The Scientific and Technological Research Council of Turkey (TÜBİTAK)
"Support Programme for Research and Development Projects of Public Institutions"

Turkey Demographic and Health Survey 2008

Preliminary Report

Hacettepe University
Institute of Population Studies

T.R. Ministry of Health
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The Turkey Demographic and Health Survey, 2008 (TDHS-2008) has been conducted by the Hacettepe University Institute of Population Studies. The beneficiary institutions under this project are T.R. Ministry of Health and T.R. Prime Ministry Undersecretary of State Planning Organization. The financial support of theTDHS-2008 has been provided by The Scientific and Technological Research Council of Turkey (TÜBİTAK) within the scope of the Support Programme for Research and Development Projects of Public Institutions.

FOREWORD

The Turkey Demographic and Health Survey, 2008 (TDHS-2008) is the ninth in the series of demographic surveys that have been conducted by the Hacettepe University Institute of Population Studies every five years since 1968. These surveys are the only sources for estimating a variety of indicators on population and reproductive health at national level. The TDHS-2008, unlike the previous surveys of this series was for the first time funded entirely from the national budget.

Preparatory activities of the TDHS-2008 began in March, 2007. A number of workshops have been organized with the participation of representatives of related public institutions and organizations to designate the content of the questionnaires. In the months that followed, activities for sample selection, questionnaire design and finalization continued. Following the completion of the preparatory activities, listing and fieldwork took place between May-July 2008 and November-December 2008, respectively.

The preliminary report aims to present selected indicators promptly, which are of high importance to Turkey, and to which related national and international circles look forward to. Results of the TDHS-2008 present considerable changes in population and health indicators in the positive direction. The findings point out significant improvements in the use of modern contraception and in receiving antenatal care. The declines in total fertility rate, and especially infant mortality rate are also noteworthy. A careful assessment of the survey results that reflect the changes in population and health indicators will help to re-determine the planning of services, resources, personnel, target groups and priorities in the population and health sectors.

I would like to thank The Scientific and Technological Research Council of Turkey who have supported the TDHS-2008 project as an Research and Development (R&D) project under the Support Programme for Research and Development Projects of Public Institutions; the Ministry of Health General Directorate of Mother and Child Health and Family Planning and Prime Ministry Undersecretary of State Planning Organization General Directorate of Social Sectors and Coordination who have contributed in all stages as the Beneficiary Institutions; the Turkish Statistical Institution for their contribution in sample selection; the Governorships and Health Directorates of the provinces for their support during the fieldwork; and the members of the Steering Committee, who have stood by our Institute with their contributions in various stages of the survey. I would like to thank Dr. Ann A. Way, the deputy director of MEASURE DHS Program at ORC Macro and her colleagues for their contributions in data entry and data analysis.I would like to express my gratitude to Prof. Dr. Uğur Erdener, the Rector of Hacettepe University, for his administrative support in all stages of the survey. I would like to thank Hacettepe University Scientific Research Unit for their contributions in the fulfillment of bureaucratic duties of the project. Finally, I congratulate the academic and administrative staff of the Institute of Population Studies with my appreciation for painstaking work in all stages of the survey.

We, as Hacettepe University Institute of Population Studies, are glad to share the initial results of the TDHS-2008 with you through this report. The preparations for the main report of the study are ongoing. The main report is expected to be completed in October, 2009, and the detailed findings are planned to be presented through a meeting to all representatives of national and international institutions.

Prof. Dr. Sabahat Tezcan
Director

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I. BACKGROUND

A. Introduction

The Turkey Demographic and Health Survey, 2008 (TDHS-2008) is the ninth in the series of demographic surveys that have been systematically conducted every five years since 1968.

The TDHS-2008 has been conducted by the Hacettepe University Institute of Population Studies in collaboration with the Ministry of Health General Directorate of Mother and Child Health and Family Planning and Undersecretary of State Planning Organization. The TDHS-2008 has been financed by The Scientific and Technological Research Council of Turkey (TÜBİTAK) under the Support Programme for Research Projects of Public Institutions.

In terms of survey methodology and content, the TDHS-2008 is comparable with the previous demographic surveys in Turkey, as well as the international Demographic and Health Surveys (MEASURE DHS+).

Listing and mapping activities of the TDHS-2008 took place in the period of May-July 2008, and the fieldwork was implemented in the period of November-December 2008. Data entry was completed in the first week of January 2009, and the preliminary report was completed by mid-March 2009.

The preliminary report comprises the initial findings on some basic issues included in the survey. The main report of the survey is planned to be published in October 2009. The final results in the main report are not expected to differ from the findings presented in this preliminary report; nonetheless, the results presented here should be regarded as provisional and subject to modification.

B. Survey Objectives

The primary objective of the TDHS-2008 is to provide data on fertility, mortality, contraceptive methods, maternal and child health and reproductive health. Detailed information on these issues is obtained through questionnaires, filled by face-to-face interviews with ever-married women in reproductive ages (15-49).

Through the TDHS-2008, it is possible to attain information in the field of demography and health, for which a large extent cannot be obtained from other sources. The TDHS-2008 aims to evaluate the existing programs in demographic, health and social policies, and to assist to design new strategies, determine priorities and plan service, personnel and finance. in the related areas.

Another important objective of the TDHS-2008, which aims to contribute to the knowledge on population and health as well, is to maintain the flow of information for the related organizations in Turkey on the Turkish demographic structure and change in the absence of reliable vital registration system and ascertain the continuity of data on demographic and health necessary for sustainable development in the absence of a reliable vital registration system.

II. SURVEY IMPLEMENTATION

A. Sample Design

The sample design and sample size of the TDHS-2008 makes it possible to perform analysis 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). This design also gives the opportunity to make analysis on some of the subjects in the survey for 12 geographical regions[1]. Among these 12 regions, İstanbul and South Eastern Anatolian Project (GAP in Turkish initials) regions were represented with large numbers of observations in the sample design due to their special situations. The results in this report were given for five demographic regions as they were presented in the previous surveys and for İstanbul and GAP region[2]. In the main report of the survey, the results related to the frequently observed events will be presented for as many indicators as possible in the detail of 12 regions.

In the selection of the TDHS-2008 sample, a weighted, multi-stage, stratified cluster sampling approach was used. The sampling unit of the survey is households. The distribution of the target sample of the survey was based on the results of the *2007 Address Based Population Registration System*. Sample selection for the TDHS-2008 was undertaken in three stages. In the first stage, settlements were selected for the sample. The sampling units at this stage were settlements that differ in population size. The frame for the selection of primary sampling units was prepared using the results regarding population sizes of settlements obtained by the 2007 Address Based Population Registration System. While settlements with populations of 10,000 and more were defined as “urban”, settlements with populations less than 10,000 were defined as “rural” in the sample design. The selection of the settlements in each stratum was done with probability proportional to population size.

The selection of a pre-determined number of clusters out of the settlements selected in the first stage is the second stage of the sample selection. Total number of clusters in TDHS-2008 is specified as 634. For the selection procedures in this stage, National Address Database (UAVT) was used for settlements with municipalities. For 502 settlements with municipalities, the cluster lists, each including approximately 100 households was provided by TURKSTAT, using UAVT. For 132 clusters for which TURKSTAT was unable to provide data, lists were prepared by listing teams during household listing. The cluster lists provided by TURKSTAT were also updated during the listing activities under the project.

In the third stage, a fixed number of households were selected from each cluster by systematic random sampling method using the updated household lists. 25 households were selected from clusters of urban settlements (clusters in settlements with populations 10,000 and more) and 15 households from clusters of rural settlements (clusters in settlements with populations less than 10,000). The total number of households selected in TDHS-2008 is 13,521.

All ever-married women at ages 15-49 who generally live in the selected households and/or were present in the household on the night before the interview were regarded as eligible for Ever-Married Women Questionnaire.

[1] This system of regional breakdown has been adopted in accordance with the accession process of Turkey to the European Union and has been widely used in the gathering and publishing of national statistics.
[2] İstanbul province and GAP region constitute the two regions of NUTS 1 geographical regions.

B. Questionnaires

Two questionnaires were used in the TDHS-2008: "Household Questionnaire" and "Ever-Married Women's Questionnaire" for the women who are in the age group of 15-49 and have been married at least once. The questionnaires were prepared using model questionnaires of international MEASURE/DHS+ survey project and other questionnaires used in Turkey Demographic and Health Surveys in the past. Moreover, the questionnaires were finalized by taking into account the new problematic issues and priority topics raised in the last five years. During the preparation process of the questionnaires, workshops were held to view the comments and suggestions of the representatives of all related national and international institutions on the topics that should take place in the questionnaires. The questionnaires were ready for pre-tests after these comments and suggestions were carefully assessed. A series of pre-tests were conducted during April-August 2008, and subsequently necessary modifications were made to finalize the questionnaires.

The aim of the Household Questionnaire was to enumerate all members of and visitors[3] to the selected households and to collect information relating to the socio-economic characteristics of the household members. In the first section of the household questionnaire, basic socio-demographic information was collected on the age, sex, educational attainment, marital status and relationship to the head of household of each person as a household member or visitor. Another aim of this part was to identify the women eligible for Ever-Married Women Questionnaire. In the second section of the Household Questionnaire, some additional information was provided on never married women aged 15-49 listed in the household schedule. The third section was devoted to the welfare of elderly people. In this section, there were a number of questions on elderly persons of the household over age 60 in relation to their income, health insurance and physical capabilities on doing daily activities. In the fourth section, questions were included on the dwelling unit and on the ownership of a variety of consumer goods. The result of the salt iodide test on whether the salt used for cooking at home was iodized or not was also recorded in this part. The questions regarding salt test were asked in half of the sampled clusters.

The Women's Questionnaire was designed for women listed in the household schedule, aged 15-49 and have been married at least once. 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 diarrhoea
- Immunization
- Women's work history and status
- Husband's background characteristics
- Anthropometric measurements of women and children

[3] Despite not being a member of the household, persons who were present in that household on the night before the interview were identified as "visitors". Visitors were included in order to obtain *de facto* survey population.

The monthly calendar module in the Ever-Married Women's Questionnaire was used to record monthly fertility, use of contraceptive methods and assisted reproductive techniques and marriage events for a period of approximately six and a half years beginning from January 2003 up to the survey month.

C. Data Collection and Processing

The TDHS-2008 fieldwork was carried out by 19 teams. Each team consisted of 8 people; 5 female interviewers, one male measurer, one field editor and a team supervisor. The Institute's research assistants and project assistants have also worked in the field as team supervisors. An instructor of the Institute has served as the field director. Other academic staff of the Institute have visited teams as regional coordinators during the survey and coordinated communications between the teams and field director.

Three-week training was given to the field staff in September 2008. The fieldwork began in the first week of September 2008 and was completed in the first week of December 2008. 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 CSPro package. During data entry process, full verification between the field data and data entered was reached by entering each questionnaire to the computers twice by different data editors. The office editing and processing activities in the Institute began in the first week of November 2008 and were completed in the first week of January 2009.

D. Coverage of the Sample

Table 1 presents the response rates of the household and ever-married women's questionnaire and categories for non-response. According to the TDHS-2008 sample design, the sample size is 13,521 households[4] in 634 clusters. During the fieldwork 11,911 households were considered as available for household interview. In the TDHS-2008, a total of 1,386 household were not interviewed among which the main reasons were that the households were either away during the survey period or some dwellings/addresses were found to be vacant, or some of the addresses were not dwelling units. The proportion of households who refused to make an interview is only 4.3 percent. Of the 11,911 households found available in the fieldwork of TDHS-2008, interviews were successfully completed with 10,525 households (88.4 percent).

In the interviewed households, 8,033 women were identified as eligible for individual interviews. These women were ever-married women at reproductive ages (15-49) and were either usual residents of the households or/and were present in the house on the night before the interview. Among these women, interviews were completed with 7,405 of them (92.5 percent). The principal reasons for non-response were the failure to find women at home after repeated visits to the household and women living in different places during the survey period. The proportion of eligible women to individual interview who refused the interview is very low (1.3 percent).

[4] There have been 634 clusters in the sampling design of TDHS-2008 and 13,521 hosuholds have been targeted in these clusters. For only one of the clusters, fieldwork could not be carried out due to reasons of security.

Table 1. Results of the Fieldwork
Household and individual interview results, TDHS-2008

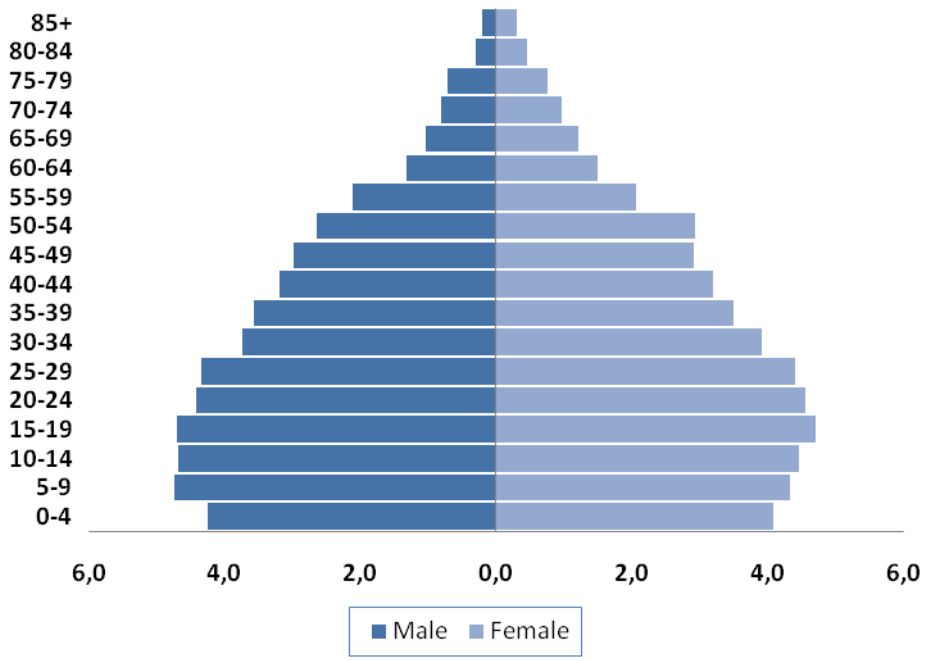
	Unweighted Number	Percent
Number of selected households	**13,521**	**100.0**
Interviewed	10,525	77.8
Household absent during visit/ no competent respondent at home	653	4.8
Household is not at home during survey period	761	5.6
Postponed	33	0.2
Refused	576	4.3
Dwelling/address is vacant, the address is not a dwelling	797	5.9
Dwelling destroyed	10	0.1
Dwelling not found	98	0.7
Partially completed	26	0.2
Other	42	0.3
Occupied households	**11,911**	**100.0**
Households interviewed	10,525	88.4
Households not interviewed	1,386	11.5
Ever-married women in 15-49 ages	**8,003**	**100.0**
Interviewed	7,405	92.5
Not at home during visits	193	2.4
Not at home during survey period	200	2.5
Postponed	15	0.2
Refused	105	1.3
Not appropriate for interview	15	0.2
Partially completed	40	0.5
Other	30	0.4

III. RESULTS

A. Survey Population

The population pyramid based on the *de facto* population[5] in the interviewed households of the TDHS-2008 (Figure 1) provides valuable information about the current age and sex composition of Turkey's population as well as the demographic transition in the past. The age distribution of the population in Turkey preserves the evident characteristics of countries that experienced high fertility levels in the past, followed by a rapid fertility decline more recently. The narrowing base of the population pyramid indicates this rapid fertility decline. The population pyramid shows that the cohorts largest in number are those between the ages 10-29.

Figure 1. Population Pyramid, TDHS-2008



According to the survey results, 27 percent of population in Turkey is below age 15 (Table 2). This proportion is higher in rural settlements (29 percent) than urban settlements (26 percent). The proportion of elderly (aged 65 and over) in the total population is 7 percent. While this proportion is 6 percent in urban settlements, it is 10 percent in rural settlements. The proportion of elderly has reached the highest level in the history of Turkey. This result is related to three demographic changes experienced recently in Turkey: Rapid decline in fertility, increasing life expectancy at all ages and the passing of the cohorts with large populations to 65 years of age, as a result of high fertility. Another important difference between urban and rural population is that the proportion of the working age population, namely the 15-64 aged population, is significantly higher than in urban population than rural population. This finding indicates the fact that rural-to-urban migration of economically active population still continues.

[5] This covers the members of the households and visitors who were present at home on the night before the interview.

Table 2. Age Distribution of Survey Population
Percent distribution of household population by age group and urban/rural settlements, TDHS-2008

Age Group	Urban	Rural	Total
0-14	25.8	28.5	26.6
15-64	68.6	61.6	66.7
65+	5.6	10.0	6.8
Total	100.0	100.0	100.0
Number	30,616	11,505	42,121

Table 3 presents information on the interviewed households in the TDHS-2008 and the *de facto* survey population in those households. By comparing the weighted and unweighted household numbers, this table also shows in which regions more or less sample was selected proportional to population, as a result of weighted design applied in the sampling design of the TDHS-2008.

Table 3. Households and Household Population
Percent distribution of households and household population by place of residence and region, TDHS-2008

Background Characteristics	Households			Household Population		
	Weighted Percent	Weighted Number	Unweighted Number	Weighted Percent	Weighted Number	Unweighted Number
Residence						
Urban	74.7	7,866	7,672	72.7	30,616	31,170
Rural	25.3	2,659	2,853	27.3	11,505	13,328
Region						
West	45.4	4,775	2,914	41.0	17,281	10,312
South	12.3	1,290	1,474	12.3	5,179	5,918
Central	22.1	2,326	2,075	21.1	8,867	8,006
North	7.0	734	1,355	6.8	2,870	5,168
East	13.3	1,400	2,707	18.8	7,924	15,094
İstanbul	*19.9*	*2,098*	*830*	*18.9*	*7,959*	*3,137*
GAP	*7.2*	*755*	*1,164*	*10.3*	*4,357*	*6,723*
Total	100.0	10,525	10,525	100.0	42,121	44,498

According to the results of the TDHS-2008, 75 percent of households and 73 percent of the household population live in urban settlements (Table 3). In the TDHS-2008, of the 10,525 households interviewed, 7,866 were interviewed in urban and 2,659 were interviewed in rural settlements. Almost half of the population (45.4 percent) live in the West, whereas only 7 percent live in the North.

Twenty percent of Turkey's population reside in Istanbul. Although the GAP region comprises 7 percent of the households in Turkey, the share of the region in the overall population is more than 10 percent due to its higher mean household size compared to that of Turkey.

B. Background Characteristics of the Respondents

Tables 4 and 5 present the proportional and numerical distribution of interviewed ever-married women in the TDHS-2008 according to certain background characteristics. Since the survey sample consists of ever-married women only, the number of women in the younger age groups (15-19 and 20-24) where marriage is not very common is relatively less. However, especially the proportional and numerical decreases in the age groups over age 30 indicate that more women had entered reproductive ages in every five years until recently, due to the rapid population growth in the past. Most of the ever married women are currently married (95 percent). The percentage of divorced women has shown a marked increase compared to previous surveys.

Table 4. Background Characteristics of Respondents
Percent distribution of ever-married women by age and marital status, TDHS-2008

Background Characteristics	Weighted Percent	Weighted Number	Unweighted Number
Age			
15-19	2.5	183	208
20-24	11.3	836	898
25-29	18.3	1,353	1,382
30-34	18.6	1,379	1,372
35-39	18.0	1,336	1,337
40-44	16.2	1,202	1,170
45-49	15.1	1,115	1,038
Marital Status			
Married	94.5	7,000	7,042
Widowed	2.1	157	146
Divorced	2.5	186	156
Separated	0.8	62	61
Total	100.0	7,405	7,405

Regarding the residential pattern (Table 5), 76 percent of women live in urban areas. Around 44 percent of respondents reside in the West and only 6 percent reside in the North. Of all ever-married women, 20 percent are in İstanbul and 9 percent are in the GAP region.

According to the survey results, 18 percent of women do not have any education or have not completed first level primary school. More than half of women (52 percent) have completed only first level primary school. One out of five women (21 percent) has completed at least high school. These findings imply that education has recently become widespread through socio-economic transformation and there has been a continuous increase in the education level of women entering reproductive ages.

Table 5. Background Characteristics of Respondents
Percent distribution of ever-married women by place of residence, region and education level, TDHS-2008

Background Characteristics	Weighted Percent	Weighted Number	Unweighted Number
Residence			
Urban	75.8	5,615	5,429
Rural	24.2	1,790	1,976
Region			
West	43.9	3,252	1,876
South	12.1	894	1,013
Central	22.0	1,631	1,460
North	6.4	477	868
East	15.5	1,151	2,188
İstanbul	*20.1*	*1,491*	*532*
GAP	*8.5*	*628*	*952*
Education			
No education/primary incomplete	18.3	1,358	1,748
First level primary	51.9	3,840	3,645
Second level primary	8.7	643	633
High school and higher	21.1	1,564	1,379
Total	100.0	7,405	7,405

Note: "No education" refers to those who have never attended school, "High school and higher" includes those who have at least completed high school. Regarding primary schools, the first five years refers to first level and the following three years refers to second level.

C. Fertility

All ever-married women interviewed in the TDHS-2008 were asked to report the total number of sons and daughters to whom they had given birth in their life time. In order to obtain complete and accurate information on this issue, women were asked separate questions on children living with them, living elsewhere and children who have deceased. A complete birth history was obtained from each respondent, including information on the sex of child, date of birth and survival status of each child. Age-specific fertility rates and total fertility rate (TFR) for the TDHS-2008 are calculated directly from the birth history data.

Fertility Rates

Table 6 presents the age-specific and total fertility rates for the country as a whole. The total fertility rate (TFR) is an important indicator of recent fertility levels, and can be interpreted as the average number of children a woman would have at the end of her reproductive period if she were to bear children according to currently observed fertility rates.

The preliminary results of TDHS-2008 indicate that total fertility rate in Turkey has dropped to a level of 2.15. This rate, which is just above the fertility replacement level (2.10), points out that fertility transition in Turkey is ongoing gradually but continuously.

Considering the age pattern of fertility, the tendency for women to have children early in the childbearing period is still evident in Turkey. Additionally, 7 out of 10 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 TDHS-2008 points out an important change in the age pattern of fertility, which is observed for the first time. While the highest age-specific fertility rates were observed in the 20-24 age group in former surveys, in TDHS-2008, the 25-29 age group is the one for which highest age-specific fertility rate is attained. This picture shows that not only fertility levels are changing in Turkey, but also age patterns of fertility are, due to postponements in childbearing towards later ages.

Table 6 also includes the mean number of children ever born to women by age groups. Women in their 20s at the time of survey have had one live birth on average. While the average number of children is 2-3 for women in their 30s, it approximates to 4 children for women around the end of their reproductive periods (women aged 45-49). The significant difference between the mean number of children ever born to women aged 45-49 (completed fertility) and the total fertility rate (current fertility) indicates that fertility has declined significantly in Turkey in recent years.

Table 6. Fertility Rates and Children Ever Born
Age specific fertility rates (per 1,000 women) and total fertility rate for the three years preceding survey date and mean number of children ever born, TDHS-2008

Age	Age Specific Fertility Rates	Mean Number of Children Ever Born	Total Number of Women
15-19	35	0,43	1,886
20-24	125	1,10	1,831
25-29	133	1,74	1,746
30-34	90	2,40	1,544
35-39	36	2,88	1,398
40-44	10	3,20	1,220
45-49	1	3,51	1,112
Total Fertility Rate	2.15	1,99	10,738

Trends in Fertility

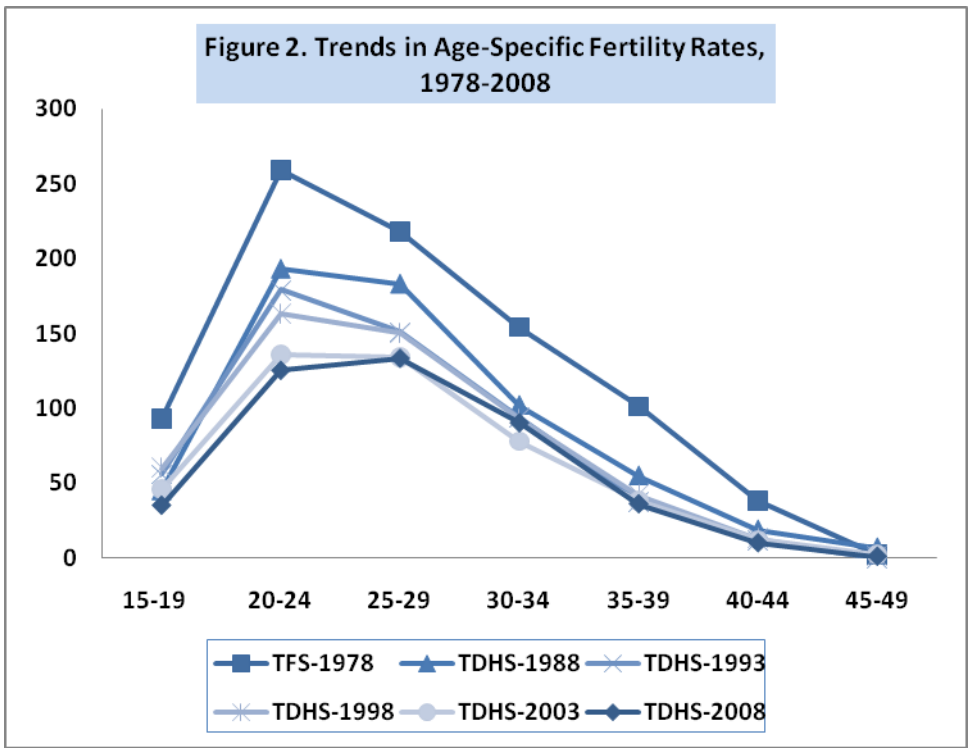
Table 7 presents the fertility trends in Turkey, for the period of 1978-2008, based on the level and the age-structure. The total fertility rate which was over 4 during the late 1970s, decreased to 3 births during the late 1980s and in the 1990s it has stabilized around 2.6 births after declining below 3. The stabilization in fertility observed in the 1990s, has left its place to a declining trend in 2000s and the level of fertility has dropped to 2.15 births. These findings indicate that total fertility rate in Turkey has reduced by 18 percent during the last ten years (for the 1998-2008 period). The reduction occurred in the low levels of fertility during the ten-year period is considerably striking. When a long-term comparison of fertility trend is considered, during the last thirty years (for the 1978-2008 period) in Turkey, it is observed that total fertility rate has decreased from 4.33 to 2.15. In other words, it has almost halved within this period.

Table 7. Trends in Fertility
Age-specific fertility rates and total fertility rates, 1978-2008

Age	TFS-1978	TDHS-1988	TDHS-1993	TDHS-1998	TDHS-2003	TDHS-2008
15-19	93	45	56	60	46	35
20-24	259	193	179	163	136	125
25-29	218	183	151	150	134	133
30-34	154	102	94	93	78	90
35-39	101	55	38	42	38	36
40-44	38	19	12	13	12	10
45-49	2	7	0	1	2	1
TFR 15-49	4.33	3.02	2.65	2.61	2.23	2.15

Note: 1978, 1988 and 1993 rates refer to the year before the survey; 1998, 2003 and 2008 rates refer to the 3-year period before the survey

The trends in age-specific fertility rates for the period of 1978-2008 are presented in Figure 2. Between 1978 and 2008, there has been a pronounced decrease in the age-specific fertility rates in almost all age groups. Although the age pattern of fertility has not changed remarkably during this period, the fertility for the age group of 25-29 has gradually approximated to that of the age group of 20-24 within the course of time and at the beginning of 2000s, fertility rates of these two groups have reached almost equal levels. The results of TDHS-2008 indicate that the fertility observed for the age group of 25-29 is higher than that of 20-24 for the first time in Turkey. The shift of the highest fertility from 20-24 to 25-29, that is postponement of births, is one of the striking results of fertility transition in Turkey. In line with this finding, when the variation in the age pattern of fertility between 2003 and 2008 is considered, the reduction in the total fertility rates during this period is mainly due to decrease occurred in the fertility rates of early age groups.



Variations in Fertility

Table 8 indicates the differentiation in total fertility rates in the period of 1993-2008 as regards the region and the place of residence. The results of TDHS-2008 point out that fertility rates in rural areas are higher when compared to urban fertility rates as observed in the previous surveys as well. Concerning the regional level, it is found out that total fertility rate declines in the West, South and the East regions whereas in the Central and North regions it rises. The total fertility rate observed in the West and South regions and in İstanbul appears to be below 2.1, which is known as replacement level. These findings manifest that the decrease in the fertility rate in Turkey during the last five years is mainly associated with the decline in the urban fertility rates as well as in the West, South and East regions.

In Turkey, the highest total fertility rate is recorded as 3.26 children per woman in the East. In line with this finding, fertility rate in the GAP region (3.46 births) is observed to be at a higher level than that of the East. The current level of fertility in this region is the same as the fertility level attained at the beginning of 1980s in Turkey. The fact that, except for the Eastern region, fertility rates of the remaining regions which are close to or below the national average indicate that in Turkey, differentiation in fertility mainly occurs among the rural and urban settlements, and also the Eastern and the other regions.

Table 8. Variations in Total Fertility Rates
Total fertility rates by place of residence, region and education, 1993-2008

Background characteristics	TDHS-1993	TDHS-1998	TDHS-2003	TDHS-2008
Residence				
Urban	2.37	2.39	2.06	2.00
Rural	3.10	3.08	2.65	2.67
Region				
West	2.03	2.03	1.88	1.73
South	2.37	2.55	2.30	2.09
Central	2.44	2.56	1.86	2.20
North	3.15	2.68	1.94	2.08
East	4.40	4.19	3.65	3.26
İstanbul	-	-	*1.83*	*1.78*
GAP	-	-	*4.19*	*3.46*
Eğitim				
No education/primary incomplete	4.20	3.89	3.65	3.28
First level primary	2.40	2.55	2.39	2.59
Second level primary	1.91	1.84	1.77	1.39
High school and higher	1.69	1.60	1.39	1.25
Total	2.65	2.61	2.23	2.15

Note: TDHS-1993 rates refer to the year before the survey, TDHS-1998, TDHS-2003 and TDHS-2008 rates refer to the 3-year period before the survey.

The total fertility rate declines with the increase in the educational level, as expected. While the total fertility rate is 1.25 per woman with high school or higher education, it is more than double for the women without education (3.28). Besides, the total fertility rate is found out to be 2.59 per women graduated from first level primary (elementary) school, which is far below the replacement level concerning the women having completed second level primary (secondary) school (1.39). When compared to results of TDHS-2003, while the fertility level of primary school graduates are exposed to slight increases, a substantial decrease is observed for the women with no or at least secondary school education.

D. Contraceptive Methods

In TDHS-2008, it has been assessed whether the women heard/knew about contraceptive methods and their use. Within this context, respondents were first asked to name all of the methods they have ever known or heard. For methods which were not mentioned spontaneously by the respondents, a description of the method was then read and the respondents were asked if they had heard of the method. Additionally, respondents who were married at the time of the survey were also asked if they were currently using a method and, if so, from where they had obtained the currently used methods.

Having Heard of Contraceptive Methods

According to the TDHS-2008 results, almost all ever-married women and currently married women have heard about at least one contraceptive method. The percentage of currently married women who have reported that they have heard about any of the modern methods (99.6 percent) is higher than those stating that they are familiar with any of the traditional methods (93.6 percent). Among ever-married and currently married women, pill, IUD, condom, female sterilization and injections appear to be the most widely known methods whereas female condom and emergency pills which are new methods for Turkey is the least familiar. For 9 out of every 10 women, withdrawal is the most widely known traditional method (Table 9 and Figure 3).

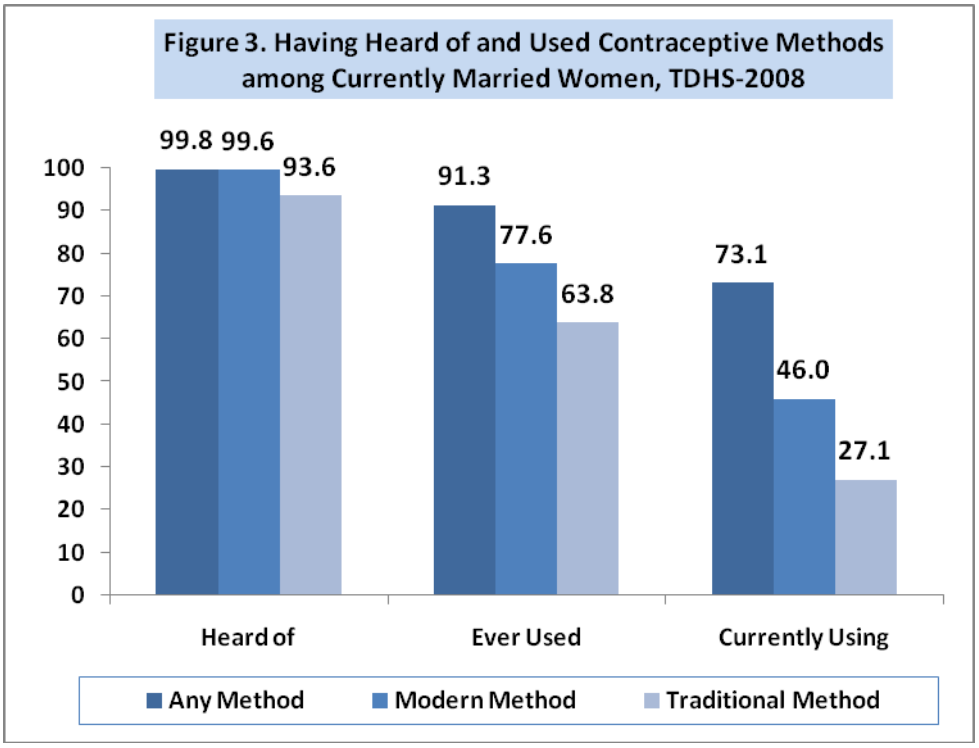
Table 9. Having Heard, Ever Use and Current Use of the Contraceptive Methods
Percentage of ever- and currently married women hearing of, ever using and currently using a contraceptive method, TDHS-2008

	Heard of		Ever Used		Currently Using
Contraceptive Method	All Ever Married Women	Currently Married Women	All Ever Married Women	Currently Married Women	Currently Married Women
Any method	**99.7**	**99.8**	**90.5**	**91.3**	**73.1**
Any modern method	**99.5**	**99.6**	**76.8**	**77.6**	**46.0**
Female sterilization	91.5	91.6	8.2	8.3	8.3
Male sterilization	43.0	42.8	0.1	0.1	0.1
Pill	97.9	98.0	34.3	34.2	5.3
IUD	97.9	98.0	40.8	40.7	16.9
Injections	84.4	84.9	7.5	7.5	0.9
Implant/Norplant	41.2	41.1	0.2	0.2	0.1
Condom	92.1	92.3	42.6	43.6	14.3
Female condom	17.1	17.0	0.2	0.1	0.0
Diaphragm/Foam/Jelly	34.7	34.8	3.6	3.6	0.1
Emergency pills	29.2	29.2	2.3	2.2	-
Any traditional method	**93.4**	**93.6**	**62.9**	**63.8**	**27.1**
Periodic abstinence	42.9	42.7	7.1	7.3	0.6
Withdrawal	92.0	92.4	60.8	66.8	26.3
Other traditional methods	8.3	8.3	1.2	1.1	0.2
Total number of women	7,405	7,000	7,405	7,000	7,000

Ever-use of Contraceptive Methods

In Turkey, 91 percent of women have used a contraceptive method at some time in their lives. 78 percent of the women who are married at the time of the survey have used modern contraceptives at least once and 64 percent of them have used traditional methods at least once (Table 9 and Figure 3). Although the proportion of women who have used a modern method at least once is higher than that of women having used traditional

methods, the most commonly used method among couples/partners is reported as withdrawal at 67 percent. Among the modern methods, the most frequently used methods are the condom (44 percent), IUD (41 percent) and pill (34 percent), respectively (Table 9).



Contraceptive Use at the Time of the Survey

In Turkey, 73 percent of currently married women are using a method of contraception during the time of the survey. Forty-six percent of currently married women use a modern contraceptive while 27 percent use a traditional method. At the time of the survey, one in every 4 currently married women uses withdrawal. The most preferred contraceptive methods among the modern methods are IUD (17 percent) and pill (14 percent). It has been observed that female sterilization is used by 8 percent of currently married women (Table 10).

In Table 10, the percent distribution of currently married women by contraceptive methods currently being used is presented according to background characteristics. Concerning the place of residence and region, there are marked differences in the percentages of women using a contraceptive method at the time of survey. In urban areas (74 percent), the percentage of women using a method of family planning is higher than those residing in rural areas (69 percent). There is not a significant difference in the use of traditional methods as regards the place of residence. Therefore, the difference observed among the place of residence results mainly from the variations in the use of modern contraceptive methods.

In all regions except the East, at least 7 out of every 10 women use any method of family planning. The use of modern methods is higher than that of traditonal methods in all regions. The patterns of contraceptive use among women in West, South and Central regions are almost similar to each other. About half of the women in these regions use a modern contraceptive whereas this proportion declines to 42 percent for the ones in the North and to 38 percent in the East. Concerning the contraceptive use, İstanbul displays the characteristics of the West and the GAP region displays those of the East.

Table 10. Current Use of Contraceptive Methods by Background Characteristics

Percent distribution of currently married women by contraceptive method currently being used, according to background characteristics, TDHS-2008

Background Characteristics	Any Method	Any Modern Method	Female Sterilization	Pill	IUD	Condom	Other Modern Methods*	Any Traditional Method	Periodic Abstinence	Withdrawal	Other Methods**	Not Currently Using	Total	Number of Women
Place of residence														
Urban	74.3	47.8	8.3	5.6	17.5	15.4	1.0	26.6	0.7	25.6	0.2	25.6	100.0	5,284
Rural	68.9	40.3	8.5	4.5	15.0	11.0	1.4	28.6	0.2	28.0	0.3	31.1	100.0	1,716
Region														
West	76.3	48.2	8.4	5.8	17.4	15.6	1.0	28.1	0.5	27.1	0.4	23.6	100.0	3,049
South	70.5	45.8	10.0	4.1	18.2	12.9	0.5	24.6	0.6	24.1	0.0	29.6	100.0	849
Central	75.5	48.8	6.4	4.9	18.4	17.8	1.3	26.7	0.9	25.7	0.1	24.5	100.0	1,542
North	75.7	41.4	12.9	5.2	9.8	12.0	1.4	34.2	0.4	33.6	0.2	24.4	100.0	455
East	61.5	37.9	7.7	5.6	15.1	8.1	1.4	23.7	0.3	22.9	0.5	38.5	100.0	1,105
İstanbul	*74.3*	*45.4*	*8.5*	*4.9*	*18.4*	*12.2*	*1.5*	*28.9*	*0.4*	*28.3*	*0.2*	*25.7*	*100.0*	*1,379*
GAP	*58.1*	*37.9*	*8.1*	*5.4*	*13.5*	*9.5*	*1.5*	*20.2*	*0.3*	*19.6*	*0.3*	*41.9*	*100.0*	*595*
Age of woman														
15-19	40.2	17.6	0.0	4.0	3.8	10.4	0.8	22.6	0.0	21.1	1.5	59.8	100.0	181
20-24	63.4	37.4	0.6	5.8	11.7	18.1	1.2	26.0	0.0	25.6	0.4	36.6	100.0	820
25-29	73.5	47.2	3.6	7.3	15.9	18.4	2.0	26.3	0.5	25.6	0.3	26.5	100.0	1,314
30-34	78.7	51.5	7.6	8.4	18.8	15.3	1.3	27.2	0.6	26.5	0.1	21.3	100.0	1,326
35-39	83.8	57.2	13.5	5.1	23.0	14.6	0.9	26.6	0.7	25.6	0.3	16.2	100.0	1,261
40-44	78.6	46.0	13.1	2.4	18.8	11.1	0.7	32.8	0.8	31.8	0.0	21.3	100.0	1,096
45-49	58.9	35.1	11.5	2.1	12.4	8.4	0.7	23.8	0.8	22.8	0.2	41.1	100.0	1,002
Education														
No education/primary incomplete	60.9	35.3	12.3	3.1	13.4	5.6	0.9	25.6	0.0	24.8	0.7	39.1	100.0	1,274
First level primary	76.8	46.8	9.5	5.3	18.2	12.6	1.1	30.0	0.3	29.5	0.2	23.2	100.0	3,671
Second level primary	66.6	40.8	3.0	5.2	15.0	16.2	1.5	25.8	0.7	25.0	0.1	33.4	100.0	594
High school and higher	76.7	55.3	3.9	7.3	17.4	25.5	1.1	21.4	1.7	19.7	0.0	23.3	100.0	1,461
Number of living children														
None	28.0	15.2	0.3	4.8	0.3	9.8	0.0	12.8	0.6	12.0	0.3	72.0	100.0	636
1	67.7	41.1	0.4	5.6	11.9	22.0	1.2	26.6	0.7	25.7	0.2	32.3	100.0	1,444
2	84.4	53.7	6.3	5.6	23.3	17.4	1.0	30.6	0.8	29.6	0.2	15.6	100.0	2,393
3	80.0	51.0	17.0	4.4	18.9	9.7	1.0	29.1	0.6	28.0	0.5	20.0	100.0	1,312
4+	73.0	47.2	16.6	5.7	16.7	6.6	1.7	25.8	0.0	25.7	0.1	27.0	100.0	1,215
Total	73.1	46.0	8.3	5.3	16.9	14.3	1.1	27.1	0.6	26.3	0.2	26.9	100.0	7,000

Includes injections, Diaphragm/Foam/Jelly İğne, Female Condom, Implant and Male Sterilization.* * Includes Breastfeeding and folkloric (local) methods.*

The percentage of women using any method of contraceptive increases with age and rises to 84 for the age group of 35-39. After this age group, the use of contraceptive methods decreases to 59 percent in parallel with the reduction in fertility with advancing age. A similar pattern is observed for modern methods as well. Withdrawal which is the most frequently preferred method is used by the same proportions of women in all age groups (Table 10).

A linear relationship is observed between the educational level of women and their use of contraceptive methods. Among the women who have no education or have not completed primary school, the contraceptive use remains at a level of 61 percent while it has risen to 77 percent for the women with high school or higher education. The results of TDHS-2008 point out that educational level has an effect not only on the overall use of contraceptive methods but also on the use of modern methods. In addition to the increase in the proportion of overall use together with the rise in education, it is also observed that high educational levels orient women to use modern methods more. Among the women without education who use any method of contraception, 58 percent of them prefer modern methods. On the other hand, it rises to 72 percent among the women having completed at least high school (Table 10).

Contraceptive method use also increases rapidly with the number of living children reaching 83 percent among women with two children. Among women with three children, the level of contraceptive use is 80 percent whereas it is reduced to 72 percent for women with four or more children. The results of TDHS-2008 show that the idea of postponing the first births is not common among women; only 28 percent of currently married women with no children are using a contraceptive method (Table 10).

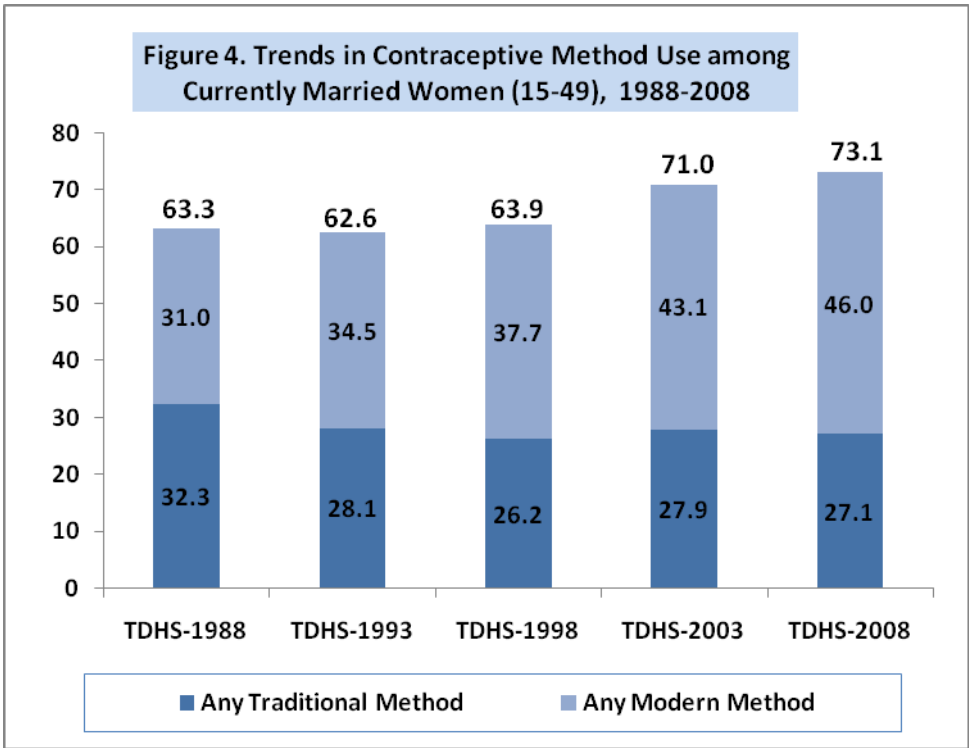
Trends in Contraceptive Use

Table 11 and Figure 4 present the trends in the use of contraceptive methods in Turkey for the last 20 years. The contraceptive method use, which has become stable at the level of 63-64 percent, in the 10-year period from TDHS-1988 to TDHS-1998, has increased to 71 percent in 2003 and to 73 percent in 2008 with an accelerated progress in 2000s. The modern contraceptive use showing a continual increase in the last 20 years has gone up to 46 percent in 2008. While the percentage of the women preferring a modern method among the contraceptive method users was below 50 percent in 1988, it has reached 59 and 63 in 1998 and 2008, respectively. In line with the improvements in the use of modern methods, an overall decline has been observed in traditional methods although there have been some fluctuations.

In the last 20 years, substantial changes have occurred not only in the proportions of contraceptive methods used but also in their percent distributions. Concerning IUD usage, the perpetually rising trend in the last 15 years prior to TDHS-2003 has shown a significant decline in the period of 2003-2008 in Turkey. On the other hand, during the last 5 years, an important rise has been observed in the use of pill, condom and especially female sterilization. The prevalence of withdrawal as a traditional method has not changed significantly during the last 20 years and it has been found out that in Turkey, 1 in every 4 married couple continues to use withdrawal (Table 11). These findings have revealed that the increase in the prevalence of contraceptive use for the last five years in Turkey is mainly due to a shift of the non-user women to modern contraceptive use, in other words, it accounts for the rise in modern contraceptive use.

Table 11. Trends in Use of Contraceptive Methods
Percent distribution of currently married women by contraceptive methods currently used, 1988-2008

Contraceptive Method	TDHS-1988	TDHS-1993	TDHS-1998	TDHS-2003	TDHS-2008
Any method	**63.4**	**62.6**	**63.9**	**71.0**	**73,1**
Any modern method	**31.0**	**34.5**	**37.7**	**42.5**	**46.0**
Pill	6.2	4.9	4.4	4.7	5.3
IUD	14.0	18.8	19.8	20.2	16.9
Condom	7.2	6.6	8.2	10.8	14.3
Female sterilization	1.7	2.9	4.2	5.7	8.3
Other modern methods	2.0	1.3	1.1	1.1	1.2
Any traditional method	**32.3**	**28.1**	**26.1**	**28.5**	**27.1**
Periodic abstinence	3.5	1.0	1.1	1.1	0.6
Withdrawal	25.7	26.2	24.4	26.4	26.3
Other methods	3.1	0.9	0.6	1.0	0.2
Not currently using	**36.6**	**37.4**	**36.1**	**29.0**	**26.9**



In Turkey, during the period of 2003-2008, the use of modern contraceptive methods has increased in all settlements and regions while traditional methods have displayed a declining trend. In the last 5 years, the rise in the use of modern methods has been 8 percent in Turkey as a whole, whilst it has been 17 percent for rural settlements, 20 percent in the East and 28 percent in the North. Concerning the modern methods, the increase observed in West, South and Central regions as well as in urban areas where the use of modern contraception is already high, is below the national average. Consistent with these findings, a major decrease in the proportion of women who are not currently using a method has been observed in all settlements and regions except for the South region in which a small rise has been experienced (Table 12).

Tablo 12. Trends in the Use of Contraceptive Methods According to Place of Residence and Region
Percent distribution of currently married women aged 15-49 who are currently using a modern method, a traditional method or any method according to place of residence and region, TDHS-2003 and TDHS-2008

Background Characteristics	TDHS-2003				TDHS-2008			
	Not Currently Using	Any Method	Modern Method	Traditional Method	Not Currently Using	Any Method	Modern Method	Traditional Method
Residence								
Urban	26.4	73.6	45.8	27.8	25.6	74.3	47.8	26.6
Rural	35.5	64.5	34.4	30.1	31.1	68.9	40.3	28.6
Region								
West	25.8	74.2	45.7	28.6	23.6	76.3	48.2	28.1
South	29.2	70.8	44.8	26.0	29.6	70.5	45.8	24.6
Central	25.8	74.2	46.6	27.6	24.5	75.5	48.8	26.7
North	28.1	71.9	32.5	39.4	24.4	75.7	41.4	34.2
East	42.1	57.9	31.4	26.5	38.5	61.5	37.9	23.7
Total	29.0	71.0	42.5	28.5	26.9	73.1	46.0	27.1

Sources of Contraceptive Methods

In TDHS-2008, the women using modern methods were asked from where they had obtained their current method recently. When all modern methods are taken into consideration, it is observed that public sector is generally preferred in the provision of modern contraceptives. Of the modern method users, 61 percent have mentioned the public sector as a source of their method, 35 percent have stated private sector and the remaining 4 percent have reported to be using other sources, especially the market/shop. Among public sector, the most fundamental sources in the provision of modern methods are government hospitals, health centers/health houses. Concerning the private sector, private hospitals and pharmacies are the main sources of supply. In addition, 8 in every 10 women using female sterilization have stated that the operations necessary for this method have taken place in public institutions. Besides, 78 percent of IUD users has obtained this method from public institutions, especially from the health centers/health houses. On the other hand, 6 out of 10 women using pill and condom have mentioned that they have provided these methods from private sector, especially from the pharmacies. The markets/shops are the providers of condom for 12 percent of condom users (Table 13).

The trend in the source of supply for modern methods during the last five years is presented in Table 14. As regards pill, IUD and condom, the share of public sector has increased while it has been reduced for private sector. On the contrary, the share of private sector has risen for female sterilization whereas the provision of this method from public sector has decreased. During the last five years, the most significant improvement concerning the sources of supply for contraceptive methods is that the share of markets/shops has doubled as providers of condom.

Table 13. Source of Supply for Selected Modern Methods

Percent distribution of current users of modern contraceptive methods during the time of survey by the latest source of method, TDHS-2008

Source of Supply for Method	Female Sterilization	Pill	IUD	Condom	All modern methods*	Total Number*
Public Sector	81.3	36.6	78.0	39.2	61.1	1,960
Government Hospitals	46.5	1.1	15.0	0.4	14.5	465
Maternity House	18.7	0.8	8.0	0.1	6.5	209
MCHPF Centre	0.0	1.1	7.2	0.6	3.0	96
Health Center/ Health House	0.2	33.6	44.7	38.1	32.9	1,057
SSK Hospital/Dispensary	9.3	0.0	1.1	0.0	2.2	70
University hospitals	5.0	0.0	0.1	0.0	0.9	29
Other Public Sector	1.6	0.0	1.9	0.0	1.1	34
Private Sector	18.6	62.9	21.9	48.1	35.0	1,124
Private hospital/Polyclinic	17.6	0.0	9.9	0.0	6.9	222
Private Doctor	1.0	0.8	10.7	0.0	4.3	137
Pharmacy	0.0	61.8	0.8	48.0	23.6	757
Other Private Sector	0.0	0.3	0.5	0.1	0.2	8
Other	0.2	0.6	0.0	12.6	4.1	129
Market/ Shop	0.0	0.0	0.0	12.4	3.9	124
Other**	0.2	0.6	0.0	0.2	0.2	5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	579	372	1.183	999	3,213	3,213

* *Includes women using modern methods other than those of given in the table.*

** *Other: Voluntary organizations, Friend/relative/neighbor, traditional midwife, and any other source*

Table 14. Trend in the Source of Supply for Selected Modern Methods

Percent distribution of current users of the female sterilization, the pill, the IUD and the condom by source of supply, TDHS-2003 and TDHS-2008

	Female Sterilization		Pill		IUD		Condom	
Source of Supply for Method	TDHS-2003	TDHS-2008	TDHS-2003	TDHS-2008	TDHS-2003	TDHS-2008	TDHS-2003	TDHS-2008
Public sector	82.0	81.3	30.6	36.6	71.3	78.0	34.1	39.2
Private sector	16.3	18.6	67.5	62.9	27.6	21.9	59.3	48.1
Other	1.0	0.2	1.6	0.6	1.0	0.0	6.3	12.6
Unknown	0.6	0.0	0.2	0.0	0.0	0.0	0.1	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

E. Fertility Preferences

Within the scope of TDHS-2008, in order to understand the future fertility preferences of the women, currently married women were asked to state their preferences on whether they want to have another child in the future, and if they desired so, the timing of the next birth. Nearly 67 percent of currently married women have expressed that they do not want to have more births in the future or were already sterilized for contraceptive purposes (Table 15). Furthermore, 14 percent of the women have stated that they want to wait for another birth at least two years. These findings indicate that nearly 4 out of every 5 currently married women can be regarded as in need of using family planning services either to avoid or to postpone childbearing. The proportion of currently married women who are undecided about having another child in the future is only 3 percent.

The desire for another child in the future decreases in relation to the increase in the number of living children. Among women with one living child, 28 percent -including sterilized women- do not want to have another child in the future while this ratio has risen to 79 percent for women with two living children and 90 percent for women with more than two children.

Table 15. Fertility Preferences
Percent distribution of currently married women by desire for children according to number of living children, TDHS-2008

	Number of living children							
Desire for children	0	1	2	3	4	5	6+	Total
Want within 2 years	71.6	19.9	4.9	1.9	2.1	0.3	1.4	11.5
Want after 2 years	17.3	43.3	8.9	3.8	2.4	1.6	0.3	14.3
Wants, unsure timing	1.2	1.4	0.3	0.5	0.0	0.3	0.5	0.6
Undecided	1.3	4.4	4.0	1.2	1.4	0.7	0.9	2.8
Want no more	4.3	27.8	72.3	71.3	77.1	77.0	71.7	58.7
Sterilized	0.4	0.4	6.3	16.7	13.5	17.6	20.1	8.4
Declare infecund	3.9	2.7	3.3	4.6	3.4	2.7	5.2	3.5
Unknown	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	493	1,423	2,469	1,349	640	274	332	7,000

F. Infant and Child Mortality Rates

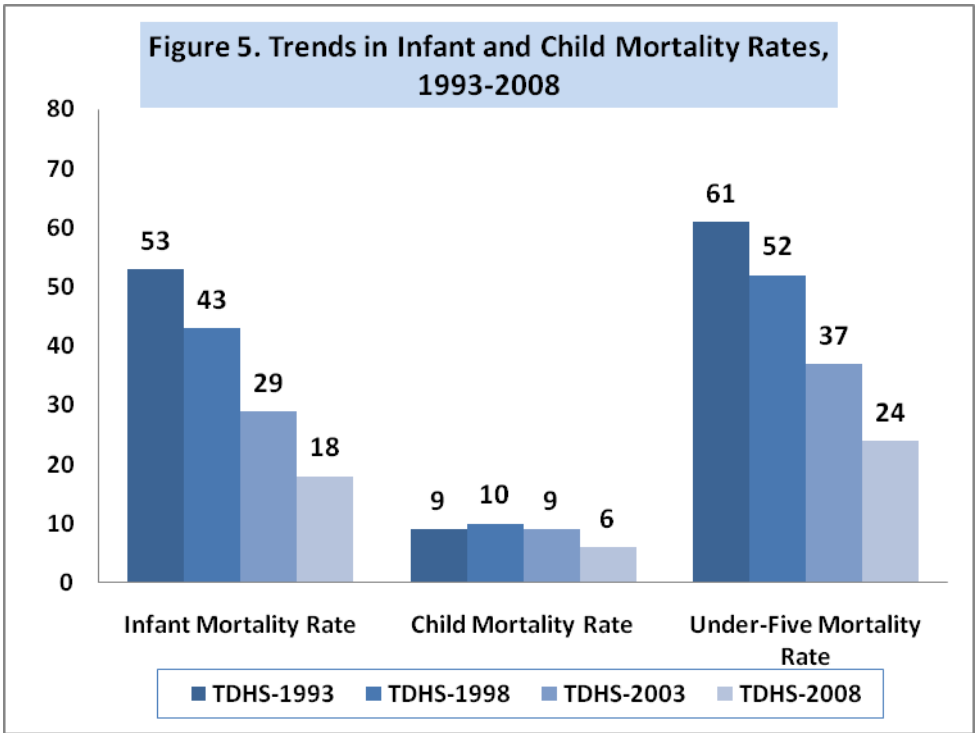
The estimation for the early age mortality in TDHS-2008 was calculated by using information in the birth history section of the women's questionnaire. In this report, the results for three indicators that are, infant mortality rate, child mortality rate and under five mortality rate, are given for the five-year periods preceding the survey in comprasion with the results of TDHS-2003. Prenatal, neonatal and post neonatal death rates, and their distributions as regards place of residence, region and other socio-demographic indicators will be presented in the main report.

In Table 16, infant, child and under-five mortality rates are comparatively given for the five-year period prior to the TDHS-2008, TDHS-2003 and TDHS-1998. According to the rates of the last five-year period prior to the TDHS-2008 with an approximate reference date of 2006, 18 out of 1000 live births die before they reach at their first birthday and 24 out of 1000 live births die before they complete five years of age. The findings in Table 16 show that there is a rapid decline in infant mortality rates. A decrease about 47 percent is observed in infant mortality rate for a period of five years between 1998-2003 and 2003-2008. In the same period, there is 30 percent decrease in child mortality and 43 percent decrease in under-five mortality. The decline in child mortality rate during the last five years is significant, considering the stability in child mortality rate at a level of 9-10 per thousand during the last 10 years.

Table 16. Infant, Child and Under-Five Mortality Rates
Infant, Child and Under-Five mortality rates for the five year periods preceding the TDHS-2008, TDHS-2003 and the TDHS-1998 (per thousand)

Years Prior to Survey	Approximate Reference Period	Infant Mortality Rate	Child Mortality Rate	Under-Five Mortality Rate
TDHS-2008				
0-4	2003-2008	17.6	6.4	23.9
5-9	1998-2003	33.5	9.1	42.3
10-14	1993-1998	49.4	9.2	58.1
TDHS-2003				
0-4	1998-2003	28.7	8.5	37.0
5-9	1993-1998	46.5	9.8	55.9
TDHS-1998				
0-4	1993-1998	42.7	9.8	52.1

The early age mortality rates obtained from TDHS-2008 are consistent with the findings of previous surveys calculated for the same reference periods. The difference between early age mortality rates calculated from the TDHS-2008 data set for reference periods of TDHS-2003 and TDHS-1998 and findings obtained from those two previous surveys are even less than 5 per thousand. Once again, this finding highlights the high data quality of birth history data sets of the three surveys, from which early age mortality rates are calculated. The findings related to the past periods preceding the TDHS-2008 as well as the comparison of TDHS-2008 results to those of TDHS-2003 and TDHS-1998 show that the decrease in infant and child mortality rates in Turkey have been accelerated in recent years, especially in the last five years (Table 16 and Figure 5).



G. Antenatal and Postnatal Care

Receiving an appropriate care during pregnancy, delivery and after the delivery is crucial for both mother and child health. In TDHS- 2008, several questions related to mother and child health were asked to the women giving birth five years preceding the time of the survey. This section presents preliminary results of antenatal care, who had assisted the delivery, where the delivery had taken place and postnatal care.

Antenatal Care

It is observed that 92 percent of the mothers received antenatal care from a health personnel during the pregnancy of their most recent birth in the five-year period preceding the TDHS-2008 (Table 17). It is noteworthy that almost all of antenatal care is received from a doctor. The proportion of having antenatal care is 84 percent among women in rural areas; it is just below 80 percent for uneducated mothers and for women living in the East, and drops to a level of 72 percent for the mothers who have 6 or more children.

When the assistance at delivery is examined, 64 percent of births occured in the five-year periods preceding the TDHS-2008 have assisted by a doctor. In the 27 percent of the deliveries midwife/nurse have assisted the delivery. In the East, especially in GAP region, the percentage of births that are attained by a midwife/nurse is higher than those attained by doctor. On the contrary, almost all deliveries are assisted by a health personnel in urban areas, in the West, in Istanbul and among educated mothers.

In Turkey, about 90 percent of the births occured in the last five years have been delivered in a health facility, while 10 percent of those have taken place at home. The proportion of births taking place at home rises to 20 percent in rural areas and to 27 percent in the East. Among uneducated mothers, this proportion has gone up to 28 percent and to 38 percent for the mothers who have 6 or more children.

Table 17. Antenatal Care, Assistance at Delivery and Place of Delivery

Percent distribution of last births in the five-year period preceding the survey whose mothers received at least once an antenatal care from a doctor or a trained nurse/midwife, and the percent distribution all births in the five-year period preceding the survey, which are assisted by a doctor or trained nurse/midwife during the delivery and the place of delivery by background characteristics, TDHS-2008

	Antenatal Care			Assistance at Delivery		Place of Delivery		
Bacground Characteristics	Doctor	Midwife/ Nurse	Number of Women	Doctor	Midwife/ Nurse	Health Facility	At Home	Number of Births
Maternal age at birth								
<20	88.2	3.8	222	60.0	30.3	88.5	10.5	345
20-34	90.2	2.4	2,273	64.5	27.4	90.5	9.2	2,811
34+	84.9	1.7	273	65.3	22.3	84.3	13.6	307
Residence								
Urban	93.0	1.7	2,049	71.2	24.5	94.0	5.4	2,475
Rural	79.4	4.7	719	46.1	34.0	79.0	20.4	988
Region								
West	94.7	2.1	1,004	82.5	15.5	96.0	3.3	1,174
East	93.6	1.0	354	60.4	33.7	92.2	7.2	441
Central	90.8	3.6	627	76.0	22.5	98.3	1.2	741
North	91.4	4.3	165	64.0	32.0	95.6	3.9	197
East	76.8	2.3	619	32.5	41.9	72.2	27.2	911
İstanbul	95.1	0.6	472	90.2	7.7	95.2	4.3	548
GAP	79.8	2.4	352	28.7	49.4	74.7	25.2	533
Education								
No education/primary incomplete	74.4	3.8	541	40.8	33.1	71.2	28.3	781
First level primary	90.5	2.8	1,365	65.2	29.7	92.9	6.2	1,691
Second level primary	95.4	1.7	272	70.1	27.5	97.6	2.4	322
High School and higher	98.4	0.9	591	85.7	13.9	99.6	0.3	669
Birth Order								
1	95.9	2.2	896	73.2	23.7	95.9	3.9	1,215
2-3	90.8	1.9	1,340	66.3	26.9	92.2	7.3	1,563
4-5	79.7	3.6	362	47.0	36.2	79.6	18.8	448
6+	66.0	6.3	171	34.7	30.0	60.9	38.1	237
Total	89.5	2.5	2,768	64.1	27.2	89.7	9.7	3,463

As seen in Figure 6, the percentages of antenatal care taken from a health personnel and deliveries assisted by a trained health personnel are on the way of increasing continuously in Turkey. During the last 10 years, for the period of 1998-2008, there has been an increase of 27 percent and 21 percent as regards the antenatal care services received from a health provider and the proportion of deliveries assisted by a health personnel, respectively. In the five-year period preceding the TDHS-2008, the proportion of deliveries taking place at health facilities has gone up 90 percent while it reaches only 60 percent in TDHS-1993. In this period, the rise in the proportion of births occuring in health facilities accounts for 34 percent. In addition to these, another improvement observed is the decrease of the share of midwife/nurse in services regarding mother and child health in contrast to the increase of that of doctors.

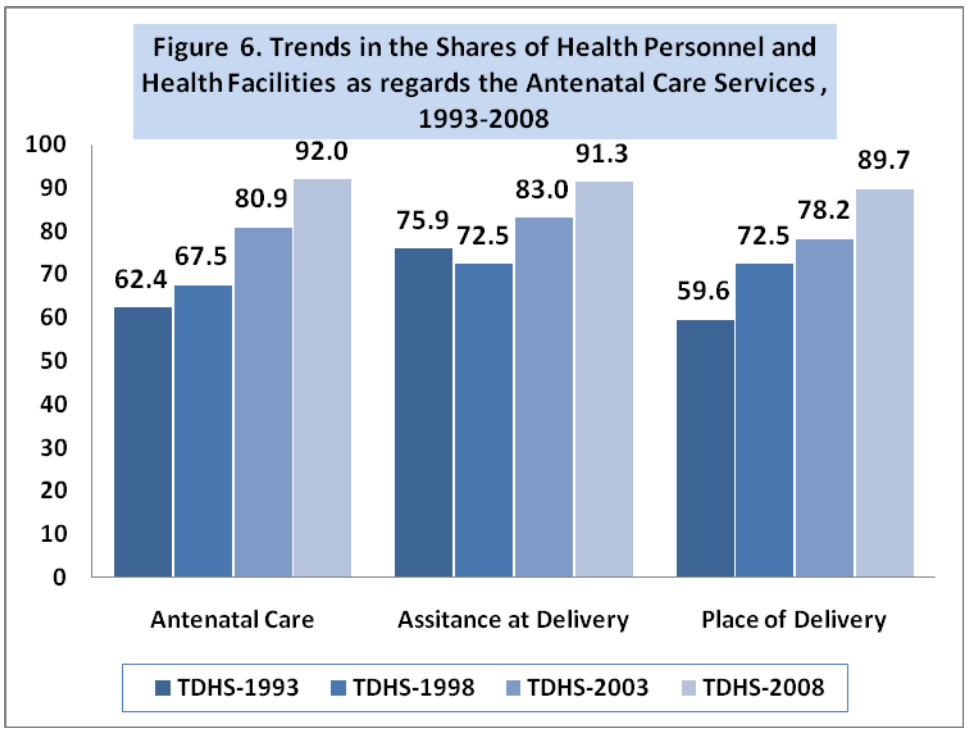


Table 18. Postnatal Care

Percent distribution postnatal care received by mothers and their infants within two months time following the delivery as regards the last births occured during five years prior to the survey, TNSA-2008

Bacground Characteristics	Mother	Baby	Number of Births
Maternal age at birth			
<20	80.9	90.0	222
20-34	85.1	89.9	2,273
34+	85.3	87.5	273
Residence			
Urban	88.1	92.6	2,049
Rural	75.5	81.4	719
Region			
West	90.8	96.2	1,004
East	83.5	89.2	354
Central	92.4	94.7	627
North	86.1	96.3	165
East	67.8	72.6	619
İstanbul	88.3	96.9	472
GAP	73.1	73.8	352
Education			
No education/primary incomplete	65.5	74.6	541
First level primary	86.9	90.5	1,365
Second level primary	90.9	96.0	272
High school and higher	94.9	98.7	591
Birth Order			
1	89.9	95.1	896
2-3	87.7	90.7	1,340
4-5	72.0	80.6	362
6+	62.6	73.0	171
Total	84.8	89.7	2,768

Postnatal Care

Within the scope of Demographic and Health Surveys in Turkey, mothers were asked for the first time whether they and their babies had received postnatal care or not. Concerning the last births occurred during the last five years prior to TDHS-2008, it is found out that 85 percent of mothers and 90 percent of infants have received postnatal care from a health personnel in two months time following the delivery in Turkey (Table 18). Besides, regarding the all socio-demographic groups the infants receive proportionately more post-natal care when compared to their mothers, as observed at the national level as well. The proportion of utilization of postnatal care services has been rapidly declined to 70 percent in rural areas, in the East and among women with higher birth orders and no education. However, it has reached over 95 percent in the West, İstanbul and especially among educated women.

H. Breastfeeding and Supplementary Feeding

Breast milk which is a significant nutrient for infants and young children provides immunization for childhood diseases as well as it supplies all nutrients for a newly borne baby alone. As baby grows up, breast milk becomes insufficient and it is necessary to give other foods for the proper nutrition of the baby. Therefore, in TDHS-2008 several questions about breastfeeding and supplementary feeding of babies and children as well as their starting time and duration were asked.

According to Table 19 which has been constructed from the information about the nutrients that mothers have given to their babies during the 24 hours preceding the interview, almost all of the infants are breastfed within the first months after the birth. However, this proportion drops to a level of 90 percent at the 6th month and to 70 percent at 12th month. Seventy percent of infants younger than two months are exclusively breastfed. The proportion of exclusive breastfeeding has decreased with the age of the child. This proportion is declined to 42 percent for 2-3 month old infants and further decreases to 22 percent for 4-5 month old infants. Forty percent of infants younger than six months are exclusively breastfed. These results refer to an increase in the proportion of exclusively breastfed infants as well as the extension of exclusive breastfeeding duration in recent years in Turkey. However, the age of introducing supplementary food is too early in Turkey. More than one fifth of infants younger than two months are given infant formula, and of these infants, 9 percent is fed with water or other liquids in addition to breast milk. The proportion of children reported as receiving breast milk and solid/mushy foods increases with age and it reaches 70 percent for 6-8 month old infants.

Table 19. Breastfeeding and Supplementary Feeding
Percent distribution of living children by breastfeeding status, food supplementalion and use of a bottle with a nipple, TDHS-2008

			Breast Milk and:						
	Not Currently Breastfeeding	Breast Milk Only	Water Only	Other Liquids and Milk	Infant Formula	Solid/Mushy Foods	Total	Use of Bottle with a Nipple	Number of Living Children
Age									
0-1 months	1.5	68.9	7.3	1.3	20.9	0.0	100.0	21.8	85
2-3 months	2.3	42.0	28.0	8.0	15.9	3.7	100.0	36.1	133
4-5 months	9.5	21.9	14.6	11.0	12.1	30.8	100.0	57.0	143
6-8 months	20.4	1.6	4.0	1.6	3.7	68.6	100.0	59.1	147
9-11 months	28.9	0.4	1.2	0.4	1.6	67.5	100.0	54.8	189
12-17 months	42.3	0.0	0.3	0.6	0.1	56.6	100.0	52.9	368
18-23 months	74.1	0.0	0.6	0.0	0.0	25.3	100.0	54.7	335
24-35 months	94.1	0.1	0.0	0.0	0.0	5.8	100.0	46.0	671
0-5 months	5.0	40.4	17.8	7.6	15.6	13.5	100.0	41.0	361
6-9 months	19.9	1.6	3.8	1.2	2.8	70.6	100.0	55.1	196
10-35 months	71.4	0.0	0.2	0.2	0.2	27.9	100.0	50.8	1,515
Total	54.9	7.2	3.7	1.6	3.1	29.4	100.0	49.5	2,072

The bottle feeding of infants and children is quite common in Turkey. Almost half of the children less than 3 years old are fed by bottle with a nipple. One in every five infants younger than two months is also fed by bottle with a nipple. This result is also consistent with the high proportion of infants being fed with infant formula in addition to breast milk (Table 19).

I. Immunization of Children

In the TDHS-2008, information on immunization status (BCG, DBT, Polio, Measles and Hepatitis B) of all children born in or after 2005 was collected. For each child born in or after 2005, mothers were asked whether child had vaccination card or not and, if he/she had one, mother was asked to show it. When mother showed the card, the vaccination dates on the card were exactly copied to the questionnaire. If the vaccination card did not exist or was not shown, mother was asked questions about whether each of the vaccines was received and their doses.

The information on vaccination presented in Table 20 is based on either information taken from vaccination cards or the information provided by the mother. Vaccination rates are calculated based on information of 12-23 months old children. Although 96 percent of children in this age group have been reported to have vaccination cards, only 77 percent of those can be seen at the time of the survey. 89 percent of children whose mothers do not have any education have vaccination cards. This proportion reaches 99 percent among children whose mothers have completed as least high school. In spite of substantial differences observed in possession of vaccination card as regards education, educational level does not result in significant variations in the presentation of vaccination card to interviewers.

In order to ensure the comparability of TDHS-2008 with previous demographic surveys, children with the 1 dose BCG, 3 dose DBT, 3 dose Polio and 1 dose Measles vaccination are regarded as fully vaccinated. According to this definition, 74 percent of 12-23 months old children in Turkey are fully vaccinated. In urban areas and in all regions except the East, approximately 8 out of 10 children are fully vaccinated. However, in rural settlement and in the East the percentage of fully vaccinated children drop to 6 in every 10 children. The percentage of fully vaccinated children whose mothers have at least high school education is 80 percent whereas only the half of the children whose mothers are uneducated have been vaccinated fully. There is no marked difference between female and male children in terms of vaccination level. Nearly two percent of children in Turkey; 4 percent in Istanbul and in the East; and 7 percent of children whose mothers are uneducated have never been vaccinated.

The prevalence of BCG vaccine is considerably high in overall Turkey (96 percent) and it is more than 90 percent in all socio-demographic groups. In contrast, Measles vaccination has the lowest prevalence among all socio-demographic groups and in overall Turkey. Almost every children in Turkey has received first dose of DBT and Polio vaccines which require 3 doses. However, the percentage of the second dose of these vaccines being received declines to approximately 90, and drops just below 90 percent for the third dose. (Table 20).

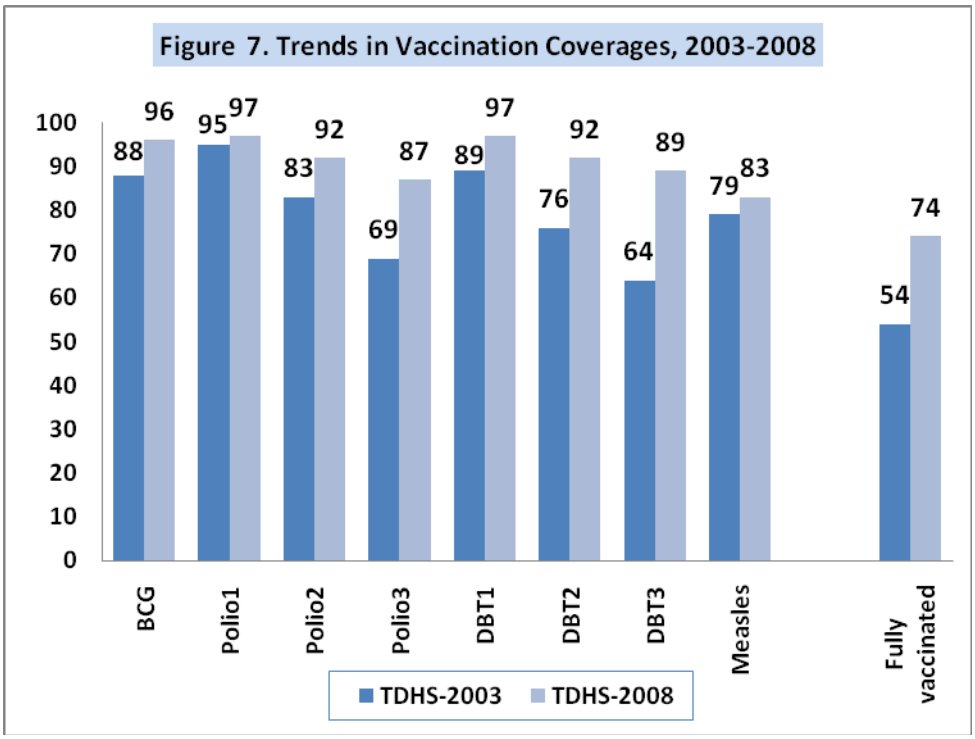
As seen in Figure 7, there are significant improvements in the vaccination rates of Turkey between 2003 and 2008. During this period, the proportion of fully vaccinated children has risen by 27 percent with an increase from 54 to 74 percent. Regarding the same period, there is an important progress in the prevalence of Measles and BCG vaccines, and in addition to this, the drop out rates in doses of vaccines are significantly reduced. This implies a decrease in the “discontinuity” between the doses of vaccines that is the most important problem of Turkey, but it also implies that the discontinuity remains a significant problem of the country.

Table 20. Vaccination by Background Characteristics

Percent distribution of vaccination cards seen by the interviewer among children aged 12-23 months and percent distribution of vaccination (according to mother's response or vaccination card) by background characteristics, TDHS-2008

Background Characteristics	Percentage with vaccination cards	Percentage of vaccination cards seen	Vaccines Received										Number of children
			BCG	DBT 1	DBT 2	DBT 3	Polio1	Polio2	Polio3	Measles*	Fully vacci-nated	None	
Sex of child													
Male	96.8	79.4	96.5	98.6	89.0	89.0	97.1	92.3	86.7	81.8	71.5	1.9	378
Female	94.8	75.1	95.4	95.7	87.7	87.7	95.7	90.5	87.2	84.9	76.8	2.5	326
Residence													
Urban	97.6	80.0	96.5	98.1	90.8	90.8	92.4	92.4	89.6	85.0	77.7	2.2	508
Rural	91.3	70.8	94.9	95.2	82.2	82.2	89.1	89.1	80.4	78.7	64.2	2.0	197
Region													
West	98.4	79.1	96.1	98.4	94.2	91.6	96.9	94.2	91.8	84.5	78.7	2.7	258
South	96.5	77.7	97.7	100.0	91.9	89.5	98.8	90.7	89.5	88.4	76.7	0.0	86
Central	98.6	87.9	97.3	97.9	97.3	94.5	96.6	95.7	91.8	91.8	84.2	1.4	147
North	97.6	86.3	100.0	100.0	88.4	88.1	100.0	90.7	85.7	90.5	79.1	0.0	43
East	88.9	70.6	92.4	93.6	84.3	77.3	93.0	84.3	76.7	69.2	55.2	4.1	172
İstanbul	*97.6*	79.2	*92.8*	*97.6*	*92.8*	*92.8*	*95.2*	*92.8*	*92.8*	*79.2*	*74.4*	*4.8*	*125*
GAP	*91.3*	78.6	*95.1*	*97.1*	*89.3*	*82.5*	*94.2*	*86.4*	*79.6*	*70.9*	*59.2*	*1.9*	*103*
Education													
No education/primary inc.	89.0	76.0	91.7	93.4	80.2	73.6	92.6	80.2	72.7	66.9	53.7	6.6	120
First level primary	96.7	76.1	95.5	97.0	92.4	90.6	94.4	93.6	90.6	86.4	77.6	2.1	331
Second level primary	96.3	77.2	98.8	98.8	92.5	90.0	97.5	93.7	87.3	77.5	76.3	1.3	80
High school and higher	99.4	81.4	99.1	100.0	97.1	94.2	98.8	94.8	91.3	86.7	79.8	0.0	173
Total	95.9	77.4	96.0	97.3	91.6	88.5	96.5	91.5	87.4	83.2	73.9	1,6	698

** In Turkey, measles vaccines was administered at 9 months of age. However, as regards the change on the vaccination schedule, Measles, Mumps, and Rubella (MMR) have been commenced to be administered at the 12 months of age as of July 2006. Due to this modification, there has been a 1 month of deficiency in the Measles vaccination rates. When 15-26-month old children are considered, this rate has been found to be 89.3 percent for Measles vaccine. This fact should be taken into account when interpreting the results. Detailed information for all vaccines will be presented in the main report based on 15-26 months old children.*



J. Nutritional Status

In TDHS-2008, the measurement of height and weight of all interviewed women whose children born after January 2003 and still alive at the time of the survey were made. By using these data, indexes related to height-for-age, weight-for-height and weight-for-age have been calculated to examine the nutritional status of under-five children. These indexes have been attained by comparing the data sets obtained in TDHS-2008 with the international reference data sets of NCHS/CDC/WHO.

Height-for-age index is an indicator of linear growth retardation among children. The children who have minus two standard deviation (-2 SD) are considered as short (stunted) for their ages and the ones who have minus three standard deviation (-3 SD) are considered severely stunted. This index is used as an indicator for the long-run effects of under-nutrition. *Weight-for-height index* is an indicator of acute under-nutrition. According to this index, the children that have minus two standard (-2 SD) deviation from median value of the reference group are considered to be too thin (wasted) and the children having minus three (-3 SD) standard deviation are considered to be severe wasting. This indicator manifests the undernutrition status for the period just before the survey. *Weight-for-age index* takes into account both acute and chronic undernutrition. Children that have minus two standard deviation (-2 SD) of weight-for-age from the median value of the reference group are considered as underweight.

According to TDHS-2008 results, 10 percent of under-five children are classified as stunted (Table 21). Among children younger than six months of age, the proportion of stunted children is 4 percent. On the other hand, it reaches 12 percent for the children older than four years of age. Seventeen percent of children in rural areas and 21 percent of children in the East are short for their age. One in 10 children in the East are classified as severely stunted. In general, malnutrition among children is a chronic rather than an acute problem due to fact that the proportion of children that are too thin (wasted) for their height is found to be lower than 1 percent in Turkey and there is no child classified as severely wasted. The results related to

weight-for-age index indicate that 3 percent of children in Turkey are underweight. The proportion of children who are underweight has gone up to 4 percent after age of two and to 6 percent among children in the East (Table 21).

Table 21. Nutritional Status of Children

Percent distribution of malnourishment status of children under five years of age according to three anthropometric indices; height-for-age, weight-for-height and weight-for-age, TDHS-2008

Background Characteristics	Height-for-age		Weight-for height		Weight-for-age		Number of Children
	Percentage below -3 SD	Percentage below -2 SD	Percentage below -3 SD	Percentage below -2 SD	Percentage below -3 SD	Percentage below -2 SD	
Age of child							
Under 6 moths	0.4	3.7	0.0	1.3	0.4	0.9	172
6-11 months	0.8	5.1	0.0	2.4	0.2	3.0	250
12-23 months	2.9	12.0	0.0	1.5	0.2	3.8	523
24-35 months	5.0	12.2	0.0	0.3	0.3	3.7	500
36-47 months	3.7	9.9	0.0	0.7	0.3	2.8	466
48-59 months	3.3	12.0	0.0	0.1	0.3	1.8	523
Residence							
Urban	2.2	7.7	0.0	0.8	0.2	2.1	1,751
Rural	5.8	17.2	0.0	1.0	0.4	4.7	683
Region							
West	1.4	7.8	0.0	0.9	0.0	1.1	830
South	2.7	7.7	0.0	0.0	0.3	3.0	334
Central	0.9	4.4	0.0	0.5	0.0	2.1	529
North	1.4	7.1	0.0	1.6	0.4	2.8	122
East	8.2	20.9	0.0	1.5	0.8	5.7	619
İstanbul	*0.7*	*7.5*	0.0	*1.5*	*0.0*	*1.5*	*396*
GAP	*8.1*	*22.0*	0.0	*1.8*	*0.3*	*4.5*	*373*
Total	3.2	10.3	0.0	0.9	0.3	2.8	2,434

K. Use of Iodized Salt

Iodine deficiency is one of the main reasons of children's mental retardation and psycho-motor growth. In addition to this, iodine deficiency would increase the probability of stillbirth and miscarriage during pregnancy. Although iodine deficiency is mostly related to goiter, it also results in low level of school success and insufficiency in working performance because of its negative effects on mental growth. The international convention to overcome the problem of iodine deficiency is the salt iodization. This deficiency is targeted to be removed by salt, which is used widely and cheap to be iodized. For this reason, as in TDHS-2003, iodization of salt that is used for cooking in households was tested in TDHS-2008.

Salt test has been applied to about half of the sampled households in TDHS-2008. In this procedure, a small sample of salt which is used for cooking has been taken and tested whether it is iodized or not by the help of test kits. Initially, salt has been examined for iodate. The changes in the color of salt and the degree of the change observed after dropping iodate test solution have been recorded. If the salt lacks iodate, a second test has been applied to the salt by using iodide test solution in order to find out whether it includes iodide or not.

As presented in Table 22, salt test was successfully completed in 97 percent of the households selected for the salt test. It has been designated that 15 percent of the households, where test was done, the salt has included neither iodide nor iodate. In other words, salt has not been iodized in these households. In 85 percent of households, salt being used has been observed to be iodized especially with potassium iodate.

There are important differences as regards residences and regions in terms of use of iodized salt. Nine in 10 households in urban areas, and 7 in 10 household in rural areas are using iodized salt. Use of iodized salt is more common in the West and the North regions when compared to other regions. While 93 percent of households in the West are using idoized salt, it declines to 79 percent in the South; and to 61 percent in the East. It is observed that when the use of iodized salt decreases, the use of iodide salt or salt with iodate less than 15 ppm increases (Table 22).

Table 22. Use of Iodized Salt
Percent distribution of households that use iodized salt by type of place of residence and region, TDHS-2008

	Salt Test				Result						
						Iodized					
Background characteristics	Not tested	Tested	Total	Total number of HH	Not Iodized	Iodized	Potassium Iodide	< 15 ppm Potassium Iodated	>= 15 ppm Potassium Iodated	Total	Total Number of Tests
Residence											
Urban	2.6	97.4	100.0	3,858	10.0	90.0	6.7	7.1	76.2	100.0	3,759
Rural	3.3	96.7	100.0	1,299	28.5	71.5	11.9	12.0	47.6	100.0	1,256
Region											
West	2.9	97.1	100.0	2,377	6.5	93.5	4.2	5.2	84.1	100.0	2,309
South	3.5	96.5	100.0	620	21.4	78.6	11.1	7.5	60.0	100.0	599
Central	2.6	97.4	100.0	1,125	14.7	85.3	10.4	8.8	66.1	100.0	1,096
North	2.6	97.4	100.0	353	10.5	90.5	10.1	14.5	64.8	100.0	343
East	2.1	97.9	100.0	682	38.6	61.4	13.7	15.9	31.8	100.0	668
İstanbul	*3.1*	*96.9*	*100.0*	*1,036*	*2.6*	*97.4*	*3.2*	*1.9*	*92.3*	*100.0*	*1,004*
GAP	*2.3*	*97.7*	*100.0*	*365*	*42.2*	*57.8*	*10.1*	*14.5*	*33.2*	*100.0*	*357*
Total	2.8	97.2	100.0	5,157	14.6	85.4	8.0	8.3	69.0	100.0	5,015

IV. CLOSING REMARKS

This report aims to share current demographic and health indicators with the related persons and institutions and hence intends to contribute to the policy priorities to be determined. This preliminary report presents a limited number of selected indicators from a wide range of indicators that are possible to be produced using the TDHS-2008 questionnaire. In the main report, which will be disseminated in October 2009, the results of all indicators that fulfill the requirements of related persons and institutions will be given both at the national level and place of residence and regions.

Results of the TDHS-2008 have revealed important enhancements in the demographic and health indicators for the last five years prior to the survey time. In the period under consideration, total fertility rate has declined from a level of 2.23 to 2.15 births per woman, representing a reduction of 4 percent. Not only the overall fertility level but also the age pattern of fertility has also changed in the same period. Contrary to the findings of the previous demographic surveys in which the highest fertility rate is observed for 20-24 age group, the TDHS-2008 results show that the highest fertility rate belongs to the age group of 25-29. This refers to an increase in the age at first marriage and the postponement of fertility within marriage. Another improvement which is in line with fertility transition is observed for the contraceptive use. The proportion of women using a contraceptive method has increased from 71 percent to 73 percent over the last five years. During this period an increase in the use of modern contraception and a decrease in the use of traditional methods are observed. On the other hand, the prevalence of withdrawal as a traditional method has not changed significantly. These findings have revealed that the increase in the prevalence of contraceptive use over the last five years in Turkey is mainly due to a shift of the non-user women towards modern methods.

According to the TDHS-2008 results, mother and child health indicators have reflected significant improvement in Turkey during the five years prior to the survey. The proportion of women receiving antenatal care from health personnel has reached 93 percent through an increase by 13 percent and the proportion of deliveries assisted by health personnel has reached to 90 percent with an increase of 8 percent. Besides, the proportion of births occurred at a health facility, increased by 12 and has reached the same level as those of assisted by health personnel. Furthermore, the results for postnatal care which were asked in the TDHS-2008 for the first time show that 85 percent of mothers and 90 percent of infants have received postnatal care. In line with this finding, infant mortality rate has declined to 18 per thousand live births with a 39 percent decline during the last five years. These results refer to the fact that Turkey has made a great progress in reducing the infant deaths to the level of European Union countries. However, there is still a need for further progress.

For the last five-year period in Turkey, there has been a significant increase in the proportion of exclusively breastfed infants. Moreover, the duration of exclusive breastfeeding has also extended. On the other hand, initiation of supplementary feeding is still early in Turkey. More than 20 percent of infants younger than two months are fed with infant formula in addition to breast milk. This manifests the need for reinforcement of programs to promote breastfeeding in the light of the new information obtained form the TDHS-2008.

The results of the TDHS-2008 have revealed that for the last five years, the proportion of fully vaccinated children who are 12-23 months old has reached 74 percent by an increase of 27 percent. Moreover, there has been significant improvements in the prevalence of all vaccines, which is also consistent with the rise in the proportion of fully vaccinated children. The great progress made in vaccination during the last five years is that the discontinuity between the 3 doses of Polio and DBT has reduced significantly. However, such an improvement does not indicate that the problem has been completely solved. It rather points out the requirement of planned efforts to be continued concerning this issue.