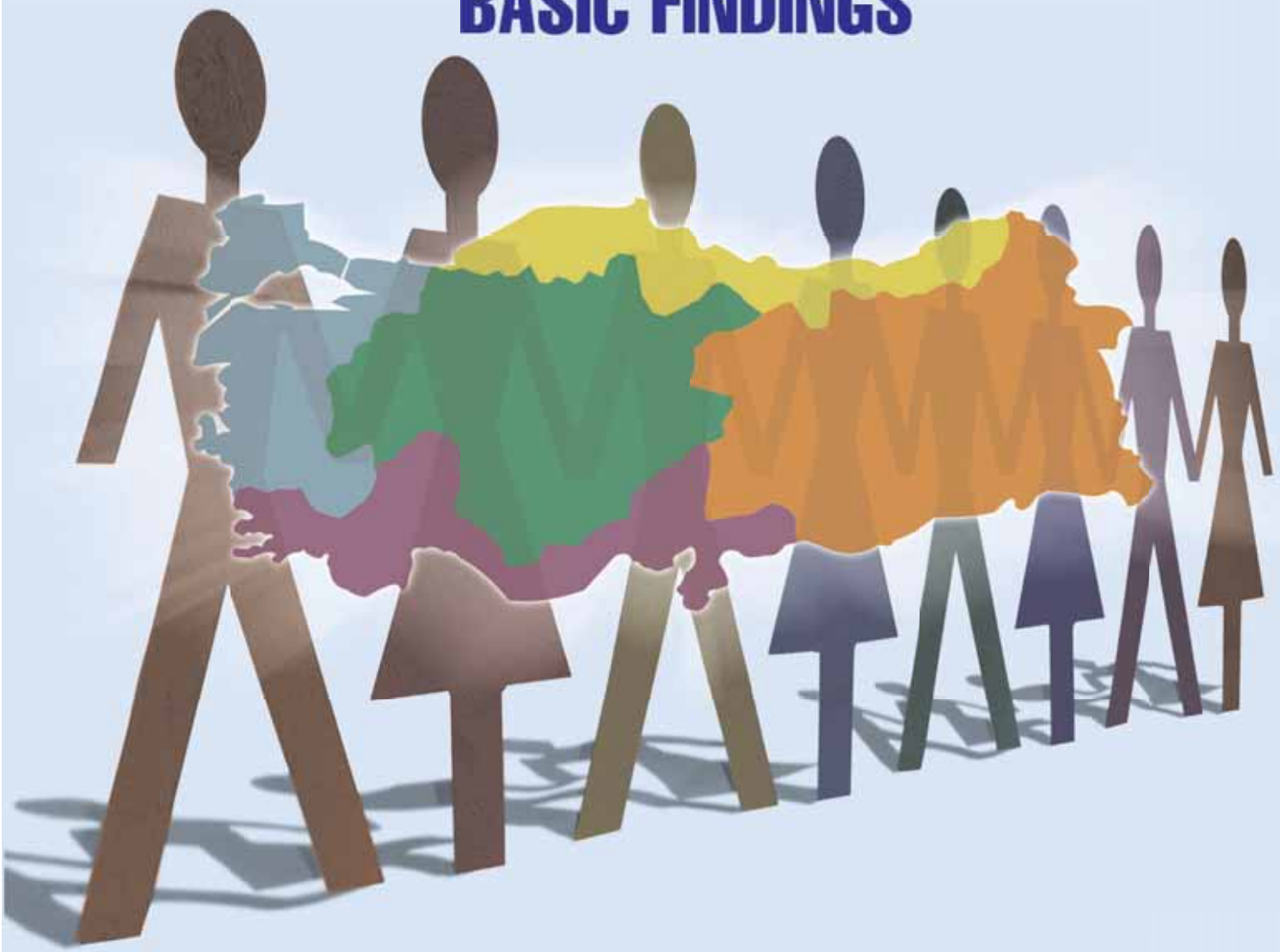
THE MINISTRY OF HEALTH OF TURKEY

NATIONAL HOUSEHOLD SURVEY

2003

BASIC FINDINGS



The Ministry of Health of Turkey ■ Refik Saydam Hygiene Center,
School of Public Health

REPUBLIC OF TURKEY
MINISTRY OF HEALTH
REFIK SAYDAM HYGIENE CENTER PRESIDENCY
SCHOOL OF PUBLIC HEALTH

TURKEY NATIONAL BURDEN OF DISEASE
AND
COST-EFFECTIVENESS STUDY

NATIONAL HOUSEHOLD SURVEY 2003 BASIC FINDINGS

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Republic of Turkey, Ministry of Health-affiliated the School of Public Health of Refik Saydam Hygiene Center Presidency is responsible for all of the information presented in this publication.

National Household Survey 2003 was conducted on the basis of Turkey National Burden of Disease and Cost-Effectiveness Project.

National Burden of Disease and Cost-Effectiveness (NBD-CE) Project is a part of the pre-investment activities, which were designed to support the Health Reforming Activities initiated by the First Health Project and maintained by the Second Health Project. Being a part of the NBD-CE project, this survey was financed by the World Bank credit. Studies were carried out by School of Public Health coordination between March 1, 2002-December 25, 2004 with the collaboration of Başkent University (Turkey), INTRAH (USA) (The University of North Caroline at Chapel Hall, School of Medicine, School of Public Health, Sheps Center for Health Services Research), John Hopkins University, School of Hygiene and Public Health (USA) Tulane University-School of Public Health and Tropical Medicine (USA)

The Household Survey 2003 is based on the standards of the World Health Survey, which was conducted by the WHO, and is eligible for international comparison.

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School of Public Health

CONTENTS

FOREWORD

When designing health policies, it is essential to identify priorities. In today's world, which demand for health care services and interventions is far more than what could be financed by the exploitable sources, there is an increasing need to obtain information which is convenient for comparison among various programs and adoption of new policies, as well as the need for evaluating effects of health policies. Artan bu ihtiyaç karşısında Studies, which were initiated in 1993 to estimate the burden of disease, were then proved to be helpful for guiding health sector reforms and identifying nation-wide plans of priority in Turkey.

National Burden of Disease and Cost-Effectiveness (NBD-CE) Study was conducted as a part of the prior investment activities which were designed to support the Health Reforming Activities initiated by the First Health Project and maintained by the Second Health Project in parallel with the resolution of Turkish Ministry of Health to promote the quality of health and health care system in Turkey. As for the need to ensure the sustainability of study results, capacity of Basic Health Information Systems at the central and provincial organization level needs to be increased and the Health Transformation Program is seeking the ways for appropriate solutions, to this end.

Activities, which are conducted in parallel with the Health Transformation Program, target effective, productive and just management of sources in delivery of health care services; accurate and updated information-based policy design, organization and planning; building infrastructure and institutional capacity, and executing legal amendments as required, too. "Access to Effective Information in Decision-Making: Health Information System" is one of the afore-mentioned activities. It is essential to set up Health Information System in order to ensure coordination in health care services, make an inventory, preserve medical registries of individuals, transfer knowledge in chain of referral and to collect data in primary health care practices. The system, by means of data analysis, would certainly give invaluable support to decision-makers and policy-makers in health.

I hold the strong belief that the studies and activities, which are conducted to guide health care reforms, policies and strategies in Turkey and to develop clear and objective criteria for the next century, would be helpful to all agencies, organizations and individuals in relation with the health sector. Thus, I extend my most sincere thanks to every body for their kin

Prof. Dr. Necdet ÜNÜVAR
Undersecretary

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NBD-CE Study is a part of the "Health Policy and Management Compound" included in the Second Health Project. Health Policy and Management Compound aims at promoting education level of the personnel in policy design, planning, management, monitoring and evaluation; improving basic management support systems at provincial health directorates and selected hospitals and increasing capacity of health care services in selected agencies which were established to support more comprehensive reforms in health sector by means of conducting prior investment activities.

Household Surveys are among the most common methods that are used to collect data when epidemiological mortality and morbidity data are insufficient and far from providing the information required. As for the NBD-CE Study, mortality, morbidity, disability and health status data were needed for estimations of the burden of disease. Thus, National Household Survey (NHS), which presents nation-wide and region-based estimations by age groups and gender, was conducted to obtain such data.

The survey is a part of the World Health Survey (WHS), which was conducted by the WHO, and is eligible for international comparison. WHS questionnaire form, which is a modular design by the WHO, was used in this study. Some modules considered unnecessary for the subject were extracted from the questionnaire form (7000 modules for Health Responsiveness-and 8000 modules for Health Goals and Social Capital) and without changing basic structure of the form some others considered necessary were added. It was planned to conduct the survey in two periods and on a total of 12.000 households. In order to find out the number of deaths since the previous year, two other households located before and after 12.000 selected households (approximately 48.000 household) were included, too and the total number of households increased to 60.000.

Data obtained from the Household Survey both made contribution to calculating the burden of disease and provided health reforming efforts, various health policies and strategies with evidence-based clear and objective data basis.

I would like to thank to all people who contributed to this study and to my colleagues at the Department of Public Health Promotion of the School of Public Health, who shared this study with the public so as to show the way to many health subjects and to assist decision-makers, planners and all personnel in the health sector.

Dr. Salih MOLLAHALİLOĞLU

Director

TABLE LIST

ACRONYMS AND ABBREVIATIONS IN THE BOOK

1. WHO	World Health Organization
2. NBD-CE	National Burden of Disease and Cost-Effectiveness
3. SIS	State Institute of Statistics (now called TIS / Turkish Institute of Statistics)
4. GC	General Census
5. YLL	Years of Life Lost
6. FAO	Food and Agricultural Organization
7. WHS	World Health Survey
8. SPSS	Statistical Package for Social Sciences
9. HPGC	Health Project General Coordination
10. N	Number of experimental subjects included in sampling volume
11. n	Number of experimental subject people giving table-specific responses
12. S	Standard deviation
13. X	Average
14. NHS	National Household Survey
15. FMU	Field Management Unit

CHAPTER 1: INTRODUCTION

Valid health statistics are needed for all stages in the health system, however, access to reliable and comprehensive health statistics is not possible, still. Thus, household surveys are conducted in countries where the national registry systems are not regular and satisfactory.

Nation-wide surveys conducted in our country are limited and almost all of them are carried out by Turkish Institute of Statistics. The other regular survey is Turkey Population and Health Survey, which is regularly conducted by the Institute of Population Researches of Hacettepe University in every five years.

NHS was conducted on the basis of the NBD-CE Study. It is also one of the limited number of surveys which are conducted nation-wide.

The Household Survey, not only due to question sheets, content, question types, answerer's method of selection, answers to the questions, status evaluation cards used in the Survey but also due to duration, scope, number of households-individuals, seasonal characteristics of the Survey, is far more different than similar studies in the past and helped a wide-range of participants to gain experience and knowledge.

1.1 Goals and Organization of the Survey

1.1.1 Goals

The Household Survey aims to identify mortality rate within the last one year, which is required for the verbal autopsy study to collect mortality data in order to provide data for burden of disease and cost-effectiveness estimations and to make assessment of sickness, disability and health status.

1.1.2 Method and Financing of the Survey

The Household study, which is a component of the NBD-CE study, was financed by Turkish Ministry of Health with the World Bank credit. It was conducted by the RSHCP School of Public Health and Başkent University. Field studies were conducted at two stages. First one was conducted in February 3, 2003 – March 14, 2003 and the second one was conducted in April 14, 2003 – May 11, 2003.

1.1.3 Questionnaire Forms

WHS questionnaire forms, which consisted of the following sections, were used in the survey.

I. Section, with the following questions to the household leader, obtained information on the household.

a) Demographic information (age, gender, education, marital status, work availability).

b) Health, care and rehabilitation status (acute and chronic diseases, mental and physical disability, people who need care, number of deaths occurred within the last one year in the household).

c) Features of the accommodation places, household-specific risk factors, transportation facilities and other equipment.

d) Household expenditures (household expenditures for food, education, health and others, and health expenditures by institution, type of service and source).

e) Household income (occupation of the household members and the quantity of income within last one month).

f) Health insurance system (if covered by an insurance scheme, private insurance, the amount of premium and etc.).

II. Section, with the help of the "answerer" selected from 18+ aged household members by the Kish Method, seeked answers to questions on the following.

a) Demographical characteristics (age, gender, education) and job of the answerer (occupation and work)

b) Health Status (general health, mobility, personal care, suffering from ache and illness, cognitive functioning, interpersonal relations and participation in the community, görme, sleeping and activeness, emotional status) Not included in this book.

c) Evaluation of the person's health status at that time of the survey by health-specific cases and health assessment sets. (Used only at the I. Stage). Not included in this book..

d) Risk factors (tobacco, alcohol, nutrition and physical activity).

e) Comprehensive information on diagnosis, treatment and symptoms of seçilmiş önemli diseases within last one year: Bu bölümde yer alan hastalıklar: Arthritis, angina pectoris, diabetes mellitus, asthma, depression, tuberculosis, oral-dental health, traffic accidents and other injuries, hypertension, lumbalgia , epilepsy and Cerebrovascular events (stroke)

f) Evaluation of the health status / EuroQual 5 and Visual Analogue Scale (In this section only used at the Ist stage). Not included in this book.

g) The pollster's observation and evaluation regarding the answerer

h) Finding out if the answerer has a brother/sister, who died within the last one year when residing at outside the household.

III. Section identifies the number of deaths that occurred in four neighboring households (two neighbors before and two others after the main household identified by listing study) within the last one year and obtains information on people, their ages and gender in these four households, as well.

IV. Section is about Death Detection Form. This form, regarding dead people among the household members or brothers/sisters who died outside of the household or among the neighbors, include identity and address information of the dead (also including date and place of death and place of burial), which might serve as reference for verbal autopsy.

The questionnaire forms were re-designed specifically for optic reader system to save time in implementation and evaluation of the questionnaire after the questions were listed.

Question sheets used in the Household Survey 2003 is presented in the Annex C.

Severity of disability cases, which are specific to Turkey, and general assessment of community health are not included in this book.

1.1.4 Sample

The population in this survey was identified based on the GC results conducted in 2000. Capacity to represent the country, five geographical regions, urban/rural areas and age/gender factors were the main pillars of the study. As for the collection of data, face-to-face interview method – by means of trained pollsters in households- and the Household Questionnaire was used. The questionnaire, which covered 12.000 households, was applied in two seasons so as to identify seasonal effects on diseases. In order to find out deaths that occurred within last one year, two neighbors before and two neighbors after the main household were visited, too. So, approximately 48.000 households were added to 12.000 households already existing in the list. Thus, the survey addressed to a total of 60.000 households in order to find out socio-demographic characteristics of these households.

Basic principles of the sample design and application is presented in the Annex A and the Annex B gives further and detailed information on sampling errors.

1.1.5 Field Study, Data Entry, Quality Control, Supervision and Analysis

In 2002, the WHO selected seven countries for pre-testing the question forms and application techniques to be used in the WHS and Turkey was one of these countries. The pre-test was given to people residing at central districts in Ankara as well as the central districts and villages in Ayaş and Kızılcahamam. Sample household was selected by the SIS. In parallel with the recommendation of the WHO, the pre-test was given to 600 households and the re-test to 180 households.

The questions were evaluated with respect to the comprehension of questions by the answerer, responses and interest. As a result of these studies, a new questionnaire form was designed for Turkey and the NBD-CE project goal. In November 2002, the pilot study was conducted in the Central and Mucur Districts of Kırşehir by the SIS.

In November 21-29, 2002, a pilot study was conducted in order for the household questionnaire form drafts to be tested by trained pollsters in a suitable organization, management, supervision and cooperation environment. The study was conducted in Kırşehir province, which was selected by the SIS and a list of 300 sample households was utilized. The study was conducted by a supervisor and 12 pollsters, who had had one-week training in Ankara, and face-to-face interview was used.

After the pilot study was concluded, experts at the Ministry of Health held a meeting on errors/defects in the form and the pollster's hand book and made necessary amendments. The questionnaire form, which was re-designed in conformity with the optic reader system, was published upon the approval of the Ministry of Health and the SIS. Number and qualification of pollsters was determined by a commission of five members, which was set up by Başkent University. In cooperation with the Ministry of Health, 7-day training program was designed for the candidates of pollster.

Questionnaire pollsters who had joined the group just before the second stage of the survey were given this 7-day training in the sample standards, as well. In the meanwhile, pollsters assigned in the first stage, were also given refreshment trainings before the second stage started. Refreshment trainings were first given in April 8, 2003 in Ankara, in April 9-10, 2003 in Diyarbakır and then in April 10-11, 2003 in Istanbul.

Auditor candidates selected from those, who attended trainings and joined pilot practice and were found successful, were given special training for 4 hours. Training included topics such as team work, cooperation, auditing mechanisms, auditing techniques, methods to fill the quality control questionnaires to be used in some household (re-testing practice), filling re-contact forms to be used in some households with no re-test at the II. Stage, logistics, communication and registry of expenses. Besides, the MoH authorities responsible for the study briefed candidates how to fill in auditing forms prepared by the NBD-CE work team and how to send them to the Ministry of Health, Health Project General Coordination (HPGC) and the School of Public Health.

Central Management Unit was established at Başkent University in Ankara so as to plan, monitor and steer the activities regarding the application of HH questionnaires. For field practice management, better monitoring and auditing services in household questionnaire and facilitating transportation, communication and financial issues, three Field Management Units directed by a General Coordinator were set up in Ankara, Istanbul and Diyarbakır. A Field Coordinator was appointed for every FMU and headed by these coordinators sufficient number of Field Officers were appointed considering number of blocks in provinces and geographical conditions. Each field officer was responsible for 2-3 auditors and each auditor was responsible for 5-6 pollsters. Service was delivered in this hierarchy.

In cooperation with the SIS, addresses and blocks (240 block for each) were identified based on the sampling provinces and rural/urban areas included in the I. and II. stage. Distribution of block by provinces and FMB were found on map and detailed lists were given to the field officers. When making lists, households given by the SIS were detected at the addresses in cooperation with managers at buildings, district managers, municipality scoring officers, and health center personnel. As for this study, sufficient number of households available turned out to be a problem especially in vacation sites, new co-op settlement areas and some mountainous villages but thanks to fast communication and effective cooperation with the SIS, pollsters were directed to next available addresses.

In pollster trainings, depending on block listing methodology of the SIS expert, addresses of all households in sample blocks were listed by a team set up in advance of the actual questionnaire practice. Such testing practice not only served as a facilitating factor for pollsters but also promoted acceptability of the practice by the households. Providing households with accurate and satisfactory information on the practice was the most significant factor which contributed to the success.

The practice was made at two stages.

a- I. Field Practice

I. 6000 households were targeted for the Field Practice. It started in February 4, 2003 in Istanbul; February 3, 2003 in Ankara and in February 5, 2003 in Diyarbakır region. Heavy snow and obligatory leave due to that hampered activities for 3 days in Istanbul and for 1-2 days in other regions. Activities in Ankara and Diyarbakır were concluded in March 10, 2003 and in March 14, 2003 in Istanbul.

b- II. Field Practice

As mentioned in technical specification, 6000 households were interviewed so as to find out prevalence of diseases by seasons.

The forms used in this period, did not include some parts such health cases and health status evaluation sets, health status lists and health status evaluation (EuroQuol – Visual Analogue Scale).

Questionnaires at the II. stage were given in 70 provinces. Provinces and addresses of 240 blocks were given by the SIS. In all regions, the II. stage practice started in April 14, 2003 and ended in May 11, 2003.

Household questionnaires auditing was conducted in 3 levels by auditors, field officers and the Central Management Unit.

a. Auditor's Level

Auditors conducted auditing in two ways. Firstly, they audited pollsters by visiting the households or making phone calls with them to check if pollsters were there. According to the second method, auditors, after the questionnaires were given, pollsters paid visits to or made phone calls with the households, which were not given questionnaires by a different pollster (re-test) before, contacted the households and entered the information they collected in the Re-Contact Forms. These forms were used at the II. Stage field study.

Besides, auditing forms developed by the MoH NBD-CE authorities were filled by the auditors before they left provinces and then sent to the MoH, HPGC and the School of Public Health Directorate via fax. Errors detected by the MoH NBD-CE authorities were notified to the Central Management Unit at the University on a daily basis. Department officers conveyed feedback to their sub-officers. Necessary corrections were made so.

b. Field Officer's Level

Field officers, besides their organizational and managerial tasks, also performed some auditing tasks such as having teams work in proper block, making accurate lists, monitoring pollsters when giving questionnaires at households, evaluating the Auditing Form prepared by the auditor and examining a questionnaire from those filled, which they randomly chose.

c. Central Management Unit's Level

Application of the household questionnaires was managed, monitored and audited by the Central Management Unit. At both stages, officers made inspection visits to the sites and monitored activities on site. The Central Ma-

nagement Unit, when necessary, performed its tasks through phone calls with the pollsters and household members.

In order to assess the Quality Control Questionnaire, two methods were used which are accepted by the WHO.

At the first stage, method depends on the Quality Guidelines developed by the WHO. Upon completion of the I. and II. stages, 300 households, 5 % of the sample households, were given quality control questionnaires. In this context, one household from each block, which was selected randomly by the auditor and field officers, was visited in 1-7 days. Household in villages, however were visited on the same or the next day. In order to reach the share of 5 %, second quality control questionnaire was given to one of every four blocks, in addition to the questionnaire given to each block.

Second method is Re-Contact and with this method quality control study was made. In this context, auditors and field officers made visits to and phone calls with at least 2-3 households in each block following the questionnaires, when necessary. Talks were held at both stages and the second talks were added to the Household Registry Forms.

The Ministry of Health sent all Provincial Health Directorates taken as samples and the Ministry of Internal Affairs official notice which briefed the study and asked for support. Before the study was started, field officers visited relevant Directorates of Health (by phone calls, if necessary), gave them brief information on the study and ensured close cooperation with the Health Group Leaders and Health Centers. Besides, the officers provided city and district Security Directorates and Gendarmerie with information on the study by direct visits or by means of the Health Directorates.Forms of all blocks completed in provinces were then sent to central office by cargo. A regular registry and filing system was established so as to follow-up the questionnaire forms, death detection forms and auditing forms. Except for the central office, a big room was allocated at Bağlıca Campus of Başkent University to deal with stuff such as opening the questionnaire form packages, separating auditing, listing and death forms and then examine lacking or damaged forms by provinces and blocks.

Based on technical specification, the encoding team encoded and decoded disease and disability-specific stuff using the encoding guidelines developed by the WHO. At this point, based on declaration of the household leader or the answerer who replied to questions, diseases and disability, which were identified by household members for a certain period, were encoded by the pollsters. The encoding team consisted of an experienced physician and an officer assigned in hospital archives and documentation.

MS Access XP package programs were used for encoding and then data were transferred to a suitable SPSS program.

Data obtained from the relevant company, by means of SPSS 11.5 statistical software program, were checked to find out minimum and maximum frequency of data and if there were any errors regarding transition between the questions.

In the Annex A and B, further detailed information was given on survey design, data entry and sampling defects and results in section 4 are adjusted with coefficient.

SECTION 2: HOUSEHOLD POPULATION, RESIDENTIAL FEATURES AND HOUSEHOLD-SPECIFIC RISK FACTORS

The section defines some demographic characteristics of covered population.

2.1 Characteristics of the Household Population

Household Survey 2003 question sheet is comprised of the analysis which is based on *de jure* population (population who lives in the household). Thus, the survey did not cover people in jails and military service, and boarding students, either. However, people, who stay at hospitals and old people's houses for a specific health problem, were included.

2.1.1 Age and Gender

Table 2.1 indicates distribution of the household by age groups and gender. Population in selected households were found to be 48.057 people (51% female and 49% male). As for the age groups significant with respect to the risks of disease, 0-4 age group covers 8,65 %, under 15 age group covers 29,32 % , 15-49 age group cover 52,78 % and 65 + age group covers 6,57 % of total population.

Table 2.1: Distribution of Household Members by Age Groups and Gender

Age Groups	Gender				Total	
	Female		Male			
	Number	%	Number	%	Number	%
0-4	2007	8,19	2150	9,13	4157	8,65
5-9	2368	9,66	2554	10,85	4922	10,24
10-14	2390	9,75	2624	11,14	5014	10,43
15-19	2594	10,58	2361	10,03	4955	10,31
20-24	2350	9,59	1790	7,60	4140	8,61
25-29	1987	8,11	1730	7,35	3717	7,73
30-34	1862	7,60	1734	7,36	3596	7,48
35-39	1626	6,63	1619	6,88	3245	6,75
40-44	1568	6,40	1511	6,42	3079	6,41
45-49	1325	5,41	1311	5,57	2636	5,49
50-54	1145	4,67	1181	5,02	2326	4,84
55-59	864	3,53	797	3,38	1661	3,46
60-64	772	3,15	679	2,88	1451	3,02
65-69	664	2,71	567	2,41	1231	2,56
70-74	483	1,97	532	2,26	1015	2,11
75-79	289	1,18	250	1,06	539	1,12
80-84	125	0,51	105	0,45	230	0,48
85+	90	0,37	53	0,23	143	0,30
Total	**24509**	**100,00**	**23548**	**100,00**	**48057**	**100,00**

2.1.2 Household Composition

Table 2.2 indicates araştırma kapsamında yer alan distribution of the household by household size. Average household size is 4.186 and the peak (mode) value is four people. Distribution of the household size is deviating towards right. Share of the household with four members is 23.98 %.

Household size-based distribution of the household members by regions and residence is similar in some respects. However, there are outstanding differences between Eastern-Western regions and Urban-Rural areas, as expected. Share of people, who live in households the size of which is 1, is 1,91 % in the West while it is 0,23 % in the East. Four-member households have a share of 29,55 % in the West while they have a share of 10,90 % in the East. On the other hand, the share of eight-member households is 1,78 % in the West and 12,04 % in the East.

Table 2.2: Household Numbers by the Household Size and Distribution of the Household Members by Region and Location (NHS, 2002-2003, Turkey)

Household Size (Number of People)	Number of Household		Regions				Location		Total	
			West	South	Middle	North	East	Urban	Rural		
		(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	People	(%)
1	579	5,04	1,91	0,99	1,60	1,21	0,23	1,30	1,08	579	1,20
2	1888	16,44	11,45	7,06	9,20	9,18	2,56	8,13	7,51	3776	7,86
3	2207	19,22	19,68	14,97	14,89	13,51	5,57	16,48	10,40	6621	13,78
4	2753	23,98	29,55	25,87	26,72	23,90	10,90	26,56	18,34	11012	22,91
5	1697	14,78	17, 67	19,74	20,86	19,23	14,12	18,29	16,86	8485	17,66
6	998	8,69	9,67	14,15	13,04	12,98	14,46	11,42	13,76	5988	12,46
7	537	4,68	4,32	6,85	7,51	7,45	12,84	6,05	10,04	3759	7,82
8	325	2,83	1,78	4,62	2,79	4,54	12,04	4,40	6,68	2600	5,41
9	191	1,66	1,55	2,02	1,21	3,83	8,01	2,53	4,90	1719	3,58
10	118	1,03	1,02	1,93	1,21	1,06	5,76	1,80	3,28	1180	2,46
11	83	0,72	0,70	0,71	0,44	1,37	4,98	1,19	2,79	913	1,90
12	42	0,37	0,23	0,19	0,32	0,21	3,22	0,67	1,52	504	1,05
13	27	0,24	0,17	0,63	-	0,92	1,80	0,39	1,16	351	0,73
14	13	0,11	0,09	-	-	0,25	1,18	0,16	0,66	182	0,38
15	9	0,08	-	-	0,20	-	0,92	0,22	0,35	135	0,28
16	5	0,04	0,10	-	-	-	0,49	0,18	0,15	80	0,17
17	2	0,02	-	0,27	-	-	0,13	0,06	0,08	34	0,07
18	4	0,03	0,11	-	-	-	0,41	0,07	0,25	72	0,15
21	2	0,02	-	-	-	0,37	0,16	-	0,20	42	0,09
25	1	0,01	-	-	-	-	0,19	0,09	-	25	0,05
Total	**11481**	**100,00**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**48057**	**100**

Distribution of the household members by average, standard deviation, groups of regions and location is given in Table 2.3. As seen in table, 77,20 % of households in the West consists of 1-4 members while it has a share of 35,40 % in the East.

Table 2.3 : Distribution of the Household Members by Average, Standard Deviation, Groups of Regions and Location (NHS, 2002-2003, Turkey)

Region	N	$\overline{X}$	S	Number of People in the Household					
				1-4		5-8		9+	
				Number	%	Number	%	Number	%
West	4390	3,58	1,65	3389	77,20	940	21,41	61	1,39
South	1521	4,10	1,84	996	65,48	490	32,22	35	2,30
Middle	1934	3,85	1,73	1330	68,77	579	29,94	25	1,29
North	1393	4,05	2,00	918	65,90	431	30,94	44	3,16
East	2243	5,81	2,76	794	35,40	1117	49,80	332	14,80
Total	**11481**	**4,19**	**2,16**	**7427**	**64,69**	**3557**	**30,98**	**497**	**4,33**
Location									
Urban	6731	3,97	1,92	4678	69,50	1865	27,71	188	2,79
Rural	4750	4,49	2,41	2749	57,87	1692	35,62	309	6,51
Total	**11481**	**4,19**	**2,16**	**7427**	**64,69**	**3557**	**30,98**	**497**	**4,33**

N=Number of households X= Average s=Standard Deviation

2.2. Education Level of the Household Members

Table 2.4.a and Table 2.4.b indicate distribution of 6 + aged men and women's education level by age groups, location and regions. According to this, 15,76 % of the population is illiterate. Based on age groups and gender, illiteracy is more common in female than in male. To give an example, illiteracy is 10.48 % in 15-19 aged female while it is 3.10 % in male. Similarly, considering 35-39 aged group, 20,25 % of female and 3,30 % of male is illiterate.

Considering region and gender-specific factors, illiteracy is highest among women in the Eastern Region with a share of 42,70 % and lowest among women in the Western Region with a share of 13,38 %. As for male, the highest share is noted in the Eastern Region with 14.80 % and the lowest in the Western Region with 4,26 %.

Considering location-specific distribution of education level of 6+ aged people, 18,40 % of women in urban areas is illiterate while it is 30 % in rural areas. Share of male with high school / university education is 7,80 % in urban areas while it decreases to 3,70 % in rural areas.

Table 2.4.a: Distribution of Education Level of 6+ aged Male by Age Groups, Regions and Location (NHS, 2002-2003, Turkey)

Basic Features	Illiterate (%)	Literate but not Graduate (%)	Graduate of Primary School (%)	Graduate of Secondary School / Equivalent (%)	Graduate of Primary Education (%)	Graduate of High School / Equivalent (%)	Graduate of College / University (%)	Master's Diploma (%)	Total (%)	Number	Unknown
Age											
6-9	25,70	74,30	0,00	0,00	0,00	0,00	0,00	0,00	100	1868	147
10-14	2,93	87,1	9,00	0,00	1,0	0,00	0,00	0,00	100	2596	26
15-19	3,1	13,6	35,90	19,70	12,2	15,6	0,00	0,00	100	2345	14
20-24	2,41	2,0	30,50	14,80	1,68	41,67	6,90	0,11	100	1783	6
25-29	2,43	1,74	41,10	12,60	1,16	28,81	11,77	0,46	100	1725	5
30-34	2,83	1,73	48,18	12,88	1,62	21,32	10,75	0,69	100	1731	2
35-39	3,30	2,50	51,60	12,70	1,24	18,28	9,48	0,93	100	1614	5
40-44	3,25	2,32	52,19	13,20	0,66	19,36	8,55	0,46	100	1508	3
45-49	4,28	3,44	54,93	12,38	0,99	12,61	10,85	0,53	100	1309	1
50-54	7,21	5,00	57,25	7,55	0,93	11,87	9,92	0,25	100	1179	2
55-59	8,69	7,30	55,04	8,69	1,51	8,19	9,95	0,63	100	794	3
60-64	14,77	9,31	55,24	6,65	0,74	7,68	5,61	0,00	100	677	2
65+	26,36	14,45	44,81	4,53	0,53	4,66	4,46	0,20	100	1502	5
Total	**7,60**	**22,20**	**37,10**	**9,70**	**2,30**	**14,80**	**6,00**	**0,30**	**100**	**20631**	**221**
Location											
Urban	6,40	20,70	34,50	10,10	2,20	17,90	7,80	0,46	100	11530	
Rural	9,10	24,10	40,50	9,30	2,40	10,90	3,70	0,10	100	9101	
Region											
West	4,26	18,00	40,00	10,50	2,30	16,97	7,70	0,36	100	6952	
South	7,12	22,50	39,80	9,20	2,60	13,41	5,18	0,19	100	2684	
Middle	4,47	19,80	36,50	11,80	2,20	17,00	7,90	0,43	100	3241	
North	6,13	19,70	39,6	9,20	2,10	16,12	6,83	0,33	100	2432	
East	14,80	30,10	31,30	7,90	2,30	10,73	2,69	0,19	100	5322	

Table 2.4.b: Distribution of Education Level of 6+ aged Female by Age Groups, Regions and Location (NHS, 2002-2003, Turkey)

Basic Features	Illiterate	Literate but not Graduate	Graduate of Primary School	Graduate of Secondary School / Equivalent	Graduate of Primary Education	Graduate of High School / Equivalent	Graduate of College / University	Master's Diploma	Total	Number	Unknown
Age											
6-9	28,36	71,6	0,10	0,00	0,00	0,00	0,00	0,00	100	1717	147
10-14	8,3	85,7	4,00	0,00	1,94	0,00	0,00	0,00	100	2367	23
15-19	10,48	8,73	45,20	10,6	10,6	14,4	0,00	0,00	100	2578	14
20-24	9,97	3,34	43,76	7,19	0,94	27,76	6,76	0,30	100	2338	10
25-29	11,84	2,63	51,57	6,02	1,01	17,05	9,56	0,30	100	1976	8
30-34	16,60	3,40	53,80	7,87	0,59	11,59	5,82	0,32	100	1855	7
35-39	20,25	5,06	50,99	6,60	0,80	11,73	4,20	0,37	100	1620	6
40-44	24,97	5,44	50,45	5,70	0,45	8,39	4,35	0,26	100	1562	6
45-49	28,56	6,82	46,36	5,15	0,38	8,11	4,47	0,15	100	1320	5
50-54	38,98	8,87	39,86	3,42	0,88	4,65	3,25	0,09	100	1139	6
55-59	42,56	12,09	35,23	3,14	0,93	3,49	2,44	0,12	100	860	4
60-64	51,95	9,74	31,17	1,95	0,39	3,25	1,56	0,00	100	770	2
65+	65,69	8,78	19,87	2,01	0,24	2,80	0,55	0,06	100	1641	10
Total	**23,50**	**20,00**	**36,10**	**5,00**	**1,90**	**9,90**	**3,40**	**0,16**	**100**	**21743**	**248**
Location											
Urban	18,40	19,70	35,20	6,20	2,30	13,10	4,90	0,25	100	12141	
Rural	30,00	20,50	37,30	3,50	1,50	5,90	1,40	0,04	100	9602	
Region											
West	13,38	17,30	41,50	6,80	2,50	13,40	4,80	0,25	100	7219	
South	20,88	20,80	37,20	5,50	2,10	10,40	3,04	0,07	100	2826	
Middle	17,99	18,90	39,80	5,30	1,90	11,50	4,36	0,20	100	3440	
North	20,50	20,20	40,40	4,60	1,80	9,00	3,28	0,15	100	2651	
East	42,70	23,80	24,30	2,40	1,20	4,60	1,00	0,05	100	5607	

2.3 Residential Features

In this section, 12 questions were asked to find out basic features regarding the residential infrastructure and possible risk factors. Responses were put in tables based on regions and location. Residential features are not only relevant to health status of residents but also indicate socio-economic characteristics of the household.

As seen in Table 2.5, 95,52 % of households are constructed on hard floor and 4,47 % on earth floor. Types of floor depend on regions. The share of earth floor is 4,47 % across Turkey, 0,86 % in the Northern Region and 2,03 % in the Western and 9,39 % in the Eastern Region.

As for type of walls 93.87 % of them are constructed of bricks and stones. The share is 88,12 % in rural areas and the rest is constructed of the sun dried bricks.

Considering residence and region-based distribution of drinking water source, Southern Region is at the top of the list using city water with a share of 87,74%. It is followed by the Middle Region (87,10%), Eastern Region (78,03%), and Northern Region (72,24%). Western Region has the lowest share of city water utilization with 58.01%. As for locations, 71,09% of urban areas and 74,71% of rural areas use city water as drinking water. Similarly, share of the households that take drinking water from district fountains is 8,95% in rural areas while it is 1,99% in urban areas.

11,09 % of people across Turkey take drinking water by carrying. It is 16,43 % in rural and 7,25 % in urban areas. Considering distance of water source from the household, in 27,89 % of households water source is located inside garden and in the source is located outside garden (one km away) in 24,98 %.

In Table 2.5, source of illumination is indicated by regions and location. There might be more than one options to answer. A big majority of households uses "electricity lamp" (89,67%). Use of candle is at the second rank (5,89%). Third rank is followed by the use of luxury lamp (1,85 %). There might be some differences among regions regarding the use of electricity lamp as a source of illumination. It is 78,06% in the Eastern Region and 76,75 % in the Southern Region. On the contrary, the share of battery/charged projector use is higher in the Eastern and Southern Region than in other regions.

Table 2.5 indicates the W.C. systems used at households. Of the W.C. systems, those connected with the sewage system are more common in use. Though depending on regions and locations, 69.92% of all toilets are connected with the sewage system. 11.41% of them are connected with the septic tank. According to the responses, 0.30% of the households do not have W.C. 82.85% of households have W.C. inside the house while 16% have W.C. outside the house.

As for distribution of cooking places by regions and locations, it is cooked in kitchen in 94,51% of the households. As for the rural-urban areas, 89.45% of people in rural areas cook in kitchen and 98,09% of people cook in urban areas. In 51,53 % of the households, open ovens with smoke holes/ chimney hoods are used and in 44.54 % of the households, open ovens without smoke holes/ chimney hoods. Most households use tube gas for cooking, with a share of 86.07% across the country. 7.95 % of them use electricity and natural gas for cooking.

Table 2.5 indicates main types of fuel used for cooking and heating by regions and locations. In spite of variations by region and location, the most common types of fuel for heating are coal (47,14%), wood (26,05%) and natural gas (10,80%).

Table 2.5: Distribution of Residential Features by Region and Location (NHS, 2002-2003, Turkey)

	Region					Residence			
	West	South	Middle	North	East	Urban	Rural	Total	
Features of Residence	(%)	(%)	(%)	(%)	(%)	(%)	(%)	Number	(%)
Floor Type									
Hard Floor	97,96	97,5	91,53	99,12	90,6	99,13	90,39	10922	95,52
Tile	15,31	21,24	5,25	3,47	6,75	14,26	7,09	1291	11,30
Concrete	34,72	52,18	46,23	33,86	67,62	41,56	50,62	5180	45,30
Parquet/Wooden	35,15	15,04	32,99	50,43	8,18	31,21	25,12	3281	28,70
Other	12,78	9,04	7,06	11,36	8,05	12,10	7,56	1170	10,22
Earth Floor	2,03	2,50	8,46	0,86	9,39	0,86	9,60	512	4,47
Total	100	100	100	100	100	100	100	11434	100
Wall Type									
Tie, brick, stone, wood	98,10	95,81	89,04	97,89	85,96	97,95	88,12	10632	93,87
Sun dried brick	2,29	2,86	10,75	1,67	12,86	1,99	11,14	655	5,78
Reed/ Straw etc.	0,00	0,07	0,10	0,00	0,18	0,02	0,13	7	0,06
Plastic layer	0,02	0,20	0,00	0,00	0,05	0,03	0,06	5	0,04
Metal layer	0,00	0,00	0,00	0,00	0,09	0,00	0,04	2	0,02
Other	0,02	0,27	0,10	0,44	0,86	0,17	0,45	32	0,28
Total	100	100	100	100	100	100	100	11333	100
Source of Drinking Water									
City Water	58,01	87,74	87,10	72,24	78,03	71,09	74,71	8117	72,60
District Fountain	2,94	3,78	3,24	7,01	9,63	1,99	8,95	547	4,89
Pit water or pump	0,52	1,52	0,63	2,46	8,43	1,35	3,97	273	2,44
Non-preserved resource	1,91	1,79	0,42	12,16	3,55	1,04	6,18	356	3,18
Rain water	0,02	0,00	0,00	0,00	0,00	0,00	0,02	1	0,01
Water obtained from lakes or rivers	0,14	0,20	0,16	0,97	0,14	0,06	0,54	29	0,26
Bottled water	36,58	3,25	7,10	4,78	0,23	24,13	5,00	1807	16,16
Tanker water	0,16	0,86	1,36	0,37	0,00	0,43	0,49	51	0,46
Total	100	100	100	100	100	100	100	11181	100
Distance of Source from the Household (by carrying)									

Table 2.5: Distribution of Residential Features by Region and Location (Continuing)

Inside the Garden	16	28,57	28,14	28,74	37,86	20,26	32,34	355	27,89
Outside of Garden or < 1 km	45,07	20,54	57,79	46,11	51,43	43,28	49,38	600	47,13
Outside of Garden or > 1 km	38,93	50,89	14,07	25,15	10,71	36,46	18,28	318	24,98
Total	100	100	100	100	100	100	100	1273	100
Type of Illumination									
Electricity Lamp	96,78	76,75	99,07	95,66	78,06	88,91	90,77	11311	89,67
Luxury Lamp	0,07	2,75	0,10	0,56	5,84	1,53	2,30	233	1,85
Gas Lamp	0,18	2,29	0,21	0,07	1,58	0,48	1,30	103	0,82
Candle	2,72	12,80	0,36	3,15	11,22	6,92	4,41	743	5,89
Battery/Charged Projector	0,25	5,35	0,26	0,56	3,31	2,16	1,20	23	1,77
Other	0,00	0,05	0,00	0,00	0,00	0,00	0,02	1	0,01
Total	100	100	100	100	100	100	100	12414	100

Table 2.5: Distribution of Residential Features by Region and Location (Continuing)

	Region					Residence			
	West	South	Middle	North	East	Urban	Rural	Total	
Features of Residence	(%)	(%)	(%)	(%)	(%)	(%)	(%)	Number	(%)
Type of Toilet									
Inside the house, connected with the sewage system	83,45	48,49	73,01	69,21	56,39	88,75	43,63	7945	69,92
Inside the house, connected with the septic tank	7,26	27,30	7,59	20,12	6,50	3,91	21,87	1296	11,41
Outside the house, connected with the sewage system	5,07	9,14	5,26	1,67	9,49	4,61	8,20	694	6,11
Outside the house connected with the septic tank	2,05	8,95	6,50	2,32	16,26	1,75	13,31	747	6,57
Inside the house, open holed water closet	0,23	1,32	0,52	2,47	0,89	0,11	1,83	94	0,83
Outside the house, open holed water closet	0,26	1,25	1,39	0,51	4,14	0,36	2,80	157	1,38
Outside the house, closed holed water closed	1,59	3,42	5,68	0,87	4,99	0,48	6,79	354	3,12
Other	0,02	0,07	0,05	2,83	0,00	0,00	0,89	42	0,37
No Toilets	0,07	0,07	0,00	0,00	1,34	0,03	0,67	34	0,30
Total	100	100	100	100	100	100	100	11363	100
Distance From Residence									
Outside Residence and Connected to Residence	35,99	58,05	30,53	51,50	48,36	63,06	37,40	922	44,35
Outside Residence, < 50 mt	62,80	40,73	66,58	42,40	45,32	35,70	57,72	1076	51,76
Outside Residence > 50 mt.	1,21	1,22	2,89	6,10	6,44	1,07	4,95	81	3,90
Total	100	100	100	100	100	100	100	2079	100
Place of Cooking									
Kitchen	97,76	97,21	95,72	94,60	85,31	98,09	89,45	10664	94,51
Anywhere inside the House	1,66	2,33	2,82	4,07	10,77	1,35	7,81	454	4,02
In a separate building / hut used as a kitchen	0,19	0,13	0,99	0,07	1,40	0,23	0,98	61	0,54
Outdoor place/ outside the house	0,12	0,20	0,10	0,07	1,80	0,06	1,01	51	0,45
Other	0,28	0,13	0,37	1,18	0,72	0,27	0,75	53	0,47
Total	100	100	100	100	100	100	100	11283	100
Type of Oven									
Open oven with smoke hole/ chimney hood	48,63	9,53	19,25	13,47	9,13	68,34	31,66	5762	51,53
Open oven without smoke whole/ chimney hood	27,73	18,90	14,84	8,53	30,00	51,71	48,29	4980	44,54
Closed cooker with smoke hole/ fuel	17,43	1,43	14,00	32,86	34,29	5,71	94,29	350	3,13
Other	3,37	4,49	10,11	21,35	60,67	11,24	88,76	89	0,80
Total	100	100	100	100	100	100	100	11181	100

Table 2.5: Distribution of Residential Features by Region and Location (Continuing)

Residential Features	Region					Location			
	West (%)	South (%)	Middle (%)	North (%)	East (%)	Urban (%)	Rural (%)	Total Number	(%)
Type of Fuel Used for Cooking									
Tube gas (LPG)	36,92	15,09	16,20	12,30	19,50	58,16	41,84	9743	86,07
Natural gas	70,00	0,00	30,00	0,00	0,00	98,33	1,67	900	7,95
Electricity	15,91	6,82	4,55	0,00	72,73	56,82	43,18	44	0,39
Kerosene	0,00	0,00	100,00	0,00	0,00	100,00	0,00	2	0,02
Coal	51,06	2,13	17,02	4,26	25,53	46,81	53,19	47	0,42
Firewood	12,33	7,27	12,11	33,04	35,24	5,29	94,71	454	4,01
Agricultural churn/chaff-straw	0,00	0,00	0,00	0,00	100,00	33,33	66,67	3	0,03
Dried dung	0,00	1,94	6,80	0,00	91,26	5,83	94,17	103	0,91
Bush/grass	0,00	0,00	20,00	0,00	80,00	20,00	80,00	5	0,04
Wooden coal	60,00	20,00	0,00	0,00	20,00	40,00	60,00	5	0,04
Other	14,29	0,00	0,00	64,29	21,43	14,29	85,71	14	0,12
Total	100	100	100	100	100	100	100	11320	100
Type of Fuel Used for Heating									
Liquefied petroleum gas	41,16	29,90	7,72	10,29	10,93	67,85	32,15	311	2,81
Natural gas	67,76	0,17	30,57	0,25	1,26	97,82	2,18	1194	10,80
Biogas	50,00	50,00	0,00	0,00	0,00	50,00	50,00	2	0,02
Electricity	32,11	42,30	0,00	2,87	22,72	73,89	26,11	383	3,46
Kerosene	67,86	14,29	0,00	10,71	7,14	89,29	10,71	28	0,25
Coal	46,68	6,72	22,10	12,51	11,99	62,85	37,15	5212	47,14
Firewood	18,92	26,63	7,05	17,36	30,03	33,33	66,67	2880	26,05
Agricultural churn/chaff-straw	0,00	20,00	0,00	0,00	80,00	26,67	73,33	15	0,14
Dried dung	0,54	2,72	22,34	0,00	74,39	12,81	87,19	367	3,32
Bush/grass	0,00	41,67	8,33	0,00	50,00	58,33	41,67	12	0,11
Wooden coal	12,17	12,70	4,23	2,12	68,78	58,20	41,80	189	1,71
Other	26,17	18,57	14,09	13,87	27,29	77,63	22,37	447	4,04
Total	100	100	100	100	100	100	100	11057	100

2.4 Household-Specific Risk Factors

As for Table 2.6, household members were asked questions about if they had animals owned in the house which are defined as a risk factor. If there were any, the answers were put in two categories as farm animals and pets. According to the survey, 22,61% of households feed animals. The highest share is noted in the Eastern Region with 32,10%. As for distribution by location, the share of owned animals is 34,23 % in rural and is 14,39 % in urban areas. 75,10 % of the households in urban areas and 19,97 of the households in rural areas have pets.

Table 2.6: Distribution of Type of Pet of Households Owning or not Owning a Pet, by Region and Location (NHS, 2002-2003, Turkey)

	Animals Owned											
	Available		Unavailable		Total		Farm Animals		Pets		Total	
Region	Number	(%)	Number	(%)	Number	(%)	Number	(%)	Number	(%)	Number	(%)
West	600	13,76	3759	86,24	4359	100,00	145	23,77	465	76,23	610	100,00
South	421	27,75	1096	72,25	1517	100,00	295	65,41	156	34,59	451	100,00
Middle	433	22,41	1499	77,59	1932	100,00	227	49,89	228	50,11	455	100,00
North	413	29,69	978	70,31	1391	100,00	325	72,87	121	27,13	446	100,00
East	719	32,10	1521	67,90	2240	100,00	663	84,89	118	15,11	781	100,00
Total	**2586**	**22,61**	**8853**	**77,39**	**11439**	**100,00**	**1655**	**60,34**	**1088**	**39,66**	**2743**	**100,00**
Location												
Urban	964	14,39	5737	85,61	6701	100,00	244	24,90	736	75,10	980	100,00
Rural	1622	34,23	3116	65,77	4738	100,00	1411	80,03	352	19,97	1763	100,00
Total	**2586**	**22,61**	**8853**	**77,39**	**11439**	**100,00**	**1655**	**60,34**	**1088**	**39,66**	**2743**	**100,00**

157 household feed both kinds of animal together

SECTION 3: INCOME AND EXPENDITURE OF HOUSEHOLDS, APPLICATIONS WITH OUT-OF-POCKET EXPENDITURES WITHIN LAST ONE MONTH AND SOCIAL INSURANCE SITUATION

3.1 Household Incomes:

Before having asked the incomes of 12 years old and over children in the household, members are asked their type of occupation and their responses are coded in line with the single digit International Labor Organization (ILO) classification. Findings related to these classifications are given in Table 3.2 by regions and location. The biggest group of all the employees is "Employee Working in Non-Agricultural Production Activity and the Ones Who Use Means of Transportation" with a proportion of 35.29%. This proportion is followed by "People Working in Service Business" with 14.66 %; "Agriculturalists, Livestock Dealers, Foresters, Fisherman and Hunters" with 11.96 % and "Commercial and Sale Personnel" with 11.18%.

Table 3.1 Distribution of Sample Population by Current Profession, Region and Location (NHS, 2002-2003, Turkey)

		Region					Location		
Current Profession*		**West**	**South**	**Middle**	**North**	**East**	**Urban**	**Rural**	**Total**
		%	**%**	**%**	**%**	**%**	**%**	**%**	**%**
1		11,16	11,22	12,73	15,10	7,16	12,69	8,67	11,18
2		0,63	0,32	0,87	0,95	0,18	0,72	0,37	0,59
3		8,06	8,41	13,61	13,11	9,34	10,70	8,45	9,85
4		14,56	10,82	9,93	11,02	4,97	12,95	8,25	11,18
5		15,93	14,18	12,98	11,87	15,52	15,78	12,81	14,66
6		5,69	16,83	11,49	11,49	23,47	2,63	27,35	11,96
7		40,39	32,05	32,90	31,81	30,56	39,35	28,60	35,29
8		3,58	6,17	5,49	4,65	8,79	5,17	5,50	5,29
	Number	3798	1248	1602	1053	1649	5822	3528	9350
Total	%	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00

	Job/Profession Code*					
	0		**1-8**		**Total**	
Total	**N**	**%**	**N**	**%**	**N**	**%**
	3993	29,93	9350	70,07	13343	100,00

*** ILO Job/Profession Classification**

1. Scientific and Technical Personnel (Including Businessman with Private Professions and Related Jobs)
2. Entrepreneur, Directors and High Level Administrators
3. Administrative Personnel and Relevant Studies
4. Commercial and Sale Personnel
5. People Working in Service Business
6. Agriculturalists, Livestock Dealers, Foresters, Fishermen and Hunters
7. Employee Working in Non-Agricultural Production Activity and the Ones Who Use Means of Transportation
8. Non-appointed Employee
0. None

In Table 3.2, household members are asked yes/no questions on the presence of general and private instruments and goods that belong to the household, and the answers for each good are shown. The proportion of households having a car or a motor vehicle is 34.59% overall in the country. This proportion reaches up to 40.25% in Middle region, whereas it falls to 23.07% in Eastern region. The proportions are slightly lower in urban areas compared to rural areas.

The proportion of households having a bicycle overall in the country is lower that the proportion of cars and refers to 29.04%. Presence of fixed line telephone at houses is 82.64% overall in the country and the proportion of having a mobile phone is 58.36%. The proportion of households having a television is 95.68% overall in the country and is over 91% among all regions. Presence of television is a little higher in urban areas compared to rural areas.

The proportion of having a refrigerator overall in the country is 94.81%, a washing machine is 77.33% and a dishwasher is 23.83% . The proportion of households having a vacuum cleaner is 75.53% overall in the country, owning a computer is 9.07% and owning an Internet connection is only 5.10%. The proportions of goods owned by households show differences by region and location. As expected these proportions are higher in western region and urban areas compared to the eastern region and rural areas.

Table 3.2: Distribution of Households Having Instruments and Goods, by Region and Location (NHS, 2002-2003, Turkey)

Households Having Instruments and Goods (N=11481)			Region					Location		Total
			West	South	Middle	North	East	Urban	Rural	
			%	%	%	%	%	%	%	
Car or Equivalent Motor Vehicle n=11470	Yes	%	35,9	38,74	40,25	36,61	23,07	33,14	36,63	34,59
	No	%	64,1	61,26	59,75	63,39	76,93	66,86	63,37	65,41
Bicycle n= 11457	Yes	%	33,08	33,31	33,4	24,51	17,26	32,1	24,71	29,04
	No	%	66,92	66,69	66,6	75,49	82,74	67,9	75,29	70,96
Fixed Line Telephone n=11446	Yes	%	85,83	79,51	87,82	87,08	71,29	84,71	79,71	82,64
	No	%	14,17	20,49	12,18	12,92	28,71	15,29	20,29	17,36
Mobile Phone n= 11447	Yes	%	66,67	54,94	57,99	59,06	44,28	65,31	48,5	58,36
	No	%	33,33	45,06	42,01	40,94	55,72	34,69	51,5	41,64
Television n= 11462	Yes	%	97,26	95	97,26	96,5	91,19	97,45	93,17	95,68
	No	%	2,74	5	2,74	3,5	8,81	2,55	6,83	4,32
Washing Machine n= 11467	Yes	%	87,15	76,17	79,51	83,5	53,15	86	65,03	77,33
	No	%	12,85	23,83	20,49	16,5	46,85	14	34,97	22,67
Refrigerator n= 11454	Yes	%	96,76	96,51	97,04	95,25	87,67	96,81	91,98	94,81
	No	%	3,24	3,49	2,96	4,75	12,33	3,19	8,02	5,19
Dish Washer n= 11453	Yes	%	33,46	16,21	25,18	24,03	8,86	32,18	11,99	23,83
	No	%	66,54	83,79	74,82	75,97	91,14	67,82	88,01	76,17
Vacuum Cleaner n= 11459	Yes	%	85,75	67,63	81,34	80,43	52,88	84,23	63,2	75,53
	No	%	14,25	32,37	18,66	19,57	47,12	15,77	36,8	24,47
Computer n= 11465	Yes	%	13,09	6,52	10,92	6,33	3,04	12,75	3,86	9,07
	No	%	86,91	93,48	89,08	93,67	96,96	87,25	96,14	90,93
Internet Connection n= 11445	Yes	%	7,57	3,76	5,7	3,89	1,43	7,26	2,05	5,1
	No	%	92,43	96,24	94,3	96,11	98,57	92,74	97,95	94,9

3.2 Household Expenditures

In order to learn the expenses of household within the last one month, interviewer asked the amount of expenditure used up for nutrition, education, health care and other good and services. The results are shown in tables by location and regions. The ones who do not know the expenditure and who do not have any expenditure are excluded from the survey. Overall in the country, average nutrition expense for each household within the last one month is 192.30 million TL, homeowner expense is 123.34 million TL, education is 49.59 million TL and health care is 65.10 million TL. While food, constant expenditure and education expenditures are estimated high in urban areas compared to rural, health expenditure is estimated low compared to rural.

Distribution of household expenditures within the last one month by their types and location is given in Table 3.3. Table shows expenditure differences based on regions and types. For example, nutrition expenditures vary between 31.87-40.43%, house-related expenditures between 18.59% and 25.70%, and education expenditures between 7.40%-12.09%. The proportion of nutrition expenditures such as fruit, vegetable, grain and meat products as well as animal and vegetable oils is between 36.76%; the proportions of residence and rental expenditures such as house rentals, electricity, water, telephone and gas expenditures is 23.57%, education expenditures is 9.48% out-of-pocket health care expenditures is 12.44% and the expenditures such as transportation, clothing and purchased goods have a proportion of 17.75 %.

Table 3.3: Distribution of Households' Total Expenditures in the Last One Month, by Region and Location (NHS, 2002-2003, Turkey)

Type of Expenditure		Region					Location			
		West	South	Middle	North	East	Total	Urban	Rural	Total
Food	Million TL	933935	253905	351396	285398	383147	2207781	1400946	806835	2207781
	%	37,56	40,43	31,87	38,48	36,59	36,76	35,85	38,45	36,76
House	Million TL	639206	154252	270658	156911	194672	1415699	990023	425676	1415699
	%	25,70	24,56	24,55	21,16	18,59	23,57	25,33	20,29	23,57
Education	Million TL.	234662	75912	110224	71031	77499	569328	386065	183263	569328
	%	9,44	12,09	10,00	9,58	7,40	9,48	9,88	8,73	9,48
Out-of-Pocket Health Expenditure	Million TL.	275889	75372	132412	89631	174062	747366	414522	332844	747366
	%	11,09	12,00	12,01	12,08	16,62	12,44	10,61	15,86	12,44
General (Transportation, Goods etc.)	Million TL.	403076	68518	237859	138746	217672	1065871	716351	349520	1065871
	%	16,21	10,91	21,57	18,71	20,79	17,75	18,33	16,66	17,75
Total	Million TL.	2486768	627959	1102549	741717	1047052	6006045	3907907	2098138	6006045
	%	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00	100,00

3.3 Visits to Health Facilities With Out-Of-Pocket Health Expenditures

Household expenditures made in the last one month were determined in monetary terms during interviews with heads of households. Out-of-pocket health expenditures made in the last one month were determined for every member of the household. These were determined in terms of level of visits (inpatient, outpatient, drugs, laboratory tests).

Distribution of encounters with a health facility made with out-of-pocket health expenditures within the last one month is illustrated in Table 3.4, by type of facility. The health care facilities that are applied the most within the last one month are State Hospitals (27.74%), SIO hospital (20.09%) and health centers (11.39%); whereas the health care facility that is applied the least is Public Economy Organization Hospital with 0.11%.

Table 3.4: Distribution of Visits to Health Facilities in the Last One Month Paid for With Out-of-Pocket Health Expenditures, by Health Facility Type (NHS, 2002-2003, Turkey)

Health Care Facilities	Total	
	Number	%
State Hospital	2357	27,74
University Hospital	342	4,02
SIO Hospital	1707	20,09
Municipality Hospital	30	0,35
PEO Hospital	9	0,11
Private Hospital	587	6,91
Health Center	968	11,39
SIO Dispensary	57	0,67
Maternal Child Health Center	52	0,61
Institution Physician	88	1,04
Private Outpatient Clinic	493	5,80
Private Laboratories	22	0,26
Pharmacy	667	7,85
Self	87	1,02
Private Physician	823	9,68
Private Dentist	83	0,98
Other	126	1,48
Total	**8498**	**100,00**

Table 3.5 shows the distribution of encounters with health facilities paid for by out-of pocket health expenditures in the last one month, by region, location and sex. According to distribution of health care facilities visited by household members by regions and location, it is seen that the highest proportion of visits are to state hospitals.

By location, encounters at health facilities paid for with out-of-pocket health expenditures in urban areas, the top four were state hospitals (31.47%), health centers (16.18%), SIO hospitals (14.92%) and private physicians (12.19%). In rural areas, the corresponding figures are state hospitals (25.05%), SIO hospitals (23.81%), pharmacies (8.26%) and health centers (7.94%).

When sex comparison is made, the type of facility encountered is approximately two times higher for females than males

Table 3.5: Distribution Types of Health Care Facilities Visited by Household Members Making Out-of Pocket Health Expenditures in the Last One Month, by Region, Location and Sex (NHS, 2002-2003, Turkey)

	Region					Location		Total*		Sex		Total**	
Health Care Facilities	West (%)	South (%)	Middle (%)	North (%)	East (%)	Rural (%)	Urban (%)	Number	(%)	Male (%)	Female (%)	Number	(%)
State Hospital	20,68	24,24	29,29	32,30	38,98	25,05	31,47	2357	27,74	39,63	60,37	2357	100,0
University Hospital	3,31	4,49	4,17	4,04	4,85	5,02	2,64	342	4,02	38,89	61,11	342	100,0
SIO Hospital	21,91	21,39	17,47	22,91	16,39	23,81	14,92	1707	20,09	37,84	62,16	1707	100,0
Municipality Hospital	0,26	0,16	1,16	0,09	0,06	0,38	0,31	30	0,35	46,67	53,33	30	100,0
PEO Hospital	0,13	0,08	0,13	0,09	0,06	0,14	0,06	9	0,11	11,11	88,89	9	100,0
Private Hospital	10,23	4,41	4,62	2,72	7,55	7,80	5,68	587	6,91	38,33	61,67	587	100,0
Health Center	10,29	11,27	13,74	12,86	10,31	7,94	16,18	968	11,39	40,91	59,09	968	100,0
SIO Dispensary	0,56	0,73	1,03	0,38	0,68	0,55	0,84	57	0,67	40,35	59,65	57	100,0
Maternal Child Health Center	0,73	0,65	0,51	0,28	0,68	0,79	0,37	52	0,61	48,08	51,92	52	100,0
Institution Physician	1,03	1,14	1,48	0,28	1,04	1,68	0,14	88	1,04	37,50	62,50	88	100,0
Private Outpatient Clinic	6,12	5,96	4,30	2,54	8,66	6,78	4,44	493	5,80	36,71	63,29	493	100,0
Private Laboratories	0,30	0,49	0,13	0,28	0,12	0,32	0,17	22	0,26	36,36	63,64	22	100,0
Pharmacy	11,81	6,12	8,35	6,29	2,33	8,26	7,28	667	7,85	43,03	56,97	667	100,0
Self	0,63	3,35	1,73	0,00	0,00	0,93	1,15	87	1,02	49,43	50,57	87	100,0
Private Physician	9,70	12,41	9,06	12,77	6,20	7,88	12,19	823	9,68	36,09	63,91	823	100,0
Private Dentist	0,96	0,65	1,61	1,41	0,37	1,09	0,81	83	0,98	42,17	57,83	83	100,0
Other	1,36	2,45	1,22	0,75	1,72	1,58	1,35	126	1,48	47,62	52,38	126	100,0
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**8498**	**100,0**	**39,32**	**60,68**	**8498**	**100,0**

*Column percentage is given **Row percentage is given

Table 3.6 shows causes of encounters with a health facility in the last one month for the treatment of disease or disability paid for with out-of-pocket expenditures, by region, location and sex. The highest proportion of causes of applying a health care facility is found to be general complaints (51.17%). This proportion is followed by controls (16.80%), emergency (12.12%) and prescription (8.80%). The highest proportion of application cause is also found as general complaints in terms of location and regions.

52,71% of men and 50,17% of women visited health care facilities for general complaints. For follow-up purposes, 15.47% of males and 17.67% of females went to health care facilities. For emergency care, 12.56% of males went to the health care facilities, while for females this figure was 11.84%.

Table 3.6: Distribution of Causes of Visiting Health Care Facilities in the Last One Month for Treatment of Diseases, Disabilities, or Other Reasons, by Region, Location and Sex (NHS, 2002-2003, Turkey)

Causes of Visiting	Region					Location		Sex		Total	
	West (%)	South (%)	Middle (%)	North (%)	East (%)	Rural (%)	Urban (%)	Male (%)	Female (%)	Number	(%)
Emergency	8,77	21,16	8,79	6,93	18,16	11,56	12,90	12,56	11,84	1028	12,12
Accidents	0,63	0,49	0,77	0,37	0,56	0,75	0,37	1,08	0,27	50	0,59
Control	15,94	19,44	13,16	22,94	15,87	17,17	16,30	15,47	17,67	1425	16,80
Operation	1,73	0,74	1,80	2,34	1,30	1,46	1,77	1,77	1,48	135	1,59
Check-up	1,26	0,90	0,64	0,19	0,86	1,08	0,62	1,14	0,72	75	0,88
Pregnancy and Delivery	1,76	1,72	2,05	1,69	2,53	2,28	1,49	0,00	3,21	165	1,95
Family Planning	0,13	0,16	0,19	0,00	0,12	0,12	0,14	0,09	0,16	11	0,13
Vaccination	0,56	0,25	0,64	0,56	0,12	0,55	0,31	0,60	0,35	38	0,45
Prescription	10,59	9,07	9,69	9,27	4,08	7,58	10,48	8,16	9,21	746	8,80
General Complaints	51,51	39,22	57,96	48,88	54,54	51,81	50,28	52,71	50,17	4339	51,17
Other	7,11	6,86	4,30	6,84	1,85	5,65	5,34	6,42	4,94	468	5,52
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**8480**	**100,0**

Table 3.7 illustrates the distribution of encounters with health facilities by type of service, location and region, who made out-of pocket expenditure within the last one month. The service that has the highest proportion is outpatient treatment (72.91%). This proportion is followed by control (9.15%), other (7.52%) and inpatient treatment (6.46%).

Men and women had almost the same rate of using outpatient services (72.99% for men, 72.86% for women). Proportions of inpatient services received by men and women were 7.41% for men and 5.85% for women. Women had a higher rate of seeking check-up exams than men.

Table 3.7: Distribution of Services Received in Household Members' Visits to Health Facilities in the Last One Month Paid for With Out-of-Pocket Health Expenditures, by Region Location and Sex (NHS, 2002-2003, Turkey)

	Region					Location		Sex		Total	
Service Received	**West (%)**	**South (%)**	**Middle (%)**	**North (%)**	**East (%)**	**Rural (%)**	**Urban (%)**	**Male %**	**Female %**	**Number**	**%**
Emergency Treatment	2,53	1,97	3,23	2,65	3,21	2,81	2,60	2,82	2,66	230	2,72
Inpatient Treatment	5,43	6,64	6,52	6,81	7,97	5,95	7,17	7,41	5,85	546	6,46
Outpatient Treatment	70,31	65,08	76,71	70,58	81,53	72,21	73,89	72,99	72,86	6159	72,91
Control	10,86	9,34	6,84	12,96	5,56	10,20	7,71	7,95	9,93	773	9,15
Laboratory	0,33	0,74	0,71	0,28	0,31	0,55	0,31	0,30	0,55	38	0,45
Monitoring	0,70	1,80	0,32	1,04	0,43	1,00	0,48	0,63	0,88	66	0,78
Other	9,83	14,43	5,68	5,68	0,99	7,28	7,85	7,89	7,27	635	7,52
Total	100	100	100	100	100	100	100	100	100	8447	100

Table 3.8 illustrates the distribution of encounters with health facilities made with out-of-pocket health expenditures (million TL) in the last one month by service received, location and overall figures for Turkey. The average of health expenditures used for inpatient treatment is 829.66 million TL in urban areas and 534.55 million TL for rural areas. Gifts, donations and other expenditures were determined to be 40.67 million TL in rural areas and 27.01 million TL in urban areas. Per-person out of pocket health expenditures for the last one month were assessed in terms of urban vs. rural location and were found to be 15.73 million TL and 15.04 million TL respectively. In this table, median was calculated according to location and type of service received. The 'Other' category (gifts, donations) had a median values of 5 million TL in urban areas, and 10 million TL in rural areas, but no such differences were found in the remaining categories.

Table 3.8: Distribution of Encounters With Health Facilities Made With Out-of-Pocket Health Expenditures (million TL) in The Last One Month by Average Fees Paid For Type of Service Received, Location and Overall Turkey (NHS, 202-2003, Turkey)

Service Types		Location		
		Urban	**Rural**	**Total**
Outpatient Clinic	N	1636	1221	**2857**
	Mean (million TL)	42,83	41,71	**42,35**
	Median (million TL)	30	30	**30**
	Mode (million TL)	1600	1500	**1600**
	Standard deviation	77,42	79,82	**78,44**
Pharmacy	N	3873	2917	**6790**
	Mean (million TL)	37,73	39,4	**38,45**
	Median (million TL)	20	20	**20**
	Mode (million TL)	2000	3000	**3000**
	Standard deviation	82,21	88,5	**84,97**
Inpatient Treatment	N	108	96	**204**
	Mean (million TL)	829,66	534,55	**690,78**
	Median (million TL)	200	200	**200**
	Mode (million TL)	12500	10000	**12500**
	Standard deviation	1885,42	1259,53	**1624,17**
Auditory Appliance, Glasses Prostheses (including teeth)	N	124	56	**180**
	Mean (million TL)	139,04	161,54	**146,04**
	Median (million TL)	75	72,5	**75**
	Mode (million TL)	1400	970	**1400**
	Standard deviation	187,05	209,29	**193,93**
Laboratory screen	N	395	239	**634**
	Mean (million TL)	99,39	95,95	**98,1**
	Median (million TL)	50	50	**50**
	Mode (million TL)	1000	1000	**1000**
	Standard deviation	129,84	145,45	**135,83**
Other (gift, donation, etc.)	N	2156	1760	**3916**
	Mean (million TL)	27,01	40,67	**33,15**
	Median (million TL)	5	10	**10**
	Mode (million TL)	4000	3208	**4000**
	Standard deviation	111,35	131,86	**121,17**
Average Out-of-Pocket Health Expenditure	N	5071	3705	**8776**
	Mean (million TL)	82,93	86,57	**84,47**
	Median (million TL)	25	30	**27**
	Mode (million TL)	14100	14500	**14500**
	Standard deviation	391,87	340,56	**371,06**
Total Household Members		**26731**	**21326**	**48057**
Total Out-of-Pocket Health Expenditure (million TL)		**420559**	**320743**	**741302**
Per capita Out-of-Pocket Health Expenditure* (million TL)		**15,73**	**15,04**	**15,42**

***Paybacks are excluded.**

Table 3.9 illustrates the distribution of encounters with health facilities paid with out-of pocket expenditures in the last one month, by proportion of the total health expenditures, region, location and overall figures for Turkey. While pharmacy has the highest proportion with 35,22%, it has been followed by inpatient treatment (19,01%) and outpatient (16,32%). This distribution has been different among regions. The service cost that has the highest proportion among the total health expenditure in urban areas is pharmacy with 34,75%, then comes inpatient services (21,31%); in rural areas, the highest percentage of total health expenditure is pharmacy with 35,83% and then comes donation, transportation and gifts with 22,32%.

Table 3.9: Relative Shares of Services Received During Household Members' Visits Paid for With Out-of Pocket Health Expenditures in the Last One Month, by Region, Location and Overall Turkey (NHS, 2002-2003, Turkey)

Service Types		Region					Location		
		West	South	Middle	North	East	Rural	Urban	Total
Outpatient Clinic	Number	1086	395	382	319	675	1636	1221	2857
	% Proportion of expenditure	18,67	19,16	13,64	15,84	13,59	16,66	15,88	16,32
Pharmacy	Number	2415	967	1232	822	1354	3873	2917	6790
	% Proportion of expenditure	32,00	40,71	31,22	33,34	42,05	34,75	35,83	35,22
Inpatient Treatment	Number	66	25	47	29	37	108	96	204
	% Proportion of expenditure	21,60	9,96	29,55	13,67	13,29	21,31	16,00	19,01
Auditory Appliance, Glasses prostheses (including teeth)	Number	70	30	38	26	16	124	56	180
	% Proportion of expenditure	3,74	5,37	3,74	4,32	1,91	4,10	2,82	3,55
Laboratory screen	Number	281	76	90	61	126	395	239	634
	% Proportion of expenditure	11,24	8,40	5,34	6,98	6,82	9,34	7,15	8,39
Other (gift, donation, etc.)	Number	1183	630	531	527	1045	2156	1760	3916
	% Proportion of expenditure	12,75	16,40	16,51	25,84	22,34	13,85	22,32	17,51
Total	Number	**3124**	**1253**	**1623**	**1103**	**1673**	**5071**	**3705**	**8776**
	% Proportion of expenditure	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**

3.4 Analysis of Health Insurance Systems of Household Members

Distribution of state of health insurance of household members by regions and location are given in Table 3.10. As seen in the Table, 64.29% of the total number of household members have a health insurance whereas 35.71% of household members do not have any health insurance. When we examine the sate of health insurance of household members by location; 70.39% of the ones living in the urban areas and 56.63% of the ones living in rural areas are within the coverage of a health insurance.

Table 3.10: Distribution of Health Insurance Status of Sample Population in Interviewed Households, by Region and Location (NHS, 2002-2003, Turkey)

Region	Health Insurance					
	Yes		No		Total	
	Number	%	Number	%	Number	%
West	10887	69.34	4813	30.66	15700	100.00
Mediterranean	3824	61.36	2408	38.64	6232	100.00
Middle	5481	73.53	1973	26.47	7454	100.00
North	4082	72.36	1559	27.64	5641	100.00
East	6619	50.81	6408	49.19	13027	100.00
Total (Turkey)	**30893**	**64.29**	**17161**	**35.71**	**48054**	**100.00**
Location						
Urban	18817	70.39	7914	29.61	26731	100.00
Rural	12076	56.63	9247	43.37	21323	100.00
Total (Turkey)	**30893**	**64.29**	**17161**	**35.71**	**48054**	**100.00**

Table 3.11 shows the distribution of health Insurance types of household members under mandatory coverage, by region, urban vs. rural location, age groups and sex. Highest coverage by SIO, which is a mandatory type of health insurance, in terms of regions is in the West at 44.21%; by urban vs. rural location, urban areas are more highly covered at 68.15; and by age groups, the 15-44 group is most highly covered at 46,91%. Highest coverage by the Retirement Fund is in the West at 33.87%, in urban areas at 67.07%, and in the 15-44 age group at 32.46%. Green Card coverage is highest in the East at 56.18%, and in rural areas at 54.25%. It is found the proportion of males and females who are covered by mandatory health insurance is equal to the proportion of being insured by SIO, being between 29.99% and 31.93%.

Table 3.11 : Relative Proportions of Household Members Covered by a Given Type of Health Insurance, by Region, Location, Age Group and Sex (NHS, 2002-2003, Turkey)

	Type of the Mandatory Health Insurance								
	SIO %	Retirement Fund %	Social Security Org. For Self-Employed %	Active Officer %	Special Fund %	Green Card %	Other %	Total Number	Total %
Region									
West	44,21	33,87	35,43	28,14	47,17	11,00	32,20	10824	35,37
South	12,09	13,20	17,03	10,83	6,92	9,32	7,63	3803	12,43
Middle	16,51	19,13	18,28	27,34	15,72	14,97	14,83	5460	17,84
North	13,29	12,70	14,18	18,24	28,30	8,53	18,22	4063	13,28
East	13,90	21,11	15,08	15,45	1,89	56,18	27,12	6449	21,08
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**30599**	**100,0**
Location									
Urban	68,15	67,07	50,75	60,66	59,75	45,75	36,44	18654	60,96
Rural	31,85	32,93	49,25	39,34	40,25	54,25	63,56	11945	39,04
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**30599**	**100,0**
Age Groups									
0-4	6,78	3,52	5,64	8,52	7,55	10,02	3,81	2107	6,89
5-14	17,33	11,32	18,62	21,97	12,58	28,44	7,20	5782	18,90
15-44	46,91	32,46	40,45	56,48	41,51	46,34	40,25	13827	45,19
45-64	22,09	35,85	22,25	11,83	27,04	10,95	21,61	6396	20,90
65+	6,88	16,85	13,05	1,21	11,32	4,24	27,12	2487	8,13
Total	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**100,0**	**30599**	**100,0**
Sex									
Male	29,99	5,19	10,16	6,10	0,30	8,95	0,51	11410	100,0
Female	31,93	7,20	10,72	5,97	0,36	9,39	0,48	16189	100,0

SECTION 4: INTERVIEWS MADE WITH HOUSEHOLD MEMBERS THAT IS OVER 18 AGE

4.1 Selection of Respondents and Results of Interviews

In this section, interview with the second person that is over 18 years in the same household is conducted. In this section all answers are self reported. Information charts that are designed by WHO have been used for vegetable, fruit and alcohol consumption. More detailed information is found in NHS report. A special method known as the Kish selection table is used to select this person. This person should be interviewed as a principle of this method. Therefore the household should be visited three times in case of an excuse. Table 4.1 illustrates the terms of reaching the respondents and applying the questionnaire. In the Table we can see the total percentage of time for interview is 93.37 % in both terms.

Table 4.1: Distribution of Survey Completion Results of Respondents (Age 18+) Selected from the Kish Table (NHS, 2002-2003, Turkey)

Term	Target Population	Applied	Response Rate (%)	Number of Incomplete Questionnaires
I	6000	5595	93,25	405
II	6000	5609	93,48	391
Total	**12000**	**11204**	**93,37**	**796**

Table 4.2 illustrates the distribution of interview results of 18+ household members who are selected from the Kish Table by the number of visits. Thus, the proportion of completed interviews is 93,99% in the first visit; 46,23% of uncompleted visits of the first in the second visit; 18,06% of uncompleted visits of the second in the third visit .

Table 4.2: Distribution of Interview Results of 18+ Household Members Selected from the Kish Table, by Number of Visits (NHS, 2002-2003, Turkey)

Number of Visits	Completed		Rejected		Postponed		Incomplete		No one at Home		Other		Total Visits
	N	%	N	%	N	%	N	%	N	%	N	%	N
1	10791	93,99	287	2,50	54	0,47	27	0,24	308	2,68	14	0,12	11481
2	319	46,23	284	41,16	4	0,58	26	3,77	54	7,83	3	0,43	690
3	67	18,06	280	75,47	0	0,00	23	6,20	1	0,27	0	0	371

Number of Completed questionnaires: 11204 Number of Incomplete questionnaires:796

Distributions of Kish Tables, which are used to select respondents by the 1st and 2nd Terms, are given in Table 4.3. When examining by terms and the total, it is seen that Kish-respondent selection Tables are approximately applied with equal proportions in field.

Table 4.3 Distribution of Kish Respondent Selection Tables by Study Terms (NHS, 2002-2003, Turkey)

Applied Kish Tables	Terms				Total	
	1st Term		2nd Term			
	Number	%	Number	%	Number	%
A	933	16,68	934	16,65	1867	16,66
B	924	16,51	919	16,38	1843	16,45
C	881	15,75	907	16,17	1788	15,96
D	960	17,16	955	17,03	1915	17,09
E	977	17,46	946	16,87	1923	17,17
F	920	16,44	948	16,90	1868	16,67
Total	**5595**	**100**	**5609**	**100**	**11204**	**100**

4.2 Demographic Characteristics of Respondents

Among the respondents, 25,13 % of respondents are in the 25-34 age group and 9,03 % of them are over 65. (Table 4.4)

Table 4.4: Distribution of 18+ Respondents, by Age Groups, Region and Location (NHS, 2002-2003, Turkey)

Region	Age Groups (years)							
	18-24 %	25-34 %	35-44 %	45-54 %	55-64 %	65+ %	Total	
							N	%
West	19,17	24,13	20,18	15,14	10,42	10,95	4173	100
South	20,41	25,71	23,13	15,65	7,76	7,35	1470	100
Middle	22,94	25,30	20,95	12,31	9,11	9,38	1909	100
North	20,60	23,69	20,31	14,94	9,93	10,52	1359	100
East	29,26	27,30	19,41	11,91	6,67	5,45	2293	100
Total (Turkey)	**22,22**	**25,13**	**20,56**	**14,04**	**9,02**	**9,03**	**11204**	**100**
Location								
Urban	22,60	25,72	20,82	14,30	8,65	7,90	6579	100
Rural	21,66	24,30	20,17	13,66	9,56	10,64	4625	100
Total (Turkey)	**22,22**	**25,13**	**20,56**	**14,04**	**9,02**	**9,03**	**11204**	**100**

The distrubition of education duration of respondents by region and location is given in Table 4.5. 1-5 year education is the highest among all groups (% 46,33). The highest percentage for the same education period (1-5) is 50,27% for rural areas and 43,55% for urban areas when considered by location. İlliterates have the highest proportion with 32,11% in Eastern region.

Table 4.5: Distribution of 18+ Respondents' Years of Education, by Region and Location (NHS, 2002-2003, Turkey)

Region	Education Duration (years)					
	Illiterate %	1-5 %	6-11 %	12+ %	Total N	Total %
West	10,78	48,48	28,13	12,61	4166	100
South	15,54	49,84	25,74	8,88	1469	100
Middle	12,85	43,78	27,77	15,60	1908	100
North	14,85	46,74	26,06	12,35	1360	100
East	32,11	42,04	20,19	5,67	2288	100
Total (Turkey)	**16,61**	**46,33**	**25,88**	**11,18**	**11191**	**100**
Location						
Urban	13,05	43,55	28,94	14,46	6567	100
Rural	21,67	50,27	21,54	6,52	4624	100
Total (Turkey)	**16,61**	**46,33**	**25,88**	**11,18**	**11191**	**100**

n=11204 Unknown=13

Table 4.6 shows the distribution of profession of respondents within the last one year by region and location. Itis seen that 69,1% of respondents do not have any profession and employed respondents work the most at non-agricultural production facilities (9,3%) and the most at Western region (11,2%). Again those working in the same type of profession have the highest percentage in urban areas (10,5%) and higher than working in the rural location (7,7%).

Table 4.6: Distribution of 18+ Respondents' Profession in the Last One Year, by Region and Location (NHS, 2002-2003, Turkey)

	Profession*								
	0	1	2	3	4	5	6	7	8
Region	%	%	%	%	%	%	%	%	%
West	68,3	4,3	0,2	2,6	4,7	5,6	1,9	11,2	1,2
South	73,0	4,4	0,1	2,2	2,1	3,8	5,1	7,5	1,7
Middle	66,6	5,3	0,3	4,1	2,9	4,6	4,0	9,3	2,8
North	70,0	5,3	0,5	3,2	3,1	3,7	4,3	8,1	1,8
East	69,7	2,1	0,0	2,3	1,3	4,2	6,1	8,0	6,4
Total(Turkey)	69,1	4,1	0,2	2,8	3,1	4,7	3,9	9,3	2,7
Location									
Urban	68,6	5,0	0,3	3,3	4,0	5,2	0,9	10,5	2,3
Rural	69,9	3,0	0,2	2,1	1,9	3,9	8,0	7,7	3,3
Total (Turkey)	69,1	4,1	0,2	2,8	3,1	4,7	3,9	9,3	2,7
n=11204									

*** ILO Job/Profession Classification**

1. Scientific and Technical Personnel (Including Businessman with Private Professions and Related Jobs)
2. Entrepreneur, Directors and High Level Administrators
3. Administrative Personnel and Relevant Studies
4. Commercial and Sale Personnel
5. People Working in Service Business
6. Agriculturalists, Livestock Dealers, Foresters, Fishermen and Hunters
7. Employee Working in Non-Agricultural Production and the Ones who Use Means of Transportation
8. Non-appointed Employee
0. None

Table 4.7 shows the distribution of causes of unemployement by region and location.

Table 4.7: Distribution of Unemployed Respondents by Cause of Unemployment, Region and Location (NHS, 2002-2003, Turkey)

Region	Cause of Unemployment											
	Very Old	Ill/disabled	Cannot find a job/ looking for a job	Do not need a job	Stopped looking for a job	Student	Housewife	Retired	Real Property Owner	Other	Total	
	%	%	%	%	%	%	%	%	%	%	N	%
West	4,90	2,12	8,02	2,68	0,50	6,42	58,85	15,14	0,17	1,20	2769	100
South	3,21	2,34	10,28	3,30	1,06	6,85	61,89	9,45	0,36	1,26	1057	100
Middle	4,29	1,29	8,31	1,51	0,07	8,28	62,41	11,07	0,07	2,69	1267	100
North	5,63	1,31	12,43	2,16	1,53	5,69	53,97	14,43	0,36	2,50	951	100
East	3,59	2,01	15,41	2,29	0,62	6,02	64,15	4,06	0,49	1,36	1655	100
Total	**4,38**	**1,89**	**10,51**	**2,42**	**0,66**	**6,61**	**60,39**	**11,22**	**0,27**	**1,65**	**7699**	**100**
Location												
Urban	3,35	1,76	9,17	2,53	0,70	8,88	59,13	12,94	0,07	1,48	4455	100
Rural	5,78	2,08	12,35	2,28	0,60	3,49	62,12	8,86	0,55	1,89	3244	100
Total	**4,38**	**1,89**	**10,51**	**2,42**	**0,66**	**6,61**	**60,39**	**11,22**	**0,27**	**1,65**	**7699**	**100**

In this survey, housewives have the highest percentage with a proportion of 60,39%. They are mostly found in Eastern region (64,15%). The percentage of housewives is highest in rural regions (% 62,12) and higher than urban (59,13%). (Table 4.7)

Distribution of respondents by their main professions, region and location is presented in Table 4.8.

Table 4.8: Distribution of 18 + Respondents' Main Professions, by Region and Location (NHS, 2002-2003, Turkey)

Region	Main Profession*									Total	
	0 %	1 %	2 %	3 %	4 %	5 %	6 %	7 %	8 %	N	%
West	51,98	8,48	0,26	4,39	4,08	6,31	4,01	18,22	2,27	3869	100,00
Mediterranean	61,20	7,47	0,15	3,70	1,46	4,31	6,16	13,78	1,77	1299	100,00
Middle	56,63	8,81	0,11	5,07	2,29	4,35	5,46	14,44	2,84	1794	100,00
Black Sea	56,36	9,90	0,08	3,43	2,89	4,11	5,41	15,08	2,74	1313	100,00
East	64,88	2,73	0,00	2,14	0,97	3,56	10,72	12,37	2,63	2053	100,00
Total	**57,07**	**7,45**	**0,15**	**3,85**	**2,67**	**4,89**	**6,04**	**15,44**	**2,44**	**10328**	**100,00**
Location											
Urban	55,71	9,22	0,20	4,69	3,38	5,68	1,67	17,01	2,43	6038	100,00
Rural	58,97	4,94	0,07	2,68	1,68	3,78	12,19	13,24	2,45	4290	100,00
Total	**57,07**	**7,45**	**0,15**	**3,85**	**2,67**	**4,89**	**6,04**	**15,44**	**2,44**	**10328**	**100,00**
n=11204 Unknown=854											

* ILO Job/Profession Classification

Here, individuals not working to receive an income (housewives, retired, students, etc) constitute the highest percentage (57,07%). In the East the percentage of non-workers is very high with % 64,88. Percentage of non-worker respondents is much higher in rural areas (58,97%), than in urban areas (55,71%).

4.3 Risk Factors in Household Members

4.3.1 Tobacco

Distribution of tobacco consumption of respondents at the age of 18 and above (18+), by regions, location, sex, age groups and years of education is given in table 4.9.

Table 4.9: Distribution of Tobacco Consumption of Respondents at the Age of 18 and Above (18+), by Regions, Location, Sex, Age Groups and Years of Education (NHS, 2002-2003, Turkey)

Region	Tobacco Consumption				
	Everyday %	Not Everyday %	Not Using %	Total	
				Number	%
West	32,81	2,01	65,18	4170	100
South	28,44	1,57	69,99	1466	100
Middle	35,16	2,21	62,64	1903	100
North	29,89	1,70	68,41	1355	100
East	31,81	0,87	67,32	2292	100
Total	**32,08**	**1,72**	**66,21**	**11186**	**100**
n=11204 Unknown =18					
Location					
Urban	33,94	1,67	64,38	6570	100
Rural	29,42	1,78	68,80	4616	100
Total	**32,08**	**1,72**	**66,21**	**11186**	**100**
n=11204 Unknown =18					
Sex					
Male	51,08	1,81	47,10	4796	100
Female	17,81	1,64	80,55	6390	100
Total	**32,08**	**1,72**	**66,21**	**11186**	**100**
n=11204 Unknown =18					
Age Groups					
18-24	32,90	1,85	65,25	2486	100
25-34	38,13	1,99	59,88	2814	100
35-44	37,38	2,26	60,36	2298	100
45-54	32,76	0,76	66,48	1569	100
55-64	20,79	1,49	77,72	1010	100
65+	11,30	1,09	87,61	1009	100
Total	**32,08**	**1,72**	**66,21**	**11186**	**100**
n=11204 Unknown =19					
Length of Education					
Illiterate	13,41	0,81	85,78	1850	100
1-5 years	30,66	1,66	67,68	5180	100
6-11 years	43,25	1,97	54,78	2897	100
12+ years	39,89	2,72	57,39	1251	100
Total	**32,10**	**1,72**	**66,18**	**11178**	**100**
n=11204 Unknown =26					

As it is seen in Table 4.9; it is found that 32,08% smoke every day while 1,72% smoke rarely. In other words it can be said that the total ratio of respondents using tobacco is 33,8 %. Among everyday smokers 33,94% are in urban areas and 29,42 % in rural areas. When these ratios were examined according to sex, it was seen that 51,08% of the males and 17,81% of females are smoking every day. When tobacco consumption was examined according to age groups, it was determined that 32,90 % of the 18-24 age group and 37,38% of the 35-44 age group are using tobacco everyday. When grouped by educational level, respondents which had 6-11 years of education had the highest ratio of smokers, with 43,25%, while illiterate people had the lowest ratio, with 13,41%

Distribution of 18+ respondents who use a tobacco product by duration of tobacco consumption, onset age, amount smoked per day, regions, location, sex and age groups is given Table 4.10. The average duration of using tobacco products by region varied between 14,3 years and 17,18 years. The average age at which respondents started smoking varied between 18,66 and 19,87 years and the average number of cigarettes consumed per day was between 16,45 and 18,04. When analyzed by gender, the average duration of tobacco product usage was 12,68 years for females and 17,64 years for males. The average starting age of was 18,44, in males and 21,00 in females. It was found that males started to smoke 2.5 years earlier than females. In terms of cigarettes per day, same, males smoked 19,40 cigarettes per day and females 12,16. From these figures it can be seen that male smokers are at a greater risk for smoking related problems.

Table 4.10: Distribution of 18+ Respondents who Use a Tobacco Product by Duration of Tobacco Consumption, Onset Age, Amount Smoked Per Day, Regions, Location, Sex and Age Groups (NHS, 2002-2003, Turkey)

	Duration of Tobacco Use (years)			Onset Age for Smoking (years)			Number of Cigarettes Smoked Per Day			Number of Hand Rolled Cigarettes Smoked Per Day		
Region	**n**	$\bar{x}$	**s**	**n**	$\bar{x}$	**s**	**n**	$\bar{x}$	**s**	**n**	$\bar{x}$	**s**
West	1330	16,68	11,896	1272	19,39	6,453	1309	16,86	10,188	4	15,5	7,604
South	390	17,18	11,277	380	19,87	6,893	377	16,73	10,904	15	25,19	17,22
Middle	655	15,95	10,953	634	18,93	5,866	656	18,04	11,12	2	11,38	10,465
North	391	16,27	11,835	370	19,66	6,671	382	16,45	11,072	1	25,56	9,858
East	713	14,3	10,793	666	18,66	6,077	624	16,97	10,11	94	20,2	11,504
Total	**3479**	**16,06**	**11,460**	**3322**	**19,24**	**6,357**	**3348**	**17,05**	**10,553**	**116**	**20,62**	**12,315**
Location												
Urban	2177	15,76	11,252	2077	19,44	6,424	2121	16,50	9,991	42	20,36	14,757
Rural	1302	16,57	11,787	1245	18,92	6,234	1227	18,01	11,399	74	20,76	10,811
Total	**3479**	**16,06**	**11,460**	**3322**	**19,24**	**6,357**	**3348**	**17,05**	**10,553**	**116**	**20,62**	**12,315**
Sex												
Male	2374	17,64	12,152	2277	18,44	5,752	2261	19,40	10,430	107	20,84	11,401
Female	1105	12,68	8,919	1045	21,00	7,207	1087	12,16	9,025	9	18,18	20,481
Total	**3479**	**16,06**	**11,460**	**3322**	**19,24**	**6,357**	**3348**	**17,05**	**10,553**	**116**	**20,62**	**12,315**
Age Groups												
18-24	802	5,63	3,726	782	16,15	3,049	767	15,07	9,551	19	10,05	7,562
25-34	1050	11,22	4,867	1009	18,47	4,100	990	16,03	9,639	37	23,34	11,399
35-44	826	18,77	6,665	789	20,09	5,994	811	17,78	10,618	25	28,00	13,865
45-54	495	26,50	8,729	467	21,47	7,607	485	19,73	11,535	20	17,36	10,297
55-64	198	33,12	11,798	182	24,38	11,328	192	20,33	13,024	10	19,31	7,166
65+	108	40,78	14,832	93	25,24	11,592	103	17,17	11,204	5	19,78	12,224
Total	**3479**	**16,06**	**11,460**	**3322**	**19,24**	**6,357**	**3348**	**17,05**	**10,553**	**116**	**20,62**	**12,315**

n = responses to questions, x = mean, s = standard deviation

The distribution of passive smokers who are affected from the smoke of active smokers according to region and place of settlement is given in Table 4.11.

Table 4.11: Distribution of 18+ Second Hand Smoke Respondents, by Person who Smokes, Region and Location (NHS, 2002-2003, Turkey)

Region	Smoking In Common Areas*						Total	
	Spouse is/was smoking %	Mother is/was smoking %	Father is/was smoking %	Sibling is/was smoking %	Other %	No %	Number	%
West	26,76	2,44	10,19	6,02	9,25	45,34	4585	100
South	25,10	2,68	9,30	5,67	7,90	49,36	1570	100
Middle	23,41	2,93	12,66	9,33	10,57	41,09	2251	100
North	22,27	1,21	11,64	4,98	12,65	47,24	1486	100
East	22,20	1,59	13,01	8,05	8,90	46,26	2460	100
Total	**24,49**	**2,24**	**11,26**	**6,86**	**9,66**	**45,49**	**12352**	**100**
Location								
Urban	26,47	3,07	10,72	6,96	9,13	43,66	7275	100
Rural	21,65	1,06	12,03	6,72	10,42	48,12	5077	100
Total	**24,49**	**2,24**	**11,26**	**6,86**	**9,66**	**45,49**	**12352**	**100**

*In this question, more than one answer was possible

As seen in the table 4.11, no significant difference was found among regions in terms of people affected by the smokers. When the distribution of the people exposed to smoke was examined it was found that spouses came first with 24,49 %, and fathers came second with 11,26% .

Distribution of cigarette smoking in respondents' frequently used areas, by regions, location and sex is given in Table 4.12.

Table 4.12: Distribution of Cigarette Smoking in Respondents' Frequently Used Areas, by Regions, Location and Sex (NHS, 2002-2003, Turkey)

Region	Smoking					
	Yes		No		Total	
	Number	%	Number	%	Number	%
West	2211	54,89	1817	45,11	4028	100,00
South	833	59,63	564	40,37	1397	100,00
Middle	1151	61,32	726	38,68	1877	100,00
North	679	52,43	616	47,57	1295	100,00
East	1108	51,44	1046	48,56	2154	100,00
Total	**5982**	**55,64**	**4769**	**44,36**	**10751**	**100,00**
Location						
Urban	3659	57,58	2696	42,42	6355	100,00
Rural	2323	52,84	2073	47,16	4396	100,00
Total	**5982**	**55,64**	**4769**	**44,36**	**10751**	**100,00**
Sex						
Male	3370	72,60	1272	27,40	4642	100,00
Female	2612	42,76	3497	57,24	6109	100,00
Total	**5982**	**55,64**	**4769**	**44,36**	**10751**	**100,00**
N=11204 Unknown =453						

72,60'% of males stressed that there are smokers at the places where they frequently spend time, but this ratio was lower for females, at 42,76%. When the regional distrubition was examined, it is found that middle region has the highest ratio with 61,32%. (Table 4.12)

4.3.2 Alcohol

Distribution of respondent's alcohol usage prevalence by sex, location and age groups are given in Table 4-13.

Table 4.13: Distribution of respondent's alcohol usage prevalence by sex, location and age groups (WHO World Health Survey Country Report)

	Life time abstainers	Non-heavy drinkers	Infrequent Heavy Drinkers*	Frequent Heavy Drinkers**	Missing	Number of respondents
	%	%	%	%	%	%
Sex						
Male	64,8	32,9	1,5	0,7	0,2	4,892
Female	92,0	7,6	0,1	0,0	0,4	6,327
Missing						1
Residence						
Urban	80,6	18,2	0,7	0,2	0,3	6,945
Rural	79,3	19,3	0,6	0,5	0,3	4,275
Missing						0
Age						
18-29	81,5	17,2	0,8	0,2	0,3	3,094
30-44	79,0	19,6	1,0	0,2	0,2	3,755
45-59	77,7	21,1	0,3	0,5	0,4	2,600
60-69	83,4	15,8	0,6	0,0	0,2	1,015
70-79	82,9	16,1	0,0	0,7	0,3	624
80+	85,5	12,6	0,0	0,0	1,9	107
Missing						26
All	80,1	18,6	0,7	0,3	0,3	11,220

*Infrequent heavy drinkers: 1-2 days with 5 or more standard drinks per week (last 7 days)
**Frequent heavy drinkers: 3 or more days with 5 or more standard drinks per week (last 7 days)

As seen in table women are more life time abstainers (92.0%) when compared with men (64.8%)

Percentage of frequent heavy drinker is much higher in rural areas (0,5%), than in urban areas (0,2%). Life time abstainers is higher in urban areas (80,6%) than in rural areas (79,3%). When all of respondents have been examined lifetime abstainers have highest proportion with 80,1%

4.3.3 Nutrition

4.3.3.1 Consumption Of Average Fruit, Vegetable, Coffe, Tea And Salt

Daily average fruit and vegetable consumption of the respondents according to regions and settlements are given in table 4.14. On average, respondents daily consume 1.64 portions of fruit per day. By region, North and West regions highest consumption of fruit, and the lowest was the East. Fruit consumption in urban areas was 1.63 portions per day and in rural areas it was 1.65, almost the same. When vegetable consumption of respondents is examined it can be seen that average daily consumption overall is 1.57, with highest consumption occurring in the North and West regions, and lowest in Middle and East regions. Average urban consumption was 1.58 portions, and rural was 1.56 portions. Sufficient fruit and vegetable consumption is indicated by WHO as 5 or more portions. One bowl full of green leaved raw vegetables (250 cl), or 1/2 bowl of cooked or chopped raw vegetables is standardized as one portion by WHO. One apple, banana or orange of medium size, 1/2 bowl chopped, cooked, conserved fruit or fruit juice is also counted as one portion. Average daily fruit and vegetable consumption by age group, the 18-24 age group averaged 1.72 portions of fruit per day, and 1.54 portions of vegetables. The 55-64 age group had the highest consumption of fruits (1,87portions) and vegetables (1.69 portions).

Table 4.14: Distribution of 18+ Respondents' Fruit and Vegetable Consumption by Region Location and Age Groups* (NHS, 2002-2003, Turkey)

Region		**Fruit**	**Vegetable**
West	n	4171	4169
	Mean	1,77	1,65
	Standart Deviation	1,41	2,33
South	n	1462	1464
	Mean	1,53	1,51
	Standard Deviation	1,24	0,95
Middle	n	1905	1903
	Mean	1,68	1,44
	Standard Deviation	1,46	0,97
North	n	1357	1357
	Mean	2,00	1,82
	Standard Deviation	4,36	4,23
East	n	2287	2287
	Mean	1,23	1,40
	Standard Deviation	1,09	0,96
Location			
Urban	n	6567	6566
	Mean	1,63	1,58
	Standard Deviation	1,59	1,85
Rural	n	4615	4614
	Mean	1,65	1,56
	Standard Deviation	2,42	2,54
Age Groups			
18-24	n	2486	2485
	Mean	1,72	1,54
	Standard Deviation	2,58	2,36
25-34	n	2811	2812
	Mean	1,52	1,53
	Standard Deviation	1,27	1,87
35-44	n	2295	2297
	Mean	1,58	1,56
	Standard Deviation	1,33	1,96
45-54	n	1569	1569
	Mean	1,65	1,59
	Standard Deviation	1,32	0,95
55-64	n	1011	1010
	Mean	1,87	1,69
	Standard Deviation	3,05	2,85
65+	n	1010	1007
	Mean	1,69	1,62
	Standard Deviation	2,51	3,17
Total	n	**11182**	**11180**
	Mean	**1,64**	**1,57**
	Standard Deviation	**1,98**	**2,16**

* Amount is stated in portions.

Table 4.15 shows the distribution of the amount of tea drunk by the respondents. According to the table 3.5% of the respondents never drink tea, 31,53% of the tea drinking group consume 4-6 glasses and 17,08% consume 11 glasses and more. Distribution of the ones who don't drink tea by region is 4.71 % in the Southern Region and 4.27 % in the Western Region.

Table 4.15 Distribution of 18+ Respondents by Amount of Tea Consumption, Region, Location, Sex and Age Groups (NHS, 2002-2003, Turkey

	Amount of Tea						
	Never (%)	1-3 glasses (%)	4-6 glasses (%)	7-10 glasses (%)	11 glasses + (%)	Total	
Region						N	(%)
West	4,27	33,59	31,6	15,26	15,28	4168	100
South	4,71	31,51	31,74	17,29	14,74	1463	100
Middle	2,68	27,2	29,18	21,61	19,33	1904	100
North	3,06	30,78	31,01	17,3	17,84	1352	100
East	2,27	25,51	33,53	19,18	19,52	2290	100
Location							
Urban	4	30,69	31,44	17,18	16,7	6569	100
Rural	2,78	29,58	31,67	18,34	17,62	4608	100
Sex							
Male	2,91	21,68	30,47	21,29	23,65	4792	100
Female	3,94	36,65	32,33	14,93	12,14	6385	100
Age Groups							
18-24	5,08	33,21	32,5	16,31	12,89	2485	100
25-34	2,59	24,96	32,21	19,61	20,63	2810	100
35-44	2,21	20,91	30,04	22,19	24,66	2299	100
45-54	2,3	29,14	33,62	17,96	16,98	1567	100
55-64	3,47	39,39	31,93	13,98	11,22	1008	100
65+	6,98	51,4	27,01	8,42	6,2	1008	100
Total	**3,5**	**30,23**	**31,53**	**17,66**	**17,08**	**11177**	**100**

n=11204 Unknown=27

Table 4.16 indicates coffee drinking according to number of cups drunk by the respondents; 38.91% don't drink any coffee, 37.26% drink rarely. Less coffee is drunk in the rural settlements compared to urban areas, and consumption shows no difference among genders. According to coffee drinking respondets' age groups, 65+ aged respondents by 54.75% corresponding to other groups never drink coffee while respondents aged between 18-24 by 3.87% drink 3-4 cup of coffee daily which is regardable.

Table 4.16: Distribution of 18+ Respondents by Amount of Coffee Consumption, Region, Location, Sex and Age Groups (NHS, 2002-2003, Turkey)

Region	Amount of Coffee					Total	
	Never (%)	1-2 cups (%)	3-4 cups (%)	5 cups+ (%)	Yes, rarely (%)	N	(%)
West	34,41	27,48	3,58	1,14	33,38	4159	100
South	33,14	19,81	3,98	1,01	42,06	1461	100
Middle	38,43	18,52	2,04	0,71	40,29	1902	100
North	38,46	14,52	1,24	0,3	45,47	1352	100
East	51,41	12,5	1,57	0,63	33,89	2287	100
Location							
Urban	36,61	22,96	3,11	0,98	36,33	6553	100
Rural	42,17	16,54	2,05	0,65	38,59	4608	100
Sex							
Male	36,7	20,56	2,85	0,98	38,91	4787	100
Female	40,56	20,12	2,55	0,74	36,03	6374	100
Age Groups							
18-24	37,82	20,95	3,87	0,83	36,53	2482	100
25-34	34,51	22,2	2,61	1,32	39,36	2808	100
35-44	35,49	21,8	2,74	0,88	39,09	2289	100
45-54	39,71	20,37	1,88	0,57	37,48	1567	100
55-64	44,52	17,16	2,27	0,48	35,57	1007	100
65+	54,75	13,14	1,42	0,27	30,42	1008	100
Total	**38,91**	**20,31**	**2,68**	**0,84**	**37,26**	**11161**	**100**

n=11204 Unknown=43

The amounts of salt consumed by the respondents in their food according to region, location, sex and age groups are given in Table 4.17.

Table 4.17: Distribution of 18+ Respondents, by Amount of Salt Consumption, Regions, Location and Sex (NHS, 2002-2003, Turkey)

	Amount of Salt Consumption in Meals					
	I eat without salt (%)	I eat with a little salt (%)	I eat with normal salt (%)	I eat with excessive salt (%)	Total	
Region					**N**	**(%)**
West	7,79	19,97	62,62	9,61	4154	100
South	8,62	19,69	63,09	8,59	1459	100
Middle	8,28	17,00	64,67	10,05	1900	100
North	8,00	14,94	69,02	8,04	1352	100
East	7,37	11,48	71,87	9,28	2284	100
Location						
Urban	7,32	18,49	64,64	9,55	6548	100
Rural	8,78	15,07	67,22	8,93	4601	100
Sex						
Male	6,11	13,19	70,25	10,45	4786	100
Female	9,29	20,00	62,28	8,43	6363	100
Age Groups						
18-24	3,01	10,24	73,76	12,99	2480	100
25-34	3,01	13,47	72,71	10,81	2804	100
35-44	5,07	15,38	70,52	9,03	2291	100
45-54	10,67	21,15	61,07	7,11	1563	100
55-64	18,19	27,22	49,03	5,57	1006	100
65+	25,72	31,41	39,16	3,7	1005	100
Total	**7,92**	**17,08**	**65,7**	**9,29**	**11149**	**100**

n=11204 Unknown=58

Thus, it is determined that 7.92 % of the respondents don't use salt, and 9.29% use excessive salt. Using no salt is a habit of 6.11 % of men and 9.29 % of women. As seen in the table, the older age groups eat less and the younger age groups eat more salt.

4.3.3.2 Body Mass Index

Table 4-18 illustrates the distribution of 18+ respondents by sex and body mass index. While 48,97 % of females have a body mass index as normal (19.0-24.9), 14.49 % of females have a body mass index over 30 (overweight). This proportion is respectively 53,16 % and 9.70% among males. According to location, 12,23% of urban residents and 11,70% of rural residents are identified as overweight, 50,12 % of urban residents and 52,69 % of rural residents are identified as normal. Other proportions show similarities with one another. When distributi-

on of 18+ respondents by age groups and body mass index are examined, the most important issue that appears in the table is that fatness increases as one gets older and after a certain age it shows a decrease once more. For instance, the proportion of overweighed individuals is 2.53 % at the 18-24 age group; 7.96% at the 25-34 age group; 15.57 % at the 35-44 age group; 22.61% at the 45-54 age group; 22.55 % at the 55-64 age group and 17.88% over 65 age group. By regions and body mass index, 15.86 % of the Northern Region residents are overweighed whereas this distribution has the lowest proportion in the Eastern Region with 7.85 %.

Table 4.18: Distribution of 18+ Respondents Body Mass Index by Regions, Location , Sex and Age Groups (NHS, 2002-2003, Turkey)

	Body Mass Index					
	<18.9	19.0-24.9	25.0-29.9	>30.0	Total	
Region	(Slim) (%)	(Normal) (%)	(Slightly Fat) (%)	(Fat) (%)	N	(%)
West	5,90	48,94	33,09	12,07	**3211**	100
South	4,13	49,57	33,61	12,68	**1005**	100
Middle	4,66	52,92	29,13	13,30	**1427**	100
North	4,41	47,54	32,19	15,86	**1065**	100
East	7,00	57,23	27,92	7,85	**1616**	100
Location						
Urban	5,98	50,12	31,67	12,23	**5054**	100
Rural	4,74	52,69	30,87	11,70	**3270**	100
Sex						
Male	3,51	53,16	33,64	9,70	**4290**	100
Female	7,61	48,97	28,93	14,49	**4034**	100
Age Groups						
18-24	13,29	69,13	15,05	2,53	**2058**	100
25-34	4,82	57,31	29,91	7,96	**2190**	100
35-44	1,52	42,12	40,79	15,57	**1703**	100
45-54	2,29	35,25	39,86	22,61	**1145**	100
55-64	0,99	34,88	41,58	22,55	**656**	100
65+	3,48	39,99	38,65	17,88	**572**	100
Turkey (Total)	**5,50**	**51,13**	**31,35**	**12,02**	**8324**	**100**
n=11204 Unknown=2880						

4.3.4 Physical Activity

Evaluation of physical activities are conducted in line with the proposals of the World Health Organization. Hence, state of physical activity is evaluated by dividing in three groups as ones who do not perform any activities (sedentary), ones that perform activity 149 min/week and less (inadequate activity) and ones who perform activity more 150 min/week and more (enough activity for good health).

Distribution of 18+ respondents's state of physical activity (min/week) by regions, location, sex and overall Turkey are given in Table 4-19. When Turkey is examined overall, the proportion of respondents with no activity is 20,32% and with inadequate activity is 15,99% . Physical activity ratio is reduced by ageing. This situation is found more in men compared to women. Physical activity ratios among urban and rural location are similar.

Table 4.19: Distribution of 18+ Respondents's State of Physical Activity by Regions, Location, Sex, Age Groups and Overall Turkey (NHS, 2002-2003, Turkey)

	0 min./week		=>1 - 149<= min./week		>= 150 min./week		Total	
	N	%	N	%	N	%	N	%
Region								
West	691	16,56	692	16,57	2791	66,87	4174	100
South	338	22,99	274	18,65	858	58,36	1470	100
Middle	408	21,38	290	15,19	1210	63,42	1908	100
North	251	18,49	214	15,71	895	65,80	1360	100
East	588	25,65	322	14,06	1383	60,29	2293	100
Turkey (Total)	**2276**	**20,32**	**1792**	**15,99**	**7136**	**63,69**	**11204**	**100**
Location								
Urban	1353	20,58	1079	16,40	4146	63,02	6578	100
Rural	923	19,95	713	15,41	2990	64,64	4626	100
Turkey (Total)	**2276**	**20,32**	**1792**	**15,99**	**7136**	**63,69**	**11204**	**100**
Sex								
Male	762	15,88	624	12,99	3414	71,12	4800	100
Female	1514	23,64	1168	18,24	3722	58,12	6404	100
Turkey (Total)	**2276**	**20,32**	**1792**	**15,99**	**7136**	**63,69**	**11204**	**100**
Age Groups								
18-24	376	15,09	348	13,98	1765	70,94	2489	100
25-34	532	18,89	406	14,43	1878	66,67	2816	100
35-44	426	18,50	333	14,45	1544	67,04	2303	100
45-54	298	18,96	271	17,25	1004	63,79	1573	100
55-64	241	23,89	200	19,72	570	56,39	1011	100
65+	403	39,82	234	23,10	375	37,09	1012	100
Turkey (Total)	**2276**	**20,32**	**1792**	**15,99**	**7136**	**63,69**	**11204**	**100**

Adequate duration for physical activity = Time spent walking + Total duration of moderate activities + (2 x total duration of vigorous activities)

Nowadays, Public Health proposals reveal that a moderate physical activity of 30 minutes, even not having performed everyday, can be added to carry out health benefits. This definition refers to equality with a moderate physical activity of at least 150 min per week. This definition of 150 min is used in Australia, USA, England and other countries. This definition is a commentary of the public health guidelines and states that a moderate physical activity of 30 minutes that is performed every day per week would be helpful for being healthy. 150 minutes is calculated by considering one week as 5 days (5 days * 30 min= 150 min). The fundamental objective of weighting vigorous activities is to revise the total duration of activities by considering that vigorous activities would increase the health benefits. This procedure is conducted with a slight difference in the United States. In USA, proportion of walking and moderate activities within 150 minutes are examined. They are evaluating the proportion of durations spent for walking and moderate activities for a total of merely 150 minutes. Then, they use 3 * proportion of the ones performing a vigorous activity at high level in 20-30 minutes as an indicator. Other than obtaining the two indicators, this method excludes the ones that perform both a moderate activity/walking and a vigorous activity at the same time. For instance, a person who performs 120-minute moderate activity per week and a person who performs 20-minute vigorous activity at once has no contributions in obtaining the health benefit in conformity with the definition used in the Unites States. This problem is the reason that WHO scientists who work in the surveillance program weigh vigorous activities in order to include these types of individuals in evaluation. There is a scientific rationality of having 2 as the weighting factor for vigorous activities.

4.4 Some Situations About Selected Diseases

4.4.1 Arthritis

In Table 4.20, the distribution of some situations about arthritis are given according to urban-rural location and sex.

Table 4.20: Distribution of Some Situations about Arthritis by Location and Sex (NHS, 2002-2003, Turkey)

Arthritis	Urban (%)	Rural (%)	Male (%)	Female (%)	Total N	Total (%)
Being Diagnosed with Arthritis by a Physician (n=11204 Unknown=16)	7,58	8,73	3,88	11,19	901	8,05
Having Received a Treatment due to Arthritis (n=11204 Unknown=40)	7,01	8,17	3,49	10,5	836	7,49
Taking Any Medications for Arthritis Given by a Physician in the Last Two Weeks (n=11204 Unknown=62)	4,07	5,37	2,24	6,38	513	4,60
Having Intra- or Peri-articulary Pain Independent From Accidents Within the Last 12 Months (n=11204 Unknown=39)	22,99	25,14	15,48	30,18	2666	23,88
Having Articulations Stiffness Upon Waking or After a Long Rest Within the Last 12 Months (n=11204 Unknown=108)	19,77	22,69	12,98	26,99	2328	20,98
Duration of Last Articulation Stiffness Within the Last 12 Months (n = 2328 unknown = 21)						
Less than 30 min	66,64	68,88	72,3	65,97	1561	67,65
More than 30 min	33,36	31,12	27,7	34,03	746	32,35
Having Articulation Stiffness' State of Recovery by Exercise (n=2328 unknown = 15)						
Yes	78,46	80,99	82,3	78,62	1841	79,6
No	21,54	19,01	17,7	21,38	472	20,4

As seen in table, the proportion of the respondents who have ever been diagnosed with arthritis by a physician is 8.05 %. This proportion is 8.73 % in rural areas, slightly higher than the proportion in urban areas, which is 7.58 %. The proportion of females who have been diagnosed with arthritis by a physician is 11.19 %, much higher than that of males, which is 3.88 %.

The proportion of the respondents who stated that they have received treatment due to arthritis is 7.49 % and this proportion is lower than that of the respondents who stated having been diagnosed with arthritis by a physician (8.05 %). In other words, some of the respondents who stated that they have been diagnosed with arthritis have not received any treatment. The proportion of the respondents who have not received any treatment despite being diagnosed with arthritis is 0.56%. Treatment of diagnosed arthritis is higher in rural areas than it is in urban areas, and higher in females than it is in males.

In last two week, the proportion of respondents who have been prescribed an arthritis medication by a physician is 4.60 %. This proportion is higher in rural areas compared to urban areas, and higher in females compared to males.

23.88 % of the respondents have stated that they felt intra- or peri-articulary pain independent from any accident within the last 12 months. This proportion is 25,14 % in rural areas and slightly higher than that of urban areas, which is 22,99%. The proportion of female respondents who have stated that they have suffered intra- or peri-articulary pain independent from an accident within the last 12 months is %30,18 % which is quite higher than that of the males (15,48%)

20,98% of the respondents have stated that they have had articulations stiffness after resting within the last 12 months. This proportion is 22,69 % in rural and 19,77 % in urban areas. In the same way, the proportion of respondents who have stated that they have had articulations stiffness after resting within the last 12 months is 26,99 % among females and 12,98% among males, which is a quite lower proportion.

67,65% of the articulations stiffness felt within the last 12 months lasted less than 30 minutes, and 32,35% of it lasted more then 30 minutes. This rates does not show any difference between sexes and locations.

The distribution of the respondents having articulations stiffness' state of recovery by exercise, by location and sex is presented. 79,6% of the respondents have stated that they recovered from articulations stiffness by exercise, the rest 20,4% have stated that they did not benefit from exercise. This rates does not show any difference between sexes and locations.

4.4.2 Diabetes Mellitus

Table 4.21 illustrates distribution of some situations about Diabetes Mellitus by location and sex.

Table 4.21 Distribution of Some Situations about Diabetes Mellitus by Location and Sex (NHS, 2002-2003, Turkey)

Diabetes Mellitus	Urban (%)	Rural (%)	Male (%)	Female (%)	Total N	Total (%)
Being Diagnosed with Diabetes by a Physician (n=11204 Unknown=24)	4,98	4,42	3,42	5,75	531	4,75
Receiving a Treatment due to Diabetes (n=11204 Unknown=64)	4,63	4,31	3,32	5,37	501	4,50
Using Insulin or a Blood Sugar Reducer Medication Prescribed by a Physician in the Last Two Weeks (n=11204 Unknown=69)	3,43	2,97	2,35	3,91	361	3,24
Applying a Non-medical Diabetes Treatment Recommended by a Health Professional (n=11204 Unknown:309)	6,83	5,41	4,61	7,47	681	6,25

4.75% of the respondents stated having been diagnosed with diabetes by a physician. This proportion is higher in urban areas than rural area and among females than males. 4,50% of the respondents stated having received diabetes treatment and this proportion is 0.25% lower than the proportion of respondents who stated having been diagnosed by a physician. In other words, 0.25% of respondents who stated having been diagnosed with diabetes by a physician did not receive any treatment.

The proportion of respondents having used insulin or a blood sugar reducer medication within last two weeks is 3.24% and this proportion is higher in urban areas that in rural and among females than among males. The proportion of a diabetes treatment without medication such as diet or exercise which are recommended by a health professional is 6.25% and this proportion is a little higher among females than males.

4.4.3 Angina Pectoris

In Table 4.22, the distribution of some situations about angina pectoris by location and sex is given . 5.56 % of the respondents have stated that they have been diagnosed with angina pectoris or chest pain. This proportion is 5.42 % in rural areas and 5.76 % in urban areas. In the same way, the proportion is 5.73% for females and slightly higher for males at 5.36 %.

Table 4.22: Distribution of Some Situations about Angina Pectoris by Location and Sex (NHS, 2002-2003, Turkey)

Angina Pectoris	Urban (%)	Rural (%)	Male (%)	Female (%)	Total	
					N	(%)
Diagnosed With Angina Pectoris by a Physician (n=11204 Unknown=20)	5,42	5,76	5,36	5,73	622	5,56
Receiving Angina PectorisTreatment (n=11204 Unknown =70)	5	5,34	4,96	5,27	572	5,14
Taking Angina Pectoris Medicatio Prescribed byPhysician Within The Last Two Weeks(n=11204 Unknown =85)	3,92	3,89	3,6	4,13	434	3,9
Having Chest Pain Resulting From Walking Uphill or Moving Rapidly **(n=11204 Unknown n=51)**						
Yes	26,49	27,97	20,69	31,9	3022	27,1
No	72,2	70,33	78,44	66,16	7966	71,42
Never Can Move Rapidly or Walk Uphill	1,31	1,71	0,86	1,94	165	1,48
Having Chest Pain/Discomfort Within Last 12 Months While Walking at Normal Pace on Level Ground **(n=3187 Unknown =65)**	33,87	36,27	29,41	37,55	1090	34,91
Reactions to Chest Pain While Walking in the Last 12 Months (n=1090 Unknown = 9)						
Stop or slow down	89,44	92,42	87,69	91,92	982	90,77
Continue after taking Nitroglycerine (An oral pain-reliever)	6,01	4,18	6,55	4,69	56	5,19
Continue	4,54	3,40	5,76	3,39	43	4,04
Instances in the Last 12 Months When Chest Pain Was Relieved by **by Cessation of Walking** (n=1090 Unknown =13)	83,55	84,11	86,99	82,62	903	83,80
Showed When They Were Asked to Show Their Painful Places (n=1090 Unknown =28)						
Upper or middle part of the chest	68,14	65,19	65,56	67,28	710	66,82
Lower part of the chest	16,98	14,90	16,15	16,01	170	16,05
Left arm	9,31	14,22	11,15	11,64	122	11,51
Others	5,58	5,70	7,14	5,08	60	5,63

5.56 % of the 18+ respondents have stated that they have been diagnosed with angina pectoris or chest pain, only 5.14 % of them have stated that they have received treatment for angina pectoris or chest pain. The ratio of those who have not received any treatment for angina pectoris despite being diagnosed with it is 0.42 %. 3..9% of the respondents have taken angina pectoris medication prescribed by a physician within the last two weeks, and this proportion is the same in both rural and urban areas. While this proportion is 3.6 % for males, it is 4.13 % for females and slightly lower.

As seen in the table, 27.1 % of the respondents have stated that they have chest pain when they walk uphill or move rapidly. This proportion in rural areas was 27.97% and in urban areas it was 26.49%. By sex, it was 31.9 % for females and much higher than that for males, which was 20.69 %.

The distribution of respondents' state of having chest pain within the last 12 months while walking at normal pace on level ground is 33,87 % in urban areas and it rises up to 36,27% in rural areas. While it is 29,41 % for males, it goes up to 37,55% for females.

90.77 % of the respondents stated that they stopped or slowed down when they had chest pain, 5.19 % stated that they took nitroglycerine and continued walking, 4.04 % stated that they continued walking without doing anything. As seen from the Table, these reaction attitudes do not differ much between different locations and sexes. 83.80 % of the respondents stated that their pain relieved when they stopped. While there is no difference between different locations, the proportion of males is slightly higher than that of females.

66.82% of the respondents showed the middle or the upper part of the chest and 16.05 % the lower part of the chest and 11.51 % of them showed their left arm as painful parts.

4.4.4 Asthma

Distribution of some situations about asthma by locations and sex are given in Table 4.23

Table 4.23: Distribution of Some Situations about Asthma by Location and Sex (NHS, 2002-2003, Turkey)

Asthma	Urban (%)	Rural (%)	Male (%)	Female (%)	Total	
					N	(%)
Being Diagnosed with Asthma by a Physician (n=11204 unknown n=17)	3,39	3,60	2,59	4,15	389	3,48
Receiving a Treatment due to Asthma (n=11204 unknown =98)	3,22	3,42	2,46	3,94	367	3,30
Asthma Medication Prescribed by a Physician in the Last Two Weeks (n=11204 unknown =59)	2,03	2,17	1,68	2,39	233	2,09
Wheezing and Whistling Breathing in the Last 12 Months (n=11204 unknown =22)	13,11	14,68	12,81	14,47	1539	13,76
Wheezing Immediately After Exercise in the Last 12 Months (n=11204 unknown =34)	9,56	10,8	8,51	11,25	1125	10,07
Feeling of Tightness in the Chest in the Last 12 (n=11204 unknown =66)	17,01	18,31	14,55	19,8	1954	17,55
Waking Up due to Tightness in Chest in the Last 12 Months (n=11204 unknown =39)	6,46	7,66	5,06	8,37	776	6,95
Unknown Difficulty in Breathing While Resting in the Last 12 Months (n=11204 unknown =91)	5,72	5,84	3,76	7,28	642	5,77

3.48% of the respondents are diagnosed with asthma by a physician. This proportion does not show great difference between locations but is a little higher among females than males. 3.30% of the respondents stated having received a treatment for asthma. There is a difference of 0.18% between respondents who stated having been diagnosed with asthma and who stated having received a treatment for asthma. In other words, a proportion of 0.18% respondents did not receive any treatment despite being diagnosed with asthma.

As seen in the tables, the proportion of respondents who state having used an asthma medication recommended by a physician within last two weeks is 2.09%. This proportion is a little higher among females.

Distribution of respondents' state of wheezing or whistling breathing within last 12 months is given by location and sex in Table. As seen in the table, the proportion of respondents' state of a wheezing and whistling breathing within last 12 months is 13.76% and this proportion is higher among females than males and in rural areas than urban areas.

The proportion of respondents who stated having experienced a wheezing syndrome right after exercise within last 12 months is 10.07% and this proportion is higher among females than males and in rural areas than in urban areas.

The proportion of 18+ respondents who stated having experienced a tightness in the chest within last 12 months is 17.55% and this proportion is found to be higher in urban than rural areas and among females than males.

6.95% of the respondents have stated that they wake up with a feeling of tightness in the chest. This proportion is higher among females than males and in urban than rural areas.

The proportion of respondents who stated having experienced unknown difficulty of breathing while resting within last 12 months is 5.77%. This proportion does not show much difference in terms of location whereas it is observed that it is higher among females than males

4.4.5 Depression

Distribution of some situations about depression by locations and sex are given in Table 4.24.

Table 4.24: Distribution of Some Situations about Depression by Location and Sex (NHS Study, 2002-2003, Turkey)

Depression	Urban (%)	Rural (%)	Male (%)	Female (%)	Total	
					N	(%)
Being Diagnosed with Depression by a Physician (n=11204 Unknown =17)	7,94	6,69	3,61	10,29	831	7,43
Receiving a Treatment due to Depression (n=11204 Unknown =59)	7,64	6,45	3,41	9,94	796	7,15
Using Depression Medication Prescribed by a Physician in the Last Two Weeks (n=11204 Unknown =64)	3,55	3,17	1,68	4,68	378	3,39
Feeling Sad, Empty and Depressed Within Last 12 Months (n=11204 Unknown =24)	51,92	48,14	42,72	56,09	5630	50,36
Losing Interest in Hobbies and Inter-Personal Relations in the Last 12 Months (n=11204 Unknown =30)	40,27	35,57	31,30	43,60	4283	38,33
Losing Energy and Feeling Tired Within Last 12 Months (n=11204 Unknown =30)	46,76	43,58	37,51	51,39	5078	45,45
Losing Interest and Having Low Energy more Than Two Weeks (n=11204 Unknown =69)	19,33	16,85	13,19	22,14	2038	18,31
Losing Appetite in the Last 12 Months (n=11204 Unknown =69)	31,75	32,98	26,06	36,89	3592	32,25
Slowing Down in Thinking in the Last 12 Months (n=11204 Unknown =66)	28,54	26,92	21,48	32,66	3105	27,87

The proportion of respondents who stated having been diagnosed with depression by a physician is 7.43%, This proportion is observed to be higher in rural areas than urban and a little higher among females than males.

7.15% of respondents stated having received a depression treatment. This proportion is 0.28% lower than that of respondents having been diagnosed with depression by a physician. The proportion of respondents who stated having received a treatment due to depression is observed to be higher in urban areas than rural and higher among females than males.

The proportion of respondents who stated taking a depression medication prescribed by a physician within last two weeks is 3.39%. This proportion is a little higher in urban areas than rural whereas the proportion of females is significantly higher than males (females 4.68% males 1.68%).

50.36% of respondents have stated feeling sad, empty and depressed within last 12 months. This proportion is higher in urban (51.92%) than in rural (48.14%) and higher among females (56.09%) than among males (42.72%)

The proportion of explosing energy and feeling tired within last 12 months is 38.33% within last 12 months. This proportion is higher in urban (40.27%) than in rural (35.57%) and higher among females (43.60%) than among males (31.30%).

The proportion of losing energy and feeling tired within last 12 months is 45.45% among respondents. This proportion is higher in urban (46.76%) than in rural (43.58%) and higher among females (51.39%) than among males (37.51%) which indicates a marked increase for women.

The proportion of respondents who stated losing interest and feeling low more than two weeks is 18.31%. This proportion is higher in urban areas (19.33%) than in rural areas (16.85%). Moreover this proportion is higher among females (22.14%) than among males (13.19%)

The proportion of respondents who sated experiencing a loss of appetite within last 12 months is 32.25% and this has no significant difference in terms of location. This proportion is observed to be higher among females (36.89%) than among males (26.06%)

The proportion of respondents who stated having experienced a slowing down in thinking within last 12 months is 27.87%. This proportion does not show a significant difference among locations but its is higher among females (32.66%) than among males (21.48%)

4.4.6 Tuberculosis

Distribution of some situations about tuberculosis by locations and sex are given in Table 4.25.

Table 4.25: Distribution of Some Situations about Tuberculosis by Location and Sex (NHS, 2002-2003, Turkey)

Tuberculosis	Urban (%)	Rural (%)	Male (%)	Female (%)	Total	
					N	(%)
Being Diagnosed with Tuberculosis by a Physician (n=11204 Unknown =17)	1,00	0,89	1,15	0,81	107	0,96
Using a Long-Term Medication Prescribed for Tuberculosis by a Physician (n=11204 Unknown =47)	0,93	0,82	1,07	0,75	99	0,89
Experiencing Cough Lasting More Than Three Weeks (n=11204 Unknown =82)	9,07	8,30	7,78	9,49	973	8,75
Having Blood in Productive Cough or Blood While Coughing in the last 12 months (n=11204 Unknown =92)	2,26	2,01	1,96	2,31	239	2,16
Being Examined by A Physician and Having Tuberculosis Tests in the last 12 months (n=11204 Unknown =97)	1,79	1,37	1,84	1,45	180	1,62
Being Examined by A Physician and Having Productive Cough Examination and Chest X-Ray in the last 12 months (n=11204 Unknown =240)	3,14	2,80	3,11	2,92	329	3,00

0,96% of the respondents have stated having been diagnosed with tuberculosis. This proportion does not show any difference in terms of location. On the other hand it is observed to be a lot higher among males (1.15%) than females (0.81%). The proportion of respondents having been given a long-term medication due to tuberculosis is 0.89% and this proportion is a little higher among males.

8.75% of the respondents stated having experienced a cough lasting more than three weeks within the last 12 months. This proportion is higher in urban areas (9.07%) than in rural areas (8.30%) and higher among females (9.49%) than among males (7.78%)

2.16% of the respondents stated having blood in productive cough and blood while coughing within last 12 months. This proportion is higher in urban areas (2.26%) than in rural areas (2.01%) and among females (2.31%) than among males (1.96%).

1.62% of the respondents stated having been examined by a physician due to tuberculosis and having a tuberculin test within last 12 months. This proportion is higher in urban areas (1.79%) than in rural areas (1.37%) and among males (1.84%) than among females (1.45%)

3.00% of the respondents stated having been examined by a physician for productive cough and having taken chest x-ray. This proportion is relatively higher in urban and among males and these differences are not significant in terms of percentages.

4.4.7 Oral -Dental Health

Distribution of some situations about oral or dental health by locations and sex are given in Table 4.26.

Table 4.26 : Distribution of Some Situations about Oral - Dental Health by Location and Sex (NHS, 2002-2003, Turkey)

Oral - Dental Health	Urban (%)	Rural (%)	Male (%)	Female (%)	Total	
					N	(%)
Having a Dental or Oral Problem that Limits their Meals in the Last 12 months (n=11204 Unknown=23)	33,93	34,69	33,24	35,00	3829	34,25
Referring to a physician due to an Oral or Dental Problem within last 12 Months (n=3829 Unknown = 53)	67,46	61,65	69,00	62,18	2455	65,01
Receiving a Treatment due to an Oral or Dental Problem in the Last 12 Months (n=2455 Unknown = 80)	43,21	44,09	42,14	44,67	1035	43,56
Receiving a Dental Operation /Treatment due to an Oral or Dental Problem in the Last 12 Months (n=2455 Unknown = 7)	83,95	85,69	86,65	83,06	2072	84,64
Receiving a Bridge Treatment due to an Oral or Dental Problem in the Last 12 Months (n=2455 Unknown = 114)	12,59	9,33	11,19	11,36	264	11,28
Receiving Consultancy /Information due to an Oral or Dental Problem in the Last 12 Months (n=2455 Unknown = 100)	28,41	25,08	27,45	26,80	638	27,08
Receiving Any Service except for the Services due to an Oral or Dental Problem in the Last 12 Months	58,02	41,98	36,65	63,35	131	100
Losing all of the main Teeth in the Last 12 Months (n=11204 Unknown=244)	10,56	13,78	9,80	13,45	1303	11,89

As seen in the table, 34.25% of the respondents stated having an oral or dental problem within last 12 months. This proportion does not show any difference in terms of location; on the other hand it is a little higher among females (35.00%) than among males (33.24%).

65.01% of the respondents stated having referred to a physician due to an oral or dental health problem within last 12 months. This proportion is higher in urban areas (67.46%) than in rural areas (61.65%) and among males (69.00%) than among females (62.18%)

43.56% of the respondents stated having used a medication due to an oral or dental health problem within last 12 months. This proportion is a little higher among females (44.67%) than among males (42.14%)

84.64% of the respondents stated having received treatment (dental operation or extraction, prosthesis, denture, etc) due to an oral or a dental problem. This proportion is 83.95% in urban areas whereas it is 85.69% in rural areas. This proportion is identified to be 83.06% among females and 86.65% among males

Proportion of receiving a bridge treatment due to an oral or dental problem is identified as 11.28 % among respondents. 12.59% of respondents in the urban area and 9.33% of respondents in the rural area stated that they received such treatment. When examining this proportion in terms of sex, it is 11.19% for males and 11.36% for females.

27.08% of the respondents in stated having received an information and consultancy on these issues. This proportion is 25.08% in rural areas while it is 28.41% in urban areas. This proportion is 26.80% among females while it is 27.45% among males.

Respondents' state of receiving any service except for the services due to an oral or dental problem in the last 12 months, were more frequent in urban areas (58,02%) than rural areas (41,98%) and in females(63,38%) than males(36,65%). 11.89% of the respondents stated having lost all their teeth. This proportion is 10.56% in urban and 13.78% in rural areas; whereas it is stated that 9.80% are among males and 13.45% among females.

4.4.8 Hypertension

Distribution of some situations about Hypertension by locations and sex are given in Table 4.27.

Table 4.27: Distribution of Some Situations about Hypertension by Location and Sex (NHS, 2002-2003, Turkey)

Hypertension	Urban (%)	Rural (%)	Male (%)	Female (%)	Total	
					N	(%)
Diagnosed with Hypertension by a Physician (n=11204Unknown=18)	13,55	13,84	7,57	18,25	1529	13,67
Maintenance State of Hypertension in the Last 12 Months (n=11204Unknown=79)	13,27	13,69	7,75	17,7	1496	13,44
Using a Prescribed Hypertension Medication in the Last Two Weeks (n=11204Unknown=105)	8,92	8,94	5,04	11,84	991	8,93
Having a Headache Initiating from the Back-Neck in the Last 12 Months (n=11204Unknown=65)						
Sometimes	34,88	33,81	26,61	40,29	3836	34,44
All the time	7,93	8,31	3,73	11,35	901	8,09
No Never	57,19	57,88	69,65	48,36	6402	57,47
Having Bilateral Tinnitus in the Last 12 Months (n=11204Unknown=74)						
Sometimes	22,1	24,33	17,73	26,98	2562	23,02
All the time	4,07	4,95	2,77	5,68	493	4,43
No. Never	73,83	70,72	79,49	67,34	8075	72,55
Having a Fainting Seizure Initiating with Sudden Dizziness in the Last 12 Months (n=11204Unknown=117)						
Sometimes	11,03	11,64	6,73	14,68	1251	11,28
All the time	1,25	1,36	0,59	1,81	143	1,29
No Never	87,72	87,01	92,67	83,5	9693	87,43
Having Unilateral Insensibility and Loss of Strength in Arms and legs in the Last 12 Months (n=11204Unknown=137)						
Sometimes	21,59	22,28	15,94	26,3	2421	21,87
All the time	4,46	5,35	2,71	6,41	534	4,83
No Never	73,95	72,37	81,35	67,29	8112	73,30

13.67% of the respondents were diagnosed with hypertension by a physician and that this proportion is higher among females and in urban areas.

13.44% of the respondents stated that their hypertension did not continue for the past 12 months and this proportion is lower among males compared to females. 8.93% of the respondents have stated not having used a hypertension medication prescribed by a physician within last 2 weeks.

34.44% of respondents have a headache initiating from the back-neck, 23.02% have bilateral ear tinkling 11.28% have fainting syndrome starting with sudden dizziness and 21.87% have unilateral insensibility and loss of strength in arms and legs

4.4.9 Back Pain

Distribution of some situations about back pain by locations and sex is given Table 4.28.

Table 4.28: Distribution of Some Situations about Back Pain by Location and Sex (NHS, 2002-2003, Turkey)

Back Pain	Urban (%)	Rural (%)	Male (%)	Female (%)	Total	
					N	(%)
Diagnosed with Back Pain by a Physician (n=11204 Unknown=34)	14,38	15,66	11,90	17,16	1665	14,91
Experiencing Back Pain in the Last 30 days (n=11204 Unknown=112)	34,19	34,18	24,17	41,68	3792	34,19
Using a Prescribed Medication For Back Pain in the Last Two Weeks (n=3792 Unknown=39)	12,83	12,09	10,54	13,38	470	12,52
Having a Back Pain and Limitation in Movement While Bending Forward orLifting an Object (n=3792 Unknown=26)	60,22	61,57	55,31	63,16	2289	60,78
Pain Starting Suddenly from the Side of the Back and Spreading Unchecked Towards the Groin (n=3792 Unknown=26)	39,67	41,62	30,24	44,93	1524	40,47
Having a Non-Disturbing Permanent Back Pain (n=3792 Unknown=28)	61,67	61,61	55,04	64,52	2320	61,64

14.91% of respondents was diagnosed with back pain by a physician. This proportion is higher among females compared to males and higher in urban areas compared to rural areas. Of the respondents, 34.19% reported having back pain in the last 30 days; this proportion was higher among females compared to males 12.52% of respondents stated having used a medication prescribed by a physician for back pain within last two weeks

60.78% of the respondents have pains and limitation in movement in their back while bending forward or lifting an object. 40.47% of the respondents have stated having a back pain starting suddenly from the sides of the back and spreading unchecked towards the groin, 61.64% have stated having continuous pain in the back region that does not give much discomfort. It is observed that these proportions are higher among females compared to males.

4.4.10 Epilepsy

Distribution of 18+ respondents' some situations about epilepsy by urban-rural locations and sex are given in Table 4.29.

Table 4.29 : Distribution of Some Situations about Epilepsy by Location and Sex (NHS, 2002-2003, Turkey)

Epilepsy	Urban (%)	Rural (%)	Male (%)	Female (%)	Total	
					N	(%)
Diagnosed with Epilepsy by a Physician (n=11204 Unknown=21)	0,58	0,52	0,77	0,39	62	0,55
Experiencing an Epileptic Seizure in the Last One Year (n=11204 Unknown=55)	0,37	0,41	0,52	0,29	43	0,39
Using a Prescribed Medication for Epilepsy in the Last Two Weeks (n=11204 Unknown=53)	0,33	0,27	0,46	0,19	34	0,31
Unconsciousness within the Last 12 Months (n=11204 Unknown=36)	2,55	2,02	1,81	2,72	260	2,33
Uncontrollable Trembling Attacks in the Extremities in the Last 12 months (n=11204 Unknown=40)	5,57	5,43	3,92	6,70	615	5,51
Having Attacks with Biting Tongue and Falling in the Last 12 months (n=11204 Unknown=47)	0,56	0,61	0,40	0,71	65	0,58
Having Attacks with Losing Toilet Control and Falling in the Last 12 months (n=11204Unknown=55)	0,47	0,45	0,44	0,48	52	0,46
Having Short Attacks with Trembling in a Single Arm, Leg or Face in the Last 12 months (n=11204 Unknown=66)	3,18	3,21	2,70	3,57	356	3,19

0.55% of the respondents are diagnosed with epilepsy by a physician. This proportion is 0.58 % in rural areas, 0.52 % in urban areas and 0.77% males and 0.39% females. In the last one year 0.39% of respondents had epileptic seizures and 0.31% used prescription drugs in the last two weeks. These proportions are higher in urban areas and in males.

2.33% of respondents have experienced a loss of consciousness within last 12 months, 5.51% have experienced uncontrollable trembling attacks in extremities within the last 12 months, 0.58% reported having attacks with biting tongue and falling within the last 12 months, 0.46% had attacks with losing toilet control and falling within the last 12 months and 3.19% experienced short attacks with trembling in a single arm, leg or face within the last 12 months.

4.4.11 Cerebrovascular Attack

Distribution of some situations about cerebrovascular attack by locations and sex are given in Table 4.30.

Table 4.30: Distribution of Some Situations about Cerebrovascular Attack by Location and Sex (NHS, 2002-2003, Turkey)

Cerebrovascular Attack	Urban (%)	Rural (%)	Male (%)	Female (%)	Total N	Total (%)
Diagnosed With Stroke/Paralysis by a Physician (n=11204Unknown=30)	1,71	1,65	1,52	1,80	188	1,68
Having Headache and Dizziness in the Last 12 Months (n=11204Unknown=414)	33,68	34,96	27,84	38,98	3692	34,21
Losing Consciousness in the Last 12 Months (n=11204 Unknown=416)	2,90	2,64	2,10	3,31	301	2,79
Tongue Slowness and Having Difficulty in Speaking in the Last 12 Months (n=11204 Unknown=418)	3,27	3,61	2,44	4,14	368	3,41
Having Difficulty in Remembering in the Last 12 Months (n=11204 Unknown=426)	13,40	14,57	9,56	17,13	1497	13,89
Experiencing Stroke or Paralysis in the Last 12 Months (n=11204 Unknown=417)	1,10	1,10	0,91	1,24	119	1,10
Referral to a Physician due to Stroke or Paralysis in the Last 12 Months (n=11204 Unknown=436)	2,63	2,47	1,76	3,17	276	2,56
Referral to a Physician due to Stroke or Paralysis in the Last 12 Months, by Cause (n=188 Unknown = 13)						
Cerebrovascular (accident/traffic accident	2,70	4,69	8,77	0,85	6	3,43
Ischemic Attack (Transient)	11,71	9,38	8,77	11,86	19	10,86
Related to diseases like diabetes, Hypertension	31,53	23,44	21,05	32,20	50	28,57
Neurological Disorders	10,81	12,50	10,53	11,86	20	11,43
Other	43,24	50,00	50,88	43,22	80	45,71

1.68% of the respondents have reported that they have been diagnosed with stroke/paralysis by a physician . While the respondents' state of having a headache and dizziness within last 12 months has a proportion of 34.21%, the proportion of unconsciousness within last 12 months is 2.79%. 3.41% of the respondents has stated having experienced a slow down in tongue and a difficulty in speaking within last 12 months. There is no differences between rural and urban or sex proportions.

13.89% of the respondents have experienced difficulty in remembering within the last 12 months, and this proportion is found to be higher among females than males. Stroke/paralysis within the last 12 months was reported by 1.10% of respondents. This proportion is higher in rural areas than in urban areas and also higher among females than males. The proportion of respondents having been referred to a physician within last 12 months due to stroke or paralysis is 2.56% . This percentage is higher in rural areas than urban and among females than males. Respondents who were diagnosed by a physician as having strokes due to general disease (diabetes mellitus, hypertension etc…) were found to be 31.53% in urban areas and 23.44% in rural areas. By sex, the percentages for this category were 32.20% for females and 21.05% for males.

4.4.12 Road Traffic Accident and Other Injuries Medical Care

Distribution of some situations about a road traffic accident and other injuries medical care by locations and sex are given in Table 4.31.

Table 4.31: Distribution of Some Situations about Road Traffic Accident and Other Injuries Medical Care by Location and Sex (NHS, 2002-2003, Turkey)

Road Traffic Accident and Other Injuries Medical Care	Urban (%)	Rural (%)	Male (%)	Female (%)	Total	
					N	(%)
Experiencing Injury in a Road Traffic Accident in the Last 12 Months (n=11204 Unknown=25)	1,72	1,54	2,59	0,94	184	1,65
Experiencing Injury in a Road Traffic Accident in the Last 12 Months, by Time of Accident (n=184 Unknown = 8)						
Within 30 days	8,25	9,25	9,53	6,69	15	8,63
1-2 month(s) before	10,81	19,10	13,41	15,13	25	13,95
3-5 months before	27,39	34,78	29,54	31,62	53	30,19
6-12 months before	50,20	36,87	45,23	44,95	79	45,14
Unknown	3,35	0,00	2,29	1,61	4	2,08
Being Treated for Injury in a Road Traffic accident in the Last 12 Months (n=184 Unknown =3)	44,28	34,77	38,62	45,06	74	40,69
Primary Care Providers used by 18+ Respondents due to a Traffic Accident in the Last 12 Months (n=74 Unknown=2)						
Onset/Ambulance	13,40	29,82	14,04	27,17	14	18,78
Emergency room/ State Hospital	43,44	43,23	42,93	44,15	31	43,37
Health Center	7,66	18,46	13,57	7,02	8	11,20
Health unit	2,37	0,00	2,49	0,00	1	1,59
University Hospital	3,90	0,00	4,10	0,00	2	2,62
Emergency room – Private Hospital / Clinic	15,46	3,64	10,96	12,69	8	11,59
Private physician clinic	7,50	0,00	5,96	3,41	4	5,04
Other private health facility	4,52	4,86	4,10	5,55	3	4,63
Other	1,75	0,00	1,85	0,00	1	1,18
Service Received by 18+ Respondents Due to a Traffic Accident in the Last 12 Months						
Public	21,36	22,05	14,62	34,19	16	21,58
Private	18,86	25,65	26,85	10,55	16	21,05
Outpatient Treatment Facilities used by 18+ Respondents due to a Road Traffic Accident in the Last 12 Months (n=74 Unknown=1)						
Public Facility	65,27	82,32	69,38	73,3	52	70,77
Private Facility	22,58	12,82	19,3	19,68	14	19,43

Table 4.31: Distribution of Some Situations about Road Traffic Accident and Other Injuries Medical Care by Location and Sex (NHS, 2002-2003, Turkey) (Continuing)

Road Traffic Accident and Other Injuries Medical Care	Urban (%)	Rural (%)	Male (%)	Female (%)	Total N	Total (%)
Inpatient Treatment Facilities used by 18+ Respondents due to a Road Traffic Accident in the Last 12 Months						
Public Facility	36,31	28,24	32,75	35,43	25	33,71
Private Facility	8,91	4,86	7,94	6,98	6	7,60
Length of Primary Medical Care Received by 18+ Respondents due to a Road Traffic Accident in the Last 12 Months (n=74 Unknown=2)						
1 hour or less	60,12	69,53	58,49	71,65	45	63,12
More than 1 hour but less than 24 hours	23,84	23,44	31,46	9,45	17	23,72
More than 24 hours	16,03	7,03	10,05	18,90	10	13,16
Burn, Fall, Poisoning, Drowning or Armed Attack States of 18+ Respondents in the Last 12 Months (n=11204 Unknown : 73)	3,04	2,62	2,72	2,98	319	2,87
Type of Injuries Received by 18+ Respondents in the Last 12 Months (n=319 Unknown: 187)						
Fall	40,28	45,50	42,13	42,78	56	42,50
Burn	9,68	10,86	7,96	11,85	13	10,18
Poisoning	25,27	10,27	13,13	23,24	25	18,90
Drowning	1,15	1,68	1,54	1,25	2	1,37
Injury from Firearm and Sharply Gun	3,98	4,74	6,74	2,46	6	4,30
Violance	7,58	3,70	5,42	6,32	8	5,93
Animals Bite, Insect sting	0,00	4,29	2,58	1,25	2	1,82
Other	12,07	18,96	20,50	10,84	20	14,99
Timing of Injuries Received by 18+ Respondents in the Last 12 Months (n=319 Unknown: 8)						
Within 30 days	16,42	19,68	16,46	18,43	55	17,63
1-2 month(s) before	18,99	11,89	15,28	17,08	51	16,36
3-5 months before	23,73	21,67	25,67	21,13	71	22,97
6-12 months before	40,38	46,75	42,58	42,85	133	42,74
Receiving Medical Care for an Injury in the Last 12 Months (n=319 Unknown=13)	54,21	64,95	63,67	54,51	178	58,22

Table 4.31: Distribution of Some Situations about Road Traffic Accident and Other Injuries Medical Care by Location and Sex (NHS, 2002-2003, Turkey) (Continuing)

Road Traffic Accident and Other Injuries Medical Care	Urban (%)	Rural (%)	Male (%)	Female (%)	Total N	Total (%)
Primary Medical Care Facilities Where 18+ Respondents Received Treatment for an Injury in the Last 12 Months (n=178 Unknown=4)						
Onset/Ambulance	8,5	6,16	8,7	6,61	13	7,54
Emergency room/ State Hospital	33,34	44,71	34,64	40,73	66	38,03
Health Center	7,92	20,08	13,56	12,44	22	12,94
Health unit	0,87	1,21	1,12	0,92	2	1,01
University Hospital	6,25	1,26	3,58	4,68	7	4,19
Other Health Care Services	6,55	7,59	9,86	4,69	12	6,98
Emergency/Private Hospital	12,42	7,16	9,58	10,79	18	10,25
Private physician clinic	5,58	1,25	2,62	4,73	7	3,79
Other private health facility	4,19	2,64	4,91	2,47	6	3,55
Other	14,38	7,94	11,42	11,96	21	11,72
Type of Facility Where Primary Medical Care Was Received by 18+ Respondents for Injury in the Last 12 Months (n=178 Unknown=3)						
Public	74,18	84,45	80,28	77,18	137	78,53
Private	24,94	11,85	19,72	19,13	34	19,39
Duration of Primary Medical Care Received by 18+ Respondents for Injury in the Last 12 Months (n=178 Unknown=3)						
1 hour or less	57,60	48,22	62,59	46,75	94	53,64
More than 1 hour but less than 24 hours	26,43	38,11	30,39	32,11	55	31,36
More than 24 hours	15,96	13,67	7,02	21,14	26	15,00

The proportion of 18+ respondents having experienced injured road traffic accidents (as the occupant of a motor vehicle, or when riding a motorcycle or bicycle, or walking) within last 12 months is 1.65%. This proportion is higher in urban areas (1.72%) than in rural areas (1.54%). In terms of sex, the proportion of people experiencing an injured road traffic accidents within last 12 months for males (2.59%) is higher than for females (0.94%). 8.63% of respondents who stated having experienced an injured road traffic accident expressed having this accidents within last 30 days, 13.95% one or two months before, 45.14% 6-12 months before.

Distribution of respondents having experienced a road traffic accident within last 12 months by state of treatment, location and sex was examined. 40.69% of the respondents stated having received a health care or treatment. 44.28% of the urban residents stated having received a health care treatment whereas the proportion of receiving a health care in rural areas is 34.77%. When the state of receiving a health care treatment is examined in terms of sex, it is identified that males have a proportion of 38.62% and females have a proportion of 45.06% in receiving a health care.

Distribution of respondents having experienced an injured road traffic accident within last 12 months by the health unit where the first aid is provided, location and sex was examined. The onset/state hospital had the highest proportion among facilities where the respondents received first aid after the accident (43.37%). This proportion is 43.44% in urban and 43.23% in rural areas and 42.93% among males and 44.15% among females.

Distribution of respondents having experienced injured road traffic accidents within last 12 months by the facility where an ambulance service is received was examined. The proportions of public and private facility were not different from each other.

Distribution of respondents having experienced injured road traffic accidents within last 12 months by the facility where the outpatient treatment service is provided, by location and sex was examined . 70.77% of the respondents reported having received an outpatient treatment care from a public facility; this proportion is 82.32% in rural and 65.27% in urban areas. The same proportion is 73.30% among females and 69.38% among males.

Distribution of respondents having experienced injury in road traffic accidents within last 12 months by the facility where an inpatient treatment is provided, was examined. 33.71% of the respondents stated having received an inpatient treatments from a public facility and 7.60% of the respondents from private facility.

Distribution of respondents having experienced injury in road traffic accidents within last 12 months by their time of receiving a primary medical care, location and sex was examined. 63.12% of the respondents stated having received a medical care in an hour or less. This proportion is 69.53% in rural areas and 60.12% in urban areas. The same proportion is 71.65% among females and 58.49% among males. 13.16% of the respondents stated the time of receiving a medical care to be more than 24 hours.

When the distribution of 18+ respondents having experienced an injury within last 12 months by the type of injury, location and sex was examined, in terms of the total basis, falling, which is a type of injury, takes the first place with 42.50%. When examined by location, fall-type of injury is found to have the highest proportion in both urban (40.28%) and rural (45.50%) areas. When the same distribution is examined in terms of sex, fall-type of injury is 42.13% among males whereas it is estimated as 42.78% among females.

Distribution of respondents having injured within last 12 months in terms of the time of injury, state of receiving medical care, facility where the primary medical care is received, type of facility and state of accessing medical care by location and sex was examined. The highest percentage of time of injury is in the 6-12 month-before portion with 42.74%. 58.22% of the respondents have stated not having received a health care for their injuries. 38.03% of respondents having received a medical care are provided first aid from an emergency/state hospital. When the facility where the respondents received the primary medical care is examined by type, state facilities have the highest proportion with 78.53%. The proportion of accessing primary medical care in 1 hour or less is 53.64%.

APPENDICES

APPENDIX A STUDY DESIGN

Basic characteristics of 2003 NHS study's sampling design and sampling application have been mentioned in this section.

1.1 Sampling

a- Population Structure

The population of this survey is based on the latest available 2000 General Population Census results of Turkey. Distribution of the total population across 5 regions and urban-rural areas is given in Table 1 in conformity with the General Population Census results. Here, rural areas are defined as those having a population less than 20 000.

Table 1. Distribution of Total Turkish Population by Region and Urban vs. Rural Location

Region	***Urban*** $[N_h^U]$ **(>= 20000)**	***Rural*** $[N_h^R]$ **(< 20000)**	***Total*** $[N_h]$
1. Marmara & Aegean	18 676 080	7 627 728	26 303 808
2. Mediterranean	4 933 097	3 772 908	8 706 005
3. Middle Anatolia	7 084 733	4 524 135	11 608 868
4. Black Sea	3 114 553	5 324 660	8 439 213
5. Eastern & South Eastern Anatolia	6 363 693	6 382 340	12 746 033
Total	**40 172 156**	**27 631 771**	**67 803 927**

The sampling plan of this study is composed of 10 strata, based on 5 regions and rural versus urban locations in each region.

The total population of each region is the sum of its urban (U) and rural (R) populations.

$$N_h^U + N_h^R = N_h \qquad \text{And} \quad \sum_{h=1}^{H} N_h = N \qquad \text{where } h = 1, 2, \ldots H$$

Here, N_h^U refers to the total population in the urban areas of region h, whereas N_h^R defines the total population in rural areas of region h. Here N is the sum of urban and rural populations in all regions. The sampling plan of this study was designed on the basis of H = 5 regions.

The number of dwelling units is considered to be equal with the number of households. Urban and rural areas are separately calculated by dividing the total population in each stratum by the average size of households.

The number of households (dwelling units) is separately calculated for strata composed of rural and urban areas in the sampling plan of the study.

$$M_h^U = N_h^U / \overline{H}_h^U \qquad \text{And} \quad M_h^R = N_h^R / \overline{H}_h^R$$

The number of households in the urban areas (M_h^U) is calculated by dividing the total population in urban areas (NhU) by the average household size in the urban area ($\overline{H}_h^U$). Likewise, the number of households in rural areas (MhR) is calculated by dividing the total population in rural areas (N_h^R) by the average household size in rural areas ($\overline{H}_h^R$). These calculations are separately conducted for 10 strata on the basis of H=5 regions and their rural and urban areas.

Then, the total number of rural and urban dwelling units is calculated as follows.

$$M_h^U + M_h^R = M_h \qquad \text{ve} \qquad \sum_{h=1}^{H} M_h = M$$

The total number of households in each region (Mh) is the sum of rural and urban households living in that region. The overall sum of households (M) in regions refers to the total number of households in that population.

b- Sampling Design

The sampling design encompasses determination of the sample size, sample distribution and sample selection methods as follows.

Sample Size Determination

It is a goal of this study to gather information on a wide range of issues. For this reason, the prevalences estimated in the survey are expected to be relatively low for those diseases which occur only rarely [P = 0.01].

Thus, the temporary sample size is calculated as follows in line with this information.

m* shows the temporary sample size of the study which is calculated under certain parameters and constraints. The Za/2 terms used in the formula refer to the limit value for ·/2 in the standard normal distribution. The lapsing level used for bi-faceted statistical tests is ·=0.05. This lapsing level is equally distributed to each queue of the distribution. The standard value used in this study is considered as Z 0.025 =1.96.

In the formula, Û is the standard deviation and Û2 is the variance of elements. The highest deviation value (the tolerance level) for the proportion (p) that can be derived as a result of the study is given by h.

The estimated final sample size of the study (m) is calculated by using both the population size (M) and the temporary sample size (m*).

$$m^* = \left[\frac{z_{\alpha/2}\,\sigma}{h}\right]^2 \qquad = \qquad \left[\frac{(1.96)\,(0.0995)}{0.00178}\right]^2 \qquad \text{where} \quad \sigma^2 = P(1-P) \quad = 0.0099$$

The final sample size of the survey is calculated as follows:

$$m = \left[\frac{m^*}{1+\frac{m^*}{M}}\right] = 12\,000$$

So, the total sampling ratio estimated for this survey is: f = m / M = 12 000 / 15 070 093 = 1 / 1255 = 0.0008. It was planned that a proportion or a statistic obtained as a result of the survey be valued between the following intervals.

Sample Allocation and Sample Selection Procedures

Allocation of the sample size deriving from m=12 000 households to 10 previously determined strata is conducted by Probability Proportional to Size (PPS) measures as follows:

$$m_h = \left(\frac{M_h}{M} \right) m = W_h\, m \quad \text{Where} \quad M = \sum_{h=1}^{H} M_h$$

Here, mh shows the sample allocation share per h stratum. This share is estimated by weighting (Wh) the total sample size (m) by using Probability Proportional Size (PPS). In Table 2, a = sample block, h = sample in stratum.

Table 2. Distribution of Sample Size by Region and Urban vs. Rural Location

Region*	***Urban*** $\lfloor m_h^U \rfloor$ **(≥ 20000)**	***Rural*** $\lfloor m_h^R \rfloor$ **(< 20000)**	***Total*** $\lfloor m_h \rfloor$	***No of Sample Size*** $[\, a_h \,]$
1. Marmara and Aegean	3300	1350	4650	186
2. South	875	675	1550	62
3. Middle Anatolia	1250	800	2050	82
4. North	550	950	1500	60
5. East and South East Anatolia	1125	1125	2250	90
Total	**7100**	**4900**	**12000**	**480**

* In the tables that follow, The Marmara and Aegean region becomes the West region; Middle Anatolia becomes the Middle region; and East and South East Anatolia become the East region

Information concerning the sample size allocated to strata as a result of this allocation is given in Table 2.

The study was conducted across two time periods, taking seasonal factors into consideration. Table 3 shows the number of blocks and households selected for each period, and the number of households where the survey

Table 3. Number of Blocks and Households Selected and Surveyed, by Study Term
(NBD-CE Study, 2002-2003, Turkey)

Regions	Number of Questionnaires Administered in the 1st Term		Sample Selected in 1st Term		Number of Questionnaires Administered in the 2nd Term		Sample Selected in 2nd Term	
	Urban	Rural	Number of Blocks	Number of Households	Urban	Rural	Number of Blocks	Number of Households
West	1496	672	93	2325	1604	618	93	2325
South	451	317	32	800	410	343	30	750
Middle	570	392	41	1025	575	397	41	1025
North	267	415	30	750	264	447	30	750
East	519	593	44	1100	575	556	46	1150
Total	**3303**	**2389**	**240**	**6000**	**3428**	**2361**	**240**	**6000**

was conducted.

The sample design is based on a stratified Probability Proportional to Size (PPS), with a two-stage collection

$$f_h = \frac{a_h}{A_h}\frac{b}{B_\alpha} = \frac{m_h}{M_h} = \frac{1}{F_h} \quad \text{where} \quad F_h = M_h / m_h \quad \text{is the expansion factor.}$$

of equal-sized clusters. The probability of household sample selections and the estimation expansion factor in each stratum are calculated in the following manner.

Here, the sampling rate for stratum h is defined with f_h. This study used a two-staged selection method proposed by SIS in the sample-planning phase of the survey. For each stratum, in the first stage, SIS Sampling Branch selected a_h sample blocks and A_h total blocks using a systematic sampling technique in a digital environment, and first stage selection possibilities were calculated by SIS. For the second selection step, the field teams carefully selected b households from blocks of size $B\alpha$ by using a systematic sampling technique.

When the sample sizes allocated to each stratum as rural and urban are combined, the regional totals are obtained. $m_h^U + m_h^R = m_h$ And $\sum_{h=1}^{H} m_h = m$ Where $h = 1, 2, ..., H$

The sum of each region's rural and urban sample households gives the total number of sample households (m).

The sample size determined for the survey, m = 12000 households, was divided by two so that the study could be administered in two equal stages, each with m = 6000 households.

Selection of sample dwelling units in each stratum was conducted in two stages. The master sampling frame of the State Institute of Statistics was used for this purpose.

Within each population stratum, all dwelling units were divided into average block sizes of $B\cdot = 200$ dwelling units. SIS personnel selected a specific number of dwelling units systematically for each stratum.

The expected size of dwelling units was defined by the interval $175 < B_\alpha < 225$.

In the field, a screening operation was done within the selected blocks, entailing a door-to-door search and obtaining basic information about the households. Then, cluster elements of b=25 households were chosen systematically with the sub-sampling in each block in light of the information obtained in with this screening. Selected sample households constituted the first stage source of information required for the survey.

c- Respondent Selection Methods

Household Survey Respondent Selection Method

The primary respondent for the household survey questionnaire was the head of household. In his absence, any adult (over 18 years of age) from the household completed the household survey questionnaire.

Personal Questionnaire Respondent Selection Method

The person that responded to the personal questionnaire was an adult at or over the age of 18, selected from

Table 4. Kish Respondent Selection Table

Table Number	Proportional Distribution	If the number of adults in household is:					
		1	2	3	4	5	6 +
		Select adults numbered:					
A1	1/12	1	1	1	1	1	1
A2	1/12	1	1	1	1	1	1
B1	1/12	1	1	1	1	2	2
B2	1/12	1	1	1	2	2	2
C1	1/12	1	1	2	2	3	3
C2	1/12	1	1	2	2	3	3
D1	1/12	1	2	2	3	4	4
D2	1/12	1	2	2	3	4	4
E1	1/12	1	2	3	3	3	5
E2	1/12	1	2	3	4	5	5
F1	1/12	1	2	3	4	5	6
F2	1/12	1	2	3	4	5	6

the household list in line with the Kish Table used for that household. Information concerning the Kish selection method is given in Table 4. The Leslie Kish respondent selection table is composed of 12 tables distributed with

1	2	3	4	5	6	7	8	9	10	11	12	……	m
A1	A2	B1	B2	C1	C2	D1	D2	E1	E2	F1	F2	……	F2

The Leslie Kish respondent selection table is composed of 12 tables distributed with p=1/12 proportion. The 12 tables found in the Kish table are distributed to the 1, 2, ..., m line prior to field study in the following order.

The type of Kish Table used in households was pre-determined, and it was used in the households as follows.

In making a list of households, males were listed first, then females. Graduated numbers were assigned to interviewable respondents 18 years old and over, in terms of descending ages. As a result of this ranking, the total number of adults living in the household was defined. "Total number of adults living in the household" is marked in the column heading of the Kish Table defined for the household. The number that refers to the relevant column is the line number of the respondent selected from the household list. This selected person responded to the personal questionnaire form.

d- Design Weights and Response Factors

Design weights and response factors shown in Table 5 were prepared for the purpose of predicting the results of the household study by region and location. Information was prepared on selection possibilities and response factors for each section of the survey. Information for 5 regions and rural-urban divisions are presented separately for households and personal questionnaires. In this survey, the procedure was not carried out, as response percentages were over the expected level (95%) and difference between weighted and unweighted data were low due to the high percentage of reaching respondents. For the respondent population, adjustment procedures were applied according to the concerns of SIS. Information regarding the selection possibilities of inner-strata blocks estima-

Table 5. Design Weights and Response Factors

Region	Location	Enlargement Factor	Household	Respondents
		Reverse of the Sampling Ratio	Selected / Interviewed	Selected / Interviewed
West	Urban	820691 / 3300	3300 / 3100	3100 / 3000
	Rural	30739 / 1350	1350 / 1290	1290 / 1257
South	Urban	175097 / 875	875 / 861	861 / 842
	Rural	96238 / 675	675 / 660	660 / 646
Middle	Urban	247175 / 1250	1250 / 1145	1145 / 1119
	Rural	100595 / 800	800/ 789	789 / 776
North	Urban	116156 / 550	550 / 531	531 / 524
	Rural	116279 / 950	950 / 862	862 / 853
East	Urban	156969 / 1125	1125 / 1094	1094 / 1063
	Rural	107254 /1125	1125 / 1149	1149 / 1124

ted by the State Institute of Statistics (SIS) was used for calculating the reverse of the sampling ratio so as to be used as weights (enlargement factors). Reverse of the sampling ratio and reverse of the relevant response ratio are given by region and location in Table 5.

1.2. Questionnaire Design

The Household Survey questionnaire developed by WHO was translated into Turkish and questions were revised for the better comprehension of the target population. Some of the modules from the World Health Survey that were not required by the principles of NBD-CE study were excluded (Module7000: Health Responsiveness and Module 8000: Health Goals and Social Capital). For the requirements of the project, some questions were ad-

ded regarding the presence of anyone in the household who was diagnosed ill by a physician within last two months (including chronic and acute conditions), the presence of anyone in the household having a chronic illness diagnosed by a physician and who requires permanent medication treatment, the presence of disability (nature, cause, duration), and risk factors (secondhand smoke, tea consumption, salt consumption, and coffee consumption).

The project team examined the verbal autopsy form (Module 5000: Mortality), which was developed by WHO for the Verbal Autopsy study and is used in the World Health Survey. Considering that this survey would not sufficiently meet the requirements of causes of death, literature searches were made and questionnaire forms of other studies were accessed. The questionnaire form used in the present study is a revised version of both the questionnaire proposed by the London School of Hygiene and Tropical Medicine for use in Tanzania, and the verbal autopsy questionnaire that is used in Jordan. Physicians administered the verbal autopsy to cover deaths initially identified in the Household Survey.

The revised version of the Questionnaire Form is divided into four sections in terms of the content.

In Part I, the following data are obtained from the head of the household.

a) Demographic data (age, sex, education, marital status, working status)

b) Health, care and rehabilitation status (acute and chronic diseases, physical and mental disabilities, people in need of care, determination of any deaths in the household within the last one year.)

c) Household qualifications, risk factors concerning the household and instruments belonging to the household

d) Expenses of the households (food, education, health expenses and other expenses, sources of these expenses, facility and service type of these health expenses)

e) Household Incomes (profession and income of household members within the last one month)

f) Health insurance system (insurance coverage status, private insurance status and amount of premium, etc.)

In Part II, the following data were obtained from respondents aged 18 or over, who were selected with the Kish method.

a) Demographics of the respondent (age, sex, education) and working status (job and profession)

b) Health state (general health, mobility, self care, pain and discomfort, cognition, interpersonal relations, vision, sleep and energy, emotional affect)

c) Health vignettes, health state evaluation sets and current health state ranking of the respondent

d) Risk factors (tobacco and alcohol, nutrition, physical activity)

e) Extended information on diagnosis, treatment and symptoms, within the last one year, of selected important diseases. Diseases in this section are arthritis, angina pectoris, diabetes, asthma, depression, tuberculosis, oral-dental health, road traffic accidents and other injuries, hypertension, back pain, epilepsy, cerebrovascular event (stroke).

f) Health State Evaluation (EuroQol 5d and Visual Analog Scale)

g) Observations and evaluations of the interviewer concerning the respondent.

h) Determination of deaths within the last one year among the respondent's siblings residing outside the household

Part III collects data on age and sex of neighboring household members (two households on either side of the main household), and on deaths occurring within the last one year.

Part IV contains the Death Definition Form. In this form, there are identity and address items for main household member deaths, death of siblings living outside the household and deaths that occurred in neighboring ho-

useholds within the last one year. This information (identity and address information of the deceased, date of death, place of death and place of burial) was used in the Verbal Autopsy study.

After the survey questions were edited, the questionnaire was adapted to the optic reader form in order to save time in the evaluation stages of the study.

1.3. Preparation of the Interviewer Handbook and Que-cards

For the final version of the Household Survey Form, a user's manual was prepared to explain how to fill the form correctly. Preparation of this manual involved extensive use of previous WHO studies. During the preparation process, questions were listed first, and subsequently the necessary explanations were given, followed by examples on the issue arranged according to the headings in the questionnaire.

Two different sets of que-cards were developed, in order to help interviewers ask questions and to guide respondents when necessary. These que-cards were revised in line with the ones developed by WHO.

a) Risk factor que-cards for the interviewers: These cards are composed of instructions and scales which include standards on nutrition, expenses, incomes, physical activity and alcohol consumption. Sections containing information on the chronic diseases list and types of trauma are also included in the interviewer que-cards.

b) Disease cards used in the Health State Ranking of the respondent: There are five cards, each having a disease-health state to have the respondent rank the selected diseases from bad to good. Furthermore, one card is developed to have the respondent evaluate his/her current health state. Turkish disease names, disease abbreviations, and basic explanations on the diseases are written on these cards.

1.4. Pre-Test Studies

The draft questionnaire forms, survey manual and other documents prepared by WHO for the 2002 World Health Survey to encompass 72 countries were translated into Turkish and reproduced for the pre-test.

Turkey was one of seven countries selected by WHO for the pre-testing of questionnaire forms and administration techniques used in the 2002 World Health Survey. The pre-test in Turkey was conducted in the central districts of Ankara and in the towns and villages of Ayaş and Kızılcahamam, with SIS selecting the sample households. Administration of the pre-test in 600 households and a re-test in 180 households was planned and carried out according to WHO standards. Six different types of questionnaire form (A, B, C, D, E, F) were used in the pre-test. Eight different Kish Tables (A, B1, B2, C, D, E1, E2, F) used for these questionnaire forms were identified in conformity with the 600- sample household list previously defined for Turkey by the WHO.

Organizers and interviewers that were in charge of the pre-test were selected from academicians employed at Başkent University who had previous survey experience. A 3-day training program was prepared and conducted for these employees.

Several difficulties and problems were encountered, especially during the first days of the survey's administration. While it was expected that an interviewer could fill 3-4 questionnaires per day, this number fell to approximately 2, and completion of the pre-test took more time than anticipated. Survey administration was found to be easier in rural than in urban areas. Also, the higher the income and education levels of household members, the less they were interested in participating in health surveys. Another important problem concerning survey administration was that single female interviewers were hesitant about entering some of the selected households, and single female household members were hesitant about welcoming a male interviewer. As a result, most subsequent visits were conducted by teams of one female and one male interviewer.

Frequent meetings between organizers and interviewers were held for the solution of problems in the study, and interviewers' recommendations were found to be helpful. Each interviewer was requested to make a report comprising their personal assessment of the survey study and these reports were then evaluated.

After the editing and coding of the questionnaire forms filled in the field were complete, data entry was carri-

ed out in digital environment. This was done through a computer program developed by WHO for use with the Statistical Package for the Social Sciences (SPSS). There was no possibility of changing the program or of adding new code. No major problems were encountered in data entry.

Pre-test results were sent to WHO in digital format. Statistical analyses of the results were conducted by technical professionals at WHO on the basis of the survey modules and questions.

The project team conducted and evaluated relevant measures of the respondents' cognition, interest levels and non-responses to questions given in the modules. As a result of these studies, a new questionnaire form was developed for Turkey in line with the objectives of the NBD-CE project. SIS administered the pilot study of this survey in November 2002 in the sample households selected from the city of Kırşehir and the district of Mucur, and results were used to design the final form of the questionnaire used in this survey. The Verbal Autopsy study was not included in this pre-test.

1.5. Pilot Area Study

A pilot area study was carried out between 21 and 29 November 2002 in order to test the draft household survey questions prepared by the project team. This study was conducted with the help of trained interviewers in a feasible atmosphere of organization, administration, supervision and cooperation. The study was administered in Kırşehir, a city selected by the Ministry of Health, and 300 sample household lists were used, as determined by SIS. The study was conducted through a face-to-face interview method with one supervisor per 12 interviewers.

Pursuant to the pilot area study, the questionnaire was finalized in form after being evaluated by experts from the Ministry of Health, who identified deficiencies and errors in the manual. The questionnaire form was re-adjusted to be suitable for optic reading in line with recommendations from the Ministry of Health and SIS.

1.6. Selection and Training of Interviewers

A commission of five members chosen by Başkent University determined the number and qualifications of interviewers needed for the Household Survey study. Applications on file in Başkent University's human resources department were examined first. Applicants were considered in terms of their having a health-related education and being university or high school graduates, and from these interviewer candidates the final group was selected through interviews.

Place	First Term		Second Term	
	Date	Participants	Date	Participants
Ankara	20-26 January 2003	42	2-7 April 2003	35
			8 April 2003 (Refresher Training)	32
Istanbul	22-28 January 2003	42	10-11 April 2003 (Refresher Training)	34
Diyarbakır	29 January - 4 February 2003	42	9-10 April 2003 (Refresher Training)	25
Total		116		126

In cooperation with the Ministry of Health, a seven-day training program was prepared for candidates (Appendix 1). Place, date and number of participants for interviewer training are given below.

This program comprised 6 days of theoretical explanation and one day of survey administration practice. Instructors came from university faculties. In addition, officials from the Ministry of Health and the State Institute of Statistics (SIS) were among the instructors. SIS gave half-day presentations regarding sampling, listing of the addresses, and determination of the blocks and households.

Before the second term, new interviewers were given the same course as the first-term interviewers and a one-day refresher training program was given for the returning first-term interviewers to maintain constant standards in the survey. in Ankara on 8 April 2003, in Diyarbakir on 9-10 April 2003 and in Istanbul on 10-11 April 2003, where field supervisors and interviewers prepared for the Second Term Field Study.

1.7. Selection and Training of Supervisors

From the interviewers who participated in interviewer training and pilot field studies, a group of supervisor candidates who were found to be successful in training participated in a four-hour special course. The Second Term Training Course provided information on teamwork and cooperation, logistic support, communication, supervision methods, extra instruction on filling the supervision, monitoring, expense and quality control questionnaires, and guidance on re-contacts and visits to households where the questionnaire was administered. Members of the Ministry of Health's NBD-CE work group explained how the supervision forms were to be filled by the supervisors, and how the completed forms were to be sent to the Ministry of Health, the Health Project General Coordination Unit, and the School of Public Health Directorate.

1.8. Logistic Support Services

Following their training, interviewers were provided with equipment such as waterproof bags, erasers, pencils, pencil sharpeners, and notebooks. Public social facilities (doctor, teacher and public highway accommodation houses) were preferred for the accommodation of interviewers in the field, but in cases where this was not possible, teams were accommodated in hotels. Teams used local means of transportation, and vehicles were hired when necessary so as not to hinder the service.

An adequate number of questionnaire forms were printed and were then sent to the field by a cargo company under agreement, in the form of sets of 25 pieces in special packages. Questionnaire forms filled after the survey study were separately wrapped according to block and sent back to the Central Study Unit with the Listing Forms, Edited Supervision Forms, Quality Control Questionnaire Forms and Death Determination Forms (if any) of that block.

1.9. Organization

a- Central Study Unit/CSU

A Central Study Unit was founded at Başkent University in Ankara to plan, monitor and direct the administration of the Household Survey. The Unit was supplied with means of communication and other technical materials, and was supported with other means of the university.

b- Field Management Units / FMU

Field Study Management was divided among three Field Management units in Ankara, Istanbul and Diyarbakir under the management of one General Coordinator, in order to monitor and supervise the study more closely, and to facilitate economic and financial matters and means of transportation and communication. A Field Coordinator was assigned to each Field Management Unit, and according to the needs of these coordinators, an adequate number of Field Duty Officers were assigned in terms of the number of blocks and geographical conditions within the coverage of the FMU. To each Field Duty Officer, 2-3 supervisors were assigned, and 5-6 interviewers were assigned to each supervisor. Management of the service between the administrators and workers was assured in the framework of this chain relationship. The numbers of cities, blocks and staff members assigned to field management units in the first and second terms of the Household Survey are given below.

1.10. Provision of Blocks and Addresses from the State Institute of Statistics

With the cooperation of SIS, blocks and addresses included in the sample and their urban vs rural classification (240 blocks) were confirmed. The distribution of blocks by province and FMU were mapped, and detailed lists were given to supervisors.

	First Term		Second Term	
FMU	**Provinces**	**Blocks**	**Provinces**	**Blocks**
Ankara	37	117	41	49
Istanbul	7	62	7	130
Diyarbakır	19	61	22	61
Total	63	240	70	240

Distribution of staff taking part in Field Study terms by FMUs is given below

	First Term				Second Term			
Personnel	**Ank**	**Ist.**	**Diyar.**	**Total**	**Ank.**	**İst.**	**Diyar.**	**Total**
Field Coordinators	2	1	1	4	2	1	1	4
Field Duty Officers	6	4	2	12	6	4	2	12
Supervisors	8	7	8	23	10	5	5	20
Interviewers	34	30	34	98	47	20	27	94
Total	**50**	**42**	**45**	**137**	**65**	**30**	**35**	**130**

Ank.: Ankara İst.:İstanbul Diyar.: Diyarbakır

In the First Term Field Study, 64 provinces were assigned. During the study, however, due to transportation and security issues in a village in the Bitlis region, SIS decided to include an additional village in the Diyarbakır region in its place. For this reason, there were a total of 63 provinces in the First term field study. In the Second Term Field Study, 70 provinces were assigned and the total remained as planned.

During the listing studies, the required addresses given by SIS were confirmed with the cooperation of apartment managers, muhtars, municipal record officials, and health center personnel. During the study, there were problems with finding sufficient households in holiday resorts, newly opened cooperative settlements and some mountain villages. However, in this situation, communication with SIS provided interviewers with guidance on making a quick and effective decision.

1.11. Listing Studies

In conformity with the block listing methodology proposed by SIS experts in interviewer training, listing studies were conducted on sample addresses with a team which was formed before the field study. The Listing Form developed by SIS was used in these studies (Appendix 2). During these listing studies, there was great difficulty in attaining necessary number of households in newly settled areas, metropolitan areas, private cooperative blocks and summer houses. In rural areas, the population of some villages and municipalities were below 175 households– the limit number of households per block. Therefore changing these blocks in communication with SIS caused time loss. On the other hand, the fact that listing studies were conducted prior to administration of the interview not only facilitated the interviewer tasks but also increased the rate of interview acceptance in households. Accurate information on the households provided during listing was a major reason for this result.

1.12. Household Survey Studies

The household study was conducted in two periods in order to capture the seasonality of the diseases.

a- 1st Term Field Study

I. Study started on 4 February 2003 in Istanbul and on 3 February 2003 in Ankara and Diyarbakir, targeting 6000 households. The studies were halted for 3 days in Istanbul and 1-2 days in other areas due to heavy snowfall and long holidays. Studies were completed on 10 March 2003 in Ankara and Diyarbakir and on 14 March 2003 in Istanbul. The organization map of First Term Field Study is given in Appendix 6.

b- 2nd Term Field Study

As stated in TOR, another questionnaire administration was planned two months after the first administration for 6000 households in order to identify the seasonal attributes of disease frequency. The organization map of the Second Term Field Study is given in Appendix 7.

The questionnaire form used in these terms, as indicated in the Inception Report, did not include health vignettes and health evaluation sets, health state ranking and health state evaluation (EuroQol- Visual Analog Scale) sections. Additional pages were added at the end of the form in order to facilitate their use. The ILO profession classification coding list was also added to the final page of the questionnaire. Sections that were excluded from the questionnaire form reduced the number of questions and the length of time required for administration. Including additional pages and the ILO profession classification coding list also facilitated the interviewer's task. Necessary revisions were also made in the manual in line with the changes in the questionnaire.

The Second Term Field Study covered 70 provinces. Cities and addresses for 240 blocks were given by SIS. The Second Term Field Study started on 14 April 2003 in all regions and ended on 11 May 2003.

1.13. Supervision Activities

Household survey supervision was carried out on three levels: those of the Supervisor, Field Duty Officer and the Central Study Unit.

a. At the Supervisor Level:

Supervisors carried out their role with two methods.

In the first method, supervisors accompanied their interviewers during administration of the survey; they supervised questionnaires administered in the selected household either by face-to-face visits or by telephone. In the second method, supervisors visited or telephoned some of the households which were not included in the quality control group, and asked standardized questions that were pre-determined for the re-contact procedure. Information collected in this way was then entered in the relevant form. These forms were used in the Second Term field study.

In the NBD-CE Study, supervision forms that were developed by the Ministry of Health Hygiene Center Presidency were faxed to the Ministry, the Health Project General Directorate, and the Hygiene Center Presidency before leaving the province (Appendix 3). Feedback given by the Directorate was transmitted daily to the Central Study Unit. Thus errors identified in the forms were detected. The Ministry of Health also provided feedback to the Central Study Unit, which was applied at that level and transmitted to the field units, and in this way any necessary adjustments were made.

b. At the Level of the Field Duty Officer:

Field Duty Officers performed various supervisory tasks besides organization and management services. These tasks included ensuring that teams were working in appropriate blocks and that listing was being done properly; monitoring interviewers in selected households; examining the supervision form prepared by the supervisor; and randomly checking completed questionnaires.

c. At the Level of Central Study Unit:

Management, monitoring and supervision of the Household Survey were conducted from the Central Study Unit. In both field study terms, experts at the unit organized supervision trips to the study locations, and studies were monitored in action. The Central Study Unit carried out its supervisory role by calling the interviewers and households when necessary.

1.14. Quality Control Studies

For quality control, two WHO methods were adopted to assess the quality of interview administration in this study.

The first method includes quality control survey administration to 300 households, which amounts to 5% of the sample household size in the first and second Terms, in line with the Quality Control Guide proposed by the WHO for this study. Supervisors and Field Duty Officers carried out this administration by going to a randomly selected household out of each block every 1-7 days. In villages, transportation permitting, this study was conducted that same day or the next day. In order to attain the determined percentage of 5%, a second quality control questionnaire was administered to one of each 4 blocks in addition to one questionnaire to each block. 298 quality control questionnaires were administered in the First Term and 302 in the Second Term. The total number was 600 (Appendix 5). The results of this study are shown in Part 7 of this report.

Re-contact was used as the second quality control method. Supervisors and field duty officers carried out this quality control study by contacting at least 2-3 households from each block, either in person or by telephone, after the initial interview was administered. The interviews were registered in the Re-contacted Households Record Forms. This form contains information which includes answers to some questions in the questionnaire, besides the basic information that identifies the household in parallel with the supervision form (Appendix 4). 720 visits were realized in the First Term and 697 in the Second Term, for a total of 1417 re-contacts.

1.15. Cooperation and Communication with Local Institutions

Official information letters concerning the study and providing necessary administrative support were sent to all city health directorates in the sample, and to the Ministry of Internal Affairs, by the Ministry of Health (Appendix 8-9). Health Directorates were visited (or if necessary contacted by telephone) by a field duty officer prior to the Household Survey and were given information regarding the study, and through their recommendations and support, close cooperation was provided with Health Group Chairmanships and Health Centers within the coverage of blocks. Moreover, local City and District Security Directorates and Gendarmeries were informed through direct visits or by the mediation of local health directorates. In most blocks, apart from a few exceptions, the study received close support and attention from local officials.

The person on duty in the Central Unit maintained constant communication with the coordinators and field duty officers through two telephones and fax machines in the center and by cellular telephones. Supervisors played a key role in communication during the administration of questionnaires. They also played an important role in data exchange and in monitoring teams. Telephone numbers of all staff members were distributed to the Central Unit in order to facilitate communication.

1.16. Optic Reading and Coding

Examination and classification of forms sent from provinces proceeded as follows. Completed forms pertaining to each block were sent to the Central Study Unit by cargo. A regular system of registration and filing was established in order to monitor supervision forms, death definition forms and completed questionnaires. In addition to the Central Study Unit, a new office on the Baglica campus was opened. Here, questionnaire packages were unwrapped, supervision, listing and death definition forms were separated from the packages and questionnaires were classified by their provinces and blocks; this office also detected any uncompleted or damaged questionnaires.

A coding team conducted coding procedures concerning diseases and disabilities included in the questionnaire, using the coding guide developed by WHO. In this coding procedure, on the basis of information reported to interviewers by the heads of households or their replacements, diseases and disabilities occurring among household members during the designated time periods were coded. A physician, a coding expert, and a member a hospital archive and documentation department took part in the coding team. Diseases were coded according to the WHO's four-digit International Classification of Disease (ICD-10) coding system. Mental and physical disabilities were coded according to the WHO's International Classification of Functioning Disability and Health (ICF) coding system. As is known, body functions and structures that take part in the second level category of the system are considered in terms of capacity and performance and personal factors. In this system, names of the main topics for body function and structure, capacity and performance and personal factors are designated in the code with small letters. The main topics are respectively gathered under 8 different sections for disability in terms of body function and body structure, 9 different sections for disability in terms of capacity and performance, and 5 different sections for disability in terms of social factors. Each section has separate subsections.

The ICD-10 diagnosis coding system was used in coding causes of disability in the disability section on the basis of respondents' statements. Coding was carried out using MS Access XP and codes were later transferred to the suitable SPSS program.

ICD-10 four-digit coding was used in line with the above-mentioned methodology concerning households' health care expenditures, risk factors and selected diseases except for the questions on diseases and disabilities in the survey. This coding was done by an 8-person team led by a specialist physician. In all, 29,578 cases of disease and 1079 cases of physical or mental disability. After the coding procedure, the coding team was divided into two 4-person teams, which each re-coded 50% of the sample. These re-codings were found to differ from the originals by 0.5% and 1%, respectively, and only in terms of the fourth digit of the ICD-10 codes. Another team of specialists checked the coding of the entire disability sample, including questionnaires and electronic data. There were five cases in which coding differences were found, and these were resolved by the coordinator.

1.17. Analysis

Data taken from the optical reader company were detected for minimum and maximum errors and for question transition errors with the help of SPSS 11.5 statistical software. Mistakes leading to reading errors due to faded, missing or over marking were corrected by referring to the original form. Questions unanswered or omitted by the head of household or respondent were noted in the unknown box. Numerals and the needed crosswise tables were designed for all questions and consistency of the answers was analyzed. Questionnaires which were considered inconsistent (e.g. by region number, traffic code, rural vs. urban) were analyzed and, when possible, correct data were entered in the program. The database was prepared in three parts (respondent data, personal data and household data), and each person and house was given an identification number. From this database, frequencies were plotted for every question and tables were prepared with SPSS software. To check the consistency of the data, three different quality control groups were formed. The first group consisted of four people who checked 250 (2%) randomly selected questions from the questionnaires. In 5% of these, from 1 to 5 data entry errors were found. The second group was made up of four other people who checked 3000 questionnaires for data entry errors in the sections related to health expenditures, health insurance system, demographic data and risk factors, and a 1% rate of writing mistakes, unreadable smudges or omissions was found. The third group consisted of two people who checked 283 tables against the electronic records of the raw data, and error rates of 5% and 7% were found, including errors in labeling and calculations and in the numbers of unknowns listed below the tables. Final editing was done by an expert, and during this stage all errors were corrected, and tables were re-titled and reorganized

Tables were selected and arranged in context of this study in line with the following principles. First, tables were divided into two groups and arranged. The first group is composed of tables based on data concerning the answers of the head of household, and the second group is composed of tables based on data concerning the answers of respondents. Apart from these tables, others were designed for defining the region where the questionnaire was administered. Furthermore, tables were designed for defining the population structure of neighboring ho-

useholds in addition to the tables defining deaths in the household and in neighboring households. For selected questions, comparative tables were formed to display data by region, urban vs. rural location, age, sex, and education level (these are indicated in TOR). Some tables were also supplemented with figures and illustrations. Some questions which were unanswered due to the respondent or interviewer were numerically indicated as unknown in the tables. Data analysis necessary for Years of Life Lost with Disability (YLD), Years of Life Lost due to Death (YLL) and cost estimations were prepared and transferred to the relevant departments.

World Health Organization recommendations were used in evaluation of physical activity, which is one of the risk factors included in the questionnaire form. In conformity with these recommendations, the following formula was used for calculating the adequate duration (min/week) of physical activity.

Adequate duration for physical activity = Time spent walking + Total duration of moderate activities + (2x total duration of vigorousactivities)

Here, the duration spent for vigorous activities is multiplied by 2. Hence, the density and thus the benefit of vigorous activities can be reflected.

APPENDIX B SAMPLING ERRORS

SOME SELECTED EXAMPLES OF SAMPLING ERRORS FOR STUDY VARIABLES

In the Turkey BOD-CE Study, for some selected variables, the STATA software package (Stata Corp, 2003) was used for appropriate calculations in planning the sampling of the study (stratified group sampling). Calculation methods and results are presented below.

A. METHODS AND FORMULAS

When using Stata packet program firstly, for statistical type which will be used for calculation mean, total, ratio and prop must be implemented as ado-files.

The current commands use the relatively simple variance estimators outlined below. See, for example, Cochran (1977) and Wolter (1985) for some methodological background on these variance estimators that, for example, account separately for variance components at different stages of sampling, use finite population corrections with some unequal-probability and multistage designs, and include other special design features.

In addition, the current command uses "linearization"-based variance estimators for nonlinear functions like sample ratios. Alternative variance estimators that use replication methods – for example, jackknifing or balanced repeated replication – may be included in future versions.

Totals

All the computations done by the mean, total, ratio and prop commands are essentially based on the formulas for totals.

Let h=1,……L enumerate the strata in the survey, and let (h,i) denote the primary sampling unit (PSU) in stratum h for i=1, …..N_h, where N_h PSUs in stratum h in the population. Let M_{hi} be the number of elements in PSU (h,i) and let $M = \sum_{h=1}^{L} \sum_{i=1}^{Nh} Mhi$ be the total number of elements in the population.

Let Y_{hij} be a survey item for element j in PSU (h,i) in stratum h; e.g., Y_{hij} might be income for adult j in block i in country h. The associated population total is

$$Y = \sum_{h=1}^{L} \sum_{i=1}^{N_h} \sum_{j=1}^{M_{hi}} Y_{hij} \qquad (1)$$

Let Y_{hij} be the items for those elements selected in our sample; here h= 1,…..L; i=1,…….n_h and j=1,…..m_h. The total number of elements in the sample (i.e., the number of observations in the dataset) is $m = \sum_{h=1}^{L} \sum_{i=1}^{n_h} m_{hi}$

Our estimator $\widehat{Y}$ for the population total Y is

$$\widehat{Y} = \sum_{h=1}^{L} \sum_{i=1}^{n_h} \sum_{j=1}^{m_{hi}} w_{hij} y_{hij}$$

(2)

where w_{hij} are the user-specified sampling weights (weights or weights). Our estimator $\widehat{M}$ for the total number of elements in the population is simply the sum of the weights:

$$\widehat{M} = \sum_{h=1}^{L} \sum_{i=1}^{n_h} \sum_{j=1}^{m_{hi}} w_{hij}$$

$\widehat{M}$ is labeled "Population size" on the output of the commands.

To compute an estimate of the variance of $\widehat{Y}$ given in(2), we first define z_{yhi} and $\bar{z}_{yh}$ as

$$z_{yhi} = \sum_{j=1}^{m_{hi}} w_{hij} y_{hij} \qquad \text{and} \qquad \bar{z}_{yh} = \frac{1}{n_h} \sum_{i=1}^{n_h} z_{yhi}$$

Our estimate for the variance of $\widehat{Y}$ is

$$\widehat{V}(\widehat{Y}) = \sum_{h=1}^{L} (1 - f_h) \frac{n_h}{n_h - 1} \sum_{i=1}^{n_h} (z_{yhi} - \bar{z}_{yh})^2$$

(3)

The factor $(1-f_h)$ is the finite population correction. If the user does not set an *fpc* variable, $f_h = 0$ is used in the formula. If an *fpc* variable is set and is greater than or equal to n_h the variable is assumed to contain the values of N_h, and f_h, is given by $f_h = n_h / N_h$. If the *fpc* variable is less than or equal to 1, it is assumed to contain the values of f_h. As discussed earlier, nonzero values of f_h in (3) are intended for use only with stratified random sampling with no subsampling within PSUs.

If the list given to total contains two or more variables and the complete option is specified or is the default, the covariance of the variables is computed. For estimated totals $\widehat{Y}$ and $\widehat{X}$ (notation for X is defined similarly to that of Y), our covariance estimate is

$$\widehat{Cov}(\widehat{Y}, \widehat{X}) = \sum_{h=1}^{L} (1 - f_h) \frac{n_h}{n_h - 1} \sum_{i=1}^{n_h} (z_{yhi} - \bar{z}_{yh})(z_{zhi} - \bar{z}_{zh})$$

(4)

Ratios, means and proportions

Let $R=Y/X$ be a population ratio that we wish to estimate, where Y and X are population totals defined as in (1). Our estimate for R is $\hat{R} = \hat{Y} / \hat{X}$. Using the delta method (i.e., a first –order Taylor expansion), the variance of the approximate distribution of $\hat{R}$ is

$$\frac{1}{X^2}\left\{V(\hat{Y}) - 2RCov(\hat{Y},\hat{X}) + R^2V(\hat{X})\right\}$$

Direct substitution of $\hat{R}$, $\hat{X}$ and (3) and (4) leads to the variance estimator

$$\hat{V}(\hat{R}) = \frac{1}{X^2}\left\{\hat{V}(\hat{Y}) - 2\hat{R}\hat{Cov}(\hat{Y},\hat{X}) + \hat{R}^2\hat{V}(\hat{X})\right\}$$

(5)

If we<define the "ratio residual",

$$d_{hij} = \frac{1}{\hat{X}}(y_{hij} - \hat{R}x_{hij})$$

(6)

and replace y_{hij} with d_{hij} in (3), we get the right-hand side of (7) below. Simple algebra shows that this is identical to (5)

$$\hat{V}(\hat{R}) = \sum_{h=1}^{L}(1-f_h)\frac{n_h}{n_h-1}\sum_{i=1}^{n_h}(z_{yhi} - \bar{z}_{yh})^2$$

(7)

To extend our variance estimators from ratios to other parameters, note that means are simply ratios with X_{hij}=1, and that proportions are simply means with Y_{hij} equal to a 0/1 variable. Similarly, estimates for a subpopulation *S* are obtained by computing estimates for $Y_{Shij} = I_{(h,i,j)ES}Y_{hij}$ and $X_{Shij} = I_{(h,i,j)ES}X_{hij,}$ where $I_{(h,i,j)ES}$, 1 if element *(h,i,j)* is a member of subpopulation *S* and 0 otherwise.

Weights

When computing finite population corrections (i.e., when an *fpc* variable is set) or when estimating totals, the commands assume that the weights are appropriate for estimation of a population total. For example, the sum of the weights should equal an estimate of the size of the relevant population. When an *fpc* is not set, the commands mean, ratio and prop are invariant to the scale of the weights; i.e., these commands give the same result no matter what the scale of weights.

Confidence intervals

Let $n = \sum_{h=1}^{L} n_h$ be the total number of PSUs in the sample. The customary number of "degrees of freedom" attributed to our test statistic is $d = n - L$. Hence, regularity conditions, an approximate 100(1-α)% confidence interval for a parameter θ (e.g., θ could be a total Y or ratio R) is $\hat{\theta} \pm t_{1-\alpha/2,d} \left\{ \hat{V}(\hat{\theta})^{1/2} \right\}$

Cochran (1977, Section 2.8) and Korn and Graubard (1990) give some theoretical justification for the use of $d = n - L$ in the computation of univariate confidence intervals and *p*-values. However, for some cases, inferences based on the customary $n - L$ degrees-of-freedom calculation may be excessively liberal. For example, the resulting confidence intervals may have coverage rates substantially less than the nominal $1 - \alpha$. This problem generally is of the greatest practical concern when the population of interest has a very skewed or heavy-tailed distribution, or is concentrated in a small number of PSUs. In some of these cases, the user may want to consider constructing confidence intervals based on alternative degrees-of-freedom terms, based on Satterthwaite's (1941,1946) approximation and modifications; see, for example, Cochran (1977, 96) and Eltinge and Jang (1996).

deff and deft

deff is estimated as (Kish 1965)

$$deff = \frac{\hat{V}(\hat{\theta})}{\hat{V}_{srswor}(\hat{\theta}_{srs})}$$

where $\hat{V}(\hat{\theta})$ is the design-based estimate of variance from (3) for a parameter θ, and $\hat{V}_{srswor}(\hat{\theta}_{srs})$, is an estimate of the variance for an estimator $\hat{\theta}_{srs}$ that would be obtained from a similar hypothetical survey conducted using simple random sampling (srs) without replacement (wor) and with the same number of sample elements *m* as in the actual survey. If θ is a total Y, we calculate

$$\hat{V}_{srswor}(\hat{\theta}_{srs}) = (1 - f)\frac{\hat{M}}{m-1}\sum_{h=1}^{L}\sum_{i=1}^{n_h}\sum_{j=1}^{m_{hi}} w_{hij}(y_{hij} - \bar{Y})^2$$

where $\widehat{V}_{srswr}(\widehat{\theta}_{srs})$ is an estimate of the variance for an estimator $\widetilde{\theta}_{srs}$ obtained from a similar survey conducted using simple random sampling (srs) with (wr). $\widehat{V}_{srswr}(\widehat{\theta}_{srs})$ is computed using (8) with f=0

B. RESULTS OF THE SAMPLING ERRORS

Sampling error is measured as standard error in this study. Design effect (deft) is determined by the ratio between the standard errors obtained for a research variable and the standard error obtained from a simple randomized sampling plan of the same sample size. Below, in Appendix Tables 1-10, it can be seen that sampling error results for research variables selected from household and personal surveys are in the expected confidence interval for these survey types.

Appendix Table 1. Sampling Errors and other Error Statistics for Overall Turkey

Results of Household Survey						
TURKEY (Number of Households: m = 48057)						
Calculated variable (*average or ratio*)	Prediction	Standard Error (se)	[%95 Confidence Interval]		Order Factor (deft)	Number of Observations
Acute Disease (s0401a)	0,0943	0,0020	0,0902	0,0983	1,5330	4530
Chronic Disease (s0401b)	0,2420	0,0053	0,2315	0,2525	2,7265	11629
Has health insurance (s0810)	0,6429	0,0104	0,6223	0,6634	4,7772	30894
Personal Survey Results						
TURKEY (number of individuals: n = 11481)						
Arthritis (q6000)	0,1064	0,0056	0,0955	0,1174	1,2260	990
Angina (q6009)	0,0787	0,0045	0,0699	0,0874	1,1466	735
Diabetes (q6042)	0,0822	0,0058	0,0708	0,0937	1,1989	624
Asthma (q6017)	0,0468	0,0032	0,0404	0,0531	1,0493	433
Depression (q6025)	4,5732	0,0146	4,5445	4,6019	1,2071	867
Tuberculosis (s6100)	0,0142	0,0018	0,0106	0,0178	1,0062	123
Mouth and Tooth Diseases (q6750)	3,5218	0,0255	3,4718	3,5718	1,3883	3864
Traffic Accidents (q6800)	0,0148	0,0012	0,0125	0,0171	1,0246	170
Hypertension (s6400)	0,1720	0,0054	0,1614	0,1826	1,1027	1759
Lumbago (s6500)	4,2679	0,0201	4,2284	4,3075	1,3228	1764
Epilepsy (s6600)	0,0078	0,0015	0,0048	0,0108	0,9889	58
Stroke (s6700)	0,0253	0,0025	0,0204	0,0303	1,0349	219
Smoking (q4000)	0,3122	0,0052	0,3020	0,3224	1,1796	3492
Alcohol Usage (q4010)	0,1917	0,0065	0,1789	0,2045	1,7473	2143
Vegetable-Fruit Cons. (q4020)	0,8319	0,0060	0,8201	0,8438	1,7009	9302
Physical Activity (q4030)	0,1408	0,0048	0,1313	0,1502	1,4826	1616
Food Expenditure (q801)	0,9247	0,0039	0,9171	0,9324	1,5870	10617
House Expenditure (q802)	0,9625	0,0025	0,9576	0,9673	1,4005	11050
Education Expenditure (q803)	0,4521	0,0065	0,4396	0,4649	1,3982	5191
Health Expenditure (q804)	0,4946	0,0069	0,4810	0,5081	1,4778	5678
General expenditure (q806)	0,3413	0,0085	0,3247	0,3580	1,9171	3919

Appendix Table 2. Sampling Errors and Other Error Statistics for Urban Region

Results of Household Survey						
URBAN (m = 26731)						
Calculated variable (*average or ratio*)	Prediction	Standard Error (se)	[%95 Confidence Interval]		Order Factor (deft)	Number of Observations
Acute Disease (s0401a)	0,0981	0,0025	0,0931	0,1030	1,3838	2622
Chronic Disease (s0401b)	0,2443	0,0066	0,2313	0,2574	2,5269	6531
Has health insurance (s0810)	0,7040	0,0110	0,6822	0,7257	3,9504	18818
Personal Survey Results						
URBAN (n = 6731)						
Arthritis (q6000)	4,5466	0,0229	4,5014	4,5917	1,3983	536
Angina (q6009)	4,6118	0,0178	4,5767	4,6469	1,1591	420
Diabetes (q6042)	4,6363	0,0168	4,6032	4,6694	1,1147	382
Asthma (q6017)	4,7142	0,0159	4,6828	4,7455	1,1790	245
Depression (q6025)	4,5409	0,0192	4,5031	4,5788	1,1763	519
Tuberculosis (s6100)	4,8128	0,0139	4,7854	4,8402	1,2267	74
Mouth and Tooth Diseases (q6750)	3,5183	0,0337	3,4520	3,5847	1,4051	2247
Traffic Accident (q6800)	4,7904	0,0141	4,7626	4,8181	1,1915	104
Hypertension (s6400)	4,2595	0,0238	4,2126	4,3064	1,2120	1014
Lumbago (s6500)	4,2747	0,0249	4,2258	4,3236	1,2478	1000
Epilepsy (s6600)	4,8342	0,0132	4,8082	4,8602	1,2158	35
Stroke (s6700)	4,7773	0,0149	4,7480	4,8066	1,2161	128
Smoking (q4000)	0,3307	0,0065	0,3179	0,3435	1,1158	2162
Alcohol Usage (q4010)	0,2117	0,0089	0,1943	0,2292	1,7524	1384
Vegetable-Fruit Cons. (q4020)	0,8390	0,0072	0,8249	0,8531	1,5761	5484
Physical Activity (q4030)	0,1183	0,0054	0,1075	0,1290	1,3844	796
Food Expenditure (q801)	0,9299	0,0049	0,9202	0,9396	1,5817	6259
House Expenditure (q802)	0,9690	0,0029	0,9633	0,9746	1,3651	6522
Education Expenditure (q803)	0,4690	0,0085	0,4523	0,4858	1,3982	3157
Health Expenditure (q804)	0,4925	0,0096	0,4737	0,5113	1,5692	3315
General expenditure (q806)	0,3560	0,0113	0,3337	0,3782	1,9339	2396

Appendix Table 3. Sampling Errors and other Error Statistics for Rural Region

Results of Household Surveys						
RURAL (m = 21326)						
Calculated variable (*average or ratio*)	Prediction	Standard Error (se)	[%95 Confidence Interval]		Order Factor (deft)	Number of Observations
Acute Disease (s0401a)	0,0895	0,0033	0,0830	0,0959	1,6776	1908
Chronic Disease (s0401b)	0,2391	0,0086	0,2220	0,2561	2,9596	5098
Has health insurance (s0810)	0,5663	0,0172	0,5324	0,6001	5,0589	12076
Personal Survey Results						
RURAL (n = 4750)						
Arthritis (q6000)	4,5166	0,0300	4,4575	4,5758	1,5184	454
Angina (q6009)	4,6307	0,0197	4,5920	4,6695	1,1134	315
Diabetes (q6042)	4,6973	0,0194	4,6590	4,7356	1,1647	242
Asthma (q6017)	4,7381	0,0173	4,7040	4,7722	1,1296	188
Depression (q6025)	4,6189	0,0225	4,5746	4,6633	1,2579	313
Tuberculosis (s6100)	4,8522	0,0132	4,8262	4,8783	1,0948	49
Mouth and Tooth Diseases (q6750)	3,5267	0,0387	3,4503	3,6032	1,3636	1617
Traffic Accidents (q6800)	4,8318	0,0141	4,8041	4,8595	1,1136	66
Hypertension (s6400)	4,2724	0,0275	4,2182	4,3266	1,1861	745
Lumbago (s6500)	4,2583	0,0336	4,1921	4,3246	1,4231	764
Epilepsy (s6600)	4,8718	0,0128	4,8465	4,8971	1,1326	23
Stroke (s6700)	4,8105	0,0153	4,7803	4,8408	1,1457	91
Smoking (q4000)	0,2862	0,0081	0,2702	0,3022	1,2245	1330
Alcohol Usage (q4010)	0,1634	0,0091	0,1455	0,1814	1,6796	759
Vegetable-Fruit Cons. (q4020)	0,8220	0,0104	0,8015	0,8424	1,8476	3818
Physical Activity (q4030)	0,1726	0,0082	0,1565	0,1888	1,4927	820
Food Expenditure (q801)	0,9175	0,0063	0,9050	0,9300	1,5882	4358
House Expenditure (q802)	0,9533	0,0043	0,9447	0,9618	1,4102	4528
Education Expenditure (q803)	0,4282	0,0098	0,4088	0,4476	1,3710	2034
Health Expenditure (q804)	0,4975	0,0097	0,4783	0,5166	1,3382	2363
General expenditure (q806)	0,3206	0,0127	0,2955	0,3457	1,8797	1523

Appendix Table 4. Sampling Errors and other Error Statistics for West Anatolia Region

Results of Household Survey						
WEST ANATOLIA (m = 15703)						
Calculated variable (*average or ratio*)	Prediction	Standard Error (se)	[%95 Confidence Interval]		Order Factor (deft)	Number of Observations
Acute Disease (s0401a)	0,1041	0,0033	0,0976	0,1106	1,3546	1635
Chronic Disease (s0401b)	0,2721	0,0073	0,2577	0,2866	2,0630	4273
Has health insurance (s0810)	0,6933	0,0138	0,6661	0,7206	3,7502	10888
Personal Survey Results						
WEST ANATOLIA (n = 4390)						
Arthritis (q6000)	4,4230	0,0346	4,3547	4,4913	1,5625	467
Angina (q6009)	4,5845	0,0240	4,5372	4,6319	1,2340	287
Diabetes (q6042)	4,6130	0,0232	4,5672	4,6588	1,2036	263
Asthma (q6017)	4,7005	0,0207	4,6596	4,7413	1,2160	159
Depression (q6025)	4,5385	0,0263	4,4867	4,5903	1,2930	329
Tuberculosis (s6100)	4,7927	0,0179	4,7574	4,8281	1,2196	57
Mouth and Tooth Diseases (q6750)	3,5636	0,0419	3,4810	3,6461	1,4150	1404
Traffic Accidents (q6800)	4,7749	0,0179	4,7396	4,8103	1,1809	72
Hypertension (s6400)	4,1699	0,0319	4,1071	4,2328	1,2566	745
Lumbago (s6500)	4,2333	0,0350	4,1643	4,3022	1,3905	692
Epilepsy (s6600)	4,8289	0,0166	4,7961	4,8618	1,2194	16
Stroke (s6700)	4,7724	0,0181	4,7368	4,8081	1,1778	77
Smoking (q4000)	0,3179	0,0086	0,3009	0,3349	1,2056	1352
Alcohol Usage (q4010)	0,2490	0,0101	0,2291	0,2689	1,5193	1058
Vegetable-Fruit Cons. (q4020)	0,8714	0,0076	0,8564	0,8864	1,4833	3707
Physical Activity (q4030)	0,1194	0,0069	0,1058	0,1330	1,4084	524
Food Expenditure (q801)	0,9476	0,0054	0,9370	0,9582	1,5924	4160
House Expenditure (q802)	0,9746	0,0030	0,9684	0,9801	1,2454	4277
Education Expenditure (q803)	0,4134	0,0105	0,3927	0,4342	1,4157	1815
Health Expenditure (q804)	0,4886	0,0116	0,4657	0,5116	1,5424	2145
General expenditure (q806)	0,3458	0,0155	0,3152	0,3763	2,1569	1518

Appendix Table 5. Sampling Errors and other Error Statistics for Mediterranean Region

Results of Household Survey						
Mediterranean (m = 6232)						
Calculated variable (*average or ratio*)	Prediction	Standard Error (se)	[%95 Confidence Interval]		Order Factor (deft)	Number of Observations
Acute Disease (s0401a)	0,1035	0,0050	0,0936	0,1134	1,2895	645
Chronic Disease (s0401b)	0,2667	0,0145	0,2378	0,2956	2,5814	1662
Has health insurance (s0810)	0,6429	0,0095	0,6243	0,6615	4,3289	3824
Personal Survey Results						
Mediterranean (n = 1521)						
Arthritis (q6000)	4,5621	0,0450	4,4723	4,6520	1,3290	122
Angina (q6009)	4,6410	0,0320	4,5770	4,7050	1,0085	93
Diabetes (q6042)	4,6759	0,0318	4,6123	4,7394	1,0229	84
Asthma (q6017)	4,6654	0,0320	4,6014	4,7293	1,0575	82
Depression (q6025)	4,5588	0,0409	4,4770	4,6406	1,2013	120
Tuberculosis (s6100)	4,8475	0,0239	4,7996	4,8953	1,0853	12
Mouth and Tooth Diseases (q6750)	3,3360	0,0578	3,2204	3,4516	1,1252	584
Traffic Accident (q6800)	4,7962	0,0284	4,7395	4,8529	1,1670	30
Hypertension (s6400)	4,3044	0,0420	4,2205	4,3883	1,0393	220
Lumbago (s6500)	4,1946	0,0514	4,0918	4,2974	1,2044	260
Epilepsy (s6600)	4,8534	0,0231	4,8071	4,8997	1,0839	7
Stroke (s6700)	4,7633	0,0297	4,7040	4,8226	1,1249	39
Smoking (q4000)	0,2846	0,0149	0,2548	0,3143	1,2701	422
Alcohol Usage (q4010)	0,1883	0,0151	0,1580	0,2185	1,4878	279
Vegetable-Fruit Cons. (q4020)	0,8291	0,0161	0,7969	0,8612	1,6408	1227
Physical Activity (q4030)	0,1637	0,0134	0,1370	0,1904	1,4067	249
Food Expenditure (q801)	0,8659	0,0142	0,8376	0,8942	1,6198	1317
House Expenditure (q802)	0,9474	0,0070	0,9334	0,9614	1,2265	1441
Education Expenditure (q803)	0,4346	0,0171	0,4003	0,4689	1,3487	661
Health Expenditure (q804)	0,5016	0,0185	0,4647	0,5386	1,4397	763
General expenditure (q806)	0,3044	0,0189	0,2666	0,3422	1,6020	463

Appendix Table 6. Sampling Errors and other Error Statistics for Central Anatolian Region

Results of Household Survey						
CENTRAL ANATOLIA (m = 7454)						
Calculated variable (*average or ratio*)	Prediction	Standard Error (se)	[%95 Confidence Interval]		Order Factor (deft)	Number of Observations
Acute Disease (s0401a)	0,1126	0,0046	0,1039	0,1212	1,1898	839
Chronic Disease (s0401b)	0,2659	0,0093	0,2474	0,2844	1,8159	1982
Has health insurance (s0810)	0,7353	0,0229	0,6898	0,7808	4,4771	5481
Personal Survey Results						
CENTRAL ANATOLIA (n = 1934)						
Arthritis (q6000)	4,5703	0,0363	4,4981	4,6425	1,2125	160
Angina (q6009)	4,6768	0,0271	4,6230	4,7307	1,0188	107
Diabetes (q6042)	4,6608	0,0272	4,6067	4,7149	1,0082	114
Asthma (q6017)	4,7363	0,0254	4,6858	4,7868	1,0455	78
Depression (q6025)	4,5982	0,0278	4,5429	4,6536	0,9730	133
Tuberculosis (s6100)	4,8625	0,0181	4,8264	4,8985	0,9951	14
Mouth and Tooth Diseases (q6750)	3,3883	0,0683	3,2525	3,5242	1,5075	723
Traffic Accident (q6800)	4,8309	0,0228	4,7856	4,8763	1,1505	28
Hypertension (s6400)	4,3113	0,0370	4,2377	4,3848	1,0373	285
Lumbago (s6500)	4,2647	0,0448	4,1755	4,3539	1,2151	310
Epilepsy (s6600)	4,8676	0,0188	4,8302	4,9051	1,0469	9
Stroke (s6700)	4,8325	0,0206	4,7916	4,8734	1,0284	30
Smoking (q4000)	0,3418	0,0138	0,3144	0,3692	1,2639	646
Alcohol Usage (q4010)	0,2072	0,0156	0,1761	0,2383	1,6781	392
Vegetable-Fruit Cons. (q4020)	0,8393	0,0109	0,8177	0,8610	1,2889	1588
Physical Activity (q4030)	0,1711	0,0134	0,1444	0,1979	1,5690	331
Food Expenditure (q801)	0,9349	0,0070	0,9209	0,9488	1,2521	1808
House Expenditure (q802)	0,9793	0,0032	0,9729	0,9858	1,0013	1894
Education Expenditure (q803)	0,4866	0,0153	0,4561	0,5170	1,3474	941
Health Expenditure (q804)	0,5295	0,0163	0,4970	0,5619	1,4367	1024
General expenditure (q806)	0,3769	0,0178	0,3415	0,4123	1,6142	729

Appendix Table 7. Sampling Errors and other Error Statistics for Black Sea Region

Results of Household Survey						
Black Sea (m = 5641)						
Calculated variable (*average or ratio*)	Prediction	Standard Error (se)	[%95 Confidence Interval]		Order Factor (deft)	Number of Observations
Acute Disease (s0401a)	0,0984	0,0050	0,0884	0,1084	1,2598	555
Chronic Disease (s0401b)	0,3035	0,0128	0,2779	0,3291	2,0886	1712
Has health insurance (s0810)	0,7236	0,0271	0,6694	0,7779	4,5504	4082
Personal Survey Results						
Black Sea (n = 1393)						
Arthritis (q6000)	4,5485	0,0503	4,4478	4,6491	1,4179	136
Angina (q6009)	4,6131	0,0336	4,5458	4,6804	1,0187	112
Diabetes (q6042)	4,6884	0,0328	4,6227	4,7542	1,0742	86
Asthma (q6017)	4,7581	0,0279	4,7022	4,8140	1,0374	62
Depression (q6025)	4,4982	0,0390	4,4201	4,5763	1,0597	151
Tuberculosis (s6100)	4,8780	0,0217	4,8345	4,9215	1,0688	19
Mouth and Tooth Diseases (q6750)	3,6411	0,0574	3,5261	3,7560	1,1187	447
Traffic Accidents (q6800)	4,8758	0,0188	4,8382	4,9134	0,9394	17
Hypertension (s6400)	4,2118	0,0483	4,1152	4,3084	1,0968	254
Lumbago (s6500)	4,2182	0,0568	4,1045	4,3320	1,2779	251
Epilepsy (s6600)	4,9067	0,0176	4,8713	4,9420	0,9639	9
Stroke (s6700)	4,8449	0,0246	4,7958	4,8941	1,0910	28
Smoking (q4000)	0,2913	0,0127	0,2658	0,3168	1,0378	400
Alcohol Usage (q4010)	0,2272	0,0147	0,1978	0,2567	1,2990	312
Vegetable-Fruit Cons. (q4020)	0,8741	0,0129	0,8483	0,8999	1,4408	1201
Physical Activity (q4030)	0,1371	0,0137	0,1096	0,1646	1,4877	191
Food Expenditure (q801)	0,9706	0,0065	0,9576	0,9835	1,4258	1352
House Expenditure (q802)	0,9785	0,0048	0,9688	0,9881	1,2364	1363
Education Expenditure (q803)	0,5018	0,0193	0,4631	0,5405	1,4411	699
Health Expenditure (q804)	0,4760	0,0194	0,4370	0,5149	1,4521	663
General expenditure (q806)	0,3403	0,0276	0,2850	0,3956	2,1755	474

Appendix Table 8. Sampling Errors and other Error Statistics for East Anatolia Region

Results od Household Survey						
EAST ANATOLIA (m = 13027)						
Calculated variable (*average or ratio*)	Prediction	Standard Error (se)	[%95 Confidence Interval]		Order Factor (deft)	Number of Observations
Acute Disease (s0401a)	0,0657	0,0033	0,0592	0,0722	1,5073	856
Chronic Disease (s0401b)	0,1535	0,0086	0,1364	0,1707	2,7314	2000
Has health insurance (s0810)	0,5081	0,0209	0,4666	0,5496	4,7700	6619
Personal Survey Results						
EAST ANATOLIA (n=2243)						
Arthritis (q6000)	4,6928	0,0275	4,6381	4,7475	1,1306	105
Angina (q6009)	4,6286	0,0298	4,5694	4,6878	1,1535	136
Diabetes (q6042)	4,7307	0,0264	4,6782	4,7832	1,1573	77
Asthma (q6017)	4,7784	0,0259	4,7270	4,8298	1,2335	52
Depression (q6025)	4,6759	0,0306	4,6152	4,7366	1,2577	99
Tuberculosis (s6100)	4,8288	0,0239	4,7812	4,8764	1,2759	21
Mouth and Tooth Diseases (q6750)	3,6072	0,0588	3,4903	3,7241	1,4360	706
Traffic Accidents (q6800)	4,8163	0,0229	4,7708	4,8618	1,1816	23
Hypertension (s6400)	4,4169	0,0375	4,3424	4,4913	1,2067	255
Lumbago (s6500)	4,4191	0,0413	4,3371	4,5011	1,2882	251
Epilepsy (s6600)	4,8373	0,0246	4,7884	4,8861	1,3290	17
Stroke (s6700)	4,7771	0,0287	4,7200	4,8341	1,3704	45
Smoking (q4000)	0,3074	0,0100	0,2876	0,3272	1,0113	672
Alcohol Usage (q4010)	0,0467	0,0073	0,0322	0,0612	1,6153	102
Vegetable-Fruit Cons. (q4020)	0,7240	0,0170	0,6902	0,7578	1,7780	1579
Physical Activity (q4030)	0,1431	0,0109	0,1215	0,1647	1,4705	321
Food Expenditure (q801)	0,8827	0,0088	0,8652	0,9003	1,2986	1980
House Expenditure (q802)	0,9251	0,0081	0,9091	0,9411	1,4495	2075
Education Expenditure (q803)	0,4793	0,0131	0,4533	0,5052	1,2387	1075
Health Expenditure (q804)	0,4828	0,0148	0,4533	0,5123	1,4068	1083
General expenditure (q806)	0,3277	0,0163	0,2952	0,3601	1,6486	735

Appendix Table 9. Sampling Errors and other Error Statistics According to the Sex of the Respondent

Results of Household Survey						
MALE (m = 23548)						
Calculated variable (*average or ratio*)	Prediction	Standard Error (se)	[%95 Confidence Interval]		Order Factor (deft)	Number of Observations
Acute Disease (s0401a)	0,0971	0,0026	0,0921	0,1021	1,3233	2286
Chronic Disease (s0401b)	0,1977	0,0047	0,1885	0,2070	1,8160	4656
Has health insurance (s0810)	0,6218	0,0103	0,6016	0,6421	3,2610	14643
Results of Personal Survey						
MALE (n = 4800)						
Arthritis (q6000)	4,8063	0,0146	4,7775	4,8350	1,1596	230
Angina (q6009)	4,7156	0,0157	4,6847	4,7466	1,0360	340
Diabetes (q6042)	4,8154	0,0133	4,7893	4,8416	1,0387	223
Asthma (q6017)	4,8698	0,0104	4,8493	4,8902	1,0003	149
Depression (q6025)	4,8465	0,0117	4,8235	4,8694	1,0257	170
Tuberculosis (s6100)	4,9369	0,0074	4,9222	4,9515	1,0201	67
Mouth and Tooth Diseases (q6750)	3,6446	0,0321	3,5815	3,7077	1,1735	1614
Traffic Accident (q6800)	4,8933	0,0096	4,8746	4,9121	1,0123	113
Hypertension (s6400)	4,5856	0,0186	4,5491	4,6222	1,0390	496
Lumbago (s6500)	4,4967	0,0227	4,4521	4,5412	1,1407	610
Epilepsy (s6600)	4,9656	0,0056	4,9546	4,9767	1,0099	32
Stroke (s6700)	4,9081	0,0096	4,8893	4,9269	1,0653	95
Smoking (q4000)	0,4938	0,0081	0,4779	0,5098	1,1221	2368
Alcohol Usage (q4010)	0,3436	0,0110	0,3218	0,3653	1,6106	1647
Vegetable-Fruit Cons. (q4020)	0,8375	0,0072	0,8235	0,8516	1,3429	4016
Physical Activity (q4030)	0,1954	0,0071	0,1814	0,2094	1,2451	938

Results of Household Survey						
FEMALE (m = 24509)						
Calculated variable (*average or ratio*)	Prediction	Standard Error (se)	[%95 Confidence Interval]		Order Factor (deft)	Number of Observations
Acute Disease (s0401a)	0,0916	0,0024	0,0868	0,0963	1,3118	2244
Chronic Disease (s0401b)	0,2845	0,0065	0,2717	0,2973	2,2610	6973
Has health insurance (s0810)	0,6631	0,0109	0,6416	0,6845	3,6123	16251
Results of Personal Survey						
FEMALE (n = 6404)						
Arthritis (q6000)	4,5264	0,0220	4,4832	4,5695	1,3249	760
Angina (q6009)	4,7475	0,0128	4,7223	4,7727	1,0296	395
Diabetes (q6042)	4,7478	0,0134	4,7215	4,7741	1,0533	401
Asthma (q6017)	4,8192	0,0114	4,7967	4,8416	1,0661	284
Depression (q6025)	4,5662	0,0186	4,5296	4,6028	1,1813	662
Tuberculosis (s6100)	4,9572	0,0056	4,9461	4,9683	1,0192	56
Mouth and Tooth Diseases (q6750)	3,5821	0,0301	3,5229	3,6414	1,2587	2250
Traffic Accident(q6800)	4,9511	0,0057	4,9399	4,9623	1,0035	57
Hypertension (s6400)	4,2089	0,0220	4,1657	4,2522	1,0913	1263
Lumbago (s6500)	4,2811	0,0241	4,2337	4,3285	1,2158	1154
Epilepsy (s6600)	4,9727	0,0046	4,9637	4,9816	1,0093	26
Stroke (s6700)	4,9105	0,0078	4,8953	4,9258	1,0017	124
Smoking (q4000)	0,1759	0,0063	0,1635	0,1883	1,3255	1124
Alcohol Usage (q4010)	0,0777	0,0054	0,0671	0,0883	1,6127	496
Vegetable-Fruit Cons. (q4020)	0,8277	0,0066	0,8148	0,8407	1,3912	5286
Physical Activity (q4030)	0,1059	0,0048	0,0964	0,1153	1,2520	678

Appendix 10. Sampling Errors and other Error Statistics According to the Age Group of the Respondent

Results of Household Survey						
Less than age 35 * (m = 31255)						
Calculated variable (*average or ratio*)	Prediction	Standard Error (se)	[%95 Confidence Interval]		Order Factor (deft)	Number of Observations
Acute Disease (s0401a)	0,0765	0,0021	0,0724	0,0806	1,4003	2391
Chronic Disease (s0401b)	0,1107	0,0034	0,1041	0,1173	1,8933	3459
Has health insurance (s0810)	2,6743	0,0448	1,5863	2,7622	4,0115	18171
Personal Survey Results						
Less than age 35 * (n = 4609)						
Arthritis (q6000)	0,0380	0,0031	0,0319	0,0441	1,0967	175
Angina (q6009)	0,0148	0,0018	0,0112	0,0184	1,0350	68
Diabetes (q6042)	0,0074	0,0013	0,0048	0,0100	1,0547	34
Asthma (q6017)	0,0174	0,0021	0,0132	0,0215	1,1028	80
Depression (q6025)	0,0634	0,0038	0,0559	0,0709	1,0633	292
Tuberculosis (s6100)	0,0052	0,0012	0,0029	0,0075	1,0967	24
Mouth and Tooth Diseases (q6750)	0,3538	0,0083	0,3375	0,3702	1,1781	1628
Traffic Accidents (q6800)	0,0182	0,0020	0,0143	0,0222	1,0238	84
Hypertension (s6400)	0,0341	0,0027	0,0287	0,0395	1,0243	157
Lumbago (s6500)	0,1089	0,0052	0,0986	0,1192	1,1400	501
Epilepsy (s6600)	0,0065	0,0011	0,0043	0,0088	0,9652	30
Stroke (s6700)	0,0063	0,0012	0,0040	0,0086	1,0045	29
Smoking (q4000)	0,3454	0,0078	0,3300	0,3607	1,1140	1590
Alcohol Usage (q4010)	0,1818	0,0081	0,1658	0,1977	1,4296	837
Vegetable-Fruit Cons. (q4020)	0,8215	0,0076	0,8065	0,8365	1,3505	3779
Physical Activity (q4030)	0,1823	0,0070	0,1685	0,1960	1,2308	840

** 0-35 age group for the household survey and 18-35 age group for the personal survey were evaluated*

Results of Household Survey						
65 Age and over (m = 3158)						
Calculated variable (*average or ratio*)	Prediction	Standard Error (se)	[%95 Confidence Interval]		Order Factor (deft)	Number of Observations
Acute Disease (s0401a)	0,1447	0,0064	0,1322	0,1572	1,0169	457
Chronic Disease (s0401b)	0,6618	0,0110	0,6401	0,6835	1,3123	2090
Has health insurance (s0810)	1,8461	0,0500	1,7479	1,9443	1,7188	2490
Personal Survey Results						
65 Age and over (n = 1350)						
Arthritis (q6000)	0,1994	0,0132	0,1734	0,2254	1,2119	268
Angina (q6009)	0,1981	0,0115	0,1754	0,2208	1,0609	266
Diabetes (q6042)	0,1623	0,0098	0,1431	0,1816	0,9722	218
Asthma (q6017)	0,0692	0,0071	0,0554	0,0831	1,0189	93
Depression (q6025)	0,0506	0,0066	0,0377	0,0636	1,1022	68
Tuberculosis (s6100)	0,0201	0,0038	0,0126	0,0276	1,0010	27
Mouth and Tooth Diseases (q6750)	0,2794	0,0136	0,2528	0,3061	1,1068	375
Traffic Accident (q6800)	0,0119	0,0031	0,0059	0,0180	1,0398	16
Hypertension (s6400)	0,4468	0,0138	0,4196	0,4739	1,0186	600
Lumbago (s6500)	0,1738	0,0115	0,1511	0,1964	1,1121	233
Epilepsy (s6600)	0,0030	0,0015	0,0001	0,0059	0,9987	4
Stroke (s6700)	0,0567	0,0066	0,0437	0,0697	1,0464	76
Smoking (q4000)	0,1316	0,0095	0,1129	0,1503	1,0317	177
Alcohol Usage (q4010)	0,1471	0,0110	0,1256	0,1686	1,1344	198
Arthritis (q6000)	0,8493	0,0107	0,8283	0,8703	1,0948	1144
Angina (q6009)	0,0363	0,0050	0,0265	0,0461	0,9761	49

Results of Household Survey						
35-64 AGE GROUP (m = 13644)						
Calculated variable (*average or ratio*)	Prediction	Standard Error (se)	[%95 Confidence Interval]		Order Factor (deft)	Number of Observations
Acute Disease (s0401a)	0,1233	0,0032	0,1170	0,1295	1,1333	1682
Chronic Disease (s0401b)	0,4456	0,0077	0,4305	0,4608	1,8106	6080
Has health insurance (s0810)	2,0003	0,0369	1,9278	2,0728	2,4883	10232
Personal Survey Results						
35-64 AGE GROUP (n = 5553)						
Arthritis (q6000)	0,1044	0,0055	0,0937	0,1152	1,2957	547
Angina (q6009)	0,0766	0,0037	0,0693	0,0839	1,0133	401
Diabetes (q6042)	0,0711	0,0039	0,0634	0,0788	1,0967	372
Asthma (q6017)	0,0496	0,0030	0,0437	0,0555	1,0009	260
Depression (q6025)	0,0968	0,0047	0,0876	0,1061	1,1531	507
Tuberculosis (s6100)	0,0137	0,0016	0,0106	0,0169	1,0088	72
Mouth and Tooth Diseases (q6750)	0,3555	0,0081	0,3396	0,3714	1,2209	1861
Traffic Accident (q6800)	0,0134	0,0016	0,0102	0,0165	1,0075	70
Hypertension (s6400)	0,1914	0,0058	0,1800	0,2027	1,0600	1002
Lumbago (s6500)	0,1970	0,0066	0,1841	0,2099	1,1945	1030
Epilepsy (s6600)	0,0046	0,0010	0,0026	0,0065	1,0646	24
Stroke (s6700)	0,0218	0,0022	0,0174	0,0262	1,1058	114
Smoking (q4000)	0,3294	0,0069	0,3159	0,3430	1,0622	1725
Alcohol Usage (q4010)	0,2115	0,0080	0,1959	0,2272	1,4099	1108
Vegetable-Fruit Cons. (q4020)	0,8366	0,0069	0,8230	0,8502	1,3547	4379
Physical Activity (q4030)	0,1386	0,0060	0,1268	0,1504	1,2560	727

APPENDIX C QUESTIONNAIRE FORMS

THE MINISTRY OF HEALTH OF TURKEY / BAŞKENT UNIVERSITY

NATIONAL HEALTH SURVEY

QUESTIONNAIRE FORM

TURKEY 2003

Name of the city: ..... City Traffic Code: 10 20 30 40 50 60 70 80 1 2 3 4 5 6 7 8 9

Applied Health Vignette: A B C D

Applied Health Evaluation Set: A B

Applied Kish/Respondent Table: A B1 B2 C D E1 E2 F

Application Date: ...../...../ 2003

Questionnaire Code

Block No: 1000 100 200 300 400 10 20 30 40 50 60 70 80 90
1 2 3 4 5 6 7 8 9

Line No: 10 20 1 2 3 4 5 6 7 8 9

Are the supplementary questionnaire pages used ? □YES 1 2 3 4 5 6 7 8 9
NUMBER □ NO

Period: 1 2

Dear Participant,

I would like to have an interview with you or a person in your household who can provide enough information to respond to the questionnaire from. This study is conducted with cooperation between the Turkish Republic Ministry of Health and Başkent University. The places of habitation in this study have been chosen by the State Institute of Statistics in according to the random sampling principles. Our team is committed to these principles and used them to select your house. The interviewers have been trained by Başkent University, and this study method is being applied in 72 countries around the world.

To you I will ask some questions about:

- Information concerning members of household,
- Your social security situation and health expenditures

The administration of the questionnaire will last approximately 20 minutes.

The information that you provide will be kept in total confidence and will not be given to anyone else. The information will only be used for scientific purposes. Your name, surname, address and personal information will be excluded from the questionnaire and only a single code will be used for your identification so as to reach your name and responses. The main objective in recording your name and address is to recontact you in order to complete any possible missing information in the questionnaire. The information that you provide will only be used in determination of health-affecting factors and how people judge their own health by taking into consideration their health status.

Your participation in the survey is not obligatory and you may also terminate the interview after you have decided to participate. You are free not to respond to questions in the questionnaire that you do not wish to answer. If you would like to speak with someone involved in the research, you may contact Assoc. Prof. Dr. Adnan Kısa or Assoc. Prof. Dr. Şahin Kavuncubaşı at the following number: 0 312 2341010/1548. Also you may get information from the City Health Directorate of the city that you are in concerning your respondent rights.

We believe that you have understood the issue and that you will provide valuable information by participating in our study. For this we now thank you.

Read by the interviewer[ ]

By the Head of Household

Approved [ ] Rejected [ ]

Interviewer's Name-Surname : _____

Date : ___ / ___ / 2003

Signature:_____

T.C. MINISTRY OF HEALTH - BAŞKENT UNIVERSITY

NATIONAL HEALTH SURVEY QUESTIONNAIRE FORM

TURKEY 2003

QUESTIONNAIRE CODE Term:

1 2

Block No: 1000 100 200 300 400 10 20 30 40 50 60 70 80 90 1 2 3 4 5 6 7 8 9

Line No: 10 20 1 2 3 4 5 6 7 8 9

Address	**Code**		
Region no 1 2 3 4 5			
City Traffic Code			
Name of district			
Subdistrict			**Urban:** ☐ **Rural:** ☐
Village Name			**1** **2**
Name of Neighborhood			
Name of Boulevard/Avenue/Street/Square/Block			
Outer door/Building no			
Indoor/Flat no			
Telephone Number			
INTERVIEWER:			**CITY RESPONSIBLE/ SUPERVISOR**
Name Surname:			Name Surname:
Code:			Code:
Checked:			Checked:
Date: ...../...../2003 Signature:			Date: …./ …./2003 Signature:

	Interview Number			
	First	**Second**	**Third**	**Fourth**
Respondent (Name, Surname):				
Date of Interview:				
Result of the Interview				
(1) Completed	1	1	1	1
(2) Refused	2	2	2	2
(3) Postponed	3	3	3	3
(4) Not completed	4	4	4	4
(5) No one at home	5	5	5	5
(6) No appropriate Person	6	6	6	6
(7) Other	7	7	7	7

HOUSEHOLD QUESTIONNAIRE FORM

0300 HOUSEHOLD INFORMATION

Head of household's name, surname: .....
If the head of household is not home, name and surname of the person who may respond instead of him/her:.....
Total number of household members: .....

In determination of the household population: The ones that are in hospital, military service and dormitories will not be included. The ones that are staying in hospital, home for the elderly, or nursing home due to a health problem will be included.

								NOTE TO INTERVIEWER:		
	LINE NO	A Name and Surname	B Relation to head of household 1 Himself /herself 2 Spouse 3 Children 4 Son or daughter in law 5Grand-child 6 Parents 7 Parent in law 8 Brother/sister 9 Co-wife 10 Grand parent 11 Other relatives 12 Not related 13 Other	C Age (Completed age)	D Ask For Ages 6+ Educational level 1 illiterate 2 literate, not graduate 3 Primary school graduate 4 Secondary school or equivalent graduate 5 Elementary school graduate (primary + middle) 6 High school (or equivalent) graduate 7 College/Pre-University/University Completed 8 Post university/ masters or doctoral degree	E Ask For 12+ Marital Status 1 Never married 2 Currently married 3 Separated 4 Divorced 5 Widowed 6 Cohabiting	F Ask For 12+ Is s/ he working at a paid job?	1 Eligible people *(mark(X) for ages 18+)*	2 Give a line number for these people	3 mark "C" for the selected respondent
	11						Yes No			
MALE	12						Yes No			
	13						Yes No			
	14						Yes No			
	15						Yes No			
	16						Yes No			
	17						Yes No			
	18						Yes No			
	19						Yes No			
FEMALE	31						Yes No			
	32						Yes No			
	33						Yes No			
	34						Yes No			
	35						Yes No			
	36						Yes No			
	37						Yes No			
	38						Yes No			
	39						Yes No			

0400	Health, Care and Rehabilitation Status of Household Members			
0401a	Is there anyone among the household members who was diagnosed with a disease by a physician **within the last two months (including chronic and acute)**?			☐ Yes ☐ No
	If Yes : **Household line no:** **Name of illness** **CODE (do not code)** **How long since diagnosis?** ---------- ---------- ---------- ---------- Month ---------- day			
0401b	Is there anyone from the household members having a **chronic illness diagnosed by a physician** and who requires permanent medication treatment (except the last two months)?			☐ Yes ☐ No
	If Yes : **Household line no:** **Name of illness** **CODE (do not code)** **How long since diagnosis?** ---------- ---------- ---------- ---------- month ---------- year			
0402	Is there anyone from the household members who is **currently hospitalized** in a health facility due to a health condition? (hospital, rest home, after-care home, etc)			☐ Yes ☐ No
	If Yes : **Household Line no:** **----------**	Where Hospital Nursing Home Home for the Elderly Other		**Reason of Stay (CODE):** **Code by looking at que-card.**
0403a	Is there anyone in your household who has **physical disability**? If yes, specify the type, cause, and duration of disability			☐ Yes ☐ No
	Household Line No	**Disability Type: CODE (do not code)**	**Cause of disability CODE (do not code)**	**Duration** Month Year congenital
0403b	Is there anyone in your household who has **mental illness/disability**? If yes, specify the type, cause, and duration of disability			☐ Yes ☐ No
	Household Line No	**Disability Type: CODE (do not code)**	**Cause of disability (CODE)**	**Duration** Month Year congenital
0404a	Are there any **adults** in your household who **need care** due to old age or an illness ? (18+ years old)		☐ Yes ☐ No	**If "NO" go to 0404c**

Care Need (Adult, 18 years old and over)				
0404b	How much care do these adults need? Household line no:	**1st person**	**2nd person**	**3rd person**
	a. Needs help/ watching all the time (day and night)	☐	☐	☐
	b. Cannot be without help/ watching or be left alone at home for more than one hour	☐	☐	☐
	c. Can be left on his/her own at home for several hours but requires accompaniment when leaving home	☐	☐	☐
	d. Needs some help at home and sometimes needs to be accompanied when leaving home	☐	☐	☐

0404c	Are there any **children** in your household who **need care** due to an illness? (0-17 years old)	Yes No	**If "NO" go to 0405**

Care Need (Children, age 0-17)		**1st person**	**2nd person**	**3rd person**
0404d	How much care is needed for the child(ren)? Household line no	☐	☐	☐
	a. Needs help/ watching all the time (day and night)	☐	☐	☐
	b. Cannot be without help/ watching or be left alone at home for more than one hour	☐	☐	☐
	c. Can be left on his/her own at home for several hours but requires accompaniment when leaving home	☐	☐	☐
	d. Needs some help at home and sometimes needs to be accompanied when leaving home	☐	☐	☐

Determination of Deaths in the Household within the Last One Year ***(if there are deaths, refer to the "Death Determination Form" and fill in details)***

0405	Did anyone from the household die within the last one year?	Yes ☐	No ☐	**If "NO" go to 0500**

1st death	**Name, surname, date of death**	**4th death**	**Name, surname, date of death**
2nd death	**Name, surname, date of death**	**5th death**	**Name, surname, date of death**
3rd death	**Name, surname, date of death**	**6th death**	**Name, surname, date of death**

0500	*Household Residence Specifications*			
0501	How many rooms are there in your household including the living room (excluding kitchen, bathroom, and pantry)?	.....		
0502	What type of floor does your dwelling/house have? ☐Hard floor : ☐square tile ☐concrete ☐parquet / wood ☐other (specify)..... ☐Earth floor			
0503	What type of a wall does your dwelling/house have?			
	☐briquet, brick, stone or wood	☐Plastic sheet		
	☐mud brick	☐Metal sheet		
	☐Bulrush / straw, etc	☐Other		
0504	What is the main source of drinking water for this household?			
	☐ Piped water (inside house or garden)	☐ Rain water (into tank or cistern)		
	☐ Public standpipe (connected to network)	☐ Water taken directly from pond water or stream		
	☐ Protected dug well or water pump	☐ Bottled water– pet water – demijohn		
	☐ Unprotected source	☐ Tanker water		
0505a	Do you obtain drinking water by carrying?	☐Yes ☐No		**If "NO" go to 0506**
0505b	If you obtain drinking water by carrying, how far is the water source from your house?	Inside the garden ☐	Outside the garden 1 km or less in distance ☐	Outside the garden, more than 1 km distance ☐
0506	What type of toilet facilities does your household use? (more than one may be selected)			
	☐Inside house, connected to network	☐Inside house, open hole latrine		
	☐Inside house, connected to septic tank	☐Outside house, open hole latrine		
	☐Outside house, connected to network	☐Outside house, closed latrine		
	☐Outside house, connected to septic tank	☐Other		
		☐No toilet		
0507	How far are the toilet facilities from your dwelling/house?			

	☐ Outside house, connected to house	☐ Outside house, more than 50 m
	☐ Outside house, 50 m or less	
0508	Where do you usually cook your meals?	
	☐ In the kitchen	☐ In an outdoor place outside the house
	☐ Anywhere inside the house	☐ Other (specify).....
	☐ In a separate building/ hut used as a kitchen	

0509	What type of an oven is being used in your household?			
	☐ Open fire stove with chimney or hood	☐ Closed stove with chimney (cook-stove, tender, etc.)		
	☐ Open fire stove without chimney or hood	☐ Other (specify).....		
0510	What is the **main fuel** used for cooking at your house?			
	☐ Tube Gas	☐ Firewood		
	☐ Network/Natural Gas	☐ Agricultural waste/chaff-straw		
	☐ Biogas	☐ Dried dung		
	☐ Electricity	☐ Bush/ grass		
	☐ Kerosene	☐ Charcoal		
	☐ Coal	☐ Other (specify)……		
0511	What type of fuel is used primarily in your house for heating?			
	☐ Tube Gas	☐ Firewood		
	☐ Network/Natural Gas	☐ Agricultural waste/chaff-straw		
	☐ Biogas	☐ Dried dung		
	☐ Electricity	☐ Bush/ grass		
	☐ Kerosene	☐ Charcoal		
	☐ Coal	☐ Other (specify).....		
0512	What is the illumination source at your house? (may select more than one)			
	☐ Electricity ☐ Luxury lamp ☐ Kerosene lamp	☐ Candle ☐ Battery/chargeable light ☐ Other (Specify).....		
0600	Risk Factors Concerning the Household			
0601	Do you keep animals in your house (including the balcony)?	Yes ☐	No ☐	**If "NO" go to 0700**
0602	What type of animals do you have? (more than one may be selected)	Pets ☐	Farm animals ☐	
0700	*Means of Transportation and Goods that Belong to the Household* *Which of the following do you have in your household?*			
0701	Is there any car or equivalent motor vehicle that belong to members of the household?	☐ Yes	☐ No	
0702	Bicycle?	☐ Yes	☐ No	
0703	Fixed line telephone?	☐ Yes	☐ No	
0704	A mobile phone among your household members?	☐ Yes	☐ No	
0705	Television?	☐ Yes	☐ No	
0706	Washing machine?	☐ Yes	☐ No	
0707	Dishwasher?	☐ Yes	☐ No	
0708	Refrigerator?	☐ Yes	☐ No	
0709	Vacuum cleaner?	☐ Yes	☐ No	
0710	Computer?	☐ Yes	☐ No	
0711	Internet connection?	☐ Yes	☐ No	

0800	*Household Expenditures and Incomes*
	Household Expenditures (Expenses)
0801	Within the last one month, approximately how much has been spent in your household for foods like fruits, vegetables, grains, meats, and animal and vegetable oils? ***(Excluding expenses for meals taken outside the home, cigarettes and alcohol)*** ……..BILLION ……..MILLION ☐UNKNOWN ☐NONE
0802	Within the last one month, approximately how much has been spent in your house for bills like house rent, electricity, water, telephone and gas? ……..BILLION ……..MILLION ☐UNKNOWN ☐NONE
0803	Within the last one month, approximately how much has been spent in your house for education and other payments in the area of education in your household? ……..BILLION ……..MILLION ☐UNKNOWN ☐NONE
0804	Within the last one month, approximately how much **out of pocket** expenditure for health care has been made in your house? ***(Excluding payments made for health insurance)*** If the expenditure amount is indicated, give details in **0806** ……..BILLION ……..MILLION ☐UNKNOWN ☐NONE
0805	Within the last one month, approximately how much expenditure has been made in your house for other goods and services except for the ones stated above? (Transportation, clothing, other goods, etc.) ……..BILLION ……..MILLION ☐UNKNOWN ☐NONE

Household Health Expenditures

If there are expenditure amounts indicated in 0804, record details in this table.

0806 Within the last one month, what were the types of out of pocket expenditures for treatment of any illness or disability or for preventive health care service in your household? *(Including donations, transportation costs, etc.)*
More than one choice can be marked.

Household Line No.	NAME SURNAME	A. HEALTH FACILITY USED	B. CAUSE OF USE	C. DIAGNOSIS..... (Do not code)

D. SERVICE RECEIVED	E. CHARGE FOR RECEIVED SERVICES (million TL)	
	Outpatient BILLION MILLION	Inpatient treatment BILLION MILLION
	Drugs from pharmacy BILLION MILLION	Hearing aids, eyeglasses, prostheses **(teeth included)** BILLION MILLION
	Other (Gifts, donations, companionship, transportation, etc) BILLION MILLION	Laboratory/Imaging BILLION MILLION

Codes for A	**Codes for B**	**Codes for D**
1.State hospital 2. University hospital 3. SIO hospital 4. Local/ Municipality Hospital 5. State Economic Enterprise Hospital 6. Private hospital 7. Health Center 8. SIO Dispensary 9. Maternal and Child Health Center 10. Facility Physician 11. Private outpatient clinic 12. Private Laboratory 13. Pharmacy 14. Thermal resorts 15. By oneself 16. Private physician 17. Private dentist 18. Other (specify.....)	1.Emergency 2. Accidents 3. Follow-up (physician call) 4. Surgery 5. Check up 6. Pregnancy and Childbirth 7. Family planning 8. Vaccination 9. Drug prescription 10. General complaints (including oral-dental health) 11.Other (specify.....) HH Line No: .... HH Line No:	1.Emergency Treatment 2. Inpatient Treatment 3. Outpatient Treatment 4. Follow-up 5.Laboratory 6. Imaging 7.Other (specify.....) HH Line No: .... HH Line No: ....

	Source of Health Expenses		
0807	In the last 12 months, which of the following financial sources did your household use to pay for any health expenditures? (Health expenditures made within the last one month will be included.) (More than one choice may be marked.)		
		I paid	**I did not pay**
	a) From current income	1	1
	b) From savings	1	1
	c) From the social security system (Retirement Fund, Bag-Kur, SIO, private, institution)	1	1
	d) By selling goods	1	1
	e) From donations	1	1
	f) By borrowing	1	1
	g) Other (specify).....	1	1

Household incomes (Money Received in the Household)

0808 What are the main professions of the household members? In the last one month, how much was the income?

HH Line no	**Profession:** Retirees will be written and coded as "retired". Also, if s/he is working, his/her job will be coded.	**Income (million/billion TL)**
		BILLION MILLION
		BILLION MILLION
		BILLION MILLION
		BILLION MILLION
		BILLION MILLION
		BILLION MILLION

0809	Specify the amount of other earnings (house rent, agricultural income, interest etc.) that was received in your household within the last one month, except for the incomes of above-mentioned working people.	BILLION MILLION Unknown None

0810 Household Health Insurance System

I would like to ask questions concerning the health insurance of household members.

ASK THE QUESTIONS FOR EACH HOUSEHOLD MEMBER AND FILL IN ALL LINES BELOW BY USING THE HOUSEHOLD LINE NUMBERS

Household Line No	0810-1 Is the person covered by any health insurance?	0810-2 Is the person in the coverage of any mandatory health insurance?	0810-3 Is the person in the coverage of any private health insurance?	0810-4 How much is the private health insurance premium that the person pays every year? (Billion/Million TL)	0810-5 Is the person in coverage of health insurance due to another person?	0810-6 Who is the provider of health insurance to this person?
	If "**NO**" please skip to another household member	If **YES**, which of these: SIO ı 6 Retirement Fund ı 7 Bag-Kur ı 8 Active civil servant ı 9 Private Fund ı 10 Green Card ı 11 Other ı 12	If "**NO**" go to 0810-5.	BILLION MILLION	If "**YES**" go to 0810-6. If "**NO**", please skip to another household member.	If someone from the family, code the household line number. If not, code "**other**"
11	YES NO	YES 6 7 8 9 10 11 12 NO	YES NO		YES NO	10 20 30 40 1 2 3 4 5 6 7 8 9 OTHER
12	YES NO	YES 6 7 8 9 10 11 12 NO	YES NO		YES NO	10 20 30 40 1 2 3 4 5 6 7 8 9 OTHER
13	YES NO	YES 6 7 8 9 10 11 12 NO	YES NO		YES NO	10 20 30 40 1 2 3 4 5 6 7 8 9 OTHER
14	YES NO	YES 6 7 8 9 10 11 12 NO	YES NO		YES NO	10 20 30 40 1 2 3 4 5 6 7 8 9 OTHER
15	YES NO	YES 6 7 8 9 10 11 12 NO	YES NO		YES NO	10 20 30 40 1 2 3 4 5 6 7 8 9 OTHER
16	YES NO	YES 6 7 8 9 10 11 12 NO	YES NO		YES NO	10 20 30 40 1 2 3 4 5 6 7 8 9 OTHER
17	YES NO	YES 6 7 8 9 10 11 12 NO	YES NO		YES NO	10 20 30 40 1 2 3 4 5 6 7 8 9 OTHER
18	YES NO	YES 6 7 8 9 10 11 12 NO	YES NO		YES NO	10 20 30 40 1 2 3 4 5 6 7 8 9 OTHER
31	YES NO	YES 6 7 8 9 10 11 12 NO	YES NO		YES NO	10 20 30 40 1 2 3 4 5 6 7 8 9 OTHER
32	YES NO	YES 6 7 8 9 10 11 12 NO	YES NO		YES NO	10 20 30 40 1 2 3 4 5 6 7 8 9 OTHER
33	YES NO	YES 6 7 8 9 10 11 12 NO	YES NO		YES NO	10 20 30 40 1 2 3 4 5 6 7 8 9 OTHER
34	YES NO	YES 6 7 8 9 10 11 12 NO	YES NO		YES NO	10 20 30 40 1 2 3 4 5 6 7 8 9 OTHER
35	YES NO	YES 6 7 8 9 10 11 12 NO	YES NO		YES NO	10 20 30 40 1 2 3 4 5 6 7 8 9 OTHER
36	YES NO	YES 6 7 8 9 10 11 12 NO	YES NO		YES NO	10 20 30 40 1 2 3 4 5 6 7 8 9 OTHER
37	YES NO	YES 6 7 8 9 10 11 12 NO	YES NO		YES NO	10 20 30 40 1 2 3 4 5 6 7 8 9 OTHER
38	YES NO	YES 6 7 8 9 10 11 12 NO	YES NO		YES NO	10 20 30 40 1 2 3 4 5 6 7 8 9 OTHER

NOTE FOR THE INTERVIEWER: YOUR INTERVIEW WITH THE HEAD OF HOUSEHOLD IS COMPLETED HERE. THANK THE HEAD OF HOUSEHOLD OR PERSON ANSWERING. DETERMINE THE APPROPRIATE RESPONDENT FROM THE HOUSEHOLD BY USING THE KISH TABLES FOUND IN THE NEXT SECTION OF THIS BOOKLET.

RESPONDENT SELECTION METHOD

Do the Following Steps by Referring to Household Information Table:

a) For all the interviewable people, place a multiplication sign (X) in the 1st column. (Eligible people would be at the age of 18 and over).

b) b) In the 2nd column, give a number respectively starting from one to each person that you have marked in the 1st column.

c) c) From the 12 item Kish Tables below, by using the table previously determined to be appropriate, choose the Respondent and mark the selected person in the table below. On page 4, write a "C" for this person.

d) d) Ask all of the questions after this section to the respondent that you have selected.

KISH (SELECTION) TABLES

Selection Table A_1 and A_2

If the Number of Eligible Persons is:	Interview the Person Numbered
1	1
2	1
3	1
4	1
5	1
6 and +	1

Selection Table B_1

If the Number of Eligible Persons is:	Interview the Person Numbered
1	1
2	1
3	1
4	1
5	2
6 and +	2

Selection Table B_2

If the Number of Eligible Persons is:	Interview the Person Numbered
1	1
2	1
3	1
4	2
5	2
6 and +	2

Selection Table C_1 and C_2

If the Number of Eligible Persons is:	Interview the Person Numbered
1	1
2	1
3	2
4	2
5	3
6 and +	3

Selection Table D_1 and D_2

If the Number of Eligible Persons is:	Interview the Person Numbered
1	1
2	2
3	2
4	3
5	4
6 and +	4

Selection Table E_1

If the Number of Eligible Persons is:	Interview the Person Numbered
1	1
2	2
3	3
4	3
5	3
6 and +	5

Selection Table E_2

If the Number of Eligible Persons is:	Interview the Person Numbered
1	1
2	2
3	3
4	4
5	5
6 and +	5

Selection Table F_1 and F_2

If the Number of Eligible Persons is:	Interview the Person Numbered
1	1
2	2
3	3
4	4
5	5
6 and +	6

Dear Participant,

You are chosen randomly as a part of this survey, and for this reason I would to talk with you. This questionnaire is carried out with the cooperation of the Ministry of Health and Başkent University. This survey, for which interviewers were trained by Baskent University, is being implemented in 72 countries in the world. You were randomly selected from this house, in order to answer the following questions of this survey.

The information that you provide will only be used in determination of health-affecting factors and how people judge their own health by taking into consideration their health status.

To you I will ask some questions such as:

- Personal information,
- Your health state including the activities you perform in general,
- Any type of disease you encountered and how this disease was treated.
- The health facilities you use, and the extent to which they meet your needs

The implementation of the questionnaire will last approximately 60 minutes.

The information that you provide will be kept in total confidence and will not be transmitted to someone else. They will only be used for scientific purposes. Your name-surname, address and personal information will be excluded from the questionnaire and only a single code will be used for your identification so as to reach your name and responses. The main objective in recording your name and address is to recontact you in order to complete any possibly deficient information in the questionnaire.

Your participation to the questionnaire is not obligatory and you may also terminate the interview after you have decided to participate. You are free not to respond questions in the questionnaire that you do not wish to answer.

If you would like to speak with someone involved in the research, you may contact Assoc. Prof. Dr. Adnan Kısa or Assoc. Prof. Dr. Şahin Kavuncubaşı at the following number: 0 312 2341010/1548. Also you may get information from the City Health Directorate of the city that you are in concerning your respondent rights.

We believe that you have understood the issue and that you will provide valuable information by participating in our study. Thank you.

Read by the interviewer[ ]

By the Respondent
Approved [ ] Rejected [ ]

Interviewer's Name-Surname :
_____

Date : ___ / ___ / ___
Signature:_____

	Interview Number		
	First	Second	Third
Respondent (Name, Surname):			
Date of Interview:			
Result of the Interview: (1) Completed (2) Refused (3) Postponed (4) Not completed (5) Respondent not at home (6) Other	 1 2 3 4 5 6	 1 2 3 4 5 6	 1 2 3 4 5 6

PERSONAL QUESTIONNAIRE FORM
1. BASIC INFORMATION ABOUT RESPONDENT

1a. DEMOGRAPHIC SPECIFICATIONS

1000	Household line number of respondent (See fourth page):
1001	Respondent's gender: ☐ Male ☐ Female
1002	Respondent's age:
1003	Have many years of education did you receive?: …… (Excluding failing a class, including graduate degree) NONE

1b. WORK STATUS

Ask the respondent which occupation (profession) that s/ he has done within the last one year and note it down as s/he has stated. Then, record his/ her actual occupation (profession) and the appropriate profession code according to the ILO profession classification, which is found at the end of the questionnaire **or in** the survey manual**.**

1004	What is the profession out of which you made a living within the last year?		
	Occupation:……	ILO profession / Job Code: ……	**If "not working" go to 1005**

1005	**If you are not working, what is the main reason of your unemployment?** ☐1 Very old ☐5 Stopped looking for a job ☐8 Retired ☐2 ill / Disabled ☐6Student ☐9 Landowner ☐3 Can not find a job/ looking for a job ☐ 7Housewife ☐10 Other ☐4 Do not need a job
1006	**What is your actual occupation?** **Occupation:**…… **ILO Profession / Job Code:**……

2. HEALTH STATE

	GENERAL HEALTH					
2000	Which of the following options that I will read describes best your current health state?	Very good	Good	Moderate	Bad	Very bad
2001	Overall in the last one month, how much difficulty did you have with work or household activities?	None	Mild	Moderate	Severe	Extreme/ can not do

Now I will ask some questions related to your bodily state. When answering these questions, think about the last one month, taking both good and bad days into account. When I ask about difficulty, consider how much difficulty you have had while doing the activity in the past one month, in terms of things like increased effort, pain, or slowness.

(Read the question and show the following scale (none, mild,... to the respondent)

	MOBILITY					
2010	In the last one month, how much difficulty did you have in moving around?	None	Mild	Moderate	Severe	Extreme/ Can not do
2011	In the last one month, how much difficulty did you have in vigorous activities, such as running 3km (or equivalent) or cycling?	None	Mild	Moderate	Severe	Extreme/ Can not do
	SELF CARE					
2020	Overall in the last one month, how much difficulty did you have in activities such as washing or dressing yourself?	None	Mild	Moderate	Severe	Extreme/ Can not do
2021	In the last one month, how much difficulty did you have in taking care of and maintaining your general appearance, grooming,	None	Mild	Moderate	Severe	Extreme/ Can not do

	and looking neat and tidy?

	PAIN AND DISCOMFORT					
2030	Overall **in the last one month**, how much of bodily aches or pains did you have?	None	Mild	Moderate	Severe	Extreme
2031	**one month**, how much bodily discomfort did you have?	None	Mild	Moderate	Severe	Extreme
	COGNITION					
2050	**In the last one month**, how much difficulty did you have with concentrating or remembering things?	None	Mild	Moderate	Severe	Extreme/ Can not do
2051	In the last one month how much difficulty did you have in learning a new task or duty? (For example, learning a new recipe, game, or how to go to a place)	None	Mild	Moderate	Severe	Extreme/ Can not do
	INTERPERSONAL RELATIONS AND PARTICIPATION IN SOCIETY					
2060	Overall in the last one month, how much difficulty did you have with personal relationships or participation in the community?	None	Mild	Moderate	Severe	Extreme/ Can not do
2061	In the last one month, how much difficulty did you have in dealing with conflicts and tensions with others?	None	Mild	Moderate	Severe	Extreme/ Can not do
	VISION					
2070	Do you wear glasses or contact lenses? Yes ***If YES, tell the respondent to take into account wearing glasses when answering questions 2071 and 2072.*** No ***Continue from 2071***					
2071	In the last one month, how much difficulty did you have in seeing and recognizing a person you know across the road (from a distance of about 20 meters)?	None	Mild	Moderate	Severe	Extreme/ Can not do
2072	In the last one month, how much difficulty did you have in seeing and recognizing an object at arm's length or in reading?	None	Mild	Moderate	Severe	Extreme/ Can not do

	SLEEP AND ALERTNESS					
2080	Overall in the last one month, how much difficulty did you have with sleeping, such as falling asleep, waking up frequently during the night or waking up too early in the morning?	None	Mild	Moderate	Severe	Extreme
2081	In the last one month, how much of a problem did you have due to not feeling rested and refreshed during the day (e.g. feeling tired, not having energy)?	None	Mild	Moderate	Severe	Extreme
	AFFECT					
2090	Overall in the last one month, how much did you feel sad, low or depressed?	None	Mild	Moderate	Severe	Extreme
2091	Overall in the last one month, how much of a problem did you have with worry or anxiety?	None	Mild	Moderate	Severe	Extreme

IV. RISK FACTORS

1.TOBACCO

4000	Do you currently smoke any tobacco products such as cigarettes, cigars, or pipes?	Yes, Everyday	Yes but not daily	No	**If "Yes, but not every day" or "No" go to 4005**
4001	For how many years have you been smoking tobacco products everyday?	Years:			
4002	At what age did you start smoking tobacco and similar products everyday?	Age:			
4003	If you don't remember your starting age, how long ago?	Weeks ago	Months ago	Years ago	
4004	On average, how many of the following tobacco products do you smoke each day? Manufactured cigarette .....(number) Pipefuls of tobacco: .....(number) Hand rolled cigarette.....(number) Other (specify): .....(number)				

4005	Is/ was there anyone who is smoking cigarettes in your family in common use areas (living room, bedroom, etc.) ? (You can mark more than one choice)	Spouse is/was smoking	Mother is/ was smoking	Father is/ was smoking	Sibling is/ was smoking	Other	No

4005a	Is/was there anyone who is smoking cigarettes in your office or common utilization areas (cafe, eating hall, canteen, etc.)	Yes	No
4006	Did you have any important health problem related to smoking within the last one month?	Yes Specify.....	No

2.ALCOHOL (Show alcohol card)

4010	Have you ever consumed a drink that contains alcohol (such as beer, wine, etc.)?	Yes	No	If "No" go to 4020
	How much alcohol did you drink in each of the last 7 days? **(Show alcohol card)** **Number of drinks:** 4011 Monday: ..... None 4012 Tuesday:..... None 4013 Wednesday:..... None 4014 Thursday:..... None 4015 Friday: ..... None 4016 Saturday: ..... None 4017 Sunday: ..... None			

4018	Did you have an important health problem related to alcohol within the last one month?	Yes Specify.....	No

3.NUTRITION

Now I am going to ask you about the fruit and vegetables you usually eat. (**Show Nutrition card to respondent)**

4020	How many servings of **fruit** do eat on a typical day?	0 1 2 3 4 5 6 7 8 9 10 and over	
4021	How many servings of **vegetables** do you eat on a typical day?	0 1 2 3 4 5 6 7 8 9 10 and over	
4022	How many glasses of **tea** do you drink per day?	I never drink 1-3 glasses 4-6 glasses 7-10 glasses 11 glasses and more	
4023	How many cups of **coffee** do you drink per day?	I never drink 1-2 cups 3-4 cups 5 cups and more I drink, rarely	
4025	How much **salt** do you generally consume per meal ?	I eat few salty meals I eat normal salty meals I eat very salty meals	
4026	Specify your **height** and **weight**:	Height.....cm	Do not know
		Weight.....kg	Do not know

4. PHYSICAL ACTIVITIES

Now I am going to ask you questions about the time you spent in physical activities within the last 7 days. Please answer each question by taking into consideration all the time you spend at work, at home, as a part of your yard work, activities like walking, doing sports or exercises, even if you are not an active person.
(Show Physical Activities Card to Respondent -------)

4030	**Vigorous Activity** Within the last one week, how many days have you done any **vigorous activity** which lasted at least 10 minutes once started such as heavy lifting, digging, aerobics, or fast bicycling?	1 2 3 4 5 6 7 days No	If "No", go to 4033
	Considering one of the above given days		
4031	How many hours a day have you done these vigorous activities?	……. Hours 1 2 3 4 5 6 7 8 9	
4032	How many minutes a day?	.....Minutes 10 15 20 25 30 35 40 45 50 55	
4033	**Moderate Activity** Within the last one week, did you do any **moderate** physical activity which lasted at least 10 minutes such as light lifting, bicycling at a normal speed or yard working, except for walking?	1 2 3 4 5 6 7 days No	If "No" go to 4036
	Considering one of the above given days		
4034	How many hours a day have you done these moderate activities?	……. Hours 1 2 3 4 5 6 7 8 9	
4035	How many minutes a day?	.....Minutes 10 15 20 25 30 35 40 45 50 55	
4036	**Walking** Within the last one week, how many days have you walked at least 10 minutes once started, including walking at work, at home, traveling from one place to another or any other walking that you might do for sports, exercise as spending leisure time?	1 2 3 4 5 6 7 days No	**If "No" go to 6000**
	Considering one of the above given days		
4037	How many hours a day have you walked ?	……. Hours 1 2 3 4 5 6 7 8 9	
4038	How many minutes a day?	.....Minutes 10 15 20 25 30 35 40 45 50 55	

V. COVERAGE CONCERNING DIAGNOSIS, TREATMENT AND CARE OF DISEASES

Now I would like to ask some questions about your diagnosed diseases.						
ARTHRITIS 6000	Have you ever been diagnosed with arthritis (an inflammation of the joints) by a physician?	Yes	No	Do not know		
6001	Have you ever been treated for this disease?	Yes	No	Do not know		
6002	Have you been taking any medications or other treatment for it during the last 2 weeks?	Yes	No			
During the last 12 months, have you experienced any of the following joint problems:						
6003	Pain, aching, stiffness or swelling in or around the joint (like arms, hands, legs or feet) which were not related to an injury and lasted for more than a month?	Yes	No			
6004	Stiffness in the joint in the morning after getting up from bed or after a long rest of a joint without movement	Yes	No	**If "NO" go to 6007**		
6005	How long did this stiffness last?	Half an hour or less	More than half an hour			
6006	Does this stiffness go away after exercise or movement in the joint?	Yes	No			
ANGINA PECTORIS 6007	Have you ever been diagnosed with angina or angina pectoris (a heart disease)?	Yes	No	Do not know		
6008	Have you ever been treated for it?	Yes	No	Do not know		
6009	Have you been taking any medications or other treatment for it during the last 2 weeks?	Yes	No			
During the last 12 months, have you experienced any chest pain (angina) problems similar to following						
6010	Pain or discomfort in your chest when you walk uphill or hurry?	Yes	No	Never walks uphill or hurries	**If "NO" go to 6015**	
6011	Pain or discomfort in your chest when you walk at an ordinary pace on level ground?	Yes	No	**If "NO" go to 6015**		
6012	What do you do if you get the pain or discomfort when walking?	Stop or slow down	Carry on after taking a pain relieving medicine that dissolves in your mouth	Carry on		
6013	**If you stand still, what happens to the pain or discomfort?**	Relieved	Not relieved			
6014	Will you show me where you usually experience the pain or discomfort?	1. Upper or middle chest				
		2. Lower chest				
		3. Left arm				
		4. Other (Specify:.....)				
DIABETES 6015	Have you ever been diagnosed with diabetes (high blood sugar) by a physician?	Yes	No	Do not know		
6016	Have you ever been treated for it?	Yes	No	Do not know		

6017	Have you been taking physician-prescribed insulin or other blood sugar lowering medications in the last 2 weeks?	Yes	No
6018	Are you following a physician-prescribed special diet, exercise regime or weight control program for diabetes?	Yes	No

ASTHMA 6019	Have you ever been diagnosed with asthma (an allergic respiratory disease) by a physician?	Yes	No	Do not know
6020	Have you ever been treated for it?	Yes	No	Do not know
6021	During the last 2 weeks, have you been taking any medications for asthma prescribed by a physician (including inhaler or respiratory medications) or received any other treatment?	Yes	No	

During the last 12 months, have you experienced any problem related to asthma similar to the following?				
6022	Attacks of wheezing or whistling breathing?	Yes		No
6023	Attack of wheezing that came on after you stopped exercising or some other physical activity?	Yes		No
6024	A feeling of tightness in your chest?	Yes		No
6025	Have you woken up with a feeling of tightness in your chest in the morning or any other time?	Yes		No
6026	Have you had an attack of shortness of breath that came on without obvious cause when you were not exercising or doing some physical activity?	Yes		No
DEPRESSION 6027	Have you ever been diagnosed with depression by a physician?	Yes	No	Do not know
6028	Have you received any treatment for this disease?	Yes	No	Do not know
6029	During the last 2 weeks, have you been taking any medications for depression prescribed by a physician or received any other treatment?	Yes		No
During the last 12 months, have you experienced any problem related to depression similar to the following?				
6030	Have you had a period lasting several days when you felt sad, empty or depressed?	Yes		No
6031	Have you had a period lasting several days when you lost interest in most things you usually enjoy such as hobbies, personal relationships or work?	Yes		No
6032	Have you had a period lasting several days when you have been feeling your energy decreased or that you are tired all the time?	Yes		No
6033	Was this period (of sadness / loss of interest/low energy) for more than 2 weeks?	Yes		No
6034	Was this period (of sadness / loss of interest/low energy) most of the day, nearly every day?	Yes		No
6035	During this period, did you lose your appetite?	Yes		No
6036	During this period, did you notice any slowing down in your thinking?	Yes		No
TUBERCULOSIS				
6100	Have you ever been diagnosed with tuberculosis by physician?	Yes	No	Do not know
6100a	Have you received a long-term medication treatment prescribed by a physician for this disease?	Yes	No	Do not know

6101	Cough that lasted for 3 weeks or longer?	Yes	No	
6102	Have you had blood in your phlegm or have you coughed blood?	Yes	No	
6103	In this period, have you had a tuberculosis test (TB skin test) after being examined by a physician?	Yes	No	
6104	In this period, did a physician examine you and your phlegm and take an X ray of your chest?	Yes	No	
ORAL HEALTH				
6200	During the last 12 months, did you have any problems with your mouth and/or teeth that limited the type and/or amount of food that you ate?	Yes	No	**If "NO" go to 6208**
6201	During the last 12 months, did you receive any medical care or treatment from a dentist for this problem with your mouth and/or teeth?	Yes	No	**If "NO" go to 6208**
6202	What type of care or treatment did you receive for this problem with your mouth and / or teeth?			
6203	Medication	Yes	No	
6204	Dental work / oral surgery (extraction, prosthesis, filling, root canal, etc.)	Yes	No	
6205	Dentures or bridges	Yes	No	
6206	Information or counseling on dental care/ oral hygiene	Yes	No	
6207	Other (specify).....			
6208	Have you lost all of your natural teeth?	Yes	No	
CARE FOR TRAFFIC ACCIDENTS AND OTHER INJURIES				
6300	In the past 12 months, have you been involved in a road traffic accident where you suffered from bodily injury? This could have been an accident in which you were involved either as the occupant of a motor vehicle, or when you were riding a motorcycle or bicycle, or walking.	Yes	No	**If "NO" go to 6306**
6301	During the last 12 months, when did the accident happen?	Within last 30 days 1-2 Month(s) ago 3-5 Months ago 6-12 Months ago Do not know		
6302	Did you receive any medical care or treatment for your injuries?	Yes	No	**If "NO" go to 6306**
6303	Where did you first receive care? *READ CHOICES AND MARK SOURCE OF CARE*	1. First aid / ambulance 2. Emergency room/ State Hospital 3. Health Center 4. Health post 5.University Hospital 6. Other public health facilities 7. Emergency room – Private Hospital / Clinic 8. Private physician clinic 9. Other private health facility 10. Other: (Specify:.....)		

6304 a	After the traffic accident, from what kind of a facility have you received the ambulance service?	Official	Private	Do not know	Did not receive service
6304 b	After the traffic accident, from what kind of a facility have you received the outpatient treatment?	Official	Private	Do not know	Did not receive service
6304 c	After the traffic accident, from what kind of a facility have you received the inpatient treatment?	Official	Private	Do not know	Did not receive service
6305	How soon after the traffic accident occurred did you first receive care? PROBE: Did someone later tell you how long after the accident occurred you received care?	In 1 hour or less	In over 1 hour, but within 24 hours		More than 24 hours later
6306	In the last 12 months, have you suffered bodily injury that limited your everyday activities, due to a fall, burn, poisoning, submersion in water, or by a firearm, sharp weapon or an act of violence from another person?	Yes	No		**If "NO" go to 6400**
6306a	If yes, what kind of an injury was it? Specify: …….....				
6307	When (in the last 12 months) did the incident happen?				
		Within the last 30 days			
		1-2 month(s) ago)			
		3-5 months ago			
		6-12 months ago			
		Do not know			
6308	Have you received any medical care or treatment for your injuries?	Yes	No		**If "NO" go to 6400**
6309	Where did you first receive care? *READ CHOICES AND MARK THE SOURCE*				
		1. First aid / ambulance			
		2. Emergency room/ State Hospital			
		3. Health Center			
		4. Health post			
		5.University Hospital			
		6. Other public health facilities			
		7. Emergency room – Private Hospital / Clinic			
		8. Private physician clinic			
		9. Other private health facility			
		10. Other (Specify:.....)			
6310	From what kind of a facility did you receive the first medical care?	Official	Private	Do not know	
6311	How soon after the injury did you receive the first medical care? PROBE: Did someone later tell you how long after the injury occurred you received care?	In 1 hour or less	In over one hour but within 24 hours	More than 24 hours later	

HYPERTENSION					
6400	Have you ever been diagnosed high blood pressure (hypertension) by a physician ?	Yes	No	Do not know	
6401	Has this health problem continued for the last 12 months?	Yes	No		
6402	Within the last 2 weeks, have you been taking any medications or other treatments for hypertension prescribed by a physician?	Yes	No		
Within the last 12 months, have you experienced any of the following?					
6403	Headache that started especially in the back part of your head or neck?	Sometimes	Continuously	No	
6404	Bilateral ear ringing?	Sometimes	Continuously	No	
6405	Fainting syndrome starting with sudden dizziness?	Sometimes	Continuously	No	
6406	Unilateral numbness, loss of strength in arms and legs?	Sometimes	Continuously	No	
LOW BACK PAIN(Including spine disc problems)					
6500	Have you ever been diagnosed by a physician as having low back pain?	Yes	No	Do not know	**If "NO" or "DO NOT KNOW" go to 6502**
6501	If yes, what was the diagnosis? (Specify:.....)				
6502	Have you had low back pain (including spinal disc problem) within the last 30 days?	Yes	No	Do not know	**If "NO" or "DO NOT KNOW" go to 6600**
6503	How many days did you have this back pain during the last 30 days?	..... days			
6504	Have you been taking any medications prescribed by a physician for back pain?	Yes	No	Do not know	
Within the last one month, have you experienced any of the following?					
6505	Pain and limitation in movement in your lower back when bending forward or lifting an object	Yes	No	Do not know	
6506	Severe pain starting unexpectedly from the side of your lower back and spreading unchecked towards the groin	Yes	No	Do not know	
6507	Continuous pain in the low back region that does not cause much discomfort	Yes	No	Do not know	

6600	Have you ever been diagnosed with epilepsy (epilepsy seizure) by a physician ?	Yes	No	Do not know
6601	Within the last one year, have you ever experienced an epilepsy attack?	Yes	No	Do not know
6602	Within the last 2 weeks, have you received medications and/or any treatment by a physician for epilepsy?	Yes	No	

6603	Unconsciousness?	Yes	No
6604	Trembling attacks at the arm or leg region that you could not control?	Yes	No
6605	Attacks during which you fell down and bit your tongue?	Yes	No
6606	Attacks during which you fell down and lost your toilet control?	Yes	No
6607	Short attacks with trembling at one arm, one leg or face?	Yes	No

	Have you been diagnosed by a physician because of complaints such as: headache, dizziness, insensibility in arms and legs, loss of strength, unconsciousness, difficulty in speaking and remembering?	Yes	No	Do not know

6701	Headache, dizziness?	Yes	No	
6702	Unconsciousness?	Yes	No	
6703	Heaviness of tongue, difficulty in speaking?	Yes	No	
6704	Difficulty in remembering?	Yes	No	
6705	Stroke, paralysis?	Yes	No	
6706	Have you gone to a physician due to these complaints?	Yes	No	

6707	What was the main disease that caused this diagnosis?	Cerebrovascular accident/ Traffic accident	Transient ischemic attack	Related to a disease like Diabetes, infarctus, hypertension	Neurological disorders	Other (specify .....)	Do not know

NEIGHBORING HOUSEHOLD INFORMATION FORM

Province Name …… Questionnaire Code:

1st RIGHT HAND NEIGHBOR (1)			
Total number of people in the household :.....	**Name-Surname**	**Sex**	**Completed Age**
1st Person		Male Female	
2nd Person		Male Female	
3rd Person		Male Female	
4th Person		Male Female	
5th Person		Male Female	
6th Person		Male Female	
7th Person		Male Female	
8th Person		Male Female	
9th Person		Male Female	
10th Person		Male Female	
Within the last one year, were there any deaths among the members of this household? Yes ……. People No **FOR DEATHS, FILL IN THE DEATH DETERMINATION FORM**			

	Interview Number			
	First	**Second**	**Third**	**Fourth**
Respondent (Name, Surname):				
Date of Interview:				
Result of the Interview				
(1) Completed	1	1	1	1
(2) Refused	2	2	2	2
(3) Postponed	3	3	3	3
(4) Not completed	4	4	4	4
(5) No one at home	5	5	5	5
(6) No appropriate Person	6	6	6	6
(7) Other	7	7	7	7

2nd RIGHT HAND NEIGHBOR (2)			
Total number of people in the household :.....	**Name-Surname**	**Sex**	**Completed Age**
1st Person		Male Female	
2nd Person		Male Female	

3rd Person		Male Female	
4th Person		Male Female	
5th Person		Male Female	
6th Person		Male Female	
7th Person		Male Female	
8th Person		Male Female	
9th Person		Male Female	
10th Person		Male Female	
Within the last one year, were there any deaths among the members of this household? □ Yes ……. People □ No **FOR DEATHS, FILL IN THE DEATH DETERMINATION FORM**			

	Interview Number			
	First	**Second**	**Third**	**Fourth**
Respondent (Name, Surname):				
Date of Interview:				
Result of the Interview (1) Completed (2) Refused (3) Postponed (4) Not completed (5) No one at home (6) No appropriate Person (7) Other	 1 2 3 4 5 6 7	 1 2 3 4 5 6 7	 1 2 3 4 5 6 7	 1 2 3 4 5 6 7

1st LEFT HAND NEIGHBOR		**(3)**	
Total number of people in the household :.....	**Name-Surname**	**Sex**	**Completed Age**
1st Person		Male Female	
2nd Person		Male Female	
3rd Person		Male Female	
4th Person		Male Female	
5th Person		Male Female	
6th Person		Male Female	
7th Person		Male Female	
8th Person		Male Female	

9th Person		Male Female	
10th Person		Male Female	
Within the last one year, were there any deaths among the members of this household? □ Yes ……. People □ No **FOR DEATHS, FILL IN THE DEATH DETERMINATION FORM**			

	Interview Number			
	First	**Second**	**Third**	**Fourth**
Respondent (Name, Surname):				
Date of Interview:				
Result of the Interview (1) Completed (2) Refused (3) Postponed (4) Not completed (5) No one at home (6) No appropriate Person (7) Other	 1 2 3 4 5 6 7	 1 2 3 4 5 6 7	 1 2 3 4 5 6 7	 1 2 3 4 5 6 7

2nd LEFT HAND NEIGHBOR		**(4)**	
Total number of people in the household :…….	**Name-Surname**	**Sex**	**Completed Age**
1st Person		Male Female	
2nd Person		Male Female	
3rd Person		Male Female	
4th Person		Male Female	
5th Person		Male Female	
6th Person		Male Female	
7th Person		Male Female	
8th Person		Male Female	
9th Person		Male Female	
10th Person		Male Female	
Within the last one year, were there any deaths among the members of this household? □ Yes ……. People □ No **FOR DEATHS, FILL IN THE DEATH DETERMINATION FORM**			

	Interview Number			
	First	**Second**	**Third**	**Fourth**

Respondent (Name, Surname):				
Date of Interview:				
Result of the Interview				
(1) Completed	1	1	1	1
(2) Refused	2	2	2	2
(3) Postponed	3	3	3	3
(4) Not completed	4	4	4	4
(5) No one at home	5	5	5	5
(6) No appropriate Person	6	6	6	6
(7) Other	7	7	7	7

DEATH DETERMINATION FORM Province Name …… Questionnaire Code:……

IDENTIFICATION AND ADDRESS OF DECEASED	*DEATHS IN HOUSEHOLD **RESPONDENT'S SIBLINGS DYING OUTSIDE THE HOUSEHOLD ***DEATHS IN NEIGHBORS NUMBER	*DEATHS IN HOUSEHOLD **RESPONDENT'S SIBLINGS DYING OUTSIDE THE HOUSEHOLD ***DEATHS IN NEIGHBORS NUMBER	*DEATHS IN HOUSEHOLD **RESPONDENT'S SIBLINGS DYING OUTSIDE THE HOUSEHOLD ***DEATHS IN NEIGHBORS NUMBER
	1. DEATH	**4. DEATH**	**7. DEATH**
Name and Surname			
Sex			
Date of Death			
Place of Death (House, Hospital, etc.)			
Place of Burial City/ District / Village			
Age at Death			
Open Address Neighborhood..... Street..... House no:..... Tel:.....			
IDENTIFICATION AND ADDRESS OF DECEASED	*DEATHS IN HOUSEHOLD **RESPONDENT'S SIBLINGS DYING OUTSIDE THE HOUSEHOLD ***DEATHS IN NEIGHBORS NUMBER	*DEATHS IN HOUSEHOLD **RESPONDENT'S SIBLINGS DYING OUTSIDE THE HOUSEHOLD ***DEATHS IN NEIGHBORS NUMBER	*DEATHS IN HOUSEHOLD **RESPONDENT'S SIBLINGS DYING OUTSIDE THE HOUSEHOLD ***DEATHS IN NEIGHBORS NUMBER
	2. DEATH	**5. DEATH**	**8. DEATH**
Name and Surname			
Sex			
Date of Death			
Place of Death (House, Hospital, etc.)			
Place of Burial City/ District / Village			
Age at Death			
Open Address Neighborhood..... Street..... House no:..... Tel:.....			

IDENTIFICATION AND ADDRESS OF DECEASED	*DEATHS IN HOUSEHOLD **RESPONDENT'S SIBLINGS DYING OUTSIDE THE HOUSEHOLD ***DEATHS IN NEIGHBORS NUMBER	*DEATHS IN HOUSEHOLD **RESPONDENT'S SIBLINGS DYING OUTSIDE THE HOUSEHOLD ***DEATHS IN NEIGHBORS NUMBER	*DEATHS IN HOUSEHOLD **RESPONDENT'S SIBLINGS DYING OUTSIDE THE HOUSEHOLD ***DEATHS IN NEIGHBORS NUMBER
	3. DEATH	**6. DEATH**	**9. DEATH**
Name and Surname			
Sex			
Date of Death			
Place of Death (House, Hospital, etc.)			
Place of Burial City/ District / Village			
Age at Death			
Open Address Neighborhood..... Street..... House no:..... Tel:.....			

* By asking the head of the household, household member deaths that occurred in the household within the last one year

** Siblings of the respondent, selected according to the Kish table, who died within the last one year.

*** Death in the last one year in the right or left hand neighbors of the household selected for sampling

THIS TABLE, AFTER BEING FILLED IN BY THE INTERVIEWER, WILL BE TRANSMITTED TO REGIONAL COORDINATORS IN ORDER TO CARRY OUT VERBAL AUTOPSY. THEREFORE, THE DEATH DETERMINATION AND ADDRESS OF RESIDENCE NEED TO BE FILLED IN CAREFULLY.