1983 turkish population and health survey

Hacettepe University
Institute of Population Studies

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1983 Turkish Fertility
Contraceptive Prevalence
and
Family Health Status Survey

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PREFACE

The 1983 Turkish Fertility, Contraceptive Prevalence and Family Health Status Survey is the fourth nation-wide survey which was carried out by Hacettepe University Institute of Population Studies at five-year intervals, namely, in 1968, 1973, 1978 and 1983. Prior to the 1968 Survey, the first Turkish KAP Survey was conducted by the Ministry of Health in 1963. Data derived from these surveys over a time period of twenty years offer valuable information on the demographic situation and changes in Turkey for both researchers and policy makers.

The 1983 Turkish Fertility, Contraceptive Prevalence and Family Health Status Survey coincides with the introduction of a new legislation by the Turkish parliament toward liberalization and extension of family planning services in Turkey. Hence, the 1983 Survey may be regarded as a baseline survey at the onset of such an effort, giving the picture of a country in demographic transition, with pronounced urban-rural, regional and socio-economic differentials which were persistent before and may even be increasing.

This survey also provides, for the first time, information on health status of families, mother and child care, availability and accessibility to family planning services, and services regarding delivery.

It is hoped that further in-depth analysis will follow this report, and researchers are invited to be involved in such studies.

Special thanks go to the President of the High Education Council Prof.Dr.İhsan Doğramacı for his encouragement and realisation of the survey. We would like to acknowledge our appreciation to Hacettepe Foundation for their initial financial support during the early phases of field work. The Institute of Population Studies would like to express their appreciation to Westinghouse Overseas Corporation Public Applied Systems for their financial assistance, in particular to the Director of the Demographic Data for Development Project, Dr.Richard Sturgis. We wish to thank the State Planning Organization for their initial support in the realization of the survey. Special thanks go to the State Institute of Statistics, especially to Mrs.Suhendan Ekni, for being instrumental in the sampling design. We wish to thank the Ministry of Interior, governors, and local administrators who extended all possible assistence during the field work stage. We would also like to acknowledge our appreciation to the members of the Technical Advisory Committee of the Survey which was composed of representatives of the State Planning Organization, Ministry of Health and Social Assistance and State Institute of Statistics, for their valuable suggestions. We would like to express our gratitude to the Rector of Hacettepe University, Prof. Dr. Yüksel Bozer, for his continous support in all phases of the survey.

At last, but not least, it is my distinct pleasure to express my appreciation and thanks to the entire Institute staff and students who participated in the field work, for their efforts, support and successful achievement in all phases of the survey, without whom this project would not have realised.

Prof. Dr. Ergül TUNÇBİLEK
Director

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Methodology

1. PREPARATORY ACTIVITIES

1.1 QUESTIONNAIRE DESIGN

Two questionnaires were used in the 1983 Turkish Fertility, Contraceptive Prevalence and Family Health Status Survey: a household and an individual questionnaire.

1.1.1. Household Questionnaire

The household questionnaire was applied to each sample household and served several purposes: To compile a list of members of the household, to determine the de jure population of the survey and to identify the eligible respondents for the individual interview; to obtain basic information about each member of the household including information on health; to collect information on the socio-economic characteristics of the household members; to obtain information about some demographic events.

The first part of the household questionnaire included the listing of usual members of the household. The second part contained questions about working status of each member aged 7 and over. The other parts of the household questionnaire consisted of questions about health, births and deaths during the last 3 years, and some general questions concerning the house that the household members are residing in.

The information required in the household questionnaire was obtained by interviewing any responsible adult usual member of the household, who was, usually, the head of the household or his spouse.

1.1.2. Individual Questionnaire

The individual questionnaire was administered to all ever-married women aged under 50 in a sub-sample of households subject to the household survey. The respondent for the individual interview had to be the eligible woman herself, and the aim was to conduct the interview in private for as long as possible. The individual questionnaire was divided into seven sections:

Background Characteristics

In this section, information was obtained on date of birth, age, type of birth place and childhood place of residence, father's occupation, current marital status, number of times married, date of de facto beginning of cohabitation, date of effective termination of each past marriage, age of first mensturation and mensturation during first marriage.

Fertility

The information in this section provides data on current pregnancies, live births, miscarriage, abortions, stillbirths, capacity to have children, desire for more children and a detailed birth history. Information is also collected about children who died during

their first 0-4 weeks and first year of life.

Fertility Regulation

In this section, information on knowledge of contraceptive methods and contraceptive use levels with special emphasis on the discrimination of modern and traditional methods were collected. If the woman had used any contraceptive method, information was sought on current method being used, method used during last pregnancy, preferences for other methods, and approval for the use of family planning. For those who had never used contraception, information was sought on the methods the woman ever heard of.

Availability

This section includes information on the availability of contraceptive methods that women are using; where it is obtained, how much time it takes to reach the place, means of transportation to get there, level of difficulty in obtaining it and sources for family planning.

Basic Health Questions

In this section information was obtained on the consultance and complaints during last pregnancy, the place and the person who assisted last live birth, experience with midwife or nurse during last live birth, breastfeeding, swaddling, supplementary feeding and vaccination of children less than one year of age.

Marital History

This section recorded the dates and termination of each marriage. Information is also collected on blood relationship, if any of spouses, number of times married, approval for family planning, desire of husband for future children and the reason for and duration of each separation from the husband for currently married women.

Education and Working Status

The last section contains information on literacy and working status before and after marriage as well as information on husband's literacy and working status.

1.2. PRE-TEST

The pre-test for the Turkish Fertility, Contraceptive Prevalence and Family Health Status Survey was conducted in and around Ankara in July, 1983. Five personnel from the State Institute of Statistics were assigned and instructed on the household and individual questionnaires. The objectives of the pre-test were to find out whether the flow of the interview was logical; the respondent's interest and motivation to answer questions could be maintained; the average duration of the interview is long; the sensitive questions caused resistance or embarrassment.

The pre-test areas were Çankaya, Yenimahalle, Altındağ, Polatlı and Çubuk. Some of the villages of Polatlı and Çubuk were also included in the pre-test. 250 interviews were conducted for both household and individual questionnaires.

After the pre-test, the necessary revisions of the questionnaires were completed and both questionnaires were ready for use at the end of July, 1983.

1.3. RECRUITMENT AND TRAINING OF FIELD STAFF

For the main fieldwork, three types of personnel were used; interviewers, field controllers, and team leaders. Interviewers were chosen as females in order to establish a rapport with the respondent. Field controllers' main duties were to scrutinize the interviewers work, while the team leaders were responsible for general organizational and leadership functions, including responsibilities for creating a good working atmos-

phere and establishing contact with local officials during fieldwork. All interviewers and field controllers were university students. Team leaders were required to have a previous experience in similar surveys and to be older, age wise, than interviewers and field controllers.

Both interviewers and field controllers were interviewed and selected by the project staff. Among all applicants, 121 of them were selected for training. After the selection procedure, trainees went through an intensive two week training program starting August 1 which included both classroom and field training.

During classroom training, background knowledge of research methodology was given with special emphasis on data collection and interviewing techniques. Trainees were also provided with information on human reproduction, contraception and sterilization. An understanding of these methods was essential for effective communication between interviewer and respondent. The first part of training was especially devoted to explanations of the questionnaires and problems expected during fieldwork. Following classroom training the interviewers were provided with practical field experience which was conducted in Ankara and surrounding villages.

At the end of training, 119 of the trainees were selected for the main fieldwork. Those who had shown a good performance during training were chosen as field controllers and more senior of them as team leaders.

2. SAMPLE DESIGN

2.1 THE OUTLINE

Turkish Population and Health Survey sample was a nationally representative probability sample of households. The sample design* was stratified multistage element sample. Primary sampling units were stratified by population size and geographic regions defined in terms of socio-economic variables. In the urban part of the sample; localities, then wards and in the third stage sample addresses were selected systematically with probability proportional to size (PPS). In rural areas, villages were selected systematically with PPS within each stratum. Then sample addresses were selected in the field by given instructions in villages with populations under 2000. In other rural areas (2000 - 9999), the method of sample selection of addresses were done as in urban areas.

Within the selected addresses all households were enumerated using a household schedule in which usual residents were listed and data was obtained on a number of demographic, socio-economic and health items. This was followed by detailed individual interview of ever-married women aged under 50 on de jure basis.

2.2. STRATIFICATION

The country was classified into five regions based on geographic and some socio-economic variables (see figure I.1). Boundaries of these regions were the same as boundaries of the 1978 Survey. The second stratification variable was population size groups of localities in 1980. There were seven population size groups within each region, giving also the first stage selection probability of ($Pr(M_i)$ = 1 (selection with certainty) to three metropolitan areas. By using two stratification variables, the sample design consisted of 5 X 7 = 35 strata. Within each stratum the selection procedures were applied independently.

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* *The sample design and the list of selected addresses were provided by the Sampling Section of the State Institute of Statistics.*

2.3. URBAN AND RURAL AREAS

In order to be compatible with the previous Turkish Fertility Survey sample designs, the population size groups were identical. Considering the effects of rapid population increase in urban areas, the urban-rural boundary was kept at a population size group of 10,000. The population size groups are given in Table I - 1.

TABLE I - 1 Population Size Groups of Localities

	Population Size Groups	Population Size*	Sample Size
A	50,000 and over (including metro)	15,894,267	3280
B1	25,000 - 49,999	2,986,260	636
B2	10,000 - 24,999	3,186,679	580
R1	2,000 - 9,999	6,169,363	522
R2	1,000 - 1,999	5,626,219	422
R3	500 - 999	7,140,216	600
R4	Under 500	5,634,374	476
TOTAL		46,637,378	6516

2.4. SAMPLING FRACTIONS

Information about the population was based on the 1980 census books. For each stratum, population projections were done separately, up to the median of the survey execution period (1 September, 1983), on the basis of the 1975 and 1980 census data. These were then corrected by total population projection estimate.

In order to reflect the population structure**, different sampling fractions ($f_h = n_h/N_h$) were used in urban and rural areas. The overall sampling fractions were;

For urban areas, $f_{hu} = 1/1000 = 0.001$
For rural areas, $f_{hr} = 1/2000 = 0.0005$

On the basis of the above information sample sizes for each stratum were determined separately.

2.5. SAMPLE SELECTION

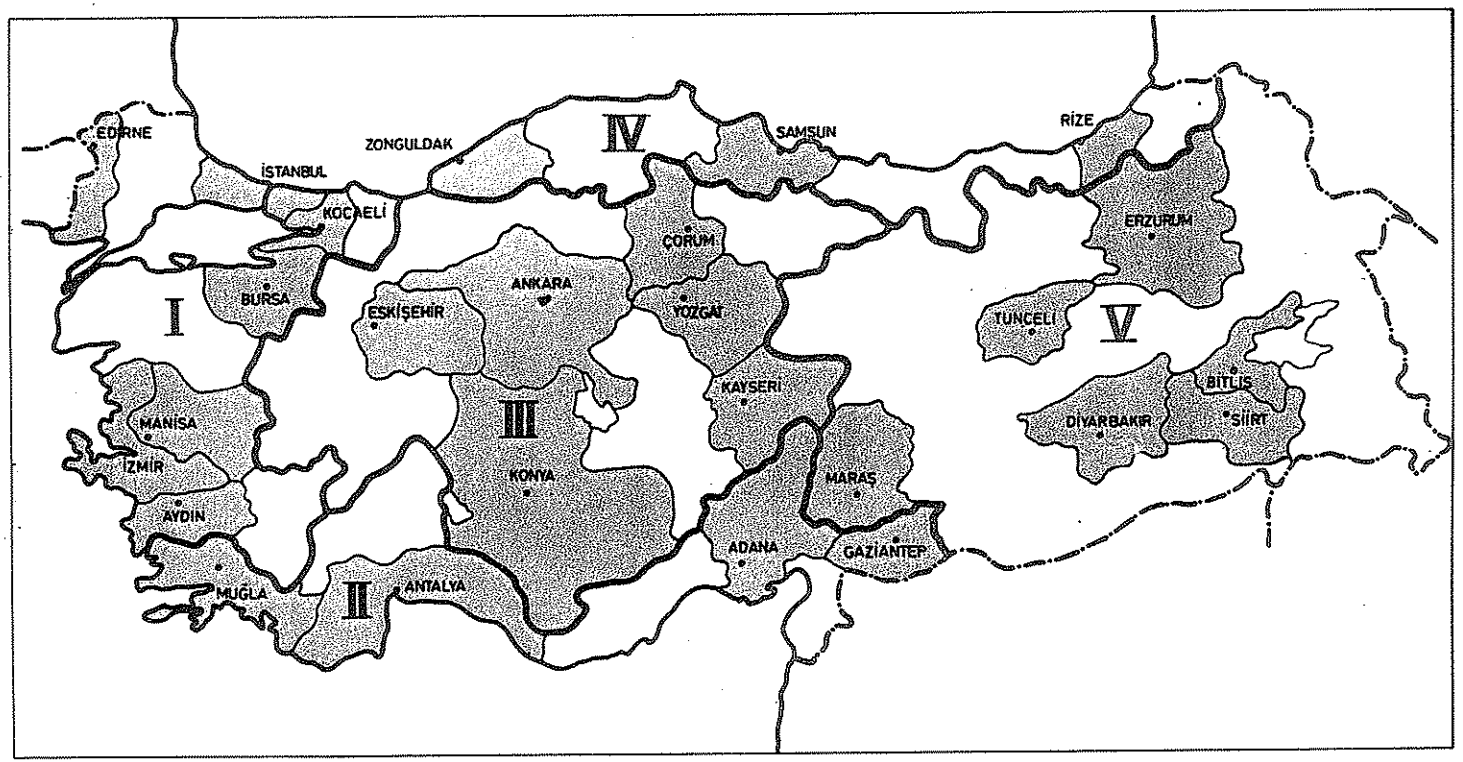
Sample selection of the primary sampling units (PSU's) also had some modifications within urban and rural areas as well as different sampling fraction in urban and rural areas. Since selection can be independent within each stratum, different modifications were used only for convenience for field application.

Sampling in Urban Areas

For the purpose of sample selection, all localities with a population of 10,000 or more (in 1980) were considered urban.

* *Based on the population projections of each strata to median survey execution time (September 1, 1983).*
** *Due to the expected heterogeneous structure in urban areas, compared to more homogeneous structure in rural areas, using higher sampling rates (over sampling) in urban areas should reflect the true nature of the population.*

FIGURE I - 1: Provinces in Which Interviews Were Held in the 1983 Turkish Fertility, Contraceptive Prevalence and Family Health Status Survey.



In 50,000 and over population size groups, two different procedures were applied for the selection of localities;

(i) Three metropolitan areas were taken with certainty.
(ii) For the rest of the group, a decision sampling was used.

In other size groups of urban areas, localities were selected by systematic sampling from a list of cumulated population sizes of localities. By this procedure a PPS selection is achieved through implied stratification.

For all urban areas, in the second stage, sample wards (or districts) were selected by simple random sampling. In the third stage, reference addresses (or points) were selected by systematic sampling from the district list which was obtained from the 1980 census books. This district list (or sampling frame) was updated before selection. Two sample addresses were obtained (paired selection) on either side of the reference address. The available sample addresses were interviewed and in the case of non-response a substitution was made according to the previous instructions.

Sampling in Rural Areas

Two different procedures were also applied for the selection of localities in rural areas. For the 2,000-9,999 size group, identical selection techniques were used as in urban areas. In other localities of populations under 2,000 a separate procedure was used. Localities (or villages) were selected systematically from a frame containing cumulative information about the size of localities. Within the selected villages the sample selection of addresses were done in the field according to previously given instructions. This consisted of preparing a sampling frame in the field and selecting the desired (previously given) number of addresses by simple random sampling method using random numbers. A substitution is also used in the case of non-response in rural areas.

3. SAMPLE OUTCOME

The sample of the survey consisted of 6516 addresses; 4496 addresses in urban areas and 2020 addresses in rural areas.

3.1. COMPLETION OF THE HOUSEHOLD SURVEY

During the survey we observed that 6545 households; 5425 in urban areas and 2020 in rural areas were being interviewed, out of 6516 sample addresses. The distribution of sample addresses and completed households by geographic regions and size of places are given in Table I - 2.

Due to the use of a substitution procedure for the non-responding households of the sample addresses, the household response rates were tried to be kept at the maximum. However, in some villages, due to seasonal migration and local work, it was not possible to complete the selected addresses by substitution. On the other hand, in some strata, there were more than one household among the given addresses (Here the number of addresses are taken to be equal to the number of dwelling units). This also naturally increased completed sample households in certain strata.

3.2 COMPLETION OF INDIVIDUAL INTERVIEW

During the execution of the individual questionnaire 5712 eligible women (87.3%) were found in 6545 households. Among these 5398 women were interviewed (3612 in urban, 1786 in rural areas) during the survey.

The distribution of the individual response is shown in Table I-3 for different regions and size of settlements. The overall response rate for the individual questionnaire was

TABLE I-2: Distribution of Sample Addresses and Completed Households

		URBAN			RURAL				
REGIONS	SIZE OF PLACE →	50000 ⩽	25000 - 49999	10000 - 24999	2000 - 9999	1000 - 1999	500 - 999	< 500	TOTAL
REGION I (WEST)	Completed households	1663	278	200	166	72	100	88	2567
	Sample Addresses	1660	276	200	164	72	100	88	2560
REGION II (SOUTH)	Completed Households	401	80	80	68	76	75	50	830
	Sample Addresses	400	80	80	68	75	75	50	828
REGION III (CENTRAL)	Completed Households	815	143	120	130	75	125	110	1518
	Sample Addresses	800	140	120	130	75	125	110	1500
REGION IV (NORTH)	Completed Households	140	60	60	60	100	101	68	589
	Sample Addresses	140	60	60	60	100	100	68	588
REGION V (EAST)	Completed Households	291	80	120	100	100	196	160	1047
	Sample Addresses	280	80	120	100	100	200	160	1040
TOTAL	Completed Households	3310	641	580	524	423	597	476	6545
	Sample Addresses	3280	636	580	522	422	600	476	6516

TABLE I-3: Distribution of Individual Responses

REGIONS	SIZE OF PLACE →	URBAN			RURAL				
		50000 ⩽	25000 - 49999	10000 - 24999	2000 - 9999	1000 - 1999	500 - 999	< 500	TOTAL
REGION I (WEST)	Women Interviewed	1231	237	150	121	65	74	71	1949
	Eligible Women	1268	247	151	127	69	80	75	2017
REGION II (SOUTH)	Women Interviewed	343	56	68	58	61	61	34	681
	Eligible Women	360	58	69	68	64	65	38	722
REGION III (CENTRAL)	Women Interviewed	664	130	80	123	62	102	91	1252
	Eligible Women	687	136	90	130	68	103	95	1309
REGION IV (NORTH)	Women Interviewed	118	51	49	64	100	82	76	540
	Eligible Women	126	54	55	68	111	100	87	601
REGION V (EAST)	Women Interviewed	247	75	113	80	103	200	158	976
	Eligible Women	264	82	119	93	109	223	173	1063
TOTAL	Women Interviewed	2603	549	460	446	391	519	430	5398
	Eligible Women	2705	577	484	486	421	571	468	5712

94.5%. This rate was higher in urban areas (95.9%) than rural areas, (91.8%).

3.3. SAMPLE WEIGHTS FOR THE SURVEY

Sample weights for the survey were calculated separately for all strata. Within each stratum, probability of selection (= sampling fraction) and household response rate determined the sample weight for the household survey. This weight is used along with the non-response correction of the individual survey to determine the sample weights for the individual survey. The sample weights for both surveys are given for each strata in Table I-4.

4. DATA PROCESSING

4.1 OFFICE EDITING

The principles of manual editing for both household and individual questionnaires were set as follows:

(i) Never change or spoil the original information unless you have a reliable source.
(ii) Never produce information for missing answers.
(iii) Never impute missing or inconsistent dates of ages which may be easily imputable by computer.
(iv) Never ignore to evaluate the notes taken by the interviewer during the interview.
(v) If any question is precoded and the answer is not suitable to any of the existing codes, give a new code to the answer and be sure to inform the coding supervisor about the new code.

Standard codes were used for valid but unmeasurable answers such as "don't know", "don't remember", "not stated". If the answer is coded in one digit, "7" is used for "don't remember", "8" for "don't know", and "9" for "not stated". If the answer is coded in two digits, "97" is used for "don't remember", "98" for "don't know" and "99" for "not stated". All non applicable questions were left blank.

Household and individual questionnaires completed in the field were given an identification number at the office. Identification number was designed in a way that it reflected the sampling design so that regions, strata and weights were derived from these numbers.

In the first phase of office edit, the addresses on both the household and individual questionnaires were checked with the sampling lists. Reasons for absence of any questionnaire type was noted down.

At the same time, line number of household members were checked since it is a part of identification number. Eligibility of women in the household was controlled with related questions and if there was (were) eligible women their individual questionnaires were identified. If the individual questionnaire was not interviewed, the reason for not interviewing was noted down.

Office Editing and Coding of the Household Questionnaires

Household questionnaire booklet contains five types of modules:

(i) Information about the interview
(ii) Information about the members of the household and health questions.
(iii) Information about births in the last three years.
(iv) Information about deaths in the last three years.
(v) Information about housing and living facilities.

For all modules in the household questionnaire both structural edit and internal con-

TABLE I-4: Sample Weights for the Survey

REGIONS	SIZE OF PLACE →	URBAN			RURAL			
		50,000 ≤	25,000 - 49,999	10.000 - 24,999	2,000 - 9,999	1,000 - 1,999	500 - 999	500 <
REGION I (WEST)	Sample Weights for the Household Survey	1107.2661	986.5353	1157.0530	2252.0370	2807.8930	2542.8990	2344.3990
	Non-response Correction of the Individual Quest...	1.03087	1.04219	1.00667	1.04959	1.06154	1.08108	1.05634
	Sample Weights for the Household Survey	1141.4474	1028.1572	1164.7705	2363.7155	2980.6907	2749.0773	2476.4824
REGION II (SOUTH)	Sample Weights for the Household Survey.	1112.1880	1266.6370	1034.5660	1963.4540	1906.3990	2118.7980	1 564.2720
	Non-response Correction of the Individual Quest..	1.04956	1.03571	1.01471	1.17241	1.04918	1.06557	1.11765
	Sample Weights for the Individual Quest.	1167.3080	1311.8686	1049.7845	2301.9731	20000.1557	2257.7276	1743.3086
REGION III (CENTRAL)	Sample Weights for the Household Survey.	1074.1782	721.4176	1401.4950	2132.9500	2578.7620	2128.3030	2156.5210
	Non-response Correction of the Individual Quest..	1.03614	1.04615	1.12500	1.05691	1.09677	1.00980	1.04396
	Sample Weights for the Individual Quest..	1112.9990	754.7110	1576.6819	2254.3362	2828.3088	2149.1604	2251.3217
REGION IV (NORTH)	Sample Weights for the Household Survey.	1199.2760	1189.6980	1153.5230	2217.8880	1639.0200	1847.5020	1598.5100
	Non-response Correction of the Individual Quest..	1.06780	1.05882	1.12245	1.06250	1.11000	1.21951	1.14474
	Sample Weights for the Individual Quest.	1280.5869	1259.6760	1294.7719	2356.5060	1819.3122	2253.0472	1829.8783
REGION V (EAST)	Sample Weights for the Household Survey.	1142.5430	903.0552	1112.8360	1597.4710	1776.8410	1320.3440	1573.9390
	Non-response Correction of the Individual Quest..	1.06883	1.09333	1.05310	1.16250	1.05825	1.11500	1.09494
	Sample Weights for the Individual Quest.	1221.1842	987.3373	1171.9276	1857.0600	1880.3419	1472.1836	1723.3688

sistency check was done manually. In addition, for the 2nd, 3rd and 4th modules date and age imputation, was done for the missing and inconsistent cases. For the correction of missing and inconsistent information, the related questions in the other modules were referred and correction was based upon them if they were believed to be true.

General principals were employed for manual editing of individual women questionnaire, since different from the household questionnaire, the dates and ages in the individual questionnaire were not imputed manually since it was done by computer. Special attention was devoted to identification number of cards, and to questionnaires that belong to two or more women in the same household.

In the first phase, answers to questions were coded on coding boxes while editing. After coding was completed a second run of manual editing was carried-out. Coding instructions were distributed to the coders and every new code was noted on the instructions. When the second manual edit was completed teams were formed to code the open-ended questions.

4.2. MACHINE EDITING

General

For machine editing, of all types of files created for the data processing of 1983 survey, general purpose programs were used, which were also used for the 1978 survey. Few special purpose programs were written, and those were identification control and file creation programs.

The Institute has two update programs, both of them written in COBOL. One of them works with the identification number of the record to be updated, and the other with the record sequence number.

The other program developed by the Institute, is the edit program that is used for all files derived from the 1983 Survey. It works on the basis of conditional and unconditional range checks. Structural edit and multi-conditional checks can also be done with this program. This program is written in COBOL.

Second edit program used for this survey is the date and age edit and imputation program which was provided by WFS for the 1978 Survey.

For all the files derived from the 1983 Survey, editing, updating and file creation was carried-out through Hacettepe University's computer. Tabulation was done with the machine that was obtained in February, 1985; SPSS was used for tabulation.

Household Questionnaire

Four files were derived from the household questionnaire, since the module of information about the interview and the module of household facilities are applied to each address, these two modules are combined to form the first file. The second file contains information about every member of the household. Third and fourth files are for the ones who are born and have died in the last three years respectively.

In the first phase of machine editing, an identification control was made for each of the files described above. Since the identification structure is similar for all the files, the same computer program was used for this purpose.

In the second phase, the four files stated above were created with a special program. Then for each file, the edit program was run with a different set of parameters to find errors. Cleaning process was repeated 8 times for the second file (household members file); 5 times for the first file (file of household facilities and interview); and 4 times

for the third and fourth files.

Individual Women Questionnaire

Information on the individual questionnaire was punched on 80 column card images. On the average 13 cards were punched for each individual woman. Some cards were not punched if the card contained not applicable questions. For example; if a woman never had any pregnancies, pregnancy cards were not punched for those women.

In the first phase of machine editing of individual questionnaire, identification control of the cards was done. Cleaning of the identification errors was completed in 3 runs.

In the second phase, a special program was written to combine the cards of individual woman to obtain a single record for each questionnaire. Then edit program was run with this file to get the error list. Cleaning process of the individual questionnaires in this phase was completed in 12 runs. Critical date and age errors were not corrected in this phase.

In the third phase another special program was written to derive a file that would be an input file for the "date and age edit and imputation" program. This file contained the background information, pregnancy history, and marriage history about the individual woman. In addition it contained the date of interview and information about current pregnancy. Imputation program edits all dates and ages according to a set of parameters given externally to the program.

For the sake of comparability, these parameters were set the same as the 1978 Survey. These parameters are:

Interval data was not used,
Interview dates are 08-1983 to 11-1983,
The respondent's age is between 10-49 years of age,
Minimum age at birth is 10,
Minimum birth interval is 7 months,
Minimum marriage interval is 0 months,
Age was interpreted as completed years,
Years ago are interpreted as completed years,
Pre-marital births are avoided,
Non-live births are not used,
Random imputation method was used for unknown.

After the data was cleaned, the histories file (pregnancy history and marriage history) was created by the imputation program.

Derivation of Standard Recoded File

Again for comparability, a standard recoded file was derived from the cleaned file, based on the variable definitions of WFS surveys. In addition to the standard variables of WFS, new variables were created from the 1983 questionnaire that were referred to in the tabulation plan of the 1983 Survey.

The last file used for tabulation was created by combining the standard recoded file with the output file (histories file) of the imputation program.

5. VARIABLE CONSTRUCTION

(i) Dates and ages; All dates and ages were obtained in terms of years and months, except for the age of child at death that is also obtained in terms of days but the recoded file contained months and years only.

(ii) Sex preference for next child is valid for only currently pregnant women since related questions were directed only to those women.

(iii) All contraceptive variables were constructed in the same way as in the 1978 Survey, except for the douche method; 1983 individual questionnaire did not contain a specific question about the douche. Variable douche was derived from other answers given to contraceptive questions.

FINDINGS

CHAPTER II

Background characteristics of the respondents

In this chapter, background characteristics of the women interviewed, namely, age, region, strata, marital status, exposure status and educational status will be studied.

Ever-married women less than 50 years old, in the households selected by the sampling procedure were interviewed separately and were requested to answer the questions in the woman questionnaire.

Altogether 7,872,115 women (unweighted 5398) have completed the questionnaire. Of these women, 5.5% are less than 20 years old, 18.1% are in the 20-24 age group, 19.7% in the 25-29 age group, 17.0% in the 30-34 age group, 15.7% in the 35-39 age group, 12.8% in the 40-44 age group, and 11.3% in the over 45 years age group.

The number and percentage distribution of these women by region and strata are given in Table II-1.

In Table II-2, the number and percentage distribution of ever-married women by age and strata (urban-rural) are given. Urban areas are categorized as localities with 10,000 and more populations, and rural areas as localities with populations less than 10,000.

As seen in Table II-2, for rural areas the proportion of ever-married women less than 20 years old is higher than that in urban areas, because in rural areas the age at marriage for women is less than that in urban areas.

In Table II-3, the number and percentage distribution of ever-married women by age and region are given.

In Table II-4, we can see the number and percentage distribution of ever-married women by age and marital status.

As seen in Table II-4, the proportion of currently married women decreases and the proportion of widowed and divorced women increases as the age of woman increases. The dissolution of marriages by divorce and separation is rare. Only 1% of women on the average stated themselves as such.

In Table II-5, the number and percentage distribution of the exposure status of ever-married women are given by age.

According to the table, on the average, 79.16% of women are exposed to pregnancy, 6.27% are infecund, and 10.17% are currently pregnant. The proportion of pregnant women decreases and the proportion of infecund women increases as the age of woman increases. For example, for women aged 35-39

TABLE II-1: The Number and Percentage Distribution of Ever-Married Women by Region and Strata

SIZE OF PLACE / REGION	URBAN			RURAL				TOTAL
	50,000 ⩽	25,000 - 49,999	10,000 - 24,999	2,000 - 9,999	1,000 - 1999	500 - 999	< 500	
I WEST	1,404,571 52.4	243,636 9.1	174,750 6.5	286,044 10.7	193,765 7.2	203,426 7.6	175,796 6.5	2,681,988 100.0
II SOUTH	400,281 40.1	73,472 7.4	71,400 7.2	133,516 13.4	122,000 12.2	137,738 13.8	59,432 5.9	997,839 100.0
III CENTRAL	739,032 40.2	98,150 5.3	126,160 6.9	277,242 15.1	175,336 9.5	219,198 11.9	204,841 11.1	1,839,959 100.0
IV NORTH	151,158 16.2	64,260 6.9	63,455 6.8	150,848 16.1	181,900 19.4	184,746 19.7	139,080 14.9	935,447 100.0
V EAST	301,587 21.3	74,025 5.2	132,436 9.3	148,560 10.5	193,640 13.7	294,400 20.8	272,234 19.2	1,416,882 100.0
TOTAL	2,996,629 38.1	553,543 7.0	568,201 7.2	996,210 12.7	866,641 11.0	1,039,508 13.2	851,383 10.8	
	4,118,373 52.3			3,753,742 47.7				7,872,115 100.0

TABLE II-2 The Number and Percentage Distribution of Ever-Married Woman by Age and Type of Place of Residence

Age of Woman	URBAN	RURAL	TOTAL
Less than 20	201828	228526	430356
	46.90	53.08	100.00
20 - 24	716101	706043	1422144
	50.35	49.65	100.00
25 - 29	855041	693148	1548189
	55.23	44.77	100.00
30 - 34	726374	613197	1339571
	54.22	45.78	100.00
35 - 39	643056	592969	1236025
	52.03	47.97	100.00
40 - 44	519808	488748	1008556
	51.54	48.46	100.00
45 - 49	456165	431109	887274
	51.41	48.59	100.00
TOTAL	4118373	3753742	7872115
	52.32	47.68	100.00

the proportion of exposed + pregnant is 93.19%, while for women aged 40-44, the proportion drops to 76.97% and for women aged 45-49 to 51.72%.

The proportion of ever-married women currently not married increases as the age of women increases. The figure is .28% for women less than 20 years old, 1.99% for women aged 30-34, 6.22% for women aged 40-44 and 10.05% for women 45 years of age.

Sterilization through operation also increases by age. However, sterilization might have no connection with family planning but might be related to health problems.

None of the women less than age 35 has declared herself as infecund. This, of course, does not mean that all women aged 15-34 are fecund, but most probably, they hope to have children even if they don't have a child at that time.

In Table II-6, we can see the number and percentage distribution of ever-married women by educational status.

As seen from the table, older women are less educated then younger women, but the increase in educational attainment seems to concentrate on primary school level. Of the women less than 20 years old, 58.06% are primary school graduates, while for women aged 45-49 this proportion is 22.30%, but the increase in the secondary school and higher levels in not so great.

For women less than 30 years old, this proportion is 11.11%, 9.35% for women 30-39 years old, and 5.34% for women over 40 years old. So there is only a 5% increase in the secondary and higher levels of education among ever-married women throughout the years.

TABLE II - 3: The Number and Percantage Distribution of Ever - Married Women by Age and Region

Age of Woman	West	South	Centre	North	East	Total
Less Than 20	80,582 18.72	69,861 16.23	115,161 26.76	44,582 10.36	120,170 27.92	430,356 100.00
20-24	445,374 31.32	149,360 10.50	356,174 25.04	169,145 11.89	302,091 21.24	1,422,144 100.00
25-29	573,706 37.06	196,805 12.71	306,315 19.79	189,301 12.23	282,062 18.22	1,548,189 100.00
30-34	454,979 32.47	188,134 14.04	303,137 22.63	174,645 13.04	238,676 17.82	1,339,571 100.00
35-39	451,182 36.50	139,765 10.98	296,371 23.98	136,369 11.03	212,338 17.18	1,236,025 100.00
40-44	376,758 34.38	149,476 14.82	258,260 25.61	116,902 11.59	137,160 13.60	1,008,556 100.00
45-49	349,407 39.38	104,438 11.77	204,541 23.05	104,503 11.78	124,385 14.02	887,274 100.00
TOTAL	2,681,988 34.07	997,839 12.68	1,839,959 12.68	935,447 23.37	1,416,882 12.11	7,872,115 100.00

TABLE II - 4: The Number and Percentage Distribution of Ever - Married Women by Age and Marital Status

Age of Women	Currently Married	Widowed	Divorced	Separated	Not Stated	Row Total
Less than 20	429,135	–	1,221	–	–	430,356
	99.7	–	0.3	–	–	100.0
20 - 24	(1,407,380)*	2,436	6,454	8,767	–	(1,425,037)
	98.8	0.2	0.5	0.6	–	100.0
25 - 29	(1,529,099)	4,647	13,358	3,527	–	(1,550,631)
	98.6	0.3	0.9	0.2	–	100.0
30 - 34	(1,316,090)	15,633	6,612	4,659	–	(1,342,994)
	98.0	1.2	0.5	0.3	–	
35 - 39	(1,186,763)	36,637	4,733	4,227	–	(1,232,360)
	96.3	3.0	0.4	0.3	–	100.0
40 - 44	945,805	49,075	11,394	1,141	1,141	(1,008,556)
	93.8	4.9	1.1	0.1	0.1	100.0
45 +	798,083	68,438	14,414	4,616	1,723	887,274
	89.9	7.7	1.6	0.5	0.2	100.0
COLUMN TOTAL	7,607,457	176,771	58,086	26,937	2,884	7,872,115
	96.6	2.2	0.7	0.3	0.0	100.0

* *The totals of weighted figures are not equal to row and column totals because, the figures in parenthesis are extrapolated from their proportions in the total.*

TABLE II - 5: The Number and Percentage Distribution of the Exposure Status of Ever - Married Women by Age

Age of Women	Pregnant	Currently Not married	Sterilized	Currently Infecund	Exposed	Total
Less than 20	129,977 30.20	1,221 .28	– –	– –	299,158 69.51	430,356 100.00
20 - 24	296,935 20.88	16,376 1.15	2,282 .16	– –	1,106,551 77.81	1,422,144 100.00
25 - 29	189,585 12.25	21,532 1.39	14,513 .94	– –	1,322,559 85.43	1,548,189 100.00
30 - 34	117,977 8.81	26,709 1.99	11,952 .89	– –	1,182,933 88.31	1,339,571 100.00
35 - 39	52,843 4.28	45,597 3.69	16,563 1.34	22,080 1.79	1,098,942 88.91	1,236,025 100.00
40 - 44	10,035 .99	62,751 6.22	20,998 2.08	148,443 14.72	766,329 75.98	1,008,556 100.00
45 - 49	3,471 .39	89,191 10.05	16,465 1.86	322,738 36.37	455,409 51.33	887,274 100.00
Total	800,823 10.17	263,377 3.35	82,773 1.05	493,261 6.27	6,231,881 79.16	7,872,115 100.00

TABLE II-6: The Number and Percentage Distribution of Ever - Married Women by Age and Educational Status

Age of Woman	Illiterate	Literate	Primary School	Secondary School	High School	University	Total
Less than 20	121,656 28.27	27,288 6.34	249,851 58.06	23,388 5.43	8,173 1.90	– –	430,356 100.00
20 - 24	365,979 25.73	100,141 7.04	794,072 55.84	59,271 4.17	83,788 5.89	18,893 1.33	1,422,144 100.00
25 - 29	521,818 33.71	148,007 9.56	689,325 44.52	57,419 3.71	94,086 6.08	32,946 2.13	1,548,189 100.00
30 - 34	544,550 40.65	165,786 12.38	487,315 36.38	42,580 3.18	59,522 4.44	36.201 2.70	1,339,571 100.00
35 - 39	628,824 50.87	163,096 13.20	341,704 27.65	40,944 3.31	40,621 3.29	20,836 1.69	1,236,025 100.00
40 - 44	525,823 52.14	158,245 15.69	276,149 27.38	23,428 2.32	14,754 1.46	10,157 1.01	1,008,556 100.00
45 - 49	541,807 61.06	94,650 10.67	197,906 22.30	29,982 3.38	17,252 1.94	5,677 .64	887,274 100.00
TOTAL	3,250,475 41.29	857,213 10.89	3,036,322 38.57	277,012 3.52	318,196 4.04	124,710 1.58	7,872,115 100.00

CHAPTER III

Nuptiality

1. INTRODUCTION

The following data on marriage history was obtained in the "Turkish Fertility, Contraceptive Prevalence and Family Health Status Survey".

(i) The household questionnaire was used to record age, sex and marital status of each usual resident of the household.

(ii) The ever-married woman questionnaire was applied to ever-married women aged under 50, selected on the basis of the household interview. Though the household and individual interviews were conducted during the same visit to the household and by the same interviewer, information on age and current marital status of the woman was obtained again during the ever-married woman interview.

(iii) For each marriage, the woman was asked the month and year of marriage, the question was worded so as to record the date of de facto beginning of co-habitation rather than the formal date of marriage. Whether or not the respondent was able to give the date of marriage, a direct question on age at marriage was asked in all cases.

(iv) Similarly, the month and year of actual termination of each past marriage was asked; in addition an attempt was made to obtain the total duration (years and months) for which the marriage lasted.

(v) Data on temporary separations, each of duration three months or more were obtained for the past five years*.

On the basis of the marriage history data, a number of variables such as age at first marriage, etc. were constructed. Generally these variables require dates coded down to the level of the month. Many respondents were unable to specify calendar months of occurence of events and consequently, extensive month-imputation was necessary.

2. CURRENT MARITAL STATUS BY AGE

Table III - 1 shows the distribution of women

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* *Those who reported themselves as currently married, but with husband away, were probed to determine whether the separation was permanent. This, however, resulted in reclassification of women from "currently married" to "separated".*

TABLE III - 1: Distribution of Women by Age and Current Marital Status

Age	SINGLE				CURRENTLY MARRIED				WIDOWED				DIVORCED				SEPARATED			
	1978	1983	% Diff.	Cohort Progression	1978	1983	% Diff.	Cohort Progression	1978	1983	% Diff.	Cohort Progression	1978	1983	% Diff.	Cohort Progression	1978	1983	% Diff.	Cohort Progression
18 - 19	77.8	70.0	- 7.8		21.7	29.7	8.0		0.1	0.1	0.0		0.2	0.1	- 0.1		0.2	0.0	- 0.2	
20 - 24	26.2	34.2	8.0	- 43.6	72.1	64.5	- 7.6	42.8	0.9	0.3	- 0.6	0.2	0.4	0.4	0.0	0.2	0.4	0.6	0.2	0.4
25 - 29	7.5	8.5	1.0	- 17.7	90.5	89.9	- 0.6	17.8	1.3	0.6	- 0.7	- 0.3	0.2	0.6	0.4	0.2	0.5	0.3	- 0.2	- 0.2
30 - 34	2.6	3.4	0.8	- 4.1	93.5	94.6	1.1	4.1	3.1	1.2	- 1.9	- 0.1	0.3	0.5	0.2	0.3	0.5	0.3	- 0.2	- 0.2
35 - 39	0.9	2.6	1.7	0.0	95.2	93.4	- 1.8	- 0.1	2.9	3.0	0.1	- 0.1	0.5	0.7	0.2	0.4	0.5	0.2	- 0.3	- 0.3
40 - 44	1.6	1.0	- 0.6	0.1	92.7	92.0	- 0.7	- 3.2	4.4	5.9	1.5	3.0	0.4	1.1	0.7	0.6	0.9	0.1	- 0.8	- 0.4
45 - 49	0.7	0.8	0.1	- 0.8	89.4	88.8	- 0.6	- 3.9	8.9	8.2	- 0.7	3.8	0.5	1.6	1.1	1.2	0.5	0.6	0.1	- 0.3
15 - 49	26.0	28.4	2.4		70.9	68.8	- 2.1		2.3	1.9	0.4		0.3	0.5	0.2		0.5	0.3	- 0.2	

Source: 1978 Turish Fertility Survey, Volume I, p. 50, 1983 Survey

aged 15-49 by current marital status for the whole country in 1978 and 1983. The survey results showed that marriage is almost universal in Turkey; single women who are 45-49 years of age are under 1%. That is, almost all women have been ever-married by the end of their fertile period. Of all women aged 15-49 who are in their fertile period, approximately more than 2/3 are currently married, 2% are widowed, and less than 1% are divorced and separated. Compared to the 1978 findings, there is no considerable difference in the 1983 findings except for a slight increase in the percent of singles and a corresponding decrease in the percent currently married.

In terms of different age groups, an interesting finding is that the percent of singles in the 18-19 age group has decreased, whereas the percent currently married has increased. Parallel to this, the percentage of single women has increased in the 20-24 age group, whereas the percentage of currently married women has decreased compared to 1978. This, therefore is a trend that may imply a decrease in the age at first marriage. Other age groups do not show any important changes compared to the 1978 findings.

Table III - 2 shows the percentages of ever-married women by type of place of residence and region.

Marriage is universal in all regions as well as in urban and rural areas. Only 1.5 - 2% of women aged 45-49 in the Northern and the Eastern regions, and 1% of women in other regions are never-married. In terms of urban-rural settlements, there is no difference among 45-49 age groups. Marriage starts very early in Turkey; 16.5% of women aged 15-19, and 65.8% of women aged 20-24, and more than 90% of women in other age groups are ever-married.

The situation observed in Table III-1, that the increase in the percentage of currently married women in the 18-19 age group and the decrease in the percentage of them in the 20-24 age group compared to the 1978 figures, can be seen again in this table. There is an increase in the percentage of ever-married women aged 15-19 and a decrease in the percentage of ever-married women aged 20-24. But, when examined in terms of regions, we can see that this increase is caused by the Southern and the Eastern regions, whereas, the decrease in the 20-24 age group can be seen in all regions. The same trend can also be observed in the 25-29 (except for the West) and the 35-39 (except for the East) age groups. Women in the 40-44 age group, on the other hand, have a slight increase (except for the Centre) compared to the 1978 figures. There is no consistent change in the 30 - 34 age group.

In summary, the increase in the percentage of women in the 15-19 age group and the decrease in the percentage of women in the 20-24 age group, in terms of both regions and places of residence compared to 1978 seem to be important.

71.6% of women who are in their fertile period (15-49) fall in the category of ever-married. There is no clear differentiation in terms of regions except for the slightly higher percentage of West over other regions and urban over rural.

3. MEAN AGE AT MARRIAGE

Since the sample is confined to ever-married women, it selectively excludes relatively late marrying women in any age group. This selection bias is more pronounced for younger age groups since a larger proportion of them are not married by the time of the interview but will marry later. In comparing different categories of the sample, it is necessary to control this effect. This is achieved

TABLE III - 2: Among All Women in the Household Survey, the Percentage Ever-Married by Age, Type of Place of Residence and Region

Age	ALL				URBAN				RURAL			
	1978	1983	% Diff.	Cohort Progression	1978	1983	% Diff.	Cohort Progression	1978	1983	% Diff.	Cohort Progression
15 - 19	15.7	16.5	0.8		16.2	17.4	1.2		15.4	15.9	0.5	
20 - 24	73.8	65.8	–8.0	50.1	70.6	65.0	–5.6	48.8	77.4	66.6	–10.8	51.2
25 - 29	92.5	91.5	–1.0	17.7	91.1	90.2	–0.9	19.6	94.0	93.2	– 0.8	15.8
30 - 34	97.4	96.6	–0.8	4.1	97.1	95.1	–2.0	4.0	96.5	98.4	– 0.9	4.4
35 - 39	99.1	97.4	–1.7	0.0	98.0	96.3	–1.7	–0.8	100.0	98.5	– 1.5	1.0
40 - 44	98.4	99.0	0.6	–0.1	97.7	98.3	0.6	0.3	99.0	99.7	0.7	–0.3
45 - 49	99.3	99.2	–0.1	0.8	98.8	99.1	0.3	1.4	99.7	99.3	– 0.4	0.3
15 - 49		71.6				73.5				69.6		

TABLE III - 2 (Continued)

Age	WEST				SOUTH				CENTRE				NORTH				EAST			
	1978	1983	% Diff.	Cohort Progression	1978	1983	% Diff.	Cohort Progression	1978	1983	% Diff.	Cohort Progression	1978	1983	% Diff.	Cohort Progression	1978	1983	% Diff.	Cohort Progression
15 - 19	13.3	12.1	- 1.2		10.0	18.6	- 8.6		22.0	15.8	- 6.2		14.8	14.9	0.1		19.3	23.3	4.0	
20 - 24	69.1	64.6	- 4.5	51.3	65.7	58.1	- 7.6	48.1	74.6	64.6	- 10.0	42.6	80.7	68.5	-12.2	53.7	80.6	73.2	- 7.4	53.9
25 - 29	89.8	91.1	1.3	22.0	90.2	87.7	- 2.5	22.0	93.5	90.7	- 2.8	16.1	95.8	94.7	- 1.1	14.0	95.0	93.7	- 1.3	13.1
30 - 34	97.5	93.5	- 4.0	3.7	98.1	98.3	0.2	8.1	97.2	96.9	- 0.3	3.4	95.7	98.7	3.0	2.9	97.9	99.5	1.6	4.5
35 - 39	98.3	96.8	- 1.5	- 0.7	100.0	98.4	- 1.6	0.3	100.0	92.3	- 7.7	- 4.9	98.6	97.8	- 0.8	2.1	98.6	99.0	0.4	1.1
40 - 44	96.0	99.1	3.1	0.8	97.4	98.6	1.2	- 1.4	100.0	98.8	- 1.2	- 1.2	100.0	100.0	0.0	1.4	98.2	98.9	0.7	0.3
45 - 49	99.4	99.4	0.0	3.4	100.0	100.0	0.0	2.6	98.9	99.5	0.6	- 0.5	100.0	98.6	- 1.4	- 1.4	99.0	98.0	-1.0	- 0.2
15 - 49		73.6				68.6				69.2				72.1				73.0		

Source: 1978 Turkish Fertility Survey, Volume I, p. 51, 1983 Survey

by choosing a pivotal age (25) and excluding a) women under that age and, b) of the remaining women those who were not married by that age from comparison. Exclusion (a) is unfortunate in the sense that it prevents the study of more recent differentials, i.e. differentials for the age at which most of the current or recent marriages take place. The consequence of (b) is that by excluding some of the late marrying women, an underestimate of the age at marriage is obtained. Furthermore, it is also likely to slightly underestimate differentials between groups, since proportionately more late marrying women are likely to be excluded from a group with a higher mean age at marriage.

As seen in table III - 3, the exclusion of late marrying women from the tabulations result in an under-estimation of approximately 0.5 years in the mean age at first marriage.

For the country as a whole, there is little consistent differentiation in the mean age at first marriage by current age.

Mean age at first marriage, compared to the 1978 findings, does not show any difference in terms of current age. A slight decrease (except for the 30-34 age group) never falls more than 0.5 years of age for all age groups. When the mean age at first marriage is examined in terms of the women aged 25-49 and married by age 25, we find 17.6 whereas it is 18.1 in terms of all ever-married women.

As seen in Table III-4 mean age at first marriage, which was found to be 17.7 in 1978 is 17.6 in 1983. In terms of urban-rural settlements, there is only 0.5 year difference whereas in 1978 there was 1 year difference between the urban and the rural areas. It seems from the table that the change is only for urban areas; the mean age at first marriage has declined 0.5 years in urban areas and no change in the mean age at marriage for rural areas has been found. Furthermore, 1.5 years of difference in the mean age at first marriage between the West and the East in 1978 has increased to 2 years in 1983. Compared to 1978, there is no clear differentiation among regions except for the decrease of 0.5 years in the Southern and Eastern regions. In summary, there is a slight but not significant decrease in the mean age at first marriage.

As for husband's education, as compared to 1978, mean age at first marriage declined by 0.5 years in all levels of education (Table III - 5). In general, as the level of husband's education increases, the mean age at marriage for women increases also.

4. TRENDS IN "AGE AT MARRIAGE"

The clearest indication of the pattern and trends in age at first marriage is obtained by

TABLE III - 3 : Mean Age at First Marriage by Current Age

	25 - 29		30 - 34		35 - 39		40 - 44		45 - 49		25 - 49	
	1978	1983	1978	1983	1978	1983	1978	1983	1978	1983	1978	1983
All Ever-Married Women	18.4	18.3	18.1	18.2	17.6	17.9	18.0	18.0	18.3	18.1	18.1	18.1
Women Married by Age 25	18.1	17.9	17.7	17.8	17.6	17.3	17.6	17.4	17.6	17.5	17.7	17.6

SOURCE: 1978 Turkish Fertility Survey, Volume I, p. 53, 1983 Survey.

TABLE III - 4: Mean Age at First Marriage by Region and Type of Place of Residence

	Total		West		South		Centre		North		East	
	1978	1983	1978	1983	1978	1983	1978	1983	1978	1983	1978	1983
Total	17.7	17.6	18.5	18.4	18.2	17.7	17.2	17.2	17.7	17.7	16.8	16.3
Urban	18.2	17.8										
Rural	17.2	17.2										

Source: 1978 Turkish Fertility Survey, Volume I, p. 54, 1983 Survey.

considering all women in an age group, i.e. the number of ever-married women from the individual interview augmented by the appropriate number of never-married women, the latter estimated on the basis of proportions ever-married from the household interview. In this way the cumulative percentage married before specified ages can be estimated for each age group, as shown in Table III - 6.

As it can be seen from Table III - 6 and also from Table III - 1, the curves for all age groups of 1983 are below than that of 1978, and this needs some further explanations.

If the ever-married women in the individual questionnaire are considered, it is observed that the percentage married before age 15 is 6.8% for the 15-19 age group, less than 14% of the 40-44 and 45-49 age groups and 15-18% of the other age groups.

Compared to 1978 figures, 15-19, 20-24, and 25-29 age groups have higher percentages of married women in all strata by type of place of residence (except rural 25-29 age group). The other age groups, on the other hand, have lower percentages of married women than that of 1978. But, ideally, it is expected that the age group 20-24, for example, of 1978 would have a similar, but not a higher percentage than that of 25-29 age group of 1983. Therefore, only the increasing percentages in younger ages are open to interpretation, such as, the increasing tendency of women to marry earlier.

TABLE III - 5: Mean Age at First Marriage by Husband's Education

	Mean Age at First Marriage	
	1978	1983
Illiterate	16.6	16.2
Literate	17.3	16.8
Primary	18.0	17.5
Higher	18.9	18.7

Source: 1978 Turkish Fertility Survey, Volume I, p. 54, 1983 Survey.

The figures, which were interpreted in 1978 as the disappearance of early marriages, therefore were challenged with Table III-7. These findings show a rather increasing trend for early marriages in younger ages. For all regions, married women in the 15-19 age groups (except the Central region) have higher percentages than that of 1978.

TABLE III - 6: Of All Women In An Age-Cohort, The Cumulative Percentage Married Before A Specified Age*

	CUMULATIVE PERCENTAGE MARRIED BEFORE AGE																									
	15		16		17		18		19		20		21		22		23		24		25		30		% ever married at present	
Cohort	1978	1983	1978	1983	1978	1983	1978	1983	1978	1983	1978	1983	1978	1983	1978	1983	1978	1983	1978	1983	1978	1983	1978	1983		
15-19	4	2.8																							15.7	17.0
20-24	10	7.9	18	14.5	30	23.8	41	33.5	52	41.1	60	50.8													73.8	65.8
25-29	12	9.2	21	17.9	34	28.5	46	39.4	58	51.4	67	62.5	74	69.7	80	77.6	84	83.1	87	86.3	90	88			92.5	91.5
30-34	17	11.8	29	21.8	41	33.2	53	44.1	65	55.7	71	65.6	79	75.5	84	81.9	88	85.6	91	88.9	93	91.6	97	96	97.4	96.6
35-39	21	14.3	35	24.9	48	38.9	61	52.5	71	63.2	79	72.6	86	79.4	90	84.6	93	87.9	95	90.2	97	92.2	98	96	99.1	97.4
40-44	17	13.8	29	26.8	42	39.7	55	50.2	64	61.1	75	71.3	83	78.7	88	86.5	92	90.7	94	92.7	95	94.3	98	98.8	98.4	99.0
45-49	15	16.0	28	26.8	43	39.4	54	51.3	67	61.1	76	70.2	83	77.6	88	82.8	91	87.3	93	91.3	95	94.2	97	97.6	99.3	99.2

Source: 1978 Turkish Fertility Survey, Volume I, p. 55, 1983 Survey

* *The table is constructed by multiplying the frequencies of age at first marriage from the individual questionnaire by the proportion of ever-married women from the household questionnaire; the result is then cumulated.*

TABLE III - 7: Percentage Married Before Age 15,by Age, Type of Place of Residence and Region

	15 - 19		20 - 24		25 - 29		30 - 34		35 - 39		40 - 44		45 - 49	
	1978	1983	1978	1983	1978	1983	1978	1983	1978	1983	1978	1983	1978	1983
All	4	6.8	10	16.8	12	15.1	17	16.0	21	17.7	17	13.7	15	13.9
Urban	3	6.7	6	18.2	8	18.2	14	13.8	18	17.9	13	12.2	13	12.9
Rural	4	6.9	14	15.7	16	15.7	21	17.6	23	17.5	20	14.9	18	14.6
West	2	5.0	3	18.3	6	10.5	7	17.5	11	19.2	9	11.3	9	18.3
South	2	7.9	7	11.1	13	16.2	16	14.7	20	17.1	11	15.2	18	17.8
Centre	5	4.1	9	12.9	9	11.1	24	13.7	24	24.7	22	18.1	20	15.5
North	3	7.1	13	17.6	14	18.2	16	18.4	22	8.6	19	16.2	6	14.0
East	6	9.2	21	20.3	27	18.9	29	16.7	30	14.9	27	10.5	23	9.5

Source: 1978 Turkish Fertility Survey, Volume I, p. 56, 1983 Survey.

When we take into consideration the percentages not married by age 25, we find different figures compared to 1978. For different age groups, the percentage not married by age 25 is around 5-11%, and urban areas have higher percentages than that of rural areas in all age groups (Table III - 8).

5. MARRIAGE STABILITY

In Turkey, over 92% of first marriages were intact at the time of the survey according to the female questionnaire, as in 1978. 4.6% of the dissolved marriages had resulted in remarriage in 1983, whereas this figure was 4.2% in 1978. Of all women in the female questionnaire, 4.4% had married twice, and 0.2% had married three times.

Although 92.5% of first marriages were still continuing, 3.6% resulted in widowhood and 3.8% resulted in divorce and separation.

At the time of the survey, 96.6% of the women in the female questionnaire were currently married, 2.2% were widowed, 0.7% were divorced and 0.3% were separated.

According to the household questionnaire, on the other hand, 42.2% of all women were currently married, 6.2% were widowed, 0.4% were divorced and 0.2% were separated.

TABLE III - 8: Percentage not Married by Age 25,by Age and Type of Place of Residence

	25 - 29		30 - 34		35 - 39		40 - 44		45 - 49	
	1978	1983	1978	1983	1978	1983	1978	1983	1978	1983
All	10	10.1	7	5.4	3	6.6	5	8.0	5	11.2
Urban	13	12.1	9	7.1	7	7.7	7	12.0	8	12.9
Rural	8	7.4	4	3.2	0	5.4	4	3.9	3	9.3

Source: 1978 Turkish Fertility Survey, Volume I, p. 56, 1983 Survey

CHAPTER IV

Fertility

1. CURRENT PREGNANCIES

The 1983 Survey gives us information about 7,872,115 ever-married women less than 50 years old, of which 96.6% are currently married. Of the 7,607,457 currently married women, 10.47% stated that they were currently pregnant.

Table IV-1 gives the distribution of currently pregnant ever-married women by the duration of pregnancy.

TABLE IV - 1– The Number and Percent Distribution of Currently Pregnant Women by the Duration of Pregnancy

Duration of Pregnancy in Months	No. of Pregnant Women	Percentage
1	17,007	2.13
2	78,818	9.88
3	96,911	12.15
4	110,787	13.89
5	105,758	13.26
6	79,266	9.94
7	108,485	13.60
8	103,239	12.94
9	97,528	12.22
TOTAL	797,799	100.00

The percentage distribution of pregnancies by the duration of pregnancy indicates that there is some under-reporting especially for the earlier months, because it is not always easy to determine pregnancy before two months. In the following months, although pregnancy becomes more noticeable, abortions and premature births reduce the number of pregnancies reported.

Table IV - 2 gives the percentage distribution of current pregnancies according to the age of women by region and type of place of residence.

As seen in Table IV - 2, the main bulk of pregnancies occur for the 20-24 age group (36.97%), which is followed by the 25-29 age group (23.57%). For region and type of place of residence, the same trend can be seen. In rural areas pregnancies continue also in older age groups more heavily than in urban areas. After the age of 30, the percentage of pregnancies for rural areas is 22.08, while for urban areas, it is 24.03. This dif - ferentiation can also be seen among regions. The percentage of pregnancies after age 30 is 14.49 for the Western region, 27.56 for the Northern region and 29.37 for the Eastern region.

Table IV - 3 gives the number of current pregnancies by years since first marriage.

As seen from Table IV - 3, almost half of the pregnancies occur during the first five years of marriage and 71% occur in the first ten years of marriage.

Table IV - 4 gives the number of total preg-

TABLE IV - 2: Percentage Distribution of Current Pregnancies of Currently Married Women According to Age - by Region and Type of Place of Residence

Age of Women Currently Married	West	South	Central	North	East	Urban	Rural	TURKEY
Less than 20	13.52	23.86	18.63	12.30	14.44	17.20	15.59	16.32
20 - 24	45.99	26.78	43.58	35.65	31.83	37.04	36.92	36.97
25 - 29	24.00	22.31	22.37	24.48	24.36	23.69	23.47	23.57
30 - 34	12.61	18.22	9.31	15.32	18.14	14.52	15.06	14.81
35 - 39	3.22	4.65	5.42	10.90	9.26	5.94	7.21	6.63
40 - 44	.66	2.77	.68	1.34	1.26	1.62	.96	1.26
45 - 49	.00	1.40	.00	0.00	.71	.00	.80	.44
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

TABLE IV - 3: The Number of Current Pregnancies by Years Since First Marriage for Currently Married Women

Years Since First Marriage	No.of Current Pregnancies	Percentage
Less than 5	340,623	42.76
5 - 9 years	223,551	28.07
10 - 14 years	116,997	14.69
15 - 19 years	86,437	10.85
20 - 24 years	21,274	2.67
25 - 29 years	4,716	.59
More than 30	2,920	.37
TOTAL	796,518	100.00

nancies (completed + current) by region and type of place of residence. As seen from the table, for Turkey, ever-married women 45-49 years old in average have 6.84 pregnancies. This number is 5.95 for urban areas, and 7.78 for rural areas. Thus the women in urban areas have in average 1.83 pregnancies less than the women in rural areas. This might indicate the effect of preventive measurements in urban areas.

Among regions, the Western region has the lowest number of pregnancies, 5.23 pregnancies on the average for ever-married women 45-49 years old, while in the Eastern region this number is 9.34. The women in the Western region have on the average 4.11 pregnancies less than the women in the Eastern region. We may take this as the number of prevented pregnancies.

The other regions have intermediate positions between the West and the East.

2. CHILD AND WOMAN RATIOS

This ratio is .54112 for total Turkey, .48275 for urban areas and .60163 for rural areas. Among regions, West has .40904, South .54176, Central .51827, North .57632, and East .79527.

3. CUMULATIVE FERTILITY

The following tables give the average no. of total pregnancies separately for current and completed pregnancies, no. of wasted pregnancies (abortions and still births), no. of children ever-born, no. of children survived, and no. of children died by the age of women according to type of place of residence, region, duration of marriage and educational status of women. Tables IV-5, IV-6 and IV-7 are for total women, Tables IV-8-22 are for ever-married women.

As seen in table IV-5, for overall Turkey, a woman aged 45-49 has on the average 6.36 completed pregnancies, 1.11 wasted pregnancies, and 5.25 fertile pregnancies. The proportion of wasted pregnancies is 17.45%. The same woman has on the average 5.31 children everborn and 4.05 surviving children, 1.26 children died. The proportion of children died is 23.73%.

As seen in Table IV-6, for urban areas, a woman aged 45-49 has in average 5.40 completed pregnancies, 1.26 wasted pregnancies and 4.14 fertile pregnancies. The proportion of wasted pregnancies is 23.33%. The same woman has in average 4.19 children ever-born and 3.27 surviving children, .92 children died. The proportion of children died is 21.96%.

As seen in Table IV-7, for rural areas, a woman aged 45-49 has on the average 7.41 completed pregnancies, .93 wasted pregnancies and 6.49 fertile pregnancies. The proportion of wasted pregnancies is 12.55%. The same woman on the average has 6.56 children ever-born, 4.92 surviving children and 1.64 children died. The proportion of children died is 25%.

When we compare urban areas with rural areas, it becomes apparent that in urban areas the proportion of wasted pregnancies is higher than in rural areas, while the pro-

TABLE IV - 4: Total Pregnancies (Completed + Current) for Ever - Married Women According to Age - by Region and Type of Place of Residence

Age of Women	Region					Type of Place of Residence		
	West	Centre	South	North	East	Urban	Rural	Turkey
15 - 19	.99	.95	1.16	1.05	1.15	1.06	1.05	1.05
20 - 24	1.79	2.22	1.92	2.33	2.78	2.05	2.32	2.19
25 - 29	2.88	3.89	3.58	4.11	4.41	3.25	4.03	3.60
30 - 34	3.88	5.17	5.37	5.74	6.36	4.49	5.75	5.06
35 - 39	4.65	6.00	6.55	5.86	8.13	5.33	6.56	5.92
40 - 44	4.89	7.54	7.11	7.16	8.40	5.80	7.52	6.64
45 - 49	5.23	7.68	7.22	7.21	9.34	5.95	7.78	6.84
Average	3.67	4.87	4.83	4.93	5.49	4.10	5.09	4.57

TABLE IV - 5: Mean Number of Total Pregnancies, Wasted Pregnancies, Completed Fertile Pregnancies, Children Ever-Born, Children Survived and Children Died for Total Women (Turkey)

Age of Woman	Total Pregnancies		Wasted Pregnancies	Completed Fertile Pregnancies	Children Ever-Born	Children Survived	Children Died
	Completed + Current	Completed					
15 - 19	.18	.13	.02	.11	.11	.10	.01
20 - 24	1.43	1.29	.20	1.09	1.10	.95	.15
25 - 29	3.38	3.26	.55	2.71	2.72	2.36	.37
30 - 34	4.96	4.85	.93	3.92	3.99	3.37	.62
35 - 39	5.79	5.75	1.01	4.74	4.80	3.93	.87
40 - 44	6.49	6.48	1.29	5.19	5.26	4.15	1.11
45 - 49	6.36	6.36	1.11	5.25	5.31	4.05	1.26
AVERAGE	3.26	3.19	.57	2.62	2.65	2.17	.48

TABLE IV - 6: Mean Number of Total Pregnancies, Wasted Pregnancies, Completed Fertile Pregnancies, Children Ever-Born, Children Survived and Children Died for Total Women (Urban)

Age of Woman	Total Pregnancies		Wasted Pregnancies	Completed Fertile Pregnancies	Children Ever-Born	Children Survived	Children Died
	Completed + Current	Completed					
15 - 19	.19	.13	.02	.12	.12	.10	.02
20 - 24	1.34	1.22	.24	.98	1.00	.91	.08
25 - 29	2.98	2.89	.61	2.28	2.29	2.05	.25
30 - 34	4.28	4.21	1.00	3.21	3.23	2.79	.45
35 - 39	5.23	5.21	1.29	3.92	3.95	3.35	.60
40 - 44	5.71	5.70	1.52	4.17	4.23	3.41	.83
45 - 49	5.40	5.40	1.26	4.14	4.19	3.27	.92
Average	3.01	2.94	.69	2.25	2.27	1.92	.35

TABLE IV - 7: Mean Number of Total Pregnancies, Wasted Pregnancies, Completed Fertile Pregnancies, Children Ever-Born, Children Survived and Children Died for Total Women (Rural)

Age of Woman	Total Pregnancies		Wasted Pregnancies	Completed Fertile Pregnancies	Children Ever-Born	Children Survived	Children Died
	Completed + Current	Completed					
15 - 19	.17	.12	.01	.11	.11	.10	.01
20 - 24	1.50	.65	.15	1.20	1.21	1.00	.21
25 - 29	3.89	3.74	.48	3.26	3.28	2.74	.54
30 - 34	5.84	5.72	.84	4.88	4.93	4.10	.83
35 - 39	6.39	6.34	.69	5.65	5.71	4.56	1.16
40 - 44	7.30	7.29	1.04	6.25	6.34	4.92	1.42
45 - 49	7.42	7.41	.93	6.49	6.56	4.92	1.64
Average	3.53	3.45	.44	3.00	3.04	2.43	.61

portion of children died is lower. In urban areas, women aged 45-49 have in average 2 pregnancies less than the women in rural areas aged 45-49. This can be taken as a result of some measures to prevent conception (late marriage and/or contraceptive usage).

According to Table IV-8, in overall Turkey, ever-married women aged 45-49 have on the average 6.84 completed pregnancies, 1.19 wasted pregnancies, 5.65 fertile pregnancies, whose outcome is 5.71 children ever-born, 4.36 children surviving and 1.36 children died. The proportion of wasted pregnancies is 17.40% and the proportion of children died is 23,82%.

According to Table IV-9, in urban areas, ever-married women aged 45-49 have on the average 5.95 completed pregnancies, 1.39 wasted pregnancies, 4.56 fertile pregnancies, 4.61 children ever-born, 3.60 children surviving and 1.01 children died. The proportion of wasted pregnancies is 23.36% and the proportion of children died is 21.91%.

According to Table IV-10, in rural areas, ever-married women aged 45-49 have on the average 7.77 completed pregnancies, .97 wasted pregnancies, 6.80 fertile pregnancies, 6.88 children ever-born, 5.16 children surviving and 1.72 children died. The proportion of wasted and the proportion of children died is 25%.

As in the case of total women, for ever-married women also, in urban areas the proportion of wasted pregnancies is higher and the proportion of children died is lower than in rural areas (see figure IV-1).

For the Western region (Table IV-11), for ever-married women aged 45-49, the proportion of wasted pregnancies is 23.71%, and the proportion of children died is 17.96%.

For the Northern region (Table IV-12), for ever-married women aged 45-49, the proportion of wasted pregnancies is 17.89% and the proportion of children died is 23.71%.

For the Central region (Table IV-13) for ever-married women aged 45-49 the proportion of wasted pregnancies is 15,89% and the proportion of children died is 28.20%.

For the Southern region (Table IV-14) for ever-married women aged 45-49 the proportion of wasted pregnancies is 13.75% and the proportion of children died is 22.01%.

For the Eastern region (Table IV-15) for ever-married women aged 45-49 the proportion of wasted pregnancies is 11.16% and the proportion of children died is 26.79% (See figure IV-2).

The highest number of completed pregnancies is in the Eastern region (9.32 completed pregnancies). This is 1.64 pregnancies higher than the Central region, 2.11 pregnancies higher than the Northern region, 2.12 pregnancies higher than the Southern region and 4.09 pregnancies higher than the Western region. These differences show the number of prevented pregnancies through the usage of contraceptives and/or by late marriages in comparison with the Eastern region.

The highest proportion of wasted pregnancies is seen in the Western region (23.71%), while in the Eastern region the proportion is 11.16%.

The highest proportion of children died is in the Eastern region (26.79%), while the lowest proportion is 17.96% for the Western region.

When the duration of marriage is taken as the variable to study cumulative fertility (Table IV-16), we see that for women who have married 10-14 years ago, the proportion of wasted pregnancies is 18.06% and the proportion of children died is 16.22%. For women who have married 20-24 years ago, the proportion of wasted pregnancies is

TABLE IV - 8: Mean Number of Total Pregnancies, Wasted Pregnancies, Completed Fertile Pregnancies, Children Ever-Born, Children Survived and Children Died for Ever-Married Women (Turkey)

Age of Woman	Total Pregnancies		Wasted Pregnancies	Completed Fertile Pregnancies	Children Ever-Born	Children Survived	Children Died
	Completed + Current	Completed					
15 - 19	1.05	.75	.09	.66	.66	.59	.07
20 - 24	2.19	1.98	.30	1.68	1.69	1.46	.23
25 - 29	3.60	3.48	.59	2.89	2.90	2.51	.40
30 - 34	5.06	4.95	.95	4.00	4.07	3.44	.63
35 - 39	5.92	5.88	1.03	4.85	4.91	4.02	.89
40 - 44	6.64	6.63	1.32	5.31	5.38	4.24	1.14
45 - 49	6.84	6.84	1.19	5.65	5.71	4.36	1.36
Average.	4.57	4.47	.80	3.67	3.71	3.04	.67

TABLE IV - 9: Mean Number of Total Pregnancies, Wasted Pregnancies, Completed Fertile Pregnancies, Children Ever-Born, Children Survived and Children Died for Ever-Married Women (Urban)

Age of Woman	Total Pregnancies		Wasted Pregnancies	Completed Fertile Pregnancies	Children Ever-Born	Children Survived	Children Died
	Completed + Current	Completed					
15 - 19	1.06	.75	.10	.65	.65	.57	.09
20 - 24	2.05	1.86	.36	1.50	1.52	1.39	.12
25 - 29	3.25	3.15	.66	2.49	2.50	2.24	.27
30 - 34	4.49	4.42	1.05	3.37	3.39	2.93	.47
35 - 39	5.33	5.30	1.31	3.99	4.02	3.41	.61
40 - 44	5.80	5.79	1.55	4.24	4.30	3.47	.84
45 - 49	5.95	5.95	1.39	4.56	4.61	3.60	1.01
Average	4.10	4.01	.94	3.07	3.09	2.62	.48

TABLE IV - 10: Mean Number of Total Pregnancies, Wasted Pregnancies, Completed Fertile Pregnancies, Children Ever-Born, Children Survived, and Children Died for Ever-Married Women (Rural)

Age of Woman	Total Pregnancies		Wasted Pregnancies	Completed Fertile Pregnancies	Children Ever-Born	Children Survived	Children Died
	Completed + Current	Completed					
15 - 19	1.05	.75	.09	.66	.66	.61	.06
20 - 24	2.32	2.09	.24	1.85	1.87	1.54	.33
25 - 29	4.03	3.88	.50	3.38	3.40	2.84	.56
30 - 34	5.75	5.64	.83	4.81	4.86	4.04	.82
35 - 39	6.56	6.51	.71	5.80	5.87	4.68	1.19
40 - 44	7.52	7.51	1.07	6.44	6.53	5.07	1.46
45 - 49	7.78	7.77	.97	6.80	6.88	5.16	1.72
Average	5.09	4.97	.64	4.33	4.38	3.50	.88

FIGURE IV - 1: Mean Number of Wasted Pregnancies, Children Survived, and Children Died for Ever-Married Women Aged 45-49 According to Strata

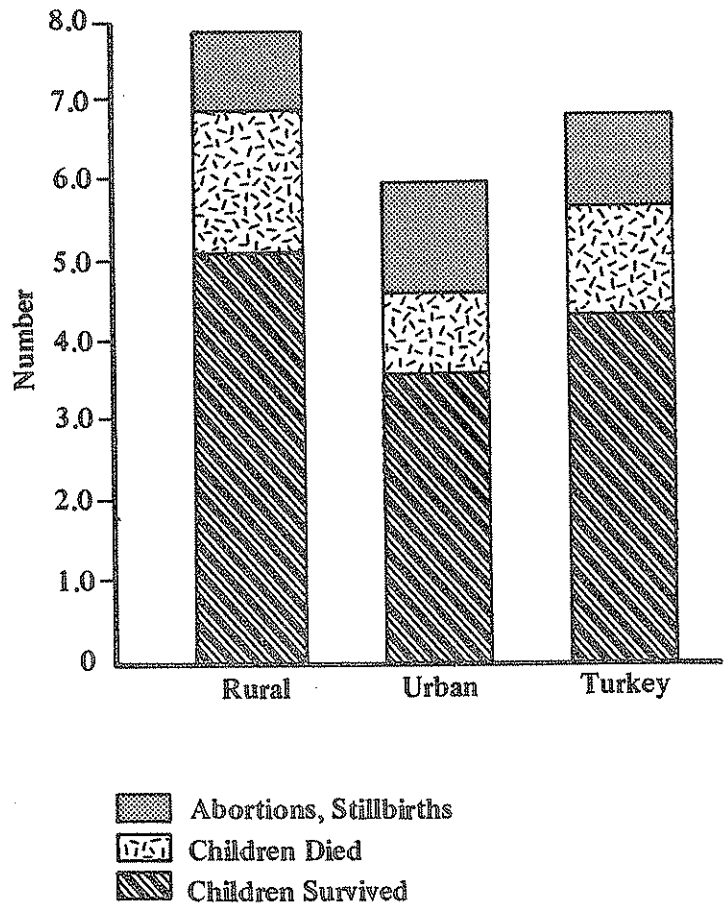


TABLE IV - 11: Mean Number of Total Pregnancies, Wasted Pregnancies, Completed Fertile Pregnancies, Children Ever-Born, Children Survived and Children Died For Ever-Married Women (West)

Age of Woman	Total Pregnancies		Wasted Pregnancies	Completed Fertile Pregnancies	Children Ever-Born	Children Survived	Children Died
	Completed + Current	Completed					
15 - 19	.99	.70	.13	.57	.57	.53	.04
20 - 24	1.79	1.61	.31	1.30	1.30	1.19	.12
25 - 29	2.88	2.81	.62	2.19	2.20	1.95	.25
30 - 34	3.88	3.83	1.02	2.81	2.83	2.53	.30
35 - 39	4.65	4.64	1.05	3.59	3.62	2.89	.63
40 - 44	4.89	4.89	1.24	3.65	3.67	3.04	.63
45 - 49	5.23	5.23	1.24	3.99	4.01	3.29	.72
Average	3.67	3.60	.85	2.75	2.77	2.37	.40

TABLE IV - 12: Mean Number of Total Pregnancies, Wasted Pregnancies, Completed Fertile Pregnancies, Children Ever-Born, Children Survived and Children Died for Ever-Married Women (North)

Age of Woman	Total Pregnancies		Wasted Pregnancies	Completed Fertile Pregnancies	Children Ever-Born	Children Survived	Children Died
	Completed + Current	Completed					
15 - 19	1.05	.79	.09	.70	.69	.60	.09
20 - 24	2.33	2.13	.32	1.81	1.81	1.53	.27
25 - 29	4.11	3.19	.72	3.27	3.28	2.86	.42
30 - 34	5.74	5.66	1.25	4.41	4.47	3.69	.78
35 - 39	5.86	5.78	1.03	4.75	4.81	4.07	.74
40 - 44	7.16	7.15	1.39	5.76	5.93	4.51	1.42
45 - 49	7.21	7.21	1.29	5.92	6.03	4.60	1.43
Average	4.93	4.83	.91	3.92	3.97	3.25	.73

TABLE IV - 13: Mean Number of total Pregnancies, Wasted Pregnancies, Completed Fertile Pregnancies, Children Ever-Born, Children Survived and Children Died for Ever-Married Women (Centre)

Age of Woman	Total Pregnancies		Wasted Pregnancies	Completed Fertile Pregnancies	Children Ever-Born	Children Survived	Children Died
	Completed + Current	Completed					
15 - 19	.95	.69	.03	.66	.65	.59	.07
20 - 24	2.22	2.02	.33	1.69	1.69	1.52	.18
25 - 29	3.89	3.77	.69	3.08	3.11	2.61	.50
30 - 34	5.17	5.12	1.06	4.06	4.11	3.38	.74
35 - 39	6.00	5.97	1.15	4.82	4.87	3.90	.97
40 - 44	7.54	7.54	1.71	5.83	5.90	4.51	1.40
45 - 49	7.68	7.68	1.22	6.46	6.56	4.71	1.85
Average	4.87	4.78	.92	3.86	3.91	3.10	.80

TABLE IV - 14: Mean Number of Total Pregnancies, Wasted Pregnancies, Completed Fertile Pregnancies, Children Ever-Born, Children Survived and Children Died for Ever-Married Women (South)

Age of Woman	Total Pregnancies		Wasted Pregnancies	Completed Fertile Pregnancies	Children Ever-Born	Children Survived	Children Died
	Completed + Current	Completed					
15 - 19	1.16	.73	.11	.62	.62	.62	.00
20 - 24	1.92	1.69	.24	1.45	1.46	1.34	.11
25 - 29	3.58	3.44	.57	2.87	2.89	2.53	.36
30 - 34	5.37	5.25	.99	4.26	4.32	3.67	.64
35 - 39	6.55	6.50	1.24	5.26	5.33	4.57	.76
40 - 44	7.11	7.09	1.24	5.85	5.96	4.77	1.19
45 - 49	7.22	7.20	.99	6.21	6.27	4.89	1.38
Average	4.83	4.70	.81	3.89	3.94	3.30	.64

TABLE IV - 15: Mean Number of Total Pregnancies, Wasted Pregnancies, Completed Fertile Pregnancies, Children Ever-Born, Children Survived and Children Died for Ever-Married Women (East)

Age of Woman	Total Pregnancies		Wasted Pregnancies	Completed Fertile Pregnancies	Children Ever-Born	Children Survived	Children Died
	Completed + Current	Completed					
15 - 19	1.15	.86	.12	.74	.74	.61	.12
20 - 24	2.78	2.53	.24	2.29	2.30	1.83	.47
25 - 29	4.41	4.20	.35	3.85	3.88	3.27	.61
30 - 34	6.36	6.17	.43	5.74	5.76	4.79	.97
35 - 39	8.13	8.02	.66	7.36	7.48	6.00	1.49
40 - 44	8.40	8.38	.78	7.60	7.64	5.99	1.65
45 - 49	9.34	9.32	1.04	8.28	8.36	6.11	2.24
Average	5.49	5.32	.47	4.85	4.89	3.92	.98

FIGURE IV - 2: Mean Number of Wasted Pregnancies, Children Survived, and Children Died for Ever-Married Women Aged 45-49 According to Regions

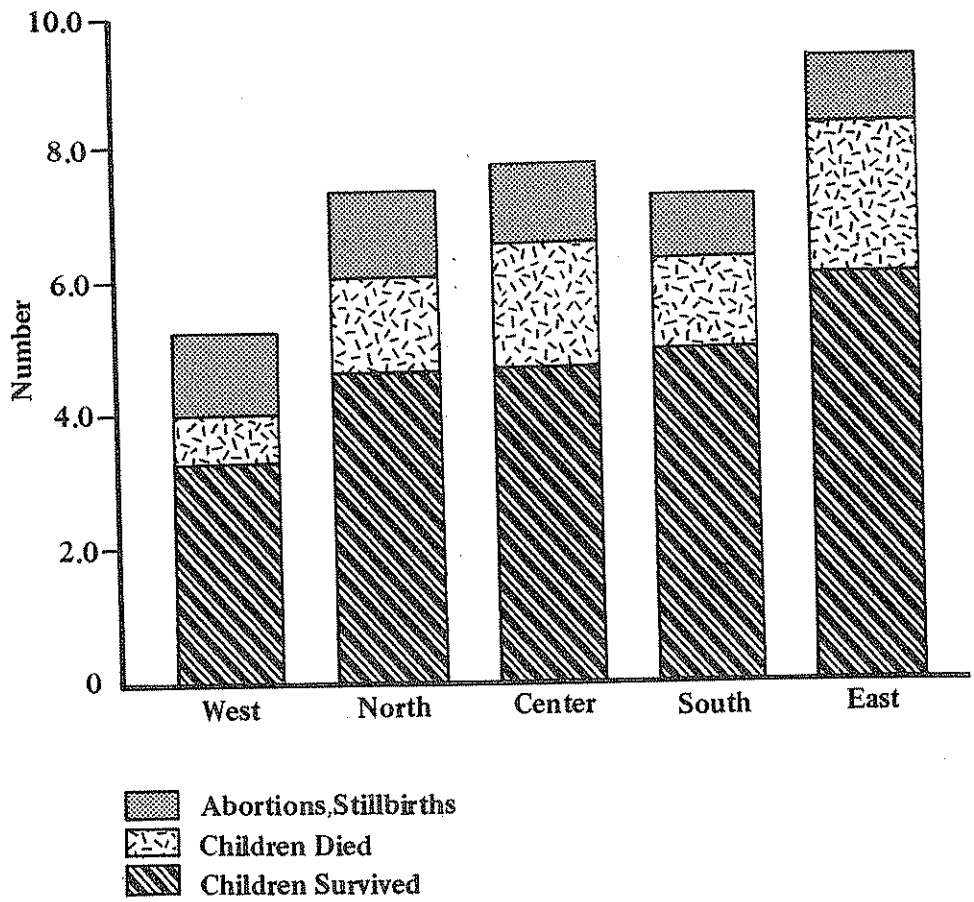


TABLE IV - 16: Mean Number of Total Pregnancies, Wasted Pregnancies, Completed Fertile Pregnancies, Children Ever-Born, Children Survived and Children Died for Ever-Married Women (Turkey) by Duration of Marriage

Age of Woman	Total Pregnancies		Wasted Pregnancies	Completed Fertile Pregnancies	Children Ever-Born	Children Survived	Children Died
	Completed + Current	Completed					
Less than 5 years	1.33	1.09	.17	.92	.93	.84	.08
5 - 9 years	3.08	2.94	.52	2.42	2.43	2.13	.30
10 - 14 years	4.63	4.54	.82	3.72	3.76	3.15	.61
15 - 19 years	5.78	5.70	1.05	4.65	4.70	3.95	.75
20 - 24 years	6.33	6.31	1.15	5.16	5.24	4.25	.99
25 - 29 years	7.23	7.22	1.36	5.86	5.92	4.57	1.35
30 + years	8.09	8.08	1.25	6.83	6.91	5.03	1.87
Average	4.57	4.47	.80	3.67	3.71	3.04	.67

18.23% and the proportion of children died is 18.89%. Women who have married 30 and more years ago, the proportion of wasted pregnancies is 15.47 and the proportion of children died is 27.06.

As seen from this analysis, mortality of children has been reduced over time, and the proportion of wasted pregnancies increased. The proportion of wasted pregnancies increased from 15.47% to 18.06% and the proportion of children died decreased from 27.06% to 16.22%. This shows that women married 10-15 years ago are using abortion as a means to prevent fertility more than the women married 30 and more years ago.

In Tables IV-17-22, various categories of literacy are taken as variables to study cumulative fertility. As seen in Table IV-17, for illiterate women aged 45-49 the proportion of wasted pregnancies is 14.12% and the proportion of children died is 25.69%.

As seen in Table IV-18, for literate women (women who know how to read and write but did not complete any school) aged 45-49 have in average 5.25 completed pregnancies, 1.12 wasted pregnancies, 4.13 fertile pregnancies, 4.15 children ever-born, 3.26 children surviving and .89 children died. The proportion of wasted pregnancies is 21.33 and the proportion of children died is 21.45.

Women who have graduated from primary school (Table IV-19) aged 45-49 have in average 5.41 completed pregnancies, 1.33 wasted pregnancies, 4.08 fertile pregnancies, 4.10 children ever-born, 3.37 children surviving, and .73 children died. The proportion of wasted pregnancies is 24.58% and the proportion of children died is 17.80%.

For women who have graduated from secondary school (Table IV-20) aged 45-49 have in average 3.79 completed pregnancies, 1.34 wasted pregnancies, 2.45 fertile pregnancies, 2.52 children ever-born, 2.21 children surviving, and .31 children died. The proportion of wasted pregnancies is 35.36% and the proportion of children died is 12.30%.

Women who have graduated from high school (Table IV-21) aged 45-49 have in average 4.24 completed pregnancies, 1.93 wasted pregnancies, 2.31 fertile pregnancies, 2.38 children ever-born, 1.95 children surviving, and .43 children died. The proportion of wasted pregnancies is 45.52% and the proportion of children died is 18.07%.

Women who are university graduates (Table IV-22) aged 45-49 have in average 3.00 completed pregnancies, .60 wasted pregnancies, 2.40 fertile pregnancies, 2.40 children ever-born, 2.40 children surviving, and no children died. The proportion of wasted pregnancies is 20%. The proportion of children died is zero, but this is due to the smallness of the number of cases in this category (see figure IV-3).

Women who are university graduates have on the average almost five pregnancies less than illiterate women at the end of their fertile period. There are two reasons for this reduction; first of all, university graduates in general marry after graduation, this postpones their fertility, and secondly, pregnancies are prevented by the use of contraceptives during their marital life.

In regard to the number of pregnancies, the number of children ever-born and the number of children surviving, literate and primary school graduates show a similar performance in Turkey.

The real difference in fertility begins with secondary school graduation. In regard to the number of children ever-born and children surviving, secondary school, high school and university graduates look also similar. Only secondary school and high school graduates seem to rely on abortion more than university graduates. University graduates seem to use

TABLE IV - 17: Mean Number of Total Pregnancies, Wasted Pregnancies, Completed Fertile Pregnancies, Children Ever-Born, Children Survived and Children Died for Ever-Married Women (Illiterate).

Age of Woman	Total Pregnancies		Wasted Pregnancies	Completed Fertile Pregnancies	Children Ever-Born	Children Survived	Children Died
	Completed + Current	Completed					
15 - 19	1.27	.88	.13	.75	.75	.67	.08
20 - 24	2.86	2.63	.33	2.30	2.32	1.87	.45
25 - 29	4.48	4.29	.53	3.76	3.78	3.11	.67
30 - 34	6.17	6.03	.89	5.14	5.19	4.20	.99
35 - 39	6.83	6.77	.90	5.87	5.93	4.80	1.13
40 - 44	7.47	7.46	1.20	6.26	6.33	4.86	1.47
45 - 49	7.94	7.93	1.12	6.81	6.89	5.12	1.77
Average	5.97	5.87	.83	5.04	5.09	4.01	1.08

TABLE IV - 18: Mean Number of Total Pregnancies, Wasted Pregnancies, Completed Fertile Pregnancies, Children Ever-Born, Children Survived and Children Died for Ever-Married Women (Literate)

Age of Woman	Total Pregnancies		Wasted Pregnancies	Completed Fertile Pregnancies	Children Ever-Born	Children Survived	Children Died
	Completed + Current	Completed					
15 - 19	.83	.58	.11	.47	.47	.43	.04
20 - 24	2.79	2.50	.39	2.11	2.11	1.70	.41
25 - 29	3.73	3.65	.49	3.16	3.19	2.71	.48
30 - 34	4.84	4.78	.93	3.85	3.89	3.42	.47
35 - 39	5.83	5.81	.95	4.86	4.91	4.03	.88
40 - 44	6.73	6.72	1.43	5.28	5.38	4.24	1.14
45 - 49	5.25	5.25	1.12	4.13	4.15	3.26	.89
Average	4.87	4.79	.88	3.91	3.95	3.25	.70

TABLE IV - 19: Mean Number of Total Pregnancies, Wasted Pregnancies, Completed Fertile Pregnancies, Children Ever-Born, Children Survived and Children Died for Ever-Married Women (Primary School)

Age of Woman	Total Pregnancies		Wasted Pregnancies	Completed Fertile Pregnancies	Children Ever-Born	Children Survived	Children Died
	Completed + Current	Completed					
15 - 19	1.02	.75	.08	.67	.67	.60	.07
20 - 24	1.96	1.77	.27	1.50	1.50	1.37	.13
25 - 29	3.33	3.24	.67	2.56	2.57	2.30	.27
30 - 34	4.41	4.35	.92	3.43	3.48	3.04	.43
35 - 39	5.08	5.06	1.27	3.79	3.84	3.19	.65
40 - 44	5.48	5.47	1.45	4.02	4.09	3.40	.69
45 - 49	5.41	5.41	1.33	4.08	4.10	3.37	.73
Average	3.48	3.38	.74	2.64	2.66	2.31	.35

TABLE IV - 20: Mean Number of Total Pregnancies, Wasted Pregnancies, Completed Fertile Pregnancies, Children Ever-Born, Children Survived and Children Died for Ever-Married Women (Secondary School)

Age of Woman	Total Pregnancies		Wasted Pregnancies	Completed Fertile Pregnancies	Children Ever-Born	Children Survived	Children Died
	Completed + Current	Completed					
15 - 19	.80	.49	.05	.44	.44	.37	.07
20 - 24	1.74	1.54	.33	1.22	1.25	1.09	.17
25 - 29	2.51	2.47	.67	1.80	1.82	1.78	.04
30 - 34	4.67	4.59	2.25	2.34	2.34	2.22	.11
35 - 39	3.40	3.37	1.09	2.28	2.34	2.01	.32
40 - 44	4.04	4.04	1.35	2.69	2.73	2.57	.16
45 - 49	3.79	3.79	1.34	2.45	2.52	2.21	.31
Average	2.93	2.84	.98	1.86	1.89	1.73	.16

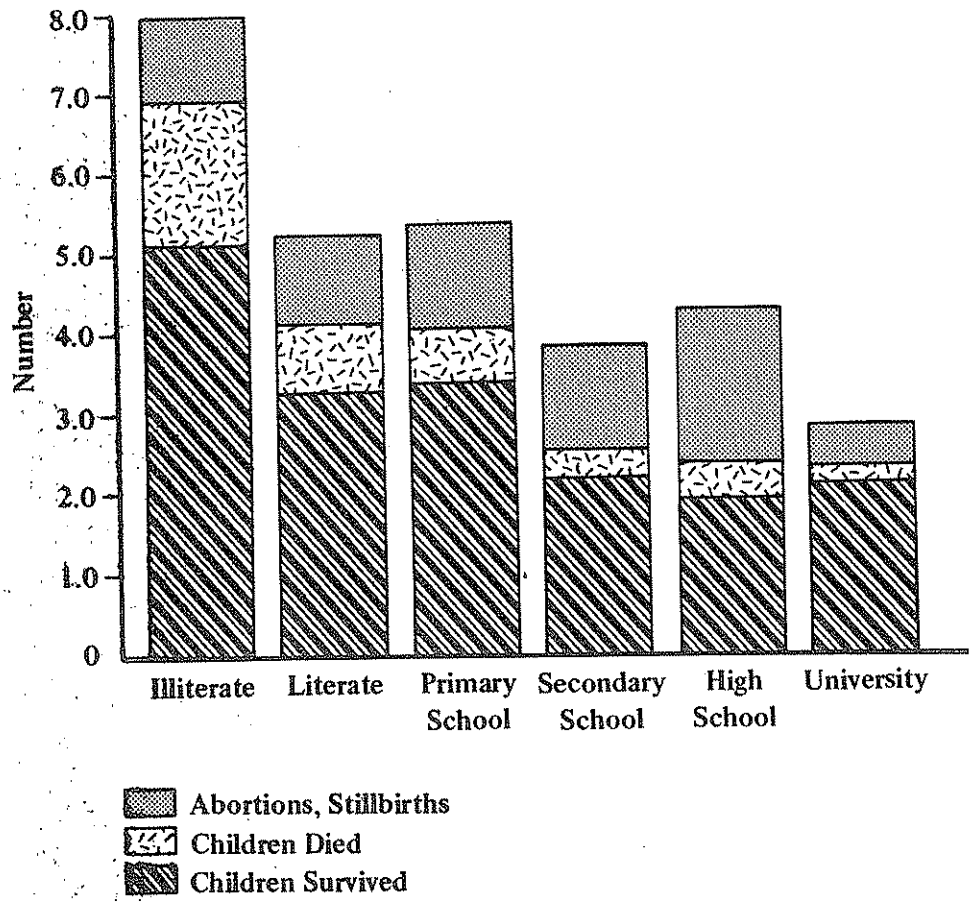
TABLE IV - 21: Mean Number of Total Pregnancies, Wasted Pregnancies, Completed Fertile Pregnancies, Children Ever-Born, Children Survived and Children Died for Ever-Married Women (High School)

Age of Woman	Total Pregnancies		Wasted Pregnancies	Completed Fertile Pregnancies	Children Ever-Born	Children Survived	Children Died
	Completed + Current	Completed					
15 - 19	.41	.14	.00	.14	.14	.14	.00
20 - 24	1.25	1.04	.25	.79	.79	.77	.01
25 - 29	2.03	1.95	.48	1.47	1.47	1.42	.05
30 - 34	2.61	2.61	.70	1.91	1.91	1.81	.10
35 - 39	3.42	3.39	1.26	2.13	2.13	2.05	.08
40 - 44	4.17	4.17	1.71	2.46	2.46	2.31	.15
45 - 49	4.24	4.24	1.93	2.31	2.38	1.95	.43
Average	2.29	2.20	.69	1.51	1.52	1.44	.08

TABLE IV - 22: Mean Number of Total Pregnancies, Wasted Pregnancies, Completed Fertile Pregnancies, Children Ever-Born, Children Survived and Children Died for Ever-Married Women (University)

Age of Woman	Total Pregnancies		Wasted Pregnancies	Completed Fertile Pregnancies	Children Ever-Born	Children Survived	Children Died
	Completed + Current	Completed					
15 - 19	—	—	—	—	—	—	—
20 - 24	1.06	.75	.07	.68	.69	.69	.00
25 - 29	1.37	1.29	.39	.90	.90	.87	.03
30 - 34	2.86	2.83	1.14	1.69	1.69	1.62	.06
35 - 39	2.80	2.74	.95	1.79	1.84	1.84	.00
40 - 44	2.79	2.79	1.12	1.67	1.67	1.67	.00
45 - 49	3.00	3.00	.60	2.40	2.40	2.40	.00
Average	2.18	2.10	.72	1.38	1.39	1.36	.03

FIGURE IV - 3: Mean Number of Wasted Pregnancies, Children Survived, and Children Died for Ever-Married Women Aged 45-49 According to Educational Level



contraceptives more than other groups.

The proportion of children died is reduced as the educational attainment of women increases. The difference in regard to the number of children died between illiterate, literate and primary school graduate women aged 45-49 on the average is 1 child.

If we study the number of children survived, we can see that being literate, or being a primary school graduate reduces the number of surviving children at the end of the fertile period from 5.12 to 3.26 and 3.37 respectively. This amounts to almost two children. The difference in the number of surviving children between literate, primary school, secondary school and above graduates, is around 1 child.

The ideal situation is to have around two surviving children at the end of a woman's fertile period, if you want to stabilize the population. This shows the importance of educational attainment in respect to the reduction of high fertility.

4. CURRENT STATUS

In this section, current fertility will be demonstrated with age-specific rates and total fertility rates.

In Table IV-23, age-specific fertility and total fertility rates for total women are given by type of place of residence and region. As seen from the table, age-specific fertility rates are highest in the 25-29 age group, followed by 20-24, and 30-34 age groups. The total fertility rate for urban areas is almost two children less than for rural areas. Among regions, the Eastern region has the highest rate with 6.52 children per woman on the average, and the Western region has the lowest rate with 2.65 children per women on the average. The fertility rate of Eastern region is more than twice that of the Western region.

In Table IV-24, age-specific fertility rates and total fertility rates are given by type of place of residence and region for ever-married women. Here, also similar differences can be seen between types of place of residence and regions.

In Table IV-25, age-specific fertility rates and total fertility rates are given in five year groups to study the trends in fertility. According to this table, there is a reduction in fertility over years. TFR has decreased from 4.61 in 1974-79 to 4.17 in 1978-1983.

5. NUMBER OF CHILDREN DESIRED

In Table IV-26, the percent distribution of ever-married women according to number of children desired by region and type of place of residence are given. When we study the table, we can see that for total Turkey, 47% of ever-married women stated that they desire 2 children, and 27% stated that they desire 3 children. The proportion of women who desire only two children in urban areas is 55%, while in rural areas the figure is 38.3%. In rural areas, the proportion of women who desire 4 and more children is 28.3%, while in urban areas the proportion is 13.6%, which is less than half of the figure for rural areas. Among regions, 62.2% of women desire 2 children and 7.4% desire 4 or more children in the Western region. In the Central region, the percentage of women who desire only 2 children is 48.7, and the percentage of women who desire 4 children is 16.8. In the Northern region, 44.4% of women desire 2 children, and the proportion of women who desire 4 or more children is 18.6%. In the Southern region, 36.5% of women desire 2 children, 33.9% desire 4 or more children. The Eastern region has the highest values, 43.9% of women desire 4 or more children, and only 25.4% desire 2 children.

TABLE IV - 23: Age - Specific Fertility Rates and Total Fertility Rates for Total Women by Type of Place of Residence and Region

	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	TFR
Type of Place of Residence								
Urban	.05316	.19523	.19799	.10547	.06910	.00867	.00474	3.17
Rural	.05645	.25551	.31762	.21066	.11709	.04739	.01148	5.08
Region								
West	.02725	.15188	.19856	.08445	.06132	.01282	–	2.68
North	.05644	.20408	.31472	.10707	.09426	–	–	3.88
Central	.06326	.25114	.25600	.15359	.05162	.02568	–	4.01
South	.04983	.22902	.27608	.23116	.09443	.02628	.01065	4.59
East	.08517	.32512	.28950	.25665	.20713	.09307	.04687	6.52
TURKEY	.05499	.22526	.24996	.15209	.09221	.02762	.00793	4.05

TABLE IV - 24: Age Specific Fertility Rates and Total Fertility Rates for Ever-Married Women by Type of Place of Residence and Region

	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	TFR
Type of Place of Residence								
Urban	.30425	.30353	.21761	.11073	.07047	.00883	.00523	5.10
Rural	.35808	.40003	.33075	.20851	.12029	.04921	.01203	7.39
Region								
West	.23950	.23815	.21525	.09168	.06243	.01323	–	4.30
North	.40640	.31309	.32297	.10245	.09513	–	–	6.20
Central	.36949	.40064	.28037	.15787	.05209	.02578	–	6.43
South	.27512	.43297	.29371	.23056	.09807	.02709	.01117	6.84
East	.36657	.44162	.30847	.24838	.21835	.09730	.05151	8.66
TURKEY	.33284	.35144	.26827	.15549	.09437	.02840	.00854	6.20

TABLE IV - 25: Age Specific Fertility Rates and Total Fertility Rates for Total Women Between 1974 - 1983

	1983 - 78	1982 - 77	1981 - 76	1980 - 75	1979 - 74
15 - 19	.06778	.07163	.07589	.07611	.07572
20 - 24	.23325	.23787	.24220	.24871	.25038
25 - 29	.23861	.24231	.25391	.25770	.26275
30 - 34	.16083	.16850	.17621	.17580	.17208
35 - 39	.08706	.08932	.09642	.10289	.11213
40 - 44	.03820	.04199	(.04199)	(.04199)	(.04199)
45 - 49	(.00793)	(.00793)	(.00793)	(.00793)	(.00793)
	.83366	.85955	.89455	.81113	.92298
TFR	4.17	4.30	4.47	4.56	4.61

TABLE IV - 26: The Percentage Distribution of Ever-Married Women According to Number of Children Desired - by Region and Type of Place of Residence

No. of Children Desired	Region					Type of Place of Residence		Total
	West	South	Central	North	East	Urban	Rural	
0	1.5	1.2	2.1	2.5	1.6	1.7	1.8	1.7
1	4.1	4.7	3.5	1.7	3.1	3.8	3.3	3.6
2	62.2	36.5	48.7	44.4	25.4	55.0	38.3	47.0
3	24.8	23.8	29.9	32.8	26.0	25.9	28.3	27.0
4	4.1	23.7	10.1	13.6	19.7	9.0	15.1	11.9
5 +	3.3	10.2	5.7	5.0	24.2	4.6	13.2	8.7
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Although the number of children desired is less than the actual fertility performance of women, still the differences seen between regions and type of place of residence follow the tendencies noticed before, namely high fertility in rural areas and in the Eastern parts of Turkey. On the other hand, the percentage of women who desire no children has an uniform distribution among regions and type of place of residence. For total Turkey it is 1.7%.

In Table IV-27, the number of children desired is given for ever-married women by age.

The study of Table IV-27 brings interesting features into attention. The proportion of women who do not desire any children rises as the age of women increases. This may be taken as an effect of the trouble of having and raising children which might be felt more heavily when women become older and the children grow more independent and rebellious. However, this figure does not show the real desired number of children that these women had in mind when they were younger.

Leaving aside women less than 20 years old who do not have much experience in child rearing, younger women aged 20-29 want less children than the other age groups. Among these women, 54.2% want only 2 children and only 16.2% want 4 or more children. The oldest age group (40-49) have expressed their desire for more children than the other age groups. Among them, the proportion desiring only 2 children has fallen to 37.4%, while the proportion desiring 4 or more children has risen to 26.8%.

This might be taken as an indication that the aspiration of women in Turkey in regard to the number of children desired shows a reduction in numbers in comparison to the past.

In Table IV-28, we can see the effect of educational attainment on the number of children desired.

As seen from the table, the number of children desired decreases as the level of education increases. Even between illiterate and literate women there is a great difference. 31.9% of illiterate women and 43.3% of literate women desire 2 children, while 34.2% of illiterate women desire 4 or more children, only 19.4% of literate desire so. But the difference between secondary school graduates and high school and higher graduates are slight. Percent who desire only 2 children is 70 for each group. Among primary school and secondary school graduates the percentage of women desiring 2 or 3 children is 85.9 and 84.7 respectively, which are quite close. but primary school graduates give more emphasis to 3 children.

6. NUMBER OF ADDITIONAL CHILDREN WANTED

The following three tables (Table IV-29, Table IV-30 and Table IV-31) are related to the number of additional children wanted.

In Table IV-29, the percentage distribution of ever-married women according to the number of additional children wanted by region and type of place of residence are given.

According to Table IV-29, 78.48% of women do not want to have any more children, 11.82% want one more child and 5.77% want 2 additional children. In the Western region, 80.76% of women do not want any additional children and 13.95% want one more. In the Eastern region, 73.37% want no additional children, 8.43% want one more child and 7.12% want 2 more children. In the Western region, the percentage of women who want three or more children is .60, while in the Eastern region the percentage is 8.00. Also

TABLE IV-27: The Percentage Distribution of Ever-Married Women by Age and Number of Children Desired

No. of Children Desired	Age of Women			
	Less than 20	20 - 29	30 - 39	40 - 49
0	.3	.8	1.4	3.9
1	4.1	4.2	3.0	3.3
2	48.3	54.2	45.6	37.4
3	28.4	24.6	28.5	28.6
4	9.7	9.9	13.0	14.3
5 +	9.3	6.3	8.5	12.5
	100.0	100.0	100.0	100.0

TABLE IV-28: The Percentage Distribution of Ever-Married Women According to Number of Children Desired - by Educational Level

No. of Children Desired	Level of Education				
	Illiterate	Literate	Primary School Graduate	Secondary School Graduate	High School Graduate and Higher
0	3.1	1.1	.7	.4	.8
1	2.9	3.0	3.6	6.2	8.0
2	31.9	43.3	58.6	70.4	70.9
3	27.9	33.3	27.3	14.3	14.7
4	18.3	12.4	6.8	6.6	3.6
5 +	15.9	7.0	3.1	2.0	2.1
TOTAL	100.0	100.0	100.0	100.0	100.0

TABLE IV - 29: The Percentage Distribution of Ever-Married Women According to the Number of Additional Children Wanted - by Region and Type of Place of Residence.

No. of Additional Children Wanted	Region					Type of Place of Residence		Total
	West	South	Central	North	East	Urban	Rural	
0	80.76	76.63	78.08	82.42	73.37	78.93	77.98	78.48
1	13.95	11.15	13.07	9.07	8.43	13.92	9.50	11.82
2	4.32	7.69	5.95	5.47	7.12	5.18	6.42	5.77
3	.56	2.38	1.48	.96	4.29	1.15	2.35	1.73
4	.04	.58	.52	.68	2.22	.19	1.24	.69
5 +	–	.35	.12	.14	1.49	.19	.54	.36
Wants future births, but gives indefinite answers	.37	1.22	.78	1.26	3.09	.44	1.97	1.17
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

women in urban areas want less aditional children than women in rural areas.

In Table IV-30, the percentage distribution of ever-married women by the number of additional children wanted and age is given. According to Table IV-30 older women want less number of additional children than younger women. While of the women less than 20 years old only 21.08% do not want any additional children, the proportion is 44.23% for women aged 20-24, 75.60% for women aged 25-29, 90.11% for women aged 30-34, 97.16% for women aged 35-39, 99.14% for women aged 40 and over. The proportion of indefinite answers also decreases as the age of women increases.

7. UNWANTED PREGNANCIES

In Table IV-31 the percentage of women who did not want the last pregnancy (the current one included) is given, by age, region, type of place of residence and educational attainment for ever-married women. According to this table, the proportion of unwanted last pregnancies increase as the age of women increases. There are no significant differences among regions and urban and rural areas, but the level of education is an important factor. As the level of education of women increases, the percentage of unwanted pregnancies decreases. This might be an indication that educated women act more consciously in regard to having children and make plans beforehand and as a result their pregnancies are less unwanted than uneducated women.

TABLE IV - 30 The Percentage Distribution of Ever-Married Women by the Number of Additional Children Wanted and Age.

No. of Additional Children Wanted	Age of Women					
	Less than 20	20 - 24	25 - 29	30 - 34	35 - 39	40 +
0	21.08	44.23	75.60	90.11	97.16	99.14
1	25.18	31.41	15.96	7.01	1.52	.80
2	30.66	15.12	5.31	1.02	.81	.06
3	10.68	4.41	1.28	.45	.12	—
4	5.19	1.89	.09	.27	—	—
5 +	3.47	.48	.22	—	.25	—
Wants future births, but gives indefinite answers	3.74	2.47	1.55	1.13	.14	—
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00

TABLE IV - 31: The Percentage Distribution of Women Who Did Not Want the Last Pregnancy (The Current one Included) by the Age of Women, Region, Type of Place of Residence and Educational Attaintment

Background Characteristics	Wanted Last Pregnancy	Did Not Want Last Pregnancy	TOTAL
AGE OF WOMAN			
Less than 20	93.54	6.46	100.00
20 - 24	82.77	17.23	100.00
25 - 29	62.49	37.51	100.00
30 - 34	45.77	54.22	100.00
35 - 39	39.44	60.56	100.00
40 +	35.80	64.20	100.00
REGION			
West	60.06	39.94	100.00
South	55.65	44.35	100.00
Central	49.08	50.92	100.00
North	49.85	50.15	100.00
East	55.82	44.18	100.00
TYPE OF PLACE OF RESIDENCE			
Urban	57.11	42.89	100.00
Rural	52.60	47.40	100.00
LEVEL OF EDUCATION			
Illiterate	44.69	55.31	100.00
Literate	48.72	51.28	100.00
Primary School Graduate	62.48	37.52	100.00
Secondary School Graduate	74.74	25.26	100.00
High School Graduate	75.32	24.68	100.00
University Graduate	84.44	15.56	100.00

CHAPTER V

Infant mortality

1. GENERAL FINDINGS ON INFANT MORTALITY

According to the information obtained from the individual questionnaire, the following infant mortality rates are calculated as shown in Table V-1. The time periods are constructed to cover a 12 month period, starting from August and going back to September of the previous year. For example, from August 31, 1983 to September 1, 1982.

The infant mortality rate for the time period 1982-83 is underestimated, since not all children born in this period have completed their first year of life at the end of August 1983. For example, a child born on May 1, 1983, is 4 months old at the end of August, and has still 8 months to live to complete his first year of life. So he is still under the risk of dying in infancy after August 31, 1983.

Thus, when we put aside the infant mortality rate for the time period of 1982-83, the infant mortality rate for 1981-82 is found to be 111.92 per thousand, for 1980-81, 91.46 per thousand, and for 1979-80, 83.67 per thousand. As seen from these figures, infant mortality rates decrease as we go back in time. This might be caused by omissions in the reporting of children died, especially female children who have died in infancy.

It seems that the rate of omission increases as we go back in time.

For the time period of 1981-82, the infant mortality rate for urban areas is 86.74 per thousand, and 132.49 per thousand for rural areas.

The smallness of the unweighted data prevents us from further divisions to show infant mortality rate for regions and to calculate neonatal and post-neonatal rates. For this purpose, two years average (1982-80) and three years average (1982-79) were taken as shown in Tables V - 2 and V - 3.

According to the average for the 1982-80 time period, infant mortality rate for Turkey drops to 101.57 per thousand and according to the 1982-79 time period, average drops to 95.31 per thousand.

This situation is contrary to our expectations and to the existing knowledge on infant mortality in Turkey. According to the results of the 1978 Turkish Fertility Survey, the infant mortality rate for 1972-77 period was 134 per thousand (see figure V 1).

Using the formula $\frac{D_2}{B_1 f_1 + B_2 (1 - f_1)}$

for the 1982-81 time period and taking f (separation factor) as .3, we can obtain an infant mortality rate of 107 per thousand for this period. If we take f as .32, infant mortality becomes 107.13 per thousand.

TABLE V - 1: Infant Mortality Figures and Rates for Turkey from Woman Questionnaire

Time Period	Births	Infant Deaths	Infant Mortality Rate
1982 - 83	1,419,510	104181	.07339
1981 - 82	1,190,307	133223	.11192
1980 - 81	1,356,592	124074	.09146
1979 - 80	1,454,234	121671	.08367
1978 - 79	1,403,140	126071	.08985
1977 - 78	1,440,378	154104	.10699

TABLE V - 2: Infant Mortality Rates for Turkey by Type of Place of Residence and Region for 1982 - 80 Period (Woman Questionnaire)

	Neonatal ‰ 1 - 4 Weeks	Post-Neonatal ‰ 5 - 52 Weeks	Infant Mortality Rates ‰ 1 - 52 Weeks
Type of Place of Residence			
Urban	35.48	31.94	67.42
Rural	57.59	70.72	128.31
Region			
West	51.65	30.83	82.48
South	— *	— *	— **
Central	50.01	47.63	97.64
North	52.14	60.31	112.45
East	46.54	90.83	137.37
TURKEY	47.88	53.68	101.57

* *Less than 10 observations*

** *Less than 20 observations*

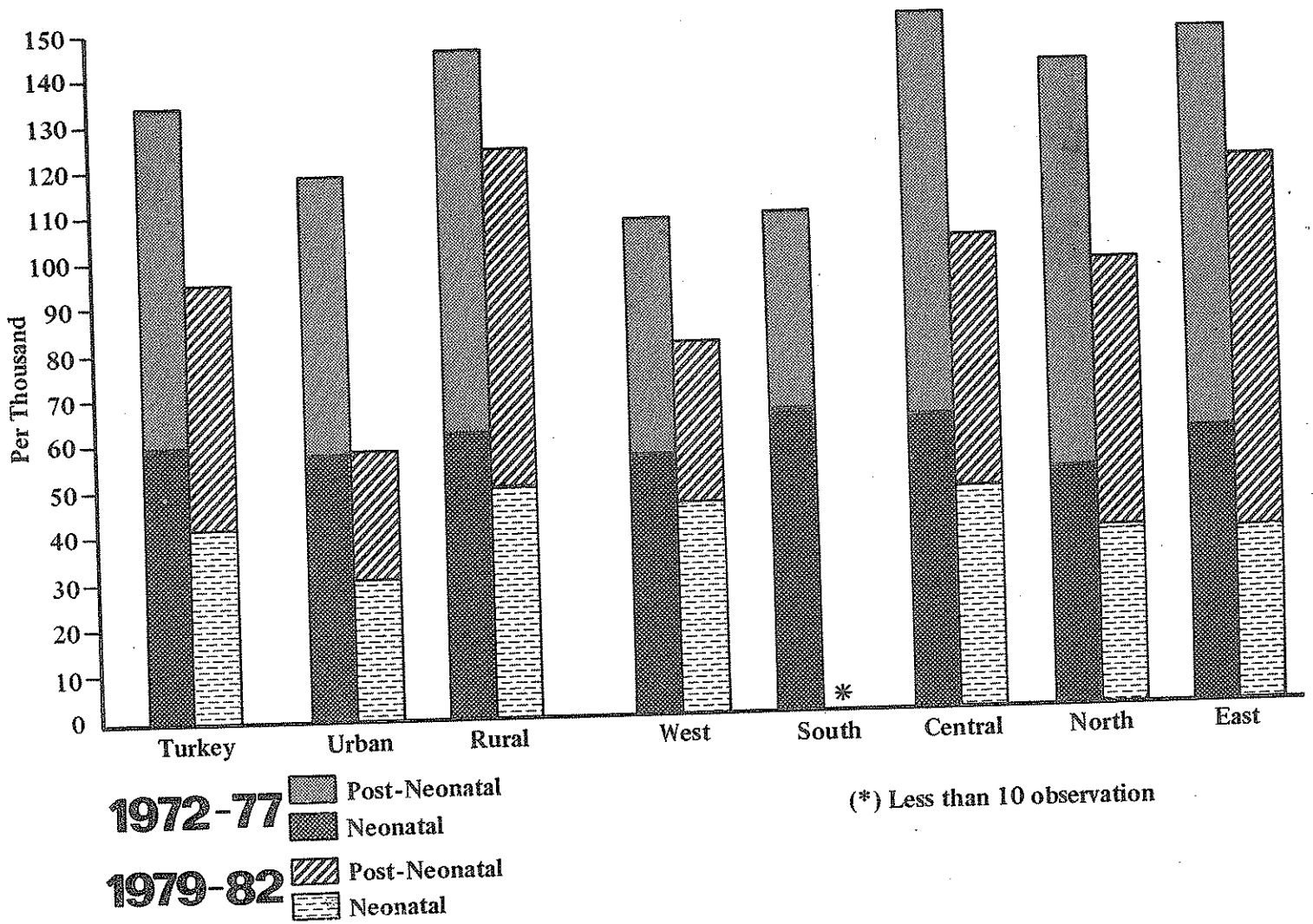
TABLE V - 3: Infant Mortality Rates for Turkey by Type of Place of Residence and Region for 1982 - 79 Period (Woman Questionnaire)

	Neonatal %5 1 - 4 Weeks	Post-Neonatal ‰ 5 - 52 Weeks	Infant Mortality Rates ‰ 1 - 52 Weeks
Type of Place of Residence			
Urban	30.75	27.66	58.40
Rural	50.37	74.17	124.54
Region			
West	45.89	34.71	80.60
South	— *	— *	— **
Central	47.96	54.79	102.75
North	39.19	58.17	97.36
East	38.15	80.73	118.88
TURKEY	41.70	53.61	95.31

* *Less than 10 observations*

** *Less than 20 observations*

FIGURE V -1: Infant Mortality Rates for Turkey by Strata and Region for 1972-77 and 1979-82 Periods



Thus we can say that for the time period 1982-81 an infant mortality rate over 100 per thousand and around 110 per thousand seems reasonable and in accordance with our expectations for Turkey. This also checks with the independent estimates prepared by the Population Division of the United Nations. According to the United Nations estimates, infant mortality rate for Turkey is 140.09 per thousand for 1970-75, 131.0 per thousand for 1975-80, 114.2 per thousand for 1980-85 and 100.3 per thousand for 1985-90*.

When we study Tables V-2 and V-3, it becomes apparent that among regions, the Eastern region has the highest infant mortality rate and almost 2/3 of these deaths occur in the post-neonatal period (5-52 weeks), which means that most of the infant deaths are caused by external factors such as malnutrition and infections.

Also in rural areas, post-neonatal deaths are more predominant than in urban areas.

2. BIRTH PLACE AND BIRTH ASSISTANCE

The 1983 Survey provides information on primary health care from the individual questionnaire. We would like to introduce the results obtained on birth place and birth assistance, swaddling of children and breast-feeding. Although analytical relationships between these factors and infant mortality rates are not inferred here, it must be considered that these may be some of the most important factors explaining the high infant mortality rate in Turkey.

While questions on birth place, birth assistance and swaddling are limited to the last child, duration of breast-feeding which is an issue whose effect on conception and contraception is being widely debated besides its effect on the health of the infant, is employed both for the last closed interval and the last open interval.

The 1983 Survey results indicate that an important portion of the deliveries take place under unsuitable conditions and by the assistance of unqualified people. This fact may be an another underlying factor in explaning the high incidence of infant mortality especially during the neonatal period.

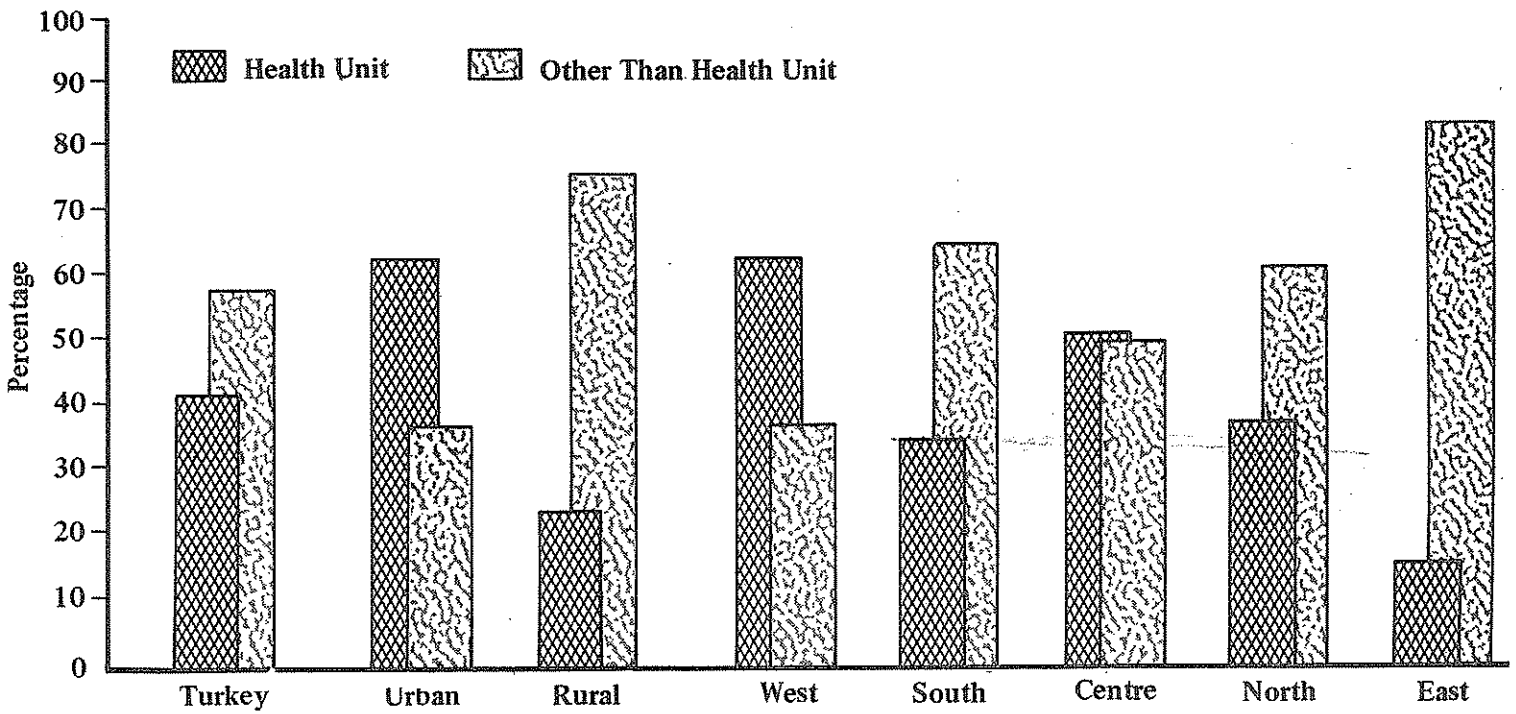
The results show that during the last live birth, 42% of the deliveries took place at a health unit while 58% were realized at a place which was not a health unit. It is striking that in rural areas 76%, and in the East 84% of the last births were delivered at a place other than a health unit. On the contrary, in urban areas and in the Western region more than 60% of the last births were delivered at a health unit (62.6% and 62.7% respectively) (see Figure V - 2).

Of the last live births, while 62.1% were assisted by doctors or midwife/nurses, 16% were assisted by traditional midwives and 21.9% by relatives or neighbours. Urban-rural and regional differences become striking once again; while 83.2% of the last live births were assisted by doctors or midwife/nurses in urban areas, in rural areas this ratio decreases by half to 43.1%. In the West, 84.8% of the last live births were assisted by a health personnel (60.9% by doctors, 23.9% by midwife/nurses), 7.6% by traditional midwives and 7.6% by neighbours or relatives. On the contrary, the situation becomes reverse in the East. While only 34.1% of the births were assisted by a doctor or midwife/nurse, 65.8% were assisted by traditional midwives and neighbours or relatives (22.2% by traditional midwives, 43.6% by neighbours).

For the Central and Northern regions, the percent of assistance by a health personnel

* *"Infant Mortality: World Estimates and Projections, 1950-2025"*, **Population Bulletin of the United Nations,** *No: 14, 1982, New York, 1983, p. 38, Table 2.*

FIGURE V -2: Regional and Rural-Urban Distribution of Women by Place of Last Live Birth



during the last birth were close to each other (62.7% and 66.7% respectively). In the North, this ratio is found to be somewhat lower, 59.7%. However, in the Central Anatolia, the assistance of relatives or neighbours during the last birth is 22.6% which is the greatest percent following the Eastern region (see figure V-3).

The largest variations in the realization of births under suitable conditions appear when educational status of women is taken into consideration. As the educational level rises, women show the tendency to deliver their births at a health unit. While of the illiterate women 24.2% reported having their last birth at a health unit, this ratio increases by an important extent in primary school graduates and reaches to 53.8%. The ratio further increases as the educational level increases and reaches a peak of 87.1% in university graduates (see figure V-4).

The same picture is also observed in the assistance of deliveries. The assistance of a qualified personnel increases rapidly as the educational level of women increases. While only 40% of the illiterate women were assisted by a health personnel during the last live birth, the ratio increases by twice and reaches 78.4% in primary school graduates. Of the secondary school graduates, while 74.2% were assisted by a doctor and 22.1% by a midwife/nurse, only 2.4% were assisted by a traditional midwife and 1.3% by a neighbour or relative. Finally, all the university graduates were assisted by a health personnel during their last live birth (88.9% by a doctor, 11.1% by a midwife/nurse) (see figure V-5).

3. SWADDLING

The survey results confirm that the practice of swaddling, even though very unhealthy, is quite common all throughout the country. According to the results, 93.1% of the mothers are swaddling their children. Although some differences are observed, regional variations in the practice of swaddling are not very sharp. In all regions swaddling is widespread but the highest percentages are seen in the Northern and the Eastern regions (96.6% and 95.6% respectively). Considering the rural-urban differences, the habit of swaddling seems more prevalent in rural areas.

	Swaddling (%)
West	91.8
South	91.0
Centre	92.4
North	96.6
East	95.6
Rural	95.6
Urban	90.8
Total	93.1

It is observed that there is an inverse relation between the practice of swaddling and woman's level of education. The better educated women seem less likely to practice swaddling, still 7 out of 10 women with secondary and higher education swaddle their infants.

	Swaddling (%)
Illiterate	95.2
Literate	96.3
Primary School	93.7
Secondary School	79.0
High School	73.9
University	74.2

On the other hand, from the overall results presented, it is observed that 12.5% of the mothers are using earth for swaddling purpose. There are marked regional variatons with respect to using earth. The most striking difference is between the Central and the Western regions. In the former, of 100 women 24 are using earth for swaddling, whereas in the latter, the number of women using earth is only 1. Moreover, there is a major difference between rural and urban areas.

FİGURE V-3: Regional and Rural-Urban Distribution of Women by Person Who Assisted Delivery at Last Live Birth

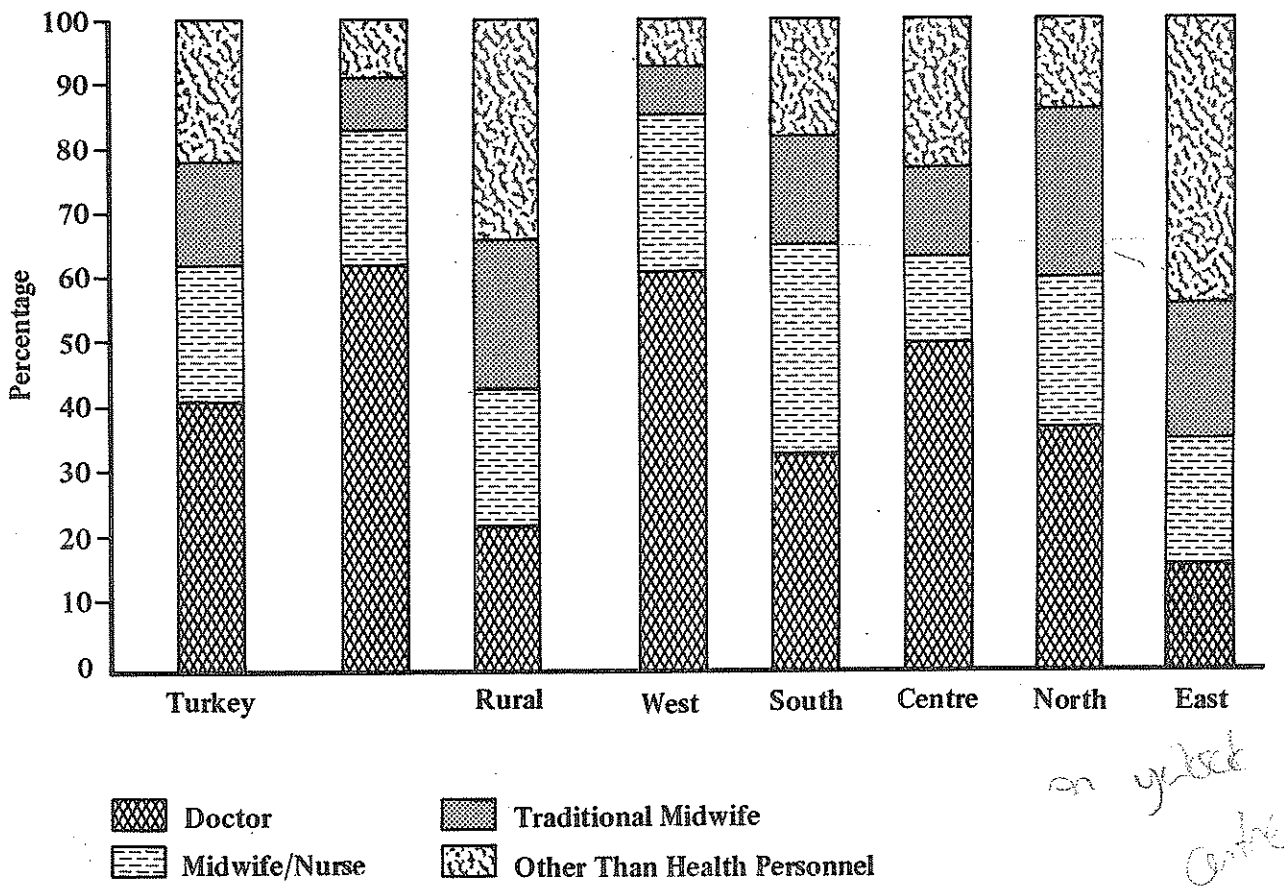


FIGURE V-4: Distribution of Women According to Place of Last Live Birth and Level of Education

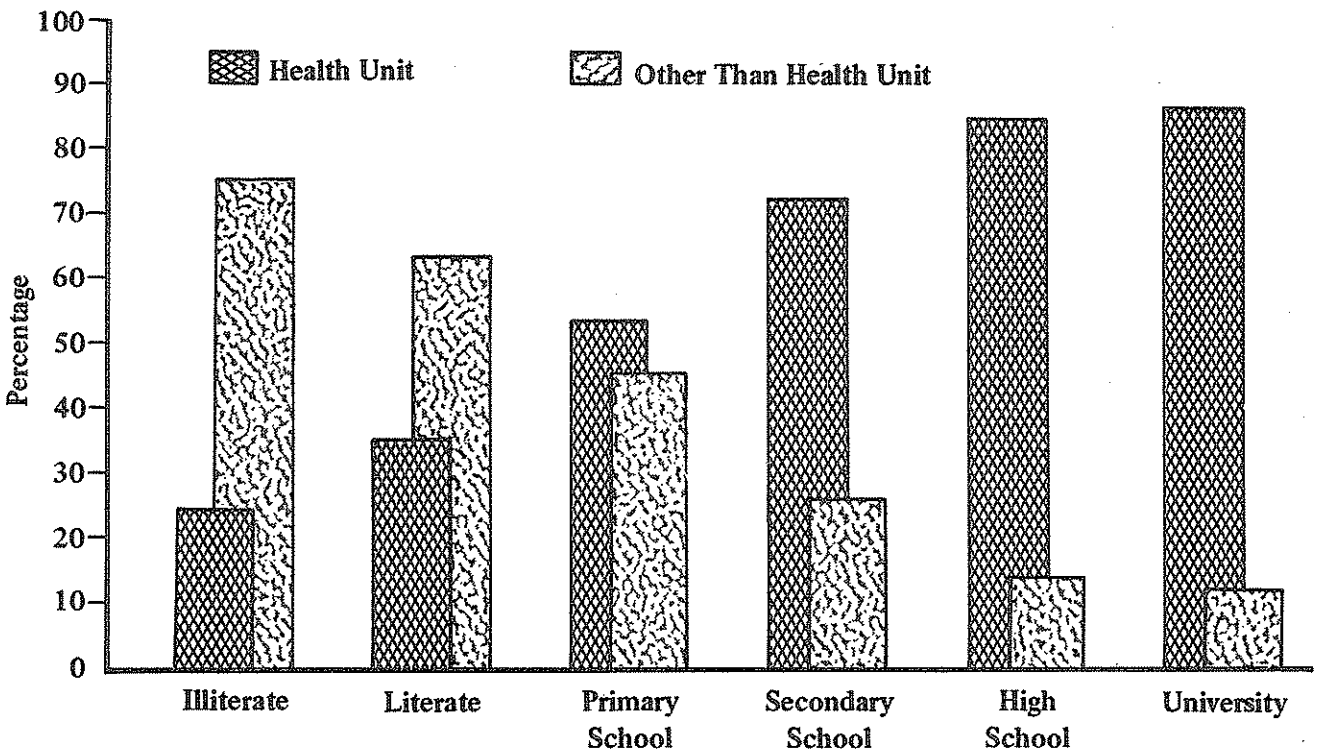
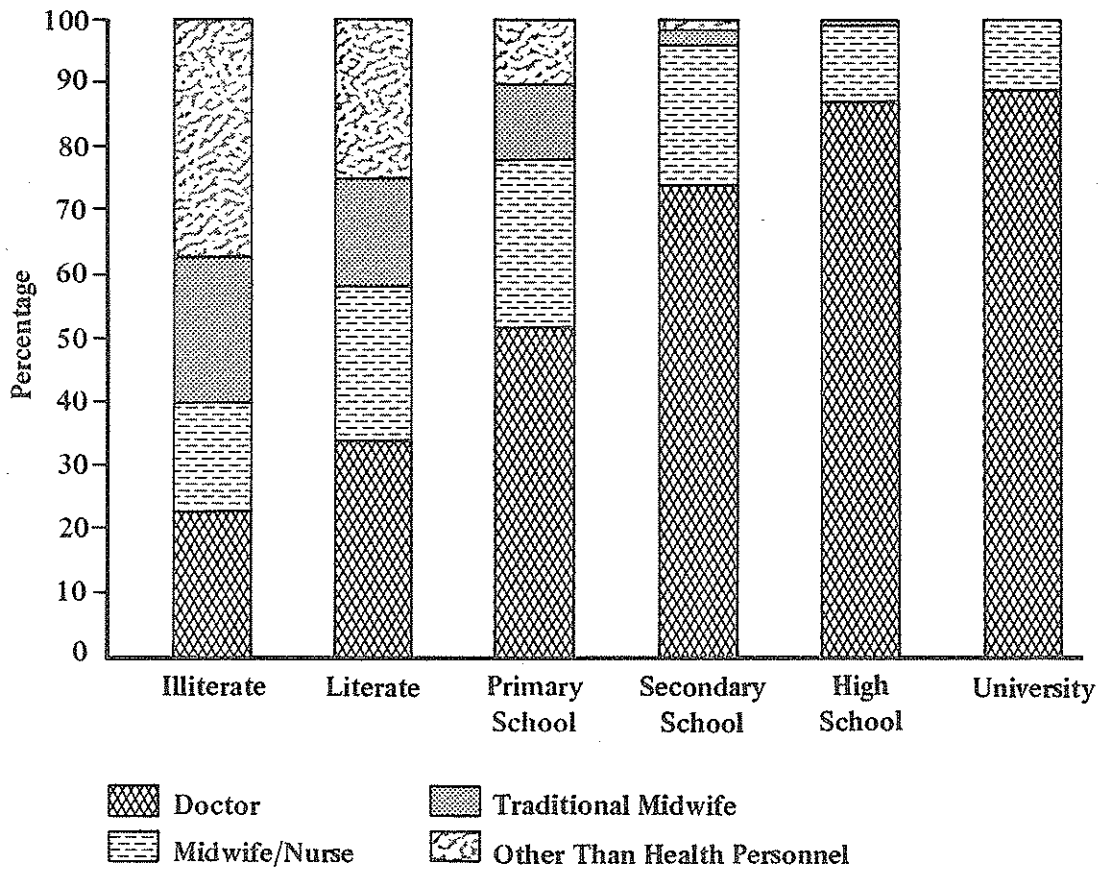


FIGURE V - 5: Percent Distribution of Women According to Person Assisted Delivery at Last Live Birth and Level of Education



In rural areas, using earth for swadding is four times higher than in urban areas.

	Using earth for swadding (%)
West	1.2
South	8.5
Centre	24.4
North	11.5
East	21.3
Rural	20.5
Urban	4.9
Total	12.5

In respect to the woman's level of education, using earth for swaddling is especially seen among illiterate women (21.3%). With regard to an increase in the level of education, the practice of using earth for swadding gradually declines and finally disappears among university graduates.

	Using earth for swadding (%)
Illiterate	21.3
Literate	12.1
Primary School	5.3
Secondary School	1.6
High School	0.4
University	—

4. BREAST - FEEDING

Breast-feeding is analyzed both for the penultimate and the last child, and it is confirmed that breast-feeding is very common throughout the country.

The survey results indicate that the percentage of breast-feeding the penultimate child is 92.2%. There is no significant variation between the percentages of rural and urban areas, in both 92% of the mothers are breast-feeding their children. Among regions, the Southern part of the country has the lowest percentage of breast-feeding (89.2%), and the remaining regions have more or less similar percentages.

	Women breast-feeding (%)
West	93.0
South	89.2
Centre	92.2
North	92.0
East	93.1
Rural	92.3
Urban	92.1
Total	92.2

Mean duration of breast-feeding the penultimate child is 13.5 months for the overall country. With regard to regions, only in the Eastern region the mean duration of breast-feeding (15.6 months) is longer than the other regions. Also, it is clear that urban women breast-feed for shorter durations than their rural counter-parts. Rural women breast-feed for about two months more than urban women (14.7 and 12.2 months respectively).

	Mean duration of breast - feeding (months)
West	12.6
South	13.4
Centre	13.6
North	12.3
East	15.6
Rural	14.7
Urban	12.2
Total	13.5

A positive relation is found between the duration of breast-feeding and the mother's age. The higher the mother's age the longer the period of breast-feeding.

	Mean duration of breast - feeding
Less than 20	11.6
20 - 24	10.8
25 - 29	11.8
30 - 34	12.4
35 - 39	14.8
40 - 44	15.2
45 - 49	16.1

The duration of breast - feeding gradually declines as the level of mother's education increases. When the mother's education is higher, breast-feeding period becomes shorter. According to the survey results, the mean duration of breast-feeding among university **graduates is three times less than that of the illiterate group.**

	Mean duration of breast-feeding
Illiterate	15.6
Literate	13.7
Primary School	11.6
Secondary School	8.4
High School	7.2
University	5.4

The percentage of breast-feeding the last child is 92.1 for the overall country. The Central and the Eastern regions have similar and high percentages of breast-feeding.

	Women breast-feeding (%)
West	92.9
South	88.6
Centre	93.5
North	88.5
East	93.5
Rural	91.9
Urban	92.3
Total	92.1

The mean duration of breast-feeding is 12.5 for the entire country. In the Eastern region duration of breast-feeding (13.8 months) is comparatively higher than the other regions. The period of breast-feeding is extended in rural areas and it is two months longer than in urban areas (11.3 and 13.8 months respectively).

	Mean duration of breast-feeding
West	11.4
South	12.6
Centre	13.1
North	12.4
East	13.8
Rural	11.3
Urban	13.8
Total	12.5

Furthermore, it should be noted that age of the mother is directly associated with the length of breast-feeding. Mothers with age 45 and over breast-feed their children for 16.7 months, whereas, this figure is 7.2 months for mothers less than 20 years old.

	Mean duration of breast-feeding the last child
Less than 20	7.2
20 - 24	8.3
25 - 29	9.8
30 - 34	12.5
35 - 39	14.2
40 - 44	15.4
45 - 49	16.7

A negative relation is observed between the period of breast-feeding and mother's level of education. Among women with secondary and higher education, the decrease in the length of breast-feeding is very marked. Mean duration of breast-feeding is 15 months for the illiterates and on the average 7 months for tne mothers with secondary or higher education.

	Mean duration of breast-feeding the last child
Illiterate	15.0
Literate	13.8
Primary School	10.6
Secondary School	8.5
High School	6.6
University	5.6

CHAPTER VI

Knowledge and use of contraception

1. INTRODUCTION

The Contraceptive Prevalence Survey (CPS) questionnaire includes a list of nine specific methods of contraception, plus provision for recording any other methods not listed. For each method spontaneously mentioned by the respondent, the question is asked as to whether or not she has ever heard the method. Following that, each method not mentioned by the respondent is described, and if she claims to have heard of the method, the question on ever-use is asked. Finally, currently married non-pregnant women who have ever-used contraception are questioned regarding current use.

The questionnaire contains a number of other items relating to family planning methods. These are: attitude towards sterilization; intentions regarding future use for never-users; for users, the method used in the open birth interval and in the last closed birth interval; the woman's parity at the time of the very first use of any method; and finally, knowledge and utilization of sources of supplies and services relating to family planning.

In the following section, the discussion is confined mainly to knowledge, ever-use and current use of various methods of contraception. We will also comment briefly on the pattern of contraceptive use.

The various methods of contraception may be classified into two groups:

(i) Modern or 'efficient' methods. These include (in order of salience in Turkey) the pill, IUD, condom, female scientific methods (such as diaphragm, tampon, sponge, foam tablets, jelly or cream), female and male sterilisation and injection.

(ii) Traditional or 'inefficient' methods. These include withdrawal, douche, rhythm, a collection of folk methods (most of the folk methods mentioned by the respondents involved the use of various objects placed in the uterus), and finally, a residual category of other methods.

2. KNOWLEDGE OF CONTRACEPTION

Contraceptive Prevalence Survey aims to determine the proportion of the female population in reproductive ages who are aware of family planning. The CPS measures the level of contraceptive knowledge through a series of questions similar to those in other CPS countries.

Knowledge is defined as having heard of any specific method to delay or avoid pregnancy. Knowledge is ascertained at two levels:

(i) Names of the family planning methods mentioned spontaneously by the respondent.

(ii) Whether heard of the names or descriptions of the above mentioned methods after probing.

We will examine the contraceptive awareness of all ever-married women (n = 5398), and the currently-married women (n = 5202) separately.

2.1. Ever-married Women

The knowledge of any contraceptive method of ever-married women is presented in Table VI-1.

An increase of 4.6% is also noted on knowledge of some efficient methods among ever-married women between 1978 and 1983 Surveys.

Table VI-2 presents the percentages for knowledge of modern and traditional methods for ever-married women in both surveys.

TABLE VI - 1: Percentage Distribution of Ever-Married Women Reporting Knowledge of Any Method

Knowledge of any Method	1978 Survey	1983 Survey
No Method Known	11.7	6.3
Any Method Known	88.3	93.7
Knowledge of Only Inefficient Methods	2.1	2.9
Knowledge of Some Efficient Methods	86.2	90.8

An increase is observed in the knowledge of modern methods with the exception of female sterilisation and injection. Among traditional methods the only increase (10%) observed is for withdrawal. An important decrease is also observed in folk methods.

The general tendency is that there is an increase in the knowledge of modern methods, especially for female scientific methods.

When we examine the urban-rural differentials (Table VI-3) for specific methods, we observe that knowledge of specific contraception methods was more than 15% higher in urban areas. For the modern methods the highest difference was found for condom (33%) and among traditional methods highest difference was found for rhythm (26%) between urban and rural areas. Among modern methods, the pill had the highest percentage among spontaneously reported methods in urban and rural areas. On the other hand,withdrawal has the highest percentage after probing in both areas.

The knowledge of contraceptive methods varies by woman's educational level (Table VI-4). Increasing level of education increases the knowledge for all methods. Among modern methods the pill and IUD, and among traditional methods withdrawal has the highest percentages by increasing educational level.

In examining the intermediate age groups (25-34) of ever-married women by regions (Table VI-5) there is a considerable increase in the Western region for most modern methods.

Among these methods the pill and IUD had the highest percentages. On the other hand, the Eastern region had the lowest degree of knowledge for most modern methods.

Reporting of knowledge spontaneously was found to be higher than reporting after probing for the pill and IUD in all regions.

TABLE VI - 2: Percentage Distribution of Ever-Married Women Who Have Heard of Various Methods of Contraception

	MODERN METHODS							TRADITIONAL METHODS				
											Folk Methods**	
	Pill	IUD	Condom	Female Sterilization	Female Scientific	Male Sterilization	Injection	Withdrawal	Douche*	Rhythm	Country Specific Method I	Country Specific Method II
1978 SURVEY	81	68	52	39	32	9	6	65	5	23	24	
1983 SURVEY	85	75	55	28	50	19	5	75	4	23	10	3

* *Only Spontaneous reporting was presented for douche.*

** *This definition was used in the 1978 Survey*

TABLE VI-3: Percentage Distribution of Ever-Married Women Who Have Heard of Contraceptive Methods by Type of Place of Residence

	URBAN			RURAL		
Methods	Spontaneously	Probed	Total	Spontaneously	Probed	Total
Pill	76.4	15.7	92.1	58.0	19.7	77.7
IUD	60.3	27.7	88.0	33.9	25.9	59.8
Female Scientific	28.1	30.9	59.0	17.4	22.2	39.6
Condom	31.4	39.9	71.3	11.1	26.7	37.8
Female Sterilization	3.2	34.5	37.7	1.6	14.8	16.4
Male Sterilization	1.5	25.4	26.9	0.1	6.3	6.4
Rhythm	6.6	28.8	35.4	0.6	8.1	8.7
Withdrawal	37.6	45.5	83.1	25.7	41.2	66.9

TABLE VI-4: Percentage Distribution of Ever-Married Women Who Have Heard of Contraceptive Methods by Educational Level

	WOMAN'S EDUCATIONAL LEVEL					
Methods	Illiterate	Literate	Primary School	Secondary School	High School	University
Pill	73.4	90.7	93.0	98.6	99.6	100.0
IUD	56.7	79.5	86.4	97.6	99.6	100.0
Female Scientific	35.1	51.3	57.4	75.5	83.0	88.7
Condom	36.2	57.1	67.0	85.9	91.8	96.7
Female Sterilization	15.1	24.3	30.5	68.7	74.2	93.6
Male Sterilization	5.6	12.3	19.6	54.3	67.7	80.7
Rhythm	7.4	14.4	26.7	75.8	86.7	93.8
Withdrawal	62.0	77.2	84.6	91.7	94.9	99.1

TABLE VI - 5: Percentage Distribution of Ever-Married Women Aged 25 - 34 Who Have Heard of Modern Methods of Contraception by Region

Methods	Region				
	West	South	Centre	North	East
Pill	96.0	88.1	93.3	88.5	70.8
IUD	91.5	70.6	89.2	78.6	53.8
Female Scientific	73.2	54.0	47.8	71.3	33.5
Condom	78.8	56.1	59.4	62.0	36.9
Female Sterilization	37.4	35.6	30.1	30.4	18.6
Male Sterilization	30.6	19.2	17.6	16.7	7.7
Injection	1.6	14.4	5.7	5.2	9.6

The percentages for ever-heard of specific methods of contraceptives for married-women are given in Table VI-6. The table presents the percentages for knowledge of modern and traditional methods for ever-married and currently married women separately. The bases (n_i) of the percentages explain the reason for the closeness of the two groups.

Among modern methods, highest percentages were found for the pill and among traditional methods withdrawal had the highest percentages.

2.2. CURRENTLY MARRIED WOMEN

In terms of knowledge of contraceptive methods, the percentages for the currently married women were similar to ever-married women within the survey. In examining the types of reporting (Table VI-7) by modern and traditional methods, spontaneous reporting was found to be higher for the pill and IUD among modern methods. For other methods, probing affected knowledge considerably.

Considering the age groups of currently married women (Table VI-8) higher reporting of knowledge was found in the intermediate group for all methods of contraception. Similar conclusions can also be drawn for spontaneous knowledge and after probing for all methods.

Finally, the husband's level of education for currently married women shows a similar pattern as women's educational level that spontaneous reporting was higher in higher educational groups. Here,again,the knowledge of the pill and IUD seems to be the highest among all methods.

3. EVER - USE OF CONTRACEPTION

Table VI-9 shows that ever-use of contraceptive methods (be it modern or traditional) is fairly widespread among ever-married women in Turkey. It is observed that 71% of all ever-married women have used a method of contraception at some point of their reproductive span. It is also important that only one-fifth (20%) of all ever-married women have ever-used only traditional methods while 1 out of 2 (51%) have ever used at least one modern method.

When we compare these figures with those of the 1978 TFS, it is clear that there is an important increase in the percentage of women who have ever-used a method of contraception (from 55% to 71%) and this increase is mainly due to the increase in the use of modern methods (from 34% to 51%).

The most commonly used method is withdrawal (46%), followed by the pill (34%), condom and IUD. The female scientific methods range from 12% to 16%. The percentages of the use of other specified methods are not significantly widespread. Male sterilization is not included in the table since only 1 woman reported male sterilization as ner ever-use of contraception.
Comparisons with the 1978 TFS show significant increase in the percentages of use of specified modern methods while only the use of withdrawal has increased among traditional methods. Astonishingly, although the overall use of all traditional methods has not changed within this period, use of withdrawal shows the most significant increase compared with the other methods.

Table VI-10 shows the ever-use of specified contraceptive methods classified by background variables.

Regional, residential and educational differences are highly striking concerning the use of all methods. This fact is valid for both modern and traditional methods.

In relation to regional differences, figures relating to the East are easily distinguishable, being the lowest compared to other regions. Ever-use of specified contraceptive methods is highest in the West for most of the methods. Percentages relating to the other three regions are very close to each other. Urban-rural differences are as expected. The prevailing pattern is the more common ever-use of contraception in urban areas. In these areas, especially the use of some modern methods is more than twice of the use in rural areas.

When ever-use of contraceptive methods is examined in relation to educational level, it is clearly seen that the level of education is directly related to ever-use of contraception. Both woman's and the husband's educational level has the same effect on the use of contraception when examined separately. This relationship is also strong when the couple's literacy is taken into consideration. The lowest percentages for specified contraceptive methods prevail for couples where both husband and wife are illiterate while the highest figures prevail for those who are both literate; regardless of the method being modern or traditional.

The number of living children of an ever-married woman highly influences her tendency to use methods of contraception. The percentages of contraceptive use is very low among childless women and it shows significant increases after the woman has one living child. Up to this point the figures for all specified contraceptive methods are below those of total Turkey. It is after the second child that the figures exceed those for total Turkey. It is observed that the percentages keep increasing up to the third child and from there on start to decrease. It is understood from this pattern that women tend to use contraceptives until they reach their ideal

TABLE VI - 6: Percentage Distribution of Married Women Who Have Heard of Various Contraceptive Methods

	MODERN METHODS							TRADITIONAL METHODS				
	Pill	IUD	Condom	Female Sterilization	Female Scientific	Male Sterilization	Injection	Withdrawal	Douche	Rhythm	Country Specific Method I	Country Specific Method II
EVER MARRIED	85.3	74.6	55.4	27.6	49.8	17.2	5.2	75.4	4.3	22.6	9.8	3.4
CURRENTLY MARRIED	85.5	74.6	55.6	27.4	50.0	17.0	5.2	75.7	4.3	22.6	9.5	3.4

TABLE VI - 7: Percentage Distribution of Currently Married Women Reporting Knowledge of Various Contraceptive Methods - by Whether the Reporting was Spontaneous or Only After Probing

	MODERN METHODS							TRADITIONAL METHODS				
	Pill	IUD	Condom	Female Sterilization	Female Scientific	Male Sterilization	Injection	Withdrawal	Douche	Rhythm	Country Specific Method I	Country Specific Method II
Spontaneously	67.9	48.0	21.9	2.4	23.4	0.8	5.2	32.4	4.3	3.7	9.5	3.4
After Probing	17.6	26.6	33.7	25.0	26.6	16.2	–	43.3	–	18.9	–	–
TOTAL	85.5	74.6	55.6	27.4	50.0	17.0	5.2	75.7	4.3	22.6	9.5	3.4

TABLE VI - 8: Percentage Distribution of Currently Married Women Who Have Ever Heard of Various Contraceptive Methods by Woman's Current Age

Methods	Woman's Current Age		
	- 25	25 - 34	35 +
Pill	84.6	88.9	82.9
IUD	73.9	79.7	70.3
Female Scientific	45.4	57.8	45.4
Condom	47.5	61.8	54.7
Female Sterilization	28.0	30.9	23.8
Male Sterilization	16.8	20.1	14.2
Withdrawal	71.8	80.0	74.1
Rhythm	23.3	26.4	18.5

TABLE VI - 9: Percentage Distribution of Ever-Married Women Who Have Ever Used Specified Contraceptive Methods

By Type of Method

	Used Modern Method (s)	Only Traditional Method (s)	Never Used any Method
1983	51	20	29
1978	34	21	45

Modern Methods

	Pill	IUD	Condom	Fem.Sci.	Injection	Fem.Str.
1983	34	15	16	12	1	1
1978	25	7	11	3	1	0

Traditional Methods

	Withdrawal	Douche	Rythm	Other
1983	46	3	6	4
1978	32	19	5	—

TABLE VI - 10: Percentage Distribution of Ever-Married Women Who Have Ever-Used Specified Contraceptive Methods by Background Variables

	MODERN METHODS						TRADITIONAL METHODS			
	Pill	IUD	Condom	Female Scientific	Injection	Female Steril.	Withdrawal	Douche	Rhythm	Other
TURKEY	34	15	16	12	1	1	46	3	6	4
REGION										
West	40	15	22	15	0	1	57	5	9	5
South	32	11	17	13	3	2	42	2	5	2
Centre	35	22	15	11	1	1	43	3	5	5
North	32	22	17	14	0	3	59	2	3	2
East	21	7	6	5	3	0	24	1	4	1
TYPE OF PLACE OF RESIDENCE										
Urban	39	19	25	16	1	1	53	4	10	4
Rural	27	10	7	7	1	0	39	2	2	3
WOMAN'S EDUCATION										
Illiterate	26	9	8	7	2	1	35	2	1	3
Literate	37	18	16	14	1	1	49	3	3	5
Primary	39	17	20	15	1	1	55	4	5	2
Secondary or Higher	40	23	39	19	0	1	57	3	36	3
HUSBAND'S EDUCATION										
Illiterate	23	7	6	5	1	2	30	2	1	4
Literate	30	12	11	10	2	1	41	3	2	4
Primary	35	14	14	12	2	1	47	3	3	4
Secondary or Higher	32	21	31	17	1	1	57	3	20	3
COUPLE'S LITERACY										
Neither Literate	21	7	5	4	1	2	28	1	1	3
Only one Literate	29	11	10	9	2	1	38	2	2	3
Both Literate	39	18	23	15	1	1	55	4	9	4
NUMBER OF LIVING CHILDREN										
0	5	1	3	2	1	0	13	1	5	0
1	23	12	16	11	1	0	44	2	9	3
2	39	17	24	14	1	1	57	4	11	3
3	42	20	21	17	1	1	56	5	5	6
4	38	19	15	13	1	2	53	3	3	5
5 +	37	13	12	11	3	2	39	2	2	4

family size or are close to it. However, the decrease in the figures after the 3rd child points out another pattern; namely that these women are mostly those who have never used any method of contraception. Another reason for this decreasing effect may be the decreasing fecundability through aging. When we control this relationship with the woman's age, this decreasing pattern is found to be more pronounced for women below 35 years of age. This also supports the hypothesis that these women are mostly those who have never tended to use a method of contraception.

4. CURRENT USE

In discussing the findings of the survey concerning current use, attention is focused on the group of women who are currently exposed to the risk of conception. The exposed group excludes women who are not married, or are not able to have children, or are currently pregnant.

Of all exposed women, 61,5% report current use of a method of contraception. We note a slight increase if we compare this ratio with the results of the 1978 Survey which was 50%.

Current Users (%)

	Modern Methods	Traditional Methods	Total
1983	44	56	61.5
1978	36	64	50

The level of current use of contraception varies little by age: nearly half of exposed women aged under 25 and between 45-49 are current users. The ratios of current users among exposed women aged 25-34 and 35-44 also do not differ (68% and 66% respectively).

There is a clear association with the number of living children: the level of usage is the highest among women with 2 or 3 living children, beyond which there is a slight fall with increasing family size. For example, among exposed women, the percentage currently using contraception falls from around 75% for those with 2-3 children to around 52% for those with 5 or more living children. Only a small minority (11%) of those with no children are current users. This would imply that, concern to delay the first birth is not widely felt, though such concern is not absent. The level of use increases sharply to 56% for those with one living child and to 77% for those with two children. This is an indication of a widespread acceptance of the idea of spacing births at the earlier stages of family building (Table VI-11).

Even though the overall level of current use is quite high in Turkey, 44% of current users are using a modern method. Consequently, a modern method is being used by slightly above one in four (27%) of the exposed women. This ratio was one in six in the 1978 Survey (See Table VI-12).

Current use of modern methods declines with age; among women aged under 25, a modern method is being used by 24% of the exposed women; the highest figure is 33% among exposed women aged 25-34. The lowest figure is 14% among exposed women aged 45-49 (Table VI-13).

Table VI-12 shows the distribution of current users by method being used in comparison with the results of the 1978 Survey. As many as 30% of the exposed women are using withdrawal, of which the level of use exceeds that of all modern methods put together (27%). When compared with the 1978 Survey results which was 22%, this figure indicates a considerable increase.

Among modern methods, the most common methods are the pill and IUD (used by 9% of exposed women in each case), followed by the condom, female scientific methods and female sterilization (5%, 3% and 1% of the exposed women respectively). Among

TABLE IV - 11: Percentage Distribution of Exposed Women Who are Currently Using any Method of Contraception **by Number of Living Children**

No. of Living Children	MODERN METHODS							TRADITIONAL METHODS			
	No Method Used	Pill	IUD	Condom	Female Scientific	Female Steril.	Male Steril.	Withdrawal	Douche	Rhythm	Folk Methods
0	89	2	0	1	0	0	0	5	1	2	0
1	44	7	9	7	2	0	0	27	1	2	1
2	23	11	11	7	5	1	0	35	2	3	1
3	28	11	9	6	3	1	0	36	3	1	1
4	34	9	12	3	2	2	0	36	1	0	1
5 +	48	8	8	2	2	2	0	27	2	0	1

TABLE IV-12: Percentage Distribution of Exposed Women Currently Using Specified Contraceptives **Comparison of 1978 and 1983 Surveys**

	No Method Used	Current Users	MODERN METHODS							TRADITIONAL METHODS				
			Pill	IUD	Female Scientific	Condom	Female Steril.	Injection	Total	Withdrawal	Douche	Rhythm	Folk Methods	Total
1983	38.5	61.5	9.0	8.9	2.9	4.9	1.3	0.2	27.2	30.1	1.9	1.4	0.8	34.2
1978	50	50	8.0	4.0	2.0	4.0	–	–	18.0	22	6.0	–	4.0	32

TABLE VI - 13: Percentage Distribution of Exposed Women Currently Using Specified Contraceptive Methods - by Age

		MODERN METHODS							TRADITIONAL METHODS			
	No Method	Pill	IUD	Condom	Female Scient.	Injection	Female Steril.	Male Steril.	Withdrawal	Douche	Rhythm	Folk Methods
25 -	51	9	8	4	3	0	0	0	24	1	1	0
25 - 34	32	11	12	6	3	0	1	0	30	1	2	1
35 - 44	34	7	7	5	3	0	2	0	35	3	2	1
45 - 49	51	3	3	3	1	0	4	0	28	3	2	2
ALL	39	9	9	5	3	0	1	0	30	2	1	1

TABLE VI - 14: Percentage Distribution of Exposed Women Currently Using Specified Contraceptive Methods - by Woman's, Husband's and Couple's Education

	MODERN METHODS								TRADITIONAL METHODS			
	No Method Used	Pill	IUD	Condom	Female Scient.	Injection	Female Steril.	Male Steril.	Withdrawal	Douche	Rhythm	Folk Methods
WOMAN'S EDUCATION												
Illiterate	54	7	5	2	2	0	2	0	26	2	0	1
Literate	40	7	9	5	3	0	1	0	32	2	1	1
Primary	28	12	11	6	4	0	1	0	34	2	1	1
Secondary or higher	18	9	17	13	3	0	1	0	27	1	11	0
HUSBAND'S EDUCATION												
Illiterate	62	5	4	2	0	0	2	0	22	1	0	1
Literate	47	7	7	1	3	0	2	0	30	2	0	1
Primary	37	10	9	4	3	0	1	0	32	2	0	1
Secondary or higher	26	9	13	11	3	0	1	0	29	1	6	0
COUPLE'S EDUCATION												
Neither Literate	62	5	4	1	1	0	2	0	22	1	0	1
Only One Literate	52	7	6	3	2	0	1	0	26	2	0	0
Both Literate	27	11	11	7	4	0	1	0	34	2	2	1

TABLE VI-15: Percentage Distribution of Women Currently Using Specified Contraceptive Methods - by Region and Type of Place of Residence

	MODERN METHODS								TRADITIONAL METHODS			
	No Method Used	Pill	IUD	Condom	Female Scient.	Injection	Female Steril.	Male Steril.	Withdrawal	Douche	Rhythm	Folk Methods
ALL TURKEY	39	9	9	5	3	0	1	0	30	2	14	1
REGION												
West	23	11	9	7	3	0	1	0	38	3	2	1
South	42	9	8	5	2	0	2	0	29	1	1	0
Central	39	8	13	4	4	0	1	0	27	2	1	1
North	34	7	9	4	3	0	3	0	38	1	0	0
East	69	6	5	3	1	0	0	0	14	0	1	0
TYPE OF PLACE												
Urban	29	9	11	7	4	0	1	0	33	2	3	1
Rural	49	9	7	3	2	0	1	0	27	1	0	1

traditional methods, the highest figure is withdrawal, followed by the douche (2% of the exposed women), and rhythm (1% of the exposed women). The popularity of withdrawal does not change much by age. However, when we consider all modern methods, the relative frequency of their use among exposed women tends to decrease with age, the only exception being female scientific methods. The use of this method increases by age. We do not observe this tendency for traditional methods.

When we compare the distribution of current users by method being used with those of 1978 TFS, we note a slight increase in the use of modern methods in time. The highest increase can be observed in the use of the IUDs. There are also slight increases in methods such as the pill, the condom, female scientific methods and female sterilization (Table VI-12).

Among traditional methods, we have already noted the sharp increase in the use of withdrawal. Correspondingly there is a slight increase in the use of the rhythm method. But, on the contrary, considerable declines can be observed in the use of douche (68% decrease), and in the other folk methods (80% decrease).

Tables VI-14 and VI-15 give percentages of women currently using specified contraceptive methods by background variables.

Overall, 61% of the exposed women in fertile ages are currently using a method of contraception. Here we note very pronounced differentials. Seven women out of ten, compared to five out of ten in rural areas, in urban areas are currently using a method. The prevalance of use is around 76% (three-fourths of the women) in the Western region, and 30% in the Eastern region. The most outstanding differentials are in the category of woman's level of education: 82% of those with secondary education or beyond, compared to 46% of those illiterate are currently using contraception. When wife's and husband's education are taken simultaneously, 73% of couples both literate, compared to 38% both illiterate are currently using contraception.

When we focus on the current use of modern methods among exposed women in fertile ages, only one in four (27%) are using a modern method all throughout Turkey. In rural areas only one in five (22%) compared to one in three (32%) in urban areas are currently using contraception. Regional differentials are more striking in three regions. namely Southern, Northern and Eastern Anatolia are below the average for Turkey. Those women living in the Western region have a ratio twice that of women living in the Eastern region as current users of modern methods (See Fig. VI-1). Similarly, those women with better-educated husbands have a ratio thrice that of women with illiterate husbands in practising a modern method.

5. AVAILABILITY OF CONTRACEPTIVE METHODS

Choices as to which contraceptive methods are to be used by families who practice family planning methods in a society is closely related to the supply of such services. If the supply of services are inadequate or access is difficult, then those who decide to use contraceptive methods may have to resort to solutions on their own. The situation in Turkey is that there is a high demand for family planning methods; however, there is an inadequate supply of modern and efficient methods. As a matter of fact, it was declared by those who have been supplied with services and are using modern family planning methods, that access to places where the services are provided is difficult. There are regional differences in terms of access

to places where the services are provided in the expected direction. Among those who are using modern methods in Eastern Anatolia, 16% have stated that access is difficult, while only 6% of those women in the Western Anatolia have stated as such. In our country, especially in those regions which experience high fertility, a significant portion of modern method users have difficulty in obtaining the method. An important matter that needs to be examined is the question of where modern method users obtain the method. The findings of the survey show the existence of a pattern different from the one expected. Data on the places where specified contraceptive methods are obtained are presented below in Table VI-16, but is limited to two regions, the East and the West, since they are typical. In both regions, almost all women using the pill obtain it from pharmacies (91.7% in the East, 96.6% in the West). An important portion of women obtain IUD's from private doctors in the West (38.1%). The situation is similar in the East (29.6%). The most apparent difference between the two regions as to the place of obtainment of IUD's is that in the East health centers and in the West private doctors provide most of the services (30% and 38.1% respectively). The third point to be examined is, the place of obtainment of condoms in those two regions. Among married couples in the West 79.2% and in the East an important portion (44.6%) obtain condoms from pharmacies. A difference between the two regions is that, in the East 35.3% of the married couples obtain condoms from health centres.

One of the most important findings of the 1983 Survey is that in both regions, only a small portion of family planning method users obtain services from family planning clinics and mother and child health centres. It is interesting that less than 10% of modern method users are provided with services by family planning clinics, which aim primarily at supplying these services, and from mother and child health centres, which are mainly responsible for maternal health. This fact is clearly observed in Table VI-16.

FIGURE VI-1 Percentage of Women Currently Using Contraceptive Methods

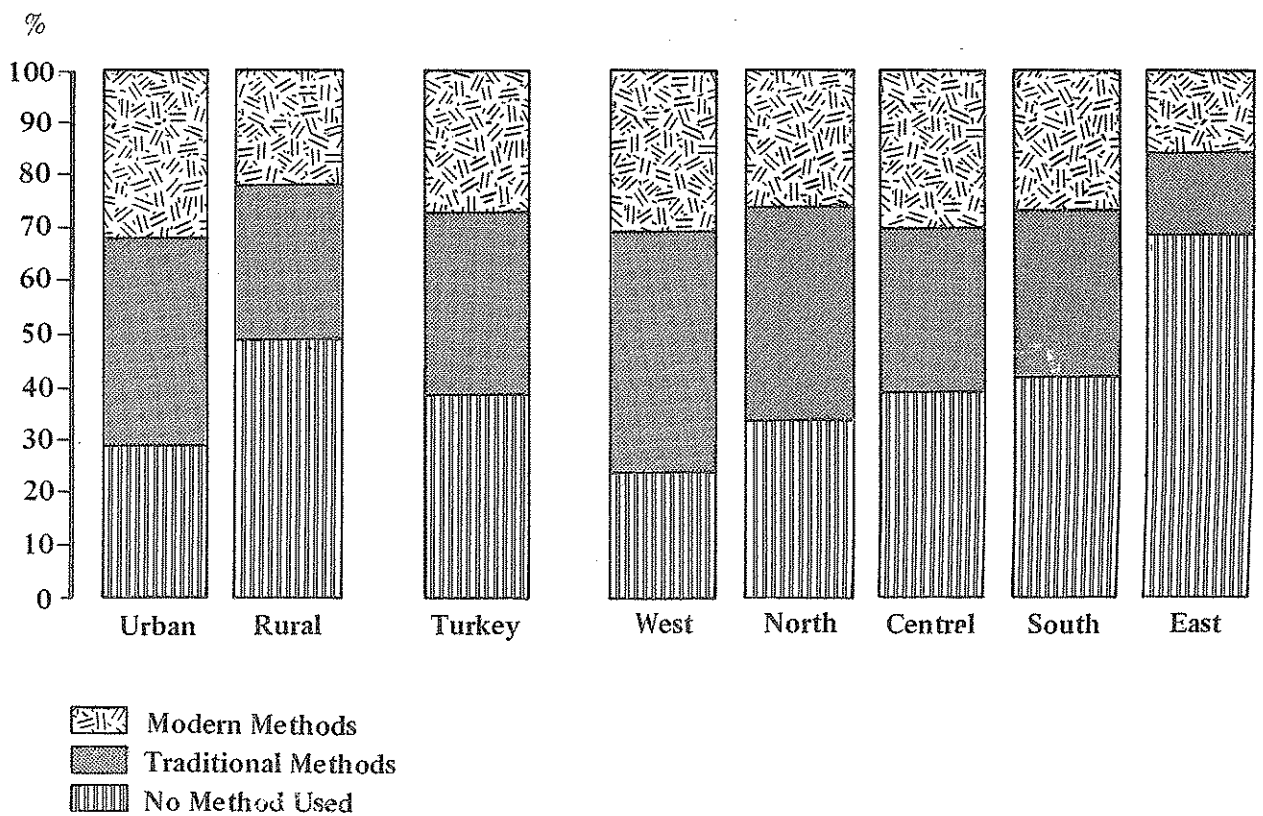


TABLE VI - 16: Percentage Distribution of Women Using Contraceptive Methods in the Eastern and Western Anatolian Regions According to the Place From Where This Method is Obtained

	Pill		IUD		Condom		Female Scientific Methods	
	East A.	West A.	East A.	West A.	East A.	West A.	East A.	West A.
Pharmacy	91.7	96.6	2.4	–	44.6	79.2	73.8	97.9
Family Planning Clinic	4.5	0.5	4.8	8.3	7.5	9.8	–	-
Mother and Child Health Center	1.9	0.5	4.6	9.2	12.6	2.6	–	–
Health Center	1.8	1.0	30.0	4.3	35.3	2.6	–	–
Hospital	–	0.9	19.1	28.2	–	0.7	–	–
Maternity Home	–	–	9.5	8.7	–	–	–	–
Private Doctor	–	0.5	29.6	38.1	–	–	9.5	–
Midwife/Nurse	–	–	–	2.5	–	1.4	16.5	–
Other	0.1	–	–	0.7	–	1.7	0.2	2.1
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

CHAPTER VII

Abortions

1. GENERAL FINDINGS

1983 survey showed that during the last year (September 1, 1982 - August 31, 1983) there were 218588 induced abortions and 144611 spontaneous abortions, giving a total of 363199 abortions. Besides these abortions, 18987 stillbirths were observed. These figures imply that, of the 1801696 pregnancies observed during the last year, 12.1% were terminated by induced, 8.0% by spontaneous abortions, and 1.1% by stillbirths. Thus, percent of pregnancies which were terminated is 21.1% (Table VII - 1). In addition, the abortion ratio per 100 live births is found to be 25.6 (Table VII-7).

There is an upward trend in the prevalance of abortion. In the late 60's and early 70's, 33% of married women at reproductive ages had had an abortion, by the late 70's (1978) this figure increased to 34%. As to the findings of this survey, the percent of women with at least one abortion has reached 37% (N = 7872115). The abortion ratio for last year is found to be 4.6 per 100 ever-married women in childbearing ages, which indicates that one out of five pregnancies is terminated by abortions.

In a time series, a steady and noticeable increase is observed in the induced abortion ratios (Table VII-2). Also, a slight increase can be seen in spontaneous abortions during the period covered*. However, spontaneous abortions seem to be less reported than induced abortions, which probably implies that the quality of data on induced abortions has improved in this survey.

When induced and spontaneous abortions are considered separately, induced abortions are higher than spontaneous abortions (Table VII-3). Improved reporting may explain only a portion of this phenomena because even if the figures from the current 1983 Survey are compared with the figures of 1975 study (which used Random Response Technique to get better reporting on abortions) there are statistically significant differences. For instance, the percent of women at reproductive ages who had an induced abortion increased from 13.9 in 1975 to 16.8 in 1978 and finally to 19.0 in 1983.

2. OBSERVATIONS BY SELECTED VARIABLES

2.1 URBAN/RURAL COMPARISONS

Although the rates of spontaneous abortion are similar for urban and rural areas, the rates of induced abortion show significant

* *Although the survey is a cross-sectional study of abortions, the attrition of respondents as one goes back in time do not seem to change the observations explained above. Past surveys provide empirical base for this footnote.*

TABLE VII - 1: Ratio of Abortions to Total Pregnancies (1982 - 83)

	Induced Abortions	Spontaneous Abortions	Stillbirths	Total
Turkey	12.1	8.0	1.1	21.2
Urban	18.1	9.1	0.8	28.0
Rural	7.0	7.1	1.2	15.3
Region				
West	19.2	12.2	1.5	32.9
South	9.6	6.9	0.5	17.0
Centre	12.1	7.6	0.9	20.6
North	13.2	6.5	2.6	22.3
East	5.3	5.2	0.2	10.7

TABLE VII - 2: Distribution of Abortions by Years (Per 100 Pregnancies)

	1983 - 82	82 - 81	81 - 80	80 - 79	79 - 78	78 - 77	77 - 76	76 - 75	75 - 74
Induced Abortions	12.1	12.6	10.2	10.2	8.4	8.9	7.8	8.2	7.7
Spontaneous Abortions	8.0	9.4	6.5	5.6	7.7	6.3	6.4	6.2	6.7
Stillbirths	1.1	1.2	1.6	1.8	1.0	1.3	2.2	1.0	1.5
Total	21.2	23.1	18.3	17.6	17.1	16.5	16.4	15.4	15.8

TABLE VII - 3: Ratio of Abortions to Total Number of Ever-Married Women (1982 - 83)

	Induced Abortions	Spontaneous Abortions	Stillbirths	Total
Turkey	2.8	1.8	0.2	4.8
Urban	3.7	1.8	0.2	5.7
Rural	1.8	1.8	0.3	3.9
Region				
West	3.4	2.2	0.3	5.9
South	2.4	1.7	0.1	4.2
Centre	2.8	1.8	0.2	4.8
North	3.0	1.5	0.6	5.1
East	1.6	1.6	0.1	3.3

difference. In urban areas induced abortion rates are twice that of spontaneous abortion rates as seen in the tables VII - 1 and VII - 3.

Abortions are more common in urban areas probably because of the characteristics of urban life. One possible explanation may be that, cities are in a transition stage in the process of urbanization and urban women experience the constraints of social and economic change more heavily. Induced abortion seems to be quite common in their fertility control. In regard to total pregnancies, the urban abortion ratio for overall Turkey is almost twice the ratio for rural localities, due to high induced abortion ratios observed in urban areas. Considering the trends toward urbanization, abortion may become more important in Turkey in the future.

2.2. REGIONAL VARIATIONS

Figure VII-1 shows that there are some significant variations in induced and spontaneous abortion ratios for the period 1982-83. Firstly, it is observed that induced abortion ratios are higher than spontaneous abortion ratios in all regions. This might imply that underreporting of induced abortions is not as significant as once believed.

Secondly, it is observed that induced abortions are highest in the West, medium in the North, Centre and the South, and lowest in the East, which might imply that birth control by abortion is quite advanced in the West, medium in the North, Centre and the South, and not so much advanced in the East.

Thirdly, the variation in the spontaneous abortion ratios by regions is not as high as induced abortion ratios, which is expected because spontaneous abortions are consequences of "natural biological phenomena" whereas induced abortion ratios are more viable to socially adapted behavioural patterns.

In terms of absolute number of abortions, a significant majority is in the West and the Central parts of the country. The North, South and the East are at similar levels, which are low, while only the North is approaching a slightly higher level than others after 1980. Figure VII-2 shows that the West and the Centre need family planning services. Despite the fact that assistance should be channelled mainly towards these regions, demands are expected to increase in the North, South, and the East in the future — the North is already showing high trends compared to the South and the East — therefore precautions should be taken now to meet such an increasing demand.

When we examine the geographic distribution of women who had induced abortion, it is observed that 43.5% live in the West, while only 8.6% live in the East (Table, VII-4). This shows that, there are 5 times more women in the West with induced abortions than in the East.

As seen in Tables VII-1 and VII-3, abortion ratios for the North, Centre and the South are similar. The East and the West are the only two regions with significant deviations. The abortion ratios of the West are above the rates for overall Turkey. In the West, 3 out of 10 pregnancies are terminated by abortion, whereas in the East this ratio is 1 in 10 pregnancies.

Another point which draws attention is that unlike other regions, in the Eastern Anatolia, spontaneous and induced abortion ratios are almost identical to each other, which is probably due to the similarity of urban and rural areas. The urban localities of the East show rural characteristics since they are at the very beginning of the urbanization process.

FIGURE VII - 1: Induced and Spontaneous Abortion Ratios Per Ever Married Women, by Regions

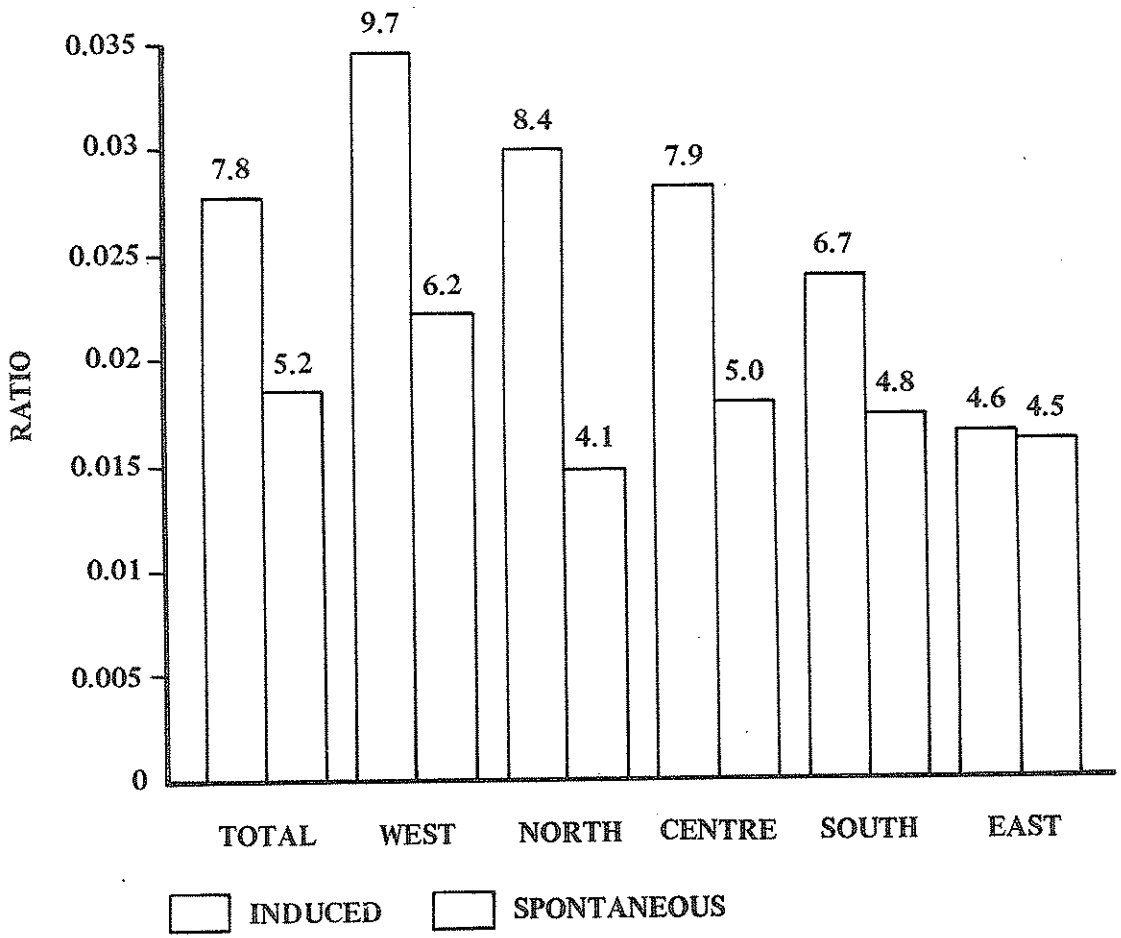
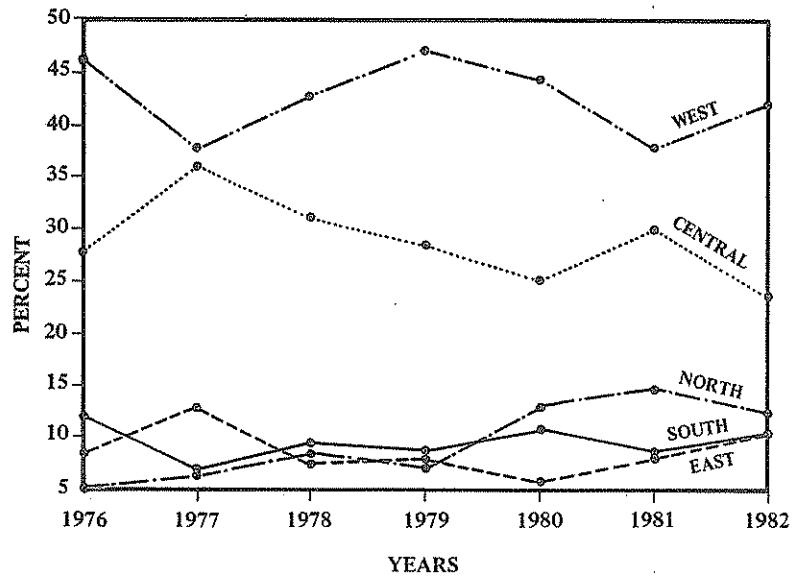


TABLE VII - 4: Geographical Distribution of Women Who Had Induced or Spontaneous Abortion (Per 100 Women)

	West	South	Centre	North	East	Total
Women with Induced Abortion	43.5%	10.2%	26.9%	11.8%	8.6%	100.0%
Women with Spontaneous Abortion	32.7%	14.8%	24.5%	15.0%	13.0%	100.0%

FIGURE VII-2: Induced Abortions: Geographical Distribution by Years



2.3. VARIATIONS ON AGE DIMENSION

Age variations in abortions are also significant. Figure VII - 3 shows that spontaneous abortion ratios are higher than induced abortion ratios only for younger age cohorts, implying propensity for induced abortions for fertility regulation reasons at high parity ages.

Secondly, it is observed that induced abortion ratios reach high levels at most fecund ages, i.e. 20-34. The peak point is at the age group 30-34, which probably is an age after which desired family size is achieved. The decline observed in the very higher ages is due to declining number of pregnancies in these ages.

2.4. LEVEL OF EDUCATION AND ABORTION

Another significant result in the variance of abortions is observed in regard to levels of education. Even though, similarity is observed for abortions in general among different levels of education, significant variations are observed for induced abortions. Primary school graduates and illiterates are dominant in the distribution of the number of abortions by education, and women with secondary school and above education contribute a relatively smaller share to total induced abortions (Figure VII - 4).

Even though the rates are higher for "educated" women, their contribution is less to the total number of abortions. This is mainly because of their relatively smaller share in the population. For instance, the ratio of induced abortions for ever-married women among secondary school graduates is about twice the ratio for illiterate women.

3. CONCLUDING REMARKS

These observations suggest that, although the current rates are higher for women with secondary level education, women who will be seeking abortion services in the future will be mostly women with no education or with primary school education. This is because of the relatively larger size of population in the lower education groups.

The foregoing observations imply that a bulk of abortion demand is geographically in the Western Anatolia, and in the low levels of education groups and mostly living in urban areas.

Abortion ratios observed in consecutive ordinal categories imply a transition of adaptation of abortion from low to high categories. Thus it is possible to hypothesize that abortion rates will increase in the Eastern Anatolia (as it becomes more westernized) and in rural areas (as they achieve more urban characteristics), and the policy makers should keep these trends in mind and be ready for more demand for abortions in the segments of the population.

FIGURE VII - 3 Induced and Spontaneous Abortion Ratios Per Ever Married Women by Age (1.9.1982 - 31.8.1983)

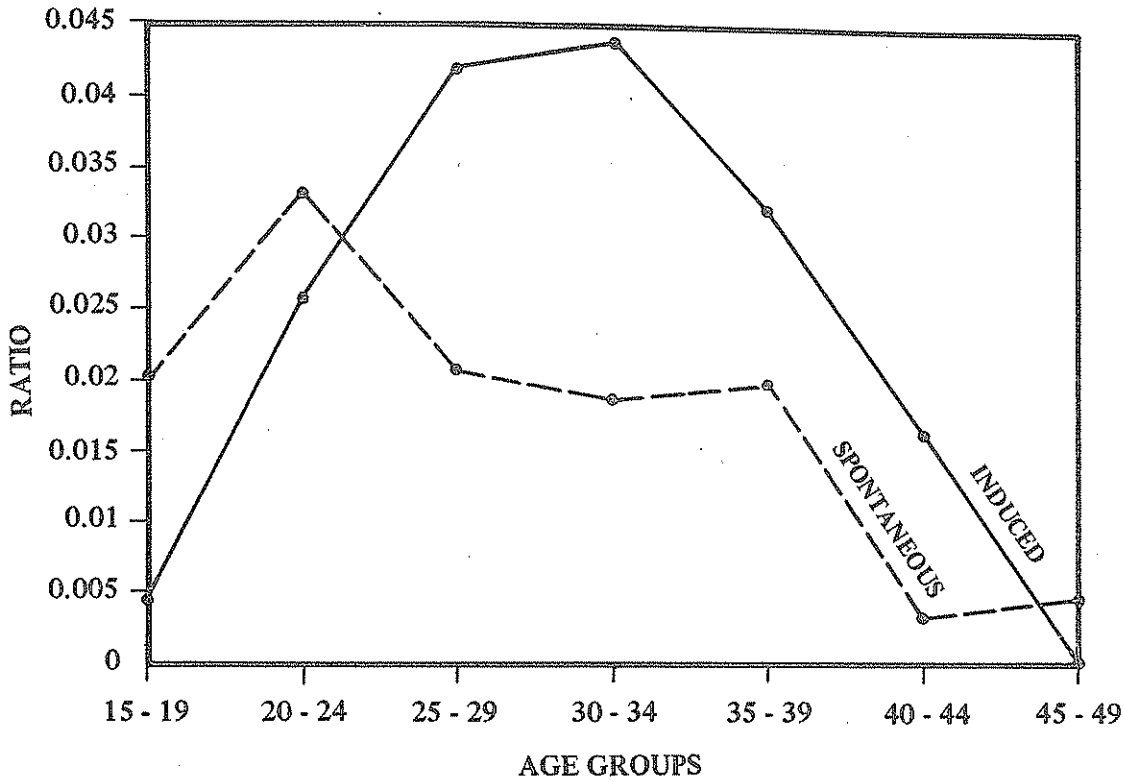


FIGURE VII - 4: Induced Abortions: Distribution by Level of Education

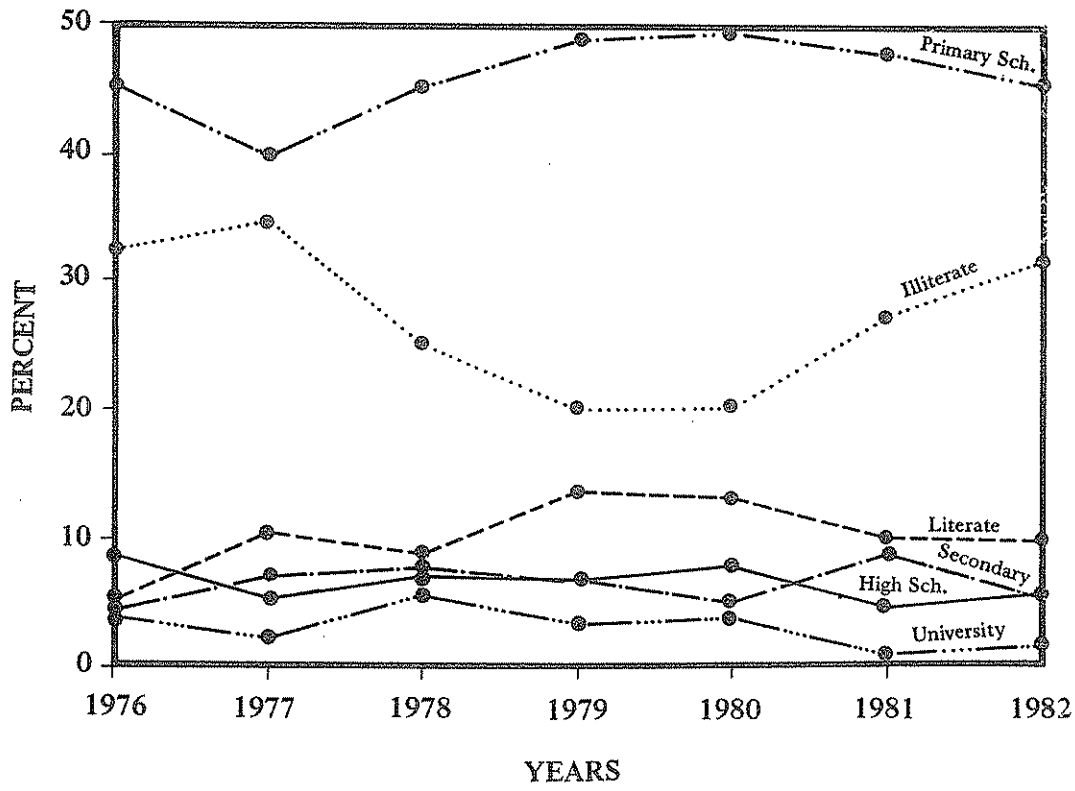


TABLE VII-5: Induced and Spontaneous Abortion Ratios for Ever-Married Women for Sept.1, 1982 - August 31, 1983 by Region

Region	Induced Abortion Ratio	Spontaneous Abortion Ratio
West	.0344	.0218
South	.0237	.0171
Centre	.0281	.0177
North	.0297	.0147
East	.0164	.0161
TOTAL	.0278	.0183

TABLE VII-6: Age Specific Induced and Spontaneous Abortion Ratios for Sept.1, 1982 - August 31, 1983

Age	Induced Abortion Ratio	Spontaneous Abortion Ratio
15 - 19	.0046	.0199
20 - 24	.0258	.0333
25 - 29	.0419	.0206
30 - 34	.0438	.0185
35 - 39	.0322	.0197
40 - 44	.0162	.0034
45 - 49	–	.0047

TABLE VII - 7: Summary Table for Abortion Incidences (1982 - 83)

Number of abortions per 100 ever - married women (15-49)	4.6
Number of induced abortions per 100 ever-married women (15-49)	2.8
Number of spontaneous abortions per 100 ever-married women (15 - 49)	1.8
Number of total abortions per 100 pregnancies	20.1
Number of induced abortions per 100 pregnancies	12.1
Number of spontaneous abortions per 100 pregnancies	8.0
Number of total abortions per 100 live births	25.6
Number of induced abortions per 100 live births	15.4
Number of spontaneous abortions per 100 live births	10.2

CHAPTER VIII

Summary and Conclusion: Policy implications

1. INTRODUCTION

The objective of this report has been to make the valuable information collected in the "1983 Turkish Fertility, Contraceptive Prevalence and Family Health Status Survey" available in the form of a broad descriptive review.

In the following sections a brief summary is provided of the major findings discussed earlier on nuptiality, fertility, contraceptive usage and infant mortality. In conclusion, we indicate some of the important policy implications which emerge from the survey.

2. NUPTIALITY

CURRENT MARITAL STATUS

Table VIII-1 shows the distribution of women aged 18-49 according to current marital status. The data indicates that marriage is almost universal in Turkey, as only less than 4% of the women aged 35 and over are reported as single. Marriage is stable since in almost all age groups the percentage of currently divorced or separated does not exceed 2%. Marriage, on the other hand, is relatively early; two-thirds of women aged 20-24 have married.

AGE AT MARRIAGE

Mean age at first marriage was studied by restricting attention to women currently aged 25 and over who married before age 25. The mean for all Turkey is 17.6, with an urban rural difference of slightly over half a year (17.8 urban versus 17.2 years rural) and a west-east difference of 2 years (18.4 in west versus 16.3 in east). Women with secondary education or beyond have a mean age at first marriage of 18.7, which is 2.5 years higher than that for illiterate women.

TRENDS IN AGE AT MARRIAGE

In all age groups, 1983 Survey findings show that the cumulative percentages married before a specified age is lower than that of 1978 Survey values. In spite of this however, in all regions (except Central Anatolia) in the 15-19 age groups, the percentage of women married before age 15 is higher than the 1978 values. This finding indicates a rather increasing trend for early marriages in younger ages.

MARRIAGE STABILITY

Over 92% of first marriages were intact at the time of survey. Of the dissolved marriages 4.6% had resulted in remarriage in 1983.

TABLE VIII - 1: Current Marital Status of Women Aged 18 - 49.

Marital Status	Age						
	18 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49
Single	70.0	34.2	8.5	3.4	2.6	1.0	0.8
Currently Married	29.7	64.5	89.9	94.6	93.4	92.0	88.8
Widowed	0.1	0.3	0.6	1.2	3.0	5.9	8.2
Divorced	0.1	0.4	0.6	0.5	0.7	1.1	1.6
Separated	0.0	0.6	0.3	0.3	0.2	0.1	0.6
All	99.9	100.0	99.9	100.0	99.9	100.1	100.0

Although 92.5% of first marriages were still continuing, 3.6% resulted in widowhood and 3.8% resulted in divorce and separation.

3. FERTILITY

CHILDREN EVER-BORN

Grouped by age, the mean number of children ever-born to ever-married women is as follows:

Age	Mean
15 - 19	0.7
20 - 24	1.7
25 - 29	2.9
30 - 34	4.1
35 - 39	4.9
40 - 44	5.4
45 - 49	5.7
All	3.7

The most substantial increase in the mean number of children ever-born is between the 20-24 age group, the 25-29 age group and the 30-34 age group being 1.2 children for both groups. The considerable increase from one age group to the next, up the highest ages, indicates a long span in child-bearing in Turkey.

There are marked urban-rural and regional differentials in completed fertility (i.e. in children ever-born to women aged 45-49): a difference of 2.5 children between urban and rural women and of well over 4 children between Western and Eastern regions.

	Completed Fertility
Urban	4.6
Rural	6.9
West	4.0
South	6.3
Centre	6.6
North	6.0
East	8.4
All	5.7

Illiterate women aged 45-49 have in average 6.9 children ever-born, while women who have graduated from high school have 2.4 children, 4.5 children less than the previous group

AGE SPECIFIC FERTILITY RATES AND FERTILITY TRENDS

Age specific fertility rates and total fertility rate for total women are as follows:

Age Group	ASFR
15 - 19	.055
20 - 24	.225
25 - 29	.250
30 - 34	.152
35 - 39	.092
40 - 44	.028
45 - 49	.008
TFR	4.05

Fertility peaks at age 25-29. The total fertility of 4.05 implies that a women experiencing the prevailing age specific rates will have an average of 4.05 live births by the end of her reproductive span. When contrasted with the completed fertility of 5.71 for women currently aged 45-49, the TFR indicates more than one child decline in fertility over the time span covered by the survey.

There are marked urban-rural differentials: the TFR for urban areas has been estimated as 3.17 compared with 5.08 for rural areas. Regional differentials are more pronounced, with a TFR of 2.68 in the West, and of 6.52 in the East.

Retrospective birth histories permit an estimation of the recent trend in fertility. The total fertility rates for the past nine years, movingly averaged over the 5 year periods 1974-79, 1975-1980, 1976-1981, 1977-1982 and 1978-1983 are respectively, 4.61, 4.56, 4.47, 4.30 and 4.17. These figures imply a fertility decline of the order of 10% in the past nine years.

4. INFANT MORTALITY

On the basis of the data on child survivorship and age at death in the birth histories, the following estimates for infant mortality rates averaged over the period 1979-1982 have been made:

Urban	58
Rural	125
West	81
South	—(*)
Centre	103
North	97
East	119
All	95

Infant mortality rate (95 per thousand) is still rather high for a country with considerable development, though there is a marked decline when compared with the findings of the 1978 survey (134 per thousand).

The results show that neo-natal mortality rate declined from 60 per thousand (in the 1972-77 period) to 42 per thousand (in the 1979 - 82 period) and post neo-natal mortality rate from 74 per thousand to 54 per thousand in the corresponding periods. Although no important differences are observed between neo-natal and post neo-natal mortality rates in urban areas, post neo-natal mortality rate is found to be higher than the neo-natal rate in rural areas. In addition, it is observed that the regional differences in infant mortality rates stem from the differences in post neo-natal mortality rates. Thus, the findings show that the post neo-natal mortality constitutes an important portion of the infant deaths. These facts indicate that, in rural and less developed areas where the infant deaths are highest, through relatively simple and cheaper methods such as breast-feeding the infant for at least six months and starting the supplementary foods later; vaccinating the infant at recommended ages; the treatment of diarrhea and other infectious diseases on time;

** less than 20 observations*

and giving the necessary attention to hygiene, the infant deaths can be decreased to an important extent in the short run.

BIRTH PLACE AND ASSISTANCE

The 1983 Survey results show that of the last live births 58% took place at a non-health unit while only 42% took place at a health unit. In rural areas 76% and in the East 84% of the last births were delivered at a place which was not a health unit.

Of the last births, 62% were assisted by doctors or midwives; 16% by traditional midwives and 22% by neighbours or relatives. While in urban areas, 83% of the last births were assisted by doctors or midwives, in rural areas only 43% were assisted by such personnel. In the West, 84.8% of the last births were assisted by doctors or midwives. On the contrary, in the East, this percent declined to 34%.

SWADDLING

The results indicate that the practice of swaddling, though very unhealthy, is quite common in Turkey. Of the mothers 93.1% reported that they swaddled their last child. Although there are some differences, the regional variations are not very important, but the highest percentages are observed in the Northern and Eastern regions. In addition, swaddling seems more prevalent in rural areas.

	Swaddling %
West	91.8
South	91.0
Centre	92.4
North	96.6
East	95.6
Rural	95.6
Urban	90.8
Turkey	93.1

On the other hand, 12.5% of the mothers reported that they used earth for swaddling purposes. The rural-urban and regional variations are striking. In the rural areas, percent of mothers who have used earth for swaddling is 20.5 while this is only 4.9 in urban areas. The most important regional difference is between the Central and the Western regions. In the Centre, of the mothers 24% reported that they have used earth for swaddling, while in the West, the percent is only 1. In the East, usage of earth is less than in the Centre with 21.3%.

5. CONTRACEPTION

KNOWLEDGE OF CONTRACEPTIVE METHODS

The 1983 Survey results indicate that knowledge of contraceptive methods is widespread among Turkish women. Of all ever-married women, 94% report having heard of one or more methods of contraception; 91% know of a modern method. A vast majority (85%) know of the pill, while the IUD and withdrawal are known to 75% of the women. The condom and female scientific methods are known, at least, to half of the women.

When we examine the urban-rural differentials for specific methods, we observe that knowledge of specific methods is more than 15% higher in urban areas.

The knowledge of contraceptive methods varies by woman's educational attainment. Increasing level of education increases knowledge for all methods. Among modern methods, the pill and the IUD, and among traditional methods, withdrawal has the highest percentages by increasing educational level.

The variation in the level of knowledge by geographical regions is also marked. There is a considerable increase in the West for most modern methods, on the other hand the Eas-

tern region has the lowest degree of knowledge for most modern methods.

EVER-USE OF CONTRACEPTION

Of all ever-married women, 71% report having used a method of contraception at some stages of their reproductive span. It is important that only one-fifth of all ever-married women have ever used only traditional methods while 1 out of 2 have ever-used at least one modern method.

In order of importance the main methods ever-used are: withdrawal (46%), the pill (34%), condom (16%), IUD (15%), female scientific methods (12%), and rhythm (6%).

There are marked geographical and socio-economic differentials in ever-use. For example, among women, 39% in urban areas and only 27% in rural areas have ever used the pill. Similarly, 25% in urban areas, and only 7% in rural areas have ever-used the condom. Again, 39% of those with at least secondary level education compared with only 8% of those illiterate have ever-used the condom.

Correspondingly, 40% in the Western region and only 21% in the Eastern region have ever-used the pill.

CURRENT USE OF CONTRACEPTION

The level of current use is defined on the basis of women who are currently exposed to the risk of conception, i.e. women who are currently married, non-pregnant and physically able to have a child. Of all exposed women, 62% report current use of a method of contraception. There is a clear association with the number of living children as Table VIII - 2 illustrates.

The figures show that the concern to delay the first birth is not commonly felt, but there is a widespread acceptance of the idea of the spacing of children after the first birth.

Even though the overall level of current use is high in Turkey, only 44% of current users are using a modern method. Consequently, a modern method is being used by slightly over one in four (27%) of the exposed women. However, this ratio was one in six in the 1978 Survey. In rural areas only one in five (22%) compared to one in three (32%) in urban areas are currently using a modern method.

Regional differentials are more striking. Three regions, namely, Southern, Northern and Eastern Anatolia are below the average for Turkey. Those women living in the Western region have a ratio twice that of living in the Eastern region as current users of modern methods.

The distribution of exposed women by the method being used is as follows: withdrawal

TABLE VIII - 2: Percentage Distribution of Exposed Women Currently Using a Method of Contraception by Number of Living Children

	Number of Living Children						
	0	1	2	3	4	5+	All
Currently Using any Method	11	55	77	72	66	52	62
Modern Method	3	25	35	30	28	22	27

30%, the pill 9%, IUD 9%, condom 5%, female scientific methods 3%, douche 2%, and rhythm and female sterilisation 1% each.

The most outstanding differentials are by the woman's level of education: 82% of those with secondary education or beyond compared to 46% of those illiterate are currently using contraception.

AVAILABILITY OF CONTRACEPTION

Concerning the sources of obtainment of contraceptives, pharmacies take the first place in obtaining the pill (over 90%), condom (over three quarters in the West and half in the East), female scientific methods (over 90% in the West, and three-quarters in the East). In conclusion, nearly 95% of these contraceptives are provided by pharmacies in all regions.

In relation to the source of obtainment of IUD, one-third are obtained from private-doctors, and another one-third are obtained from health centers in the East. However, in the West, while over one-third are obtained from private doctors, one-third are obtained from hospitals.

In all regions, family planning clinics provide only less than 10% of contraceptives.

6. ABORTIONS

The survey results indicate that with regard to the past abortion experiences of the 7872711 ever-married women, 37% had at least one abortion of any type. The abortion ratios* for the entire country are found to be 25.6 per 100 live births and 4.6 per 100 ever-married women in child bearing ages (15-49). Besides these figures, the results in view of pregnancies also suggest that abortion is widely practiced in the country. 12.1% of the total pregnancies are terminated by induced abortions, 8% by spontaneous abortions, and 1.1% by still births.

Both spontaneous and induced abortion ratios show significant differences according to some basic background variables. The urban-rural difference is observed mainly in induced abortions. The urban induced abortion ratio for the overall country is 3.7 per 100 ever-married women which is twice the ratio for rural localities.

Findings of the survey has shown marked regional variations in induced abortions, and the most striking difference is between Western and Eastern regions (3.4 and 1.6 per 100 ever-married women respectively). Another point which draws attention in all regions except Eastern Anatolia, is the high induced abortion ratios in comparison to spontaneous abortion ratios. On the other hand, the variation in the spontaneous abortion ratios by region is not as high as induced abortions because spontaneous abortions are consequences of natural biological phenomena whereas induced abortions are more viable to socially adopted behavioural pattern.

Considering the level of education, the results obtained point out that, women with higher education practice induced abortion more widely than less educated women. For instance, the induced abortion ratio for secondary school graduates is about twice the ratio for illiterate women.

Age variations in abortions are also significant. Induced abortion ratios reach high levels at most fecund ages, i.e. 20-34, the peak point being in the age group 30-34, which probably is an age at which desired family size is achieved.

* *The ratios are for the period September 1, 1982 August 31, 1983.*

7. FERTILITY PREFERENCES

Of all ever-married women, 47% report that they desire only 2 children, and 27% stated that they desire 3 children. The proportion of women desiring only 2 children is 55% in urban areas, and 38% in rural areas. In rural areas again, the proportion of women desiring 4 and more children is 28%, while in urban areas it is 14%. Among regions, 62% of women desire only 2 children in the West, while in the East one-quarter of women desire only 2 children and 44% desire 4 or more children.

Although the number of children desired is less than the actual fertility performances of women, we notice similar tendencies as observed before between regions and strata.

When the age of women is taken into consideration, the proportion of women who don't desire any children rises as the age of women increases.. For example, younger women aged 20-29 want less children than the other age groups. Among these women, 54% want only 2 children, and only 16% want 4 or more children. On the other hand, the oldest group (40-49), report their desire for more children than the other age groups (37% desire 2 children, 27% desire 4 or more children in this age group). The number of desired children decreases as the level of woman's education increases. For example, 32% of illiterate women desire 2 children, while 71% of high school graduates desire 2 children.

8. POLICY IMPLICATIONS

The 1983 Turkish Fertility, Contraceptive Prevalence and Family Health Status Survey coincides with the introduction of a new legislation by Turkish parliament toward liberalization and extension of family planning services in Turkey. Hence, the 1983 Survey may be regarded as a baseline survey at the onset of such an effort, giving the picture of a country in demographic transition, with pronounced urban-rural, regional and socio-economic differentials which were persistent before and may even be increasing.

The marked downward trend in fertility which was observed through the findings of the 1978 Survey seems to continue but with a slower pace. Regional differentials, especially between the East and the West is widening in such a way that a dual structure in terms of population dynamics becomes more and more apparent.

These differentials observed in fertility and contraceptive usage also prevails in mother and child health care and in the accessibility and availability of family planning services.

Hence, the findings of the 1983 Survey clearly re-establishes the need for expending mother and child health care facilities and family planning services throughout the country, especially to rural areas and to less developed and backward regions.

When educational differences which emerge in all the subjects examined are taken into consideration, in addition to all other attempts, the necessity of increasing the educational level of women and improving their status in the society emerges as a fact of vital importance in order to achieve a healthier and a higher quality of life.

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