0	116
Aegean	49.1	50.4	0.0	0.5	0.0	0.0	100.0	471
East Marmara	46.4	53.3	0.0	0.0	0.0	0.2	100.0	233
West Anatolia	45.7	54.3	0.0	0.0	0.0	0.0	100.0	221
Mediterranean	53.3	45.5	0.3	0.9	0.0	0.0	100.0	238
Central Anatolia	55.3	42.0	1.4	1.3	0.0	0.0	100.0	100
West Black Sea	65.2	34.1	0.0	0.7	0.0	0.0	100.0	157
East Black Sea	77.0	22.8	0.2	0.0	0.0	0.0	100.0	148
Northeast Anatolia	68.7	31.3	0.0	0.0	0.0	0.0	100.0	28
Central East Anatolia	65.4	33.9	0.0	0.8	0.0	0.0	100.0	69
Southeast Anatolia	69.6	29.7	0.0	0.5	0.2	0.0	100.0	145
Education								
No educ. /primary incomplete	88.5	11.0	0.0	0.0	0.1	0.3	100.0	257
Primary school	71.5	28.2	0.1	0.2	0.0	0.0	100.0	1,060
Secondary school	54.9	43.1	0.0	2.0	0.0	0.0	100.0	266
High school and higher	15.8	83.2	0.7	0.3	0.0	0.1	100.0	878
Wealth quintile								
Lowest	93.3	6.1	0.2	0.1	0.1	0.2	100.0	357
Second	80.8	18.4	0.0	0.8	0.0	0.0	100.0	403
Middle	57.8	41.5	0.0	0.7	0.0	0.0	100.0	463
Fourth	42.7	56.9	0.4	0.0	0.0	0.0	100.0	507
Highest	17.4	81.5	0.6	0.4	0.0	0.1	100.0	731
Total	51.6	47.6	0.3	0.4	0.0	0.1	100.0	2,461

Table E.8 Health insurance coverage: *Ever Married Women*

Percentage of ever married women age 15-49 with specific types of health insurance coverage, according to background characteristics, Turkey 2013

| | Type of health insurance | | | | | | | Number of |
Background characteristic	No	SGK	Private insurance	SGK	Other	Missing	Total	women
Age								
15-19	14.4	72.0	0.0	13.6	0.0	0.0	100.0	113
20-24	15.9	69.5	0.2	13.8	0.6	0.0	100.0	634
25-29	10.5	77.9	0.4	10.5	0.6	0.1	100.0	1,207
30-34	10.5	77.5	0.8	10.1	1.0	0.0	100.0	1,455
35-39	11.9	74.1	1.4	11.5	1.1	0.0	100.0	1,444
40-44	8.9	80.7	1.2	8.5	0.7	0.0	100.0	1,212
45-49	10.4	80.8	0.9	6.9	0.9	0.0	100.0	998
Residence								
Urban	9.3	81.7	1.0	7.3	0.7	0.0	100.0	5,696
Rural	18.4	57.9	0.3	21.9	1.6	0.0	100.0	1,367
Region								
West	9.9	83.4	1.6	4.4	0.7	0.0	100.0	3,061
South	11.1	73.2	0.8	13.7	1.2	0.0	100.0	915
Central	11.0	82.5	0.2	5.5	0.7	0.0	100.0	1,486
North	11.1	82.0	0.1	6.1	0.7	0.0	100.0	465
East	14.1	54.1	0.3	30.3	1.1	0.1	100.0	1,137
Region (NUTS 1)								
Istanbul	10.5	83.0	2.2	3.7	0.5	0.0	100.0	1,419
West Marmara	9.0	84.8	0.7	4.1	1.2	0.3	100.0	292
Aegean	12.1	80.7	0.8	5.6	0.8	0.0	100.0	941
East Marmara	7.1	86.2	1.2	4.7	0.8	0.0	100.0	667
West Anatolia	10.4	85.8	0.0	3.5	0.3	0.0	100.0	716
Mediterranean	11.1	73.2	0.8	13.7	1.2	0.0	100.0	915
Central Anatolia	13.0	76.1	0.3	9.9	0.7	0.0	100.0	369
West Black Sea	8.9	85.1	0.4	4.1	1.5	0.0	100.0	392
East Black Sea	11.8	79.4	0.0	8.2	0.6	0.0	100.0	215
Northeast Anatolia	21.3	44.4	0.2	33.6	0.5	0.0	100.0	178
Central East Anatolia	12.3	55.4	0.0	31.1	1.0	0.2	100.0	302
Southeast Anatolia	13.0	56.1	0.4	29.0	1.4	0.0	100.0	656
Education								
No educ. /primary incomplete	16.5	51.7	0.2	30.3	1.1	0.0	100.0	1,062
Primary school	12.1	77.4	0.6	8.8	1.0	0.0	100.0	3,142
Secondary school	12.8	78.1	0.3	8.1	0.7	0.0	100.0	990
High school and higher	5.3	90.4	2.0	1.9	0.5	0.0	100.0	1,870
Wealth quintile								
Lowest	22.7	39.8	0.2	35.3	2.0	0.0	100.0	1,085
Second	16.0	68.0	0.3	14.6	1.0	0.1	100.0	1,390
Middle	9.5	84.2	0.7	5.1	0.5	0.0	100.0	1,482
Fourth	6.7	89.8	0.6	2.4	0.5	0.0	100.0	1,501
Highest	4.5	91.7	2.2	1.0	0.6	0.0	100.0	1,605
Total	11.1	77.1	0.9	10.1	0.9	0.0	100.0	7,063

Table E.9 Nutritional status of children based on the NCHS/CDC/WHO International Reference Population

Percentage of children under five years classified as malnourished according to three anthropometric indices of nutritional status: height-for-age, weight-for-height, and weight-for-age, by background characteristics, based on the NCHS/CDC/WHO International Reference Population, Turkey 2013

Background characteristic	Height-for-age			Weight-for-height				Weight-for-age				Number of children
	Percentage below -3 SD	Percentage below -2 SD[1]	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	Percentage below -3 SD	Percentage below -2 SD[1]	Percentage above +2 SD	Mean Z-score (SD)	
Age in months												
<6	0.0	4.9	0.4	0.4	3.8	9.7	0.3	0.0	1.3	10.4	0.7	200
6-8	0.0	4.1	0.2	0.0	3.2	9.0	0.4	0.0	1.0	5.9	0.4	148
9-11	0.0	5.1	(0.2)	0.0	1.1	8.3	0.3	0.0	0.0	5.2	0.0	125
12-17	2.5	8.6	(0.4)	0.0	1.2	15.0	0.5	0.6	3.1	9.0	0.1	276
18-23	3.8	9.8	(0.6)	0.0	1.0	9.3	0.5	0.2	3.3	5.6	(0.0)	248
24-35	2.3	8.0	(0.2)	0.0	0.9	8.3	0.3	0.3	3.4	7.0	0.0	484
36-47	2.3	6.3	(0.3)	0.1	0.9	3.6	0.3	0.3	2.7	3.7	(0.1)	533
48-59	2.5	7.2	(1.2)	0.1	0.2	6.6	(0.4)	0.4	2.8	4.9	(0.8)	598
Residence												
Urban	1.7	5.7	(0.3)	0.0	1.0	8.8	0.2	0.2	1.9	6.8	0.0	2,016
Rural	3.5	11.7	(0.8)	0.2	1.7	4.9	(0.0)	0.7	4.8	3.4	(0.5)	595
Region												
West	1.6	4.7	(0.2)	0.1	1.0	10.3	0.4	0.0	1.6	8.0	0.2	921
South	1.5	5.8	(0.4)	0.4	1.2	8.0	0.1	0.0	1.0	6.0	(0.2)	382
Central	2.3	8.6	(0.5)	0.0	1.2	9.6	0.3	0.3	1.6	6.2	(0.0)	406
North	1.1	4.2	(0.3)	0.0	2.2	7.3	0.3	0.7	2.6	5.7	0.1	178
East	3.2	10.8	(0.7)	0.0	1.1	3.9	(0.2)	0.7	5.3	3.6	(0.5)	724
Region (NUTS 1)												
Istanbul	1.2	4.1	(0.3)	0.0	0.4	9.2	0.4	0.0	1.1	6.7	0.1	559
West Marmara	2.0	4.7	0.1	0.8	0.8	11.5	0.4	0.0	0.9	14.6	0.4	62
Aegean	1.7	4.0	(0.2)	0.0	1.8	8.8	0.2	0.0	0.8	6.0	0.1	201
East Marmara	2.1	7.5	(0.4)	0.0	1.8	13.5	0.6	0.0	4.2	9.6	0.2	168
West Anatolia	3.8	9.6	(0.3)	0.0	3.0	12.1	0.6	0.9	0.9	9.6	0.2	134
Mediterranean	1.5	5.8	(0.4)	0.4	1.2	8.0	0.1	0.0	1.0	6.0	(0.2)	382
Central Anatolia	1.9	8.2	(0.3)	0.0	0.4	9.7	0.3	0.0	2.9	6.5	0.1	154
West Black Sea	1.9	7.2	(0.5)	0.0	2.3	7.0	0.2	0.9	2.0	4.1	(0.1)	138
East Black Sea	0.6	3.8	(0.4)	0.0	0.7	8.3	0.3	0.0	2.1	6.3	(0.0)	88
Northeast Anatolia	5.2	12.2	(0.9)	0.0	0.0	2.9	(0.0)	0.8	7.9	4.6	(0.5)	111
Central East Anatolia	2.5	12.8	(0.8)	0.0	0.3	4.5	(0.1)	0.0	3.4	3.2	(0.5)	182
Southeast Anatolia	3.0	9.6	(0.7)	0.0	1.7	3.9	(0.2)	1.0	5.4	3.5	(0.5)	431
Education												
No educ./ primary inc.	3.5	10.6	(0.8)	0.0	0.8	4.4	(0.0)	0.7	5.1	3.2	(0.5)	561
Primary school	1.8	8.0	(0.5)	0.0	1.7	7.2	0.1	0.3	3.0	5.0	(0.2)	926
Secondary sch.	1.8	4.7	(0.4)	0.3	1.9	10.9	0.1	0.2	1.3	7.8	(0.0)	487
High sch. and higher	1.6	4.5	(0.1)	0.1	0.2	9.6	0.4	0.1	0.9	8.6	0.3	638
Wealth quintile												
Lowest	4.0	14.6	(0.9)	0.2	1.2	4.6	(0.1)	0.7	4.7	2.4	(0.6)	618
Second	1.6	5.9	(0.6)	0.0	1.7	7.0	(0.0)	0.2	3.6	4.7	(0.3)	610
Middle	1.6	4.9	(0.2)	0.0	1.6	7.6	0.3	0.1	1.2	7.0	0.1	531
Fourth	1.7	4.8	(0.2)	0.1	0.8	10.9	0.4	0.1	1.4	6.9	0.2	436
Highest	1.1	2.9	0.0	0.0	0.3	11.3	0.4	0.1	1.0	11.2	0.4	417
Total	2.1	7.1	(0.4)	0.1	1.2	7.9	0.2	0.3	2.6	6.0	(0.1)	2,611

Note: Table is based on children of women who slept in the household the night before the interview. Each of the indices is expressed in standard deviation units (SD) from the median of the NCHS/CDC/WHO International Reference Population. Table is based on children with valid dates of birth (month and year) and valid measurement of both height and weight
[1] Includes children who are below -3 standard deviations (SD) from the International Reference Population median

Table E.10 Nutritional status of women

Among ever-married women age 15-49 who had a birth in the five years preceding the survey, mean height, percentage with height under 145 cm, mean Body Mass Index (BMI), and the percentage with specific BMI levels, by background characteristics, Turkey 2013

Background characteristic	Height			Body Mass Index[1]								
	Mean height in cm	Percent-age below 145 cm	Number of women	Mean Body Mass Index (BMI)	18.5-24.9 (Total normal)	<18.5 (Total thin)	17.0-18.4 (Mildly thin)	<17 (Moderat-ely and sever- ely thin)	>=25.0 (Total over-weight or obese)	25.0-29.9 (Over-weight)	>=30.0 (Obese)	Number of women
Age												
15-19	158.8	0.0	47	(24.2)	(47.5)	(9.2)	(9.2)	(0.0)	(43.2)	(31.3)	(11.9)	40
20-29	158.1	0.6	1,088	25.9	45.9	2.6	2.1	0.5	51.6	32.7	18.9	961
30-39	157.6	0.8	1,104	27.9	29.5	1.7	1.3	0.4	68.8	37.3	31.5	1,035
40-49	157.0	2.3	134	29.6	21.8	0.0	0.0	0.0	78.2	36.1	42.1	132
Residence												
Urban	158.0	0.7	1,887	27.1	35.7	2.1	1.8	0.4	62.2	35.7	26.4	1,743
Rural	157.0	1.1	487	26.8	40.3	2.1	1.5	0.7	57.6	32.3	25.3	425
Region												
West	157.7	0.8	897	27.4	34.3	2.0	1.6	0.3	63.7	35.3	28.4	840
South	158.5	0.6	339	27.1	39.1	1.7	1.3	0.4	59.2	33.9	25.3	312
Central	158.4	0.3	426	26.7	37.7	3.0	2.5	0.5	59.2	36.7	22.6	395
North	156.6	2.5	155	26.9	40.6	1.6	1.2	0.4	57.9	30.8	27.1	140
East	157.5	0.8	557	27.0	37.0	2.0	1.5	0.5	61.0	35.3	25.7	481
Region (NUTS 1)												
Istanbul	157.5	1.3	502	27.3	33.9	2.7	2.2	0.5	63.4	37.0	26.4	464
West Marmara	159.2	0.9	73	27.6	31.4	3.2	2.3	0.9	65.5	31.4	34.1	68
Aegean	156.8	0.0	228	27.7	35.0	1.8	0.9	0.9	63.2	31.8	31.4	215
East Marmara	158.8	0.8	163	26.6	37.6	0.7	0.7	0.0	61.7	36.2	25.5	152
West Anatolia	159.3	0.0	167	26.8	39.3	3.3	3.3	0.0	57.4	30.3	27.2	160
Mediterranean	158.5	0.6	339	27.1	39.1	1.7	1.3	0.4	59.2	33.9	25.3	312
Central Anatolia	158.3	0.0	146	26.7	34.8	2.7	2.7	0.0	62.5	42.9	19.7	135
West Black Sea	156.6	2.4	125	26.9	39.3	0.9	0.9	0.0	59.8	37.8	22.1	112
East Black Sea	156.8	1.1	74	26.7	42.7	1.8	1.1	0.8	55.5	28.5	27.0	68
Northeast Anatolia	157.6	0.0	73	26.1	45.2	3.7	2.9	0.9	51.1	31.0	20.1	65
Central East Anatolia	157.8	1.6	141	26.4	38.7	2.2	1.8	0.4	59.0	37.9	21.2	122
Southeast Anatolia	157.4	0.7	344	27.4	34.5	1.5	1.1	0.5	64.0	35.2	28.8	294
Education												
No education/ primary incomplete	156.4	0.7	419	27.3	37.4	1.4	0.6	0.7	61.2	32.6	28.6	367
Primary school	157.0	1.6	871	28.2	28.6	1.5	1.4	0.1	70.0	36.4	33.5	814
Secondary school	158.6	0.1	436	25.9	44.4	3.0	2.3	0.7	52.6	35.9	16.6	390
High school and higher	159.4	0.2	647	26.2	42.0	2.9	2.4	0.5	55.1	34.1	21.0	596
Wealth quintile												
Lowest	156.5	1.4	484	27.2	37.9	1.5	1.2	0.3	60.6	33.2	27.4	422
Second	157.2	1.0	532	27.4	36.0	2.3	1.6	0.7	61.7	31.0	30.7	476
Middle	157.8	0.7	502	27.5	33.3	1.3	0.6	0.6	65.5	38.1	27.4	468
Fourth	158.0	0.0	434	26.9	37.1	3.1	2.6	0.5	59.8	36.8	23.0	414
Highest	159.8	0.8	421	26.3	39.5	2.6	2.6	0.0	57.9	36.5	21.4	388
Total	157.8	0.8	2,374	27.1	36.6	2.1	1.7	0.4	61.3	35.1	26.2	2,168

Note: The Body Mass Index (BMI) is expressed as the ratio of weight in kilograms to the square of height in meters (kg/m2).
[1] Excludes pregnant women and women with a birth in the preceding 2 months

QUESTIONNAIRES

HACETTEPE UNIVERSITY INSTITUTE OF POPULATION STUDIES
2013 TURKEY DEMOGRAPHIC AND HEALTH SURVEY
HOUSEHOLD QUESTIONNAIRE

IDENTIFICATION

CLUSTER NO...................................... ☐☐☐☐

HOUSEHOLD NO .... ☐☐

5 REGIONS... ☐

12 REGIONS .... ☐☐

PLACE OF RESIDENCE-URBAN(1) RURAL(2) .... ☐

PROVINCE _____ ☐☐

DISTRICT_____ ☐☐

SUB-DISTRICT_____ ☐

VILLAGE _____ ☐☐☐

QUARTER_____

STREET_____ NO_____

INTERVIEWER VISITS

	1	2	3	FINAL VISIT
DATE (DAY-MONTH)	___ ___	___ ___	___ ___	☐☐ ☐☐
NAME-SURNAME OF INTERVIEWER	_____	_____	_____	☐☐
RESULT (*)	___	___	___	☐☐
NEXT VISIT DATE TIME	___ ___ ___ ___	___ ___ ___ ___		TOTAL NUMBER OF VISITS ☐

(*) RESULT CODES

01 COMPLETED
02 NONE OF THE HOUSEHOLD MEMBERS OR NO ELIGIBLE MEMBER PRESENT AT HOME DURING VISITS
03 NONE OF THE HOUSEHOLD MEMBERS PRESENT AT HOME DURING THE SURVEY PERIOD
04 POSTPONED
05 REFUSED
06 DWELLING VACANT/ADDRESS NOT A DWELLING
07 DWELLING DESTROYED
08 DWELLING NOT FOUND
09 PARTLY COMPLETED

96 OTHER _____
         (SPECIFY)

NUMBER OF PERSONS

TOTAL NO. OF PERSONS IN HOUSEHOLD LIST..... ☐☐

TOTAL USUAL RESIDENTS OF HOUSEHOLD......... ☐☐

TOTAL EVER MARRIED 15-49 WOMEN.................... ☐☐

TOTAL NEVER MARRIED 15-49 WOMEN................. ☐☐

SUPERVISOR	FIELD EDITOR	FIRST KEYER	SECOND KEYER
_____ ☐☐☐	_____ ☐☐☐	_____ ☐☐☐	_____ ☐☐☐
DAY-MONTH ☐☐ ☐☐	DAY-MONTH ☐☐ ☐☐	DAY-MONTH ☐☐ ☐☐	DAY-MONTH ☐☐ ☐☐

CONSENT PAGE

Hello, my name is _____. I am coming from Ankara, Hacettepe University Institute of Population Studies. We are conducting a survey with Ministry of Health and Ministry of Development on population and health. I want to talk to you and ask you some questions about these subjects.

You are selected to this survey randomly. All your answers are confidential. Participation in the survey is completely voluntary but attending to this survey and sharing your experiences with us are going to be helpful for the other women in Turkey, and contribute to the planning and development of the services for mother and child health.

First of all, I am going to ask questions about your household. Interview will take about 10 minutes to complete.

Do you agree to interview?

RESPONDENT AGREES TO BE INTERVIEWED 1	RESPONDENT DOES NOT AGREE TO BE INTERVIEWED....2
ASK THE PERSON WHO IS GOING TO ANSWER THE HOUSEHOLD QUESTIONNAIRE WHETHER HE/SHE HAS QUESTIONS ABOUT THE SURVEY. MAKE THE NECESSARY EXPLANATIONS AND START THE INTERVIEW.	*THANK TO THE PERSON WHOM YOU TALKED TO FOR SPENDING HIS/HER TIME AND FINISH THE INTERVIEW.*

Signature of the interviewer:.......................................

Date: _ _ / _ _ / _ _ _ _

<table>
<tr><td colspan="2">HOUR ☐☐   MINUTE ☐☐</td><td colspan="5">SECTION 1 – HOUSEHOLD LIST
Now I would like to get some information about people in this household, such as age and education.</td></tr>
</table>

HH LINE NO	HOUSEHOLD LIST *CONTINUE BY ASKING A-B-C-D-E.*	RELATION-SHIP TO HEAD OF HH	HOUSEHOLD MEMBERSHIP		SEX	AGE
	A. Would you please tell me the names of the persons living in this household beginning with the household head? B. Is there anyone who usually lives in this house but is absent at present? C. Additionally, are there persons who do not live here but who have stayed here last night? D. Are there any other persons such as small children or infants? E. Are there any others who are not members of your family but live here, such as lodgers, friends, or servants?	What is the relationship of .... to the household head? *USE CODE LIST.*	Does .... usually live here? YES...........1 NO 2	Did .... sleep here last night? YES ....1 NO 2	Is .... male or female? MALE ....1 FEMALE ..2	How old is ......? (what age has ……. completed?) *OBTAIN AGE IN COMPLETED YEARS. IF OLDER THAN 95, WRITE "95".*
(1)	(2)	(3)	(4)	(5)	(6)	(7)
01		0 1	1 2	1 2	1 2	☐☐
02		☐☐	1 2	1 2	1 2	☐☐
03		☐☐	1 2	1 2	1 2	☐☐
04		☐☐	1 2	1 2	1 2	☐☐
05		☐☐	1 2	1 2	1 2	☐☐
06		☐☐	1 2	1 2	1 2	☐☐
07		☐☐	1 2	1 2	1 2	☐☐
08		☐☐	1 2	1 2	1 2	☐☐
09		☐☐	1 2	1 2	1 2	☐☐
10		☐☐	1 2	1 2	1 2	☐☐

TICK HERE IF AN ADDITIONAL QUESTIONNAIRE IS USED AND PROCEED WITH THE REST OF THE INTERVIEW ON THE ADDITIONAL QUESTIONNAIRE. ☐

(3) CODES FOR RELATIONSHIP TO HOUSEHOLD HEAD

01 HEAD	**08** SIBLING	**15** GRAND PARENT	**22** SECOND WIFE
02 WIFE/HUSBAND	**09** SIBLING'S PARTNER	**16** GRAND PARENT –IN- LAW	**23** HUSBAND'S SECOND WIFE
03 SON/DAUGHTER	**10** SIBLING'S CHILD	**17** SIBLING –IN- LAW	**24** STEP MOTHER/FATHER
04 SON/DAUGHTER- IN -LAW	**11** FATHER'S SIBLING	**18** SIBLING –IN- LAW'S PARTNER	**25** ADOPTED CHILD
05 GRANDCHILD	**12** MOTHER'S SIBLING	**19** SIBLING -IN-LAW'S CHILD	**88** NOT RELATED
06 PARENT	**13** STEP CHILD	**20** FATHER –IN-LAW'S SIBLING	**96** OTHER RELATIVE
07 PARENT -IN -LAW	**14** COUSIN	**21** MOTHER-IN-LAW'S SIBLING	**98** DK

HH LINE NO	PLACE OF BIRTH		PLACE OF RESIDENCE FOR VISITORS		MATERNAL SURVIVAL		PATERNAL SURVIVAL	
	In which province was .... born? Was it then a province center, district center, sub-district or village, or was it abroad? *RECORD THE PRESENT PROVINCE OF PLACE OF BIRTH. USE PROVINCE TRAFFIC CODES. RECORD "90" FOR ABROAD.*		*CHECK QUESTION 4. IF USUALLY LIVES IN THIS HOUSEHOLD, SKIP TO 10. IF NOT, ASK.* Where does .... live currently? Is this a province center, district center, sub-district or village, or is it abroad?		Is..........'s biological mother alive? ALIVE .... 1 DEAD .... 2 DK.. 8	*RECORD LINE NO. IF LISTED IN THE HOUSEHOLD. RECORD "96" IF LIVING ELSEWHERE.*	Is..........'s biological father alive? ALIVE .... 1 DEAD .... 2 DK 8	*RECORD LINE NO. IF LISTED IN THE HOUSE. RECORD "96" IF LIVING ELSEWHERE.*
(1)	(8A) PROVINCE	(8B) P.O.R.	(9A) PROVINCE	(9B) P.O.R.	(10)	(11)	(12)	(13)
01	☐☐	☐	☐☐	☐	1 2 8 . └──┴──► 12	☐☐	1 2 8 . └──┴──► 14	☐☐
02	☐☐	☐	☐☐	☐	1 2 8 . └──┴──► 12	☐☐	1 2 8 . └──┴──► 14	☐☐
03	☐☐	☐	☐☐	☐	1 2 8 . └──┴──► 12	☐☐	1 2 8 . └──┴──► 14	☐☐
04	☐☐	☐	☐☐	☐	1 2 8 . └──┴──► 12	☐☐	1 2 8 . └──┴──► 14	☐☐
05	☐☐	☐	☐☐	☐	1 2 8 . └──┴──► 12	☐☐	1 2 8 . └──┴──► 14	☐☐
06	☐☐	☐	☐☐	☐	1 2 8 . └──┴──► 12	☐☐	1 2 8 . └──┴──► 14	☐☐
07	☐☐	☐	☐☐	☐	1 2 8 . └──┴──► 12	☐☐	1 2 8 . └──┴──► 14	☐☐
08	☐☐	☐	☐☐	☐	1 2 8 . └──┴──► 12	☐☐	1 2 8 . └──┴──► 14	☐☐
09	☐☐	☐	☐☐	☐	1 2 8 . └──┴──► 12	☐☐	1 2 8 . └──┴──► 14	☐☐
10	☐☐	☐	☐☐	☐	1 2 8 . └──┴──► 12	☐☐	1 2 8 . └──┴──► 14	☐☐

(8B–9B) CODES FOR TYPE OF PLACE OF RESIDENCE
1 PROVINCE CENTER **2** DISTRICT CENTER **3** SUB-DISTRICT/VILLAGE **4** ABROAD

HH LINE NO	LITERACY AND EDUCATION STATUS — AGES 4 AND OVER						
	Is .... literate? YES...................1 NO ....2 DK 8	Has .... ever attended school? YES .... 1 NO.......................... 2 DK.......................... 8	What is the highest level of school .... attended? What is the highest grade ….. completed at that level? *USE CODE LIST.* LEVEL GRADE		Did .... graduate from this school? YES..................1 NO ....2 DK 8	*RECORD HIGHEST GRADE COMPLETED IN PRIMARY SCHOOL, SECONDARY SCHOOL, HIGH SCHOOL,UNDERGRADUATE AND GRADUATE SCHOOL.* PRI+SEC+ HIGH+ÜNV+ MA + PHD	*RECORD TOTAL COMPLETED GRADE*
(1)	(14)	(15)	(16A)	(16B)	(17A)	(17B)	(17C)
01	1 2 8	1 2 8 . └──┴──→ 22	☐	☐	1 2 8	☐☐☐☐☐☐	☐☐
02	1 2 8	1 2 8 . └──┴──→ 22	☐	☐	1 2 8	☐☐☐☐☐☐	☐☐
03	1 2 8	1 2 8 . └──┴──→ 22	☐	☐	1 2 8	☐☐☐☐☐☐	☐☐
04	1 2 8	1 2 8 . └──┴──→ 22	☐	☐	1 2 8	☐☐☐☐☐☐	☐☐
05	1 2 8	1 2 8 . └──┴──→ 22	☐	☐	1 2 8	☐☐☐☐☐☐	☐☐
06	1 2 8	1 2 8 . └──┴──→ 22	☐	☐	1 2 8	☐☐☐☐☐☐	☐☐
07	1 2 8	1 2 8 . └──┴──→ 22	☐	☐	1 2 8	☐☐☐☐☐☐	☐☐
08	1 2 8	1 2 8 . └──┴──→ 22	☐	☐	1 2 8	☐☐☐☐☐☐	☐☐
09	1 2 8	1 2 8 . └──┴──→ 22	☐	☐	1 2 8	☐☐☐☐☐☐	☐☐
10	1 2 8	1 2 8 . └──┴──→ 22	☐	☐	1 2 8	☐☐☐☐☐☐	☐☐

(16A-19A-21A) LEVEL CODES

0 KINDERGARDEN **1** PRIMARY SCHOOL **2** SECONDARY SCHOOL **3** HIGH SCHOOL **4** UNIVERSITY	**5** MASTER'S **6** Ph.D. **8** DK

(16B-19B-21B) GRADE CODES

0 LESS THAN ONE YEAR/ KINDERGARDEN/PREPARATORY LEVEL

8 DK

HH LINE NO	SCHOOL ATTENDANCE AGES 4-24				MARITAL STATUS AGE 12 AND OVER
	Is .... attending school this educational year? YES .... 1 NO .... 2 DK 8	Which level of school and grade is .... attending? *USE CODE LIST.* SCHOOL GRADE	Did .... attend school last year? (2012-2013) YES ....1 NO.......................................2 DK.......................................8	Which level of school and grade did.......... attend? *USE CODE LIST.* SCHOOL GRADE	Has......... ever been married? YES............................ 1 NO 2
(1)	(18)	(19A) (19B)	(20)	(21A) (21B)	(22)
01	1 2 . 8 → 20	☐ ☐	1 2 . 8 → 22	☐ ☐	1 2. → 26
02	1 2 . 8 → 20	☐ ☐	1 2 . 8 → 22	☐ ☐	1 2. → 26
03	1 2 . 8 → 20	☐ ☐	1 2 . 8 → 22	☐ ☐	1 2. → 26
04	1 2 . 8 → 20	☐ ☐	1 2 . 8 → 22	☐ ☐	1 2. → 26
05	1 2 . 8 → 20	☐ ☐	1 2 . 8 → 22	☐ ☐	1 2. → 26
06	1 2 . 8 → 20	☐ ☐	1 2 . 8 → 22	☐ ☐	1 2. → 26
07	1 2 . 8 → 20	☐ ☐	1 2 . 8 → 22	☐ ☐	1 2. → 26
08	1 2 . 8 → 20	☐ ☐	1 2 . 8 → 22	☐ ☐	1 2. → 26
09	1 2 . 8 → 20	☐ ☐	1 2 . 8 → 22	☐ ☐	1 2. → 26
10	1 2 . 8 → 20	☐ ☐	1 2 . 8 → 22	☐ ☐	1 2. → 26

(16A-19A-21A) LEVEL CODES

0 KINDERGARDEN **1** PRIMARY SCHOOL **2** SECONDARY SCHOOL **3** HIGH SCHOOL **4** UNIVERSITY	**5** MASTER'S **6** Ph.D. **8** DK

(16B-19B-21B) GRADE CODES

0 LESS THAN ONE YEAR/ KINDERGARDEN/PREPARATORY LEVEL

8 DK

HH LINE NO	MARITAL STATUS AGE 12 AND OVER		ELIGIBILITY FOR INDIVIDUAL INTERVIEW WOMEN AGED 15-49	
	What is..........'s marital status? CURRENTLY MARRIED .... 1 WIDOWED .... 2 DIVORCED.. 3 SEPARATED .... 4 DK 8	*IF CURRENTLY MARRIED RECORD HH LINE NO OF HUSBAND* *IF HUSBAND IS NOT IN THE HOUSEHOLD LIST, RECORD "96".*	*CIRCLE LINE NUMBER IF EVER MARRIED WOMAN AGE 15-49 AND SKIP TO NEXT PERSON.*	*CIRCLE LINE NUMBER IF NEVER MARRIED WOMAN AGE 15-49 AND SKIP TO NEXT PERSON.*
(1)	(23)	(24)	(25)	(26)
01	1 2 3 4 8 → 25		01	01
02	1 2 3 4 8 → 25		02	02
03	1 2 3 4 8 → 25		03	03
04	1 2 3 4 8 → 25		04	04
05	1 2 3 4 8 → 25		05	05
06	1 2 3 4 8 → 25		06	06
07	1 2 3 4 8 → 25		07	07
08	1 2 3 4 8 → 25		08	08
09	1 2 3 4 8 → 25		09	09
10	1 2 3 4 8 → 25		10	10

AFTER DETERMINING THE ELIGIBLE PERSONS, GO BACK TO THE COVER PAGE AND COMPLETE THE NUMBER OF PERSONS SECTION.

SECTION 2. HOUSING CHARACTERISTICS

123	Now I will ask some questions about the dwelling that .... (HOUSEHOLD HEAD'S NAME) usually lives in. Does this house belong to a household member, is it rented from someone else, is it a lodging, or do you just live here without having to pay anything?	OWNED BY A HOUSEHOLD MEMBER..................................1 RENTED ....2 LODGING ....3 NO RENT PAID ....4 OTHER_____ 7 (SPECIFY)	
125	Does anyone from this household own a house other than this one elsewhere?	YES... 1 NO 2	

129	What is the source of drinking water for members of your household?	PIPED WATER
		      PIPED INTO DWELLING... 11
		      PIPED TO YARD/PLOT 12
		      PUBLIC TAP/STANDPIPE.. 13
		TUBE WELL OR BOREHOLE 21
		DUG WELL
		      PROTECTED WELL.. 31
		      UNPROTECTED WELL 32
		WATER FROM SPRING
		      PROTECTED SPRING.. 41
		      UNPROTECTED SPRING 42
		RAINWATER 51
		TANKER TRUCK/WATER STATION 61
		CART WITH SMALL TANK 62
		SURFACE WATER (RIVER/STREAM/LAKE/POND/
		DAM/RESERVOIR/CANAL) 81
		BOTTLED WATER/DEMIJOHN/PET WATER 91
		
		OTHER_____ 96
		                        (SPECIFY)
			▶ 133
			
			▶130
			
			▶ 133

129A	Is the water source located inside the house or outside ?	IN THE DWELLING... 1 IN THE YARD/PLOT .... 2 OUTSIDE THE HOUSE.. 3	▶133
130	How long does it take you to go there, get water, and come back?	MINUTES.. [ ][ ][ ] DON`T KNOW.. 998	

133	What is the source of daily use water for hand washing, dishwashing, and laundry in this house?	PIPED WATER
		     PIPED INTO DWELLING.. 11
		     PIPED TO YARD/PLOT 12
		     PUBLIC TAP/STANDPIPE...................................... 13
		TUBE WELL OR BOREHOLE 21
		DUG WELL
		     PROTECTED WELL.. 31
		     UNPROTECTED WELL 32
		WATER FROM SPRING
		     PROTECTED SPRING... 41
		     UNPROTECTED SPRING 42
		RAINWATER 51
		TANKER TRUCK/WATER STATION 61
		CART WITH SMALL TANK 62
		SURFACE WATER (RIVER/STREAM/LAKE/POND/
		DAM/RESERVOIR/CANAL) 81
		BOTTLED WATER/DEMIJOHN/PET WATER 91
		
		OTHER _____ 96
		              (SPECIFY)	

137	Is the toilet inside the house or outside?	NO FACILITY/BUSH/FIELD/PUBLIC TOILET .... 0 INSIDE .... 1 OUTSIDE .... 2 INSIDE AND OUTSIDE .... 3 OTHER _____ 7 (SPECIFY)	➤ 141
138	Is your toilet connected to the sewerage system? *(IF NO)* Is your toilet connected to open pit or closed pit? *IF MORE THAN ONE TOILET IS USED, RECORD ACCORDING TO THE ONE INSIDE OR CLOSEST TO THE HOUSE.*	CONNECTED TO SEWERAGE .... 1 OPEN PIT.. 2 CLOSED PIT .... 3 OTHER _____ 7 (SPECIFY)	
139	Do only the members of your household use the toilet or is it shared with other household(s)?	ONLY HOUSEHOLD MEMBERS .... 1 WITH OTHER HOSEHOLD(S).. 2	

141	How is your house heated in the winter?	CENTRAL HEATING
		     NATURAL GAS.. 11
		     DIESEL OIL/GAS OIL... 12
		     WOOD/COAL 13
		     OTHER 14
		FLAT HEATING/COMBI BOILER
		     NATURAL GAS.. 21
		     DIESEL OIL/GAS OIL... 22
		     OTHER 23
		STOVE
		     NATURAL GAS.. 31
		     DIESEL OIL/GAS OIL... 32
		     WOOD/COAL 33
		     DRIED COW DUNG... 34
		     OTHER 35
		
		ELECTRIC HEATER...40
		AIR CONDITIONER………………………………………..41
		
		OTHER _____ 96
		              (SPECIFY)	

| 142A | How many rooms are there in your house?
Would you please include bedrooms, living rooms, sitting rooms and studying rooms? | NO OF ROOMS .... | |

| 142B | From all you listed, how many rooms in your house are generally used for sleeping? | ROOMS USED FOR SLEEPING.......................... | |

| 142C | Does anybody smoke in the kitchen, lounge or rooms in your house? | YES.. 1
NO .... 2 | |

| 143 | What is the main material of the floor? | NATURAL FLOOR
    EARTH/SAND 11
RUDIMENTARY FLOOR
    WOOD PLANKS.. 21
FINISHED FLOOR
      PARQUET/POLISHED/LAMINATED WOOD......... 31
      TILE... 32
      CEMENT 34
      WALL-TO-WALL CARPETS.................................... 35
      VINYL COVERING... 36
      MOZAIC 37
      LAMINATE... 38

OTHER_____ 96
                        (SPECIFY) | |

| 144 | Do you have the following in the household?

Refrigerator
Deep Freezer
Gas/Electric oven
Microwave oven
Dishwasher
Garbage dispenser
Washing machine
Drying machine
Iron
Vacuum Cleaner
LCD/Plasma TV
Home theater
Television
Satellite TV
Paid TV service (Cable Tv, Digiturk, D-Smart etc.)
DVD/VCD Player
Cell phone
Telephone
Laptop/Tablet computer
Desktop computer
Internet connection
Air conditioner
Private car
Taxi/Minibus/Bus/other commercial vehicles
Tractor
Motorcycle | NO   YES
REFRIGATOR 0   1
DEEP FREEZER…………………………………0   1
GAS/ELECTRIC OVEN 0   1
MICROWAVE OVEN....................................... 0   1
DISHWASHER 0   1
GARBAGE DISPENSER 0   1
WASHING MACHINE 0   1
DRYING MACHINE 0   1
IRON 0   1
VACUUM CLEANER..................................... 0   1
LCD - PLASMA TELEVISION 0   1
HOME THEATER……………………….......0   1
TELEVISION 0   1
SATELLITE TV. 0   1
PAID TV SERVICES 0   1
DVD/VCD PLAYER 0   1
CELL PHONE……………………………….0   1
TELEPHONE 0   1
LAPTOP/TABLET COMPUTER.................. 0   1
DESKTOP COMPUTER 0   1
INTERNET CONNECTION 0   1
AIR CONDITIONER 0   1
PRIVATE CAR……………………………...0   1
TAXI/MINIBUS/BUS 0   1
TRACTOR…………………………………..0   1
MOTORCYCLE…………………………….0   1 | |

161	LINE NO. OF THE RESPONDENT IN THE HOUSEHOLD LIST	HOUSEHOLD LINE NO... ☐☐	
162	LANGUAGE USED FOR CONDUCTING THE HOUSEHOLD QUESTIONNAIRE	TURKISH .... 1 ──► 164S KURDISH... 2 ARABIC .... 3 OTHER _____ 7 (SPECIFY)	
163	WAS AN INTERPRETER USED?	YES.. 1 NO 2	
164S	RECORD THE TIME	HOUR-MINUTE.............................. ☐☐ ☐☐	

AGE – YEAR OF BIRTH TABLE

AGE – YEAR OF BIRTH TABLE					
	YEAR OF BIRTH			**YEAR OF BIRTH**	
AGE	**DID NOT CELEBRATE BIRTHDAY IN 2013**	**CELEBRATED BIRTHDAY IN 2013**	**AGE**	**DID NOT CELEBRATE BIRTHDAY IN 2013**	**CELEBRATED BIRTHDAY IN 2013**
	DOES NOT KNOW			**DOES NOT KNOW**	
0	2012	--	50	1962	1963
1	2011	2012	51	1961	1962
2	2010	2011	52	1960	1961
3	2009	2010	53	1959	1960
4	2008	2009	54	1958	1959
5	2007	2008	55	1957	1958
6	2006	2007	56	1956	1957
7	2005	2006	57	1955	1956
8	2004	2005	58	1954	1955
9	2003	2004	59	1953	1954
10	2002	2003	60	1952	1953
11	2001	2002	61	1951	1952
12	2000	2001	62	1950	1951
13	1999	2000	63	1949	1950
14	1998	1999	64	1948	1949
15	1997	1998	65	1947	1948
16	1996	1997	66	1946	1947
17	1995	1996	67	1945	1946
18	1994	1995	68	1944	1945
19	1993	1994	69	1943	1944
20	1992	1993	70	1942	1943
21	1991	1992	71	1941	1942
22	1990	1991	72	1940	1941
23	1989	1990	73	1939	1940
24	1988	1989	74	1938	1939
25	1987	1988	75	1937	1938
26	1986	1987	76	1936	1937
27	1985	1986	77	1935	1936
28	1984	1985	78	1934	1935
29	1983	1984	79	1933	1934
30	1982	1983	80	1932	1933
31	1981	1982	81	1931	1932
32	1980	1981	82	1930	1931
33	1979	1980	83	1929	1930
34	1978	1979	84	1928	1929
35	1977	1978	85	1927	1928
36	1976	1977	86	1926	1927
37	1975	1976	87	1925	1926
38	1974	1975	88	1924	1925
39	1973	1974	89	1923	1924
40	1972	1973	90	1922	1923
41	1971	1972	91	1921	1922
42	1970	1971	92	1920	1921
43	1969	1970	93	1919	1920
44	1968	1969	94	1918	1919
45	1967	1968			
46	1966	1967			
47	1965	1966			
48	1964	1965			
49	1963	1964			

PROVINCE TRAFFIC CODES			
01 ADANA	21 DİYARBAKIR	41 KOCAELİ	61 TRABZON
02 ADIYAMAN	22 EDİRNE	42 KONYA	62 TUNCELİ
03 AFYON	23 ELAZIĞ	43 KÜTAHYA	63 ŞANLIURFA
04 AĞRI	24 ERZİNCAN	44 MALATYA	64 UŞAK
05 AMASYA	25 ERZURUM	45 MANİSA	65 VAN
06 ANKARA	26 ESKİŞEHİR	46 K.MARAŞ	66 YOZGAT
07 ANTALYA	27 GAZİANTEP	47 MARDİN	67 ZONGULDAK
08 ARTVİN	28 GİRESUN	48 MUĞLA	68 AKSARAY
09 AYDIN	29 GÜMÜŞHANE	49 MUŞ	69 BAYBURT
10 BALIKESİR	30 HAKKARİ	50 NEVŞEHİR	70 KARAMAN
11 BİLECİK	31 HATAY	51 NİĞDE	71 KIRIKKALE
12 BİNGÖL	32 ISPARTA	52 ORDU	72 BATMAN
13 BİTLİS	33 İÇEL	53 RİZE	73 ŞIRNAK
14 BOLU	34 İSTANBUL	54 SAKARYA	74 BARTIN
15 BURDUR	35 İZMİR	55 SAMSUN	75 ARDAHAN
16 BURSA	36 KARS	56 SİİRT	76 IĞDIR
17 ÇANAKKALE	37 KASTAMONU	57 SİNOP	77 YALOVA
18 ÇANKIRI	38 KAYSERİ	58 SİVAS	78 KARABÜK
19 ÇORUM	39 KIRKLARELİ	59 TEKİRDAĞ	79 KİLİS
20 DENİZLİ	40 KIRŞEHİR	60 TOKAT	80 OSMANİYE
			81 DÜZCE
90 ABROAD			

CONVERSION OF YEARS OF BIRTH FROM RUMI
CALENDAR TO GREGORIAN CALENDAR YEARS

RUMI YEARS + 584 = GREGORIAN YEAR

HACETTEPE UNIVERSITY INSTITUTE OF POPULATION STUDIES
2013 TURKEY DEMOGRAPHIC AND HEALTH SURVEY
WOMEN'S QUESTIONNAIRE

IDENTIFICATION

CLUSTER NO.. ☐☐☐☐

HOUSEHOLD NO .... ☐☐

5 REGIONS.. ☐

12 REGIONS .... ☐☐

PLACE OF RESIDENCE-URBAN(1)-RURAL(2) .... ☐

PROVINCE_____ ☐☐

DISTRICT_____ ☐☐

SUB-DISTRICT _____ ☐

VILLAGE _____ ☐☐☐

QUARTER_____

STREET_____ NO_____

NAME-SURNAME OF WOMAN_____ LINE NUMBER OF WOMAN.......................... ☐☐

IF CURRENTLY MARRIED
NAME SURNAME OF HUSBAND_____ LINE NUMBER OF HUSBAND..................... ☐☐

INTERVIEWER VISITS				
	1	2	3	LAST VISIT
DATE (DAY-MONTH)	___ ___	___ ___	___ ___	☐☐ ☐☐
INTERVIEWER'S NAME-SURNAME	_____	_____	_____	☐☐
RESULT (*)	___	___	___	☐☐
NEXT VISIT DATE	___ ___	___ ___		TOTAL NUMBER OF VISITS ☐
TIME	___ ___	___ ___		

(*)RESULT CODES

01 COMPLETED

02 WOMAN IS NOT AT HOME DURING VISITS

03 WOMAN IS NOT AT HOME DURING SURVEY DATE

04 POSTPONED

05 REFUSED

09 PARTLY COMPLETED

96 OTHER _____
                    (SPECIFY)

SUPERVISOR	FIELD EDITOR	FIRST KEYER	SECOND KEYER
_____ ☐☐	_____ ☐☐	_____ ☐☐	_____ ☐☐
DAY-MONTH ☐☐ ☐☐	DAY-MONTH ☐☐ ☐☐	DAY-MONTH ☐☐ ☐☐	DAY-MONTH ☐☐ ☐☐

CONSENT PAGE

Hello, my name is _____. I am coming from Ankara, Hacettepe University Institute of Population Studies. We are conducting a survey with Ministry of Health and Ministry of Development on population and health. I want to talk to you and ask you some questions about these subjects.

All your answers are confidential. Participation in the survey is completely voluntary but attending to this survey and sharing your experiences with us are going to be helpful for the other women in Turkey, and contribute to the planning and development of the services for mother and child health.

Now I am going to ask questions about health and daily life. Interview will take about 40 minutes to complete.
Do you agree to interview?

RESPONDENT AGREES TO BE INTERVIEWED 1	RESPONDENT DOES NOT AGREE TO BE INTERVIEWED.......2
ASK THE SELECTED PERSON TO INTERVIEW WHETHER SHE HAS QUESTIONS ABOUT THE SURVEY. MAKE THE NECESSARY EXPLANATIONS AND START THE INTERVIEW.	*THANK THE SELECTED PERSON TO WHOM YOU TALK FOR SPENDING HER TIME AND FINISH THE INTERVIEW.*

Signature of the interviewer:..

Date: _ _ / _ _ / 2013

SECTION 1A. RESPONDENT'S BACKGROUND

101S	*RECORD THE TIME*	HOUR-MINUTE......................... ☐☐ ☐☐	
105	First I would like to ask some questions about your age and educational status. In what year and month were you born?	MONTH.. ☐☐ DOESN'T KNOW MONTH.. 98 YEAR .... **1** **9** ☐☐ DOESN'T KNOW YEAR 9998	
106	How old are you exactly? What age have you completed? *CHECK ANSWERS TO 105 AND 106 USING AGE-YEAR OF BIRTH TABLE. IF INCONSISTENT PROBE AND CORRECT.* *AGE MUST BE DETERMINED!*	AGE IN COMPLETED YEARS .... ☐☐	
107	Have you ever attended school?	YES .... 1 NO .... 2 → 114	
108	What is the highest level you attended?	PRIMARY SCHOOL .... 11 GENERAL SECONDARY SCHOOL .... 12 VOCATIONAL SECONDARY SCHOOL.............. 13 GENERAL HIGH SCHOOL .... 14 VOCATIONAL HIGH SCHOOL............................. 15 UNIVERSITY .... 16 MASTER'S DEGREE .... 17 Ph.D. 18	
109A	What is the highest level you have completed at that level? *RECORD "00" IF THE RESPONDENT COMPLETED PREPARATORY CLASS OR SHE DID NOT COMPLETE ANY GRADE.*	GRADE .... ☐☐	
109B	Did you graduate (receive diploma) from this school?	YES .... 1 NO 2	
109C	*WRITE HIGHEST GRADE COMPLETED IN PRIMARY SCHOOL, SECONDARY SCHOOL, HIGH SCHOOL,UNDERGRADUATE AND GRADUATE SCHOOL .* *RECORD TOTAL COMPLETED GRADE.*	PRI SEC HIGH UNI MA PHD ☐ + ☐ + ☐ + ☐ + ☐ + ☐ = TOTAL COMPLETED GRADE .... ☐☐	
113	*CHECK 109C:* ATTENDED SCHOOL FOR ☐ 5 OR LESS YEARS ATTENDED SCHOOL FOR ☐ → 115B 6 OR MORE YEARS		
114	Can you read a letter or newspaper easily, with difficulty, or not at all?	NOT AT ALL .... 0 WITH DIFFICULTY .... 1 EASILY 2	

115B	Aside from formal education;		YES	NO	
	Have you ever attended a literacy course?	LITERACY.......................... 1		2	
	Have you ever attended Koran course?	KORAN............................. 1		2	
	Have you ever attended any foreign language course?	FOREIGN LANGUAGE............ 1		2	
	Have you ever attended computer course?	COMPUTER....................... 1		2	
	Have you ever attended any occupation/skill training course?	OTHER....................... 1		2	

116	What is your mother tongue?	TURKISH.. 1 KURDISH .... 2 ARABIC .... 3 OTHER _____ 7 (SPECIFY)	

117	In addition to your mother tongue, are there any languages can you speak? (IF YES) Which language(s)? *RECORD ALL MENTIONED.*	TURKISH..A KURDISH ....B ARABIC ....C OTHER _____ U (SPECIFY) NO OTHER LANGUAGE ....Y	

119	What is (was) your mother's mother tongue? What is (was) your father's mother tongue? *USE THE CODES IN 116.*	MOTHER .... ☐ _____ (SPECIFY IF OTHER) FATHER... ☐ _____ (SPECIFY IF OTHER)	

120	Is (was) your mother literate?	YES .... 1 NO 2	

121	Did your mother ever attend to school? *(IF YES)* Which school did she complete?	DID NOT ATTEND SCHOOL ....0 ATTENDED PRIMARY SCHOOL, DID NOT FINISH .... 1 PRIMARY SCHOOL GRADUATE... 2 SECONDARY SCHOOL GRADUATE....................................... 3 HIGH SCHOOL GRADUATE.. 4 UNIVERSITY UNDERGRADUATE/GRADUATE.................... 5 DON'T KNOW.. 8	

122	How many children born to your mother are alive today, including yourself? How many of them are female; how many of them are male?	ALIVE MALE CHILDREN.. ☐☐ ALIVE FEMALE CHILDREN....................................... ☐☐ TOTAL NUMBER OF CHILDREN ALIVE .... ☐☐	

123	Does your mother have any female or male children who died after birth? *(IF NO)* This may be an infant who died in a short periof of time after birth.	YES .... 1 NO .... 2 → 125
124	How many children born to your mother have died? How many of them are female and how many of them are male?	DK .... 98 DEAD MALE CHILDREN.. ☐☐ DEAD FEMALE CHILDREN. .... ☐☐ UNKNOWN SEX................................ .... ☐☐
125	Is (was) your father literate?	YES .... 1 NO 2
126	Did your father ever attend school? *(IF YES)* Which school did he complete?	DID NOT ATTEND SCHOOL... 0 ATTENDED PRIMARY SCHOOL, DID NOT FINISH .... 1 PRIMARY SCHOOL GRADUATE.. 2 SECONDARY SCHOOL GRADUATE..................................... 3 HIGH SCHOOL GRADUATE.. 4 UNIVERSITY UNDERGRADUATE/GRADUATE.................. 5 DON'T KNOW... 8
127	Are (were) your parents related?	YES .... 1 NO .... 2 → 130A
128	In what way is (was) your father related to your mother?	SON OF FATHER'S BROTHER .... 1 SON OF FATHER'S SISTER .... 2 SON OF MOTHER'S SISTER .... 3 SON OF MOTHER'S BROTHER... 4 OTHER PATERNAL BLOOD RELATIVE............................... 5 OTHER MATERNAL BLOOD RELATIVE .... 6 OTHER _____ 7 (SPECIFY) DON'T KNOW... 8

SECTION 1B. MIGRATION HISTORY

130A	Now I would like to talk to you about your place of birth and migrations. Where were you born?_____ (NAME OF PLACE) Was this place then a province centre, a district centre, a sub-district or a village? Or was it abroad?	PROVINCE CENTRE .... 1 DISTRICT CENTRE... 2 SUBDISTRICT OR VILLAGE .... 3 ABROAD 4	
130B	Which province did this place belong to? *RECORD THE NAME AND CODE OF THE PROVINCE.*	NAME OF PROVINCE PROVINCE CODE _____ ☐☐	

130C	Until you were 12 years old, where did you live for most of the time?
	
	      _____
	              (NAME OF PLACE)
	
	 Was this place then a province centre, a district centre, a sub-district or a village? Or was it abroad?
		PROVINCE CENTRE 1
		 DISTRICT CENTRE... 2
		 SUBDISTRICT OR VILLAGE 3
		 ABROAD 4	

130D	Which province did this place belong to? *RECORD THE NAME AND CODE OF THE PROVINCE.*	NAME OF PROVINCE PROVINCE CODE _____ ☐☐	
130E	After you have completed age 12, have you ever changed your place of residence at least for 6 months?	YES .... 1 NO .... 2 ⟶	200S

130F	Now I wish to talk about all the different places of residences you have lived in for at least 6 months after you have completed age 12. Can you tell me the places you have lived in since then, starting from the one you were living at the age of 12?		
	RECORD THE PLACE OF RESIDENCE AT AGE 12 ON THE FIRST LINE IN THE LIST, AND RECORD ALL MIGRATION MOVES IN ORDER. ASK THE QUESTIONS FOR EACH MOVEMENT SEPERATELY AND WRITE THE TOTAL NUMBER OF MIGRATIONS TO THE BOX BELOW.		
	ASK ONLY 130G AND 130H FOR CURRENT PLACE OF RESIDENCE.		
	WARNING: USE ADDITIONAL QUESTIONNAIRE IF THERE ARE MORE THAN 5 MIGRATIONS. CONTINUE THE INTERVIEW IN THE ADDITIONAL QUESTIONNAIRE.		TOTAL NO. OF LINES

130G	Where were you living? When you were living there was this place a province centre, a district centre, a sub-district or village? Or was it abroad? Next? *RECODE THE NAME OF THE PLACE OF RESİDENCE (PROVINCE, DISTRICT, SUB-DISTRICT, VILLAGE).* PROVINCE CENTER................................. 1 DISTRICT CENTER.................................. 2 SUBDISTRICT/VILLAGE......................... 3 ABROAD... 4	130H Which province does this place belong to?	130I For how long did you live in ......? *RECORD IN MONTHS IF LESS THAN 2 YEARS.*	130J At which month and year did you migrate from .... to .... ?	130K What was the main reason of migration from ......?
01	_____ (PLACE OF RESİDENCE)	PROVINCE CODE	MONTH..1 YEAR.....2	MONTH............. YEAR.	_____ (SPECIFY IF OTHER)
02	_____ (PLACE OF RESİDENCE)	PROVINCE CODE	MONTH..1 YEAR.....2	MONTH............. YEAR.	_____ (SPECIFY IF OTHER)
03	_____ (PLACE OF RESİDENCE)	PROVINCE CODE	MONTH..1 YEAR.....2	MONTH............. YEAR.	_____ (SPECIFY IF OTHER)
04	_____ (PLACE OF RESİDENCE)	PROVİNCE CODE	MONTH..1 YEAR.....2	MONTH............. YEAR.	_____ (SPECIFY IF OTHER)
05	_____ (PLACE OF RESİDENCE)	PROVINCE CODE	MONTH..1 YEAR.....2	MONTH............. YEAR.	_____ (SPECIFY IF OTHER)
06	_____ (PLACE OF RESİDENCE)	PROVINCE CODE	MONTH..1 YEAR.....2	MONTH............. YEAR.	_____ (SPECIFY IF OTHER)

ADD. QUES.

(130K) REASONS OF MIGRATION

PERSONAL REASONS	HUSBAND RELATED REASONS	FAMILY RELATED REASONS	
11 MARRIAGE	21 MOVE TO A PLACE WHERE HUSBAND LIVES	31 MOVE TO A PLACE WHERE PARENTS LIVE	41 HEALTH RELATED REASONS
12 EDUCATION		32 PARENTS' JOB CHANGE	
13 LOOKING FOR A JOB	22 HSB'S JOB CHANGE	33 PARENTS' ASSIGNMENT	
14 FIND A NEW JOB	23 HSB'S ASSIGNMENT	34 PARENTS LOOKING FOR A JOB	51 SECURITY REASONS
15 ASSIGNMENT	24 HSB LOOKING FOR A JOB	35 MOVE TO A PLACE NEAR CHILDREN	
16 RETURNING TO HOMETOWN	25 HSB DIED/DIVORCE	36 PARENTS DIED/DIVORCE	96 OTHER
17 OTHER	26 OTHER	37 OTHER	

SECTION 2. PREGNANCY AND FERTILITY

200S	*RECORD THE TIME.*	HOUR – MINUTE.......................... ▢▢ ▢▢
201	Now I would like to ask about all the births you have had during your life. Have you ever given a live birth?	YES.. 1 NO... 2 → 206
202	Do you have any sons or daughters to whom you have given birth who are living with you?	YES .... 1 NO .... 2 → 204
203	How many sons live with you? How many daughters live with you? *IF NONE, RECORD "00".*	SONS... ▢▢ DAUGHTERS.............................. ▢▢
204	Do you have any sons or daughters to whom you have given birth who are alive but do not live with you?	YES .... 1 NO .... 2 → 206
205	How many sons are alive but do not live with you? How many daughters are alive but do not live with you? *IF NONE, RECORD "00".*	SONS ELSEWHERE .... ▢▢ DAUGHTERS ELSEWHERE .... ▢▢
206	Have you ever given birth to a boy or a girl who was born alive but died later? *IF NO, PROBE BEFORE RECORDING:* Any baby who cried or showed signs of life but only survived a few hours or days?	YES .... 1 NO .... 2 → 208
207	In all, how many boys have died? In all, how many girls have died? *IF NONE, RECORD "00".*	BOYS DECEASED......................... ▢▢ GIRLS DECEASED......................... ▢▢
208	*SUM ANSWERS TO 203, 205, AND 207, AND ENTER TOTAL* *IF NONE, RECORD "00".*	TOTAL... ▢▢
209	*CHECK 208:* Just to make sure that I have this right: You have had in TOTAL _____ live births during your life. Is this true? YES ▢ NO ▢ → *PROBE AND CORRECT 201-208.*	
210	*CHECK 208.* HAS AT LEAST ▢ HAS NO LIVE ▢ → 227 ONE LIVE BIRTH BIRTHS ↓ 211	

| 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. |

RECORD NAMES OF ALL THE BIRTHS IN 212. RECORD TWINS AND TRIPLETS ON SEPARATE LINES. MAKE SURE TO RECORD DECEASED CHILDREN FROM MULTIPLE BIRTHS BEFORE THOSE SURVIVING.

212 What name was given to your (first/next) baby? *WRITE "BABY" IF THE BABY DIED BEFORE A NAME GIVEN.*	213 *RECORD SINGLE OR MULTIPLE BIRTH STATUS*	214 Is ..... a boy or a girl?	215 In what month and year..... born? *PROBE: In what season was s/he born? ATTENTION: FOR ALL CHILDREN, THE YEAR OF BIRTH; FOR CHILDREN BORN AFTER 2008, THE MONTH OF THE YEAR OF BIRTH MUST BE DETERMINED.*	216 Is ...... still alive?	217 How old was .... at his/her last birthday? *RECORD AGE IN COMPLETED YEARS. MAKE CALCULATIONS FOR CONSISTENCY.*
01 _____ (NAME)	SINGLE................1 MULTIPLE..........2	MALE........1 FEMALE....2	MONTH....................... YEAR..........	YES................1 NO.................2 219 ←	AGE (IN YEARS)
02 _____ (NAME)	SINGLE................1 MULTIPLE..........2	MALE........1 FEMALE....2	MONTH....................... YEAR..........	YES................1 NO.................2 219 ←	AGE (IN YEARS)
03 _____ (NAME)	SINGLE................1 MULTIPLE..........2	MALE........1 FEMALE....2	MONTH....................... YEAR..........	YES................1 NO.................2 219 ←	AGE (IN YEARS)
04 _____ (NAME)	SINGLE................1 MULTIPLE..........2	MALE........1 FEMALE....2	MONTH....................... YEAR..........	YES................1 NO.................2 219 ←	AGE (IN YEARS)
05 _____ (NAME)	SINGLE................1 MULTIPLE..........2	MALE........1 FEMALE....2	MONTH....................... YEAR..........	YES................1 NO.................2 219 ←	AGE (IN YEARS)
06 _____ (NAME)	SINGLE................1 MULTIPLE..........2	MALE........1 FEMALE....2	MONTH....................... YEAR..........	YES................1 NO.................2 219 ←	AGE (IN YEARS)

218 Is...... living with you?	218A RECORD THE LINE NUMBER OF CHILD IN THE HH LIST. IF S/HE WASN'T RECORDED IN HH LIST, RECORD "00".	219 *IF DEAD:* How old was ...... when he/she died? *IF "1" YEAR., PROBE:* How many months old was .....? *RECORD DAYS IF LESS THAN 1 MONTH, MONTHS IF LESS THAN TWO YEARS OR YEARS OTHERWISE.*	**2003 AND AFTER** 219A Where did ……. die?
YES ....1 NO 2	☐☐ *SKIP TO 219B*	DAY .... 1 MONTH .... 2 YEAR .... 3 ☐☐	☐☐
YES ....1 NO 2	☐☐ *SKIP TO 219B*	DAY .... 1 MONTH .... 2 YEAR .... 3 ☐☐	☐☐
YES ....1 NO 2	☐☐ *SKIP TO 219B*	DAY .... 1 MONTH............................. 2 YEAR .... 3 ☐☐	☐☐
YES ....1 NO 2	☐☐ *SKIP TO 219B*	DAY .... 1 MONTH............................. 2 YEAR .... 3 ☐☐	☐☐
YES ....1 NO 2	☐☐ *SKIP TO 219B*	DAY .... 1 MONTH .... 2 YEAR .... 3 ☐☐	☐☐
YES ....1 NO 2	☐☐ *SKIP TO 219B*	DAY .... 1 MONTH .... 2 YEAR .... 3 ☐☐	☐☐

(219A) DEATH PLACE

01 HER/HIS OWN HOUSE
02 SOMEONE ELSE'S HOUSE

PUBLIC SECTOR
11 STATE HOSPITAL
12 MATERNITY HOSPİTAL
14 COTTAGE HOSPITAL
15 HEALTH HOUSE
16 SSK HOSPITAL

PRIVATE SECTOR
21 PRIVATE HOSPITAL
22 PRIVATE POLICLINIC
23 PRIVATE PRACTICE

31 UNIVERSITY HOSPITAL

96 OTHER _____
                (SPECIFY)

219B RECORD NAMES OF CHILDREN IN 212. WRITE "BABY" IF THE BABY DIED BEFORE A NAME GIVEN.	**BORN IN 2003 VE AFTER**		221 Were there any other live births between previous birth and ....'s birth? *GO BACK AND CORRECT IF YES.*
	220 Is .... recorded in the population registry?	220A How much. time elapsed between ......'s birth and registration? *RECORD IN MONTHS IF LESS THAN 1 YEAR,"00" IF LESS THAN 1 MONTH*	
07 _____ (NAME)	YES..................1 NO........... ......2 221 ←	MONTH ..1 ☐☐ YEAR ....2 ☐☐	
08 _____ (NAME)	YES..................1 NO........... ......2 221 ←	MONTH ..1 ☐☐ YEAR ....2 ☐☐	YES ....1 NO 2
09 _____ (NAME)	YES..................1 NO........... ......2 221 ←	MONTH ..1 ☐☐ YEAR ....2 ☐☐	YES ....1 NO 2
10 _____ (NAME)	YES..................1 NO........... ......2 221 ←	MONTH ..1 ☐☐ YEAR .....2 ☐☐	YES ....1 NO 2
11 _____ (NAME)	YES..................1 NO........... ......2 221 ←	MONTH ..1 ☐☐ YEAR ....2 ☐☐	YES ....1 NO 2
12 _____ (NAME)	YES..................1 NO........... ......2 221 ←	MONTH ..1 ☐☐ YEAR ....2 ☐☐	YES ....1 NO 2

212 What name was given to your (first/next) baby? *WRITE "BABY" IF THE BABY DIED BEFORE A NAME GIVEN.*	213 *RECORD SINGLE OR MULTIPLE BIRTH STATUS*	214 Is ..... a boy or a girl?	215 In what month and year..... born? *PROBE: In what season was s/he born? NOTE: FOR ALL CHILDREN, THE YEAR OF BIRTH; FOR CHILDREN BORN AFTER 2003, THE MONTH OF THE YEAR OF BIRTH MUST BE DETERMINED.*	216 Is ...... still alive?	217 How old was .... at his/her last birthday? *RECORD AGE IN COMPLETED YEARS. MAKE CALCULATIONS FOR CONSISTENCY.*
07 _____ (NAME)	SINGLE................1 MULTIPLE..........2	MALE........1 FEMALE....2	MONTH....................... ☐☐ YEAR......... ☐☐☐☐	YES................1 NO..................2 219 ←	AGE (IN YEARS) ☐☐
08 _____ (NAME)	SINGLE................1 MULTIPLE..........2	MALE........1 FEMALE....2	MONTH....................... ☐☐ YEAR......... ☐☐☐☐	YES................1 NO..................2 219 ←	AGE (IN YEARS) ☐☐
09 _____ (NAME)	SINGLE................1 MULTIPLE..........2	MALE........1 FEMALE....2	MONTH....................... ☐☐ YEAR......... ☐☐☐☐	YES................1 NO..................2 219 ←	AGE (IN YEARS) ☐☐
10 _____ (NAME)	SINGLE................1 MULTIPLE..........2	MALE........1 FEMALE....2	MONTH....................... ☐☐ YEAR......... ☐☐☐☐	YES................1 NO..................2 219 ←	AGE (IN YEARS) ☐☐
11 _____ (NAME)	SINGLE................1 MULTIPLE..........2	MALE........1 FEMALE....2	MONTH....................... ☐☐ YEAR......... ☐☐☐☐	YES................1 NO..................2 219 ←	AGE (IN YEARS) ☐☐
12 _____ (NAME)	SINGLE................1 MULTIPLE..........2	MALE........1 FEMALE....2	MONTH....................... ☐☐ YEAR......... ☐☐☐☐	YES................1 NO..................2 219 ←	AGE (IN YEARS) ☐☐

TICK HERE IF NUMBER OF LIVE BIRTHS IS MORE THAN 12 AND CONTINUE IN ANOTHER QUESTIONNAIRE FORM. ☐

218 Is...... living with you?	218A	219	**2003 AND AFTER** 219A
	RECORD THE LINE NUMBER OF CHILD IN THE HH LIST. IF S/HE WASN'T RECORDED IN HH LIST, RECORD "00".	*IF DEAD:* How old was ...... when he/she died? *IF "1" YEAR., PROBE:* How many months old was .....? *RECORD DAYS IF LESS THAN 1 MONTH, MONTHS IF LESS THAN TWO YEARS OR YEARS OTHERWISE.*	*IF DEAD:* Where did …... die?
YES ....1 NO 2	*SKIP TO 219B*	DAY .... 1 MONTH .... 2 YEAR 3	
YES ....1 NO 2	*SKIP TO 219B*	DAY .... 1 MONTH .... 2 YEAR 3	
YES ....1 NO 2	*SKIP TO 219B*	DAY .... 1 MONTH.............................. 2 YEAR 3	
YES ....1 NO 2	*SKIP TO 219B*	DAY .... 1 MONTH.............................. 2 YEAR 3	
YES ....1 NO 2	*SKIP TO 219B*	DAY .... 1 MONTH .... 2 YEAR 3	
YES ....1 NO 2	*SKIP TO 219B*	DAY .... 1 MONTH .... 2 YEAR 3	

(219A) DEATH PLACE

01 HER/HIS OWN HOUSE
02 SOMEONE ELSE'S HOUSE

PUBLIC SECTOR

11 STATE HOSPITAL

12 MATERNITY HOSPİTAL
14 COTTAGE HOSPITAL
15 HEALTH HOUSE
16 SSK HOSPITAL

PRIVATE SECTOR
21 PRIVATE HOSPITAL
22 PRIVATE POLICLINIC
23 PRIVATE PRACTICE

31 UNIVERSITY HOSPITAL

96 OTHER _____
(SPECIFY)

219B		220 Is .... recorded in the population registry?	220A How much. time elapsed between ......'s birth and registration? *RECORD IN MONTHS IF LESS THAN 1 YEAR,"00" IF LESS THAN 1 MONTH*	221 Were there any other live births between previous birth and ....'s birth? *GO BACK AND CORRECT IF YES.*
	BORN IN 2003 VE AFTER			
	RECORD NAMES OF CHILDREN IN 212. WRITE "BABY" IF THE BABY DIED BEFORE A NAME GIVEN.			
07	(NAME)	YES..................1 NO........... ......2 221 ←	MONTH ...1 ☐☐ YEAR ....2 ☐☐	YES ....1 NO 2
08	(NAME)	YES..................1 NO........... ......2 221 ←	MONTH ...1 ☐☐ YEAR ....2 ☐☐	YES ....1 NO 2
09	(NAME)	YES..................1 NO........... ......2 221 ←	MONTH ...1 ☐☐ YEAR ....2 ☐☐	YES ....1 NO 2
10	(NAME)	YES..................1 NO........... ......2 221 ←	MONTH ...1 ☐☐ YEAR ....2 ☐☐	YES ....1 NO 2
11	(NAME)	YES..................1 NO........... ......2 221 ←	MONTH ...1 ☐☐ YEAR ....2 ☐☐	YES ....1 NO 2
12	(NAME)	YES..................1 NO........... ......2 221 ←	MONTH ...1 ☐☐ YEAR ....2 ☐☐	YES ....1 NO 2

223A	Have you had any live births since the birth of (NAME OF LAST BIRTH)?	YES .... 1 NO 2	→ 224
223B	*GO BACK AND MAKE THE NECESSARY CORRECTIONS.*		

224	*COMPARE THE NUMBER IN 208 WITH NUMBER OF BIRTHS IN BIRTH HISTORY ABOVE:*
	
	NUMBERS ARE THE SAME ☐ NUMBERS ARE DIFFERENT ☐ → *PROBE, RECONCILE AND MAKE NECESSARY CORRECTIONS*
	
	CHECK AND TICK:
	
	YEAR OF BIRTH IS RECORDED FOR EACH BIRTH (215).. ☐
	
	MONTH OF BIRTH IS RECORDED FOR EACH BIRTH AFTER 2008 (215)............................... ☐
	
	(IF ANY) CURRENT AGE IS RECORDED FOR EACH LIVING CHILD (217)........................... ☐
	
	(IF ANY) FOR EACH DEAD CHILD:
	
	   AGE AT DEATH IS RECORDED (219).. ☐
	
	     FOR AGE AT DEATH 12 MONTHS OR 1 YR.: PROBED TO DETERMINE EXACT AGE IN MONTHS (219).......... ☐
	
	     FOR THOSE BORN IN AND AFTER 2003: POPULATION REGISTRY QUESTIONS ARE ASKED (220-220A)......... ☐

225	*CHECK 215 AND ENTER THE NUMBER OF BIRTHS SINCE JANUARY 2008* ☐ *IF NONE, RECORD "0".*
226	**C** *FOR EACH BIRTH SINCE JANUARY 2008 ENTER "D" IN THE MONTH OF BIRTH IN THE 1ST COLUMN OF THE CALENDAR. LEARN THE MONTHS IN PREGNANCIES FOR EACH BIRTHS AND RECORD "H" IN EACH OF THE PRECEDING MONTHS.(NUMBER OF "H" MUST BE NUMBER OFPREGNANCY MONTHS MINUS 1) WRITE NAME OF CHILD TO THE LEFT OF THE "D" CODE.*

227	Are you currently pregnant?	YES .... 1 NO .... 2 UNSURE 8	→ 230A
228	How many months pregnant are you? **C** *RECORD NUMBER OF COMPLETED MONTHS.* *ENTER "H"s IN COLUMN 1 OF THE CALENDAR BEGINNING WITH THE MONTH OF INTERVIEW AND FOR TOTAL NUMBER OF COMPLETED MONTHS.*	MONTHS.. ☐☐	

229	At the time you became pregnant, did you want to become pregnant then, did you want to wait until later, or did you not want to have any more children at all?	THEN..1 LATER..2 DID NOT WANT AT ALL…………........3	
229A	At the time you became pregnant, did your husband want you to get pregnant then, did he want to wait until later, or did he not want to have any more children at all?	THEN..1 LATER..2 DID NOT WANT AT ALL…………........3	
230A	Have you ever had a pregnancy that ended in a miscarriage?	YES ....1 NO ....2 → 230C	
230B	In all, how many miscarriages have you had?	NUMBER OF MISCARRIAGES........................... ☐☐	
230C	Have you ever had a pregnancy that ended in an induced abortion?	YES ....1 NO .... 2 → 230E	
230D	In all, how many induced abortions have you had?	NO. OF INDUCED ABORTION ... ☐☐	
230E	Have you ever had a pregnancy that ended in a stillbirth?	YES ....1 NO .... 2 → 230G	
230F	In all, how many still births have you had?	NUMBER OF STILLBIRTHS .... ☐☐	

230G	*CALCULATE THE TOTAL NUMBER OF COMPLETED PREGNANCIES.*
	
	TOTAL NUMBER OF PREGNANCIES ENDING IN MISCARRIAGES, INDUCED ABORTIONS OR STILL BIRTHS:
	    SUM THE ANSWERS TO 230B, 230D
	    AND 230F _____
	
	TOTAL NUMBER OF PREGNANCIES ENDING IN LIVE BIRTHS:
	    SUM THE NUMBER OF SINGLE
	    BIRTHS IN THE BIRTH HISTORY + _____
	
	    ADD TO THAT SUM THE NUMBER OF
	    MULTIPLE BIRTHS + _____
	
	TOTAL NUMBER OF COMPLETED
	PREGNANCIES: = _____
		TOTAL NUMBER OF
		COMPLETED PREGNANCIES..... ☐☐	

230H	CHECK 230G: Just to make sure that I have this right. You have had in total _____ completed pregnancies. Is that correct? YES ☐ NO ☐ → *PROBE AND CORRECT 201-230G AS NECESSARY.*	
230I	*CHECK 230B, 230D AND 230F:* HAD AT LEAST ONE INDUCED ABORTION, MISCARRIAGE OR STILLBIRTH ☐ HAD NO INDUCED ABORTIONS MISCARRIAGES OR STILLBIRTHS ☐ → 234	
231A	Now I would like to ask about your recent induced abortions, miscarriages or stillbirths. When did the last such pregnancy end?	MONTH .... ☐☐ YEAR............................ ☐☐☐☐
231B	Was this an induced abortion, a miscarriage or a stillbirth?	INDUCED ABORTION............................... 1 MISCARRIAGE…………….................... 2 STILLBIRTH...3

232	*CHECK 231A:*
	    LAST INDUCED ABORTION/MISCARRIAGE/
	    STILLBIRTH ENDED
	      AFTER JANUARY 2008 ☐ LAST INDUCED ABORTION/MISCARRIAGE/
	STILLBIRTH ENDED
	BEFORE JANUARY 2008 ☐ → 234	

233	How many months pregnant were you when the last pregnancy ended?	MONTHS .... ☐☐

C *RECORD ALL INDUCED ABORTIONS, MISCARRIAGES AND STILLBIRTHS SINCE JANUARY 2008 IN COLUMN 1.*

PROBE TO DETERMINE HOW THE PREGNANCY ENDED (INDUCED ABORTION, MISCARRIAGE, STILL BIRTH).
- How did this pregnancy end? (Was it an induced abortion, miscarriage, or stillbirth etc.)

RECORD THE APPROPRIATE CODE AT THE MONTH AND YEAR WHERE THE PREGNANCY ENDED IN COLUMN 1.

THEN ASK FOR DATES OF ANY OTHER PREGNANCIES BACK TO JANUARY 2008. REPEAT THE PROCEDURES AS DESCRIBED ABOVE FOR THESE PREGNANCIES.

LEARN THE DURATION OF EACH PREGNANCY AND RECORD "H" FOR THE MONTHS BEFORE THE RESULTING CODE, AS MUCH TO FILL THIS DURATION.
- What was the total duration of this pregnancy? How many months pregnant were you?

233A	CHECK 231A, 231B AND CALENDAR: HAD AT LEAST ONE INDUCED ABORTION AFTER 2008	HAD NO INDUCED ABORTION AFTER 2008 → 234
233B	Who decided to end your pregnancy with an induced abortion?	DOCTOR.. 01 HERSELF... 02 HUSBAND... 03 HERSELF AND HUSBAND TOGETHER.. 04 OTHER _____ 96 (SPECIFY)
233C	Did you desire this (last) pregnancy which ended in an induced abortion, did you desire to get pregnant later, or did you not desire it at all?	DESIRED………….. 1 DESIRED IT LATER.................................... 2 NOT AT ALL…………….......................... 3
233D	Where did the operation of induced abortion take place?	**PUBLIC SECTOR** GOVT./SAMPLE HOSPITAL .... 11 MATERNITY HOUSE........................ 12 MCHFP CENTER .... 13 SSK HOSPITAL/DISPANSERY .... 16 OTHER _____19 (SPECIFY) **PRIVATE SECTOR** PRIVATE HOSPITAL .... 21 PRIVATE POLYCLINIC .... 22 PRIVATE DOCTOR .... 23 OTHER _____29 (SPECIFY) UNIVERSITY HOSPITAL .... 31 OTHER_____ 96 (SPECIFY)
233E	Did you receive any counseling about contraception usage after induced abortion at the health facility where the (last) induced abortion was performed?	YES.. 1 NO.. 2
234	Did you ever make use of assisted reproductive techniques such as conventional invitro fertilization, intrauterine insemination or intracytoplasmic sperm injection to get pregnant?	YES.. 1 NO..2 → 235
234A	Did you ever get pregnant with the assistance of these techniques?	YES.. 1 NO...2 → 235

235	How old were you when you had your first menstrual period?	AGE .... ☐☐	
236	When did your last menstrual period start?	DAYS AGO ....1 WEEKS AGO ....2 MONTHS AGO ....3 YEARS AGO ....4 CURRENTLY PREGNANT ....…...........991 IN MENAPAUSE.....................…...........992 HYSTEROCTOMY ....993 BEFORE LAST BIRTH.. ....994 NEVER MENSTRUATED.. …...................995	→ 239S
237	Think about the time between the beginning of a menstruation period and the beginning of the next menstruation period. Are there certain days when a woman is more likely to become pregnant?	YES .... 1 NO .... 2 DON'T KNOW 8	→ 239S
238	Is this time just before her period begins, during her period, right after her period has ended, or half way between two periods?	JUST BEFORE HER PERIOD BEGINS .....1 DURING HER PERIOD .... 2 RIGHT AFTER HER PERIOD HAS ENDED .... 3 HALF WAY BETWEEN TWO PERIODS .... 4 OTHER _____7 (SPECIFY) DON'T KNOW 8	
239S	*RECORD THE TIME.*	HOUR – MINUTE................. ☐☐ ☐☐	

SECTION 3A. CONTRACEPTION

301	Now I would like to talk about contraception. There are various methods to avoid pregnancy.
	READ THE NAME AND DESCRIPTION OF EACH METHOD IN Q 302 AND ASK WHETHER SHE HAS HEARD THE METHOD. IN Q302 CODE 1, IF SHE SAYS THAT SHE HAS HEARD THE METHOD; CODE 0 IF SHE SAYS SHE HASN'T.
	THEN FOR EACH METHOD WITH CODE '1 IN Q 302, ASK 303. AFTER ASKING ABOUT ALL METHODS PROCEED TO 304.

302 Have you ever heard the ways or methods of contraception I will mention?	NO	YES	303 Have you ever used this method?
01 TUBAL LIGATION Women can have an operation of tubal ligation to avoid having any more children.	0	1	Have you ever had such an operation to avoid having any more children? YES.. 1 NO 2
02 MALE STERILIZATION Men can have an operation called vasectomy so that their wives would not get pregnant.	0	1	Has (had) your (former) partner ever had such an operation? YES .... 1 NO 2
03 PILL Women can avoid a pregnancy by taking a pill every day.	0	1	YES .... 1 NO 2
04 IUD Women can have the so called spiral or IUD placed in them by a doctor or a nurse.	0	1	YES .... 1 NO 2
05 INJECTABLES Women can have an injection by a doctor or a nurse, which stops them from becoming pregnant for certain period of time.	0	1	YES .... 1 NO 2
06 IMPLANT Women can have small rods placed in their arm and this can prevent pregnancy for several years.	0	1	YES .... 1 NO 2
07 CONDOM Men can put a rubber sheath on their penis during sexual intercourse.	0	1	YES .... 1 NO 2
08 FEMALE CONDOM Women can place a sheath in their vagina before sexual intercourse.	0	1	YES .... 1 NO 2
09 DIAPHRAGM, FOAM, JELLY Women can place a sponge, suppository, diaphragm, jelly or cream inside themselves before intercourse.	0	1	YES .... 1 NO 2
10 VAGINAL RING (NUVARING) Women can place a sticky, colorless ring inside themselves for three weeks.	0	1	YES .... 1 NO 2
12 RHYTHM Some couples can avoid having sexual intercourse on certain days of the month when the woman is more likely to become pregnant.	0	1	YES .... 1 NO 2
13 WITHDRAWAL Some men pull out during sexual intercourse before climax.	0	1	YES .... 1 NO 2
14 EMERGENCY CONTRACEPTION Women can take pills up to three days after sexual intercourse to avoid becoming pregnant.	0	1	YES .... 1 NO 2
15 Have you heard of any other method that women or men can use to avoid pregnancy?	0	1	
	_____ (SPECIFY)		YES .... 1 NO 2
	_____ (SPECIFY)		YES .... 1 NO 2

304	CHECK 303:		
	NOT A SINGLE "YES" (NEVER USED) ☐	AT LEAST ONE "YES" (EVER USED) ☐	➤ 308

305	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	YES .... 1 ➤ 307 NO 2

306	**C** *RECORD "0" IN ALL EMPTY MONTHS IN COLUMN 1.*	☐ ➤ 331

307	Which method have you used or what have you done? *CORRECT 303 AND 304, IF NECESSARY CORRECT 302.*	

308	Now I would like to ask you about the first time that you did something or used a method to avoid getting pregnant. What was the first method you ever used?	TUBAL LIGATION.....................................01 MALE STERILIZATION.. 02 PILL ....03 IUD ....04 INJECTABLES..05 IMPLANT............. ....06 CONDOM.. 07 FEMALE CONDOM....................................08 DIAPHRAGM/FOAM/JELLY................................. 09 VAGINAL RING... 10 LACTATIONAL AMEN. METHOD........................11 RHYTHM...12 WITHDRAWAL.......................................13 OTHER _____ 96 (SPECIFY)

308A	How old were you when you first used this method?	AGE.. ☐☐

309A	Did you have any children at that time? *(IF YES)* How many living children did you have at that time? *IF NONE, RECORD "00.*	NUMBER OF CHILDREN................................ ☐☐

310	CHECK 303:		
	NOT HAD TUBAL LIGITATION ☐	HAD TUBAL LIGITATION ☐	➤ 314A

311	CHECK 227:		
	NOT PREGNANT OR UNSURE ☐	PREGNANT ☐	➤ 315A

313	Are you currently doing something or using any method to delay or avoid getting pregnant?	YES.. 1 NO .... 2 ➤ 315A

314	Which method are you using? *CIRCLE ALL MENTIONED.* 314A *CIRCLE "A" FOR TUBAL LIGATION.*	TUBAL LIGATION..A MALE STERILIZATION.. B PILL ....C IUD ....D INJECTABLES.. E IMPLANT.............. ....F CONDOM... G FEMALE CONDOM...H DIAPHRAGM/FOAM/JELLY................................. I VAGINAL RING.. J LACTATIONAL AMEN. METHOD.........................K RHYTHM..L WITHDRAWAL...M OTHER _____ U (SPECIFY)	

314B	*CHECK 314 AND 314A:* HAD TUBAL ☐ NOT HAD ☐ LIGATION TUBAL LIGITATION ↓	→ 315

314E	In which month and year was this operation performed?	MONTH...☐☐ YEAR ....☐☐☐☐

314F	Before your sterilization operation, were you told that you would not able to have any (more) children because of this operation?	YES..1 NO...2

315	**C** *ENTER METHOD CODE FROM 314 IN CURRENT MONTH IN COLUMN 1 OF CALENDAR. THEN DETERMINE WHEN SHE STARTED USING THIS METHOD. ENTER METHOD CODE IN EACH MONTH OF USE.*
	
	    ILLUSTRATIVE QUESTIONS:
	        When did you start using this method continuously?
	        How long have you been using this method continuously?
	
	    CHECK COLUMN 1 OF CALENDAR:
	
	    THERE ARE ☐ ALL BOXES ☐
	    EMPTY BOXES ARE FILLED
	            ↓
		→ 316

315A	*START WITH THE MOST RECENT USE. USE CALENDAR TO PROBE FOR EARLIER PERIODS OF USE AND NONUSE BACK TO JANUARY 2008. USE NAMES OF CHILDREN, DATES OF BIRTH, AND STARTING AND ENDING DATES OF PREGNANCIES AS REFERENCE POINTS.*
	
	IN COLUMN 1, ENTER CODE IN EACH MONTH OF METHOD USE OR"0" FOR NONUSE.
	ILLUSTRATIVE QUESTIONS FOR COLUMN1:
	    - *When was the last time you used a method? Which method was that?*
	    - *When did you start using that method? How long after the birth of (NAME)?*
	    - *How long did you use the method then?*
	
	IN COLUMN 2, ENTER CODES FOR DISCONTINUATION NEXT TO LAST MONTH OF USE. TO DO THIS, DETERMINE THE LAST MONTH OF METHOD USE FROM COLUMN 1. IN COLUMN 2, ENTER THE CODE FOR DISCONTINUATION.
	
	ASK WHY SHE STOPPED USING THE METHOD. IF A PREGNANCY FOLLOWED, ASK WHETHER SHE BECAME PREGNANT UNINTENTIONALLY WHILE USING THE METHOD OR DELIBERATELY STOPPED TO GET PREGNANT.
	ILLUSTRATIVE QUESTIONS FOR COLUMN 2:
	    - *Why did you stop using the (METHOD)?*
	    - *Did you become pregnant while using (METHOD), or did you stop to get pregnant, or did you stop for some other reason?*
	
	IF DELIBERATELY STOPPED TO BECOME PREGNANT, ASK: "How many months did it take you to get pregnant after you stopped using (METHOD)?"AND ENTER "0" IN EACH SUCH MONTH IN COLUMN 1.

316	*CHECK 314 AND 314A:* *CIRCLE THE CODE OF CURRENTLY USED METHOD.* *IFMORE THAN ONE METHOD WAS CIRCLED IN 314,* *CIRCLE CODE OF METHOD PLACED ABOVE IN THE LIST.*	NOT ASKED ....00 → 331 TUBAL LIGATION...01 MALE STERLIZATION .... 02 → 324A PILL ....03 IUD .... 04 INJECTABLES.. 05 IMPLANT .... 06 CONDOM .... 07 FEMALE CONDOM ....08 DIAPHRAM/FOAM/JELLY .... 09 VAGINAL RING.. 10 LACTATIONAL AMEN. METHOD ....11 RHYTM .... 12 WITHDRAWAL ....13 → 326 OTHER………….. 96

324	Where did you obtain ...... you are currently using?
	
	 _____
	 (WRITE NAME OF THE PLACE)
	
		PUBLIC SECTOR
		   GOVERNMENT/SAMPLE HOSPITAL...................11
		   MATERNITY HOUSE...............................12
		   MCHFP CENTRE.................................... 13
		   HEALTH CENTRE....................................14
		   HEALTH HOUSE....................................15
		   SSK HOSPITAL/DISPENSARY........................... 16
		   TRAINING AND RESEARCH HOSPITAL............ 17
		   FAMILY HEALTH CENTRE/FAMILY
		       DOCTOR..18
		
		   OTHER _____ 19
		               (SPECIFY)
		 PRIVATE SECTOR
		   PRIVATE HOSPITAL..............................21
		   PRIVATE POLYCLINIC...........................22
		   PRIVATE DOCTOR................................ 23
		   PRIVATE MIDWIFE/NURSE.................................24
		   PHARMACY/MEDICAL STORE..........................25

324A	Where did tubal ligation (or vasectomy) take place?
	
	 _____
	 (WRITE NAME OF THE PLACE)
		OTHER _____ 29
		               (SPECIFY)
		
		 UNIVERSITY HOSPITAL....................... 31
		
		 VOLUNTARY ORGANIZATION/
		      ASSOCIATION/FOUNDATION.................... 41
		
		 MARKET/SHOP..................................... 52
		 RELATIVE/FRIEND/NEIGHBOUR.......................53
		 TRAD. MIDWIFE/MIDWIFE GRAN......................54
		
		 OTHER _____ 96
		             (SPECIFY)

326	Would you like to use a different method of contraception than the one you are currently using?	YES .... 1 NO .... 2 → 332A

326A	Which method would you prefer to use?	TUBAL LIGATION..01 MALE STERILIZATION.. 02 PILL...03 IUD...04 INJECTABLES... 05 IMPLANT.. 06 CONDOM... 07 FEMALE CONDOM..08 DIAPHRAGM/FOAM/JELLY................................. 09 VAGINAL RING... 10 LACTATIONAL AMEN. METHOD.........................11 RHYTHM... 12 WITHDRAWAL..13 ANY METHOD.. 77 NOT SURE... 88 OTHER _____ 96 (SPECIFY)	
326B	What is the reason that you do not use (METHOD MENTIONED IN 326A) currently?	DOCTOR DOES NOT ADVISE.................................01 EXPENSIVE...02 NOT AVAILABLE/ACCESS PROBLEMS..............03 HARD TO FIND HERE.. 04 DON'T KNOW HOW TO OBTAIN.......................... 05 DON'T KNOW HOW TO USE IT.............................06 HUSBAND OBJECTS …………………………..07 RELIGIOUS REASONS ………………………..... 08 HEALTH CONCERNS…………………………….09 SIDE EFFECTS ………………………………….10 OTHER _____ 96 (SPECIFY)	
326C	*SKIP TO 332A.*		

331	CHECK 227:		
	NOT PREGNANT ☐ OR UNSURE	CURRENTLY ☐ PREGNANT	→ 332B

| 331B | What is the main reason you are not using a method of contraception to avoid pregnancy? | **FERTILITY-RELATED REASONS** NOT HAVING SEX...11 INFREQUENT SEX... 12 MENOPAUSAL/HYSTERECTOMY......................13 SUBFECUND/INFECUND.................................... 14 HUSBAND IS INFECUND....................................15 POSTPARTUM/BREASTFEEDING...................... 16 WANTS (MORE) CHILDREN................................17 **LACK OF KNOWLEDGE** KNOWS NO METHOD ....21 KNOWS NO SOURCE ....22 **METHOD-RELATED REASONS** HEALTH CONCERNS ....31 SIDE EFFECTS ....32 LACK OF ACCESS/TOO FAR ....33 COST TOO MUCH ....34 INCONVENIENT TO USE ....35 HUSBAND OPPOSED ....41 RELIGIOUS REASONS ....51 FATALISTIC..61 EMBARRASSED ....71 OTHER _____ 96 (SPECIFY) | |

331C	SKIP TO 332B.		

| 332A | CHECK 316. CIRCLE THE CODE OF METHOD CURRENTLY USED. | TUBAL LIGATION.....................................01 ⌐ MALE STERILIZATION........................... 02 PILL .... 03 IUD ....04 INJECTABLES.. 05 IMPLANT..06 CONDOM... 07 FEMALE CONDOM.......................................08 DIAPHRAGM/FOAM/JELLY................................. 09 VAGINAL RING.. 10 ⌐ LACTATIONAL AMEN. METHOD........................11 RHYTHM... 12 WITHDRAWAL...13 ANOTHER METHOD................................96 | → 356C |

| 332B | Do you know of a place where you can obtain a method of contraception? | YES .... 1 NO .... 2 | → 351A |

332C	Where is that? Any other place?
	
	CIRCLE ALL MENTOINED.
	
	_____
	(WRITE NAME OF THE PLACE)
	
	_____
	(WRITE NAME OF THE PLACE)
	
	_____
	(WRITE NAME OF THE PLACE)
		PUBLIC SECTOR
		  GOVERNMENT/SAMPLE HOSPITAL ....A
		  MATERNITY HOUSE ....B
		  MCHFP CENTRE... C
		  HEALTH CENTRE ....D
		  HEALTH HOUSE ....E
		  SSK HOSPITAL/DISPENSARY ....F
		  FAMILY HEALTH CENTRE/FAMILY
		          DOCTOR...G
		
		OTHER _____ H
		                                         (SPECIFY)
		PRIVATE SECTOR
		  PRIVATE HOSPITAL I
		  PRIVATE POLYCLINIC ....J
		  PRIVATE DOCTOR ....K
		PHARMACY/MEDICAL STORE L
		
		OTHER _____ M
		                                         (SPECIFY)
		
		UNIVERSITY HOSPITAL .... N
		
		MARKET/SHOP.. O
		
		OTHER _____ U
		                                         (SPECIFY)	

351A	*CHECK 316:*
	     CURRENTLY NOT CURRENTLY USING
	     USING ANY A METHOD ☐ ─────────────→
	     METHOD ☐
	             ↓
			356C

352	Are you planning to use any contraceptive method to postpone or avoid pregnancy in the following 12 months?	YES .... 1 NO .... 2 DON'T KNOW 8	→ 354
353	Are you planning to use any contraceptive method to postpone or avoid pregnancy anytime in the future?	YES .... 1 NO .... 2 DON'T KNOW 8	→ 355
354	Which method do you prefer?	TUBAL LIGATION ....01 MALE STERILIZATION ....02 PILL ....03 IUD .... 04 INJECTABLES ...……………......................05 IMPLANT/...06 CONDOM .... 07 FEMALE CONDOM ....08 DIAPHRAGM/FOAM/JELLY ....09 VAGINAL RING ....10 LACTATIONAL AMEN. METHOD ....11 RHYTHM .... 12 WITHDRAWAL ....13 NOT SURE.. 88 OTHER _____ 96 (SPECIFY)	
354A	*SKIP TO 356C.*		

| 355 | What is the main reason you don't want to use a method of contraception to avoid pregnancy ? | **FERTILITY-RELATED REASONS**
NOT HAVING SEX 11
INFREQUENT SEX 12
MENOPAUSAL/HYSTERECTOMY 13
SUBFECUND/INFECUND 14
HUSBAND IS INFECUND 15

LACK OF KNOWLEDGE
KNOWS NO METHOD 21
KNOWS NO SOURCE 22

METHOD-RELATED REASONS
HEALTH CONCERNS 31
SIDE EFFECTS 32
LACK OF ACCESS/TOO FAR 33
COST TOO MUCH 34
INCONVENIENT TO USE 35

HUSBAND OPPOSED 41
RELIGIOUS REASONS 51
FATALISTIC 61
EMBARRASSED 71

OTHER _____ 96
                          (SPECIFY)
DON'T KNOW .... 98 | |

SECTION 3B. FERTILITY PREFERENCES

356C	*CHECK 304, 314 AND 314A::*		
	NEVER USED A METHOD WOMAN NOT HAD TUBAL LIGATION OR PARTNER NOT STERILIZED ☐	WOMAN HAD TUBAL LIGITATION OR PARTNER STERILIZED ☐ ───────────────────────────→	359

357	*CHECK 227:*		
	NOT PREGNANT OR UNSURE ☐	CURRENTLY PREGNANT ☐	
	Now I have some questions about the future. Would you like to have(a/another) child or would you prefer not to have any (more) children?	Now I have some questions about the future. After the child you are expecting would you like to have another child or would you prefer not to have any more children?	HAVE (A/ANOTHER) CHILD............................1 NO MORE/NONE ....2 SAYS SHE CAN'T GET ⠀⠀⠀PREGNANT .... 3 UNDECIDED/DON'T KNOW...........................8 ───→ 359

357A	*CHECK 227:*		
	NOT PREGNANT OR UNSURE ☐	CURRENTLY PREGNANT ☐	
	How many more children would you like to have in the future?	How many more children would you like to have in the future not counting the one you are currently pregnant with?	NUMBER..☐☐ OTHER ANSWERS _____ 96 ⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀⠀(SPECIFY)

358	*CHECK 227:*		
	NOT PREGNANT OR UNSURE ☐	CURRENTLY PREGNANT ☐	MONTH ....1 ☐☐ YEAR ....2 ☐☐
	How long would you like to wait from now, before the birth of (a/another) child?	After the child you are expecting now, how long would you like to wait before the birth of another child?	SOON/NOW... 993 SAYS SHE CAN'T GET ⠀⠀⠀PREGNANT...994 WHEN SHE MARRY .... 995 OTHER _____ 996 ⠀⠀⠀⠀⠀⠀⠀⠀(SPECIFY) DON'T KNOW 998

359	*CHECK 216:*		
	HAS LIVING CHILDREN ☐	NO LIVING CHILDREN ☐	NONE...............…...................................00 ──→ 361 NUMBER ....☐☐ OTHER _____ 96 ──→ 361 ⠀⠀⠀⠀⠀⠀⠀⠀(SPECIFY)
	If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?	If you could choose exactly the number of children to have in your whole life, how many would that be?	

360	How many of these children would you like to be boys, how many would you like to be girls and for how many would it not matter?	BOYS

NUMBER... ☐☐

OTHER _____ 96
(SPECIFY)

GIRLS

NUMBER... ☐☐

OTHER _____ 96
(SPECIFY)

EITHER

NUMBER... ☐☐

OTHER _____ 96
(SPECIFY)

361	*CHECK 356C AND 357:*

DO NOT WANT TO   WANT TO HAVE
HAVE (ANOTHER)   (ANOTHER)
A CHILD/   CHILD OR   ☐   → 400
UNDECIDED OR   ☐   IMPOSSIBLE
DON'T KNOW   TO HAVE A CHILD

362	Now, I will mention some situation. In which condition, do you change your mind about having a (another) child?

	YES	NO
If you are provided with kindergarten service, free kindergarten or if you are provided with financial support for child care services?	1	2
If there is a family member for taking care of children?	1	2
If you are given nutrition support for the child and adequate material for childcare?	1	2
If the housework and childcare responsibilities are shared with the partner?	1	2
If the family has better economic conditions than now?	1	2
If you are given child allowance?	1	2
If the daily working hours of women who have little children are shortened?	1	2
If breastfeeding leave is expanded?	1	2
If paid maternity leave is expanded?	1	2
If paid paternity leave is given?	1	2
If women are provided with assurance for returning to work after maternal leave?	1	2
If there is an opportunity for early retirement?	1	2

SECTION 4. MOTHER AND CHILD HEALTH

400	*CHECK 210 AND 225:*		
	ONE OR MORE LIVE BIRTHS SINCE JANUARY 2008 ☐	NO LIVE BIRTHS SINCE JANUARY 2008. ☐	→ 709

401S	*RECORD THE TIME.*	HOUR – MINUTE......................... ☐☐ ☐☐

402	*ENTER THE LINE NUMBER AND NAME SINCE JANUARY 2008 IN THE TABLE, BEGINNING WITH THE LAST BIRTH. ASK THE QUESTIONS FOR ALL THESE BIRTHS.* *BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 2 BIRTHS USE ADDITIONAL QUESTIONNAIRES- DO NOT USE THE LAST BIRTH COLUMN IN THE ADDITIONAL QUESTIONNAIRE. USE "THE ONE BEFORE LAST BIRTH" COLUMN AFTER CHANGING IT AS "SECOND ONE BEFORE THE LAST BIRTH").* I would like to ask you some more questions about the health of all your children born in the past five years. We will talk about health of one child at a time

		LAST BIRTH	THE ONE BEFORE LAST BIRTH
403	LINE NUMBER FROM Q212.	LINE NUMBER .... ☐☐	LINE NUMBER .... ☐☐
404	CHECK 212 CHECK 216	NAME _____ ALIVE ☐ DEAD ☐	NAME_____ ALIVE ☐ DEAD ☐

405	At the time you became pregnant with ...... did you want to become pregnant then, did you want to wait until later, or did you want no (more) children at all?	NOT AT ALL.. 0 ┐
		                                    407A ◄─┘
		THEN 1
		LATER 2
			NOT AT ALL.. 0 ┐
			                                    410 ◄─┘
			THEN 1
			LATER .... 2 .

406	How much longer would you like to have waited?	MONTH ....1 ☐☐ YEAR ....2 ☐☐ DON`T KNOW 998	MONTH................................1 ☐☐ YEAR ....2 ☐☐ DON`T KNOW....................................998 *SKIP TO 410*

407A	When you were pregnant with ....did you see anyone for antenatal care for this pregnancy?
	
	(IF YES) Whom did you see?
	
	        Anyone else?
	
	PROBE FOR THE TYPE OF PERSON AND RECORD ALL MENTIONED.
		HEALTH PROFESSIONAL
		    DOCTOR...A
		    NURSE.. B
		    MIDWIFE... C
		
		OTHER _____ U
		            (SPECIFY)
		
		NO ONE……………………. ....Y ┐
		                    409G ◄─┘	

		LAST BIRTH NAME_____	THE ONE BEFORE LAST BIRTH NAME_____

407B	Where did you go for antenatal care?
	
	RECORD ALL MENTIONED.
	
	_____
	(NAME OF PLACE)
	
	_____
	(NAME OF PLACE)
		PUBLIC SECTOR
		 GOVT./SAMPLE HOSPITAL .... A
		 MATERNITY HOUSE .... B
		 MCHFP CENTER.................................. C
		 HEALTH CENTER .... D
		 HEALTH HOUSE .... E
		 SSK HOSPITAL/DISPANSERY .... F
		 TRAINING AND RESEARCH HOSP.. G
		 FAMILY AND HEALTH CENTER/
		  FAMILY DOCTOR....................... H
		
		OTHER _____ I
		   (SPECIFY)
		PRIVATE SECTOR
		 PRIVATE HOSPITAL........................... J
		 PRIVATE POLYCLINIC .... K
		 PRIVATE DOCTOR`S CLINIC L
		 PRIVATE NURSE/MIDWIFE
		  (HEALTH CABIN)....................... M
		
		OTHER_____N
		   (SFECIFY)
		
		UNIVERSITY HOSPITAL........................ O
		
		VOLUNTARY ORGANIZATION/
		 FOUNDATION HOSPITAL/CLINIC ... P
		
		OTHER_____ U
		   (SFECIFY)	

408	How many months pregnant were you with .... when you first received antenatal care?	MONTH...................................... ☐☐	
408A	During your pregnancy with .... when you went for the first time for antenatal care did you go because there was a problem or was it a regular check-up?	THERE WAS A PROBLEM..................... 1 REGULAR CONTROL............................ 2 OTHER _____ 7 (SPECIFY)	
409A	How many times did you receive antenatal care during your pregnancy with ....?	NO. OF TIMES............................ ☐☐	
409B	How many months pregnant were you with .... when you received antenatal care for the last time?	MONTH...................................... ☐☐	
409C	In any of your antenatal checks: Were you weighed? Were you checked for your blood pressure? Had a blood test? Had a urine test? Had ultrasonographic check? Had abdomen control by hand? Had a tetanus vaccine?	YES NO WEIGHED................................1 2 BLOOD PRESSURE.................1 2 BLOOD TEST...........................1 2 URINE TEST..................... ....1 2 ULTRASOUND.........................1 2 ABDOMINAL EXAM. ....1 2 TETANUS VACCINE...............1 2	

		LAST BIRTH NAME_____	THE ONE BEFORE LAST BIRTH NAME_____
409F	During one of your antenatal checks, have you ever been informed about the emergency situations (bleeding, high blood pressure, edema, fever, etc.) at which you have to seek health care ?	YES………………….......................… 1 NO…………………….......................... 2	
409G	Have you taken iron tablets during your pregnancy to ……?	YES..1 NO .... 2 DON'T KNOW 8	

410	Where did you give birth to ....?
	
	_____
	(NAME OF THE PLACE)
	
	_____
	(NAME OF THE PLACE)
		HOME
		    WOMAN'S HOME...……….............. 01
		    OTHER HOME……….....…............02
		
		PUBLIC SECTOR
		    GOVT./SAMPLE HOSPITAL...............11
		    MATERNITY HOUSE……….......... 12
		    MCHFP CENTER.………….............. 13
		    HEALTH CENTER……….......…....... 14
		    HEALTH HOUSE.………….............. 15
		    SSK HOSPITAL/DISPANSERY 16
		    TRAINING AND RESEARCH HOSP.. 17
		
		    OTHER _____ 19
		                        (SPECIFY)
		
		PRIVATE SECTOR
		    PRIVATE HOSPITAL.………….......... 21
		    PRIVATE POLYCLINIC……........... 22
		    PRIVATE DOCTOR`S CLINIC…….. 23
		
		    OTHER _____ 29
		                        (SPECIFY)
		
		    UNIVERSITY HOSPITAL........................ 31
		
		    OTHER _____ 96
		                        (SPECIFY)
			HOME
			    WOMAN'S HOME...……….............. 01
			    OTHER HOME……….....…............02
			
			PUBLIC SECTOR
			    GOVT./SAMPLE HOSPITAL...............11
			    MATERNITY HOUSE……….......... 12
			    MCHFP CENTER.………….............. 13
			    HEALTH CENTER……….......…....... 14
			    HEALTH HOUSE.………….............. 15
			    SSK HOSPITAL/DISPANSERY 16
			    TRAINING AND RESEARCH HOSP 17
			
			    OTHER _____ 19
			                        (SPECIFY)
			
			PRIVATE SECTOR
			    PRIVATE HOSPITAL.………….......... 21
			    PRIVATE POLYCLINIC……........... 22
			    PRIVATE DOCTOR`S CLINIC…….. 23
			
			    OTHER _____ 29
			                        (SPECIFY)
			
			    UNIVERSITY HOSPITAL........................ 31
			
			    OTHER _____96
			                        (SPECIFY)

413	Who delivered/ assisted with the delivery of ....?
	
	Anyone else?
	
	RECORD ALL MENTIONED.
		HEALTH PROFESSIONAL
		    DOCTOR……………………............. A
		    NURSE……………………………… B
		    MIDWIFE.………….......................... C
		
		OTHER PERSON
		    TRADITIONAL MIDWIFE…............... D
		    RELATIVE/FRIENDS………….........E
		
		OTHER_____ U
		                        (SPECIFY)
		
		NO ONE .... Y
			HEALTH PROFESSIONAL
			    DOCTOR……………………............. A
			    NURSE…………………………… B
			    MIDWIFE.………….......................... C
			
			OTHER PERSON
			    TRADITIONAL MIDWIFE…............... D
			    RELATIVE/FRIENDS………….........E
			
			OTHER_____ U
			                        (SPECIFY)
			
			NO ONE .... Y

414	How did ....'s birth occur? Was it vaginal birth or caesarean section?	NORMAL (VAGINAL) BIRTH…………1 CAESAREAN…………………………. 2	NORMAL (VAGINAL) BIRTH…………1 CAESAREAN…………………………. 2 *SKIP TO 428*

		LAST BIRTH NAME_____	THE ONE BEFORE LAST BIRTH NAME_____
417	*CHECK 410:* DID THE BIRTH TAKE PLACE AT A HEALTH FACILITY?	YES ☐ NO ☐ 422	
418	How long did you stay at the health facility after ....'s birth? *RECORD "00" IF LESS THAN ONE DAY. RECORD AS DAY IF LESS THAN ONE WEEK.*	DAY ....1 ☐☐ WEEK ....2 ☐☐ DON`T KNOW 998	
419	How much time elapsed between birth and your first examination? *RECORD AS HOUR IF LESS THAN 1 DAY AND AS DAY IF LESS THAN 1 WEEK.*	NOT EXAMINATED..................... 000 421 HOUR ....1 ☐☐ DAY ....2 ☐☐ WEEK ....3 ☐☐ DON'T KNOW 998	
420	Who examined you? Who else?	DOCTOR ....A NURSE ....B MIDWIFE...C OTHER _____ U (SPECIFY)	
420A		*SKIP TO 427*	
421	Were you examined by a health professional within two months following your departure from ......? (THE PLACE MENTIONED AT 410)	YES ....1 424 NO..2 427	
422	What was the main reason for not having done ....'s birth in a health institution?	NO REASON………………................. 00 ACESSIBILITY PROBLEMS……….........01 DISTRUST OF HEALTH FACILITY/PERSONNEL...........…........02 HAPPENED SUDDENLY………..…........03 PROBLEMS IN USING HEALTH INSTUTION...............................…...........04 EXPENSIVE……………………….…….. 05 TRADITIONS/CUSTOMS………...........06 NO PROBLEM.........…………….......... 07 FEAR...08 SHAME..09 OTHER _____ 96 (SPECIFY) DON'T KNOW 98	
423	Were you examined by a health professional within two months after the birth of ……..?	YES ....1 NO..2 427	

		LAST BIRTH NAME_____	THE ONE BEFORE LAST BIRTH NAME_____
424	How long after delivery of ….. did the first check take place? *RECORD IN HOURS IF LESS THAN 1 DAY, RECORD IN DAYS IF LESS THAN 1 WEEK.*	HOUR ....1 ☐☐ DAY ....2 ☐☐ WEEK ....3 ☐☐ DON`T KNOW................................998	
425	Who checked on your health at that time? Who else?	DOCTOR ....A NURSE...B MIDWIFE...C OTHER _____ U (SPECIFY)	
426	Where did this first check take place? _____ (NAME OF THE PLACE)	**HOME** WOMAN'S HOME...............................01 OTHER HOME.....................................02 **PUBLIC SECTOR** GOVT./SAMPLE HOSPITAL…............ 11 MATERNITY HOUSE…………........... 12 MCHFP CENTER.……………............. 13 HEALTH CENTER………....…........... 14 HEALTH HOUSE………….….............15 SSK HOSPITAL/DISPANSERY ....16 TRAINING AND RESEARCH HOSP..17 OTHER _____19 (SPECIFY) **PRIVATE SECTOR** PRIVATE HOSPITAL.…………........... 21 PRIVATE POLYCLINIC……........….... 22 PRIVATE DOCTOR`S CLINC............. 23 OTHER _____ 29 (SPECIFY) UNIVERSITY HOSPITAL ....31 OTHER _____96 (SPECIFY)	
427	Has your period returned since the birth of ……?	YES ....1 ⌐→ 429 NO..2 ⌐→ 430	
428	Did your period return between the birth of …… and your next pregnancy?		YES……………………………........... 1 NO…………………………….…........... 2 ⌐← 432

		LAST BIRTH NAME_____	THE ONE BEFORE LAST BIRTH NAME_____
429	For how many months after birth of …… did you not have your period?	MONTH .... ☐☐ DON`T KNOW 98	MONTH..................................... ☐☐ DON`T KNOW..................................... 98 *SKIP TO 432*
430	*CHECK 227:* RESPONDENT CURRENTLY PREGNANT?	NOT ☐ PREGNANT ☐ PREGNANT OR UNSURE ↓ 432	
431	Have you resumed sexual intercourse since the birth of ……?	YES .... 1 NO... 2 ⌐ 433 ←	
432	For how many months after the birth of …… did you not have sexual relations?	MONTH .... ☐☐ DON`T KNOW 98	MONTH....................................... ☐☐ DON`T KNOW... 98 *SKIP TO 437*
433	Now I would like to ask you about the health checks (NAME OF CHILD) attended after he/she was born. In the two months after ..... was born, did any health care provider check her/his health?	YES .... 1 NO... 2 ⌐ 437 ←	
434	How long after delivery did the first check of .... take place? *RECORD IN HOURS IF LESS THAN ONE DAY, RECORD IN DAYS IF LESS THAN ONE WEEK.*	HOUR ....1 ☐☐ DAY ....2 ☐☐ WEEK ....3 ☐☐ DONT`T KNOW............................... 998	
435	Who did ....`s first health check? Who else?	DOCTOR ....A NURSE..B MIDWIFE..C OTHER _____ U (SPECIFY)	

		LAST BIRTH NAME_____	THE ONE BEFORE LAST BIRTH NAME_____

436	Where did this first check of .... take place?
	
	_____
	(NAME OF THE PLACE)
		HOME
		    WOMAN'S HOME...............................01
		    OTHER HOME....................................02
		
		PUBLIC SECTOR
		    GOVT./SAMPLE HOSPITAL.............. 11
		    MATERNITY HOUSE…………......... 12
		    MCHFP CENTER……………........... 13
		    HEALTH CENTER………......….........14
		    HEALTH HOUSE……………...….......15
		    SSK HOSPITAL/DISPANSERY 16
		    TRAINING AND RESEARCH HOSP..17
		
		    OTHER _____ 19
		                     (SPECIFY)
		
		PRIVATE SECTOR
		    PRIVATE HOSPITAL…………......... 21
		    PRIVATE POLYCLINIC………......... 22
		    PRIVATE DOCTOR…..........................23
		
		    OTHER _____ 29
		                     (SPECIFY)
		
		    UNIVERSITY HOSPITAL 31
		
		    OTHER _____96
		                     (SPECIFY)	

437	When .... was born, was he/she very large, larger than average, average, smaller than average or very small?	VERY LARGE…………………........... 1 LARGER THAN AVERAGE...…….......... 2 AVERAGE...…………………….......... 3 SMALLER THAN AVERAGE...…........... 4 VERY SMALL…………………….......... 5 DON'T KNOW………………….....…... 8	VERY LARGE…………………........... 1 LARGER THAN AVERAGE...…….......... 2 AVERAGE...…………………….......... 3 SMALLER THAN AVERAGE...…........... 4 VERY SMALL…………………….......... 5 DON'T KNOW………………….....…... 8
438	Was ……weighed at birth?	YES ....1 NO..2 ⟵ 439A	YES ....1 NO..2 ⟵ 439A
439	How much did …… weigh? *RECORD WEIGHT FROM HEALTH CARD, IF AVAILABLE.*	GRAMS FROM CARD ....1 ☐☐☐☐ FROM RECALL.....2 ☐☐☐☐ DON`T KNOW 99998	GRAMS FROM CARD ....1 ☐☐☐☐ FROM RECALL.....2 ☐☐☐☐ DON`T KNOW 99998
439A	Has …… been through a test for phenylketonuria?	YES ....1 NO..2 DON`T KNOW 8	YES ....1 NO..2 DON`T KNOW 8
439B	Has …'s hearing been tested?	YES ....1 NO..2 DON`T KNOW 8	YES ....1 NO..2 DON`T KNOW 8

		LAST BIRTH NAME_____	THE ONE BEFORE LAST BIRTH NAME_____
440	Did you ever breastfeed …..?	YES ....1 NO...2 ⌐ 447 ◄─┘	YES .... 1 NO .... 2 *SKIP TO 447*
441	How long after birth did you first put …… to the breast? *RECORD "00" IF LESS THAN 1 HOUR. RECORD AS HOUR IF LESS THAN 24 HOURS, AS DAY IF MORE.*	IMMEDIATELY.....................................000 HOUR ....1 ☐☐ DAY ....2 ☐☐	
442	In the first three days after delivery, was .... given anything to drink other than breast milk?	YES ....1 NO...2 ⌐ 444 ◄─┘	
443	What was given to ……? Anything else? *RECORD ALL MENTIONED.*	MILK (OTHER THAN BREAST MILK).. A WATER ....B SUGAR WATER ....C SALT-SUGAR-WATER SOLUTION ....D FRUIT JUICE...E BABY FORMULA ....F TEA .... G JUICE OF COOKED MEAL ....H HONEY ....I OTHER _____U (SPECIFY)	

444	*CHECK 404:*
	
	CHILD ALIVE?
		ALIVE ☐ DEAD ☐
		
		                         ↓
		                        446	

445	Are you still breastfeeding ……?	YES .... 1 448 ◄─┘ NO... 2	
446	For how many months did you breastfeed ……?	MONTH .... ☐☐ DON`T KNOW 98	

447	*CHECK 404:*
	
	CHILD ALIVE?
		ALIVE ☐ DEAD ☐
		
		                         ↓
		                        452
			ALIVE ☐ DEAD ☐
			
			                         ↓
			                        452

448	Was …… drunk anything from a bottle with a nipple yesterday or last night?	YES .... 1 NO.. 2 DON'T KNOW 8	YES.. 1 NO .... 2 DON'T KNOW... 8

		LAST BIRTH NAME_____	THE ONE BEFORE LAST BIRTH NAME_____
449	At any time in the last 24 hours was …… given any of the following?		
		Y N DK	Y N DK
	Water?	WATER 1 2 8	WATER..................................1 2 8
	Bottled/Boxed milk / Milk sold outside?	MILK 1 2 8	MILK...1 2 8
	Yoghurt?	YOGHURT 1 2 8	YOGHURT...............................1 2 8
	Cheese?	CHEESE..................................... 1 2 8	CHEESE 1 2 8
	Eggs?	EGG 1 2 8	EGG..1 2 8
	Red meat?	RED MEAT 1 2 8	RED MEAT 1 2 8
	Chicken?	CHICKEN 1 2 8	CHICKEN 1 2 8
	Fish?	FISH 1 2 8	FISH 1 2 8
	Dry Legumes (chickpea, lentil, dry bean etc.)?	DRY LEGUMES........................ 1 2 8	BAKLAGİL...............................1 2 8
	Fresh vegetables/fruits?	FRESH VEGETABLES/FRUITS 1 2 8	FRESH VEGETABLES/FRUIT 1 2 8
	Bread?	BREAD 1 2 8	BREAD......................................1 2 8
	Cereals or grains(rice, cracked wheat, pasta, noddles etc.)?	CEREALS OR GRAINS 1 2 8	CEREALS OR GRAINS 1 2 8
	Baby formula?	BABY FORMULA 1 2 8	BABY FORMULA....................1 2 8
	Juice of cooked meal?	JUICE OF COOKED MEAL 1 2 8	JUICE OF COOKED MEAL.....1 2 8
	Soup?	SOUP 1 2 8	SOUP..1 2 8
	Junk foods(biscuit,cake,chocolate etc.)?	JUNK FOODS............................ 1 2 8	FAST FOODS 1 2 8
	Beverages (fruit juice, fizzy drink etc.)?	BEVERAGES 1 2 8	BEVERAGES...........................1 2 8
450	Is …. currently attending daycare or kindergarten?	NOT ATTENDING.................................... 0 DAYCARE CENTRE .... 1 KINDERGARTEN...................................... 2	NOT ATTENDING .... 0 DAYCARE CENTRE............................. 1 KINDERGARTEN 2
452		*IF THERE IS ANOTHER BIRTH, SKIP TO NEXT COULUMN TO 405* *IF NOT, SKIP TO 452S*	*IF THERE IS ANOTHER BIRTH,SKIP TO ADDITIONAL QUESTIONARE TO 405* *IF NOT SKIP TO 452S*
452S	*RECORD THE TIME*	HOUR – MINUTE........................ ☐☐ ☐☐	

SECTION 5. IMMUNIZATION

501	ENTER LINE NUMBER, NAME SURVIVAL STATUS OF EACH BIRTH SINCE JANUARY 2010 IN THE TABLE. ASK QUESTIONS ABOUT ALL OF THESE BIRTHS.
	BEGIN WITH THE LAST BIRTH. (IF THERE ARE MORE THAN 2 BIRTHS USE ADDITIONAL QUESTIONNAIRES – DO NOT USE THE LAST BIRTH COLUMN IN THE ADDITIONAL QUESTIONNAIRE, USE " THE ONE BEFORE LAST BIRTH" CLOUMN AFTER CHANGING IT AS "SECOND ONE BEFORE THE LAST BIRTH")

501A	LINE NUMBER FROM 212.	LAST BIRTH	THE ONE BEFORE LAST BIRTH
		LINE NO	LINE NO ....

502	CHECK 212:	NAME_____	NAME_____
	CHECK 216:	ALIVE ☐ DEAD ☐	ALIVE ☐ DEAD ☐
		IF NO MORE BIRTHS SKIP TO 709.IF THERE IS MORE BIRTHS GO TO 502 IN NEXT COLUMN.	IF NO MORE BIRTHS SKIP TO 709.IF THERE IS MORE BIRTHS GO TO 502 IN ADDITIONAL QUESTIONNAIRE.

503	Do you have a card where ……'s vaccination are written down? (IF YES) May I see it please?	YES, SEEN .... 1 YES, NOT SEEN .... 2 → 506 NO CARD 3	YES, SEEN ....1 YES, NOT SEEN ....2 → 506 NO CARD 3

504	(1) COPY VACCINATION DATES FOR EACH VACCINE FROM THE CARD. PAY ATTENTION TO APPOINTMENT DAYS AND THE CONSISTENCY OF VACCINATION DATES. (2) WRITE '44' IN THE DAY COLUMN IF CARD SHOWS THAT A VACCINATION WAS GIVEN BUT NO DATE IS RECORDED.		

		DAY	MONTH	YEAR		DAY	MONTH	YEAR
HEPATITIS B1	HB1.				HB1.			
HEPATITIS B 2	HB2.				HB2.			
HEPATITIS B 3	HB3.				HB3.			
BCG TUBERCULOSIS	BCG				BCG			
TDAP 1 (Combination Vaccine)	TDAP 1				TDAP 1			
TDAP 2 (Combination Vaccine)	TDAP 2				TDAP 2			
TDAP 3 (Combination Vaccine)	TDAP 3				TDAP 3			
MEASLES, MUMBS AND RUBELLA	MMR				MMR			
OPA 1 (ORAL POLIO)	OP1.				OP1.			
OPA 2 (ORAL POLIO)	OP2.				OP2.			
CPV 1 (PNEUMOCOCCUS 1)	CPV1				CPV1			
CPV 2 (PNEUMOCOCCUS 2)	CPV2				CPV2			
CPV 3 (PNEUMOCOCCUS 3)	CPV3				CPV3			

		LAST BIRTH NAME_____	THE ONE BEFORE LAST BIRTH NAME_____

505	Has …… received any vaccination that are not recorded on this card?
	
	RECORD 'YES' IF ONLY RESPONDENT MENTIONS BCG, POLIO 1 – 3, DPT 1 – 3, MEASLES AND/OR HEPATITUES B 1 - 3 .
		YES... 1
		NO 2
		                    509 ◄
		DON`T KNOW.. 8
			YES... 1
			NO 2
			                    509 ◄
			DON`T KNOW.. 8

505A		*PROBE THE VACCINES, RECORD "66" TO DAY SECTION OF THAT VACCINATION AT 504* *SKIP TO 509*	*PROBE THE VACCINES, RECORD "66" TO DAY SECTION OF THAT VACCINATION AT 504* *SKIP TO 509*

506	Did…… ever receive any vaccinations to prevent him/her from getting infectious diseases?	YES... 1
		NO 2
		                    509 ◄
		DON`T KNOW.. 8
			YES... 1
			NO 2
			                    509 ◄
			DON`T KNOW.. 8

508A	Please tell me if ……received any of the following vaccinations?
	
	Hepatitis B?
		YES... 1
		NO 2
		                508C ◄
		DON`T KNOW.. 8
			YES... 1
			NO 2
			                508C ◄
			DON`T KNOW.. 8

508B	How many times?	NUMBER OF TIMES .... ☐	NUMBER OF TIMES .... ☐
508C	BCG: A vaccination against tuberculosis, that is an injection in the left arm or shoulder that caused a scar?	YES... 1 NO .... 2 DON`T KNOW.. 8	YES... 1 NO .... 2 DON`T KNOW.. 8

508D	Combination Vaccine:
	
	This vaccination is the combination of five-antigens that are diphtheria, pertussis tetanus, menengitis and polio.
	
	It is usually done at the same time with pneumococcal vaccine
		YES... 1
		NO 2
		                508F ◄
		DON`T KNOW.. 8
			YES... 1
			NO 2
			                508F ◄
			DON`T KNOW.. 8

508E	How many times?	NUMBER OF TIMES .... ☐	NUMBER OF TIMES .... ☐
508F	MMR vaccine that protects from measles, mumbs and rubella and given by an injection into the arm?	YES... 1 NO .... 2 DON`T KNOW.. 8	YES... 1 NO .... 2 DON`T KNOW.. 8

508G	Polio vaccination:
	That is dropped in the mouth?
		YES... 1
		NO 2
		                508I ◄
		DON`T KNOW.. 8
			YES... 1
			NO 2
			                508I ◄
			DON`T KNOW.. 8

508H	How many times?	NUMBER OF TIMES .... ☐	NUMBER OF TIMES .... ☐

		LAST BIRTH NAME_____	THE ONE BEFORE LAST BIRTH NAME_____
508I	Pneumococcus vaccination?	YES... 1 NO .... 2 ┐ 709 ← DON`T KNOW.. 8 ┘	YES... 1 NO .... 2 ┐ 709 ← DON`T KNOW.. 8 ┘
508J	How many times?	NUMBER OF TIMES .... ☐	NUMBER OF TIMES .... ☐
509		*RETURN TO 502 IN THE NEXT COLUMN IF THERE IS ANOTHER BIRTH.* *IF NOT, SKIP TO 709.*	*RETURN TO 502 IN THE ADDITIONAL QUESTIONNAIRE IF THERE IS ANOTHER BIRTH.* *IF NOT, SKIP TO 709.*

SECTION 7A. MARRIAGE HISTORY

709	Now I want to ask some questions about your marriage(s). Have you ever been married?	YES...1 NO.. 2 ——▶ 727
709A	Are you currently married?	YES, CURRENTLY MARRIED....................................1 NO, CURRENTLY NOT MARRIED............................2
709B	Did you marry only once or more than once in your lifetime? *(IF MORE THAN ONCE)* How many times? *IF MARRIED MORE THAN ONCE, USE COLUMN 1 FOR THE FIRST HUSBAND, RECORD ALL MARRIAGES IN ORDER.*	NO. OF MARRIAGES... ☐

710 What was your (first, second) husband's name? *RECORD THE NAMES OF HUSBAND(S) BY STARTING WITH THE FIRST HUSBAND.*	711 In which month and year did you start living with .... ?	712 How old was your husband when you started to live together?	713 Did you have a civil marriage ceremony with ....? Did you have a religious ceremony with ....?	714 Which ceremony took place earlier?	715 How much time elapsed between two ceremonies? *RECORD "00" DAYS IF BOTH TOOK PLACE ON THE SAME DAY.* *RECORD IN DAYS IF LESS THAN ONE MONTH, RECORD IN MONTHS IF LESS THAN TWO YEARS, RECORD IN YEARS. OTHERWISE.*
01 _____ (NAME)	MONTH............. ☐☐ YEAR.. ☐☐☐☐	☐☐	CIVIL AND RELI...1 CIVIL ONLY ..2 RELI. ONLY..........3 ——▶ 716 NO CEREMONY..........4	CIVIL..............1 RELIGIOUS....2	DAY...........1 ☐☐ MONTH....2 ☐☐ YEAR........3 ☐☐
02 _____ (NAME)	MONTH............. ☐☐ YEAR.. ☐☐☐☐	☐☐	CIVIL AND RELI...1 CIVIL ONLY ..2 RELI. ONLY..........3 ——▶ 716 NO CEREMONY..........4	CIVIL..............1 RELIGIOUS....2	DAY...........1 ☐☐ MONTH....2 ☐☐ YEAR........3 ☐☐
03 _____ (NAME)	MONTH............. ☐☐ YEAR.. ☐☐☐☐	☐☐	CIVIL AND RELI...1 CIVIL ONLY ..2 RELI. ONLY..........3 ——▶ 716 NO CEREMONY..........4	CIVIL..............1 RELIGIOUS....2	DAY...........1 ☐☐ MONTH....2 ☐☐ YEAR........3 ☐☐

716 How was your marriage with .... arranged? Did you decide together or was it arranged by your families?	717 Did your family take your consent when your marriage with .... was arranged?	718 Did .... or his family pays bridesmoney? *(IF YES)* Was it given in cash or in kind?	719 When you first started to live with .... was there anyone else living with you at that time? *(IF YES)* Who were they? Anyone else?	720 Are (were) you related to ....? *(IF YES)* What is (was) his relationship to you?	721 IS THIS MARRIAGE STILL GOING ON?

BY FAMILIES..............1
BY OURSELVES.........2
ELOPED.......................3
ABDUCTED................4
    718
OTHER_____ 7
(SPECIFY)
	YES...................1
	
	NO......................2
		NO.........................1
		IN CASH/GOLD....2
		IN KIND.................3
		BOTH...................4
		
		OTHER_____ 7
		(SPECIFY)
			HUSBAND`S
			  MOTHER/FATHER.....A
			  BROTHER(S).. ....B
			  CHILDREN..................C
			  OTHER_____ D
			    (SPECIFY)
			WOMAN'S
			  MOTHER/FATHER... ..E
			  BROTHER(S).. ....F
			  CHILDREN..................G
			  OTHER_____ H
			    (SPECIFY)
			
			NO ONE...........................X
				NO..0
				SON.OF.FATHER'S BRO.......1
				SON.OF.FATHER'S SIS...... ..2
				SON.OF.MOTHER'S SIS.... ..3
				SON.OF.MOTHER'S BRO.. ..4
				
				OTHER PAR. BL. REL......... ..5
				OTHER MAT. BL. REL..........6
				
				OTHER _____7
				    (SPECIFY)
					YES................1
					  726
					
					NO..................2

BY FAMILIES..............1
BY OURSELVES.........2
ELOPED.......................3
ABDUCTED................4
    718
OTHER_____ 7
(SPECIFY)
	YES...................1
	
	NO................. ..2
		NO.........................1
		IN CASH/GOLD....2
		IN KIND.................3
		BOTH...................4
		
		OTHER_____ 7
		(SPECIFY)
			HUSBAND`S
			  MOTHER/FATHER.....A
			  BROTHER(S).. ....B
			  CHILDREN..................C
			  OTHER_____ D
			    (SPECIFY)
			WOMAN'S
			  MOTHER/FATHER... ..E
			  BROTHER(S).. ....F
			  CHILDREN..................G
			  OTHER_____ H
			    (SPECIFY)
			
			NO ONE...........................X
				NO..0
				SON.OF.FATHER'S BRO.......1
				SON.OF.FATHER'S SIS...... ..2
				SON.OF.MOTHER'S SIS.... ..3
				SON.OF.MOTHER'S BRO.. ..4
				
				OTHER PAR. BL. REL......... ..5
				OTHER MAT. BL. REL..........6
				
				OTHER _____7
				    (SPECIFY)
					YES................1
					  726
					
					NO..................2

BY FAMILIES..............1
BY OURSELVES.........2
ELOPED.......................3
ABDUCTED................4
    718
OTHER_____ 7
(SPECIFY)
	YES...................1
	
	NO................. ..2
		NO.........................1
		IN CASH/GOLD....2
		IN KIND.................3
		BOTH...................4
		
		OTHER_____ 7
		(SPECIFY)
			HUSBAND`S
			  MOTHER/FATHER.....A
			  BROTHER(S).. ....B
			  CHILDREN..................C
			  OTHER_____ D
			    (SPECIFY)
			WOMAN'S
			  MOTHER/FATHER... ..E
			  BROTHER(S).. ....F
			  CHILDREN..................G
			  OTHER_____ H
			    (SPECIFY)
			
			NO ONE...........................X
				NO..0
				SON.OF.FATHER'S BRO.......1
				SON.OF.FATHER'S SIS...... ..2
				SON.OF.MOTHER'S SIS.... ..3
				SON.OF.MOTHER'S BRO.. ..4
				
				OTHER PAR. BL. REL......... ..5
				OTHER MAT. BL. REL..........6
				
				OTHER _____7
				    (SPECIFY)
					YES................1
					  726
					
					NO..................2

722	723 In which month and year did your marriage with .... end?	724 How did your marriage with .... end? Did you get divorced, did .... die or did you start to live separated?	725 Was it your decision to get divorced/live separated or was it your husband's, or did you both decide that you should separate?	726
CHECK 710: RECORD THE NAMES OF HUSBAND(S) BY STARTING WITH THE FIRST HUSBAND.				DOES THE WOMAN HAVE ANOTHER MARRIAGE?
01 _____ (NAME)	MONTH .... ☐☐ YEAR.... ☐☐☐☐	WIDOWED.................. ..1 726 ← DIVORCED..................2 STARTING LIVING SEPARATED.................3 .	HERSELF...................1 HER HUSBAND........2 TOGETHER...............3 OTHER _____7 (SPECIFY)	YES.......................................1 GO BACK TO 711 ← NO..2 728A ←
02 _____ (NAME)	MONTH .... ☐☐ YEAR.... ☐☐☐☐	WIDOWED.................. ..1 726 ← DIVORCED..................2 STARTING LIVING SEPARATED.................3 .	HERSELF...................1 HER HUSBAND........2 TOGETHER...............3 OTHER _____7 (SPECIFY)	YES.......................................1 GO BACK TO 711 ← NO..2 728A ←
03 _____ (NAME)	MONTH .... ☐☐ YEAR.... ☐☐☐☐	WIDOWED.................. ..1 726 ← DIVORCED..................2 STARTING LIVING SEPARATED.................3 .	HERSELF...................1 HER HUSBAND........2 TOGETHER...............3 OTHER _____7 (SPECIFY)	YES.......................................1 GO BACK TO 711 ← NO..2 728A ←

727	Do you have any plan or preparation for marriage?	NO...0 ——▸ 728A
		
		YES
		    ENGAGED.. 1
		    FIANCE... 2
		    IN A RELATIONSHIP INTENDING A
		        MARRIAGE..3	

727A	How did you decide it? Did you decide together with your fiance/engaged/boyfriend or was it decided by your families?	BY FAMILIES...1 BY OURSELVES...2 ——▸	728A
728	Did your family take your consent when they decided on marriage?	YES...1 NO... 2	
728A	CHECK 709: NEVER MARRIED ☐ EVER MARRIED ☐ ↓ ↓ At what age do you like to get married? If you could go back to the time you were not married, at what age would You like to get married?	AGE .... ☐☐ DOESN`T WANT TO GET MARRIED/ WOULD NOT GET MARRIED...........................95	

SECTION 7B. WOMEN'S WORK

729	Now I would like to ask you questions about working. Have you worked in a job whether paid or unpaid since you were 12 for at least 6 months? As you know some women sell small things, sell goods at the market place, work on the family farm or business, look after children, work as housemaids etc. Please include these kinds of jobs as well.	YES ....1 NO.............. 2 → 738A

729A	Can you list 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 WOMEN HAS WORKED FOR <u>AT LEAST 6 MONTHS</u> AT FROM AGE 12 TO SURVEY DATE TO THE LIST WITH DETAILS, STARTING FROM THE FIRST ONE.* *ADD THE CURRENT JOB IN THE LIST REGARDLESS OF ITS DURATION. ASK THE QUESTIONS FOR EACH JOB SEPERATELY.* *CAUTION: IF THE RESPONDENT HAS WORKED AT MORE THAN 10 JOBS, USE AN ADDITIONAL QUESTIONNAIRE. CARRY ON THE INTERVIEW FROM THIS NEW QUESTIONNAIRE.*

730 What was your job? *RECORD THE JOB IN DETAIL*	731 In which year and month did you start working in this job?	732 In which sector were you working?	733 Was your job in public or private sector?	734 *PROBE THE STATUS BY USING CODE LIST*	734A Where did you work?
01 _____ (JOB)	MONTH................. ☐☐ YEAR.... ☐☐☐☐	AGRICULTURE..1 INDUSTRY..........2 SERVICE..............3	PUBLIC…......1 PRIVATE….2	☐☐ _____ (SPECIFY IF OTHER)	AT HOME....................1 AT OTHER'S HOME..2 ELSEWHERE…..........3
02 _____ (JOB)	MONTH................. ☐☐ YEAR.... ☐☐☐☐	AGRICULTURE..1 INDUSTRY..........2 SERVICE..............3	PUBLIC…......1 PRIVATE….2	☐☐ _____ (SPECIFY IF OTHER)	AT HOME....................1 AT OTHER'S HOME..2 ELSEWHERE…..........3
03 _____ (JOB)	MONTH................. ☐☐ YEAR.... ☐☐☐☐	AGRICULTURE..1 INDUSTRY..........2 SERVICE..............3	PUBLIC…......1 PRIVATE….2	☐☐ _____ (SPECIFY IF OTHER)	AT HOME....................1 AT OTHER'S HOME..2 ELSEWHERE…..........3
04 _____ (JOB)	MONTH................. ☐☐ YEAR.... ☐☐☐☐	AGRICULTURE..1 INDUSTRY..........2 SERVICE..............3	PUBLIC…......1 PRIVATE….2	☐☐ _____ (SPECIFY IF OTHER)	AT HOME....................1 AT OTHER'S HOME..2 ELSEWHERE…..........3
05 _____ (JOB)	MONTH................. ☐☐ YEAR.... ☐☐☐☐	AGRICULTURE..1 INDUSTRY..........2 SERVICE..............3	PUBLIC…......1 PRIVATE….2	☐☐ _____ (SPECIFY IF OTHER)	AT HOME....................1 AT OTHER'S HOME..2 ELSEWHERE…..........3

(734) STATUS AT JOB	
01 EMPLOYER	**05** FOR HER OWN (REGULAR)
02 WAGED, WORKER (REGULAR)	**06** FOR HER OWN (IRREGULAR)
03 SALARIED, GOVERNMENT	**07** UNPAID FAMILY WORKER
OFFICER (REGULAR)	**96** OTHER
04 DAILY WAGED (SEASONAL)	

735 Did you have any social security when doing your job? (IF YES) According to which schedule? USE THE CODE LIST	736 Are you currently working at this job?	736A How long have you worked at this job? RECORD IN MONTHS IF LESS THAN 2 YEARS	736B In which month and year did you quit this job?	737 What was the reason of your resignment? USE THE CODE LIST
☐☐ _____ (SPECIFY IF OTHER)	YES.......................1 738 ← NO.......................2	MONTH...1 ☐☐ YEAR......2 ☐☐	MONTH.................☐☐ YEAR...☐☐☐☐	☐☐ _____ (SPECIFY IF OTHER)
☐☐ _____ (SPECIFY IF OTHER)	YES.............. .....1 738 ← NO................. 2	MONTH...1 ☐☐ YEAR......2 ☐☐	MONTH.................☐☐ YEAR...☐☐☐☐	☐☐ _____ (SPECIFY IF OTHER)
☐☐ _____ (SPECIFY IF OTHER)	YES.............. .....1 738 ← NO................. 2	MONTH...1 ☐☐ YEAR......2 ☐☐	MONTH.................☐☐ YEAR...☐☐☐☐	☐☐ _____ (SPECIFY IF OTHER)
☐☐ _____ (SPECIFY IF OTHER)	YES.............. .....1 738 ← NO................. 2	MONTH...1 ☐☐ YEAR......2 ☐☐	MONTH.................☐☐ YEAR...☐☐☐☐	☐☐ _____ (SPECIFY IF OTHER)
☐☐ _____ (SPECIFY IF OTHER)	YES.............. .....1 738 ← NO................. 2	MONTH...1 ☐☐ YEAR......2 ☐☐	MONTH.................☐☐ YEAR...☐☐☐☐	☐☐ _____ (SPECIFY IF OTHER)

(735) SOCIAL SECURITY

00 NONE
01 SSK
02 EMEKLİ SANDIĞI
03 BAĞ-KUR
04 SGK
05 PRIVATE INSURANCE
96 OTHER
98 DON'T KNOW

(737) REASON FOR RESIGNMENT

01 MARRIAGE	05 WORKING PLACE CLOSED	10 SICK/ELDERLY CARE IN FAMILY
02 GOT PREGNANT/CHILD CARE	06 FIRED	11 SICK/DISABLED/HANDICAPPED
03 JUST MOVED/MIGRATED	07 TO FIND/FOUND A BETTER	12 RETIREMENT
04 OPPOSITION OF HUSBAND/ ELDERLY	JOB	13 DID NOT NEED TO WORK
	08 PROBLEMS ABOUT WORKPLACE	14 DID NOT WANT TO WORK
	09 SEASONAL/TEMPORARY JOB	96 OTHER

730 What was your job? *RECORD THE JOB IN DETAIL*	731 In which year and month did you start working in this job?	732 In which sector were you working?	733 Was your job in public or private sector?	734 *PROBE THE STATUS BY USING CODE LIST*	734A Where did you work?
06 _____ (JOB)	MONTH................. ☐☐ YEAR.... ☐☐☐☐	AGRICULTURE..1 INDUSTRY..........2 SERVICE..............3	PUBLIC…......1 PRIVATE….2	☐☐ ———— (SPECIFY IF OTHER)	AT HOME....................1 AT OTHER'S HOME..2 ELSEWHERE…..........3
07 _____ (JOB)	MONTH................. ☐☐ YEAR.... ☐☐☐☐	AGRICULTURE..1 INDUSTRY..........2 SERVICE..............3	PUBLIC…......1 PRIVATE….2	☐☐ ———— (SPECIFY IF OTHER)	AT HOME....................1 AT OTHER'S HOME..2 ELSEWHERE…..........3
08 _____ (JOB)	MONTH................. ☐☐ YEAR.... ☐☐☐☐	AGRICULTURE..1 INDUSTRY..........2 SERVICE..............3	PUBLIC…......1 PRIVATE….2	☐☐ ———— (SPECIFY IF OTHER)	AT HOME....................1 AT OTHER'S HOME..2 ELSEWHERE…..........3
09 _____ (JOB)	MONTH................. ☐☐ YEAR.... ☐☐☐☐	AGRICULTURE..1 INDUSTRY..........2 SERVICE..............3	PUBLIC…......1 PRIVATE….2	☐☐ ———— (SPECIFY IF OTHER)	AT HOME....................1 AT OTHER'S HOME..2 ELSEWHERE…..........3
10 _____ (JOB)	MONTH................. ☐☐ YEAR.... ☐☐☐☐	AGRICULTURE..1 INDUSTRY..........2 SERVICE..............3	PUBLIC…......1 PRIVATE….2	☐☐ ———— (SPECIFY IF OTHER)	AT HOME....................1 AT OTHER'S HOME..2 ELSEWHERE…..........3

(734) STATUS AT JOB	
01 EMPLOYER	**05** FOR HER OWN (REGULAR)
02 WAGED, WORKER (REGULAR)	**06** FOR HER OWN (IRREGULAR)
03 SALARIED, GOVERNMENT OFFICER (REGULAR)	**07** UNPAID FAMILY WORKER
04 DAILY WAGED (SEASONAL)	**96** OTHER

735 Did you have any social security when doing your job? (IF YES) According to which schedule? USE THE CODE LIST	736 Are you currently working at this job?	736A How long have you worked at this job? RECORD IN MONTHS IF LESS THAN 2 YEARS	736B In which month and year did you quit this job?	737 What was the reason of your resignment? USE THE CODE LIST
☐☐ (SPECIFY IF OTHER)	YES............. .....1 738 ← NO.................. 2	MONTH...1 ☐☐ YEAR......2 ☐☐	MONTH................. ☐☐ YEAR... ☐☐☐☐	☐☐ (SPECIFY IF OTHER)
☐☐ (SPECIFY IF OTHER)	YES............. .....1 738 ← NO.................. 2	MONTH...1 ☐☐ YEAR......2 ☐☐	MONTH................. ☐☐ YEAR... ☐☐☐☐	☐☐ (SPECIFY IF OTHER)
☐☐ (SPECIFY IF OTHER)	YES............. .....1 738 ← NO.................. 2	MONTH...1 ☐☐ YEAR......2 ☐☐	MONTH................. ☐☐ YEAR... ☐☐☐☐	☐☐ (SPECIFY IF OTHER)
☐☐ (SPECIFY IF OTHER)	YES............. .....1 738 ← NO.................. 2	MONTH...1 ☐☐ YEAR......2 ☐☐	MONTH................. ☐☐ YEAR... ☐☐☐☐	☐☐ (SPECIFY IF OTHER)
☐☐ (SPECIFY IF OTHER)	YES............. .....1 738 ← NO.................. 2	MONTH...1 ☐☐ YEAR......2 ☐☐	MONTH................. ☐☐ YEAR... ☐☐☐☐	☐☐ (SPECIFY IF OTHER)

(735) SOCIAL SECURITY
00 NONE
01 SSK
02 EMEKLİ SANDIĞI
03 BAĞ-KUR
04 SGK
05 PRIVATE INSURANCE
96 OTHER
98 DON'T KNOW

(737) REASON FOR RESIGNMENT

01 MARRIAGE	05 WORKING PLACE CLOSED	10 SICK/ELDERLY CARE IN FAMILY
02 GOT PREGNANT/CHILD CARE	06 FIRED	11 SICK/DISABLED/HANDICAPPED
03 JUST MOVED/MIGRATED	07 TO FIND/FOUND A BETTER JOB	12 RETIREMENT
04 OPPOSITION OF HUSBAND/ ELDERLY	08 PROBLEMS ABOUT WORKPLACE	13 DID NOT NEED TO WORK
	09 SEASONAL/TEMPORARY JOB	14 DID NOT WANT TO WORK
		96 OTHER

738	*CHECK 736:*		
	NOT CURRENT WORKING ☐ CURRENTLY WORKING ☐		→ 751

738A	Aside from your own housework, did you work in a job whether paid or unpaid in last one week?	YES .... 1 NO 2	→ 740
739	As you know some women sell small things, sell goods at the market place, work on the family farm or business, look after children, work as housemaids etc. Did you do any of these or any other work of similar nature in the last week?	YES .... 1 NO 2	→ 740

739A	*SKIP TO 747.*	
740	*GO BACK AND CORRECT THE QUESTIONS BETWEEN 730-737 (ALSO 738-739 IF NECESSARY).*	

747	You said that you didn't work currently. What is the fundamental reason of that?	STUDENT ....01 HOUSEWIFE ....02 RETIRED. ....03 DISABLED/SICK...04 CARING FOR ELDERLY...05 CARING FOR CHILDREN………...06 LOOKING FOR A JOB/UNEMPLOYED.................................07 HUSBAND/FAMILY DOES NOT ALLOW..............................08 JUST MIGRATED/LEFT ....09 DOES NOT NEED TO WORK...10 PREGNANT/JUST DELIVERED A BABY .... 11 OTHER _____ 96 (SPECIFY)	
748	Are you currently looking for a job?	YES ....1 NO..2 → 750	
749	For how long have you been looking for a job? *RECORD IN MONTHS IF LESS THAN 2 YEARS*	MONTH...1 ☐☐ YEAR...2 ☐☐	
750	Would you start to work within two weeks if you had a chance to?	YES ....1 NO..2	

751	Are you covered by any health insurance? *(IF YES)* According to which schedule?	NO ....0 SSK ....1 EMEKLİ SANDIĞI ....2 BAĞ-KUR ....3 SGK ....4 PRIVATE HEALTH INSURANCE ....5 GENERAL HEALTH INSURANCE ....6 OTHER _____ 7 (SPECIFY)	
752	*CHECK 736:* CURRENTLY ☐ WORKING	NOT CURRENTLY ☐ ──────────────→ 755S WORKING	
753	*CHECK 217AND 218:* HAS A CHILD LIVING WITH HER WHOSE AGE IS 5 OR LESS ☐	DOES NOT HAVE A CHILD LIVING WITH HER WHOSE AGE IS 5 ☐ ──────→ 755S OR LESS	
754	Who usually takes care of ...... (NAME OF THE YOUNGEST CHILD AT HOME) while you are working?	WOMAN ....01 HUSBAND ....02 FEMALE CHILD ....03 WOMAN'S MOTHER..05 HUSBAND'S MOTHER ....06 MALE CHILD ....07 OTHER RELATIVES ....08 BABYSITTER…………...09 KINDERGARDEN………….......................................10 HAS NOT WORKED SINCE LAST BIRTH.............................95 OTHER _____ 96 (SPECIFY)	
755S	*RECORD THE TIME.*	HOUR – MINUTE..................................... ☐☐ ☐☐	

SECTION 7C. HUSBAND'S BACKGROUND

760	*CHECK 709:*		
	EVER MARRIED ☐	NEVER MARRIED ☐	→ 787A

760A	*CHECK 709A:*		
	CURRENTLY MARRIED ☐	NOT CURRENTLY MARRIED ☐	→ 762A

761	How old is your (last) husband?	COMPLETED AGE .... ☐☐	

762A	For most of the time until he was 12 years old, where did he live? _____ (NAME OF PLACE) Was this place then a province centre, a district centre, a sub-district or a village ? Or was it abroad?	PROVINCE CENTER .... 1 DISTRICT CENTER .... 2 SUBDISTRICT OR VILLAGE .... 3 ABROAD 4	

762B	Which province does it belong to? *RECORD THE NAME AND CODE OF THE PROVINCE*	NAME OF PROVINCE PROVINCE CODE _____ ☐☐	

763	Did your (last) husband ever attend school?	YES...1 NO ....2 DON'T KNOW 8	→ 766

764	What was the highest level of school your (last) husband attended?	PRIMARY SCHOOL..11 GENERAL SECONDARY SCHOOL ....12 VOCATIONAL SECONDARY SCHOOL..................13 GENERAL HIGH SCHOOL ....14 VOCATIONAL HIGH SCHOOL ....15 UNIVERSITY..16 MASTER'S DEGREE ....17 Ph. D. ....18 DON'T KNOW..98	→ 766

765	What is the highest grade your (last) husband completed at that level? *RECORD "0". IF HE COMPLETED PREPARATORY CLASS OR HE DID NOT COMPLETE ANY GRADE*	GRADE .... ☐ DON'T KNOW 96	

765A	Did he graduate (receive diploma) from this school?	YES ....1 NO ....2 DON'T KNOW...8	

765B	*WRITE HIGHEST GRADE COMPLETED IN PRIMARY SCHOOL, SECONDARY SCHOOL, HIGH SCHOOL AND/OR UNIVERSITY* *RECORD TOTAL COMPLETED GRADE.*	PRI SEC HIGH UNI MA PHD ☐ + ☐ + ☐ + ☐ + ☐ + ☐ = TOTAL COMPLETED GRADE .... ☐☐	

766	CHECK 709A:		
	CURRENTLY MARRIED ☐	NOT CURRENTLY MARRIED ☐ ──────────────────────►	776

767	Did your husband work in a regular or an irregular job whether paid or unpaid in the past week?	YES ....1 ──► 769 NO 2	769

768	Does your husband have a job he normally works?	YES ....1 NO ....2 ──► 774	774

769	What is (was) your husband's occupation? What kind of job does (did) he have? _____ *(RECORD THE JOB IN DETAIL AND CIRCLE THE APPROPRIATE SECTOR IN THE NEXT COLUMN)*	AGRICULTURE...1 INDUSTRY ....2 SERVICES...3	

770	Does (did) your husband work for public or private sector?	PUBLIC ....1 PRIVATE..2	

771	What is your husband's status/position in his job?	EMPLOYER...01 WAGED, WORKER (REGULAR)..............................02 SALARIED, GOVERNMENT OFFICIAL(REGULAR)..............03 DAILY WAGED (SEASONAL/TEMPORAL)..............04 FOR HIS OWN (REGULAR)......................................05 FOR HIS OWN (IRREGULAR)..................................06 UNPAID FAMILY WORKER.....................................07 OTHER _____ 96 (SPECIFY)	

772	Does (did) your husband pay social security when doing this job? *(IF YES)* According to which schedule?	NO ....0 SSK ....1 EMEKLİ SANDIĞI ....2 BAĞ-KUR ....3 SGK ....4 PRIVITE INSURANCE ....5 OTHER _____ 7 (SPECIFY)	

773	*SKIP TO 776.*		

774	What is the reason for your husband's not working?	JUST ABOUT TO START WORKING ....01 STUDENT ....02 RETIRED..04 INCOME RECIPIENT ....05 FAMILY WORKER ....06 DISABLED/HANDICAPPED/SICK ....07 CARING FOR ELDERLY ....08 CARING FOR CHILDREN ....09 ABOUT TO SERVE/SERVING IN THE MILITARY ....11 LOOKING FOR A JOB/UNEMPLOYED ....12 JUST GRADUATED...14 JUST MIGRATED/LEFT ....16 DOES NOT NEED TO WORK ....17 OTHER _____ 96 (SPECIFY) DON'T KNOW...98	

775	Is your husband looking for a job?	YES ....1 NO..2 DON`T KNOW 8	
776	Is (was) your (last) husband covered by any health insurance? *(IF YES)* According to which schedule?	NO ....0 SSK ....1 EMEKLİ SANDIĞI ....2 BAĞ-KUR ....3 SGK ....4 PRIVITE HEALTH INSURANCE ....5 GENERAL HEALTH INSURANCE/GREEN CARD ....6 OTHER _____ 7 (SPECIFY)	
777A	What (was) is your (last) husband's mother tongue? *RECORD ONE LANGUAGE ONLY.*	TURKISH .... 1 KURDISH.. 2 ARABIC .... 3 OTHER _____ 7 (SPECIFY) DON`T KNOW... 8	
777B	Can (could) your (last) husband speak any other languages other than his mother tongue? *(IF YES)* Which languages? *RECORD ALL MENTIONED.*	TURKISH .... A KURDISH.. B ARABIC .... C OTHER _____U (SPECIFY) CAN NOT TALK OTHER LANGUAGES .... Y	
778	Which language do (did) you usually use when talking with your (last) husband?	TURKISH .... 1 KURDISH.. 2 ARABIC .... 3 OTHER _____ 7 (SPECIFY)	
780	What is (was) the mother tongue of your (last) husband's mother? What is (was) the mother tongue of your (last) husband's father? *USE CODES IN 777A.*	MOTHER... [ ] (SPECIFY IF OTHER) FATHER.. [ ] (SPECIFY IF OTHER)	
781	Are (were) your (last) husband's parents related?	YES ....1 NO..2 DON`T KNOW..8	→ 787A

| 782 | In what way is (was) his father related to his mother? | SON OF FATHER'S BROTHER 1
SON OF FATHER'S SISTER.. 2
SON OF MOTHER'S SISTER 3
SON OF MOTHER'S BROTHER 4

OTHER PATERNAL BLOOD RELATIVE 5
OTHER MATERNAL BLOOD RELATIVE.............................. 6

OTHER _____ 7
(SPECIFY)
DON'T KNOW .... 8 | |

SECTION 7D. WOMEN'S STATUS

					787B If you want to sell ....., can you sell it without getting permission from anyone?	
787A	Now I would like to ask you some questions about financial issues. Do you own any of the followings either by yourself or with some else	DON`T HAVE	JOINT OWNERSHIP	SINGLE OWNRSHIP BY HERSELF	YES	NO
	Land/estate/field?	1	2	3 ⟶	1	2
	House?	1	2	3 ⟶	1	2
	Car?	1	2	3 ⟶	1	2
788	Do you have money which you can spend by yourself?	YES .... 1 NO... 2				
791	Now I would like to get your opinion on some aspects. Can you tell me whether you agree or disagree with each statement?	AGREE	DISAGREE	DON'T KNOW/ NO IDEA		
	The important decisions in the family should be made only by men of the family.	1	2	8		
	Men should also do the housework like cooking, washing, ironing, and cleaning.	1	2	8		
	It is better to educate a son than a daughter.	1	2	8		
	Women should not work, if they have small children.	1	2	8		
	Women should be more involved in politics.	1	2	8		
	Women should be virgins when they get married.	1	2	8		
792	Now I will list some situations. Can you tell me whether you agree or disagree with a husband's performance of physical violence to his wife under these situations?	AGREE	DISAGREE	NO IDEA		
	If she goes out without telling him?	1	2	8		
	If she neglects the children?	1	2	8		
	If she answers him back?	1	2	8		
	If she refuses to have sex with him?	1	2	8		
	If she burns the food?	1	2	8		

793	Now, I would like to ask you some questions about your daily life.				
	IF YES, PROBE WHETHER REGULAR OR IRREGULAR	NO	REGULARLY	IRREGULARLY	NOT APPLICABLE
	Do you exercise?	0	1	2	3
	Do you go to places other than your hometown for a holiday?	0	1	2	3
	Do you go outside for meal with your family?	0	1	2	3
	Do you organize meetings with your friends and/or neighbours?	0	1	2	3
	Do you use the internet?	0	1	2	3
	Do you perform the namaz?	0	1	2	3
	Do you fast?	0	1	2	3
	Do you watch women's programs on TV?	0	1	2	3
	Do you wear head scarf when you go outside?	0	1	2	3
	Do you smoke?	0	1	2	3
	Do you consume alcoholic drinks?	0	1	2	3
	Do you vote in elections?	0	1	2	3

793A	*CHECK 709 AND 727:*			
	EVER MARRIED OR HAVE PLAN FOR MARRIAGE ☐	NEVER MARRIED OR DO NOT HAVE PLAN FOR MARRIAGE ☐	→ 795	

794	Now I will read you some statements regarding situations some women experience.			
	Can you please tell me how often you experience such situations in your relationship with your (last) husband (fiancé/engaged/boyfriend) ? Often, sometimes or never? Does(did) he:	OFTEN	SOMETIMES	NEVER
	Prevent you from seeing your female friends?	1	2	3
	Limit your contact with your family?	1	2	3
	Insist on knowing where you are at all times?	1	2	3
	Distrust you with money?	1	2	3
	Accuse you of being unfaithful?	1	2	3

795	Now I will ask you some questions about housework. Who does the types of housework in your house that I will list now primarily?	HER OWN	HUSBAND	TOGETHER WITH HER HUSBAND	HER MOTHER	HER FATHER	FEMALE CHILDREN	MALE CHILDREN	PAID SERVANT/ MAID	OTHER WOMEN	OTHER MEN	NO ONE
	Cooking?	10	11	12	13	14	15	16	17	18	19	20
	Setting and cleaning the dining table?	10	11	12	13	14	15	16	17	18	19	20
	Cleaning work such as wiping and sweeping?	10	11	12	13	14	15	16	17	18	19	20
	Washing the dishes/placing the dishes in the dishwasher?	10	11	12	13	14	15	16	17	18	19	20
	Doing the laundry?	10	11	12	13	14	15	16	17	18	19	20
	Ironing?	10	11	12	13	14	15	16	17	18	19	20
	Kitchen shopping?	10	11	12	13	14	15	16	17	18	19	20
	Preparing the household budget and accounting?	10	11	12	13	14	15	16	17	18	19	20
	Running errands in public offices, paying the bills?	10	11	12	13	14	15	16	17	18	19	20
	Doing reparations or amendments?	10	11	12	13	14	15	16	17	18	19	20
	Spending time with child(ren) at home (playing games, reading books, watching TV, etc.)?	10	11	12	13	14	15	16	17	18	19	20
	Spending time with child(ren) outside the house (going to the park, movies, etc.)?	10	11	12	13	14	15	16	17	18	19	20
	Helping child(ren) with homework?	10	11	12	13	14	15	16	17	18	19	20

795S	*RECORD THE TIME.*	HOUR-MINUTE..................... ☐☐ ☐☐

796A	PRESENCE OF OTHERS DURING THE INTERVIEW. CIRCLE ALL APPROPRIATE ALTERNATIVES.	NO ONE .... A CHILDREN UNDER 10 ....B MOTHER IN LAW ....C HER MOTHER ....D OTHER MEN .... E OTHER WOMEN ....F
796B	WAS THE INTERVIEW INTERRUPTED? IF YES, FOR HOW MANY MINUTES APPROXIMATELY?	NO .... 000 MINUTES ....1 [ ][ ]
796C	IN YOUR OPINION, WHAT IS THE RELIABILITY OF THE RESPONSES?	POOR .... 1 FAIR .... 2 GOOD .... 3 VERY GOOD 4
796D	WHAT LANGUAGE WAS USED DURING THE INTERVIEW?	TURKISH..1 ⟶ 800 KURDISH..2 ARABIC..3 OTHER _____ 7 (SPECIFY)
796E	WAS AN INTERPRETER USED DURING THE INTERVIEW?	YES ....1 NO 2

SECTION 8. HEIGHT AND WEIGHT

800	*RECORD THE NAME OF THE WOMAN AND IF ANY, THE NAME(S) OF THE CHILDREN THAT WAS BORN AFTER JANUARY 2008 AND STILL ALIVE IN 801, BY BEGINNING FROM THE YOUNGEST CHILD.*
	RECORD THE LINE NO. OF CHILDREN IN 802. IF THERE ARE MORE THAN 2 LIVING CHILDREN THAT WERE BORN AFTER JANUARY 2008, USE AN ADDITIONAL QUESTIONNAIRE.
	MEAUSURE THE WEIGHT AND HEIGHT OF WOMAN AND HER LIVING CHILDREN THAT WERE BORN AFTER JANUARY 2008 AND RECORD IN THE APPROPRIATE FIELD.

		1 WOMAN	**2** YOUNGEST CHILD ALIVE	**3** NEXT – TO – YOUNGEST CHILD ALIVE	
801	NAME CHECK 212 FOR CHILDREN.	(NAME) _____	(NAME) _____	(NAME) _____	
802	LINE NO. IN 212.		LINE NO .... ☐☐	LINE NO .... ☐☐	
803	HEIGHT (cm)	☐☐☐ . ☐	☐☐☐ . ☐	☐☐☐ . ☐	
804	WAS THE HEIGHT OF THE CHILD MEASURED LYING DOWN OR STANDING UP?		LYING DOWN...............1 STANDING UP..............2	LYING DOWN............. 1 STANDING UP............. 2	
805	WEIGHT (Kilograms)	☐☐☐ . ☐	☐☐☐ . ☐	☐☐☐ . ☐	
806	DATE OF MEASUREMENT	DAY .... ☐☐ MONTH .... ☐☐	DAY .... ☐☐ MONTH .... ☐☐	DAY .... ☐☐ MONTH .... ☐☐	
807	RESULT	MEASURED...................1 NOT AT HOME...............3 REFUSED ....4 OTHER _____ 7 (SPECIFY)	MEASURED.................1 NOT AT HOME.............3 REFUSED…................4 OTHER _____ 7 (SPECIFY)	MEASURED.................1 NOT AT HOME.............3 REFUSED ....4 OTHER _____7 (SPECIFY)	
808	NAME OF MEASURER _____	☐☐☐			

INTERVIEWER'S OBSERVATIONS
To be filled after completing interview

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COMMENTS ABOUT WOMEN



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COMMENTS ON SPECIFIC QUESTIONS



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OTHER OBSERVATIONS



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SUPERVISOR'S OBSERVATIONS

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NAME OF THE SUPERVISOR:
DATE:


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EDITOR'S OBSERVATIONS

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NAME OF THE EDITOR:
DATE:


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AGE – YEAR OF BIRTH TABLE

AGE – YEAR OF BIRTH TABLE					

	YEAR OF BIRTH			YEAR OF BIRTH	
AGE	DID NOT CELEBRATE BIRTHDAY IN 2013	CELEBRATED BIRTHDAY IN 2013	AGE	DID NOT CELEBRATE BIRTHDAY IN 2013	CELEBRATED BIRTHDAY IN 2013
	DOES NOT KNOW			DOES NOT KNOW	
0	2012	--	50	1962	1963
1	2011	2012	51	1961	1962
2	2010	2011	52	1960	1961
3	2009	2010	53	1959	1960
4	2008	2009	54	1958	1959
5	2007	2008	55	1957	1958
6	2006	2007	56	1956	1957
7	2005	2006	57	1955	1956
8	2004	2005	58	1954	1955
9	2003	2004	59	1953	1954
10	2002	2003	60	1952	1953
11	2001	2002	61	1951	1952
12	2000	2001	62	1950	1951
13	1999	2000	63	1949	1950
14	1998	1999	64	1948	1949
15	1997	1998	65	1947	1948
16	1996	1997	66	1946	1947
17	1995	1996	67	1945	1946
18	1994	1995	68	1944	1945
19	1993	1994	69	1943	1944
20	1992	1993	70	1942	1943
21	1991	1992	71	1941	1942
22	1990	1991	72	1940	1941
23	1989	1990	73	1939	1940
24	1988	1989	74	1938	1939
25	1987	1988	75	1937	1938
26	1986	1987	76	1936	1937
27	1985	1986	77	1935	1936
28	1984	1985	78	1934	1935
29	1983	1984	79	1933	1934
30	1982	1983	80	1932	1933
31	1981	1982	81	1931	1932
32	1980	1981	82	1930	1931
33	1979	1980	83	1929	1930
34	1978	1979	84	1928	1929
35	1977	1978	85	1927	1928
36	1976	1977	86	1926	1927
37	1975	1976	87	1925	1926
38	1974	1975	88	1924	1925
39	1973	1974	89	1923	1924
40	1972	1973	90	1922	1923
41	1971	1972	91	1921	1922
42	1970	1971	92	1920	1921
43	1969	1970	93	1919	1920
44	1968	1969	94	1918	1919
45	1967	1968			
46	1966	1967			
47	1965	1966			
48	1964	1965			
49	1963	1964			

CALENDAR

		1	2		

COLUMN 1: BIRTHS AND PREGNANCIES

  D BIRTH
  H PREGNANCY
  K INDUCED ABORTION
  F SPONTANEOUS ABORTION
  J STILLBIRTH

COLUMN 1: CONTRACEPTIVE USE

  0 NO METHOD
  1 TUBAL LIGATION
  2 MALE STERILIZATION
  3 PILL
  4 IUD
  5 INJECTABLES
  6 IMPLANT
  7 CONDOM
  8 FEMALE CONDOM
  9 DIAPHRAM/FOAM/JELLY
  V VAGINAL RING
  T RHYTIM
  G WITHDRAWAL
  U OTHER _____
            (SPECIFY)

COLUMN 2: DISCONTINUATION OF CONTRACEPTIVE USE

  0 INFREQUENT SEX/PARTNER AWAY
  1 BECAME PREGNANT WHILE USING
  2 WANTED TO BECOME PREGNANT
  3 HUSBAND DISAPPROVED
  4 WANTED MORE EFFECTIVE METHOD
  5 HEALTH CONCERNS
  6 SIDE EFFECTS
  7 LACK OF ACCESS/TOO FAR
  8 EXPENSIVE
  9 INCONVINENT TO USE
  Y FATALISTIC
  M DIFFICULT TO GET PREGNANT/MENOPAUSE
  B MARITAL DISSOLUTION/SEPERATION/WIDOWHOOD
  U OTHER_____
            (SPECIFY)
  X DON'T KNOW

Year	Left date	Row	1	2	Row	Right date	Year
	12 DEC	01			01	DEC 12	
	11 NOV	02			02	NOV 11	
	10 OCT	03			03	OCT 10	
	09 SEP	04			04	SEP 09	
2	08 AUG	05			05	AUG 08	2
0	07 JULY	06			06	JULY 07	0
1	06 JUNE	07			07	JUNE 06	1
3	05 MAY	08			08	MAY 05	3
	04 APR	09			09	APR 04	
	03 MAR	10			10	MAR 03	
	02 FEB	11			11	FEB 02	
	01 JAN	12			12	JAN 01	
	12 DEC	13			13	DEC 12	
	11 NOV	14			14	NOV 11	
	10 OCT	15			15	OCT 10	
	09 SEP	16			16	SEP 09	
2	08 AUG	17			17	AUG 08	2
0	07 JULY	18			18	JULY 07	0
1	06 JUNE	19			19	JUNE 06	1
2	05 MAY	20			20	MAY 05	2
	04 APR	21			21	APR 04	
	03 MAR	22			22	MAR 03	
	02 FEB	23			23	FEB 02	
	01 JAN	24			24	JAN 01	
	12 DEC	25			25	DEC 12	
	11 NOV	26			26	NOV 11	
	10 OCT	27			27	OCT 10	
	09 SEP	28			28	SEP 09	
2	08 AUG	29			29	AUG 08	2
0	07 JULY	30			30	JULY 07	0
1	06 JUNE	31			31	JUNE 06	1
1	05 MAY	32			32	MAY 05	1
	04 APR	33			33	APR 04	
	03 MAR	34			34	MAR 03	
	02 FEB	35			35	FEB 02	
	01 JAN	36			36	JAN 01	
	12 DEC	37			37	DEC 12	
	11 NOV	38			38	NOV 11	
	10 OCT	39			39	OCT 10	
	09 SEP	40			40	SEP 09	
2	08 AUG	41			41	AUG 08	2
0	07 JULY	42			42	JULY 07	0
1	06 JUNE	43			43	JUNE 06	1
0	05 MAY	44			44	MAY 05	0
	04 APR	45			45	APR 04	
	03 MAR	46			46	MAR 03	
	02 FEB	47			47	FEB 02	
	01 JAN	48			48	JAN 01	
	12 DEC	49			49	DEC 12	
	11 NOV	50			50	NOV 11	
	10 OCT	51			51	OCT 10	
	09 SEP	52			52	SEP 09	
2	08 AUG	53			53	AUG 08	2
0	07 JULY	54			54	JULY 07	0
0	06 JUNE	55			55	JUNE 06	0
9	05 MAY	56			56	MAY 05	9
	04 APR	57			57	APR 04	
	03 MAR	58			58	MAR 03	
	02 FEB	59			59	FEB 02	
	01 JAN	60			60	JAN 01	
	12 DEC	61			61	DEC 12	
	11 NOV	62			62	NOV 11	
	10 OCT	63			63	OCT 10	
	09 SEP	64			64	SEP 09	
2	08 AUG	65			65	AUG 08	2
0	07 JULY	66			66	JULY 07	0
0	06 JUNE	67			67	JUNE 06	0
8	05 MAY	68			68	MAY 05	8
	04 APR	69			69	APR 04	
	03 MAR	70			70	MAR 03	
	02 FEB	71			71	FEB 02	
	01 JAN	72			72	JAN 01	

PROVINCE TRAFFIC CODES

01 ADANA	21 DİYARBAKIR	41 KOCAELİ	61 TRABZON
02 ADIYAMAN	22 EDİRNE	42 KONYA	62 TUNCELİ
03 AFYON	23 ELAZIĞ	43 KÜTAHYA	63 ŞANLIURFA
04 AĞRI	24 ERZİNCAN	44 MALATYA	64 UŞAK
05 AMASYA	25 ERZURUM	45 MANİSA	65 VAN
06 ANKARA	26 ESKİŞEHİR	46 K.MARAŞ	66 YOZGAT
07 ANTALYA	27 GAZİANTEP	47 MARDİN	67 ZONGULDAK
08 ARTVİN	28 GİRESUN	48 MUĞLA	68 AKSARAY
09 AYDIN	29 GÜMÜŞHANE	49 MUŞ	69 BAYBURT
10 BALIKESİR	30 HAKKARİ	50 NEVŞEHİR	70 KARAMAN
11 BİLECİK	31 HATAY	51 NİĞDE	71 KIRIKKALE
12 BİNGÖL	32 ISPARTA	52 ORDU	72 BATMAN
13 BİTLİS	33 İÇEL	53 RİZE	73 ŞIRNAK
14 BOLU	34 İSTANBUL	54 SAKARYA	74 BARTIN
15 BURDUR	35 İZMİR	55 SAMSUN	75 ARDAHAN
16 BURSA	36 KARS	56 SİİRT	76 IĞDIR
17 ÇANAKKALE	37 KASTAMONU	57 SİNOP	77 YALOVA
18 ÇANKIRI	38 KAYSERİ	58 SİVAS	78 KARABÜK
19 ÇORUM	39 KIRKLARELİ	59 TEKİRDAĞ	79 KİLİS
20 DENİZLİ	40 KIRŞEHİR	60 TOKAT	80 OSMANİYE
			81 DÜZCE
90 ABROAD			

CONVERSION OF YEARS OF BIRTH FROM RUMI
CALENDAR TO GREGORIAN CALENDAR YEARS

RUMI YEARS + 584 = GREGORIAN YEAR

Turkey Demographic and Health Surveys, 1993, 1998, 2003, 2008 and 2013

Indicator	1993	1998	2003	2008	2013
Fertility					
Total fertility rate (TFR) 15-49	2.73	2.61	2.22	2.15	2.26
Contraceptive prevalence rate					
Any method	62.6	63.9	71.0	73.0	73.5
Any modern method	34.5	37.7	42.5	46.0	47.4
Pill	4.9	4.4	4.7	5.3	4.6
IUD	18.8	19.8	20.2	16.9	16.8
Injection	0.1	0.5	0.4	0.9	0.6
Condom	6.6	8.2	10.8	14.3	15.8
Female sterilization	2.9	4.2	5.7	8.3	9.4
Male sterilization	0.0	0.0	0.1	0.1	0.0
Implants	-	-	-	0.0	0.0
Any traditional method	28.1	25.5	28.5	27.0	26.0
Contraceptive use among married adolescents					
Percentage of currently married adolescent girls using a modern contraceptive method Age 15-19	9.3	15.7	16.9	17.6	17.6
Unmet need for family planning					
Percentage of currently married women under age 50 with unmet need for family planning	12.0	10.1	6.0	6.2	5.9
Antenatal coverage					
Percentage of last live births in the five years preceding the survey for which women received at least one ANC from a medically trained provider	62.3	67.9	80.9	92.0	97.0
Skilled assistance at delivery					
Percentage of births in the five years preceding the survey attended by medically trained provider	75.9	80.6	82.9	91.3	97.4
Postnatal care					
Percent distribution of the mother's first postnatal check-up for the last live birth by time after delivery					
<4 hours	-	-	-	63.4	73.9
4-23 h	-	-	-	12.2	9.7
2 days	-	-	-	4.6	4.1
3-41 days	-	-	-	2.8	5.5
Total	-	-	-	83.0	93.1
Childhood mortality rates					
Neonatal mortality	29	26	17	13	7
Post-neonatal mortality	23	17	12	4	6
Infant mortality	53	43	29	17	13
Child mortality	9	10	9	6	2
Under-five mortality	61	52	37	24	15
Vaccination coverage					
Percentage of children age 15-26 months who received specific vaccines at any time before the survey					
BCG	89.1	88.5	87.7	95.9	94.4
DaBT-İPA-Hib3[1]	77.1	58.7	64.4	89.3	86.4
MMR[2]	77.9	78.5	79.4	89.3	89.8
All vaccines	64.7	45.7	54.2	80.5	74.1
Birth registration					
Percentage of children under five whose births are registered with the civil authorities	74.2	77.7	84.3	93.7	98.8

Indicator	1993	1998	2003	2008	2013
Nutritional status of children					
Percentage of children under age five considered malnourished according to three anthropometric indices of nutritional status[3]					
Height-for-age (stunting)					
Moderate or severe	18.9	16.0	12.2	10.3	9.5
Severe	5.9	6.1	3.6	3.2	3.2
Weight for-height (wasting)					
Moderate or severe	3.0	1.9	0.7	0.9	1.7
Severe	0.4	0.4	0.3	0.3	0.4
Weight-for-age (underweight)					
Moderate or severe	9.5	8.3	3.9	2.8	1.9
Severe	1.8	1.4	0.6	0.3	0.4
Sanitary excreta disposal					
Percentage of households with flush toilets, pit toilets/latrines	59.4	67.4	75.9	81.1	86.0
Education					
Percentage of females 15-19 with completed primary education[4]	90.4	89.4	85.1	91.3	96.9
Percentage of males 15-19 with completed primary education	96.1	96.0	95.0	96.5	98.7
Percentage of females 20-24 with completed secondary education	27.4	27.7	44.2	57.6	78.8
Percentage of males 20-24 with completed secondary education	46.7	42.4	63.3	79.5	88.3
Breastfeeding					
Percentage of children born in the five years preceding the survey who started breastfeeding within one hour and within one day of birth					
Within 1 hour after birth	19.9	51.8	53.9	39.0	49.9
Within 1 day of birth	75.9	84.8	83.6	73.4	70.2
Percentage of children under 6 months who are exclusively breastfed (based on 24 hour recall)	10.4	10.7	20.8	41.6	30.1
Percentage of children 6-9 months receiving breast milk and complementary food (based on 24 hour recall)	60.5	61.3	37.7	67.5	61.9
Maternal nutrition[5]					
Percentage of women age 15-49 body mass index (BMI) and percentage with specific BMI levels					
<=16 (Thin-Severe)	2.3 (insufficient)	0.1	-	0.0	0.1
16.0-16.9 (Thin-Moderate)		0.2	0.0	0.4	0.6
17.0-18.4 (Thin-Mild)		2.3	1.8	1.3	2.9
18.5-24.9 (Normal)	47.0	45.2	41.2	40.0	41.2
25.0-29.9 (Overweight)	32.0	33.4	34.3	34.4	28.7
>= 30.0 (Obese)	18.7	18.8	22.7	23.9	26.5

[1] DaBT-İPA-Hib3 vaccine was implemented (3 doses) before TDHS-2013.
[2] The vaccine was implemented as measles before TDHS-2013.
[3] CDC standard was used in previous TDHSs, WHO standards used in 2008 and 2013.
[4] Refers to first four or five years of primary education.
[5] Data collected from all women aged 15-49 in TDHS-2013 is presented in chapter 11, data in these tables are presented in Appendix E.