

THE FEDERAL DEMOCRATIC REPUBLIC OF  
ETHIOPIA

CENTRAL STATISTICAL AUTHORITY

REPORT ON THE 1998 HEALTH AND  
NUTRITION SURVEY

ADDIS ABABA  
October 1999

*Matthew Verpluis*

THE FEDERAL DEMOCRATIC REPUBLIC OF

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## CHAPTER 1

### INTRODUCTION AND OBJECTIVES OF THE SURVEY

#### 1.1 Introduction

There has been a growing need for reliable and up-to-date information on health and nutrition that could serve as a vital input for planning, monitoring and evaluation of development programs such as maternal and child health care services. Accordingly, the 1998 Health and Nutrition Survey was planned to provide basic information on health and nutritional status of the population in the country. Similar surveys have also been conducted by CSA during earlier years. The related surveys conducted earlier by CSA were the 1982/83 Rural Health Survey, the 1982/83 Rural Nutrition Survey and the 1992 National Rural Nutritional surveillance System. However, the 1998 Health and Nutrition Survey in terms of its content and coverage is different from the previous surveys. Firstly, the 1982/83 Health Survey was carried out independently and it was followed up by the Nutrition Survey. However, the 1998 Health and Nutrition Survey collected basic information on health and nutrition combining the two areas in a single survey but in terms of its contents it is less detailed than the previous surveys. Secondly, the coverages of the preceding surveys were limited. These surveys provided basic information only for the rural areas of the country whereas the 1998 Health and Nutrition survey covered all regions, both rural and urban areas, except the Somalie and Affar Regions where only parts of the sedentary population were covered.

It was clear from the results of earlier national surveys and small scale ad-hoc surveys that malnutrition is a very serious problem in Ethiopia. Obviously, out of the possible causes of malnutrition that should deserve due attention is the prevalence of different various types of diseases among children and that the sick children do not eat as they should even if the food is available. Likewise, malnourished children are more prone to be inflicted by infectious diseases compared to well-nourished children. This clearly shows that health and nutrition are two closely interrelated areas that could be

covered by a single survey. Moreover, indicators of health and nutrition are very important to show mother and child morbidity and mortality. It also shows the prevalence of malnutrition that are the major problems in many developing countries to which Ethiopia can not be an exception. The 1998 Health and Nutrition Survey is designed to provide basic indicators of health and nutrition with emphasis on mother and child health care.

The 1998 Health and Nutrition Survey report contains eleven major chapters: Chapter 1 presents the objective and scope of the survey; Chapter 2 deals with the survey methodology, data collection and data processing; Chapter 3 contains morbidity; Chapter 4 deals with the prevalence of accidents, days of illness and restricted usual activity due to accidents; Chapter 5 examines health consultation/treatment during the last twelve months; Chapter 6 presents maternal and child health care, Chapter 7 discusses about breastfeeding and supplementation. The remaining Chapters that are Chapter 8 presents the nutritional status of children under five; the last Chapter which is Chapter 9 deals with the levels and differentials of fertility.

## **1.2 Objectives of the Survey**

The main objective of the survey is to provide the data that will serve as basis for planning development strategies whose target is to improve the health and nutritional conditions of the population of the country. In addition, the data collected in this survey may also be useful as a base for the surveys that will be conducted in the field of health and nutrition in the future. The specific objectives of this survey are to collect data/information as follows:

- a) That will show the types and distribution of diseases and accidents by region;
- b) On prevalence rates of illness and accidents and to identify groups of people who are more affected;
- c) That will help to assess the practice of health consultation and type of health service institutions or health providers visited;

- d) That will indicate the attitudes or practice of using modern health institutions by population in time of illness;
- e) On the practice of maternal health care, vaccinations and supplementation;
- f) That will help in identifying groups of children at risk due to not being vaccinated;
- g) On childhood illness, vaccination, breastfeeding and supplementation practice of children under five years of age;
- h) That throws some light on nutritional status of children through anthropometric measurements and
- I) That will show the levels and differentials of fertility.

### **1.3 Scope and contents of the Survey**

The scope and contents of this survey was to collect basic data on population, morbidity, accident, treatment and/or consultation, maternal health care, vaccinations, breastfeeding, supplementation, and nutritional status of children under five. The major items included were: sex, age, highest grade completed, illness, duration of illness and number of days of restricted usual activity due to illness and/or accident(s), external causes of accident(s), status and type of health services institutions or health provider consulted reason for not consulting modern health services institutions. In addition, information on place of delivery; type of attendant assisting during delivery; tetanus toxoid vaccination; and status and duration of supplementation for lactating and pregnant women were collected. Moreover, data on childhood vaccinations; childhood illness (diarrhoea, vomiting or cough episode) and ORS treatment; Vitamin A administration; breastfeeding and supplementation of children under five; anthropometric measurements (height and weight) of children aged 3-59 months and fertility were collected.

## **CHAPTER 2**

### **SAMPLE DESIGN, DATA COLLECTION AND PROCESSING**

#### **2.1 Scope, Coverage and Contents**

The 1998 (1990 Ethiopian Calendar, E.C) Health and Nutrition Survey covered the population in the country on a sample basis excluding the non-sedentary population in Affar and Somalie Regions. Moreover, residents of collective quarters, homeless persons and foreigners were not covered in the surveys. The survey covered the sedantary population of Tigray, Amhara, Oromia, Bensihangul-Gumuz, SNNP, Gambella and Harari Regions as well as Addis Ababa and Dire Dawa Administrative Regions. In Affar and Somalie Regions, the survey covered most of the sedantary population. Moreover, the survey covered the urban population with the emphasis on regional capitals and other major urban centers that are considered as reporting level.

A total of 1827 Enumeration Areas (EAs) that is 1380 rural and 447 urban enumeration areas were selected to be covered in the survey in all regions. Nevertheless, of the total EAs 19 rural EAs were not covered in the survey due to various reasons. Thus, the survey succeeded to cover 1808 (99.0 percent) of the selected Eas. From, each sampled EA 25 households were systematically selected for the survey from a fresh list of households prepared at the begining of the field work.

With regard to the ultimate sampling units, it was planned to cover a total of 45,675 households (34,500 in rural areas and 11,175 households in urban areas) all over the country. The response rate was found to be 98.5 percent ,i.e, 98.2 percent or 33,895 households in rural areas and 99.7 percent or 11,084 households in urban areas). Only,

605 of the selected rural households did not covered by the survey (for details see Tables 2.1 and 2.2).

## **2.2 Concepts and Definitions**

a) **URBAN CENTER:** is in principle defined as a locality with 2000 or more inhabitants. However for practical purposes an urban center includes the following regardless of the number of inhabitants.

- i) All administrative capitals (Regional capitals, Zonal capitals and Wereda capitals)
- ii) Localities with UDAs not included in (i)
- iii) All localities which are not included either in (I) or (ii) above having a population of 1000 or more persons, and whose inhabitants are primarily engaged in non-agricultural activities.

b) **URBAN KEBELE (URBAN DWELLERS ASSOCIATION, UDA):** is the lowest administrative unit in an urban center with its own jurisdiction.

c) **RURAL KEBELES (FARMERS ASSOCIATION AREA, FA):** is the lowest administrative unit in a settled rural area with its own jurisdiction.

d) **ENUMERATION AREA (EA):** is a unit of land delineated for the purpose of enumerating housing units and population without omission and duplication. An EA in rural areas usually consists of 150-200 households, and on the other hand an EA in urban centers constitutes 150-200 housing units. An enumeration area should be related to a urban kebeles or rural kebeles in one of the following ways.

- An EA may be equal to an FA if the number of the households in the FA is less than or equal to 150 - 200, in rural areas and an EA may be equal to the urban kebele in urban areas if the number of housing units in the urban kebele is 150 - 200.

- An EA may be a part of a rural kebele or an urban dwellers association area and should not cross rural kebele boundary in rural areas and urban kebele boundary in urban centers.

e) COLLECTIVE QUARTER: A collective quarter is a premise (a housing unit, a building or compound) in which a number of unrelated persons reside together, and share common facilities. Examples of collective quarters are monasteries, prisons, boarding schools, hostels, home for aged, children's homes, work camps, military barracks, etc.

f) HOUSEHOLD: Constitutes a person or group of persons, irrespective of weather related or not who normally live together in the same housing unit or group of housing units and who have common cooking and eating arrangements.

g) HEAD OF HOUSEHOLD: A head of a household is person who considered as head by the household. The head of the household could be a male or a female.

h) MEMBER OF HOUSEHOLD: Person constituting a household is called member of the household. The following are considered as members of a household:

- i) All persons who live and eat together including those who were not present in the household at the time of the survey were expected to be absent for less than six months
- ii) All persons who eat and stay with the household for six months and more.
- iii) House maids, guards, baby-sitters, etc. Who live and eat with the household but do not have separate home of their own are considered as household members even if they stay for less than six months.

- i) **HOUSEHOLD SIZE:** Is the total number of members of a household.
- j) **ANTHROPOMETRY:** The technique that deals with the measurement of the size, weight and proportions of the human body. The anthropometric measurements described in this report are standing height, recumbent length and weight measurements.
- k) **ACUTE MALNUTRITION OR WASTING:** A nutritionally deficient state of recent onset related to sudden food deprivation or malabsorption or poor utilization of nutrients which results in rapid weight loss. The highest prevalence occur in times of famine, during seasonal food shortages, or during severe illness. A child who is less than 80 percent of the reference medium for weight-for-height, or two standard deviations below it, is classified as “acutely malnourished” or “wasted”.
- l) **CHRONIC MALNUTRITION OR STUNTING:** A nutritional deficient state related to frequent episodes of acute malnutrition or a long-term food deficiency, often combined with persistent or recurrent ill health in the first few years of life. A child who is less than 90 percent of the reference median of height-for age, or two standard deviations below it, is classified as “chronically malnourished” or “stunted”.
- m) **UNDERWEIGHT:** A nutritional status indicator of malnutrition (either acute or chronic malnutrition) based on the principle that a child has an expected weight for its age.
- n) **Z-SCORE:** The standard deviation (SD) from the mean.
- o) **VACCINATION:** Any incurable immunizing agent or a preparation containing bacteria so treated as to give immunity from specific diseases when injected into the subject.

### 2.3 Sample Design

The 1998 (1990 E.C.) Health and Nutrition Survey covered both urban and rural parts of the country, except six zones in Somali Region and two zones in Affar Region. For the purpose of the survey, the country was divided into three categories. These are rural areas, major urban centers and other urban.

**Major Urban Centers (Category I):** These are Ten regional capitals and five urban centers with a population of 100,000 and over were grouped in this category. Each urban center in this category was the survey domain (reporting level) for which separate survey results **for major survey characteristics** were reported.

**Other Urban Centers (Category II):** These are urban centers in the country other than fifteen urban centers in category I were grouped in this category. There were four domains (reporting levels) in this category, namely;

- a) Other Urban Amhara (excluding Gondar, Bahr Dar, Dessie)
- b) Other Urban Oromiya (excluding Jima, Nazreth, Debre Zeit)
- c) Other Urban SNNP (excluding Awasa)
- d) Other Urban (excluding all urban centers in the major urban centers and those in a, b and c in other urban centers).

Other than the nineteen domains (reporting levels) major urban centers other urban centers, three additional domains can be constructed by combining basic domains from the last two categories. These domains are:

- i) Urban Amhara
- ii) Urban Oromiya
- iii) Urban SNNP

**Category I (Rural Areas):** This include the rural parts of 44 Zones and 5 special weredas in seen regions and rural parts of Gambela, Harari, Addis Ababa and Dire Dawa regions were grouped in this category each of which the survey domains (reporting levels). The seven regions are Tigray, Affar, Amhara, Oromia, Somalie, Benishangul-Gumuz, and SNNP.

All in all accordingly 54 basic rural domains (reporting levels) including total rural (country level) were defined for the survey. In addition to the above urban and rural domains, survey results can be reported at regional and country levels by aggregating the survey data for corresponding urban and rural areas.

Definition of the sruvey domains was based both on technical and resource considerations. More specifically, sample sizes for the domains were determined to enable provision of major indicators with reasonable precision subject to the resources that were available for the survey.

#### **2.4 Selection Schemes and Sample Size**

a) **Category II:** Two-stage stratified sample design was used to select the sample in which the primary sampling units (PSUs) were enumeration areas (EAs). Sample Eas from each domain were selected using systematic probability proportional to size; size being number of households obtained from the 1994 Population and Housing Census. In this category, a total of 325 urban Eas were selected. Within each sample EA, fresh list of households was prepared at the beginnning of the survey's fieldwork and the survey questionnaire was administered to 25 systematically selected households within each of the sampled EAs.

b) **Category III:** Three-stage stratified sample design was adopted to select the sample from domains in category II. The PSUs were urban centers selected using Systematic

Probability Proportional to Size; size being number of households obtained the 1994 Population and Housing Census. The secondary sampling units (SSUs) were EAs that were selected using Systematic Probability Proportional to Size; size being number of households obtained from the 1994 Population and Housing Census. In this category a total of 122 urban EAs were selected. Number of SSUs selected from each of the sample EAs were selected systematically from a fresh list of households prepared at the beginning of the surveys fieldwork for the administration of the survey questionnaire.

c) **Category I:** Two-stage stratified sample design was used to select the sample in which the PSUs were EAs. Sample from each domain was selected using systematic probability proportional to size; size being number of households obtained from the 1994 Population and Housing Census. A total of 1380 rural EAs were selected from category III. Within each sample EA a fresh list of households was prepared at the beginning of the survey's fieldwork and the survey questionnaire was administered to 25 systematically selected households per sample EA.

Distribution of sample units by domain (reporting levels) and category is given in Tables 2.1 and 2.2 below.

**Table 2.1 Distribution of Sampled and Covered EAs and Households:-1998**

**RURAL**

Domains	RURAL			
	EAs		Households	
	Sampled	Covered	Sampled	Covered
<b>1 Tigray</b>	<b>100</b>	<b>96</b>	<b>2500</b>	<b>2424</b>
W.Tigray	25	24	625	600
C.Tigray	25	25	625	625
E.Tigray	25	24	625	625
S.Tigray	25	23	625	574
<b>2 Affar</b>	<b>60</b>	<b>53</b>	<b>1500</b>	<b>1325</b>
Zone 1	20	16	500	400
Zone 3	20	17	500	425
Zone 5	20	20	500	500
<b>3 Amhara</b>	<b>285</b>	<b>283</b>	<b>7125</b>	<b>7065</b>
N.Gondar	30	30	750	750
S.Gondar	30	30	750	750
E.Gojam	30	30	750	747
W.Gojam	30	30	750	748
Awi	25	25	625	622
N.Wolo	30	30	750	750
S.Wolo	30	30	750	750
Wag Hamra	25	25	625	624
Oromia	25	24	625	600
N.Shewoa	30	29	750	750

**Table 2.1 (conte'd)**

<b>4 Oromiya</b>	<b>358</b>	<b>358</b>	<b>8950</b>	<b>8950</b>
N.Shoa	30	30	750	750
W.Shoa	30	30	750	750
E.Shoa	30	30	750	749
Arsi	30	30	750	749
Bale	30	30	750	750
Borena	28	28	700	700
E.Wellga	30	30	750	750
W.Wellega	30	30	750	750
Jima	30	30	750	750
Illubabor	30	30	750	749
E.Hararge	30	30	750	750
W.Harargea	30	30	750	750
<b>5 Somalie</b>	<b>62</b>	<b>60</b>	<b>1550</b>	<b>1497</b>
Liben	22	22	550	550
Shinile	20	18	500	447
Jijiga	20	20	500	500
<b>6 Ben-Gumuz</b>	<b>75</b>	<b>75</b>	<b>1875</b>	<b>1872</b>
Metekel	25	25	625	622
Asosa	25	25	625	625
Kemashi	25	25	625	625
<b>7 S.N.N.P</b>	<b>340</b>	<b>334</b>	<b>8500</b>	<b>8349</b>
N.Omo	30	30	750	750
S.Omo	30	24	750	599
Bench-Maji	25	25	625	625
Kef-Shekich	30	30	750	750
Gedeo	30	30	750	750
Kembata	30	30	750	750

Table 2.1 (Cont'd)

Hadiya	30	30	750	750
Burji	15	15	375	375
Yem	15	15	375	375
Konso	15	15	375	375
Derashe	15	15	375	375
Gurage	30	30	750	750
Sidama	30	30	750	750
Amaro	15	15	375	375
<b>8 Gambela</b>	<b>25</b>	<b>22</b>	<b>625</b>	<b>570</b>
<b>9 Harari</b>	<b>25</b>	<b>25</b>	<b>625</b>	<b>624</b>
<b>10 Addis Aba</b>	<b>25</b>	<b>25</b>	<b>625</b>	<b>625</b>
<b>11 D.Dawa</b>	<b>25</b>	<b>25</b>	<b>625</b>	<b>625</b>
<b>Total Rural</b>	<b>1380</b>	<b>1357</b>	<b>34500</b>	<b>33895</b>

**Table 2.2 Distribution of Sampled and Covered EAs and Households:-1998**

**URBAN**

Domains	URBAN			
	EAs		Households	
	Sampled	Covered	Sampled	Covered
Mekele	19	19	475	474
Asayita	12	12	300	299
Gonder	17	17	425	425
Dessie	20	20	500	500
Bahir Dar	20	20	500	492
Jimma	20	20	500	498
Debre Zeit	20	20	500	500
Nazerth	20	20	500	500
Jigiga	14	14	350	350
Assosa	15	15	375	375
Awassa	19	19	475	475
Gambela	14	13	350	325
Harar	20	20	500	500
Addis Ababa	75	75	1875	1862
Dire Dawa	20	20	500	500
Amahara-Other	31	31	775	773
Urban				
Oromiya-Other	50	50	1250	1250
Urban				
SNNP-Other	20	20	500	498
Urban				
Country-Other	21	20	525	498
Urban				
<b>Total Urban</b>	<b>447</b>	<b>445</b>	<b>11175</b>	<b>11084</b>

## **2.5 Field Organization**

All the 22 branch statistical offices of the CSA participated in the survey undertaking, especially in organizing the second stage training, in deploying the field staff to their respective sites of assignment, and retrieving completed questionnaires and submitting them to the head office for data processing. They were also responsible in administering the financial and logistic aspect of the survey. (Within the areas of their assignment.)

To accomplish the operation of data collection all enumerators were supplied with the necessary equipment (including infant weighting scales and height measurement boards for anthropometric measurement) after the completion of the training. It is to be mentioned, that the Health and Nutrition was conducted in conjunction with the 1998 Welfare Monitoring Survey.

In the data collection of the survey, a total of 1480 enumerators and 349 field supervisors were involved with an average supervisor-enumerator ratio of 1-to-5. The data collection in the field lasted for five days.

### **2.5a Training of Field Staff**

Training of the field staff is one of the most important component of the survey activities to be undertaken. In this survey the training program of interviewers, supervisors and other field and head office staff was conducted at two stages. The first stage of training was conducted at the CSA head office in Addis Ababa. The participants were professionals and sub-professionals with ample experiences in data collection, supervision, etc. Branch Office heads and their assistants who were to train interviewers and supervisors during the second stage of training conducted at the branch offices.

The training at the head office which lasted for seven days consisted of theoretical discussions on how to complete the questionnaire as well as practical interview of households and/or household members and anthropometric measurements of children under five years. The objectives of practical interviewing of households and anthropometric measurements were double fold. Firstly, it enabled to assess how well the theoretical class discussions were adequately understood by all participants so that they could convey the same message to interviewers and supervisors. The second objective was to examine the difficulty which will likely be encountered during the actual field work.

Thorough discussions were made after field practice. The discussions were intended to help exchange experiences among participants and pinpoint the areas of the survey questions which need more care and attention. Two professional staffs of the ENI participated during the first stage training (both during class discussions and practical field work). Their contributions were very important in the training of trainers particularly in the area of anthropometric measurement and should be acknowledged. The first day of practical field work was interviewing of households and/or household members and during the second day anthropometric measurements were taken. In order to be more proficient in measuring heights and weights. Measurements were done at pre-school sites where many children were available. Each participant practiced these activities by measuring weight and height of at least 10 children of under five years twice. The reason why measurements were taken twice was to exercise standardization, which is the process of teaching the survey team how to take measurements by checking the precision and accuracy of each enumerator. This practical field work was conducted both at the head office and at Branch Statistical Offices where the training of interviewers and supervisors took place and the practical field work was carried out in the selected urban and rural areas.

## **2.5b Data Collection**

Information was collected by interviewers using both subjective and objective method of data collection. Most of the information collected by the survey were obtained by subjective method that is, by interviewing the head of households as well as household members in the sampled EAs. On the other hand, data on anthropometric measurements were obtained by objective measurements of the height and weight of children under five years in the sampled households. During these anthropometric measurements each interviewer was carrying out these activities working with one assistant because the measurement could not be successfully accomplished by one person; the interviewer. For weight measurement hanging spring dial scale calibrated in 100 grams increments was employed while for height measurements, height measuring board with one fixed end and the other end with a movable piece was used.

Two types of measurement approaches depending on the age of the children were used when measuring the height. These are standing height measurement and recumbent length measurement. Standing height was measured on children aged two years or older while recumbent length was taken on children less than two years of age by laying them down on the measuring board.

Furtheromre, three types of reference periods were adopted in the survey. For illness/morbidity and accident the reference period was the last 14 days. In addition, in order to get a good picture regarding health consultation and treatment the last twelve month's reference period was adopted and for maternal health care visits the reference period was two years prior to the survey date.

## **2.5c Supervision**

To assist the data collection activities in deployment, supervision and retrieval of completed questionnaires, a total of 123 four-wheel vehicles were used. Table 2.3 shows distribution of the field staff and vehicles by branch statistical offices.

During the survey filedwork, close and regular supervision was undertaken at various levels. At the beginning of field work, the management staff from the head office visited all Branch Statistical Offices and discussed the objectives, importance of the survey, the expected quality of the data and some other related issues with supervisors and enumerators. Immediately after the commencement of filedwork, close supervision was made by supervisors who made spot checking, re-interviewing and a thorough scrutiny of filled questionnaires to ensure that the data collection activities are taking place according to the instructions given. In addition to this, supervision was made by the trainers and Branch Statistical Office heads.

**Table 2.3 Distribution of Field Staff and Vehicles by  
Branch Statistical Office - 1998**

Branch Office	Number of		
	Enumerators	Supervisors	Vehicles
Mekele	135	29	7
Asayita	82	18	5
Gondar	103	22	6
Debre Markos	124	26	8
Dessie	102	21	7
Debre Birhan	68	15	5
Nazreth	102	22	4
Ambo	74	17	5
Nekemte	75	17	6
Jima	97	22	7

Table 22 (Cont'd)

Goba	57	14	4
Asebe Teferi	58	13	4
Jijiga	86	19	4
Asosa	103	23	6
Awasa	138	27	8
Mizan Teferi	71	16	6
Arba Minch	127	23	8
Hosana	123	28	7
Gambela	51	11	5
Harar	71	15	4
Addis Ababa	108	24	4
Dire Dawa	57	14	3
<b>Total</b>	<b>2012</b>	<b>436</b>	<b>123</b>

## **2.6 Data Processing**

After the completion of the fieldwork the filled-in questionnaires were retrieved from the Branch Statistical Offices for data processing. The first stage data processing activity was manual editing, coding and verification. About 55 editors-coders and 8 verifiers accomplished the coding and verification exercise, and the work lasted for 15 days. Then 28 encoders accomplished data entry to the computer and the work took 15 days. After the data entry was completed, machine editing, data weighting and tabulation activities were carried out by programmers of the Data Processing Department. The Integrated Microcomputer Processing System (IMPS) software was used for data entry, consistency checking and for the tabulation of the survey results.

## CHAPTER 3

### MORBIDITY

#### 3.1 Prevalence of Illness

In the 1998 Health and Nutrition Survey information on morbidity, type of illness, number of days of illness and number of days restricted from usual activity during the last 14 days due to illness/accident were collected. However, only two major diseases that have affected the respondent during the reference period were considered.

According to the survey data presented in Table 3.1, individuals who reported to have been suffering from two illness types were 4 percent compared to those who reported one illness type which were 20 percent. Overall, the proportion of individuals who reported any illness was 24 percent. The remaining 76 percent reported no illness during the last two weeks.

Table 3.1 also shows that the percentage distribution of persons who reported having one, two and no illness by age group. It can be seen that the highest proportions were found among children under five years of age and persons aged 45 and above years. On the other hand, the lowest proportion was observed for children aged 10-14 years. By sex, the prevalence rate of having only one illness was higher among females than males.

The distribution of population by status and frequency of illness and age group is shown in Table 3.2. The data in the table show that regional variations were not very large for most of the regions. Comparatively, the highest proportion of persons who reported any illness was observed in Tigray Region (32 percent) and Dire Dawa (32 percent). But in Addis Ababa the proportion of persons who reported any illness was the lowest; 9.4% percent possibly due to the fact that most of the sampled households were largely urban dwellers. Except in Tigray where the proportion of persons who reported to have been suffering from two illnesses was 7 percent, the proportions of persons who reported to have been suffering from two illnesses in the remaining other regions were

**Table 3.1 Distribution of Persons who Reported having one illness, two illnesses and no illness During two Weeks Prior to the Survey , by Age and Sex : 1998**

Age Group/ Sex	Status and Frequency of Illness									
	One illness		Two illnesses		No illness		Not Stated		Total	
	N°	%	N°	%	N°	%	N°	%	N°	%
<b>Under 1</b>										
Both Sexes	502,671	28.1	103,230	5.8	1,167,688	65.2	17,161	1.0	1,790,750	100
Male	262,538	29.9	52,307	6.0	554,979	63.2	8,982	1.0	878,806	100
Female	240,133	26.3	50,923	5.6	612,709	67.2	8,179	0.9	911,944	100
<b>1 - 4</b>										
Both Sexes	1,883,236	26.6	313,397	4.4	4,821,120	68.1	62,881	0.9	7,080,634	100
Male	977,675	27.2	169,629	4.7	2,419,139	67.3	30,472	0.8	3,596,915	100
Female	905,561	26.0	143,768	4.1	2,401,981	68.9	32,409	0.9	3,483,719	100
<b>5 - 9</b>										
Both Sexes	1,343,621	15.5	155,445	1.8	7,184,138	82.6	11,889	0.1	8,695,093	100
Male	686,805	15.7	81,623	1.9	3,593,812	82.3	7,110	0.2	4,369,350	100
Female	656,816	15.2	73,822	1.7	3,590,326	83.0	4,779	0.1	4,325,743	100
<b>10 - 14</b>										
Both Sexes	961,624	13.2	110,987	1.5	6,172,081	85.0	14,892	0.2	7,259,584	100
Male	494,008	13.2	61,491	1.6	3,190,865	85.0	7,837	0.2	3,754,201	100
Female	467,616	13.3	49,496	1.4	2,981,216	85.0	7,055	0.2	3,505,383	100
<b>15 - 19</b>										
Both Sexes	831,883	14.2	119,439	2.0	4,902,609	83.6	7,306	0.1	5,861,237	100
Male	378,871	13.2	56,342	2.0	2,441,534	84.8	3,893	0.1	2,880,640	100
Female	453,012	15.2	63,097	2.1	2,461,075	82.6	3,413	0.1	2,980,597	100
<b>20 - 24</b>										
Both Sexes	750,818	16.9	126,003	2.8	3,565,939	80.2	5,364	0.1	4,448,124	100
Male	316,674	15.1	49,304	2.4	1,724,197	82.4	2,773	0.1	2,092,948	100
Female	434,144	18.4	76,699	3.3	1,841,742	78.2	2,591	0.1	2,355,176	100
<b>25 - 29</b>										
Both Sexes	766,656	19.2	136,906	3.4	3,077,637	77.2	7,381	0.2	3,988,580	100
Male	330,038	17.6	51,084	2.7	1,485,690	79.4	3,735	0.2	1,870,547	100
Female	436,618	20.6	85,822	4.1	1,591,947	75.2	3,646	0.2	2,118,033	100
<b>30 - 34</b>										
Both Sexes	601,993	21.0	127,164	4.4	2,138,916	74.5	2,774	0.1	2,870,847	100
Male	265,383	18.9	50,548	3.6	1,085,423	77.4	1,482	0.1	1,402,836	100
Female	336,610	22.9	76,616	5.2	1,053,493	71.8	1,292	0.1	1,468,011	100

Table 3.1 Cont'd

Age Group / Sex	Status and Frequency of Illness								Total	
	One illness		Two illnesses		No illness		Not Stated		N°	%
	N°	%	N°	%	N°	%	N°	%		
<b>35 - 39</b>										
Both Sexes	613,915	22.1	150,779	5.4	2,009,401	72.3	4,543	0.2	2,778,638	100
Male	240,686	19.7	53,542	4.4	928,445	75.8	1,815	0.1	1,224,488	100
Female	373,229	24.0	97,237	6.3	1,080,956	69.6	2,728	0.2	1,554,150	100
<b>40 - 44</b>										
Both Sexes	488,361	22.6	135,474	6.3	1,537,142	71.0	4,402	0.2	2,165,379	100
Male	187,802	18.2	50,127	4.9	791,195	76.8	784	0.1	1,029,908	100
Female	300,559	26.5	85,347	7.5	745,947	65.7	3,618	0.3	1,135,471	100
<b>45 - 49</b>										
Both Sexes	422,446	24.9	122,159	7.2	1,151,476	67.8	2,306	0.1	1,698,387	100
Male	191,018	21.9	48,876	5.6	630,071	72.3	1,133	0.1	871,098	100
Female	231,428	28.0	73,283	8.9	521,405	63.0	1,173	0.1	827,289	100
<b>50 - 54</b>										
Both Sexes	356,428	26.5	105,492	7.8	879,691	65.4	3,045	0.2	1,344,656	100
Male	154,603	23.6	40,501	6.2	458,250	70.0	1,171	0.2	654,525	100
Female	201,825	29.2	64,991	9.4	421,441	61.1	1,874	0.3	690,131	100
<b>55 - 59</b>										
Both Sexes	270,307	25.9	96,312	9.2	675,526	64.8	562	0.1	1,042,707	100
Male	128,157	23.5	37,621	6.9	379,946	69.6	535	0.1	546,259	100
Female	142,150	28.6	58,691	11.8	295,580	59.5	27	0.0	496,448	100
<b>60 - 64</b>										
Both Sexes	288,322	29.6	87,637	9.0	596,236	61.2	1,302	0.1	973,497	100
Male	133,997	27.5	43,220	8.9	309,255	63.5	326	0.1	486,798	100
Female	154,325	31.7	44,417	9.1	286,981	59.0	976	0.2	486,699	100
<b>65+</b>										
Both Sexes	540,068	30.5	182,013	10.3	1,043,805	58.9	5,053	0.3	1,770,939	100
Male	274,713	28.5	86,103	8.9	598,755	62.2	2,708	0.3	962,279	100
Female	265,355	32.8	95,910	11.9	445,050	55.0	2,345	0.3	808,660	100
<b>All Ages</b>										
Both Sexes	10,622,349	19.8	2,072,437	3.9	40,923,405	76.1	150,861	0.3	53,769,052	100
Male	5,022,968	18.9	932,318	3.5	20,591,556	77.3	74,756	0.3	26,621,598	100
Female	5,599,381	20.6	1,140,119	4.2	20,331,849	74.9	76,105	0.3	27,147,454	100

**Table 3.2 Distribution of Persons who Reported Having One Illness, Two Illnesses and no Illness, During two weeks Prior to the Survey , by Sex and Region : 1998**

Region/Sex	Status of Illness								Total	
	One Illness		Two Illnesses		No Illness		Not Stated			
	N°	%	N°	%	N°	%	N°	%	N°	%
<b>Tigray</b>										
Both Sexes	872,439	24.9	242,527	6.9	2,369,007	67.7	15,705	0.4	3,499,678	100
Male	404,159	23.6	107,926	6.3	1,191,572	69.6	7,814	0.5	1,711,471	100
Female	468,280	26.2	134,601	7.5	1,177,435	65.8	7,891	0.4	1,788,207	100
<b>* Affar</b>										
Both Sexes	65,086	21.1	7,222	2.3	236,509	76.5	205	0.1	309,022	100
Male	31,683	20.2	1,694	1.1	123,001	78.6	156	0.1	156,534	100
Female	33,403	21.9	5,528	3.6	113,508	74.4	49	0.0	152,488	100
<b>Amhara</b>										
Both Sexes	2,951,248	20.7	525,512	3.7	10,750,257	75.3	44,184	0.3	14,271,201	100
Male	1,440,051	20.2	225,994	3.2	5,438,137	76.4	17,674	0.2	7,121,856	100
Female	1,511,197	21.1	299,518	4.2	5,312,120	74.3	26,510	0.4	7,149,345	100
<b>Oromia</b>										
Both Sexes	4,099,428	19.9	892,671	4.3	15,537,743	75.6	33,578	0.2	20,563,420	100
Male	1,894,119	18.5	407,392	4.0	7,907,913	77.3	20,178	0.2	10,229,602	100
Female	2,205,309	21.3	485,279	4.7	7,629,830	73.8	13,400	0.1	10,333,818	100
<b>**Somalie</b>										
Both Sexes	144,324	21.1	21,632	3.2	517,584	75.5	1,703	0.2	685,243	100
Male	68,047	19.2	11,769	3.3	274,467	77.3	683	0.2	354,966	100
Female	76,277	23.1	9,863	3.0	243,117	73.6	1,020	0.3	330,277	100
<b>Benishangul Gumuz</b>										
Both Sexes	121,922	21.0	12,615	2.2	444,098	76.3	3,049	0.5	581,684	100
Male	57,372	19.9	5,744	2.0	223,996	77.6	1,583	0.5	288,695	100
Female	64,550	22.0	6,871	2.3	220,102	75.1	1,466	0.5	292,989	100
<b>SNNP</b>										
Both Sexes	2,096,172	18.5	326,382	2.9	8,866,763	78.3	40,861	0.4	11,330,178	100
Male	1,014,236	18.1	154,882	2.8	4,401,958	78.7	20,402	0.4	5,591,478	100
Female	1,081,936	18.9	171,500	3.0	4,464,805	77.8	20,459	0.4	5,738,700	100
<b>Gambela</b>										
Both Sexes	26,246	18.5	2,419	1.7	112,061	79.1	944	0.7	141,670	100
Male	11,811	16.7	1,072	1.5	57,162	81.0	487	0.7	70,532	100
Female	14,435	20.3	1,347	1.9	54,899	77.2	457	0.6	71,138	100
<b>Harari</b>										
Both Sexes	23,700	16.5	2,690	1.9	116,656	81.3	424	0.3	143,470	100
Male	10,557	15.2	905	1.3	57,605	83.2	210	0.3	69,277	100
Female	13,143	17.7	1,785	2.4	59,051	79.6	214	0.3	74,193	100
<b>Addis Ababa</b>										
Both Sexes	160,135	7.9	29,552	1.5	1,820,170	90.1	9,560	0.5	2,019,417	100
Male	63,912	6.9	11,213	1.2	839,365	91.3	5,326	0.6	919,816	100
Female	96,223	8.8	18,339	1.7	980,805	89.2	4,234	0.4	1,099,601	100
<b>Dire Dawa</b>										
Both Sexes	61,650	27.5	9,213	4.1	152,558	68.1	645	0.3	224,066	100
Male	27,021	25.2	3,726	3.5	76,381	71.1	240	0.2	107,368	100
Female	34,629	29.7	5,487	4.7	76,177	65.3	405	0.3	116,698	100
<b>All Region</b>										
Both Sexes	10,622,350	19.8	2,072,435	3.9	40,923,406	76.1	150,858	0.3	53,769,049	100
Male	5,022,968	18.9	932,317	3.5	20,591,557	77.3	74,753	0.3	26,621,595	100
Female	5,599,382	20.6	1,140,118	4.2	20,331,849	74.9	76,105	0.3	27,147,454	100

\* Includes Settled Population Covered by Census map work in Zones 1,3,5

\*\* Includes Settled Population Covered by Census map work in Shiile, Jigjiga and Liben Zones

**Table 3.3 Distribution of Persons who Reported having one Illness, two Illnesses and no Illness, During two weeks Prior to the Survey ,by Highest grade Completed : 1998**

Highest Grade Completed / Sex		Status and Frequency of Illness				Total
		One Illness	Two Illness	No Illness	Not Stated	
<b>Country - Total</b>						
<b>No Education</b>						
Both Sexes	Nº	5,523,241	1,266,620	19,962,453	43,088	26,795,402
	%	80.1	84.4	71.9	73.1	74.0
Male	Nº	2,152,827	468,210	8,863,211	17,042	11,501,290
	%	69.5	74.5	63.2	60.5	64.7
Female	Nº	3,370,414	798,410	11,099,242	26,046	15,294,112
	%	89.8	91.6	80.9	84.7	83.0
<b>Non-Formal</b>						
Both Sexes	Nº	96,049	23,434	336,407	-	455,890
	%	1.4	1.6	1.2	-	1.3
Male	Nº	86,978	22,413	311,926	-	421,317
	%	2.8	3.6	2.2	-	2.4
Female	Nº	9,071	1,021	24,481	-	34,573
	%	0.2	0.1	0.2	-	0.2
<b>1 - 6</b>						
Both Sexes	Nº	880,148	146,048	4,613,383	11,222	5,650,801
	%	12.8	9.7	16.6	19.0	15.6
Male	Nº	609,412	94,779	3,050,805	7,591	3,762,587
	%	19.7	15.1	21.8	26.9	21.2
Female	Nº	270,736	51,269	1,562,578	3,631	1,888,214
	%	7.1	5.9	11.4	11.8	10.2
<b>7 - 8</b>						
Both Sexes	Nº	160,351	24,315	1,115,318	1,932	1,301,916
	%	2.3	1.6	4.0	3.3	3.6
Male	Nº	94,908	14,833	675,194	1,569	786,504
	%	3.1	2.4	4.8	5.6	4.4
Female	Nº	65,443	9,482	440,124	363	515,412
	%	1.7	1.1	3.2	1.2	2.8
<b>9 - 12</b>						
Both Sexes	Nº	153,956	26,675	1,298,185	2,252	1,481,068
	%	2.2	1.8	4.7	3.8	4.1
Male	Nº	90,614	18,165	800,448	1,771	910,998
	%	2.9	2.9	5.7	6.3	5.1
Female	Nº	63,342	8,510	497,737	481	570,070
	%	1.7	1.0	3.6	1.6	3.1
<b>Above 12</b>						
Both Sexes	Nº	79,074	13,271	424,712	436	517,493
	%	1.1	0.9	1.5	0.7	1.4
Male	Nº	61,211	10,358	322,041	218	393,828
	%	2.0	1.6	2.3	0.8	2.2
Female	Nº	17,863	2,913	102,671	218	123,665
	%	0.5	0.3	0.7	0.7	0.7
<b>All Persons</b>						
Both Sexes	Nº	6,892,819	1,500,363	27,750,458	58,930	36,202,570
	%	100.0	100.0	100.0	100.0	100.0
Male	Nº	3,095,950	628,758	14,023,625	28,191	17,776,524
	%	100.0	100.0	100.0	100.0	100.0
Female	Nº	3,796,869	871,605	13,726,833	30,739	18,426,046
	%	100.0	100.0	100.0	100.0	100.0

found to be less than five percent (ranging from 1.5 percent in Addis Ababa to 4 percent in Oromia).

Table 3.3 also shows that the observed prevalence rates of having any illness are declining with the advance in the educational attainment that is the highest grade completed. It was higher among individuals with no education and among those who have non-formal education compared to those who had completed at least grades 1-6. The prevalence rates of having any illness for those who have completed grades above 12 is the lowest of all. Generally, it is assumed that literate persons are better aware of the use of health care; as well as the importance of hygiene than illiterates (for details see Tables 3.3.)

The data in Table 3.4 shows that the prevalence rates of having any illness were much higher among rural compared to urban population irrespective of the age group and sex.

Table 3.4 Prevalence Rates (per thousand) of having any Illness During the Last two Weeks by Highest Grade Completed :1988

Highest Grade Completed	Sex		
	Male	Female	Both Sexes
No Education	229.3	274.0	254.9
1-6	188.7	171.5	183.0
7-8	141.0	146.0	143.0
9-12	120.2	126.4	122.6
Above 12	151.7	157.2	153.2
Non Formal	254.1	249.0	253.6
Not Stated	179.1	223.8	199.4
All	210.6	254.5	232.9

As shown in Table 3.5, by age group the highest prevalence rates of having illness were observed among children under one year; then the rates are declining up to age group 10-14 where it attained its lowest value and started rising up from ages 15 and above years. This observation is quite similar to the previous survey results conducted by the CSA (CSA, 1985 and 1991). As shown in Table 3.6, the prevalence rates of having any illness also differed from region to region. Accordingly, the highest prevalence rate per thousand was observed in Tigray Region (321.2 of both sexes, 301.9 of males and 339.6 of females) closely followed by Dire Dawa (318.3 of both sexes, 287.7 of males and 346.4 of females). But the prevalence rate was the lowest in Addis Ababa. In all regions and in all zones, the prevalence rates were considerably higher among females than among males.

The prevalence rates of illness group by sex, place of residence and region are presented in Table 3.7. As shown in the table, at country level, the most prevalent illness group was found to be all fever and closely followed by all coughs. On the other hand, the table also shows that the least prevalent illness group was venereal disease followed by maternal health problems. Regarding the prevalence of specific diseases, the data showed that both among males and females, malaria was the single most prevalent disease excepting the residuals such as other cough.

At country level, comparison of the prevalence rates by sex have shown that all fever was the most prevalent disease group among males while all cough and all fever seem to be equally prevalent among females.

In rural areas, all fever disease group was more prevalent among males than females while all cough was more prevalent only among females. In urban areas, however, all cough was the most prevalent disease group irrespective of sex. Observation of prevalence rates for specific disease showed that malaria was the single most prevalent

**Table 3.5 Prevalence Rate( per thousand) of having any Illness During two weeks Prior to the survey by age, Sex and Place of Residence: 1998**

Age-group	Place of Residence\ Sex								
	Urban			Rural			Total		
	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes
	<b>Country Total</b>								
Under 1	356.9	325.4	341.3	367.6	327.1	346.9	360.0	345.5	395.7
1 - 4	285.2	256.6	270.8	330.2	314.9	322.7	313.1	315.1	359.7
5 - 9	119.1	131.4	125.7	182.8	174.4	178.6	164.8	170.9	193.7
10 - 14	102.1	104.9	103.6	156.6	156.7	156.6	135.9	146.0	156.5
15 - 19	106.3	116.2	111.9	161.5	188.6	175.0	137.7	158.7	161.6
20 - 24	92.3	148.3	124.6	191.0	234.1	213.4	159.9	193.3	202.5
25 - 29	131.5	174.1	155.6	218.0	263.4	241.8	189.9	223.2	236.8
30 - 34	155.3	222.1	189.5	238.4	292.3	266.0	218.1	252.3	269.0
35 - 39	187.2	268.6	232.8	251.6	311.0	284.8	242.9	275.9	290.0
40 - 44	183.2	290.1	237.2	239.4	350.1	297.8	238.5	289.6	313.1
45 - 49	205.8	286.2	246.2	288.1	384.3	334.7	271.3	319.2	335.5
50 - 54	167.2	349.6	264.3	317.6	394.8	357.0	298.0	345.7	377.1
55 - 59	184.4	357.3	285.6	317.4	413.4	361.6	306.2	352.2	370.4
60 - 64	236.3	349.4	299.3	379.9	419.3	399.3	351.8	385.0	421.7
65+	324.7	406.3	371.6	382.2	456.6	414.8	378.5	408.9	420.4
Total	157.3	192.2	176.2	235.7	260.4	248.1	212.6	235.0	254.0

\* Prevalance rate is proportion of persons having any illness(es) during the last 14 days Prior to the survey, out of the total Population at the time of the survey (expressed per thousand).

**Table 3.6 Prevalence Rate (per thousand) of having any Illness During two weeks Prior to the Survey by Age, Sex and Region : 1998**

Region / Sex	Age Group										Total	
	Under 1	1-4	5-9	10-14	15-29	30-44	45-54	55-64	65+	Not Stated		All Ages
<b>COUNTRY TOTAL</b>												
Both Sexes	346.2	317.8	173.1	149.0	192.0	272.1	332.2	369.0	413.2	199.9	238.2	53,769,047
Male	366.6	326.1	176.7	149.3	173.8	232.7	286.3	332.6	379.0	145.6	225.8	26,621,594
Female	326.6	309.2	169.5	148.7	208.7	306.7	378.3	407.3	454.6	227.5	250.4	27,147,453
<b>TIGRAY REGION</b>												
Both Sexes	388.0	337.9	234.7	232.0	270.7	380.4	462.9	480.5	537.2	224.7	321.2	3,499,678
Male	406.2	345.5	222.6	232.3	248.9	325.1	418.2	446.8	499.2	166.0	301.9	1,711,472
Female	369.9	330.2	247.1	231.7	290.3	426.5	501.5	512.3	581.1	259.5	339.6	1,788,206
<b>AFFAR REGION</b>												
Both Sexes	294.2	313.2	221.0	172.4	204.5	221.9	265.6	339.1	394.1	529.4	234.3	309,020
Male	138.0	272.4	251.4	189.5	164.9	217.9	206.7	226.2	355.6	261.5	213.6	156,533
Female	406.7	351.7	186.1	154.2	238.7	226.4	328.4	539.9	443.7	1000.0	255.6	152,487
<b>AMHARA REGION</b>												
Both Sexes	306.2	318.8	183.0	156.9	190.3	276.1	355.0	397.9	446.6	95.8	246.2	14,271,200
Male	309.5	325.2	191.2	164.3	179.6	241.3	305.2	357.2	398.5	-	236.1	7,121,855
Female	303.0	312.1	174.8	149.0	200.4	306.6	408.3	440.7	506.3	134.2	256.2	7,149,345
<b>OROMIYA REGION</b>												
Both Sexes	363.1	331.8	174.5	147.8	206.8	275.1	320.5	374.3	399.4	215.5	244.2	20,563,420
Male	384.3	341.2	176.0	145.8	179.4	221.4	272.1	329.8	357.8	92.2	226.6	10,229,602
Female	342.2	321.7	172.9	149.9	232.8	322.3	366.6	418.3	447.9	276.7	261.5	10,333,818
<b>SOMALIE REGION</b>												
Both Sexes	418.8	375.4	213.8	155.7	189.1	244.1	321.7	375.7	404.0	543.5	243.7	685,244
Male	471.7	379.3	193.0	160.0	169.8	187.1	285.4	329.9	381.6	1000.0	225.9	354,966
Female	363.7	371.0	241.0	150.5	206.8	294.2	366.2	428.6	429.4	-	262.8	330,278
<b>BENISHANGUL-GUMUZ REGION</b>												
Both Sexes	322.8	301.5	169.1	165.2	198.9	275.8	340.2	324.5	387.3	41.5	236.0	581,681
Male	263.4	294.9	170.3	161.7	197.3	236.8	317.8	231.3	407.6	-	223.8	288,694
Female	389.7	307.2	168.0	169.3	200.3	313.9	367.6	440.9	362.3	41.6	248.0	292,987

Table 3.6 Cont'd

Region / Sex	Age Group											Total
	Under 1	1-4	5-9	10-14	15-29	30-44	45-54	55-64	65+	Not Stated	All Ages	
<b>SNNP REGION</b>												
Both Sexes	361.8	289.4	149.6	131.0	177.5	263.8	316.2	305.2	367.2	299.5	216.4	11,330,179
Male	407.4	297.8	157.0	125.9	162.3	246.8	279.2	297.9	369.5	435.2	211.7	5,591,479
Female	319.5	281.1	141.9	136.3	191.0	278.6	354.3	314.1	364.0	183.5	221.1	5,738,700
<b>GAMBELLA REGION</b>												
Both Sexes	261.2	313.3	157.7	168.4	178.0	210.8	246.1	229.0	471.4	-	207.1	141,671
Male	249.4	309.5	154.6	168.2	144.9	186.0	224.6	184.9	401.0	-	189.1	70,533
Female	275.0	317.5	160.9	168.6	208.3	233.4	266.0	283.7	550.3	-	225.0	71,138
<b>HARARI REGION</b>												
Both Sexes	367.4	304.0	121.5	85.8	139.9	200.8	235.2	308.4	311.8	-	185.5	143,471
Male	431.4	304.7	96.7	77.3	116.7	175.3	213.3	336.0	235.6	-	166.7	69,278
Female	309.1	303.3	142.3	95.5	161.7	226.0	255.4	292.8	367.5	-	203.0	74,193
<b>ADDIS ABABA</b>												
Both Sexes	161.5	173.1	56.9	47.5	68.6	125.5	143.1	180.9	214.6	-	95.4	2,019,418
Male	186.7	195.1	47.0	37.0	59.0	87.9	106.8	171.3	197.8	-	82.8	919,817
Female	143.8	153.0	65.2	56.4	75.9	159.1	181.9	190.9	228.9	-	105.9	1,099,601
<b>DIRE DAWA PROVISIONAL ADMINISTRATION</b>												
Both Sexes	492.3	508.9	250.0	232.8	239.7	373.7	396.5	347.5	491.2	-	318.3	224,068
Male	512.8	500.2	236.4	226.1	209.2	324.2	343.3	250.6	345.1	-	287.7	107,369
Female	475.3	517.4	263.6	239.7	264.3	422.6	447.6	460.3	572.7	-	346.4	116,699

disease. The second most prevalent disease was diarrhoea in both urban and rural areas respectively. Overall, the observed prevalence rates were higher in the rural areas for all illness groups and most of the specific illnesses than in the urban areas (for details see Table 3.7).

Further more, as shown in table, the prevalence rates of reported illness group indicate that all fever was most prevalent in many of the regions followed by all cough.

Table 3.7  
Prevalence rates of reported illness groups in urban and rural areas

**Table 3.7 Prevalence Rate (Per thousand) of Each Reported Illness Groups by Sex and Region :1998**

Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>COUNTRY - TOTAL</b>			
All Fever	56.2	56.1	56.1
All Coughs	53.5	56.4	54.9
Diarrhoea and Abdominal Condition	45.0	44.0	44.5
Condition on Neck and Head	32.5	45.8	39.2
Veneral Diseases	0.9	0.7	0.8
Conditions on Skin	16.9	14.4	15.6
Maternal Health Problems	-	4.0	2.0
Other Conditions	18.8	26.9	22.9
Not Stated	2.1	2.1	2.1
<b>Total</b>	<b>26,621,594</b>	<b>27,147,453</b>	<b>53,769,047</b>
<b>TIGRAY REGION</b>			
All Fever	99.8	97.5	98.6
All Coughs	85.8	84.5	85.1
Diarrhoea and Abdominal Condition	44.9	43.8	44.3
Condition on Neck and Head	39.1	61.4	50.5
Veneral Diseases	0.7	0.4	0.5
Conditions on Skin	10.2	14.5	12.4
Maternal Health Problems	-	3.1	1.6
Other Conditions	18.8	32.0	25.5
Not Stated	2.7	2.5	2.6
<b>Total</b>	<b>1,711,471</b>	<b>1,788,207</b>	<b>3,499,678</b>
<b>AFFAR REGION</b>			
All Fever	135.6	162.1	148.7
All Coughs	29.0	33.8	31.4
Diarrhoea and Abdominal Condition	23.0	15.7	19.4
Condition on Neck and Head	14.7	25.4	20.0
Veneral Diseases	0.1	0.0	0.0
Conditions on Skin	7.6	6.9	7.2
Maternal Health Problems	0.0	1.8	0.9
Other Conditions	3.3	9.6	6.4
Not Stated	0.4	0.3	0.4
<b>Total</b>	<b>156,534</b>	<b>152,488</b>	<b>309,022</b>
<b>AMHARA REGION</b>			
All Fever	44.6	44.5	44.5
All Coughs	64.7	61.0	62.9
Diarrhoea and Abdominal Condition	45.3	38.4	41.8
Condition on Neck and Head	34.1	50.8	42.5
Veneral Diseases	1.0	1.0	1.0
Conditions on Skin	19.4	17.3	18.4
Maternal Health Problems	-	5.6	2.8
Other Conditions	24.8	34.6	29.7
Not Stated	2.2	3.0	2.6
<b>Total</b>	<b>7,121,855</b>	<b>7,149,345</b>	<b>14,271,200</b>

Table 3.7 Cont'd

Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>OROMIA REGION</b>			
All Fever	42.8	43.5	43.2
All Coughs	52.1	61.2	56.7
Diarrhoea and Abdominal Condition	52.7	55.1	53.9
Condition on Neck and Head	38.2	52.1	45.2
Veneral Diseases	1.3	0.6	0.9
Conditions on Skin	19.5	15.4	17.4
Maternal Health Problems	-	4.1	2.1
Other Conditions	18.4	28.3	23.4
Not Stated	1.7	1.1	1.4
Total	10,229,601	10,333,818	20,563,419
<b>SOMALIE REGION</b>			
All Fever	75.1	75.5	75.3
All Coughs	70.1	84.5	77.0
Diarrhoea and Abdominal Condition	39.2	32.2	35.9
Condition on Neck and Head	24.8	30.9	27.7
Veneral Diseases	0.1	0.3	0.2
Conditions on Skin	2.7	4.6	3.6
Maternal Health Problems	-	2.7	1.3
Other Conditions	12.8	30.0	21.1
Not Stated	1.1	2.0	1.5
Total	354,966	330,277	685,243
<b>BENISHANGUL-GUMUZ REGION</b>			
All Fever	69.6	56.0	62.8
All Coughs	43.4	44.4	43.9
Diarrhoea and Abdominal Condition	44.9	60.5	52.8
Condition on Neck and Head	30.1	36.6	33.4
Veneral Diseases	0.7	-	0.3
Conditions on Skin	10.1	11.3	10.7
Maternal Health Problems	-	3.6	1.8
Other Conditions	19.9	31.4	25.7
Not Stated	5.2	4.3	4.7
Total	288,695	292,989	581,684
<b>SNNP REGION</b>			
All Fever	86.3	85.7	86.0
All Coughs	36.3	36.4	36.3
Diarrhoea and Abdominal Condition	35.3	35.9	35.6
Condition on Neck and Head	22.9	30.6	26.8
Veneral Diseases	0.6	0.6	0.6
Conditions on Skin	14.5	12.0	13.2
Maternal Health Problems	-	2.6	1.3
Other Conditions	13.1	14.6	13.9
Not Stated	2.6	2.7	2.6
Total	5,591,478	5,738,700	11,330,178

Table 3.7 cont'd

Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>GAMBELLA REGION</b>			
All Fever	70.7	93.1	81.9
All Coughs	17.2	28.6	23.0
Diarrhoea and Abdominal Condition	37.1	34.0	35.5
Condition on Neck and Head	27.8	34.0	31.0
Veneral Diseases	0.2	-	0.1
Conditions on Skin	19.9	11.5	15.7
Maternal Health Problems	-	1.8	0.9
Other Conditions	9.7	18.8	14.3
Not Stated	6.4	3.2	4.8
Total	70,532	71,139	141,671
<b>HARARI REGION</b>			
All Fever	20.8	19.5	20.1
All Coughs	53.7	70.8	62.5
Diarrhoea and Abdominal Condition	47.7	41.3	44.4
Condition on Neck and Head	11.0	27.2	19.4
Veneral Diseases	-	-	-
Conditions on Skin	7.9	3.6	5.7
Maternal Health Problems	-	2.4	1.2
Other Conditions	24.4	36.4	30.6
Not Stated	1.3	1.8	1.6
Total	69,277	74,193	143,470
<b>ADDIS ABABA</b>			
All Fever	8.1	10.5	9.4
All Coughs	21.6	29.2	25.8
Diarrhoea and Abdominal Condition	20.3	21.7	21.1
Condition on Neck and Head	12.4	17.9	15.4
Veneral Diseases	-	-	-
Conditions on Skin	5.5	4.6	5.0
Maternal Health Problems	-	1.8	1.0
Other Conditions	13.8	18.4	16.3
Not Stated	1.1	1.7	1.5
Total	919,816	1,099,601	2,019,417
<b>DIRE DAWA PROVISIONAL ADMI.</b>			
All Fever	36.9	31.4	34.0
All Coughs	121.1	149.7	136.0
Diarrhoea and Abdominal Condition	60.2	58.6	59.3
Condition on Neck and Head	27.3	48.3	38.2
Veneral Diseases	0.2	-	0.1
Conditions on Skin	7.8	9.7	8.8
Maternal Health Problems	-	3.5	1.8
Other Conditions	32.9	42.6	38.0
Not Stated	1.4	2.6	2.0
Total	107,368	116,697	224,065

## **3.2 Duration of Illness and Restricted Usual Activity**

### **3.2a Duration of Illness**

Information collected on duration of illness may give a rough assessment of the severity of illnesses affecting the community. The duration of illness refers to 14 days prior to the survey date.

Table 3.8 displays the proportion of persons who reported illness by age, sex, place of residence and days of illness. According to the data in the table, the proportion of persons who reported to have been ill for 7-14 days was found to be 55 percent (54 percent of males and 56 percent of females). Moreover, 24 percent and 18 percent reported to have been ill for 1-3 days and 4-6 days, respectively and 2.7 percent have not stated the duration of illness. The data presented in Table 3.9 displayed variations in the duration of illness by age group. The proportion who were ill for 7-14 days ranged from 48 percent among children aged 1-4 years to 69 percent among elderly persons age 60 years and above. However, there were no systematic variations by sex. Overall, the reported proportion of ill persons who suffered for 7-14 days was larger among females, whereas the reverse was the case concerning proportions of population who were ill for 1-3 and 4-6 days.

According to the data in the table, the average number of days of illness for all ages combined were eight days. The average number of days of illness (in rural areas) ranged from seven days for children under 15 years to nine days for those persons aged 60 years and above. The overall mean number of days of illness in the 1982/83 Rural Health Survey was found to be 9.6 days (CSA,1985).

Table 3.9 displays the number of days of illness during the two weeks prior to the survey date by illness group. The data in the table indicate that 46 percent of the population who reported to have been ill for 7-14 days were only due to all fever and all cough disease groups. These indicate that about half of the population had been ill due to two disease groups, all fever and all cough for more number of days (7-14 days). The survey data also indicated that the average number of days of illness were eight days. In

Table 3.8 Distribution of Persons who Reported having Illness During two weeks Prior to the Survey by number of Days of Illness, Age and Sex :1998

Days of Illness/ Sex	Age Group								All Ages	
	Under 1	1-4	5-9	10-14	15-44	45-59	60+	Not Stated		
<b>COUNTRY - TOTAL</b>										
<b>1 - 3 days</b>										
Both Sexes	N°	144,909	598,205	379,808	292,184	1,184,779	289,294	185,643	844	3,075,666
	%	23.4	26.6	25.2	27.0	24.3	21.0	17.0	12.3	24.0
Male	N°	76,975	316,492	196,795	148,809	512,285	130,622	86,025	228	1,468,231
	%	23.9	27.0	25.5	26.5	25.1	21.7	16.0	13.5	24.4
Female	N°	67,934	281,713	183,013	143,375	672,494	158,672	99,618	616	1,607,435
	%	22.8	26.2	25.0	27.5	23.8	20.5	17.9	11.9	23.6
<b>4 - 6 days</b>										
Both Sexes	N°	131,446	452,152	330,965	222,810	871,232	220,467	136,996	1,587	2,367,655
	%	21.2	20.1	22.0	20.6	17.9	16.0	12.5	23.1	18.5
Male	N°	66,381	225,626	171,246	117,492	369,797	107,040	74,346	182	1,132,110
	%	20.6	19.2	22.2	21	18.1	17.8	13.8	10.8	18.8
Female	N°	65,065	226,526	159,719	105,318	501,435	113,427	62,650	1,405	1,235,545
	%	21.8	21.0	21.8	20.2	17.7	14.6	11.3	27.1	18.2
<b>7 - 14 days</b>										
Both Sexes	N°	306,839	1,070,043	757,174	530,805	2,726,327	855,295	752,520	4,414	7,003,417
	%	49.5	47.6	50.3	49.1	56.0	62.1	68.7	64.1	54.7
Male	N°	160,810	564,204	382,156	275,027	1,122,276	358,074	369,483	1,242	3,233,272
	%	49.9	48.1	49.5	49.1	55.0	59.4	68.7	73.5	53.8
Female	N°	146,029	505,839	375,018	255,778	1,604,051	497,221	383,037	3,172	3,770,145
	%	49.0	47.0	51.2	49.1	56.7	64.2	68.8	61.1	55.5
<b>Not Stated</b>										
Both Sexes	N°	36,786	129,762	37,010	36,116	88,871	12,578	19,515	38	360,676
	%	5.9	5.8	2.5	3.3	1.8	0.9	1.8	0.6	2.8
Male	N°	17,998	66,714	21,735	19,308	36,001	7,035	8,040	38	176,869
	%	5.6	5.7	2.8	3.4	1.8	1.2	1.5	2.2	2.9
Female	N°	18,788	63,048	15,275	16,808	52,870	5,543	11,475	-	183,807
	%	6.3	5.9	2.1	3.2	1.9	0.7	2.1	-	2.7
<b>Total Persons who were Ill</b>										
Both Sexes.	N°	619,980	2,250,162	1,504,957	1,081,915	4,871,209	1,377,634	1,094,674	6,883	12,807,414
	%	100	100	100	100	100	100	100	100	100
Male	N°	322,164	1,173,036	771,932	560,636	2,040,359	602,771	537,894	1,690	6,010,482
	%	100	100	100	100	100	100	100	100	100
Female	N°	297,816	1,077,126	733,025	521,279	2,830,850	774,863	556,780	5,193	6,796,932
	%	100	100	100	100	100	100	100	100	100
<b>Average N° days .</b>		6.9	6.7	7.1	6.9	7.7	8.5	9.3	8.7	7.5

Table 3.8a Distribution of Persons who Reported having Illness During two weeks Prior to the Survey by Number of Days of Illness, Age and Sex : 1998

Days of Illness/ Sex		Age Group							All Ages	
		Under 1	1-4	5-9	10-14	15-44	45-59	60+		Not Stated
<b>URBAN</b>										
<b>1 - 3 days</b>										
Both Sexes	N°	19,428	65,508	38,812	37,751	178,395	32,693	27,905	287	400,779
	%	34.9	36.4	34.0	35.0	31.1	22.7	22.9	63.4	30.9
Male	N°	9,490	34,586	16,578	19,937	69,356	9,967	9,157	44	169,115
	%	32.2	36.8	33.3	39.0	32.4	20.3	20.5	53.7	31.8
Female	N°	9,938	30,922	22,234	17,814	109,039	22,726	18,748	243	231,664
	%	37.9	35.9	34.6	31.4	30.3	23.9	24.3	65.5	30.2
<b>4 - 6 days</b>										
Both Sexes	N°	11,249	42,100	22,621	20,658	106,394	21,091	15,090	-	239,203
	%	20.2	23.4	19.8	19.1	18.5	14.6	12.4	-	18.4
Male	N°	5,534	21,922	10,296	10,941	39,681	9,905	5,309	-	103,588
	%	18.8	23.3	20.7	21.4	18.5	20.2	11.9	-	19.5
Female	N°	5,715	20,178	12,325	9,717	66,713	11,186	9,781	-	135,615
	%	21.8	23.4	19.2	17.1	18.5	11.8	12.7	-	17.7
<b>7 - 14 days</b>										
Both Sexes	N°	21,064	61,297	49,244	45,224	272,282	87,319	76,462	128	613,020
	%	37.8	34.1	43.2	41.9	47.4	60.6	62.8	28.3	47.2
Male	N°	12,761	31,786	20,295	18,286	98,535	28,455	29,440	-	239,588
	%	43.3	33.8	40.8	35.7	46.0	58.1	66.0	-	45
Female	N°	8,303	29,511	28,949	26,938	173,747	58,864	47,022	128	373,462
	%	31.7	34.3	45.0	47.5	48.3	61.8	61.0	34.5	48.8
<b>Not Stated</b>										
Both Sexes	N°	3,928	11,094	3,378	4,257	17,115	3,077	2,284	38	45,171
	%	7.1	6.2	3.0	3.9	3.0	2.1	1.9	8.4	3.5
Male	N°	1,666	5,644	2,623	2,017	6,549	679	716	38	19,932
	%	5.7	6.0	5.3	3.9	3.1	1.4	1.6	46.3	3.7
Female	N°	2,262	5,450	755	2,240	10,566	2,398	1,568	-	25,239
	%	8.6	6.3	1.2	3.9	2.9	2.5	2.0	-	3.3
<b>Total Persons who were Ill</b>										
Both Sexes	N°	55,669	179,999	114,055	107,890	574,186	144,180	121,741	453	1,298,173
	%	100	100	100	100	100	100	100	100	100
Male	N°	29,451	93,938	49,792	51,181	214,121	49,006	44,622	82	532,193
	%	100	100	100	100	100	100	100	100	100
Female	N°	26,218	86,061	64,263	56,709	360,065	95,174	77,119	371	765,980
	%	100	100	100	100	100	100	100	100	100
<b>Average N° days.</b>		5.4	5.4	6	6	6.9	8.4	8.9	4	6.8

Table 3.8b Distribution of Persons who Reported having Illness During two weeks Prior to the Survey by number of Days of Illness, Age and Sex : 1998

Days of Illness/ Sex	Age Group								All Ages	
	Under 1	1-4	5-9	10-14	15-44	45-59	60+	Not Stated		
<b>RURAL</b>										
<b>1 - 3 days</b>										
Both Sexes	N°	125,481	532,696	340,995	254,433	1,006,386	256,601	157,738	558	2,674,888
	%	22.2	25.7	24.5	26.1	23.4	20.8	16.2	8.7	23.2
Male	N°	67,485	281,906	180,216	128,872	442,930	120,655	76,868	184	1,299,116
	%	23.1	26.1	25.0	25.3	24.3	21.8	15.6	11.4	23.7
Female	N°	57,996	250,790	160,779	125,561	563,456	135,946	80,870	374	1,375,772
	%	21.4	25.3	24.0	27.0	22.8	20.0	16.9	7.8	22.8
<b>4 - 6 days</b>										
Both Sexes	N°	120,197	410,051	308,344	202,152	764,838	199,376	121,905	1,587	2,128,450
	%	21.3	19.8	22.2	20.8	17.8	16.2	12.5	24.7	18.5
Male	N°	60,847	203,703	160,950	106,551	330,116	97,135	69,037	182	1,028,521
	%	20.8	18.9	22.3	20.9	18.1	17.5	14.0	11.3	18.8
Female	N°	59,350	206,348	147,394	95,601	434,722	102,241	52,868	1,405	1,099,929
	%	21.9	20.8	22.0	20.6	17.6	15.0	11.0	29.1	18.2
<b>7 - 14 days</b>										
Both Sexes	N°	285,776	1,008,745	707,930	485,581	2,454,046	767,977	676,057	4,285	6,390,397
	%	50.6	48.7	50.9	49.9	57.1	62.3	69.5	66.6	55.5
Male	N°	148,050	532,418	361,861	256,741	1,023,742	329,620	340,043	1,242	2,993,717
	%	50.6	49.3	50.1	50.4	56.1	59.5	68.9	77.2	54.6
Female	N°	137,726	476,327	346,069	228,840	1,430,304	438,357	336,014	3,043	3,396,680
	%	50.7	48.1	51.7	49.3	57.9	64.5	70.1	63.1	56.3
<b>Not Stated</b>										
Both Sexes	N°	32,858	118,668	33,633	31,859	71,757	9,502	17,232	-	315,509
	%	5.8	5.7	2.4	3.3	1.7	0.8	1.8	-	2.7
Male	N°	16,332	61,070	19,112	17,291	29,452	6,356	7,324	-	156,937
	%	5.6	5.7	2.6	3.4	1.6	1.1	1.5	-	2.9
Female	N°	16,526	57,598	14,521	14,568	42,305	3,146	9,908	-	158,572
	%	6.1	5.8	2.2	3.1	1.7	0.5	2.1	-	2.6
<b>Total Persons who were Ill</b>										
Both Sexes	N°	564312	2070160	1390902	974025	4297027	1233456	972932	6430	11509244
	%	100	100	100	100	100	100	100	100	100
Male	N°	292714	1079097	722139	509455	1826240	553766	493272	1608	5478291
	%	100	100	100	100	100	100	100	100	100
Female	N°	271598	991063	668763	464570	2470787	679690	479660	4822	6030953
	%	100	100	100	100	100	100	100	100	100
<b>Average N° days.</b>		7	6.8	7.2	7	7.8	8.5	9.3	9	7.6

the 1982/83 survey, the observed average days of illness were 9.6 days in Round 1 and 9.7 days in Round 2 (CSA, 1985). The average days of illness in this survey ranged from 7 to 11 days. According to mean number of days of illness, conditions on skin ,venereal disease and maternal health problem disease groups reported to have lasted longer (see Table 3.9 for details). Similar observation was also made in the 1982/83 Rural Health Survey (CSA, 1985).

**Table 3.9 Distribution of Persons who Reported having Illness During two weeks Prior to the Survey by Number of days of Illness , and Reported Illness Group : 1998**

Illness Group	Days of Illness					
	1-3	4-6	7-14	Not Stated	Average No. of days Illness	Total
<b>COUNTRY - TOTAL</b>						
All Fever	N° 645,668	636,841	1,699,691	36,348	7.6	3,018,548
	% 21.0	26.9	24.3	10.1		23.6
All Coughs	N° 748,160	609,626	1,508,890	87,741	7.1	2,954,417
	% 24.3	25.7	21.5	24.3		23.1
Diarrhoea and Abdominal Condition	N° 673,345	498,175	1,152,154	68,997	6.8	2,392,671
	% 21.9	21	16.5	19.1		18.7
Condition on Neck and Head	N° 606,903	364,382	1,094,841	41,583	7.3	2,107,709
	% 19.7	15.4	15.6	11.5		16.5
Veneral Diseases	N° 7,830	5,013	30,158	-	9.2	43,001
	% 0.3	0.2	0.4	-		0.3
Conditions on Skin	N° 96,656	75,747	650,673	16,544	10.5	839,620
	% 3.1	3.2	9.3	4.6		6.6
Maternal Health Problems	N° 19,847	12,727	74,704	822	9.3	108,100
	% 0.6	0.5	1.1	0.2		0.8
Other Conditions	N° 273,917	158,295	776,714	21,791	8.6	1,230,717
	% 8.9	6.7	11.1	6.0		9.6
Not Stated	N° 3,341	6,848	15,594	86,851	2.0	112,634
	% 0.1	0.3	0.2	24.1		0.9
Total	N° 3,075,667	2,367,654	7,003,419	360,677	7.5	12,807,417
	% 100	100	100	100		100

**Table 3.9a Distribution of Persons who Reported having Illness During two weeks Prior to the Survey by Number of Days of Illness, and Reported Illness Group : 1998**

Illness Group	Days of Illness				Average No. of days Illness	Total	
	1-3	4-6	7-14	Not Stated			
<b>URBAN</b>							
All Fever	N°	89,296	65,732	148,232	7,697	6.5	310,957
	%	22.3	27.5	24.2	17.0		24.0
All Coughs	N°	102,518	64,605	149,046	6,961	6.8	323,130
	%	25.6	27.0	24.3	15.4		24.9
Diarrhoea and Abdominal Condition	N°	92,489	48,723	78,998	6,581	5.6	226,791
	%	23.1	20.4	12.9	14.6		17.5
Condition on Neck and Head	N°	68,316	30,715	81,753	4,075	6.5	184,859
	%	17.0	12.8	13.3	9.0		14.2
Veneral Diseases	N°	1,216	12	1,328	-	8.7	2,556
	%	0.3	-	0.2	-		0.2
Conditions on Skin	N°	6,862	6,724	45,685	3,293	9.9	62,564
	%	1.7	2.8	7.5	7.3		4.8
Maternal Health Problems	N°	2,084	1,133	5,399	0	8.9	8,616
	%	0.5	0.5	0.9	0		0.7
Other Conditions	N°	37,929	20,869	100,736	5,127	8.5	164,661
	%	9.5	8.7	16.4	11.4		12.7
Not Stated	N°	69	689	1,845	11,437	2.0	14,040
	%	-	0.3	0.3	25.3		1.1
Total	N°	400,779	239,202	613,022	45,171	6.8	1,298,174
	%	100	100	100	100		100

**Table 3.9b Distribution of Persons who Reported having Illness During two weeks Prior to the Survey by number of days of Illness, and Reported Illness Group : 1998**

Illness Group		Days of Illness					Total
		1-3	4-6	7-14	Not Stated	Average No. of days Illness	
<b>RURAL</b>							
All Fever	N°	556,372	571,109	1,551,459	28,650	7.7	2,707,590
	%	20.8	26.8	24.3	9.1		23.5
All Coughs	N°	645,643	545,021	1,359,845	80,780	7.2	2,631,289
	%	24.1	25.6	21.3	25.6		22.9
Diarrhoea and Abdominal Condition	N°	580,856	449,452	1,073,156	62,416	6.9	2,165,880
	%	21.7	21.1	16.8	19.8		18.8
Condition on Neck and Head	N°	538,586	333,667	1,013,088	37,508	7.4	1,922,849
	%	20.1	15.7	15.9	11.9		16.7
Veneral Diseases	N°	6,614	5,000	28,831	-	9.2	40,445
	%	0.2	0.2	0.5	-		0.4
Conditions on Skin	N°	89,794	69,023	604,988	13,251	10.6	777,056
	%	3.4	3.2	9.5	4.2		6.8
Maternal Health Problems	N°	17,763	11,594	69,305	822	9.4	99,484
	%	0.7	0.5	1.1	0.3		0.9
Other Conditions	N°	235,988	137,426	675,978	16,664	8.7	1,066,056
	%	8.8	6.5	10.6	5.3		9.3
Not Stated	N°	3,272	6,159	13,749	75,415	2.0	98,595
	%	0.1	0.3	0.2	23.9		0.9
Total	N°	2,674,888	2,128,451	6,390,399	315,506	7.6	11,509,244
	%	100	100	100	100		100

### **3.2b Duration of Restricted Usual Activity Due to Illness**

Restricted usual activity due to illness and accident has been defined in the Enumerator Instruction Manual for the 1998 Health and Nutrition Survey as being restricted from doing or performing (unable to do or perform) one's usual activity due to illness or accident. The usual activity of a person at any time is what he/she would normally do at that time when he/she has not been restricted from doing or performing (or unable to do) by illness or accident. Examples of usual activity are farming, commercial activities, teaching, schooling, playing (especially for young children), going to church or mosque for daily prayers, ...etc. (CSA, 1985)

Table 3.10 presents the proportion of persons who reported illness by age, sex and days of restricted usual activity. Out of the total population who reported illness 30 percent of them had been restricted from their usual activity for 7-14 days due to illness during the last 14 days. The proportion of those who were restricted from their usual activity for 1-3 and 4-6 days were 26 percent and 16 percent, respectively. On the other hand, 24 percent of both sexes (23 percent of males and 24 percent of females) who reported illness have not been restricted from their usual activity at all.

Comparison of days restricted from usual activity by sex indicated that there were no observed variations for all categories of the days of restricted activity. But some variations were noticed by age group. Thus, the proportion of persons who were restricted for 7-14 days ranged from 23 percent among children aged 10-14 years to 43 percent among those aged 60 and above years. For all ages, the reported average number of days restricted from usual activity was found to be five days. It ranged from four days among population aged under 15 years to five days among those aged 15 years and above (for details see Tables 3.10, 3.10a and 3.10b).

Table 3.11 presents the proportion of persons who reported illness during 14 days prior to the survey date by duration of restricted activity, illness group and sex. On the

**Table 3.10 Distribution of Persons who Reported having Illness(es) During the two weeks prior to the survey by Number of Days of Restricted usual Activity, Sex and Age:1998**

Days of Restricted usual activity / Sex	Age Group									
	Under 1	1-4	5-9	10-14	15-44	45-59	60+	Not Stated	All Ages	
<b>COUNTRY - TOTAL</b>										
<b>None</b>										
Both Sexes	N°	142,831	576,289	391,463	275,740	1,124,635	297,268	226,560	2,688	3,037,474
	%	23	25.6	26	25.5	23.1	21.6	20.7	39	23.7
Male	N°	70,363	307,477	199,643	145,453	451,451	116,887	100,296	597	1,392,167
	%	21.8	26.2	25.9	25.9	22.1	19.4	18.6	35.3	23.2
Female	N°	72,468	268,812	191,820	130,287	673,184	180,381	126,264	2,091	1,645,307
	%	24.3	25	26.2	25	23.8	23.3	22.7	40.3	24.2
<b>1 - 3 days</b>										
Both Sexes	N°	160,369	620,648	428,043	332,060	1,362,353	333,851	222,836	405	3,460,565
	%	25.9	27.6	28.4	30.7	28	24.2	20.4	5.9	27
Male	N°	85,065	329,006	221,199	165,615	578,037	148,918	103,486	194	1,631,520
	%	26.4	28	28.7	29.5	28.3	24.7	19.2	11.5	27.1
Female	N°	75,304	291,642	206,844	166,445	784,316	184,933	119,350	211	1,829,045
	%	25.3	27.1	28.2	31.9	27.7	23.9	21.4	4.1	26.9
<b>4 - 6 days</b>										
Both Sexes	N°	105,880	353,004	238,123	184,818	759,670	237,743	144,549	808	2,024,595
	%	17.1	15.7	15.8	17.1	15.6	17.3	13.2	11.7	15.8
Male	N°	52,622	170,398	114,593	101,214	326,122	114,264	73,405	446	953,064
	%	16.3	14.5	14.8	18.1	16	19	13.6	26.4	15.9
Female	N°	53,258	182,606	123,530	83,604	433,548	123,479	71,144	362	1,071,531
	%	17.9	17	16.9	16	15.3	15.9	12.8	7	15.8
<b>7 - 14 days</b>										
Both Sexes	N°	167,842	541,474	386,665	246,949	1,488,028	476,186	474,827	2,352	3,784,323
	%	27.1	24.1	25.7	22.8	30.5	34.6	43.4	34.2	29.5
Male	N°	92,009	283,481	201,270	125,389	631,184	202,447	249,639	416	1,785,835
	%	28.6	24.2	26.1	22.4	30.9	33.6	46.4	24.6	29.7
Female	N°	75,833	257,993	185,395	121,560	856,844	273,739	225,188	1,936	1,998,488
	%	25.5	24	25.3	23.3	30.3	35.3	40.4	37.3	29.4
<b>Not Stated</b>										
Both Sexes	N°	43,058	158,746	60,662	42,349	136,524	32,587	25,902	631	500,459
	%	6.9	7.1	4.0	3.9	2.8	2.4	2.4	9.2	3.9
Male	N°	22,106	82,674	35,227	22,966	53,565	20,255	11,068	38	247,899
	%	6.9	7.0	4.6	4.1	2.6	3.4	2.1	2.2	4.1
Female	N°	20,952	76,072	25,435	19,383	82,959	12,332	14,834	593	252,560
	%	7	7.1	3.5	3.7	2.9	1.6	2.7	11.4	3.7
<b>Total Persons who were ill</b>										
Both Sexes	N°	619,980	2,250,161	1,504,956	1,081,916	4,871,210	1,377,635	1,094,674	6,884	12,807,416
	%	100	100	100	100	100	100	100	100	100
Male	N°	322,165	1,173,036	771,932	560,637	2,040,359	602,771	537,894	1,691	6,010,485
	%	100	100	100	100	100	100	100	100	100
Female	N°	297,815	1,077,125	733,024	521,279	2,830,851	774,864	556,780	5,193	6,796,931
	%	100	100	100	100	100	100	100	100	100
<b>Average N° days</b>		4.3	3.9	4	3.8	4.6	5.2	6.2	4.3	4.5

**Table 3.10a Distribution of Persons who Reported having Illness(es) During the two weeks prior to the survey by Number of Days of Restricted usual Activity, Sex and Age:1998**

Days of Restricted usual activity / Sex		Age Group								
		Under 1	1-4	5-9	10-14	15-44	45-59	60+	Not Stated	All Ages
<b>URBAN</b>										
<b>None</b>										
Both Sexes	N°	16,131	60,829	32,495	27,933	156,631	40,542	32,493	216	367,270
	%	29	33.8	28.5	25.9	27.3	28.1	26.7	47.8	28.3
Male	N°	8,052	33,090	12,419	12,713	61,497	12,471	11,898	34	152,174
	%	27.3	35.2	24.9	24.8	28.7	25.4	26.7	42	28.6
Female	N°	8,079	27,739	20,076	15,220	95,134	28,071	20,595	182	215,096
	%	30.8	32.2	31.2	26.8	26.4	29.5	26.7	49.1	28.1
<b>1 - 3 days</b>										
Both Sexes	N°	16,557	52,553	33,944	39,690	164,357	31,646	25,394	129	364,270
	%	29.7	29.2	29.8	36.8	28.6	21.9	20.9	28.5	28.1
Male	N°	8,378	27,772	15,269	19,124	61,470	12,214	7,102	9	151,338
	%	28.4	29.6	30.7	37.4	28.7	24.9	15.9	11.1	28.4
Female	N°	8,179	24,781	18,675	20,566	102,887	19,432	18,292	120	212,932
	%	31.2	28.8	29.1	36.3	28.6	20.4	23.7	32.3	27.8
<b>4 - 6 days</b>										
Both Sexes	N°	8,024	27,809	17,073	15,489	75,263	19,337	15,644	-	178,639
	%	14.4	15.4	15	14.4	13.1	13.4	12.9	-	13.8
Male	N°	3,789	13,182	6,648	8,147	30,475	8,223	5,867	-	76,331
	%	12.9	14	13.4	15.9	14.2	16.8	13.1	-	14.3
Female	N°	4,235	14,627	10,425	7,342	44,788	11,114	9,777	-	102,308
	%	16.2	17	16.2	12.9	12.4	11.7	12.7	-	13.4
<b>7 - 14 days</b>										
Both Sexes	N°	11,651	25,602	25,841	20,201	153,253	46,454	44,972	69	328,043
	%	20.9	14.2	22.7	18.7	26.7	32.2	36.9	15.3	25.3
Male	N°	7,722.00	12,737.00	12,347.00	8,640.00	52,586.00	13,995.00	18,216.00	-	126,243.00
	%	26.2	13.6	24.8	16.9	24.6	28.6	40.8	-	23.7
Female	N°	3,929	12,865	13,494	11,561	100,667	32,459	26,756	69	201,800
	%	15	14.9	21	20.4	28	34.1	34.7	18.6	26.3
<b>Not Stated</b>										
Both Sexes	N°	3,305	13,208	4,702	4,575	24,680	6,202	3,239	38	59,949
	%	5.9	7.3	4.1	4.2	4.3	4.3	2.7	8.4	4.6
Male	N°	1,509	7,158	3,109	2,555	8,093	2,104	1,539	38	26,105
	%	5.1	7.6	6.2	5	3.8	4.3	3.4	46.9	4.9
Female	N°	1,796	6,050	1,593	2,020	16,587	4,098	1,700	-	33,844
	%	6.9	7	2.5	3.6	4.6	4.3	2.2	-	4.4
<b>Total Persons who were ill</b>										
Both Sexes	N°	55,668	180,001	114,055	107,888	574,184	144,181	121,742	452	1,298,171
	%	100	100	100	100	100	100	100	100	100
Male	N°	29,450	93,939	49,792	51,179	214,121	49,007	44,622	81	532,191
	%	100	100	100	100	100	100	100	100	100
Female	N°	26,218	86,062	64,263	56,709	360,063	95,174	77,120	371	765,980
	%	100	100	100	100	100	100	100	100	100
<b>Average N° days</b>										
		3.4	2.8	3.5	3.3	4.1	4.9	5.6	2.1	4

**Table 3.10b Distribution of Persons who Reported having Illness(es) During the two weeks prior to the survey by Number of Days of Restricted usual Activity, Sex and Age:1998**

Days of Restricted usual activity / Sex		Age Group								
		Under 1	1-4	5-9	10-14	15-44	45-59	60+	Not Stated	All Ages
<b>RURAL</b>										
<b>None</b>										
Both Sexes	Nº	126,700	515,460	358,968	247,806	968,005	256,726	194,067	2,471	2,670,203
	%	22.5	24.9	25.8	25.4	22.5	20.8	19.9	38.4	23.2
Male	Nº	62,311	274,387	187,224	132,739	389,955	104,416	88,398	562	1,239,992
	%	21.3	25.4	25.9	26.1	21.4	18.9	17.9	35	22.6
Female	Nº	64,389	241,073	171,744	115,067	578,050	152,310	105,669	1,909	1,430,211
	%	23.7	24.3	25.7	24.8	23.4	22.4	22	39.6	23.7
<b>1 - 3 days</b>										
Both Sexes	Nº	143,813	568,095	394,098	292,370	1,197,996	302,205	197,442	275	3,096,294
	%	25.5	27.4	28.3	30	27.9	24.5	20.3	4.3	26.9
Male	Nº	76,687	301,234	205,929	146,490	516,567	136,704	96,384	184	1,480,179
	%	26.2	27.9	28.5	28.8	28.3	24.7	19.5	11.4	27
Female	Nº	67,126	266,861	188,169	145,880	681,429	165,501	101,058	91	1,616,115
	%	24.7	26.9	28.1	31.4	27.6	24.3	21.1	1.9	26.8
<b>4 - 6 days</b>										
Both Sexes	Nº	97,855	325,196	221,051	169,329	684,407	218,406	128,905	808	1,845,957
	%	17.3	15.7	15.9	17.4	15.9	17.7	13.2	12.6	16
Male	Nº	48,832	157,217	107,945	93,067	295,647	106,041	67,538	446	876,733
	%	16.7	14.6	14.9	18.3	16.2	19.1	13.7	27.7	16
Female	Nº	49,023	167,979	113,106	76,262	388,760	112,365	61,367	362	969,224
	%	18	16.9	16.9	16.4	15.7	16.5	12.8	7.5	16.1
<b>7 - 14 days</b>										
Both Sexes	Nº	156,191	515,872	360,823	226,747	1,334,775	429,732	429,854	2,283	3,456,277
	%	27.7	24.9	25.9	23.3	31.1	34.8	44.2	35.5	30
Male	Nº	84,287	270,744	188,923	116,749	578,598	188,453	231,422	416	1,659,592
	%	28.8	25.1	26.2	22.9	31.7	34	46.9	25.9	30.3
Female	Nº	71,904	245,128	171,900	109,998	756,177	241,279	198,432	1,867	1,796,685
	%	26.5	24.7	25.7	23.7	30.6	35.5	41.4	38.7	29.8
<b>Not Stated</b>										
Both Sexes	Nº	39,753	145,538	55,959	37,774	111,843	26,385	22,663	593	440,508
	%	7	7	4	3.9	2.6	2.1	2.3	9.2	3.8
Male	Nº	20,597	75,516	32,117	20,410	45,472	18,151	9,529	-	221,792
	%	7	7	4.4	4	2.5	3.3	1.9	-	4
Female	Nº	19,156	70,022	23,842	17,364	66,371	8,234	13,134	593	218,716
	%	7.1	7.1	3.6	3.7	2.7	1.2	2.7	12.3	3.6
<b>Total Persons who were Ill</b>										
Both Sexes	Nº	564,312	2,070,161	1,390,899	974,026	4,297,026	1,233,454	972,931	6,430	11,509,239
	%	100	100	100	100	100	100	100	100	100
Male	Nº	292,714	1,079,098	722,138	509,455	1,826,239	553,765	493,271	1,608	5,478,288
	%	100	100	100	100	100	100	100	100	100
Female	Nº	271,598.0	991,063.0	668,761.0	464,571.0	2,470,787.0	679,689.0	479,660.0	4,822.0	6,030,951.0
	%	100	100	100	100	100	100	100	100	100
<b>Average Nº days</b>										
		4.4	4	4.1	3.9	4.7	5.3	6.2	4.4	4.6

average, equal proportions of persons who reported illness were restricted from their usual activity at least for seven days due to all fever and venereal diseases. But substantial proportion of persons who had been ill due to all cough and conditions on skin reported not to have been restricted from their usual activity. Similarly, lower proportion of persons who had all fever and maternal health problems reported to have not been restricted from their usual activity. About half of mothers with maternal and health problems during 14 days prior to the survey date were restricted from usual activity for seven days or more.

According to the data in Table 3.11, the average number of days of restricted usual activity were found to be six days. In the 1982/83 Rural Health Survey Round 1 it was 6.5 days, (CSA, 1985). The average number of days of restricted usual activity ranged from five days (for all coughs and diarrhoea, vomiting or cough and abdominal condition) to eight days (for conditions on the skin). Venereal diseases, maternal and health problems and conditions on the skin disease groups seem to have restricted individuals from their usual activity for longer number of days compared to other disease groups.

**Table 3.11 Distribution of Persons who Reported having Illness During two weeks Prior to the Survey by number of Days of Restricted usual Activity, Sex and illness group : 1998**

Illness Group	Days of Restricted Activity										Average No. of Days	Total
	None		1 - 3		4 - 6		7 - 14		Not Stated			
	N°	%	N°	%	N°	%	N°	%	N°	%		
<b>COUNTRY - TOTAL</b>												
<b>All Fever</b>												
Both Sexes	328,033	10.9	834,900	27.7	648,583	21.5	1,151,482	38.1	55,552	1.8	6.4	3,018,550
Male	152,618	10.2	420,233	28.1	316,931	21.2	576,371	38.5	29,188	2.0	6.4	1,495,341
Female	175,415	11.5	414,667	27.2	331,652	21.8	575,111	37.8	26,364	1.7	6.3	1,523,209
<b>All Coughs</b>												
Both Sexes	896,228	30.3	819,854	27.8	403,654	13.7	697,376	23.6	137,306	4.6	5.4	2,954,418
Male	432,287	30.4	396,041	27.8	197,013	13.8	326,722	23.0	71,423	5.0	5.4	1,423,486
Female	463,941	30.3	423,813	27.7	206,641	13.5	370,654	24.2	65,883	4.3	5.5	1,530,932
<b>Diarrhoea and Abdominal Condition</b>												
Both Sexes	551,568	23.1	745,980	31.2	400,366	16.7	600,472	25.1	94,284	3.9	5.3	2,392,670
Male	276,052	23.1	369,860	30.9	202,615	16.9	302,349	25.3	46,437	3.9	5.3	1,197,313
Female	275,516	23.0	376,120	31.5	197,751	16.5	298,123	24.9	47,847	4.0	5.3	1,195,357
<b>Condition on Neck and Head</b>												
Both Sexes	564,031	26.8	626,251	29.7	312,252	14.8	535,690	25.4	69,484	3.3	5.6	2,107,708
Male	230,149	26.6	253,832	29.3	134,253	15.5	215,648	24.9	31,439	3.6	5.5	865,321
Female	333,882	26.9	372,419	30	177,999	14.3	320,042	25.8	38,045	3.1	5.6	1,242,387
<b>Veneral Diseases</b>												
Both Sexes	9,728	22.6	10,613	24.7	6,107	14.2	16,344	38.0	208	0.5	7.1	43,000
Male	5,114	20.3	4,467	17.7	3,469	13.8	12,126	48.2	-	-	7.7	25,176
Female	4,614	25.9	6,146	34.5	2,638	14.8	4,218	23.7	208	1.2	6.1	17,824
<b>Conditions on Skin</b>												
Both Sexes	326,635	38.9	106,189	12.6	91,738	10.9	277,778	33.1	37,281	4.4	7.6	839,621
Male	163,994	36.5	60,024	13.4	45,717	10.2	155,411	34.6	23,703	5.3	7.7	448,849
Female	162,641	41.6	46,165	11.8	46,021	11.8	122,367	31.3	13,578	3.5	7.6	390,772
<b>Maternal Health Problems</b>												
Both Sexes	20,320	18.8	23,071	21.3	11,930	11.0	49,266	45.6	3,513	3.2	7.5	108,100
Male	-	-	-	-	-	-	-	-	-	-	-	-
Female	20,320	18.8	23,071	21.3	11,930	11.0	49,266	45.6	3,513	3.2	7.5	108,100
<b>Other Conditions</b>												
Both Sexes	314,640	25.6	289,055	23.5	145,963	11.9	446,812	36.3	34,248	2.8	7	1,230,718
Male	119,077	23.8	124,208	24.9	51,956	10.4	191,963	38.4	12,595	2.5	7.1	499,799
Female	195,563	26.8	164,847	22.6	94,007	12.9	254,849	34.9	21,653	3.0	6.9	730,919

**Table 3.11a Distribution of Persons who Reported having Illness During two weeks Prior to the Survey by number of Days of Restricted usual Activity, Sex and illness group : 1998**

Illness Group	Days of Restricted Activity										Average No. of Days	Total
	None		1 - 3		4 - 6		7 - 14		Not Stated			
	N*	%	N*	%	N*	%	N*	%	N*	%		
<b>URBAN</b>												
<b>All Fever</b>												
Both Sexes	36,531	11.7	98,992	31.8	72,224	23.2	91,538	29.4	11,672	3.8	5.4	310,957
Male	14,070	10.9	41,042	31.8	34,176	26.4	33,841	26.2	6,100	4.7	5.2	129,229
Female	22,461	12.4	57,950	31.9	38,048	20.9	57,697	31.7	5,572	3.1	5.6	181,728
<b>All Coughs</b>												
Both Sexes	121,223	37.5	79,700	24.7	34,741	10.8	71,067	22.0	16,400	5.1	5.5	323,131
Male	53,736	38.9	33,030	23.9	13,899	10.1	30,183	21.8	7,423	5.4	5.4	138,271
Female	67,487	36.5	46,670	25.2	20,842	11.3	40,884	22.1	8,977	4.9	5.6	184,860
<b>Diarrhoea and Abdominal Condition</b>												
Both Sexes	69,948	30.8	77,884	34.3	30,339	13.4	40,566	17.9	8,055	3.6	4.7	226,792
Male	32,940	30.4	36,140	33.3	17,434	16.1	18,525	17.1	3,417	3.2	4.6	108,456
Female	37,008	31.3	41,744	35.3	12,905	10.9	22,041	18.6	4,638	3.9	4.8	118,336
<b>Condition on Neck and Head</b>												
Both Sexes	61,556	33.3	59,601	32.2	18,445	10.0	38,832	21.0	6,425	3.5	5.1	184,859
Male	22,563	33.8	23,538	35.3	5,869	8.8	12,865	19.3	1,865	2.8	4.6	66,700
Female	38,993	33.0	36,063	30.5	12,576	10.6	25,967	22.0	4,560	3.9	5.4	118,159
<b>Veneral Diseases</b>												
Both Sexes	971	38.0	1,216	47.6	12	0.5	357	14.0	-	-	5.5	2,556
Male	390	51.4	-	-	12	1.6	357	47.0	-	-	13.7	759
Female	581	32.3	1,216	67.7	-	-	-	-	-	-	3.0	1,797
<b>Conditions on Skin</b>												
Both Sexes	24,239	38.7	6,700	10.7	6,492	10.4	22,024	35.2	3,110	5.0	7.9	62,565
Male	12,454	40.5	3,700	12.0	2,198	7.1	10,806	35.1	1,620	5.3	8.0	30,778
Female	11,785	37.1	3,000	9.4	4,294	13.5	11,218	35.3	1,490	4.7	7.9	31,787
<b>Maternal Health Problems</b>												
Both Sexes	1,574	18.3	2,404	27.9	464	5.4	4,129	47.9	44	0.5	7.1	8,615
Male	-	-	-	-	-	-	-	-	-	-	-	-
Female	1,574	18.3	2,404	27.9	464	5.4	4,129	47.9	44	0.5	7.1	8,615
<b>Other Conditions</b>												
Both Sexes	47,089	28.6	37,337	22.7	15,463	9.4	58,140	35.3	6,631	4.0	7.0	164,660
Male	14,155	27.5	13,846	26.9	2,714	5.3	18,843	36.6	1,888	3.7	7.2	51,446
Female	32,934	29.1	23,491	20.7	12,749	11.3	39,297	34.7	4,743	4.2	6.9	113,214
<b>Not Stated</b>												
Both Sexes	4,142	29.5	435	3.1	459	3.3	1,392	9.9	7,611	54.2	2.0	14,039
Male	1,869	28.5	41	0.6	30	0.5	823	12.6	3,791	57.8	2.0	6,554
Female	2,273	30.4	394	5.3	429	5.7	569	7.6	3,820	51.0	1.9	7,485
<b>Total</b>												
Both Sexes	367,273	28.3	364,269	28.1	178,639	13.8	328,045	25.3	59,948	4.6	5.6	1,298,174
Male	152,177	28.6	151,337	28.4	76,332	14.3	126,243	23.7	26,104	4.9	5.3	532,193
Female	215,096	28.1	212,932	27.8	102,307	13.4	201,802	26.3	33,844	4.4	5.7	765,981

Table 3.11b Distribution of Persons who Reported having Illness During two weeks Prior to the Survey by number of Days of Restricted usual Activity, Sex and illness group : 1998

Illness Group	Days of Restricted Activity										Average No. of Days	Total
	None		1 - 3		4 - 6		7 - 14		Not Stated			
	N°	%	N°	%	N°	%	N°	%	N°	%		
<b>RURAL</b>												
<b>All Fever</b>												
Both Sexes	291,501	10.8	735,907	27.2	576,359	21.3	1,059,944	39.1	43,879	1.6	6.5	2,707,590
Male	138,548	10.1	379,191	27.8	282,755	20.7	542,530	39.7	23,088	1.7	6.5	1,366,112
Female	152,953	11.4	356,716	26.6	293,604	21.9	517,414	38.6	20,791	1.5	6.4	1,341,478
<b>All Coughs</b>												
Both Sexes	775,006	29.5	740,154	28.1	368,914	14.0	626,309	23.8	120,906	4.6	5.4	2,631,289
Male	378,552	29.5	363,010	28.2	183,115	14.2	296,540	23.1	64,000	5.0	5.3	1,285,217
Female	396,454	29.5	377,144	28.0	185,799	13.8	329,769	24.5	56,906	4.2	5.5	1,346,072
<b>Diarrhoea and Abdominal Condition</b>												
Both Sexes	481,621	22.2	668,096	30.8	370,027	17.1	559,906	25.9	86,229	4.0	5.4	2,165,879
Male	243,112	22.3	333,720	30.6	185,181	17.0	283,824	26.1	43,020	4.0	5.4	1,088,857
Female	238,509	22.1	334,376	31.0	184,846	17.2	276,082	25.6	43,209	4.0	5.3	1,077,022
<b>Condition on Neck and Head</b>												
Both Sexes	502,476	26.1	566,650	29.5	293,807	15.3	496,858	25.8	63,057	3.3	5.6	1,922,848
Male	207,587	26.0	230,294	28.8	128,384	16.1	202,783	25.4	29,573	3.7	5.6	798,621
Female	294,889	26.2	336,356	29.9	165,423	14.7	294,075	26.2	33,484	3.0	5.6	1,124,227
<b>Veneral Diseases</b>												
Both Sexes	8,758	21.7	9,397	23.2	6,095	15.1	15,988	39.5	208	0.5	7.2	40,446
Male	4,725	19.3	4,467	18.3	3,457	14.2	11,770	48.2	0	0.0	7.6	24,419
Female	4,033	25.2	4,930	30.8	2,638	16.5	4,218	26.3	208	1.3	6.4	16,027
<b>Conditions on Skin</b>												
Both Sexes	302,396	38.9	99,489	12.8	85,246	11.0	255,754	32.9	34,171	4.4	7.6	777,056
Male	151,540	36.2	56,323	13.5	43,519	10.4	144,605	34.6	22,083	5.3	7.7	418,070
Female	150,856	42.0	43,166	12.0	41,727	11.6	111,149	31	12,088	3.4	7.5	358,986
<b>Maternal Health Problems</b>												
Both Sexes	18,746	18.8	20,667	20.8	11,466	11.5	45,137	45.4	3,469	3.5	7.5	99,485
Male	-	-	-	-	-	-	-	-	-	-	-	-
Female	18,746	18.8	20,667	20.8	11,466	11.5	45,137	45.4	3,469	3.5	7.5	99,485
<b>Other Conditions</b>												
Both Sexes	267,551	25.1	251,718	23.6	130,499	12.2	388,672	36.5	27,616	2.6	6.9	1,066,056
Male	104,922	23.4	110,362	24.6	49,241	11.0	173,120	38.6	10,707	2.4	7.1	448,352
Female	162,629	26.3	141,356	22.9	81,258	13.2	215,552	34.9	16,909	2.7	6.8	617,704
<b>Not Stated</b>												
Both Sexes	22,150	22.5	4,217	4.3	3,544	3.6	7,711	7.8	60,972	61.8	1.4	98,594
Male	11,008	22.6	2,813	5.8	1,081	2.2	4,421	9.1	29,322	60.3	1.4	48,645
Female	11,142	22.3	1,404	2.8	2,463	4.9	3,290	6.6	31,650	63.4	1.4	49,949
<b>Total</b>												
Both Sexes	2,670,205	23.2	3,096,295	26.9	1,845,957	16.0	3,456,279	30.0	440,507	3.8	6.0	11,509,243
Male	1,239,994	22.6	1,480,180	27	876,733	16.0	1,659,593	30.3	221,793	4.0	6.0	5,478,293
Female	1,430,211	23.7	1,616,115	26.8	969,224	16.1	1,796,686	29.8	218,714	3.6	6.0	6,030,950

Appendix 3.1 Prevalence Rates (per thousand) of having any illness During two weeks prior to the survey by Age, Sex and Zone : 1998

Region / Sex	Age Group										All Ages	Total
	Under 1	1-4	5-9	10-14	15-29	30-44	45-54	55-64	65+	Not Stated		
<b>COUNTRY - TOTAL</b>												
Both Sexes	346.2	317.8	173.1	149.0	192.0	272.1	332.2	369.0	413.2	199.9	238.2	53,769,047
Male	366.6	326.1	176.7	149.3	173.8	232.7	286.3	332.6	379.0	145.6	225.8	26,621,594
Female	326.6	309.2	169.5	148.7	208.7	306.7	378.3	407.3	454.6	227.5	250.4	27,147,453
<b>TIGRAY REGION</b>												
Both Sexes	388.0	337.9	234.7	232.0	270.7	380.4	462.9	480.5	537.2	224.7	321.2	3,499,678
Male	406.2	345.5	222.6	232.3	248.9	325.1	418.2	446.8	499.2	166.0	301.9	1,711,472
Female	369.9	330.2	247.1	231.7	290.3	426.5	501.5	512.3	581.1	259.5	339.6	1,788,206
<b>MIRABAWI TIGRAY ZONE</b>												
Both Sexes	475.9	423.1	280.3	297.7	357.9	464.5	546.7	577.9	581.3	-	392.9	741,471
Male	516.4	409.5	300.9	277.6	332.8	432.4	527.7	689.2	603.5	-	384.3	372,343
Female	439.7	437.3	258.0	318.7	382.0	495.5	564.4	499.2	539.7	-	401.6	369,128
<b>MEHAKELEGNAW TIGRAY ZONE</b>												
Both Sexes	395.4	324.2	239.1	237.7	292.3	401.6	507.2	551.3	652.4	372.7	337.9	1,083,415
Male	443.7	357.5	240.2	267.6	275.8	328.5	465.5	491.4	613.0	-	328.8	527,481
Female	341.6	291.9	237.8	205.2	305.6	464.7	549.3	617.7	686.6	372.7	346.6	555,934
<b>MISRAKAWI TIGRAY</b>												
Both Sexes	352.8	332.6	192.5	192.8	220.8	333.6	427.4	473.0	511.9	282.7	287.0	733,453
Male	303.1	342.3	171.6	157.2	209.1	243.0	320.3	462.1	427.3	481.1	253.9	354,882
Female	402.5	322.3	215.8	227.8	231.8	392.7	513.9	482.1	607.1	126.0	318.0	378,571
<b>DEBUBAWI TIGRAY ZONE</b>												
Both Sexes	344.5	292.9	223.4	209.1	220.0	322.0	376.9	359.6	434.7	121.3	275.6	847,316
Male	351.00	284.00	161.3	222.5	187.3	279.3	343.1	278.2	416.4	-	246.1	413,951
Female	338.4	301.5	276.4	191.5	250.3	357.9	401.0	446.6	457.4	225.0	303.8	433,365
<b>MEKELE ZONE</b>												
Both Sexes	188.8	300.1	209.0	150.9	192.4	275.4	310.0	353.1	520.1	412.7	238.8	94,020
Male	208.5	290.3	213.1	130.6	159.5	190.2	208.2	241.1	324.2	-	190.5	42,813
Female	166.1	308.9	205.5	170.3	221.2	338.8	376.7	432.5	630.1	648.1	279.3	51,207

## Appendix 3.1 Cont'd

Region / Sex	Age Group										All Ages	Total
	Under 1	1-4	5-9	10-14	15-29	30-44	45-54	55-64	65+	Not Stated		
<b>AFFAR REGION</b>												
Both Sexes	294.2	313.2	221	172.4	204.5	221.9	265.6	339.1	394.1	529.4	234.3	309,020
Male	138	272.4	251.4	189.5	164.9	217.9	206.7	226.2	355.6	261.5	213.6	156,533
Female	406.7	351.7	186.1	154.2	238.7	226.4	328.4	539.9	443.7	1000	255.6	152,487
<b>ZONE 1</b>												
Both Sexes	384.9	466.9	340.6	186	253.7	285.9	273.2	474.2	408.8	558.6	302.3	122,029
Male	18.6	355.7	389.3	273.6	212	298.7	255.8	230.8	272	409.6	277.8	56,079
Female	627.1	536.2	279.7	127.2	279.8	269.3	284.1	813.2	563.3	1000	323.2	65,950
<b>ZONE 3</b>												
Both Sexes	209.2	181.2	109.1	107.5	142.6	129.9	267.2	270.1	385.8	1000	160.5	145,920
Male	255.3	191.4	131.4	113.8	104	107.6	171.3	206	361.9	-	145.7	78,413
Female	171	169.5	83.7	99.4	185.4	153.7	384.4	399.2	416.8	1000	177.6	67,507
<b>ZONE 5</b>												
Both Sexes	150	365	364.3	310.9	239.3	269.8	242.2	373.4	575.5	-	294.9	41,075
Male	10.4	412.4	383.5	290.8	250.8	236	219.4	368.1	414.5	-	292.1	22,041
Female	197.2	288.5	345.2	336.1	226.1	298.4	309.8	382.6	838.7	-	298.1	19,034
<b>AMHARA REGION</b>												
Both Sexes	306.2	318.8	183	156.9	190.3	276.1	355	397.9	446.6	95.8	246.2	14,271,200
Male	309.5	325.2	191.2	164.3	179.6	241.3	305.2	357.2	398.5	-	236.1	7,121,855
Female	303	312.1	174.8	149	200.4	306.6	408.3	440.7	506.3	134.2	256.2	7,149,345
<b>SEMEN GONDAR ZONE</b>												
Both Sexes	379.7	399.8	251.9	214.7	281.8	407.3	438	526.2	532.7	321.4	327.6	2,126,578
Male	348.2	408.6	278	220.1	263.4	387	403	450.4	487.9	-	320.3	1,064,503
Female	410.8	390.1	225.4	208.9	298.5	425.8	472.5	615.7	592.3	473.6	335	1,062,075
<b>DEBUB GONDAR ZONE</b>												
Both Sexes	336.7	416	233	217.6	229.7	295.9	382.8	410.2	503.8	-	291.9	1,834,744
Male	399	400.9	242.8	212.5	208.9	271.6	294.5	391.5	408.8	-	275.1	930,864
Female	280.7	432.7	223.5	223.2	251.2	319.1	486	429.2	609.2	-	309.3	903,880

Appendix 3.1 Cont'd

Region / Sex	Age Group										All Ages	Total
	Under 1	1-4	5-9	10-14	15-29	30-44	45-54	55-64	65+	Not Stated		
<b>SEMEN WELLO ZONE</b>												
Both Sexes	334.8	378.1	196.2	186.9	213.8	287.1	324.3	427.2	414	-	272.6	1,249,926
Male	335.8	394.2	194.5	199.1	222.8	249	216.6	428.8	386.1	-	264.6	630,451
Female	333.6	359.6	197.8	173.3	205.7	323.6	450.5	425.9	450.5	-	280.8	619,475
<b>DEBUB WELLO ZONE</b>												
Both Sexes	337.3	283.4	166.3	131.6	138.6	234.8	298	353.9	441.4	-	221.1	2,109,548
Male	291.7	317	188.8	173.4	131.8	171.9	241.5	282.8	372.8	-	209.7	1,030,692
Female	374.2	252.5	140.9	93.3	145.3	287.5	348.4	412.6	521.3	-	232	1,078,856
<b>SEMEN SHEWA ZONE</b>												
Both Sexes	326.6	319.1	171.8	136.8	184.6	300.4	367.6	446.7	485	-	253.5	1,567,918
Male	346.5	325.3	171.7	143.5	176.4	271.8	352.4	375.4	474.2	-	245.2	787,644
Female	309.3	313	171.9	128.2	192	324.5	387.7	513.4	500.1	-	261.9	780,274
<b>MISRAK GOJAM ZONE</b>												
Both Sexes	150.9	182.7	90.4	92.5	147.8	205.7	335.8	354.8	278.6	-	167.6	1,912,467
Male	159.8	195	84.5	93.5	143.9	157.9	331.6	286.4	275.3	-	159.7	952,679
Female	140.3	170.6	96.2	91.4	151.3	246.8	340.4	442.9	283.5	-	175.5	959,788
<b>MIRAB GOJAM ZONE</b>												
Both Sexes	270.8	286.6	165.3	129.5	153	223.6	344.1	315.1	399.7	-	204.2	2,052,788
Male	320.5	259.4	167.9	126.9	137.6	195.3	300.7	319.7	311.2	-	191.7	1,009,084
Female	223.1	316.2	162.9	132.2	166.8	247.5	389	309	498.1	-	216.3	1,043,704
<b>WAG HEMRA ZONE</b>												
Both Sexes	268.9	403.4	276.7	206.5	205.2	288	391.5	408.1	593.3	-	296.7	285,229
Male	193.9	360.1	277.6	201.2	211.9	241	337	418.2	520.2	-	276.5	147,622
Female	341.5	449	275.6	213.9	198.8	331.6	454.9	393.7	663.8	-	318.4	137,607
<b>AGEW AWI ZONE</b>												
Both Sexes	323.1	317.2	136.1	105.5	151.4	217.6	367.6	384.9	386.6	-	205.9	706,834
Male	293.8	323.8	130.9	113.4	136.5	187	265.1	354.9	330.3	-	192.6	357,855
Female	349.7	309.2	141	96.8	166.5	244.7	473.9	423.2	475.7	-	219.7	348,979

Appendix 3.1 Cont'd

Region / Sex	Age Group										All Ages	Total
	Under 1	1-4	5-9	10-14	15-29	30-44	45-54	55-64	65+	Not Stated		
<b>SEMEN SHEWA ZONE</b>												
Both Sexes	218.7	198.8	118.1	121.6	140.7	218.7	248.3	296.8	328.2	-	176.4	1,397,433
Male	287.0	190.8	117.8	124.4	119.6	205.3	180.7	205.5	261.9	-	158.3	684,208
Female	167.5	205.8	118.4	118.8	161.3	229.9	313.6	370.5	408.6	-	193.8	713,225
<b>MISRAK SHEWA ZONE</b>												
Both Sexes	212.4	173.9	79.6	70.8	103.9	182.8	210.7	231.9	204.8	211.2	129.9	1,738,483
Male	235.6	194.4	81.5	61.4	85.5	157.9	163.9	145.0	155.6	113.8	117.5	874,833
Female	191.0	149.6	77.8	80.4	123.2	203.8	267.7	317.1	273.7	232.1	142.5	863,650
<b>ARSSI ZONE</b>												
Both Sexes	456.0	414.8	267.3	222.8	304.2	411.2	449.7	526.0	545.5	-	342.7	2,391,611
Male	461.0	425.1	262.0	218.5	256.8	276.6	380.4	417.2	477.9	-	306.8	1,183,534
Female	449.4	404.3	272.2	227.0	350.8	532.4	517.5	630.0	614.9	-	378.0	1,208,077
<b>MIRAB HARERGE ZONE</b>												
Both Sexes	427.3	456.1	269.2	199.9	305.3	367.4	381.1	389.2	424.2	-	333.7	1,340,097
Male	493.6	441.0	249.1	207.4	232.4	298.6	362.3	339.9	355.4	-	299.9	694,270
Female	362.0	473.3	292.2	191.6	379.4	437.9	404.4	446.0	477.1	-	370.0	645,827
<b>MISRAK HARERGE ZONE</b>												
Both Sexes	491.7	371.6	208.8	199.2	187.2	264.1	276.1	378.7	270.9	-	259.3	1,994,238
Male	504.1	388.7	202.2	194.4	164.6	215.7	172.7	417.3	285.1	-	244.3	1,009,205
Female	480.6	351.4	215.3	205.3	208.0	309.4	402.3	345.5	257.3	-	274.7	985,033
<b>BALE ZONE</b>												
Both Sexes	302.1	288.0	136.7	122.3	209.4	313.6	409.8	437.0	489.8	-	239.6	1,329,010
Male	295.6	296.6	134.8	108.5	175.4	231.7	376.3	417.7	462.1	-	216.1	658,032
Female	307.6	279.5	138.6	137.4	242.3	376.6	437.4	458.2	535.0	-	262.7	670,978
<b>BORENA ZONE</b>												
Both Sexes	342.7	295.9	118.2	109.0	183.9	253.8	310.3	334.5	330.7	-	206.4	1,702,318
Male	386.9	302.3	119.6	118.2	154.9	244.9	295.6	263.1	326.9	-	199.0	847,357
Female	301.2	288.7	116.8	98.6	209.4	262.0	322.6	417.9	334.6	-	213.7	854,961

Appendix 3.1 Cont'd

Region / Sex	Age Group										All Ages	Total
	Under 1	1-4	5-9	10-14	15-29	30-44	45-54	55-64	65+	Not Stated		
<b>OROMIYA ZONE</b>												
Both Sexes	363.1	305.8	190.0	148.4	198.8	295.3	333.7	331.5	455.8	-	251.2	425,170
Male	428.6	347.7	188.6	156.1	185.6	273.6	300.2	349.4	504.5	-	254.4	210,461
Female	302.4	259.1	191.2	140.1	212.7	311.6	367.2	307.0	409.0	-	248.2	214,709
<b>OROMIYA REGION</b>												
Both Sexes	363.1	331.8	174.5	147.8	206.8	275.1	320.5	374.3	399.4	215.5	244.2	20,563,420
Male	384.3	341.2	176.0	145.8	179.4	221.4	272.1	329.8	357.8	92.2	226.6	10,229,602
Female	342.2	321.7	172.9	149.9	232.8	322.3	366.6	418.3	447.9	276.7	261.5	10,333,818
<b>MIRAB WELLEGA ZONE</b>												
Both Sexes	329.9	417.2	193.8	199.4	260.7	318.9	341.3	399.2	454.1	516.5	287.7	1,647,368
Male	331.3	415.7	193.0	186.1	251.4	278.5	312.3	363.7	373.4	267.5	272.1	804,797
Female	328.2	418.7	194.6	213.7	268.9	352.9	368.4	437.2	536.3	759.5	302.7	842,571
<b>MISRAK WELLEGA ZONE</b>												
Both Sexes	353.7	314.8	153.7	127.2	190.9	292.0	320.5	430.1	460.6	150.8	236.2	1,355,517
Male	364.9	250.3	175.8	117.0	158.8	245.0	327.4	372.5	413.7	-	211.3	657,332
Female	342.8	377.4	130.7	138.2	218.4	329.9	314.9	498.4	511.5	150.8	259.7	698,185
<b>ILLUBABOR ZONE</b>												
Both Sexes	281.1	304.6	189.9	174.7	233.9	300.1	326.4	429.6	419.7	-	262.7	1,027,871
Male	216.8	335.1	210.0	174.1	206.4	235.3	261.6	428.8	307.2	-	241.7	516,768
Female	348	277.4	169.3	175.4	264.3	348.8	376.4	430.4	604.3	-	284.0	511,103
<b>JIMMA ZONE</b>												
Both Sexes	354.4	377.7	185.3	127.5	215.9	241.2	312.3	361.5	406.0	175.9	246.7	2,115,381
Male	392.9	411.1	196.6	116.2	203.5	184.7	284.2	353.5	448.9	-	243.9	1,041,990
Female	319.7	340.4	174.2	137.8	227.3	292.9	336.9	372.5	349.4	227.7	249.3	1,073,391
<b>MIRAB SHEWA ZONE</b>												
Both Sexes	382.4	274.2	149.9	106.4	158.6	179.3	292.8	307.7	421.1	313.1	201.4	2,524,107
Male	391	305.8	155.7	119.6	143.3	135.5	239.7	243.3	376.3	-	192.2	1,257,282
Female	373.9	240.5	143.7	92.1	173.0	218.4	340.0	357.8	475.5	440.6	210.6	1,266,825

## Appendix 3.1 Cont'd

Region / Sex	Age Group										All Ages	Total
	Under 1	1-4	5-9	10-14	15-29	30-44	45-54	55-64	65+	Not Stated		
<b>KONSO SPECIAL WEREDA</b>												
Both Sexes	238.5	281.6	250.8	157.8	244.2	384.2	342.0	254.8	359.1	-	269.0	190,748
Male	266.3	279.0	246.2	134.4	247.0	423.9	473.5	300.7	457.2	-	279.2	92,081
Female	218.3	284.0	255.0	191.5	241.8	356.2	173.7	215.9	275.0	-	259.4	98,667
<b>DIRASHE SPECIAL WEREDA</b>												
Both Sexes	234.3	334.9	258.7	300.4	278.9	389.5	476.8	352.7	400.1	-	317.8	84,307
Male	207.7	370.9	263.6	331.5	259.7	425.5	444.4	378.2	456.1	-	330.7	42,416
Female	248.9	288.4	254.5	252.9	296.6	359.7	519.6	321.6	341.3	-	304.7	41,891
<b>GAMBELLA REGION -TOTAL</b>												
Both Sexes	261.2	313.3	157.7	168.4	178.0	210.8	246.1	229.0	471.4	-	207.1	141,671
Male	249.4	309.5	154.6	168.2	144.9	186.0	224.6	184.9	401.0	-	189.1	70,533
Female	275.0	317.5	160.9	168.6	208.3	233.4	266.0	283.7	550.3	-	225.0	71,138
<b>ZONE 1</b>												
Both Sexes	357.6	351.1	160.6	162.7	170.2	218.5	242.8	269.2	472.8	-	215.9	56,356
Male	334.5	269.6	128.8	141.5	126.1	182.2	205.4	144.6	414.7	-	171.1	26,242
Female	379.8	419.1	187.4	184.5	207.2	250.8	275.8	375.4	507.0	-	255.0	30,114
<b>ZONE 2</b>												
Both Sexes	268.3	325.1	118.2	192.4	210.8	252.6	317.2	178.0	350.8	-	217.0	30,335
Male	382.5	307.3	85.0	177.4	170.2	215.8	395.4	77.4	233.0	-	194.4	14,859
Female	106.4	351.5	158.0	205.9	239.9	280.1	220.4	298.6	752.1	-	238.6	15,476
<b>ZONE 4</b>												
Both Sexes	188.4	271.2	183.7	150.1	172.7	174.9	210.3	228.0	598.4	-	192.7	54,978
Male	153.1	341.1	230.3	197.7	152.1	174.1	129.0	293.1	593.3	-	202.5	29,432
Female	233.3	173.4	137.7	67.2	195.2	175.8	278.2	96.5	608.4	-	181.4	25,546
<b>HARARI REGION</b>												
Both Sexes	367.4	304.0	121.5	85.8	139.9	200.8	235.2	308.4	311.8	-	185.5	143,471
Male	431.4	304.7	96.7	77.3	116.7	175.3	213.3	336.0	235.6	-	166.7	69,278
Female	309.1	303.3	142.3	95.5	161.7	226.0	255.4	292.8	367.5	-	203.0	74,193

## Appendix 3.1 Cont'd

Region / Sex	Age Group										All Ages	Total
	Under 1	1-4	5-9	10-14	15-29	30-44	45-54	55-64	65+	Not Stated		
<b>SOMALI REGION</b>												
Both Sexes	418.8	375.4	213.8	155.7	189.1	244.1	321.7	375.7	404	543.5	243.7	685,244
Male	471.7	379.3	193	160	169.8	187.1	285.4	329.9	381.6	1000	225.9	354,966
Female	363.7	371	241	150.5	206.8	294.2	366.2	428.6	429.4	-	262.8	330,278
<b>SHINILE ZONE</b>												
Both Sexes	307.7	255.3	126.7	152.3	198.8	221.6	188.8	231	235.6	-	195.7	25,027
Male	354.6	246.9	99.5	184	195.5	214	134.9	231.3	212.1	-	187.7	12,456
Female	272.3	263.7	156.5	119.1	202.3	227.3	257.6	230.6	253.6	-	203.7	12,571
<b>JIGJIGA ZONE</b>												
Both Sexes	313.1	345.2	183.1	134	164.6	237.2	320.2	371.3	391.9	-	222.2	441,030
Male	308.2	349.8	159	136.4	126.2	168.2	260.5	294.4	358.9	-	190.3	222,901
Female	317.8	341	212.7	131.5	202.1	298.8	392.2	440.9	428.8	-	254.9	218,129
<b>LIBEN ZONE</b>												
Both Sexes	686.2	438.9	285.3	194	238.1	261.9	343.5	407	508.2	543.5	292.5	219,188
Male	819.5	428.2	264.7	193.3	265.3	223.6	361.4	397.7	520.4	1000	296.4	119,610
Female	510.6	456.9	316.6	195	216.2	295.1	320.7	426.3	491.7	-	287.7	99,578
<b>BENISHANGUL-GUMUZ REGION</b>												
Both Sexes	322.8	301.5	169.1	165.2	198.9	275.8	340.2	324.5	387.3	41.5	236	581,681
Male	283.4	294.9	170.3	161.7	197.3	236.8	317.8	231.3	407.6	-	223.8	288,694
Female	389.7	307.2	168	169.3	200.3	313.9	367.6	440.9	362.3	41.6	248	292,987
<b>METEKEL ZONE</b>												
Both Sexes	411.2	284.7	150.5	134.6	200.9	280.3	360.1	388.8	430.5	487.4	235.1	236,922
Male	386.4	305.1	139	142.8	201.5	201.8	330.5	235.9	450.9	-	219.4	116,918
Female	434.4	265.4	163	126.3	200.3	352.2	396.7	546	410.1	487.4	250.4	120,004
<b>ASOSA ZONE</b>												
Both Sexes	275.6	355.7	202.6	208.7	221.2	308	361	315	381	-	265.2	231,782
Male	288.6	308.9	230.4	211.5	220.4	280.6	347.3	258.4	393.2	-	259.2	117,113
Female	261.6	399	177.8	205.4	221.9	334.2	378.8	404.1	350.5	-	271.3	114,669

Appendix 3.1 Cont'd

Region / Sex	Age Group										All Ages	Total
	Under 1	1-4	5-9	10-14	15-29	30-44	45-54	55-64	65+	Not Stated		
<b>SEMEN OMO ZONE</b>												
Both Sexes	428.9	295.2	144.5	141.8	196.8	281.6	346.8	324.8	353.2	-	229.8	2,841,862
Male	520.5	310.7	170.5	131.4	185.9	284.6	315.3	320.9	394.9	-	233.6	1,395,548
Female	328.3	281.8	115.5	153.2	206.5	278.9	378.1	328.5	308.7	-	226.1	1,446,314
<b>DEBUB OMO ZONE</b>												
Both Sexes	324	389.4	281	234.7	286.2	386.8	407.1	565.4	325.9	-	325.6	339,828
Male	292.1	358.1	270.3	224.9	278.6	419.3	335.2	504.6	325.4	-	313.4	168,875
Female	360.7	423.2	291.2	244	293.4	359.9	533.9	608.4	326.8	-	337.6	170,953
<b>KEFICHO SHEKICHO ZONE</b>												
Both Sexes	350.8	230.1	132.2	105	162.8	244.5	261.2	269.9	348.5	225.8	194	902,641
Male	353	229.3	132	119.7	165.3	211.7	232.6	224.8	340.9	0	187.3	442,580
Female	348.9	230.8	132.4	88.8	160.5	270.4	291.2	326.9	359.1	316.4	200.5	460,061
<b>BENCH MAJI ZONE</b>												
Both Sexes	380.6	389	203.1	199.3	261	342.9	332.9	381	295	500	287.7	309,905
Male	428	379.1	227.1	229.6	218.4	322.2	308.8	286.4	241.2	-	276.9	152,738
Female	339.8	398.7	180.7	162.3	298.6	361.6	376	466.2	353.8	1000	298.1	157,167
<b>YEM SPECIAL WEREDA</b>												
Both Sexes	411.9	322.8	124.1	159.8	187.3	173.2	247.9	299.7	329	-	205.2	70,013
Male	388.7	333.2	123	128.5	185.9	167.2	245	295.7	242.7	-	196.9	34,226
Female	431	314.1	125.1	187.1	188.5	178.7	251.3	304	555.8	-	213.2	35,787
<b>AMARO SPECIAL WEREDA</b>												
Both Sexes	239.8	197.1	95.1	117.3	140.3	233.6	222.3	226.5	386.8	-	165.8	89,396
Male	213	211.2	85.7	103.8	123.7	242.1	245.2	192.6	340.9	-	161.6	47,031
Female	272.6	181.1	107.6	130.9	155.4	224.2	196.7	289.2	500	-	170.5	42,365
<b>BURJI SPECIAL WEREDA</b>												
Both Sexes	484.9	367.5	157.3	155.8	211.6	262.7	339	263.8	459.2	-	249.1	32,600
Male	579.9	355	152.6	156.1	255	197.7	320.4	200	426.4	-	248.3	15,767
Female	374.3	380.1	162.4	155.6	178.8	320.9	357.7	329.4	509.1	-	249.9	16,833

Appendix 3.1 Con'd

Region / Sex	Age Group										All Ages	Total
	Under 1	1-4	5-9	10-14	15-29	30-44	45-54	55-64	65+	Not Stated		
<b>KAMASHI ZONE</b>												
Both Sexes	253.3	236.9	144.7	128.4	154.4	201.6	205.1	184.2	225.4	-	177.9	112,979
Male	100.7	243	128.8	71.9	148.2	217.9	153.7	118	225.6	-	157.2	54,664
Female	489.3	233	158.7	214.3	160	182.9	255.3	252.7	225.3	-	197.3	58,315
<b>SNNP REGION</b>												
Both Sexes	361.8	289.4	149.6	131	177.5	263.8	316.2	305.2	367.2	299.5	216.4	11,330,179
Male	407.4	297.8	157	125.9	162.3	246.8	279.2	297.9	369.5	435.2	211.7	5,591,479
Female	319.5	281.1	141.9	136.3	191	278.6	354.3	314.1	364	183.5	221.1	5,738,700
<b>GURAGE ZONE</b>												
Both Sexes	384.4	365	162.3	167.3	185.6	268.4	381.5	308.9	478.4	-	249	1,479,844
Male	448.5	366.9	181.5	152.6	140.2	247.2	375.5	317.5	445	-	242.1	701,443
Female	334.9	362.7	144	181.4	220.3	284.1	386.5	298.8	524.3	-	255.2	778,401
<b>HADIYA ZONE</b>												
Both Sexes	341.5	258.4	111.7	110.3	142.7	212.5	296.4	290.5	358.2	-	179.5	1,119,490
Male	417.3	264.2	110.5	105.9	135.9	214	273.9	321.3	370.5	-	180.9	554,172
Female	273.7	251.6	113	115.2	148.7	211.3	316.3	256.8	338	-	178.1	565,318
<b>KEMBATA ALABANA TEMBARO ZONE</b>												
Both Sexes	297.5	270.6	146.5	164.5	163.3	253.7	301.7	385	327.1	672.3	208.3	804,868
Male	287.5	293.2	140.5	160.8	142	275.1	221.2	461.3	329.1	1000	204.8	399,507
Female	303.1	250.5	153.8	168.6	181.8	234	391	294.5	323.5	-	211.7	405,361
<b>SIDAMA ZONE</b>												
Both Sexes	346	271.6	152.6	96.8	161.1	259.1	289	271	351.6	53.7	199.8	2,429,965
Male	376.5	291.5	150.3	86.4	149.2	191.4	220.6	249.8	359.7	1000	187.7	1,225,446
Female	317.5	252.3	154.9	107.5	171.9	327.5	368.9	313.2	335.5	-	212.2	1,204,519
<b>GEDEO ZONE</b>												
Both Sexes	247.2	215.1	89.5	64.6	102.2	151.2	168	225.9	300.6	393.2	136.3	634,711
Male	219.7	187.5	88.7	78.1	85.2	137.9	109.1	212	242	393.2	123.4	319,643
Female	278.8	243.3	90.4	51.6	118.6	163.9	224.8	242.5	400.5	-	149.3	315,068

Appendix 3.1 Cont'd

Region / Sex	Age Group										All Ages	Total
	Under 1	1-4	5-9	10-14	15-29	30-44	45-54	55-64	65+	Not Stated		
<b>NO ZONES</b>												
Both Sexes	367.4	304.0	121.5	85.8	139.9	200.8	235.2	308.4	311.8	-	185.5	143,471
Male	431.4	304.7	96.7	77.3	116.7	175.3	213.3	336.0	235.6	-	166.7	69,278
Female	309.1	303.3	142.3	95.5	161.7	226.0	255.4	292.8	367.5	-	203.0	74,193
<b>ADDIS ABABA-TOTAL</b>												
Both Sexes	161.5	173.1	56.9	47.5	68.6	125.5	143.1	180.9	214.6	-	95.4	2,019,418
Male	186.7	195.1	47.0	37.0	59.0	87.9	106.8	171.3	197.8	-	82.8	919,817
Female	143.8	153.0	65.2	56.4	75.9	159.1	181.9	190.9	228.9	-	105.9	1,099,601
<b>ADDIS ABABA-ZONE 1</b>												
Both Sexes	238.1	112.5	53.0	26.9	45.6	83.5	139.5	84.2	120.9	-	66.3	266,777
Male	14.9	113.4	38.7	31.1	39.9	44.7	102.7	38.6	176.9	-	52.7	122,350
Female	390	111.5	61.8	23.5	50.3	116.3	183.7	128.1	64.0	-	77.8	144,427
<b>ADDIS ABABA-ZONE 2</b>												
Both Sexes	98.2	190.6	67.2	41.9	64.4	125.1	115.9	203.3	220.7	-	93.4	395,725
Male	213.6	215.6	74.4	38.7	44.2	109.8	96.4	103.0	210.6	-	81.2	186,520
Female	-	169.1	60.8	44.5	81.8	139.5	138.0	282.3	230.5	-	104.4	209,205
<b>ADDIS ABABA-ZONE 3</b>												
Both Sexes	74.1	161.3	59.3	39.0	66.3	114.1	175.4	168.8	225.2	-	91.5	382,979
Male	113.2	190.8	46.1	34.7	36.0	73.0	122.1	247.0	128.3	-	74.4	168,684
Female	56.2	136.3	68.6	43.6	84.7	148.5	250.8	69.1	356.0	-	105	214,295
<b>ADDIS ABABA-ZONE 4</b>												
Both Sexes	181.6	151.2	39.5	50.8	55.3	129.6	136.0	189.3	231.2	-	89.6	441,975
Male	393.9	203.4	48.4	26.9	41.9	78.0	80.8	202.0	209.4	-	76.2	195,889
Female	-	98.5	31.8	68.0	65.0	173.4	185.0	174.8	246.7	-	100.2	246,086
<b>ADDIS ABABA-ZONE 5</b>												
Both Sexes	172	217.5	53.0	77.6	86.5	161.8	133.3	265.7	228.3	-	116.6	429,214
Male	82.7	201.5	16.9	53.5	95.2	116.0	69.5	248.1	210.6	-	100.2	197,491
Female	224.8	232.0	83.3	98.2	79.6	209.4	183.6	288.2	240.4	-	130.6	231,723

Appendix 3.1 Cont'd

Region / Sex	Age Group										All Ages	Total
	Under 1	1-4	5-9	10-14	15-29	30-44	45-54	55-64	65+	Not		
<b>ADDIS ABABA-ZONE 6</b>												
Both Sexes	308	197.1	94.5	28.1	139.7	111	204.1	94.6	206.6	-	129.3	102,751
Male	346.2	286.2	76.6	34.5	168.3	82.2	281.1	7.8	348.1	-	149.7	48,883
Female	248.3	129.7	120.7	22.7	116.4	131.8	74.7	152.7	113.5	-	110.8	53,868
<b>DIRE DAWA PROVISIONAL ADMINISTRATION</b>												
Both Sexes	492.3	508.9	250	232.8	239.7	373.7	396.5	347.5	491.2	-	318.3	224,068
Male	512.8	500.2	236.4	226.1	209.2	324.2	343.3	250.6	345.1	-	287.7	107,369
Female	475.3	517.4	263.6	239.7	264.3	422.6	447.6	460.3	572.7	-	346.4	116,699
<b>NO ZONES</b>												
Both Sexes	492.3	508.9	250	232.8	239.7	373.7	396.5	347.5	491.2	-	318.3	224,068
Male	512.8	500.2	236.4	226.1	209.2	324.2	343.3	250.6	345.1	-	287.7	107,369
Female	475.3	517.4	263.6	239.7	264.3	422.6	447.6	460.3	572.7	-	346.4	116,699

**Appendix 3.2 Prevalence Rates (per thousands) of Each Reported Illness and Illness Groups by Sex, Contry Level:1998**

**COUNTRY - TOTAL**

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
ALL FEVER	56.2	56.1	56.1
Malaria	38.4	35.9	37.1
Infectious Jaundice	3.0	2.5	2.7
Hepatitis	2.4	2.6	2.5
Meningits	0.3	0.6	0.4
Typhus/Relapsing Fever	5.6	7.1	6.3
Other Fever	6.6	7.5	7.1
ALL COUGHS	53.5	56.4	54.9
Tuberculosis	4.1	4.2	4.2
Pneumonia	6.9	7.7	7.3
Whooping Cough	2.0	2.0	2.0
other Cough	40.4	42.4	41.4
DIARRHOEA AND ABDOMINAL CONDITION	45.0	44.0	44.5
Diarrhoea	17.7	16.2	17.0
Gastro Enteritis	3.5	3.2	3.3
Worms in the Stool	7.9	6.8	7.3
Other Diarrhoea and Abdominal Condition	15.9	17.8	16.8
CONDITION ON NECK AND HEAD	32.5	45.8	39.2
Goiter	0.2	0.7	0.4
Ear Problem	3.6	3.2	3.4
Eye Problem	10.5	14.7	12.6
Throat Problem	1.6	2.1	1.8
Teeth Problem	2.4	3.9	3.1
Other Neck and Head Problem	14.2	21.3	17.8
VENERAL DISEASES	0.9	0.7	0.8
CONDITIONS ON SKIN	16.9	14.4	15.6
Wound on Skin	13.3	10.7	12.0
Leprosy	0.5	0.4	0.4
Elephantiasis	1.7	2.1	1.9
Other Skin Problem	1.3	1.2	1.3
MATERNAL HEALTH PROBLEMS	-	4.0	2.0
Complicated Pregnancy	-	1.8	0.9
Abortion	-	0.2	0.1
Complicated Child Birth	-	0.4	0.2
Complicated Puerperium	-	0.6	0.3
Menstruation and Other Maternal Problem	-	0.9	0.5
OTHERS CONDITION	18.8	26.9	22.9
Malnutrition	0.9	1.0	1.0
Tetanus	0.1	0.1	0.1
Mental Disturbance	1.3	1.0	1.1
Other Conditions not Mentioned above	16.6	24.8	20.7
NOT STATED	2.1	2.1	2.1
Total Prevalence	190.3	201.8	196.1
Total Population	26621594	27147453	53769047

## Appendix 3.2 cont'd

## COUNTRY - URBAN

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
ALL FEVER	38.2	45.6	42.2
Malaria	25.9	28.4	27.3
Infectious Jaundice	1.5	1.6	1.5
Hepatitis	1.1	1.9	1.5
Meningitis	0.2	0.3	0.3
Typhus/Relapsing Fever	3.6	5.5	4.6
Other Fever	5.9	7.9	7.0
ALL COUGHS	40.9	46.4	43.9
Tuberculosis	5.4	4.6	4.9
Pneumonia	5.2	6.7	6.0
Whooping Cough	0.9	1.5	1.3
other Cough	29.4	33.5	31.6
DIARRHOEA AND ABDOMINAL CONDITION	32.1	29.7	30.8
Diarrhoea	11.6	9.0	10.2
Gastro Enteritis	2.4	1.1	1.7
Worms in the Stool	4.4	4.2	4.3
Other Diarrhoea and Abdominal Condition	13.7	15.4	14.6
CONDITION ON NECK AND HEAD	19.7	29.7	25.1
Goiter	0.2	0.5	0.4
Ear Problem	2.9	1.7	2.3
Eye Problem	6.3	8.8	7.6
Throat Problem	2.0	2.7	2.4
Teeth Problem	2.2	3.1	2.7
Other Neck and Head Problem	6.1	12.9	9.8
VENERAL DISEASES	0.2	0.5	0.3
CONDITIONS ON SKIN	9.1	8.0	8.5
Wound on Skin	7.3	5.5	6.3
Leprosy	-	0.4	0.2
Elephantiasis	0.5	1.0	0.8
Other Skin Problem	1.3	1.1	1.2
MATERNAL HEALTH PROBLEMS	-	2.2	1.2
Complicated Pregnancy	-	0.7	0.4
Abortion	-	0.1	0.1
Complicated Child Birth	-	0.2	0.1
Complicated Puerperium	-	0.3	0.2
Menstruation and Other Maternal Problem	-	0.8	0.4
OTHERS CONDITION	15.2	28.4	22.3
Malnutrition	0.1	0.9	0.5
Tetanus	-	0.1	-
Mental Disturbance	1.7	1.6	1.7
Other Conditions not Mentioned above	13.4	25.8	20.1
NOT STATED	1.9	1.9	1.9
Total Prevalence	135.4	160.3	148.8
Total Population	3383510	3984524	7368034

## Appendix 3.2 cont'd

Illness and Illness Group	RURAL		
	Prevalence Rate		
	Male	Female	Both Sexes
ALL FEVER	58.8	57.9	58.4
Malaria	40.2	37.2	38.7
Infectious Jaundice	3.2	2.6	2.9
Hepatitis	2.5	2.7	2.6
Meningitis	0.3	0.6	0.4
Typhus/Relapsing Fever	5.9	7.3	6.6
Other Fever	6.7	7.4	7.1
ALL COUGHS	55.3	58.1	56.7
Tuberculosis	3.9	4.2	4.0
Pneumonia	7.2	7.9	7.5
Whooping Cough	2.2	2.1	2.1
other Cough	42.0	44.0	43.0
DIARRHOEA AND ABDOMINAL CONDITION	46.9	46.5	46.7
Diarrhoea	18.6	17.5	18.0
Gastro Enteritis	3.6	3.6	3.6
Worms in the Stool	8.4	7.2	7.8
Other Diarrhoea and Abdominal Condition	16.2	18.2	17.2
CONDITION ON NECK AND HEAD	34.4	48.5	41.4
Goiter	0.2	0.7	0.5
Ear Problem	3.7	3.4	3.6
Eye Problem	11.1	15.7	13.4
Throat Problem	1.6	1.9	1.8
Teeth Problem	2.4	4.0	3.2
Other Neck and Head Problem	15.4	22.8	19.1
VENERAL DISEASES	1.1	0.7	0.9
CONDITIONS ON SKIN	18.0	15.5	16.7
Wound on Skin	14.2	11.6	12.9
Leprosy	0.5	0.4	0.5
Elephantiasis	1.9	2.3	2.1
Other Skin Problem	1.3	1.3	1.3
MATERNAL HEALTH PROBLEMS	-	4.3	2.1
Complicated Pregnancy	-	2.0	1.0
Abortion	-	0.2	0.1
Complicated Child Birth	-	0.4	0.2
Complicated Puerperium	-	0.7	0.3
Menstruation and Other Maternal Problem	-	0.9	0.5
OTHERS CONDITION	19.3	26.7	23.0
Malnutrition	1.0	1.0	2.0
Tetanus	0.1	0.1	0.1
Mental Disturbance	1.2	0.9	1.1
Other Conditions not Mentioned above	17.0	24.7	20.8
NOT STATED	2.1	2.2	2.1
Total Prevalence	198.2	209	203.6
Total Population	23238084	23162930	46401014

**Appendix 3.2a Prevalence Rates (per thousands) of Each Reported Illness and Illness Groups by Sex, Region and Zone:1998**

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>TIGRAY REGION</b>			
ALL FEVER	99.8	97.5	98.6
Malaria	77.4	64.8	71.0
Infectious Jaundice	6.5	6.8	6.6
Hepatitis	2.8	5.9	4.4
Meningitis	-	0.2	0.1
Typhus/Relapsing Fever	5.0	8.8	6.9
Other Fever	8.1	11.0	9.6
ALL COUGHS	85.8	84.5	85.1
Tuberculosis	9.2	9.2	9.2
Pneumonia	10.5	12.3	11.4
Whooping Cough	2.6	4.0	3.3
other Cough	63.6	59.1	61.3
DIARRHOEA AND ABDOMINAL CONDITION	44.9	43.8	44.3
Diarrhoea	21.6	19.7	20.7
Gastro Enteritis	3.0	1.3	2.1
Worms in the Stool	5.5	6.0	5.8
Other Diarrhoea and Abdominal Condition	14.6	16.7	15.7
CONDITION ON NECK AND HEAD	39.1	61.4	50.5
Goiter	1.0	3.2	2.1
Ear Problem	3.8	3.2	3.5
Eye Problem	13.5	18.9	16.2
Throat Problem	1.5	3.3	2.4
Teeth Problem	2.6	4.9	3.8
Other Neck and Head Problem	16.7	27.8	22.4
VENERAL DISEASES	0.7	0.4	0.5
CONDITIONS ON SKIN	10.2	14.5	12.4
Wound on Skin	8.3	11.6	10.0
Leprosy	0.1	0.5	0.3
Elephantiasis	0.6	0.9	0.8
Other Skin Problem	1.1	1.4	1.3
MATERNAL HEALTH PROBLEMS	-	3.1	1.6
Complicated Pregnancy	-	1.5	0.8
Abortion	-	0.1	-
Complicated Child Birth	-	0.3	0.1
Complicated Puerperium	-	0.4	0.2
Menstruation and Other Maternal Problem	-	0.8	0.4
OTHERS CONDITION	18.8	32.0	25.5
Malnutrition	0.5	1.0	0.7
Tetanus	-	0.1	0.1
Mental Disturbance	1.9	1.9	1.9
Other Conditions not Mentioned above	16.4	29	22.9
NOT STATED	2.7	2.5	2.6
Total Prevalence	259.5	275.4	267.6
Total Population	1711471	1788207	3499678

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>MIRABAWI TIGRAY ZONE</b>			
ALL FEVER	197.5	185.0	191.3
Malaria	171	155.3	163.2
Infectious Jaundice	11.2	7.8	9.5
Hepatitis	5.4	9.3	7.4
Meningitis	-	-	-
Typhus/Relapsing Fever	3.4	3.0	3.2
Other Fever	6.5	9.6	8.1
ALL COUGHS	93.9	86.1	90.0
Tuberculosis	13.3	5.5	9.4
Pneumonia	19.7	16.3	18
Whooping Cough	3.9	3.2	3.5
other Cough	57.0	61.1	59.1
DIARRHOEA AND ABDOMINAL CONDITION	48.0	51.5	49.8
Diarrhoea	21.6	21.1	21.3
Gastro Enteritis	3.9	0.7	2.3
Worms in the Stool	4.4	7.1	5.7
Other Diarrhoea and Abdominal Condition	18.0	22.7	20.4
CONDITION ON NECK AND HEAD	25.0	41.6	33.3
Goiter	-	2.6	1.3
Ear Problem	2.6	2.6	2.6
Eye Problem	8.5	13.2	10.8
Throat Problem	0.7	2.0	1.3
Teeth Problem	2.1	5.6	3.8
Other Neck and Head Problem	11.2	15.7	13.4
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	1.8	2.6	2.2
Wound on Skin	0.6	1.9	1.2
Leprosy	0.6	-	0.3
Elephantiasis	0.6	-	0.3
Other Skin Problem	-	0.7	0.3
MATERNAL HEALTH PROBLEMS	-	1.8	0.9
Complicated Pregnancy	-	0.7	0.3
Abortion	-	-	-
Complicated Child Birth	-	0.6	0.3
Complicated Puerperium	-	0.6	0.3
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	17.4	31.1	24.2
Malnutrition	0.6	-	0.3
Tetanus	-	0.7	0.3
Mental Disturbance	2.9	-	1.5
Other Conditions not Mentioned above	13.9	30.4	22.1
NOT STATED	0.7	1.9	1.3
Total Prevalence	358.6	358.1	358.4
Total Population	372343	369127	741470

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>MEHAKELEGN AW TIGRAY ZONE</b>			
ALL FEVER	99.9	87.1	93.3
Malaria	77.1	54.5	65.5
Infectious Jaundice	10.8	11.6	11.2
Hepatitis	2.8	4.8	3.8
Meningitis	-	-	-
Typhus/Relapsing Fever	4.5	7.5	6.0
Other Fever	4.8	8.8	6.8
ALL COUGHS	102.1	99.9	101
Tuberculosis	7.5	14.1	10.9
Pneumonia	5.6	10.9	8.3
Whooping Cough	1.4	2.5	2.0
other Cough	87.6	72.4	79.8
DIARRHOEA AND ABDOMINAL CONDITION	52.3	42.8	47.5
Diarrhoea	27.5	21.5	24.4
Gastro Enteritis	4.5	2.2	3.3
Worms in the Stool	6.3	4.7	5.5
Other Diarrhoea and Abdominal Condition	14.0	14.4	14.2
CONDITION ON NECK AND HEAD	47.8	64.0	56.1
Goiter	1.2	0.6	0.9
Ear Problem	5.1	2.4	3.7
Eye Problem	16.8	19.1	18.0
Throat Problem	1.1	3.2	2.2
Teeth Problem	3.0	4.4	3.7
Other Neck and Head Problem	20.6	34.4	27.7
VENERAL DISEASES	0.6	0.8	0.7
CONDITIONS ON SKIN	6.9	15.2	11.2
Wound on Skin	3.9	11.6	7.8
Leprosy	-	-	-
Elephantiasis	1.3	2.4	1.9
Other Skin Problem	1.8	1.2	1.5
MATERNAL HEALTH PROBLEMS	-	3.0	1.5
Complicated Pregnancy	-	1.0	0.5
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	2.0	1.0
OTHERS CONDITION	17.3	32.4	25.0
Malnutrition	-	-	-
Tetanus	-	-	-
Mental Disturbance	1.1	2.9	2.0
Other Conditions not Mentioned above	16.3	29.4	23.0
NOT STATED	1.8	1.4	1.6
Total Prevalence	278.6	280.4	279.5
Total Population	527483	555935	1083418

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>MISRAKAWI TIGRAY</b>			
ALL FEVER	45.0	65.1	55.4
Malaria	25.6	25.1	25.3
Infectious Jaundice	1.0	3.6	2.4
Hepatitis	0.7	6.2	3.5
Meningitis	-	0.9	0.5
Typhus/Relapsing Fever	7.0	16.8	12.1
Other Fever	10.7	12.4	11.6
ALL COUGHS	89.9	89.1	89.5
Tuberculosis	10.7	8.4	9.5
Pneumonia	12.9	14.7	13.8
Whooping Cough	1.0	3.1	2.1
other Cough	65.3	62.9	64.0
DIARRHOEA AND ABDOMINAL CONDITION	36.9	41.7	39.3
Diarrhoea	16.0	16.6	16.3
Gastro Enteritis	3.1	0.5	1.8
Worms in the Stool	4.5	1.0	2.7
Other Diarrhoea and Abdominal Condition	13.3	23.6	18.6
CONDITION ON NECK AND HEAD	50.9	74.1	62.8
Goiter	3.2	6.7	5.0
Ear Problem	6.4	-	5.2
Eye Problem	19	21.9	20.5
Throat Problem	1.7	-	3.4
Teeth Problem	2.6	7.6	5.2
Other Neck and Head Problem	17.9	28.8	23.6
VENERAL DISEASES	-	0.6	0.3
CONDITIONS ON SKIN	7.6	9.5	8.6
Wound on Skin	6.2	7.8	7.0
Leprosy	-	-	-
Elephantiasis	0.5	0.8	0.7
Other Skin Problem	0.8	1.0	0.9
MATERNAL HEALTH PROBLEMS	-	2.0	1.0
Complicated Pregnancy	-	1.0	0.5
Abortion	-	0.5	0.2
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.5	0.3
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	21.9	31.8	27
Malnutrition	-	2.0	1.0
Tetanus	-	-	-
Mental Disturbance	1.7	3.4	2.6
Other Conditions not Mentioned above	20.1	26.4	23.4
NOT STATED	1.9	4.1	3.0
Total Prevalence	201.2	239.2	220.8
Total Population	354883	378570	733453

**Appendix 3.2a cont'd**

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>DEBUBAWI TIGRAY ZONE</b>			
ALL FEVER	65.7	71.9	68.9
Malaria	43.8	41.8	42.8
Infectious Jaundice	2.1	3.3	2.7
Hepatitis	2.2	4.0	3.1
Meningitis	-	-	-
Typhus/Relapsing Fever	6.1	8.7	7.5
Other Fever	11.5	14.1	12.8
ALL COUGHS	56.1	59.3	57.7
Tuberculosis	5.8	5.7	5.7
Pneumonia	6.4	8.2	7.3
Whooping Cough	4.7	7.6	6.2
other Cough	39.2	37.8	38.5
DIARRHOEA AND ABDOMINAL CONDITION	39.9	40.4	40.2
Diarrhoea	18.3	19.2	18.7
Gastro Enteritis	0.6	1.3	1.0
Worms in the Stool	6.9	11.3	9.2
Other Diarrhoea and Abdominal Condition	14	8.7	11.3
CONDITION ON NECK AND HEAD	32.7	63.4	48.4
Goiter	-	4.4	2.2
Ear Problem	1.2	3.9	2.6
Eye Problem	10	21.9	16.1
Throat Problem	2.7	2.6	2.6
Teeth Problem	2.7	2.6	2.7
Other Neck and Head Problem	16.1	28.0	22.2
VENERAL DISEASES	2.1	-	1.0
CONDITIONS ON SKIN	24.6	28.1	26.4
Wound on Skin	23	23.4	23.2
Leprosy	-	2.1	1.1
Elephantiasis	-	-	-
Other Skin Problem	1.7	2.5	2.1
MATERNAL HEALTH PROBLEMS	-	5.4	2.7
Complicated Pregnancy	-	3.5	1.8
Abortion	-	-	-
Complicated Child Birth	-	0.7	0.3
Complicated Puerperium	-	0.6	0.3
Menstruation and Other Maternal Problem	-	0.6	0.3
OTHERS CONDITION	18.9	32.7	26
Malnutrition	1.4	2.3	1.9
Tetanus	-	-	-
Mental Disturbance	1.7	0.7	1.2
Other Conditions not Mentioned above	15.8	29.7	22.9
NOT STATED	6.0	2.7	4.3
Total Prevalence.	205.3	237.7	221.9
Total Population	413950	433366	847316

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>MEKELE ZONE</b>			
ALL FEVER	32.4	37.3	35.1
Malaria	23.4	13.5	18.0
Hepatitis	2.6	8.5	5.8
Meningitis	-	-	-
Typhus/Relapsing Fever	-	6.1	3.3
Other Fever	6.4	9.3	8.0
ALL COUGHS	69.3	85.0	77.8
Tuberculosis	14.9	18.0	16.6
Pneumonia	9.2	16.0	12.9
Whooping Cough	-	-	-
other Cough	45.2	51.0	48.4
DIARRHOEA AND ABDOMINAL CONDITION	39.8	41.4	40.7
Diarrhoea	28.2	18.4	22.8
Gastro Enteritis	-	1.0	0.6
Worms in the Stool	0.8	6.2	3.7
Other Diarrhoea and Abdominal Condition	10.7	15.9	13.5
CONDITION ON NECK AND HEAD	17.4	64.5	43.1
Goiter	-	-	-
Ear Problem	1.9	4.6	3.4
Eye Problem	3.7	10.7	7.5
Throat Problem	-	8.5	4.6
Teeth Problem	0.8	5.9	3.6
Other Neck and Head Problem	10.9	34.9	24
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	5.6	15.1	10.7
Wound on Skin	5.6	11.1	8.6
Leprosy	-	0.6	0.3
Elephantiasis	-	0.6	0.3
Other Skin Problem	-	2.8	1.5
MATERNAL HEALTH PROBLEMS	-	1.3	0.7
Complicated Pregnancy	-	0.6	0.3
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.7	0.4
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	20.9	30.8	26.3
Malnutrition	-	-	-
Tetanus	-	-	-
Mental Disturbance	5.3	2.1	3.5
Other Conditions not Mentioned above	15.6	28.7	22.8
NOT STATED	5.2	4.0	4.5
Total Prevalence	167.8	210.9	191.3
Total Population	42812	51208	94020

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
AFFAR REGION			
ALL FEVER	135.6	162.1	148.7
Malaria	127.3	142.8	134.9
Infectious Jaundice	0.5	0.1	0.3
Hepatitis	1.1	1.8	1.5
Meningitis	-	0.3	0.2
Typhus/Relapsing Fever	0.5	1.9	1.2
Other Fever	6.2	15.2	10.6
ALL COUGHS	29	33.8	31.4
Tuberculosis	8.7	9.8	9.2
Pneumonia	4.2	3.2	3.7
Whooping Cough	2.2	2.4	2.3
other Cough	14.0	18.4	16.2
DIARRHOEA AND ABDOMINAL CONDITION	23.0	15.7	19.4
Diarrhoea	8.7	7.9	8.3
Gastro Enteritis	1.4	1.5	1.5
Worms in the Stool	5.8	2.5	4.1
Other Diarrhoea and Abdominal Condition	7.1	3.8	5.5
CONDITION ON NECK AND HEAD	14.7	25.4	20.0
Goiter	-	-	-
Ear Problem	0.3	1.5	0.9
Eye Problem	2.9	7.4	5.1
Throat Problem	0.6	0.7	0.6
Teeth Problem	0.7	1.8	1.2
Other Neck and Head Problem	10.3	14	12.1
VENERAL DISEASES	0.1	-	-
CONDITIONS ON SKIN	7.6	6.9	7.2
Wound on Skin	7.4	6.5	7.0
Leprosy	-	0.2	0.1
Elephantiasis	-	-	-
Other Skin Problem	0.1	0.2	0.2
MATERNAL HEALTH PROBLEMS	-	1.8	0.9
Complicated Pregnancy	-	0.6	0.3
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.1	0.1
Menstruation and Other Maternal Problem	-	1.0	0.5
OTHERS CONDITION	3.3	9.6	6.4
Malnutrition	-	-	-
Tetanus	0.3	-	0.2
Mental Disturbance	0.2	0.4	0.3
Other Conditions not Mentioned above	2.8	9.2	6.0
NOT STATED	0.4	0.3	0.4
Total Prevalence	198.5	229.9	214
Total Population	156534	152488	309022

**Appendix 3.2a cont'd**

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
ZONE 1			
ALL FEVER	230.7	280.8	257.8
Malaria	228.7	251.4	241
Hepatitis	0.8	1.0	0.9
Meningitis	-	0.3	0.2
Typhus/Relapsing Fever	0.2	0.2	0.2
Other Fever	0.9	27.8	15.4
ALL COUGHS	23.4	22.7	23.0
Tuberculosis	16.9	15.2	16.0
Pneumonia	2.0	3.4	2.8
Whooping Cough	0.3	1.0	0.7
other Cough	4.2	3.1	3.6
DIARRHOEA AND ABDOMINAL CONDITION	18.1	12.3	14.9
Diarrhoea	11.7	7.0	9.2
Gastro Enteritis	0.5	0.5	0.5
Worms in the Stool	3.7	1.1	2.3
Other Diarrhoea and Abdominal Condition	2.2	3.6	3.0
CONDITION ON NECK AND HEAD	4.0	3.2	3.5
Goiter	-	-	-
Ear Problem	0.5	0.4	0.4
Eye Problem	1.0	1.1	1.0
Throat Problem	0.9	0.7	0.8
Teeth Problem	-	0.2	0.1
Other Neck and Head Problem	1.6	0.8	1.1
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	0.5	2.6	1.6
Wound on Skin	0.5	2.3	1.5
Leprosy	-	-	-
Elephantiasis	-	-	-
Other Skin Problem	-	0.3	0.2
MATERNAL HEALTH PROBLEMS	-	0.3	0.2
Complicated Pregnancy	-	-	-
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.3	0.2
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	1.1	0.7	0.9
Malnutrition	-	-	-
Tetanus	-	-	-
Mental Disturbance	0.5	-	0.2
Other Conditions not Mentioned above	0.6	0.7	0.6
NOT STATED	-	0.6	0.3
Total Prevalence	273.8	319.4	298.4
Total Population	56079	65949	122028

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
ZONE 3			
ALL FEVER	48.1	34.0	41.6
Malaria	37.4	24.8	31.5
Infectious Jaundice	0.9	-	0.5
Hepatitis	1.7	3.2	2.4
Meningitis	-	-	-
Typhus/Relapsing Fever	0.8	3.9	2.2
Other Fever	7.3	2.2	4.9
ALL COUGHS	30.9	43.3	36.6
Tuberculosis	4.6	7.0	5.7
Pneumonia	6.9	4.0	5.5
Whooping Cough	3.0	4.4	3.6
other Cough	16.4	27.9	21.8
DIARRHOEA AND ABDOMINAL CONDITION	26.3	16.8	21.9
Diarrhoea	3.9	5.1	4.4
Gastro Enteritis	2.6	2.9	2.7
Worms in the Stool	8.9	4.5	6.9
Other Diarrhoea and Abdominal Condition	11.0	4.3	7.9
CONDITION ON NECK AND HEAD	25.9	53.0	38.4
Goiter	-	-	-
Ear Problem	-	3.0	1.4
Eye Problem	5.1	14.6	9.5
Throat Problem	-	0.7	0.3
Teeth Problem	1.4	3.8	2.5
Other Neck and Head Problem	19.4	30.9	24.7
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	8.4	6.3	7.4
Wound on Skin	8.4	6.3	7.4
Leprosy	-	-	-
Elephantiasis	-	-	-
Other Skin Problem	-	-	-
MATERNAL HEALTH PROBLEMS	-	3.7	1.7
Complicated Pregnancy	-	1.3	0.6
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	2.4	1.1
OTHERS CONDITION	5.4	20.7	12.5
Malnutrition	-	-	-
Tetanus	0.6	-	0.3
Mental Disturbance	-	1	0.4
Other Conditions not Mentioned above	4.8	19.7	11.7
NOT STATED	0.8	-	0.4
Total Prevalence	119.1	124.7	121.7
Total Population	78412	67506	145918

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
ZONE 5			
ALL FEVER	204.7	205.6	205.2
Malaria	189	184.7	187
Hepatitis	-	1.2	0.5
Meningitis	-	1.4	0.6
Typhus/Relapsing Fever	0.2	0.5	0.3
Other Fever	15.6	18.0	16.7
ALL COUGHS	36.8	38.6	37.7
Tuberculosis	2.5	1.2	1.9
Pneumonia	-	-	-
Whooping Cough	3.9	-	2.1
other Cough	30.4	37.5	33.7
DIARRHOEA AND ABDOMINAL CONDITION	23.3	23.8	23.5
Diarrhoea	18.0	21.0	19.4
Gastro Enteritis	-	-	-
Worms in the Stool	-	-	-
Other Diarrhoea and Abdominal Condition	5.3	2.8	4.2
CONDITION ON NECK AND HEAD	2.5	4.3	3.3
Goiter	-	-	-
Ear Problem	0.5	0.1	0.3
Eye Problem	-	3.9	1.8
Throat Problem	2.0	0.3	1.2
Teeth Problem	-	-	-
Other Neck and Head Problem	-	-	-
VENERAL DISEASES	0.4	-	0.2
CONDITIONS ON SKIN	22.6	23.9	23.2
Wound on Skin	21.6	22.0	21.8
Leprosy	-	1.4	0.6
Elephantiasis	-	-	-
Other Skin Problem	1.0	0.5	0.8
MATERNAL HEALTH PROBLEMS	-	-	-
Complicated Pregnancy	-	-	-
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	1.5	1.7	1.6
Malnutrition	-	-	-
Tetanus	-	-	-
Mental Disturbance	-	-	-
Other Conditions not Mentioned above	1.5	1.7	1.6
NOT STATED	-	0.3	0.1
Total Prevalence	289	293.6	291.1
Total Population	22042	19034	41076

**Appendix 3.2a cont'd**

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
AMHARA REGION			
ALL FEVER	44.6	44.5	44.5
Malaria	28.3	24.1	26.2
Infectious Jaundice	1.9	1.2	1.5
Hepatitis	1.9	2.2	2.1
Meningitis	0.3	0.8	0.6
Typhus/Relapsing Fever	5.7	8.3	7.0
Other Fever	6.6	7.9	7.2
ALL COUGHS	64.7	61.0	62.9
Tuberculosis	3.8	4.3	4.0
Pneumonia	7.8	6.8	7.3
Whooping Cough	2.7	1.9	2.3
other Cough	50.5	48.0	49.2
DIARRHOEA AND ABDOMINAL CONDITION	45.3	38.4	41.8
Diarrhoea	17.2	14.1	15.6
Gastro Enteritis	2.8	3.0	2.9
Worms in the Stool	8.2	5.3	6.7
Other Diarrhoea and Abdominal Condition	17.0	16.0	16.5
CONDITION ON NECK AND HEAD	34.1	50.8	42.5
Goiter.	0.2	0.6	0.4
Ear Problem	3.6	2.9	3.2
Eye Problem	13.3	19.9	16.6
Throat Problem	1.5	1.9	1.7
Teeth Problem	1.8	3.6	2.7
Other Neck and Head Problem	13.7	22.1	17.9
VENERAL DISEASES	1.0	1.0	1.0
CONDITIONS ON SKIN	19.4	17.3	18.4
Wound on Skin	15.5	13.1	14.3
Leprosy	0.4	0.2	0.3
Elephantiasis	2.1	2.5	2.3
Other Skin Problem	1.4	1.5	1.4
MATERNAL HEALTH PROBLEMS	-	5.6	2.8
Complicated Pregnancy	-	2.8	1.4
Abortion	-	0.3	0.2
Complicated Child Birth	-	0.5	0.3
Complicated Puerperium	-	0.6	0.3
Menstruation and Other Maternal Problem	-	1.4	0.7
OTHERS CONDITION	24.8	34.6	29.7
Malnutrition	0.9	1.2	1.0
Tetanus	0.1	0.1	0.1
Mental Disturbance	1.3	1.4	1.4
Other Conditions not Mentioned above	22.4	31.9	27.1
NOT STATED	2.2	3.0	2.6
Total Prevalence	198.8	201.4	200.1
Total Population	7121855	7149345	14271200

**Appendix 3.2a cont'd**

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
SEMEN GONDAR ZONE			
ALL FEVER	58.3	57.4	57.9
Malaria	36.3	29.3	32.8
Infectious Jaundice	3.7	3.9	3.8
Hepatitis	1.0	5.0	3.0
Meningitis	1.3	2.1	1.7
Typhus/Relapsing Fever	8.7	11.7	10.2
Other Fever	7.3	5.6	6.5
ALL COUGHS	92.6	90.0	91.3
Tuberculosis	5.9	6.4	6.2
Pneumonia	18.2	16.0	17.1
Whooping Cough	2.6	0.9	1.8
other Cough	65.8	66.7	66.3
DIARRHOEA AND ABDOMINAL CONDITION	52.2	47.4	49.8
Diarrhoea	22.4	19.5	20.9
Gastro Enteritis	3.4	1.6	2.5
Worms in the Stool	7.5	5.2	6.3
Other Diarrhoea and Abdominal Condition	18.9	21.1	20.0
CONDITION ON NECK AND HEAD	46.7	61.4	54.0
Goiter	0.5	1.0	0.7
Ear Problem	3.9	4.3	4.1
Eye Problem	12.2	19.9	16
Throat Problem	4.3	3.4	3.9
Teeth Problem	1.8	2.8	2.3
Other Neck and Head Problem	24.0	30.0	27.0
VENERAL DISEASES	0.5	0.7	0.6
CONDITIONS ON SKIN	19.7	17.3	18.5
Wound on Skin	16.3	10.7	13.5
Leprosy	-	-	-
Elephantiasis	1.7	5.2	3.5
Other Skin Problem	1.6	1.3	1.5
MATERNAL HEALTH PROBLEMS	-	9.3	4.6
Complicated Pregnancy	-	5.2	2.6
Abortion	-	1.2	0.6
Complicated Child Birth	-	1.0	0.5
Complicated Puerperium	-	0.9	0.5
Menstruation and Other Maternal Problem	-	1.0	0.5
OTHERS CONDITION	49.9	49.8	49.8
Malnutrition	0.6	-	0.3
Tetanus	-	-	-
Mental Disturbance	0.7	0.1	0.4
Other Conditions not Mentioned above	48.5	49.6	49.1
NOT STATED	0.5	1.7	1.1
Total Prevalence	272.6	271.1	271.9
Total Population	1064504	1062076	2126580

**Appendix 3.2a cont'd**

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>DÉBUB GONDAR ZONE</b>			
ALL FEVER	65.4	66.8	66.1
Malaria	48.3	48.4	48.3
Infectious Jaundice	7.0	2.9	5.0
Hepatitis	2.0	1.7	1.8
Meningitis	-	-	-
Typhus/Relapsing Fever	3.6	4.3	4.0
Other Fever	4.5	9.6	7.0
ALL COUGHS	76.2	72.0	74.1
Tuberculosis	5.8	2.2	4.1
Pneumonia	8.2	7.6	7.9
Whooping Cough	2.5	1.6	2.0
other Cough	59.7	60.6	60.2
DIARRHOEA AND ABDOMINAL CONDITION	41.5	40.6	41.1
Diarrhoea	16.2	17	16.6
Gastro Enteritis	1.6	3.7	2.6
Worms in the Stool	9.7	7.0	8.3
Other Diarrhoea and Abdominal Condition	14.0	12.9	13.5
CONDITION ON NECK AND HEAD	39.7	54.2	46.9
Goiter	0.6	1.1	0.8
Ear Problem	3.2	2.3	2.8
Eye Problem	14.1	24.8	19.4
Throat Problem	1.7	1.4	1.6
Teeth Problem	0.6	1.3	0.9
Other Neck and Head Problem	19.5	23.3	21.4
VENERAL DISEASES	0.4	1.2	0.8
CONDITIONS ON SKIN	27.6	28.9	28.2
Wound on Skin	23.8	23.8	23.8
Leprosy	1.0	-	0.5
Elephantiasis	2.8	3.9	3.3
Other Skin Problem	-	1.2	0.6
MATERNAL HEALTH PROBLEMS	-	6.2	3.1
Complicated Pregnancy	-	2.0	1.0
Abortion	-	-	-
Complicated Child Birth	-	0.6	0.3
Complicated Puerperium	-	1.6	0.8
Menstruation and Other Maternal Problem	-	2.1	1.0
OTHERS CONDITION	21.7	35.9	28.7
Malnutrition	1.1	3.9	2.4
Tetanus	1.1	-	0.5
Mental Disturbance	1.4	1.2	1.3
Other Conditions not Mentioned above	18.2	30.9	24.4
NOT STATED	2.6	3.4	3.0
Total Prevalence	232.4	250.5	241.3
Total Population	930864	903879	1834743

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>SEMEN WELLO ZONE</b>			
ALL FEVER	29.9	29.7	29.8
Malaria	16.4	13.1	14.8
Infectious Jaundice	0.5	-	0.3
Hepatitis	1.3	1.2	1.3
Meningitis	0.7	-	0.3
Typhus/Relapsing Fever	4.1	7.5	5.8
Other Fever	6.8	8.0	7.4
ALL COUGHS	78.5	81.9	80.2
Tuberculosis	4.2	6.1	5.1
Pneumonia	5.1	2.7	3.9
Whooping Cough	3.7	2.8	3.3
other Cough	65.4	70.2	67.8
DIARRHOEA AND ABDOMINAL CONDITION	62.1	42.9	52.6
Diarrhoea	24.7	16.2	20.5
Gastro Enteritis	5.5	4.3	4.9
Worms in the Stool	8.7	4.0	6.4
Other Diarrhoea and Abdominal Condition	23.2	18.4	20.8
CONDITION ON NECK AND HEAD	35.2	56.2	45.6
Goiter	-	-	-
Ear Problem	4.8	2.7	3.8
Eye Problem	18.4	24.7	21.5
Throat Problem	-	2.9	1.4
Teeth Problem	3.5	7.2	5.3
Other Neck and Head Problem	8.5	18.7	13.6
VENERAL DISEASES	1.2	1.2	1.2
CONDITIONS ON SKIN	35.1	33.6	34.4
Wound on Skin	30.5	27.7	29.2
Leprosy	1.0	1.9	1.5
Elephantiasis	1.1	1.8	1.4
Other Skin Problem	2.4	2.2	2.3
MATERNAL HEALTH PROBLEMS	-	1.7	0.8
Complicated Pregnancy	-	0.6	0.3
Abortion	-	0.6	0.3
Complicated Child Birth	-	0.6	0.3
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	21.3	32.5	26.8
Malnutrition	2.6	1.4	2.0
Tetanus	-	-	-
Mental Disturbance	1.2	1.1	1.1
Other Conditions not Mentioned above	17.5	30.1	23.7
NOT STATED	1.3	1.1	1.2
Total Prevalence	226.9	222.2	224.6
Total Population	630450	619475	1249925

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
DEBUB WELLO ZONE			
ALL FEVER	31.7	32.1	31.9
Malaria	11.7	6.2	8.9
Infectious Jaundice	0.6	1.3	0.9
Hepatitis	3.8	2.8	3.3
Meningitis	-	0.5	0.3
Typhus/Relapsing Fever	5.4	10.2	7.9
Other Fever	10.2	11.1	10.7
ALL COUGHS	68.1	52.5	60.1
Tuberculosis	1.2	1.9	1.6
Pneumonia	4.4	4.3	4.4
Whooping Cough	1.7	2.4	2.1
other Cough	60.7	43.8	52.1
DIARRHOEA AND ABDOMINAL CONDITION	44.4	34.1	39.2
Diarrhoea	16.4	11.9	14.1
Gastro Enteritis	2.6	1.3	1.9
Worms in the Stool	11.3	7.3	9.3
Other Diarrhoea and Abdominal Condition	14.2	13.6	13.9
CONDITION ON NECK AND HEAD	27.7	59.8	44.1
Goiter	-	-	-
Ear Problem	3.0	4.8	3.9
Eye Problem	12.2	22.9	17.7
Throat Problem	-	1.2	0.6
Teeth Problem	2.7	4.7	3.8
Other Neck and Head Problem	9.6	26.2	18.1
VENERAL DISEASES	0.6	0.5	0.5
CONDITIONS ON SKIN	18.2	14.4	16.2
Wound on Skin	14.5	9.8	12.1
Leprosy	-	-	-
Elephantiasis	2.5	3.6	3.1
Other Skin Problem	1.2	1.0	1.1
MATERNAL HEALTH PROBLEMS	-	6.2	3.2
Complicated Pregnancy	-	3.6	1.8
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.6	0.3
Menstruation and Other Maternal Problem	-	2.0	1.0
OTHERS CONDITION	18.4	28.4	23.5
Malnutrition	1.8	1.1	1.4
Tetanus	-	-	-
Mental Disturbance	0.7	1.7	1.2
Other Conditions not Mentioned above	15.9	25.6	20.8
NOT STATED	0.6	4.0	2.3
Total Prevalence	180.8	167.7	174.1
Total Population	1030692	1078857	2109549

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
SEMEN SHEWA ZONE			
ALL FEVER	30.0	30.0	30.0
Malaria	14.5	12.5	13.5
Infectious Jaundice	1.4	-	0.7
Hepatitis	1.8	1.3	1.6
Meningitis	-	0.5	0.2
Typhus/Relapsing Fever	2.8	3.8	3.3
Other Fever	9.4	11.9	10.7
ALL COUGHS	79.3	74.8	77.0
Tuberculosis	2.0	3.9	2.9
Pneumonia	12.0	6.1	9.0
Whooping Cough	4.5	3.2	3.8
other Cough	60.8	61.7	61.2
DIARRHOEA AND ABDOMINAL CONDITION	45.6	39.2	42.4
Diarrhoea	8.8	11.2	10.0
Gastro Enteritis	3.6	2.3	3.0
Worms in the Stool	7.6	7.0	7.3
Other Diarrhoea and Abdominal Condition	25.6	18.7	22.2
CONDITION ON NECK AND HEAD	49.9	65.6	57.8
Goiter	0.8	1.2	1.0
Ear Problem	5.6	2.5	4.1
Eye Problem	18.1	19.3	18.7
Throat Problem	3.6	4.0	3.8
Teeth Problem	2.6	7.2	4.9
Other Neck and Head Problem	19.3	31.4	25.3
VENERAL DISEASES	1.6	1.1	1.3
CONDITIONS ON SKIN	13.0	10.0	11.5
Wound on Skin	9.7	7.8	8.8
Leprosy	1.2	0.6	0.9
Elephantiasis	1.3	-	0.6
Other Skin Problem	0.8	1.6	1.2
MATERNAL HEALTH PROBLEMS	-	6.0	3.0
Complicated Pregnancy	-	3.0	1.5
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.7	0.3
Menstruation and Other Maternal Problem	-	2.3	1.1
OTHERS CONDITION	18.9	30.4	24.6
Malnutrition	0.5	0.6	0.5
Tetanus	-	-	-
Mental Disturbance	2.3	3.7	3.0
Other Conditions not Mentioned above	16.0	26.1	21.0
NOT STATED	7.0	4.7	5.8
Total Prevalence	186.7	190.5	188.6
Total Population	787644	780273	1567917

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>MISRAK GOJAM ZONE</b>			
ALL FEVER	21.3	18.3	19.8
Malaria	8.2	3.4	5.8
Hepatitis	2.5	1.8	2.1
Meningitis	-	2.4	1.2
Typhus/Relapsing Fever	4.4	7.9	6.2
Other Fever	6.2	2.8	4.5
ALL COUGHS	35.3	30.9	33.1
Tuberculosis	3.9	7.7	5.8
Pneumonia	3.5	4.0	3.8
Whooping Cough	3.5	-	1.8
other Cough	24.3	19.3	21.8
DIARRHOEA AND ABDOMINAL CONDITION	38.1	30.0	34.1
Diarrhoea	14.7	7.8	11.3
Gastro Enteritis	1.5	6.7	4.1
Worms in the Stool	7.2	2.8	5.0
Other Diarrhoea and Abdominal Condition	14.7	12.7	13.7
CONDITION ON NECK AND HEAD	23.4	31.4	27.4
Goiter	-	0.6	0.3
Ear Problem	2.0	0.7	1.3
Eye Problem	9.9	11.1	10.5
Throat Problem	0.7	0.5	0.6
Teeth Problem	1.2	2.1	1.6
Other Neck and Head Problem	9.7	16.5	13.1
VENERAL DISEASES	2.7	0.9	1.8
CONDITIONS ON SKIN	7.2	10.8	9.0
Wound on Skin	5.0	7.7	6.4
Leprosy	-	-	-
Elephantiasis	1.6	0.9	1.3
Other Skin Problem	0.6	2.2	1.4
MATERNAL HEALTH PROBLEMS	-	4.0	2.0
Complicated Pregnancy	-	1.7	0.8
Abortion	-	0	-
Complicated Child Birth	-	1.4	0.7
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	0.9	0.5
OTHERS CONDITION	30.3	43.8	37.1
Malnutrition	0.5	1.4	1.0
Tetanus	-	-	-
Mental Disturbance	1.1	1.4	1.3
Other Conditions not Mentioned above	28.7	40.9	34.8
NOT STATED	1.4	5.5	3.4
Total Prevalence	132.2	137.7	135
Total Population	952679	959787	1912466

## Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>MIRAB GOJAM ZONE</b>			
ALL FEVER	70.4	74.2	72.3
Malaria	56.7	52.5	54.5
Infectious Jaundice	0.4	-	0.2
Hepatitis	0.9	1.7	1.3
Meningitis	-	-	-
Typhus/Relapsing Fever	9.5	13.2	11.4
Other Fever	2.9	6.8	4.9
ALL COUGHS	38.9	34.7	36.8
Tuberculosis	4.1	3.5	3.8
Pneumonia	4.9	5.3	5.1
Whooping Cough	1.4	1.0	1.2
other Cough	28.4	24.9	26.7
DIARRHOEA AND ABDOMINAL CONDITION	30.9	30.2	30.5
Diarrhoea	13.0	11.9	12.4
Gastro Enteritis	1.4	1.3	1.4
Worms in the Stool	5.4	3.2	4.2
Other Diarrhoea and Abdominal Condition	11.1	13.8	12.5
CONDITION ON NECK AND HEAD	20.3	33.9	27.2
Goiter	-	-	-
Ear Problem	3.4	2.4	2.9
Eye Problem	11.3	17.5	14.5
Throat Problem	0.1	0.1	0.1
Teeth Problem	1.4	2.9	2.2
Other Neck and Head Problem	4.1	10.9	7.5
VENERAL DISEASES	-	0.9	0.5
CONDITIONS ON SKIN	15.4	13.8	14.6
Wound on Skin	11.6	11.9	11.8
Leprosy	-	-	-
Elephantiasis	2.5	1.3	1.9
Other Skin Problem	1.4	0.5	1.0
MATERNAL HEALTH PROBLEMS	-	3.6	1.8
Complicated Pregnancy	-	1.9	1.0
Abortion	-	-	-
Complicated Child Birth	-	0.3	0.1
Complicated Puerperium	-	0.5	0.2
Menstruation and Other Maternal Problem	-	1.0	0.5
OTHERS CONDITION	13.9	24.1	19.1
Malnutrition	-	0.4	0.2
Tetanus	-	0.4	0.2
Mental Disturbance	2.0	1.6	1.8
Other Conditions not Mentioned above	11.9	21.7	16.9
NOT STATED	2.0	1.1	1.5
Total Prevalence	169.5	180.5	175.1
Total Population	1009083	1043704	2052787

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
WAG HEMRA ZONE			
ALL FEVER	51.6	46.9	49.3
Malaria	36.2	20.1	28.4
Infectious Jaundice	2.1	2.9	2.5
Hepatitis	1.7	1.8	1.7
Meningitis	0.8	-	0.4
Typhus/Relapsing Fever	4.6	4.7	4.7
Other Fever	6.3	17.3	11.6
ALL COUGHS	70.8	99.0	84.4
Tuberculosis	1.5	4.3	2.9
Pneumonia	3.1	8.3	5.6
Whooping Cough	3.2	5.3	4.2
other Cough	63.0	81.0	71.7
DIARRHOEA AND ABDOMINAL CONDITION	54.6	55.9	55.2
Diarrhoea	20.6	24.0	22.2
Gastro Enteritis	3.8	5.6	4.6
Worms in the Stool	16.0	7.0	11.7
Other Diarrhoea and Abdominal Condition	14.3	19.4	16.7
CONDITION ON NECK AND HEAD	38.6	51.3	44.7
Goiter	-	0.9	0.4
Ear Problem	4.1	4.7	4.4
Eye Problem	15.4	20.5	17.8
Throat Problem	0.7	2.8	1.7
Teeth Problem	2.8	3.1	2.9
Other Neck and Head Problem	15.7	19.4	17.5
VENERAL DISEASES	2.0	7.6	4.7
CONDITIONS ON SKIN	39.6	24.3	32.2
Wound on Skin	32.9	22.6	27.9
Leprosy	2.0	0.7	1.4
Elephantiasis	1.4	1.0	1.2
Other Skin Problem	3.3	-	1.7
MATERNAL HEALTH PROBLEMS	-	5.2	2.5
Complicated Pregnancy	-	2.1	1.0
Abortion	-	3.1	1.5
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	15.6	26.3	20.8
Malnutrition	0.8	1.7	1.2
Tetanus	-	-	-
Mental Disturbance	0.8	-	0.4
Other Conditions not Mentioned above	14.0	24.7	19.2
NOT STATED	3.6	1.9	2.8
Total Prevalence	232.2	257.7	244.5
Total Population	147622	137607	285229

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>AGEW AWI ZONE</b>			
ALL FEVER	15.1	14.9	15
Malaria	5.5	3.4	4.5
Hepatitis	-	1.1	0.5
Meningitis	1.3	1.3	1.3
Typhus/Relapsing Fever	6.3	5.0	5.7
Other Fever	2.0	4.1	3.0
ALL COUGHS	45.5	53.4	49.4
Tuberculosis	3.0	3.8	3.4
Pneumonia	4.4	8.1	6.2
Whooping Cough	1.3	4.1	2.7
other Cough	36.8	37.4	37.1
DIARRHOEA AND ABDOMINAL CONDITION	52.8	53.1	52.9
Diarrhoea	25.7	19.3	22.5
Gastro Enteritis	4.2	3.5	3.8
Worms in the Stool	5.5	7.3	6.4
Other Diarrhoea and Abdominal Condition	17.4	23.0	20.2
CONDITION ON NECK AND HEAD	35.8	44.1	39.9
Goiter	-	0.7	0.3
Ear Problem	3.7	1.8	2.8
Eye Problem	17.5	23.2	20.3
Throat Problem	2.0	4.0	3.0
Teeth Problem	-	1.2	0.6
Other Neck and Head Problem	12.7	13.2	12.9
VENERAL DISEASES	1.1	0.6	0.9
CONDITIONS ON SKIN	21.5	16.5	19.0
Wound on Skin	14.3	7.8	11.1
Leprosy	-	-	-
Elephantiasis	4.3	3.2	3.7
Other Skin Problem	2.9	5.5	4.2
MATERNAL HEALTH PROBLEMS	-	7.3	3.6
Complicated Pregnancy	-	5.0	2.5
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	1.0	0.5
Menstruation and Other Maternal Problem	-	1.3	0.6
OTHERS CONDITION	15.9	27	21.4
Malnutrition	0.6	-	0.3
Tetanus	-	-	-
Mental Disturbance	-	1.4	1.4
Other Conditions not Mentioned above	13.8	25.6	19.6
NOT STATED	4.9	2.8	3.9
Total Prevalence	150.7	172.1	161.3
Total Population	357855	348979	706834

## Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
OROMIYA ZONE			
ALL FEVER	73.0	63.1	68.0
Malaria	55.1	51.4	53.2
Infectious Jaundice	1.3	-	0.6
Hepatitis	3.9	2.0	2.9
Meningitis	-	-	-
Typhus/Relapsing Fever	2.8	1.3	2.1
Other Fever	9.9	8.3	9.1
ALL COUGHS	46.6	53.3	50.0
Tuberculosis	1.5	-	0.8
Pneumonia	3.4	1.9	2.6
Whooping Cough	4.2	5.3	4.8
other Cough	37.5	46.1	41.8
DIARRHOEA AND ABDOMINAL CONDITION	61.2	33.3	47.1
Diarrhoea	23.9	13.9	18.8
Gastro Enteritis	5.1	2.0	3.6
Worms in the Stool	7.0	4.5	5.7
Other Diarrhoea and Abdominal Condition	25.1	12.9	18.9
CONDITION ON NECK AND HEAD	24.3	50.2	37.4
Goiter	-	-	-
Ear Problem	2.4	4.2	3.3
Eye Problem	5.2	16.4	10.9
Throat Problem	-	-	-
Teeth Problem	1.6	2.0	1.8
Other Neck and Head Problem	15.0	27.6	21.4
VENERAL DISEASES	1.7	-	0.8
CONDITIONS ON SKIN	22.1	6.7	14.3
Wound on Skin	13.4	5.2	9.3
Leprosy	1.4	-	0.7
Elephantiasis	1.7	1.4	1.5
Other Skin Problem	5.6	-	2.8
MATERNAL HEALTH PROBLEMS	-	7.5	3.8
Complicated Pregnancy	-	2.3	1.2
Abortion	-	0.8	0.4
Complicated Child Birth	-	0.9	0.5
Complicated Puerperium	-	0.9	0.5
Menstruation and Other Maternal Problem	-	2.6	1.3
OTHERS CONDITION	23.7	33.6	28.7
Malnutrition	1.3	1.5	1.4
Tetanus	-	-	-
Mental Disturbance	2.6	0.5	1.5
Other Conditions not Mentioned above	19.8	31.6	25.8
NOT STATED	1.8	0.6	1.2
Total Prevalence	226.6	197.4	211.8
Total Population	210461	214708	425169

## Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
OROMIYA REGION			
ALL FEVER	42.8	43.5	43.2
Malaria	24.6	23.2	23.9
Infectious Jaundice	4.2	3.3	3.8
Hepatitis	3.1	3.0	3.0
Meningitis	0.4	0.7	0.6
Typhus/Relapsing Fever	4.4	5.9	5.2
Other Fever	6.0	7.4	6.7
ALL COUGHS	52.1	61.2	56.7
Tuberculosis	4.3	4.2	4.3
Pneumonia	6.5	8.2	7.4
Whooping Cough	1.3	1.7	1.5
other Cough	39.9	47.1	43.5
DIARRHOEA AND ABDOMINAL CONDITION	52.7	55.1	53.9
Diarrhoea	20.9	19.1	20.0
Gastro Enteritis	4.6	4.6	4.6
Worms in the Stool	8.9	9.0	8.9
Other Diarrhoea and Abdominal Condition	18.3	22.5	20.4
CONDITION ON NECK AND HEAD	38.2	52.1	45.2
Goiter	0.1	0.5	0.3
Ear Problem	4.6	3.7	4.1
Eye Problem	11.0	15.0	13
Throat Problem	1.9	1.9	1.9
Teeth Problem	3.0	4.4	3.7
Other Neck and Head Problem	17.7	26.6	22.2
VENERAL DISEASES	1.3	0.6	0.9
CONDITIONS ON SKIN	19.5	15.4	17.4
Wound on Skin	15.4	11.6	13.5
Leprosy	0.6	0.3	0.5
Elephantiasis	2.0	2.4	2.2
Other Skin Problem	1.5	1.0	1.2
MATERNAL HEALTH PROBLEMS	-	4.1	2.1
Complicated Pregnancy	-	2.0	1.0
Abortion	-	0.2	0.1
Complicated Child Birth	-	0.5	0.3
Complicated Puerperium	-	0.7	0.3
Menstruation and Other Maternal Problem	-	0.8	0.4
OTHERS CONDITION	18.4	28.3	23.4
Malnutrition	0.9	1.3	1.1
Tetanus	-	0.1	0.1
Mental Disturbance	1.1	0.8	1.0
Other Conditions not Mentioned above	16.4	26.2	21.3
NOT STATED	1.7	1.1	1.4
Total Prevalence	185.5	207.6	196.6
Total Population	10229601	10333818	20563419

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>MIRAB WELLEGA ZONE</b>			
ALL FEVER	62.5	59.3	60.9
Malaria	36.1	30.9	33.4
Infectious Jaundice	8.5	6.1	7.3
Hepatitis	5.0	5.2	5.1
Meningitis	-	0.5	0.2
Typhus/Relapsing Fever	10.3	13.0	11.7
Other Fever	2.6	3.7	3.2
ALL COUGHS	47.8	60.9	54.5
Tuberculosis	7.0	6.1	6.5
Pneumonia	10.8	20.3	15.6
Whooping Cough	2.9	1.8	2.3
other Cough	27.1	32.7	30.0
DIARRHOEA AND ABDOMINAL CONDITION	69.2	65.7	67.4
Diarrhoea	38.5	34.0	36.2
Gastro Enteritis	1.6	3.4	2.5
Worms in the Stool	13.2	12.0	12.6
Other Diarrhoea and Abdominal Condition	15.9	16.2	16.1
CONDITION ON NECK AND HEAD	38.8	49.0	44.0
Goiter	0.5	0.9	0.7
Ear Problem	5.9	2.9	4.3
Eye Problem	9.1	10.0	9.6
Throat Problem	2.0	0.9	1.5
Teeth Problem	4.0	7.1	5.6
Other Neck and Head Problem	17.3	27.2	22.3
VENERAL DISEASES	0.5	-	0.2
CONDITIONS ON SKIN	21.9	22.9	22.4
Wound on Skin	13.7	14.1	13.9
Leprosy	0.5	0.4	0.5
Elephantiasis	6.3	6.5	6.4
Other Skin Problem	1.4	1.9	1.6
MATERNAL HEALTH PROBLEMS	-	4.2	2.2
Complicated Pregnancy	-	2.9	1.5
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	1.3	0.7
OTHERS CONDITION	29.0	36.7	33
Malnutrition	2.3	1.9	2.1
Tetanus	-	-	-
Mental Disturbance	0.5	1.4	0.9
Other Conditions not Mentioned above	26.2	33.4	29.9
NOT STATED	2.4	4.0	3.2
Total Prevalence	230.4	249.6	240.2
Total Population	804795	842570	1647365

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
MISRAK WELLEGA ZONE			
ALL FEVER	27.6	37.4	32.6
Malaria	13.6	11.7	12.6
Infectious Jaundice	4.2	4.2	4.2
Hepatitis	4.7	7.4	6.1
Meningitis	0.9	1.7	1.3
Typhus/Relapsing Fever		4.4	2.2
Other Fever	4.1	8.0	6.1
ALL COUGHS	50.2	56.3	53.4
Tuberculosis	6.6	6.6	6.6
Pneumonia	11.0	9.3	10.1
Whooping Cough	1.0	2.4	1.7
other Cough	31.7	38.0	34.9
DIARRHOEA AND ABDOMINAL CONDITION	43.1	54.6	49.0
Diarrhoea	16.4	19.4	17.9
Gastro Enteritis	4.9	3.4	4.1
Worms in the Stool	9.0	11.0	10.0
Other Diarrhoea and Abdominal Condition	12.8	20.8	16.9
CONDITION ON NECK AND HEAD	47.0	50.7	48.9
Goiter	1.0	1.6	1.3
Ear Problem	6.6	6.1	6.3
Eye Problem	17.6	18.7	18.2
Throat Problem	1.2	2.4	1.9
Teeth Problem	5.7	5.9	5.8
Other Neck and Head Problem	14.9	16.0	15.5
VENERAL DISEASES	1.6	0.5	1.0
CONDITIONS ON SKIN	22.1	19.5	20.7
Wound on Skin	12.2	12.6	12.4
Leprosy	3.8	0.6	2.1
Elephantiasis	5.7	5.5	5.6
Other Skin Problem	0.4	0.9	0.7
MATERNAL HEALTH PROBLEMS	-	4.1	2.1
Complicated Pregnancy	-	0.9	0.4
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	2.1	1.1
Menstruation and Other Maternal Problem	-	1.1	0.6
OTHERS CONDITION	18.7	36.2	27.7
Malnutrition	0.4	0.3	0.3
Tetanus	-	0.5	0.2
Mental Disturbance	1.0	0.6	0.8
Other Conditions not Mentioned above	17.3	34.9	26.4
NOT STATED	1.2	0.4	0.8
Total Prevalence	161.6	208.1	185.5
Total Population	657333	698183	1355516

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
MIRAB SHEWA ZONE			
ALL FEVER	20.4	19.9	20.1
Malaria	6.4	6.1	6.3
Infectious Jaundice	1.9	2.0	1.9
Hepatitis	4.3	0.8	2.5
Meningitis	0.8	-	0.4
Typhus/Relapsing Fever	2.9	3.9	3.4
Other Fever	4.1	7.2	5.7
ALL COUGHS	47.5	53.7	50.6
Tuberculosis	6.8	4.7	5.8
Pneumonia	4.4	5.9	5.1
Whooping Cough	1.9	2.2	2.1
other Cough	34.4	41.0	37.7
DIARRHOEA AND ABDOMINAL CONDITION	36.8	40.8	38.8
Diarrhoea	13.7	14.6	14.1
Gastro Enteritis	3.4	2.3	2.8
Worms in the Stool	4.9	7.4	6.1
Other Diarrhoea and Abdominal Condition	14.8	16.6	15.7
CONDITION ON NECK AND HEAD	40.9	49.3	45.1
Goiter	-	0.6	0.3
Ear Problem	4.7	2.2	3.4
Eye Problem	17.8	21.3	19.5
Throat Problem	1.4	2.2	1.8
Teeth Problem	2.3	5.7	4.0
Other Neck and Head Problem	14.7	17.4	16.0
VENERAL DISEASES	1.5	0.5	1.0
CONDITIONS ON SKIN	26.5	11.3	18.9
Wound on Skin	20.6	7.6	14.1
Leprosy	-	0.4	0.2
Elephantiasis	4.5	2.8	3.7
Other Skin Problem	1.3	0.6	1.0
MATERNAL HEALTH PROBLEMS	-	5.0	2.5
Complicated Pregnancy	-	1.1	0.6
Abortion	-	0.5	0.2
Complicated Child Birth	-	0.5	0.2
Complicated Puerperium	-	0.6	0.3
Menstruation and Other Maternal Problem	-	2.3	1.1
OTHERS CONDITION	15.8	29.2	22.5
Malnutrition	0.5	1.5	1.0
Tetanus	-	-	-
Mental Disturbance	1.6	0.4	1.0
Other Conditions not Mentioned above	13.7	27.3	20.5
NOT STATED	2.8	0.9	1.9
Total Prevalence	147.0	159.9	153.5
Total Population	1257281	1266824	2524105

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
SEMEN SHEWA ZONE			
ALL FEVER	25.8	23.4	24.6
Malaria	9.1	6.1	7.6
Infectious Jaundice	2.7	0.4	1.5
Hepatitis	2.8	2.7	2.8
Meningitis	0.5	0.6	0.5
Typhus/Relapsing Fever	4.1	5.8	5.0
Other Fever	6.7	7.7	7.2
ALL COUGHS	41.6	46.3	44.0
Tuberculosis	3.1	3.4	3.3
Pneumonia	3.1	2.0	2.5
Whooping Cough	0.5	1.7	1.1
other Cough	34.9	39.2	37.1
DIARRHOEA AND ABDOMINAL CONDITION	31.9	35.9	33.9
Diarrhoea	10.2	7.8	9.0
Gastro Enteritis	3.7	5.0	4.4
Worms in the Stool	4.8	8.6	6.7
Other Diarrhoea and Abdominal Condition	13.3	14.4	13.9
CONDITION ON NECK AND HEAD	29.2	50.1	39.9
Goiter	-	0.4	0.2
Ear Problem	3.8	1.9	2.8
Eye Problem	13.1	19.7	16.5
Throat Problem	1.0	3.0	2.0
Teeth Problem	1.8	4.8	3.3
Other Neck and Head Problem	9.5	20.4	15.0
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	12.3	9.7	11.0
Wound on Skin	8.0	6.8	7.4
Leprosy	-	-	-
Elephantiasis	0.3	1.2	0.8
Other Skin Problem	4.0	1.7	2.8
MATERNAL HEALTH PROBLEMS	-	2.0	1.0
Complicated Pregnancy	-	0.8	0.4
Abortion	-	-	-
Complicated Child Birth	-	0.4	0.2
Complicated Puerperium	-	0.7	0.4
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	16.6	25.1	20.9
Malnutrition	0.9	0.4	0.6
Tetanus	-	-	-
Mental Disturbance	-	1.8	0.9
Other Conditions not Mentioned above	15.7	22.8	19.3
NOT STATED	0.9	1.4	1.1
Total Prevalence	128.2	142.3	135.4
Total Population	684208	713224	1397432

**Appendix 3.2a cont'd**

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>MISRAK SHEWA ZONE</b>			
ALL FEVER	34.2	35.1	34.7
Malaria	23.0	24.9	24.0
Infectious Jaundice	4.1	5.1	4.6
Hepatitis	1.7	1.5	1.6
Meningitis	-	0.3	0.2
Typhus/Relapsing Fever	0.8	0.4	0.6
Other Fever	4.6	2.9	3.8
ALL COUGHS	25.3	32.3	28.8
Tuberculosis	1.5	5.9	3.7
Pneumonia	5.4	4.1	4.8
Whooping Cough	0.1	1.2	0.6
other Cough	18.4	21.1	19.7
DIARRHOEA AND ABDOMINAL CONDITION	30.5	30.2	30.4
Diarrhoea	17.8	14.4	16.1
Gastro Enteritis	0.4	0.2	0.3
Worms in the Stool	3.1	1.7	2.4
Other Diarrhoea and Abdominal Condition	9.2	14.0	11.6
CONDITION ON NECK AND HEAD	11.8	18.3	15.0
Goiter	-	0.1	-
Ear Problem	1.6	0.6	1.1
Eye Problem	2.6	8.2	5.4
Throat Problem	0.8	1.0	0.9
Teeth Problem	2.1	1.0	1.5
Other Neck and Head Problem	4.8	7.4	6.1
VENERAL DISEASES	0.4	0.4	0.4
CONDITIONS ON SKIN	3.9	4.4	4.1
Wound on Skin	3.8	3.0	3.4
Leprosy	-	-	-
Elephantiasis	0.1	0.7	0.4
Other Skin Problem	-	0.7	0.3
MATERNAL HEALTH PROBLEMS	-	2.0	1.0
Complicated Pregnancy	-	0.7	0.3
Abortion	-	-	-
Complicated Child Birth	-	0.8	0.4
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	0.4	0.2
OTHERS CONDITION	10.9	19.8	15.3
Malnutrition	0.4	1.8	1.1
Tetanus	-	-	-
Mental Disturbance	0.3	0.5	0.4
Other Conditions not Mentioned above	10.3	17.4	13.8
NOT STATED	0.4	0.2	0.3
Total Prevalence	104.9	123.6	114.2
Total Population	874833	863650	1738483

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
ARSSI ZONE			
ALL FEVER	46.6	53.1	49.9
Malaria	14.3	14.0	14.1
Infectious Jaundice	11.2	6.8	9.0
Hepatitis	2.8	6.9	4.8
Meningitis	1.4	2.1	1.7
Typhus/Relapsing Fever	3.3	4.0	3.7
Other Fever	13.7	19.3	16.5
ALL COUGHS	78.4	93.7	86.1
Tuberculosis	3.3	7.2	5.3
Pneumonia	6.0	6.5	6.2
Whooping Cough	2.2	4.1	3.2
other Cough	66.9	76.0	71.5
DIARRHOEA AND ABDOMINAL CONDITION	71.6	90.8	81.3
Diarrhoea	21.2	19.3	20.2
Gastro Enteritis	5.5	9.0	7.3
Worms in the Stool	12.1	15.8	14.0
Other Diarrhoea and Abdominal Condition	32.8	46.7	39.8
CONDITION ON NECK AND HEAD	68.9	86.6	77.9
Goiter	-	-	-
Ear Problem	5.7	4.7	5.2
Eye Problem	19.7	24.3	22.1
Throat Problem	1.8	4.4	3.1
Teeth Problem	5.6	4.7	5.1
Other Neck and Head Problem	-	-	-
VENERAL DISEASES	3.5	1.3	2.4
CONDITIONS ON SKIN	18.2	13.6	15.9
Wound on Skin	17.6	12.1	14.8
Leprosy	-	0.1	0.1
Elephantiasis	0.1	-	0.1
Other Skin Problem	0.4	1.3	0.9
MATERNAL HEALTH PROBLEMS	-	7.9	4.0
Complicated Pregnancy	-	5.8	2.9
Abortion	-	-	-
Complicated Child Birth	-	0.7	0.3
Complicated Puerperium	-	1.4	0.7
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	18.2	30.0	24.2
Malnutrition	0.4	0.9	0.6
Tetanus	-	-	-
Mental Disturbance	2.5	0.9	1.7
Other Conditions not Mentioned above	15.4	28.2	21.9
NOT STATED	1.4	0.8	1.1
Total Prevalence	233	289.2	261.4
Total Population	1183533	1208075	2391608

**Appendix 3.2a cont'd**

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>MIRAB HARERGE ZONE</b>			
ALL FEVER	57.5	65.7	61.4
Malaria	36.2	38.8	37.4
Infectious Jaundice	5.3	5.2	5.3
Hepatitis	4.0	5.5	4.7
Meningitis	0.6	1.8	1.2
Typhus/Relapsing Fever	4.9	9.4	7.1
Other Fever	6.5	4.9	5.8
ALL COUGHS	80.9	107.8	93.9
Tuberculosis	3.8	3.5	3.7
Pneumonia	8.3	5.1	6.8
Whooping Cough	3.4	3.7	3.5
other Cough	65.4	95.5	79.9
DIARRHOEA AND ABDOMINAL CONDITION	75.1	78.1	76.5
Diarrhoea	24.0	18.3	21.2
Gastro Enteritis	8.4	8.0	8.2
Worms in the Stool	13.7	13.2	13.5
Other Diarrhoea and Abdominal Condition	29.0	38.6	33.6
CONDITION ON NECK AND HEAD	34.0	50.1	41.8
Goiter	-	-	-
Ear Problem	7.8	6.5	7.2
Eye Problem	6.2	9.2	7.6
Throat Problem	2.5	1.6	2.1
Teeth Problem	3.1	5.1	4.1
Other Neck and Head Problem	14.4	27.6	20.8
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	29.7	25.1	27.5
Wound on Skin	26.2	23.1	24.7
Leprosy	1.0	-	0.5
Elephantiasis	0.9	1.1	1.0
Other Skin Problem	1.6	0.9	1.3
MATERNAL HEALTH PROBLEMS	-	4.8	2.3
Complicated Pregnancy	-	1.1	0.5
Abortion	-	0.6	0.3
Complicated Child Birth	-	2.5	1.2
Complicated Puerperium	-	0.6	0.3
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	22.8	38	30.1
Malnutrition	1.4	2.7	2.0
Tetanus	-	-	-
Mental Disturbance	1.8	0.6	1.2
Other Conditions not Mentioned above	19.6	34.7	26.9
NOT STATED	-	0.5	0.2
Total Prevalence	265.9	319.4	291.7
Total Population	694270	645828	1340098

**Appendix 3.2a cont'd**

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
MISRAK HARERGE ZONE			
ALL FEVER	35.0	28.6	31.8
Malaria	20.5	18.5	19.5
Infectious Jaundice	5.0	1.9	3.5
Hepatitis	1.3	0.4	0.8
Meningitis	-	-	-
Typhus/Relapsing Fever	2.9	0.4	1.7
Other Fever	5.3	7.3	6.3
ALL COUGHS	63.1	81.4	72.1
Tuberculosis	5.0	1.4	3.2
Pneumonia	6.6	6.2	6.4
Whooping Cough	0.8	-	0.4
other Cough	50.7	73.9	62.1
DIARRHOEA AND ABDOMINAL CONDITION	55.1	55.6	55.3
Diarrhoea	18.2	20.7	19.5
Gastro Enteritis	4.9	5.0	5.0
Worms in the Stool	11.2	5.4	8.3
Other Diarrhoea and Abdominal Condition	20.7	24.5	22.6
CONDITION ON NECK AND HEAD	36.1	46.1	41.0
Goiter	-	0.9	0.4
Ear Problem	6.3	6.2	6.2
Eye Problem	8.1	10.9	9.5
Throat Problem	4.2	0.7	2.5
Teeth Problem	1.0	1.8	1.4
Other Neck and Head Problem	16.5	25.5	21.0
VENERAL DISEASES	1.3	-	0.7
CONDITIONS ON SKIN	32.0	29.9	31.0
Wound on Skin	29.8	24.7	27.3
Leprosy	0.4	1.6	1.0
Elephantiasis	0.7	1.8	1.2
Other Skin Problem	1.2	1.8	1.5
MATERNAL HEALTH PROBLEMS	-	4.2	2.1
Complicated Pregnancy	-	2.1	1.1
Abortion	-	0.8	0.4
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.3	0.2
Menstruation and Other Maternal Problem	-	1.0	0.5
OTHERS CONDITION	20.9	28.9	24.9
Malnutrition	3.1	0.8	2.0
Tetanus	-	-	-
Mental Disturbance	-	0.7	0.3
Other Conditions not Mentioned above	17.9	27.4	22.6
NOT STATED	0.8	-	0.4
Total Prevalence	206.1	228.6	217.2
Total Population	1009204	985031	1994235

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
BALE ZONE			
ALL FEVER	29.4	32.1	30.8
Malaria	18.0	7.7	12.8
Infectious Jaundice	0.3	1.8	1.0
Hepatitis	4.8	3.1	4.0
Meningitis	-	-	-
Typhus/Relapsing Fever	3.6	11.4	7.5
Other Fever	2.7	8.1	5.4
ALL COUGHS	51.7	51.2	51.4
Tuberculosis	2.2	1.9	2.0
Pneumonia	5.2	6.9	6.0
Whooping Cough	0.5	-	0.2
other Cough	43.8	42.4	43.1
DIARRHOEA AND ABDOMINAL CONDITION	44.0	42.1	43.0
Diarrhoea	13.2	14.4	13.8
Gastro Enteritis	2.5	3.2	2.9
Worms in the Stool	4.6	5.3	5.0
Other Diarrhoea and Abdominal Condition	23.6	19.1	21.3
CONDITION ON NECK AND HEAD	48.4	81.7	65.3
Goiter	-	-	-
Ear Problem	4.7	6.3	5.5
Eye Problem	12.4	17.4	14.9
Throat Problem	1.4	3.3	2.4
Teeth Problem	4.9	6.8	5.9
Other Neck and Head Problem	24.9	47.9	36.6
VENERAL DISEASES	1.4	0.8	1.1
CONDITIONS ON SKIN	15.5	13.0	14.2
Wound on Skin	12.8	12.0	12.4
Leprosy	0.9	0.4	0.6
Elephantiasis	-	-	-
Other Skin Problem	1.9	0.5	1.2
MATERNAL HEALTH PROBLEMS	-	3.1	1.6
Complicated Pregnancy	-	0.4	0.2
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	1.3	0.7
Menstruation and Other Maternal Problem	-	1.4	0.7
OTHERS CONDITION	22.4	37.4	30.0
Malnutrition	-	1.3	0.7
Tetanus	0.7	0.4	0.5
Mental Disturbance	0.9	2.1	1.5
Other Conditions not Mentioned above	20.8	33.6	27.3
NOT STATED	3.3	1.2	2.2
Total Prevalence	163	178.8	171
Total Population	658032	670978	1329010

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
BORENA ZONE			
ALL FEVER	76.7	79.2	77.9
Malaria	54.5	59.1	56.8
Infectious Jaundice	2.0	2.3	2.2
Hepatitis	2.5	1.9	2.2
Meningitis	-	-	-
Typhus/Relapsing Fever	8.3	9.3	8.8
Other Fever	9.3	6.7	8.0
ALL COUGHS	40.8	35.7	38.2
Tuberculosis	5.7	2.8	4.2
Pneumonia	6.4	9.2	7.8
Whooping Cough	0.7	0.9	0.8
other Cough	28.0	22.8	25.4
DIARRHOEA AND ABDOMINAL CONDITIO	38.0	38.9	38.5
Diarrhoea	20.4	16.4	18.4
Gastro Enteritis	1.2	2.4	1.8
Worms in the Stool	7.6	7.1	7.3
Other Diarrhoea and Abdominal Condition	8.8	13.1	11.0
CONDITION ON NECK AND HEAD	22.5	31.4	27
Goiter	-	0.2	0.1
Ear Problem	1.3	2.1	1.7
Eye Problem	4.4	7.1	5.8
Throat Problem	1.6	0.6	1.1
Teeth Problem	0.9	1.9	1.4
Other Neck and Head Problem	14.3	19.4	16.9
VENERAL DISEASES	2.2	2.4	2.3
CONDITIONS ON SKIN	8.9	8.5	8.7
Wound on Skin	6.1	5.9	6.0
Leprosy	1.2	-	0.6
Elephantiasis	1.2	2.2	1.7
Other Skin Problem	0.4	0.5	0.4
MATERNAL HEALTH PROBLEMS	-	2.3	1.2
Complicated Pregnancy	-	0.5	0.2
Abortion	-	-	-
Complicated Child Birth	-	0.4	0.2
Complicated Puerperium	-	1.0	0.5
Menstruation and Other Maternal Problem	-	0.4	0.2
OTHERS CONDITION	6.8	12.8	9.8
Malnutrition	-	2.0	1.0
Tetanus	-	-	-
Mental Disturbance	1.5	0.4	1.0
Other Conditions not Mentioned above	5.3	10.3	7.8
NOT STATED	3.0	2.6	2.8
Total Prevalence	171.2	177.4	174.3
Total Population	847355	854961	1702316

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
SOMALI REGION			
ALL FEVER	75.1	75.5	75.3
Malaria	71.1	68.4	69.8
Infectious Jaundice	0.4	0.2	0.3
Hepatitis	1.1	1.5	1.3
Meningitis	0.2	-	0.1
Typhus/Relapsing Fever	0.5	1.2	0.8
Other Fever	1.8	4.3	3.0
ALL COUGHS	70.1	84.5	77.0
Tuberculosis	0.9	2.7	1.8
Pneumonia	6.6	7.2	6.9
Whooping Cough	3.1	2.1	2.6
other Cough	59.6	72.5	65.8
DIARRHOEA AND ABDOMINAL CONDITIO	39.2	32.2	35.9
Diarrhoea	21.9	17.4	19.7
Gastro Enteritis	3.3	2.1	2.7
Worms in the Stool	2.6	2.0	2.3
Other Diarrhoea and Abdominal Condition	11.4	10.7	11.1
CONDITION ON NECK AND HEAD	24.8	30.9	27.7
Goiter	0.9	0.9	0.9
Ear Problem	1.9	2.7	2.3
Eye Problem	10.6	8.5	9.6
Throat Problem	1.0	3.5	2.2
Teeth Problem	2.3	4.0	3.1
Other Neck and Head Problem	8.0	11.3	9.6
VENERAL DISEASES	0.1	0.3	0.2
CONDITIONS ON SKIN	2.7	4.6	3.6
Wound on Skin	1.9	4.3	3.1
Leprosy	0.3	-	0.2
Elephantiasis	-	0.2	0.1
Other Skin Problem	0.5	0.2	0.3
MATERNAL HEALTH PROBLEMS	-	2.7	1.3
Complicated Pregnancy	-	2.0	1.0
Abortion	-	0.5	0.2
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.2	0.1
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	12.8	30.0	21.1
Malnutrition	2.1	1.5	1.8
Tetanus	-	-	-
Mental Disturbance	0.9	0.7	0.8
Other Conditions not Mentioned above	9.8	27.8	18.5
NOT STATED	1.1	2.0	1.5
Total Prevalence	199.9	229.6	214.2
Total Population	354966	330277	685243

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
SHINILE ZONE			
ALL FEVER	113.7	129.2	121.5
Malaria	110.8	116.1	113.4
Infectious Jaundice	0.2	0.6	0.4
Hepatitis	1.4	3.4	2.4
Meningitis	-	-	-
Typhus/Relapsing Fever	-	4.0	2.0
Other Fever	1.3	5.2	3.2
ALL COUGHS	37.8	30.0	33.9
Tuberculosis	1.5	1.7	1.6
Pneumonia	8.2	10.2	9.2
Whooping Cough	1.6	0.2	0.9
other Cough	26.5	17.9	22.2
DIARRHOEA AND ABDOMINAL CONDITIO	18.9	21.6	20.3
Diarrhoea	8.8	7.2	8.0
Gastro Enteritis	4.9	5.3	5.1
Worms in the Stool	-	0.7	0.4
Other Diarrhoea and Abdominal Condition	5.2	8.4	6.8
CONDITION ON NECK AND HEAD	7.0	5.9	6.4
Goiter	-	-	-
Ear Problem	1.1	2.8	2.0
Eye Problem	0.6	-	0.3
Throat Problem	-	0.8	0.4
Teeth Problem	-	-	-
Other Neck and Head Problem	5.2	2.3	3.8
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	3.8	3.5	3.6
Wound on Skin	3.8	3.5	3.6
Leprosy	-	-	-
Elephantiasis	-	-	-
Other Skin Problem	-	-	-
MATERNAL HEALTH PROBLEMS	-	1.5	0.8
Complicated Pregnancy	-	-	-
Abortion	-	-	-
Complicated Child Birth	-	0.7	0.4
Complicated Puerperium	-	0.8	0.4
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	4.8	10.7	7.8
Malnutrition	0.6	-	0.3
Tetanus	-	-	-
Mental Disturbance	-	-	-
Other Conditions not Mentioned above	4.2	10.7	7.5
NOT STATED	1.6	1.4	1.5
Total Prevalence	179	196.6	187.8
Total Population	12457	12570	25027

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
JIGJIGA ZONE			
ALL FEVER	10.2	13.2	11.7
Malaria	5.6	4.8	5.2
Infectious Jaundice	0.7	0.2	0.5
Hepatitis	1.3	1.8	1.6
Meningitis	-	-	-
Typhus/Relapsing Fever	0.2	0.4	0.3
Other Fever	2.4	5.9	4.2
ALL COUGHS	98	115.8	106.8
Tuberculosis	1.1	3.3	2.2
Pneumonia	8.6	8.5	8.6
Whooping Cough	4.4	2.4	3.4
other Cough	83.9	101.5	92.6
DIARRHOEA AND ABDOMINAL CONDITIO	31.1	32.9	32.0
Diarrhoea	12.5	13.7	13.1
Gastro Enteritis	4.3	2.3	3.3
Worms in the Stool	4.0	2.7	3.4
Other Diarrhoea and Abdominal Condition	10.3	14.1	12.2
CONDITION ON NECK AND HEAD	28.6	37.8	33.2
Goiter	1.5	1.4	1.4
Ear Problem	3.0	3.8	3.4
Eye Problem	10.1	9.5	9.8
Throat Problem	1.7	5.1	3.3
Teeth Problem	0.6	2.6	1.6
Other Neck and Head Problem	11.9	15.4	13.6
VENERAL DISEASES	-	0.2	0.1
CONDITIONS ON SKIN	3.4	6.5	5.0
Wound on Skin	2.2	6.3	4.2
Leprosy	0.5	-	0.2
Elephantiasis	-	-	-
Other Skin Problem	0.7	0.2	0.5
MATERNAL HEALTH PROBLEMS	-	3.8	1.9
Complicated Pregnancy	-	2.8	1.4
Abortion	-	0.8	0.4
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.2	0.1
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	18.2	42.1	30.0
Malnutrition	3.3	2.3	2.8
Tetanus	-	-	-
Mental Disturbance	1.4	1.0	1.2
Other Conditions not Mentioned above	13.5	38.7	26.0
NOT STATED	0.6	2.5	1.6
Total Prevalence	161	214.3	187.4
Total Population	222900	218130	441030

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
LIBEN ZONE			
ALL FEVER	192.0	205.3	198
Malaria	189.1	201.6	194.8
Hepatitis	0.6	0.5	0.6
Meningitis	0.5	-	0.2
Typhus/Relapsing Fever	1.3	2.6	1.8
Other Fever	0.6	0.5	0.6
ALL COUGHS	21.4	22.8	22.0
Tuberculosis	0.4	1.5	0.9
Pneumonia	2.6	3.8	3.1
Whooping Cough	0.7	1.6	1.1
other Cough	17.7	15.8	16.9
DIARRHOEA AND ABDOMINAL CONDITIO	56.5	32.0	45.4
Diarrhoea	40.7	26.9	34.4
Gastro Enteritis	1.2	1.2	1.2
Worms in the Stool	0.3	0.5	0.4
Other Diarrhoea and Abdominal Condition	14.3	3.5	9.4
CONDITION ON NECK AND HEAD	19.4	19.0	19.2
Goiter	-	-	-
Ear Problem	-	0.1	0.1
Eye Problem	12.7	7.4	10.3
Throat Problem	-	0.5	0.2
Teeth Problem	5.7	7.6	6.6
Other Neck and Head Problem	1.0	3.4	2.1
VENERAL DISEASES	0.4	0.5	0.5
CONDITIONS ON SKIN	1.2	0.6	0.9
Wound on Skin	1.2	-	0.7
Leprosy	-	-	-
Elephantiasis	-	0.6	0.3
Other Skin Problem	-	-	-
MATERNAL HEALTH PROBLEMS	-	0.6	0.3
Complicated Pregnancy	-	0.6	0.3
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	3.7	5.9	4.7
Malnutrition	-	-	-
Tetanus	-	-	-
Mental Disturbance	-	-	-
Other Conditions not Mentioned above	3.7	5.9	4.7
NOT STATED	1.9	1.0	1.5
Total Prevalence	274.8	267.2	271.3
Total Population	119610	99577	219187

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
BENISHANGUL-GUMUZ REGION			
ALL FEVER	69.6	56.0	62.8
Malaria	55.6	43.2	49.4
Infectious Jaundice	1.4	0.5	0.9
Hepatitis	3.0	2.5	2.7
Meningitis	0.5	1.2	0.9
Typhus/Relapsing Fever	3.7	4.2	3.9
Other Fever	5.3	4.5	4.9
ALL COUGHS	43.4	44.4	43.9
Tuberculosis	6.0	3.4	4.7
Pneumonia	14.6	10.5	12.5
Whooping Cough	2.5	4.3	3.4
other Cough	20.2	26.2	23.2
DIARRHOEA AND ABDOMINAL CONDITIO	44.9	60.5	52.8
Diarrhoea	22.2	34.8	28.6
Gastro Enteritis	1.9	3.4	2.7
Worms in the Stool	8.0	8.6	8.3
Other Diarrhoea and Abdominal Condition	12.8	13.6	13.2
CONDITION ON NECK AND HEAD	30.1	36.6	33.4
Goiter	0.8	1.0	0.9
Ear Problem	3.2	2.5	2.8
Eye Problem	11.0	12.1	11.5
Throat Problem	2.0	2.3	2.1
Teeth Problem	4.2	4.0	4.1
Other Neck and Head Problem	8.9	14.8	11.9
VENERAL DISEASES	0.7	-	0.3
CONDITIONS ON SKIN	10.1	11.3	10.7
Wound on Skin	7.6	7.0	7.3
Leprosy	0.3	0.1	0.2
Elephantiasis	1.1	3.3	2.2
Other Skin Problem	1.1	0.9	1.0
MATERNAL HEALTH PROBLEMS	-	3.6	1.8
Complicated Pregnancy	-	1.2	0.6
Abortion	-	0.3	0.2
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.4	0.2
Menstruation and Other Maternal Problem	-	1.7	0.9
OTHERS CONDITION	19.9	31.4	25.7
Malnutrition	1.4	1.2	1.3
Tetanus	-	0.2	0.1
Mental Disturbance	1.1	0.8	0.9
Other Conditions not Mentioned above	17.5	29.2	23.4
NOT STATED	5.2	4.3	4.7
Total Prevalence	187.9	207.2	197.6
Total Population	288695	292989	581684

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
METEKEL ZONE			
ALL FEVER	54.3	41.6	47.9
Malaria	40.6	26.0	33.2
Hepatitis	1.9	2.0	1.9
Meningitis	0.5	2.2	1.4
Typhus/Relapsing Fever	1.6	3.8	2.7
Other Fever	9.7	7.7	8.7
ALL COUGHS	36.5	34.6	35.6
Tuberculosis	8.0	5.9	6.9
Pneumonia	6.0	8.5	7.2
Whooping Cough	1.9	-	0.9
other Cough	20.7	20.3	20.5
DIARRHOEA AND ABDOMINAL CONDITIO	49.9	60.1	55.1
Diarrhoea	23.9	32.6	28.3
Gastro Enteritis	2.0	0.8	1.4
Worms in the Stool	6.7	9.4	8.0
Other Diarrhoea and Abdominal Condition	17.4	17.4	17.4
CONDITION ON NECK AND HEAD	35.2	52.1	43.7
Goiter	-	0.5	0.3
Ear Problem	2.8	0.8	1.8
Eye Problem	12.5	21.5	17.1
Throat Problem	2.4	3.0	2.7
Teeth Problem	1.6	4.8	3.3
Other Neck and Head Problem	16.0	21.4	18.7
VENERAL DISEASES	1.1	-	0.6
CONDITIONS ON SKIN	13.5	16.1	14.8
Wound on Skin	12.4	9.4	10.8
Leprosy	-	-	-
Elephantiasis	0.9	6.0	3.5
Other Skin Problem	0.2	0.7	0.5
MATERNAL HEALTH PROBLEMS	-	3.7	1.9
Complicated Pregnancy	-	1.9	1.0
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	1.8	0.9
OTHERS CONDITION	24.0	40.2	32.2
Malnutrition	2.6	2.1	2.4
Tetanus	-	-	-
Mental Disturbance	-	2.1	1.0
Other Conditions not Mentioned above	21.4	36	28.8
NOT STATED	4.9	2.0	3.4
Total Prevalence	178.2	196.3	187.4
Total Population	116919	120005	236924

**Appendix 3.2a cont'd**

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
ASOSA ZONE			
ALL FEVER	101.7	84.3	93.1
Malaria	82.8	70.2	76.5
Infectious Jaundice	3.0	1.3	2.1
Hepatitis	5.4	3.3	4.3
Meningitis	0.6	0.6	0.6
Typhus/Relapsing Fever	7.5	6.4	7.0
Other Fever	2.5	2.6	2.5
ALL COUGHS	51.0	57.9	54.4
Tuberculosis	6.4	1.9	4.2
Pneumonia	14.4	15.5	14.9
Whooping Cough	3.3	2.7	3.0
other Cough	26.9	37.7	32.3
DIARRHOEA AND ABDOMINAL CONDITIO	44.6	57.7	51.1
Diarrhoea	19.3	30.5	24.8
Gastro Enteritis	2.0	3.2	2.6
Worms in the Stool	11.3	10.2	10.8
Other Diarrhoea and Abdominal Condition	12.0	13.7	12.8
CONDITION ON NECK AND HEAD	29.7	30.3	30.0
Goiter	2.1	1.5	1.8
Ear Problem	5.0	5.0	5.0
Eye Problem	6.9	4.7	5.8
Throat Problem	2.6	2.2	2.4
Teeth Problem	8.5	4.6	6.6
Other Neck and Head Problem	4.7	12.2	8.4
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	6.4	5.9	6.2
Wound on Skin	2.7	2.6	2.6
Leprosy	0.6	-	0.3
Elephantiasis	1.2	2.0	1.6
Other Skin Problem	2.0	1.3	1.7
MATERNAL HEALTH PROBLEMS	-	4.9	2.4
Complicated Pregnancy	-	1.0	0.5
Abortion	-	0.5	0.3
Complicated Child Birth	-	-	-
Complicated Puerperium	-	1.0	0.5
Menstruation and Other Maternal Problem	-	2.3	1.2
OTHERS CONDITION	20.3	24.1	22.2
Malnutrition	0.6	0.7	0.7
Tetanus	-	0.6	0.3
Mental Disturbance	2.5	-	1.2
Other Conditions not Mentioned above	17.2	22.7	19.9
NOT STATED	5.6	6.2	5.9
Total Prevalence	223.9	234.8	229.3
Total Population	117114	114669	231783

**Appendix 3.2a cont'd**

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
KAMASHI ZONE			
ALL FEVER	33.7	29.9	31.7
Malaria	29.7	25.6	27.6
Infectious Jaundice	0.9	-	0.4
Hepatitis	0.5	1.8	1.2
Meningitis	0.4	0.5	0.4
Typhus/Relapsing Fever	0.4	0.5	0.4
Other Fever	1.9	1.5	1.7
ALL COUGHS	41.9	37.8	39.8
Tuberculosis	1.0	1.1	1.1
Pneumonia	33.8	4.6	18.7
Whooping Cough	2.0	16.4	9.4
other Cough	5.1	15.6	10.5
DIARRHOEA AND ABDOMINAL CONDITIO	34.9	66.6	51.2
Diarrhoea	25.0	47.9	36.8
Gastro Enteritis	1.6	9.4	5.6
Worms in the Stool	3.7	3.8	3.7
Other Diarrhoea and Abdominal Condition	4.8	5.5	5.2
CONDITION ON NECK AND HEAD	20.2	17.1	18.6
Goiter	-	0.8	0.4
Ear Problem	-	1.0	0.5
Eye Problem	16.5	7.3	11.8
Throat Problem	0.1	0.8	0.5
Teeth Problem	0.6	0.9	0.8
Other Neck and Head Problem	2.9	6.2	4.6
VENERAL DISEASES	1.0	-	0.5
CONDITIONS ON SKIN	10.5	11.8	11.2
Wound on Skin	7.8	10.9	9.4
Leprosy	0.5	0.3	0.4
Elephantiasis	1.1	0.3	0.7
Other Skin Problem	1.1	0.3	0.7
MATERNAL HEALTH PROBLEMS	-	1.2	0.6
Complicated Pregnancy	-	0.4	0.2
Abortion	-	0.6	0.3
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	0.2	0.1
OTHERS CONDITION	10.2	28	19.4
Malnutrition	0.3	0.3	0.3
Tetanus	-	-	-
Mental Disturbance	0.3	-	0.1
Other Conditions not Mentioned above	9.6	27.7	19.0
NOT STATED	4.7	5.0	4.9
Total Prevalence	131.3	175.2	153.9
Total Population	54663	58316	112979

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
SNNP REGION			
ALL FEVER	86.3	85.7	86
Malaria	65.3	66.2	65.7
Infectious Jaundice	1.7	1.9	1.8
Hepatitis	1.9	1.8	1.9
Meningitis	-	0.2	0.1
Typhus/Relapsing Fever	8.6	8.6	8.6
Other Fever	8.7	7.1	7.9
ALL COUGHS	36.3	36.4	36.3
Tuberculosis	2.5	2.8	2.7
Pneumonia	5.9	7.4	6.7
Whooping Cough	2.4	2.2	2.3
other Cough	25.4	24.0	24.7
DIARRHOEA AND ABDOMINAL CONDITIO	35.3	35.9	35.6
Diarrhoea	13.2	14.0	13.6
Gastro Enteritis	2.8	2.2	2.5
Worms in the Stool	7.9	6.1	7.0
Other Diarrhoea and Abdominal Condition	11.4	13.6	12.5
CONDITION ON NECK AND HEAD	22.9	30.6	26.8
Goiter	-	0.4	0.2
Ear Problem	2.6	3.0	2.8
Eye Problem	6.6	9.6	8.1
Throat Problem	1.5	1.7	1.6
Teeth Problem	1.9	3.1	2.5
Other Neck and Head Problem	10.2	12.8	11.5
VENERAL DISEASES	0.6	0.6	0.6
CONDITIONS ON SKIN	14.5	12.0	13.2
Wound on Skin	11.2	8.4	9.8
Leprosy	0.6	0.5	0.5
Elephantiasis	1.4	1.9	1.6
Other Skin Problem	1.3	1.3	1.3
MATERNAL HEALTH PROBLEMS	-	2.6	1.3
Complicated Pregnancy	-	0.9	0.4
Abortion	-	0.2	0.1
Complicated Child Birth	-	0.1	0.1
Complicated Puerperium	-	0.7	0.4
Menstruation and Other Maternal Problem	-	0.6	0.3
OTHERS CONDITION	13.1	14.6	13.9
Malnutrition	1.1	0.5	0.8
Tetanus	-	-	-
Mental Disturbance	1.1	0.5	0.8
Other Conditions not Mentioned above	10.9	13.7	12.3
NOT STATED	2.6	2.7	2.6
Total Prevalence	185.6	187.2	186.4
Total Population	5591478	5738700	11330178

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
GURAGE ZONE			
ALL FEVER	63.2	70.1	66.9
Malaria	45.2	54.3	50
Infectious Jaundice	1.1	1.7	1.4
Hepatitis	2.5	0.5	1.5
Meningitis	-	-	-
Typhus/Relapsing Fever	5.0	3.3	4.1
Other Fever	9.4	10.3	9.9
ALL COUGHS	51.6	40.1	45.6
Tuberculosis	5.7	4.5	5.1
Pneumonia	6.1	6.6	6.3
Whooping Cough	1.6	1.6	1.6
other Cough	38.2	27.4	32.5
DIARRHOEA AND ABDOMINAL CONDITIO	39.7	35.7	37.6
Diarrhoea	15.1	17.3	16.2
Gastro Enteritis	2.6	0.6	1.5
Worms in the Stool	9.9	4.4	7.0
Other Diarrhoea and Abdominal Condition	12.1	13.3	12.8
CONDITION ON NECK AND HEAD	39.9	52.9	46.7
Goiter	-	-	-
Ear Problem	5.4	2.3	3.8
Eye Problem	15.6	21.3	18.6
Throat Problem	1.6	2.7	2.2
Teeth Problem	1.3	3.4	2.4
Other Neck and Head Problem	16.0	23.1	19.7
VENERAL DISEASES	4.1	3.3	3.7
CONDITIONS ON SKIN	22.1	24.5	23.4
Wound on Skin	17.9	15.7	16.7
Leprosy	1.2	1.1	1.2
Elephantiasis	1.8	5.4	3.7
Other Skin Problem	1.2	2.3	1.8
MATERNAL HEALTH PROBLEMS	-	5.4	2.8
Complicated Pregnancy	-	2.6	1.4
Abortion	-	-	-
Complicated Child Birth	-	0.6	0.3
Complicated Puerperium	-	0.6	0.3
Menstruation and Other Maternal Problem	-	1.6	0.8
OTHERS CONDITION	19.1	20.6	19.9
Malnutrition	1.4	-	0.7
Tetanus	-	-	-
Mental Disturbance	1.9	1.0	1.5
Other Conditions not Mentioned above	15.8	19.6	17.8
NOT STATED	2.4	2.7	2.6
Total Prevalence	195.7	196.4	196.1
Total Population	701444	778400	1479844

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
HADIYA ZONE			
ALL FEVER	72.9	71.7	72.3
Malaria	54.1	53.8	54
Infectious Jaundice	0.4	1.3	0.8
Hepatitis	1.6	2.3	2.0
Meningitis	-	-	-
Typhus/Relapsing Fever	11.3	5.8	8.5
Other Fever	5.5	8.5	7.0
ALL COUGHS	26.1	26.1	26.1
Tuberculosis	3.1	2.8	3.0
Pneumonia	4.8	7.2	6.0
Whooping Cough	0.8	1.2	1.0
other Cough	17.4	14.8	16.1
DIARRHOEA AND ABDOMINAL CONDITIO	24.9	22.4	23.7
Diarrhoea	9.9	10.0	9.9
Gastro Enteritis	2.7	2.2	2.4
Worms in the Stool	2.6	2.1	2.4
Other Diarrhoea and Abdominal Condition	9.8	8.2	9.0
CONDITION ON NECK AND HEAD	22.8	24.4	23.6
Goiter	-	0.9	0.5
Ear Problem	1.9	1.6	1.7
Eye Problem	6.1	3.8	4.9
Throat Problem	3.2	3.6	3.4
Teeth Problem	1.3	1.1	1.2
Other Neck and Head Problem	10.4	13.4	11.9
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	14.2	9.1	11.6
Wound on Skin	10.6	7.5	9.0
Leprosy	-	-	-
Elephantiasis	0.8	0.9	0.9
Other Skin Problem	2.8	0.7	1.8
MATERNAL HEALTH PROBLEMS	-	2.2	1.1
Complicated Pregnancy	-	-	-
Abortion	-	0.5	0.2
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.8	0.4
Menstruation and Other Maternal Problem	-	0.9	0.4
OTHERS CONDITION	15.5	19.5	17.5
Malnutrition	2.0	1.2	1.6
Tetanus	-	-	-
Mental Disturbance	0.8	1.8	1.3
Other Conditions not Mentioned above	12.7	16.5	14.6
NOT STATED	4.4	2.7	3.5
Total Prevalence	153.7	151	152.4
Total Population	554173	565317	1119490

**Appendix 3.2a cont'd**

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
KEMBATA ALABANA TEMBARO ZONE			
ALL FEVER	113.3	117.0	115.2
Malaria	100.6	107.6	104.1
Infectious Jaundice	0.4	-	0.2
Hepatitis	0.8	-	0.4
Meningitis	0.4	-	0.2
Typhus/Relapsing Fever	6.9	5.3	6.1
Other Fever	4.1	4.1	4.1
ALL COUGHS	24.7	25.6	25.1
Tuberculosis	1.8	4.2	3.0
Pneumonia	6.5	6.8	6.7
Whooping Cough	0.9	1.3	1.1
other Cough	15.5	13.3	14.4
DIARRHOEA AND ABDOMINAL CONDITIO	23.0	23.4	23.2
Diarrhoea	10.7	9.1	9.9
Gastro Enteritis	1.3	1.0	1.2
Worms in the Stool	2.6	2.2	2.4
Other Diarrhoea and Abdominal Condition	8.3	11.2	9.8
CONDITION ON NECK AND HEAD	18.8	22.1	20.5
Goiter	-	0.4	0.2
Ear Problem	3.5	2.6	3.0
Eye Problem	4.2	7.0	5.6
Throat Problem	3.4	1.7	2.6
Teeth Problem	0.5	2.3	1.4
Other Neck and Head Problem	7.2	8.1	7.7
VENERAL DISEASES	0.5	-	0.2
CONDITIONS ON SKIN	8.7	6.6	7.7
Wound on Skin	6.1	3.1	4.6
Leprosy	-	0.9	0.4
Elephantiasis	0.9	1.8	1.3
Other Skin Problem	1.7	0.9	1.3
MATERNAL HEALTH PROBLEMS	-	1.3	0.6
Complicated Pregnancy	-	0.8	0.4
Abortion	-	0.5	0.2
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	15	15.2	15.1
Malnutrition	0.9	0.4	0.7
Tetanus	-	-	-
Mental Disturbance	1.3	0.9	1.1
Other Conditions not Mentioned above	12.8	13.9	13.4
NOT STATED	0.8	0.4	0.6
Total Prevalence	184.7	189.2	187
Total Population	399508	405361	804869

## Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
SIDAMA ZONE			
ALL FEVER	47.2	47.5	47.3
Malaria	33.9	31.2	32.6
Infectious Jaundice	2.9	2.8	2.9
Hepatitis	0.7	1.9	1.3
Meningitis	-	0.6	0.3
Typhus/Relapsing Fever	5.6	8.1	6.8
Other Fever	4.1	2.8	3.5
ALL COUGHS	52	53.3	52.6
Tuberculosis	2.0	4.4	3.2
Pneumonia	6.9	7.3	7.1
Whooping Cough	0.4	1.1	0.7
other Cough	42.7	40.5	41.6
DIARRHOEA AND ABDOMINAL CONDITIO	39.9	45.7	42.7
Diarrhoea	12.9	11.4	12.2
Gastro Enteritis	2.7	2.2	2.5
Worms in the Stool	13.9	14.8	14.4
Other Diarrhoea and Abdominal Condition	10.3	17.3	13.8
CONDITION ON NECK AND HEAD	22.6	33.2	27.8
Goiter	-	0.7	0.3
Ear Problem	3.1	4.9	4.0
Eye Problem	7.1	9.1	8.1
Throat Problem	0.5	1.0	0.7
Teeth Problem	2.9	4.5	3.7
Other Neck and Head Problem	9.1	13.0	11.0
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	8.4	7.3	7.8
Wound on Skin	7.0	5.2	6.1
Leprosy	-	-	-
Elephantiasis	-	0.7	0.3
Other Skin Problem	1.4	1.3	1.4
MATERNAL HEALTH PROBLEMS	-	3.2	1.6
Complicated Pregnancy	-	0.5	0.2
Abortion	-	0.4	0.2
Complicated Child Birth	-	-	-
Complicated Puerperium	-	1.8	0.9
Menstruation and Other Maternal Problem	-	0.5	0.2
OTHERS CONDITION	12.5	15.9	14.2
Malnutrition	1.2	-	0.6
Tetanus	-	-	-
Mental Disturbance	2.4	-	1.2
Other Conditions not Mentioned above	8.8	15.9	12.3
NOT STATED	5.1	6.2	5.6
Total Prevalence	160	172.8	166.3
Total Population	1225447	1204520	2429967

**Appendix 3.2a cont'd**

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
GEDEO ZONE			
ALL FEVER	29.6	21.6	25.6
Malaria	17.9	12.1	15
Infectious Jaundice	1.1	0.6	0.8
Hepatitis	1.4	0.5	0.9
Meningitis	-	-	-
Typhus/Relapsing Fever	5.4	4.9	5.2
Other Fever	3.8	3.6	3.7
ALL COUGHS	30.6	46.2	38.4
Tuberculosis	2.5	1.3	1.9
Pneumonia	2.3	3.9	3.1
Whooping Cough	2.7	5.2	3.9
other Cough	23.1	35.7	29.4
DIARRHOEA AND ABDOMINAL CONDITIO	27.6	32.4	29.9
Diarrhoea	10.9	14.4	12.7
Gastro Enteritis	1.2	2.3	1.7
Worms in the Stool	4.2	5.1	4.7
Other Diarrhoea and Abdominal Condition	11.2	10.6	10.9
CONDITION ON NECK AND HEAD	15.6	17.3	16.5
Goiter	-	0.5	0.2
Ear Problem	0.8	1.5	1.2
Eye Problem	3.6	2.8	3.2
Throat Problem	0.4	-	0.2
Teeth Problem	1.8	2.3	2.0
Other Neck and Head Problem	9.0	10.2	9.6
VENERAL DISEASES	1.0	-	0.5
CONDITIONS ON SKIN	6.8	10.0	8.4
Wound on Skin	4.1	6.0	5.0
Leprosy	0.5	0.4	0.4
Elephantiasis	1.1	2.1	1.6
Other Skin Problem	1.2	1.5	1.4
MATERNAL HEALTH PROBLEMS	-	2.3	1.1
Complicated Pregnancy	-	0.4	0.2
Abortion	-	0.4	0.2
Complicated Child Birth	-	0.5	0.3
Complicated Puerperium	-	0.5	0.3
Menstruation and Other Maternal Problem	-	0.4	0.2
OTHERS CONDITION	8.2	15.3	11.7
Malnutrition	0.5	0.5	0.5
Tetanus	-	-	-
Mental Disturbance	0.8	0.5	0.7
Other Conditions not Mentioned above	6.9	14.2	10.5
NOT STATED	3.9	4.2	4.1
Total Prevalence	102.9	127.8	115.2
Total Population	319644	315067	634711

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
SEMEN OMO ZONE			
ALL FEVER	114.0	107.9	110.9
Malaria	84.5	85.0	84.7
Infectious Jaundice	1.6	1.5	1.5
Hepatitis	4.1	3.1	3.6
Meningitis	-	-	-
Typhus/Relapsing Fever	7.9	11.3	9.6
Other Fever	16.0	7.0	11.4
ALL COUGHS	26.3	29.2	27.8
Tuberculosis	1.6	1.0	1.3
Pneumonia	5.4	9.5	7.5
Whooping Cough	6.5	3.0	4.7
other Cough	12.8	15.6	14.3
DIARRHOEA AND ABDOMINAL CONDITIO	39.4	36	37.7
Diarrhoea	14.8	15.8	15.3
Gastro Enteritis	3.1	2.1	2.6
Worms in the Stool	7.4	1.9	4.6
Other Diarrhoea and Abdominal Condition	14.0	16.2	15.1
CONDITION ON NECK AND HEAD	22.4	29.9	26.2
Goiter	-	0.5	0.2
Ear Problem	1.4	3.5	2.5
Eye Problem	5.3	10.9	8.1
Throat Problem	2.3	2.4	2.3
Teeth Problem	2.7	4.3	3.5
Other Neck and Head Problem	10.7	8.4	9.5
VENERAL DISEASES	-	0.5	0.2
CONDITIONS ON SKIN	21.3	13.2	17.1
Wound on Skin	17.2	9.2	13.1
Leprosy	1.4	1.0	1.2
Elephantiasis	2.2	1.8	2.0
Other Skin Problem	0.5	1.2	0.8
MATERNAL HEALTH PROBLEMS	-	1.9	0.9
Complicated Pregnancy	-	0.8	0.4
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.5	0.2
Menstruation and Other Maternal Problem	-	0.6	0.3
OTHERS CONDITION	9.5	7.0	8.2
Malnutrition	0.5	0.5	0.5
Tetanus	-	-	-
Mental Disturbance	-	0.1	0.1
Other Conditions not Mentioned above	9.0	6.4	7.7
NOT STATED	0.7	0.6	0.6
Total Prevalence	210.5	195.1	202.7
Total Population	1395548	1446314	2841862

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
DEBUB OMO ZONE			
ALL FEVER	222.2	221.3	221.8
Malaria	206.0	197.0	201.5
Infectious Jaundice	4.1	4.0	4.0
Hepatitis	0.9	3.9	2.4
Meningitis	-	-	-
Typhus/Relapsing Fever	4.7	5.2	4.9
Other Fever	6.6	11.2	8.9
ALL COUGHS	35	31.1	33.0
Tuberculosis	2.7	2.0	2.3
Pneumonia	12.3	15.2	13.8
Whooping Cough	1.2	2.7	1.9
other Cough	18.8	11.1	15.0
DIARRHOEA AND ABDOMINAL CONDITIO	18.9	30.8	24.9
Diarrhoea	12.1	11.7	11.9
Gastro Enteritis	0.7	2.6	1.6
Worms in the Stool	0.9	5.0	3.0
Other Diarrhoea and Abdominal Condition	5.1	11.6	8.4
CONDITION ON NECK AND HEAD	6.5	14.7	10.6
Goiter	-	-	-
Ear Problem	2.3	1.8	2.0
Eye Problem	0.9	3.9	2.4
Throat Problem	-	-	-
Teeth Problem	1.2	-	0.6
Other Neck and Head Problem	2.1	9.0	5.6
VENERAL DISEASES	1.1	1.0	1.0
CONDITIONS ON SKIN	6.7	5.8	6.2
Wound on Skin	3.6	3.8	3.7
Leprosy	-	-	-
Elephantiasis	2.6	1.5	2.1
Other Skin Problem	0.5	0.5	0.5
MATERNAL HEALTH PROBLEMS	-	6.4	3.2
Complicated Pregnancy	-	4.4	2.2
Abortion	-	0.9	0.4
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	1.1	0.5
OTHERS CONDITION	22.0	20.5	21.3
Malnutrition	1.1	-	0.5
Tetanus	-	-	-
Mental Disturbance	0.7	-	0.4
Other Conditions not Mentioned above	20.2	20.5	20.4
NOT STATED	1.1	6.0	3.6
Total Prevalence	304.8	315.9	310.4
Total Population	168875	170952	339827

**Appendix 3.2a cont'd**

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
KEFICHO SHEKICHO ZONE			
ALL FEVER	70.1	77.8	74.0
Malaria	34.0	44.3	39.2
Infectious Jaundice	3.1	3.7	3.4
Hepatitis	0.5	0.9	0.7
Meningitis	-	0.5	0.2
Typhus/Relapsing Fever	21	13.2	17.1
Other Fever	11.4	15.3	13.4
ALL COUGHS	32.4	31.7	32.0
Tuberculosis	1.2	1.6	1.4
Pneumonia	5.3	5.8	5.6
Whooping Cough	1.9	2.7	2.3
other Cough	24.0	21.5	22.8
DIARRHOEA AND ABDOMINAL CONDITIO	33.6	36.2	34.9
Diarrhoea	12.3	16.3	14.3
Gastro Enteritis	2.8	3.0	2.9
Worms in the Stool	7.8	8.3	8.0
Other Diarrhoea and Abdominal Condition	10.7	8.6	9.6
CONDITION ON NECK AND HEAD	20.8	27.7	24.3
Goiter	-	0.4	0.2
Ear Problem	2.5	2.4	2.4
Eye Problem	4.6	5.8	5.3
Throat Problem	0.2	-	0.1
Teeth Problem	1.6	1.7	1.7
Other Neck and Head Problem	11.8	17.4	14.6
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	14.1	10.5	12.3
Wound on Skin	9.1	9.3	9.2
Leprosy	-	-	-
Elephantiasis	2.4	0.4	1.4
Other Skin Problem	2.5	0.8	1.7
MATERNAL HEALTH PROBLEMS	-	0.4	0.2
Complicated Pregnancy	-	-	-
Abortion	-	-	-
Complicated Child Birth	-	0.4	0.2
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	16.3	16.2	16.2
Malnutrition	2.2	0.9	1.5
Tetanus	-	-	-
Mental Disturbance	1.2	0.4	0.8
Other Conditions not Mentioned above	12.9	14.9	13.9
NOT STATED	-	-	-
Total Prevalence	166.5	172.7	169.7
Total Population	442581	460060	902641

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
BENCH MAJI ZONE			
ALL FEVER	162.6	159.3	160.9
Malaria	124.5	117.0	120.7
Infectious Jaundice	1.2	0.8	1.0
Hepatitis	-	1.9	0.9
Meningitis	-	1.1	0.6
Typhus/Relapsing Fever	28.4	28.8	28.6
Other Fever	8.4	9.6	9.0
ALL COUGHS	26.7	27.5	27.1
Tuberculosis	1.7	4.0	2.9
Pneumonia	6.9	6.9	6.9
Whooping Cough	1.5	3.3	2.4
other Cough	16.6	13.3	14.9
DIARRHOEA AND ABDOMINAL CONDITIO	44.8	48.4	46.6
Diarrhoea	11.5	13.3	12.4
Gastro Enteritis	12.3	12.3	12.3
Worms in the Stool	5.4	7.9	6.7
Other Diarrhoea and Abdominal Condition	15.6	14.9	15.2
CONDITION ON NECK AND HEAD	12.4	23.0	17.8
Goiter	0.8	-	0.4
Ear Problem	1.3	1.5	1.4
Eye Problem	2.5	5.3	3.9
Throat Problem	-	0.8	0.4
Teeth Problem	0.8	2.3	1.6
Other Neck and Head Problem	7.0	13.2	10.1
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	15.6	16.9	16.3
Wound on Skin	11.7	12.7	12.2
Leprosy	-	-	-
Elephantiasis	3.1	2.6	2.9
Other Skin Problem	0.8	1.6	1.2
MATERNAL HEALTH PROBLEMS	-	1.6	0.8
Complicated Pregnancy	-	-	-
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.8	0.4
Menstruation and Other Maternal Problem	-	0.8	0.4
OTHERS CONDITION	10.0	17.6	13.9
Malnutrition	1.1	1.9	1.5
Tetanus	-	-	-
Mental Disturbance	-	-	-
Other Conditions not Mentioned above	8.9	15.8	12.4
NOT STATED	4.9	3.8	4.3
Total Prevalence	259.6	271.3	265.5
Total Population	152739	157166	309905

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
YEM SPECIAL WEREDA			
ALL FEVER	46.6	23.3	34.7
Malaria	24.7	10.7	17.5
Hepatitis	4.8	-	2.4
Meningitis	0.9	0.9	0.9
Typhus/Relapsing Fever	5.1	1.9	3.5
Other Fever	11.0	9.9	10.4
ALL COUGHS	53.0	63.3	58.3
Tuberculosis	3.0	2.0	2.5
Pneumonia	3.2	0.9	2.0
Whooping Cough	-	0.9	0.5
other Cough	46.8	59.5	53.3
DIARRHOEA AND ABDOMINAL CONDITIO	35.8	41.8	38.8
Diarrhoea	16.3	15.7	16.0
Gastro Enteritis	3.1	4.2	3.6
Worms in the Stool	4.1	7.6	5.9
Other Diarrhoea and Abdominal Condition	12.2	14.4	13.3
CONDITION ON NECK AND HEAD	24.3	42.5	33.6
Goiter	-	0.9	0.5
Ear Problem	4.0	6.7	5.4
Eye Problem	6.1	10.8	8.5
Throat Problem	1.4	2.3	1.8
Teeth Problem	0.9	1.9	1.4
Other Neck and Head Problem	11.9	19.9	16.0
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	23.1	16.0	19.5
Wound on Skin	13.2	5.8	9.4
Leprosy	3.1	1.0	2.0
Elephantiasis	4.5	1.9	3.2
Other Skin Problem	2.2	7.3	4.8
MATERNAL HEALTH PROBLEMS	-	-	-
Complicated Pregnancy	-	-	-
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	12.4	22.4	17.5
Malnutrition	-	2.0	1.0
Tetanus	-	-	-
Mental Disturbance	-	0.9	0.5
Other Conditions not Mentioned above	12.4	19.5	16.0
NOT STATED	1.9	3.8	2.9
Total Prevalence	170.8	166.9	168.8
Total Population	34226	35788	70014

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
AMARO SPECIAL WEREDA			
ALL FEVER	75.3	69.7	72.6
Malaria	50.0	41.0	45.8
Infectious Jaundice	0.7	4.2	2.4
Hepatitis	4.5	3.5	4.0
Meningitis	0.8	-	0.4
Typhus/Relapsing Fever	10.5	15.6	13.0
Other Fever	8.7	5.4	7.1
ALL COUGHS	26.7	20.7	23.8
Tuberculosis	1.4	2.5	1.9
Pneumonia	5.6	0.9	3.4
Whooping Cough	0.9	1.3	1.1
<i>other Cough</i>	18.9	15.9	17.5
DIARRHOEA AND ABDOMINAL CONDITIO	19.4	35.3	26.9
Diarrhoea	6.7	15.6	10.9
Gastro Enteritis	1.8	5.2	3.4
Worms in the Stool	4.7	4.6	4.6
Other Diarrhoea and Abdominal Condition	6.2	9.9	7.9
CONDITION ON NECK AND HEAD	18.6	21.1	19.8
Goiter	-	-	-
Ear Problem	0.9	1.3	1.1
Eye Problem	4.0	0.3	2.3
Throat Problem	0.8	-	0.4
Teeth Problem	-	2.3	1.1
Other Neck and Head Problem	12.9	17.1	14.9
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	8.6	3.6	6.3
Wound on Skin	6.2	2.4	4.4
Leprosy	-	-	-
Elephantiasis	2.1	0.9	1.6
Other Skin Problem	0.3	0.3	0.3
MATERNAL HEALTH PROBLEMS	-	3.8	1.8
Complicated Pregnancy	-	-	-
Abortion	-	2.9	1.4
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	0.9	0.4
OTHERS CONDITION	9.0	14.7	11.7
Malnutrition	-	1.8	0.9
Tetanus	-	-	-
Mental Disturbance	-	-	-
Other Conditions not Mentioned above	9.0	12.9	10.8
NOT STATED	4.0	1.7	2.9
Total Prevalence	139.0	147.8	143.2
Total Population	47030	42365	89395

## Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
BURJI SPECIAL WEREDA			
ALL FEVER	139.4	133.9	136.6
Malaria	120.2	108.1	114.0
Infectious Jaundice	2.3	2.4	2.4
Hepatitis	2.5	1.4	2.0
Meningitis	-	0.8	0.4
Typhus/Relapsing Fever	10.3	14.4	12.4
Other Fever	3.9	6.8	5.4
ALL COUGHS	21.5	21.3	21.4
Tuberculosis	0.8	2.9	1.8
Pneumonia	4.9	4.1	4.5
Whooping Cough	2.8	-	1.3
other Cough	13.0	14.4	13.7
DIARRHOEA AND ABDOMINAL CONDITIO	50.2	40.0	44.9
Diarrhoea	22.4	15.6	18.9
Gastro Enteritis	6.5	2.9	4.6
Worms in the Stool	6.7	5.8	6.2
Other Diarrhoea and Abdominal Condition	14.6	15.7	15.2
CONDITION ON NECK AND HEAD	14.2	17.6	16.0
Goiter	-	-	-
Ear Problem	0.8	1.2	1.0
Eye Problem	9.6	6.1	7.8
Throat Problem	1.8	-	0.9
Teeth Problem	-	5.2	2.7
Other Neck and Head Problem	2.0	5.1	3.6
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	4.9	10.4	7.7
Wound on Skin	3.6	7.5	5.6
Leprosy	1.3	1.2	1.2
Elephantiasis	-	0.9	0.5
Other Skin Problem	-	0.8	0.4
MATERNAL HEALTH PROBLEMS	-	1.7	0.9
Complicated Pregnancy	-	0.8	0.4
Abortion	-	0.9	0.5
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	7.4	13.0	10.3
Malnutrition	-	0.9	0.5
Tetanus	-	-	-
Mental Disturbance	-	-	-
Other Conditions not Mentioned above	7.4	12.1	9.8
NOT STATED	10.5	12.1	11.3
Total Prevalence	223.4	220.4	221.8

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
KONSO SPECIAL WEREDA			
ALL FEVER	146.3	139.9	143.0
Malaria	133.8	122.8	128.1
Infectious Jaundice	0.8	2.7	1.8
Hepatitis	-	0.8	0.4
Meningitis	-	-	-
Typhus/Relapsing Fever	7.4	10.7	9.1
Other Fever	4.3	2.9	3.6
ALL COUGHS	39.9	29.4	34.5
Tuberculosis	7.3	0.8	3.9
Pneumonia	8.5	1.3	4.8
Whooping Cough	-	1.6	0.8
other Cough	24.1	25.7	24.9
DIARRHOEA AND ABDOMINAL CONDITIO	56.0	49.1	52.5
Diarrhoea	25.6	28.4	27.1
Gastro Enteritis	2.5	1.3	1.9
Worms in the Stool	11.1	5.3	8.1
Other Diarrhoea and Abdominal Condition	16.9	14.0	15.4
CONDITION ON NECK AND HEAD	17.1	15.1	16.1
Goiter	-	-	-
Ear Problem	3.1	0.6	1.8
Eye Problem	9.3	9.6	9.4
Throat Problem	-	0.7	0.4
Teeth Problem	-	-	-
Other Neck and Head Problem	4.8	4.2	4.5
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	10.2	16.0	13.2
Wound on Skin	8.9	14.5	11.8
Leprosy	-	-	-
Elephantiasis	1.2	1.5	1.4
Other Skin Problem	-	-	-
MATERNAL HEALTH PROBLEMS	-	-	-
Complicated Pregnancy	-	-	-
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	9.7	8.7	9.2
Malnutrition	-	-	-
Tetanus	-	-	-
Mental Disturbance	-	-	-
Other Conditions not Mentioned above	9.7	8.7	9.2
NOT STATED	-	1.1	0.6
Total Prevalence	262.1	243.1	252.3
Total Population	92081	98667	190748

## Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
DIRASHE SPECIAL WEREDA			
ALL FEVER	284.6	257.4	271.1
Malaria	276.8	254.6	265.8
Infectious Jaundice	1.4	-	0.7
Hepatitis	1.4	-	0.7
Meningitis	-	-	-
Typhus/Relapsing Fever	4.4	-	2.2
Other Fever	0.5	2.8	1.7
ALL COUGHS	17.3	18.5	17.9
Tuberculosis	4.1	3.7	3.9
Pneumonia	3.6	6.3	4.9
Whooping Cough	-	2.2	1.1
other Cough	9.7	6.2	8.0
DIARRHOEA AND ABDOMINAL CONDITIO	24.6	17.5	21.0
Diarrhoea	18.0	11.4	14.7
Gastro Enteritis	2.4	2.3	2.3
Worms in the Stool	2.5	2.1	2.3
Other Diarrhoea and Abdominal Condition	1.7	1.7	1.7
CONDITION ON NECK AND HEAD	1.3	1.8	1.6
Goiter	-	-	-
Ear Problem	0.7	0.6	0.7
Eye Problem	0.7	-	0.3
Throat Problem	-	-	-
Teeth Problem	-	-	-
Other Neck and Head Problem	-	1.1	0.6
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	2.9	3.4	3.2
Wound on Skin	2.3	-	1.2
Leprosy	-	-	-
Elephantiasis	0.6	3.4	2.0
Other Skin Problem	-	-	-
MATERNAL HEALTH PROBLEMS	-	-	-
Complicated Pregnancy	-	-	-
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	-	5.1	2.5
Malnutrition	-	1.0	0.5
Tetanus	-	-	-
Mental Disturbance	-	-	-
Other Conditions not Mentioned above	-	4.0	2.0
NOT STATED	-	1.1	0.5
Total Prevalence	329.4	301.9	315.7
Total Population	42416	41890	84306

## Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
GAMBELLA REGION-TOTAL			
ALL FEVER	70.7	93.1	81.9
Malaria	64.0	81.7	72.9
Infectious Jaundice	-	0.6	0.3
Hepatitis	2.2	2.2	2.2
Meningitis	-	-	-
Typhus/Relapsing Fever	2.0	6.7	4.4
Other Fever	2.5	1.9	2.2
ALL COUGHS	17.3	28.7	23.0
Tuberculosis	4.3	6.1	5.2
Pneumonia	4.0	4.5	4.3
Whooping Cough	0.5	3.2	1.9
other Cough	8.5	14.8	11.6
DIARRHOEA AND ABDOMINAL CONDITIO	37.1	34.0	35.6
Diarrhoea	19.7	15.7	17.7
Gastro Enteritis	1.1	1.6	1.4
Worms in the Stool	4.3	5.6	5.0
Other Diarrhoea and Abdominal Condition	12.0	11.1	11.5
CONDITION ON NECK AND HEAD	27.9	34.0	31.0
Goiter	-	-	-
Ear Problem	1.3	4.0	2.7
Eye Problem	7.0	7.0	7.0
Throat Problem	-	0.2	0.1
Teeth Problem	0.9	2.6	1.8
Other Neck and Head Problem	18.6	20.2	19.4
VENERAL DISEASES	0.2	-	0.1
CONDITIONS ON SKIN	19.9	11.5	15.7
Wound on Skin	17.2	5.3	11.2
Leprosy	-	0.8	0.4
Elephantiasis	2.4	1.7	2.1
Other Skin Problem	0.2	3.7	2.0
MATERNAL HEALTH PROBLEMS	-	1.8	0.9
Complicated Pregnancy	-	0.6	0.3
Abortion	-	0.3	0.1
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.3	0.1
Menstruation and Other Maternal Problem	-	0.7	0.3
OTHERS CONDITION	9.7	18.8	14.3
Malnutrition	1.1	-	0.6
Tetanus	-	-	-
Mental Disturbance	-	0.4	0.2
Other Conditions not Mentioned above	8.6	18.3	13.5
NOT STATED	6.4	3.2	4.8
Total Prevalence	154.7	187.8	171.3
Total Population	70532	71139	141671

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
ZONE 1			
ALL FEVER	67.7	123.4	97.5
Malaria	62.0	104.6	84.7
Hepatitis	-	4.2	2.2
Meningitis	-	-	-
Typhus/Relapsing Fever	5.3	13.6	9.8
Other Fever	0.4	1.0	0.7
ALL COUGHS	19.5	39.5	30.2
Tuberculosis	7.9	9.1	8.5
Pneumonia	4.3	4.8	4.6
Whooping Cough	-	1.9	1.0
other Cough	7.3	23.7	16.1
DIARRHOEA AND ABDOMINAL CONDITIO	37.3	29.9	33.3
Diarrhoea	19.3	12.1	15.5
Gastro Enteritis	0.6	2.3	1.5
Worms in the Stool	5.4	-	2.5
Other Diarrhoea and Abdominal Condition	11.9	15.5	13.9
CONDITION ON NECK AND HEAD	15.1	21.7	18.6
Goiter	-	-	-
Ear Problem	3.6	3.1	3.3
Eye Problem	11.1	7.6	9.2
Throat Problem	-	0.5	0.3
Teeth Problem	-	2.7	1.4
Other Neck and Head Problem	0.3	7.8	4.3
VENERAL DISEASES	0.5	-	0.2
CONDITIONS ON SKIN	16.8	9.2	12.7
Wound on Skin	10.9	3.2	6.8
Leprosy	-	1.9	1.0
Elephantiasis	5.2	1.8	3.4
Other Skin Problem	0.6	2.3	1.5
MATERNAL HEALTH PROBLEMS	-	1.2	0.7
Complicated Pregnancy	-	-	-
Abortion	-	0.6	0.3
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.6	0.3
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	9.6	23.6	17.1
Malnutrition	0.6	-	-
Tetanus	-	-	-
Mental Disturbance	-	1.1	0.6
Other Conditions not Mentioned above	8.9	22.5	16.2
NOT STATED	4.8	6.3	5.6
Total Prevalence	150.8	226.9	191.5
Total Population	26241	30114	56355

## Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
ZONE 2			
ALL FEVER	81.1	121.7	101.8
Malaria	66.7	119.7	93.7
Hepatitis	6.1	1.9	4.0
Meningitis	-	-	-
Typhus/Relapsing Fever	8.3	-	4.1
Other Fever	17.4	18.4	17.9
ALL COUGHS	4.1	1.9	3.0
Tuberculosis	6.5	9.9	8.2
Pneumonia	-	3.9	2.0
Whooping Cough	6.9	2.6	4.7
other Cough	57.9	49.6	53.7
DIARRHOEA AND ABDOMINAL CONDITIO	31.0	26.6	28.8
Diarrhoea	4.1	-	2.0
Gastro Enteritis	-	7.9	4.1
Worms in the Stool	22.8	15.1	18.9
Other Diarrhoea and Abdominal Condition	-	-	-
CONDITION ON NECK AND HEAD	21.7	15.6	18.6
Goiter	-	-	-
Ear Problem	-	-	-
Eye Problem	8.3	8.8	8.5
Throat Problem	-	-	-
Teeth Problem	-	6.8	3.5
Other Neck and Head Problem	13.4	-	6.6
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	9.5	6.1	7.8
Wound on Skin	7.1	6.1	6.6
Leprosy	-	-	-
Elephantiasis	2.4	-	1.2
Other Skin Problem	-	-	-
MATERNAL HEALTH PROBLEMS	-	-	-
Complicated Pregnancy	-	-	-
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	6.7	27.3	17.2
Malnutrition	-	-	-
Tetanus	-	-	-
Mental Disturbance	-	-	-
Other Conditions not Mentioned above	6.7	27.3	17.2
NOT STATED	-	-	-
Total Prevalence	172.7	223.2	198.4
Total Population	14860	15478	30338

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
ZONE 4			
ALL FEVER	68.1	40.0	55.0
Malaria	64.5	31.7	49.2
Infectious Jaundice	-	1.6	0.7
Hepatitis	2.2	-	1.2
Meningitis	-	-	-
Typhus/Relapsing Fever	-	2.6	1.2
Other Fever	1.4	4.1	2.7
ALL COUGHS	15.1	22.0	18.3
Tuberculosis	1.2	5.0	3.0
Pneumonia	2.4	0.9	1.7
Whooping Cough	1.2	4.4	2.7
other Cough	10.4	11.6	10.9
DIARRHOEA AND ABDOMINAL CONDITIO	26.4	29.3	27.8
Diarrhoea	14.4	13.2	13.8
Gastro Enteritis	-	1.9	0.9
Worms in the Stool	5.5	10.8	8.0
Other Diarrhoea and Abdominal Condition	6.5	3.4	5.1
CONDITION ON NECK AND HEAD	42.4	59.8	50.5
Goiter	-	-	-
Ear Problem	-	7.5	3.5
Eye Problem	2.6	5.2	3.8
Throat Problem	-	-	-
Teeth Problem	2.3	-	1.2
Other Neck and Head Problem	37.5	47.1	41.9
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	28.0	17.4	23.0
Wound on Skin	28.0	7.3	18.4
Leprosy	-	-	-
Elephantiasis	-	2.5	1.2
Other Skin Problem	-	7.6	3.5
MATERNAL HEALTH PROBLEMS	-	3.6	1.7
Complicated Pregnancy	-	1.7	0.8
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	1.9	0.9
OTHERS CONDITION	11.4	7.9	9.7
Malnutrition	2.2	-	1.2
Tetanus	-	-	-
Mental Disturbance	-	-	-
Other Conditions not Mentioned above	9.2	7.9	8.6
NOT STATED	11.2	1.4	6.6
Total Prevalence	149	120.2	135.6
Total Population	29431	25547	54978

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
HARARI REGION			
ALL FEVER	20.8	19.5	20.1
Malaria	11.9	7.0	9.4
Hepatitis	2.2	-	1.0
Meningitis	-	0.5	0.3
Typhus/Relapsing Fever	0.4	0.9	0.7
Other Fever	6.3	11.1	8.7
ALL COUGHS	53.7	70.9	62.5
Tuberculosis	4.6	4.3	4.4
Pneumonia	5.8	5.7	5.8
Whooping Cough	0.6	0.8	0.7
other Cough	42.7	60.1	51.7
DIARRHOEA AND ABDOMINAL CONDITIO	47.7	41.3	44.4
Diarrhoea	19.4	14.1	16.6
Gastro Enteritis	5.0	2.1	3.5
Worms in the Stool	4.4	4.1	4.3
Other Diarrhoea and Abdominal Condition	18.9	21.0	20.0
CONDITION ON NECK AND HEAD	11.0	27.1	19.4
Goiter	-	0.4	0.2
Ear Problem	2.1	0.9	1.5
Eye Problem	2.4	6.4	4.5
Throat Problem	1.5	3.4	2.5
Teeth Problem	1.2	3.1	2.2
Other Neck and Head Problem	3.9	12.9	8.5
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	7.9	3.6	5.7
Wound on Skin	5.7	2.3	4.0
Leprosy	-	-	-
Elephantiasis	0.9	0.3	0.6
Other Skin Problem	1.2	1.1	1.1
MATERNAL HEALTH PROBLEMS	-	2.4	1.2
Complicated Pregnancy	-	1.3	0.7
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.6	0.3
Menstruation and Other Maternal Problem	-	0.5	0.3
OTHERS CONDITION	24.4	36.4	30.6
Malnutrition	0.6	1.4	1.0
Tetanus	-	-	-
Mental Disturbance	2.9	0.3	1.6
Other Conditions not Mentioned above	20.9	34.8	28.1
NOT STATED	1.3	1.8	1.6
Total Prevalence	154.4	174.1	164.6
Total Population	69277	74193	143470

## Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
NO ZONES			
ALL FEVER	20.8	19.5	20.1
Malaria	11.9	7.0	9.4
Hepatitis	2.2	-	1.0
Meningitis	-	0.5	0.3
Typhus/Relapsing Fever	0.4	0.9	0.7
Other Fever	6.3	11.1	8.7
ALL COUGHS	53.7	70.9	62.5
Tuberculosis	4.6	4.3	4.4
Pneumonia	5.8	5.7	5.8
Whooping Cough	0.6	0.8	0.7
other Cough	42.7	60.1	51.7
DIARRHOEA AND ABDOMINAL CONDITIO	47.7	41.3	44.4
Diarrhoea	19.4	14.1	16.6
Gastro Enteritis	5.0	2.1	3.5
Worms in the Stool	4.4	4.1	4.3
Other Diarrhoea and Abdominal Condition	18.9	21.0	20.0
CONDITION ON NECK AND HEAD	11.0	27.1	19.4
Goiter	-	0.4	0.2
Ear Problem	2.1	0.9	1.5
Eye Problem	2.4	6.4	4.5
Throat Problem	1.5	3.4	2.5
Teeth Problem	1.2	3.1	2.2
Other Neck and Head Problem	3.9	12.9	8.5
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	7.9	3.6	5.7
Wound on Skin	5.7	2.3	4.0
Leprosy	-	-	-
Elephantiasis	0.9	0.3	0.6
Other Skin Problem	1.2	1.1	1.1
MATERNAL HEALTH PROBLEMS	-	2.4	1.2
Complicated Pregnancy	-	1.3	0.7
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.6	0.3
Menstruation and Other Maternal Problem	-	0.5	0.3
OTHERS CONDITION	24.4	36.4	30.6
Malnutrition	0.6	1.4	1.0
Tetanus	-	-	-
Mental Disturbance	2.9	0.3	1.6
Other Conditions not Mentioned above	20.9	34.8	28.1
NOT STATED	1.3	1.8	1.6
Total Prevalence	154.4	174.1	164.6
Total Population	69277	74193	143470

## Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
ADDIS ABABA-TOTAL			
ALL FEVER	8.1	10.5	9.4
Malaria	1.7	1.1	1.4
Infectious Jaundice	-	1.1	0.6
Hepatitis	0.4	0.8	0.6
Meningitis	-	0.4	0.2
Typhus/Relapsing Fever	4.4	3.1	3.7
Other Fever	1.5	4.1	2.9
ALL COUGHS	21.6	29.2	25.8
Tuberculosis	3.2	3.0	3.1
Pneumonia	2.7	4.0	3.4
Whooping Cough	1.0	0.6	0.8
other Cough	14.7	21.6	18.5
DIARRHOEA AND ABDOMINAL CONDITIO	20.3	21.7	21.1
Diarrhoea	4.5	3.7	4.1
Gastro Enteritis	1.1	1.2	1.1
Worms in the Stool	2.9	3.3	3.1
Other Diarrhoea and Abdominal Condition	11.9	13.5	12.8
CONDITION ON NECK AND HEAD	12.4	17.9	15.4
Goiter	0.4	-	0.2
Ear Problem	1.1	1.6	1.4
Eye Problem	2.8	3.7	3.3
Throat Problem	1.8	3.3	2.6
Teeth Problem	2.0	2.8	2.5
Other Neck and Head Problem	4.2	6.5	5.5
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	5.5	4.6	5.0
Wound on Skin	3.8	2.8	3.3
Leprosy	-	0.5	0.3
Elephantiasis	0.7	-	0.3
Other Skin Problem	1.0	1.3	1.1
MATERNAL HEALTH PROBLEMS	-	1.8	1.0
Complicated Pregnancy	-	0.3	0.2
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.2	0.1
Menstruation and Other Maternal Problem	-	1.2	0.7
OTHERS CONDITION	13.8	18.4	16.3
Malnutrition	-	0.1	0.1
Tetanus	-	0.2	0.1
Mental Disturbance	2.0	2.0	2.0
Other Conditions not Mentioned above	11.8	16.0	14.1
NOT STATED	1.1	1.7	1.5
Total Prevalence	69.3	86.3	78.5
Total Population	919816	1099601	2019417

**Appendix 3.2a cont'd**

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>ADDIS ABABA-ZONE 1</b>			
ALL FEVER	2.8	3.3	3.1
Malaria	1.3	-	0.6
Hepatitis	1.5	-	0.7
Meningitis	-	-	-
Typhus/Relapsing Fever	-	1.8	1.0
Other Fever	-	1.6	0.9
ALL COUGHS	14.1	22.4	18.6
Tuberculosis	5.9	4.7	5.3
Pneumonia	1.9	1.3	1.6
Whooping Cough	1.5	-	0.7
other Cough	4.7	16.3	11.0
DIARRHOEA AND ABDOMINAL CONDITIO	10.6	15.9	13.5
Diarrhoea	3.0	2.7	2.8
Gastro Enteritis	-	1.3	0.7
Worms in the Stool	-	1.2	0.7
Other Diarrhoea and Abdominal Condition	7.6	10.7	9.3
CONDITION ON NECK AND HEAD	10.2	12.1	11.2
Goiter	2.9	-	1.3
Ear Problem	1.7	-	0.8
Eye Problem	-	1.2	0.7
Throat Problem	-	1.2	0.7
Teeth Problem	1.3	2.6	2.0
Other Neck and Head Problem	4.3	7.0	5.7
	-	-	-
VENERAL DISEASES			
CONDITIONS ON SKIN	4.8	0.2	2.3
Wound on Skin	3.3	0.2	1.6
Leprosy	-	-	-
Elephantiasis	1.5	-	0.7
Other Skin Problem	-	-	-
MATERNAL HEALTH PROBLEMS	-	-	-
Complicated Pregnancy	-	-	-
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	8.8	20.1	14.9
Malnutrition	-	-	-
Tetanus	-	-	-
Mental Disturbance	1.7	2.4	2.1
Other Conditions not Mentioned above	7.1	17.8	12.9
NOT STATED	1.5	3.7	2.7
Total Prevalence	41.0	61.9	52.3
Total Population	122351	144427	266778

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
<b>ADDIS ABABA-ZONE 2</b>			
ALL FEVER	4.9	0.8	2.7
Malaria	1.0	-	0.5
Hepatitis	1.0	0.8	0.9
Meningitis	-	-	-
Typhus/Relapsing Fever	2.1	-	1.0
Other Fever	0.9	-	0.4
ALL COUGHS	20.6	26.8	23.9
Tuberculosis	0.9	0.8	0.8
Pneumonia	4.4	2.4	3.3
Whooping Cough	-	-	-
other Cough	15.3	23.7	19.7
DIARRHOEA AND ABDOMINAL CONDITIO	18.4	21.7	20.2
Diarrhoea	1.0	4.7	3.0
Gastro Enteritis	0.9	-	0.4
Worms in the Stool	5.8	3.4	4.5
Other Diarrhoea and Abdominal Condition	10.7	13.6	12.3
CONDITION ON NECK AND HEAD	16.1	22.2	19.3
Goiter	-	-	-
Ear Problem	0.9	-	0.4
Eye Problem	6.0	6.3	6.1
Throat Problem	3.2	4.0	3.6
Teeth Problem	4.1	1.9	2.9
Other Neck and Head Problem	2.0	9.9	6.2
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	3.5	7.0	5.3
Wound on Skin	2.2	4.3	3.3
Leprosy	-	1.6	0.9
Elephantiasis	1.3	-	0.6
Other Skin Problem	-	1.1	0.6
MATERNAL HEALTH PROBLEMS	-	3.8	2.0
Complicated Pregnancy	-	-	-
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	3.8	2.0
OTHERS CONDITION	16.3	18.7	17.6
Malnutrition	-	-	-
Tetanus	-	-	-
Mental Disturbance	0.9	2.0	1.4
Other Conditions not Mentioned above	15.5	16.7	16.1
NOT STATED	1.3	3.5	2.4
Total Prevalence	63.7	78.7	71.7
Total Population	186520	209204	395724

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
ADDIS ABABA-ZONE 3			
ALL FEVER	3.1	11.4	7.7
Malaria	0.9	1.2	1.0
Infectious Jaundice	0.3	-	0.1
Hepatitis	-	2.3	1.3
Meningitis	-	1.0	0.6
Typhus/Relapsing Fever	1.5	4.9	3.4
Other Fever	0.5	2.0	1.4
ALL COUGHS	29.4	30.0	29.8
Tuberculosis	1.6	2.1	1.9
Pneumonia	3.3	9.7	6.9
Whooping Cough	1.2	-	0.5
other Cough	23.4	18.3	20.5
DIARRHOEA AND ABDOMINAL CONDITIO	15.7	22.1	19.3
Diarrhoea	4.4	1.3	2.6
Gastro Enteritis	1.6	0.2	0.8
Worms in the Stool	1.6	6.7	4.4
Other Diarrhoea and Abdominal Condition	8.2	14.0	11.4
CONDITION ON NECK AND HEAD	7.3	20.9	14.9
Goiter	-	-	-
Ear Problem	-	1.5	0.9
Eye Problem	1.0	5.2	3.4
Throat Problem	1.5	5.5	3.7
Teeth Problem	1.9	3.0	2.5
Other Neck and Head Problem	2.9	5.6	4.4
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	1.9	4.1	3.1
Wound on Skin	1.9	0.1	0.9
Leprosy	-	-	-
Elephantiasis	-	-	-
Other Skin Problem	-	3.9	2.2
MATERNAL HEALTH PROBLEMS	-	0.1	0.1
Complicated Pregnancy	-	0.1	-
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	15.9	16.2	16.1
Malnutrition	-	-	-
Tetanus	-	-	-
Mental Disturbance	0.9	1.0	0.9
Other Conditions not Mentioned above	15.0	15.2	15.1
NOT STATED	1.1	0.2	0.6
Total Prevalence	66.0	83.9	76.0
Total Population	168683	214296	382979

**Appendix 3.2a cont'd**

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
ADDIS ABABA-ZONE 4			
ALL FEVER	5.7	7.9	6.9
Malaria	1.0	-	0.5
Hepatitis	-	1.0	0.5
Meningitis	-	-	-
Typhus/Relapsing Fever	1.2	-	0.5
Other Fever	3.5	6.9	5.4
ALL COUGHS	20.1	28.8	25.0
Tuberculosis	5.6	4.1	4.8
Pneumonia	-	2.7	1.5
Whooping Cough	-	0.6	0.3
other Cough	14.5	21.4	18.3
DIARRHOEA AND ABDOMINAL CONDITIO	15.6	22.1	19.2
Diarrhoea	3.5	3.3	3.4
Gastro Enteritis	1.0	1.5	1.3
Worms in the Stool	5.2	3.8	4.4
Other Diarrhoea and Abdominal Condition	5.9	13.5	10.1
CONDITION ON NECK AND HEAD	5.3	11.1	8.5
Goiter	-	-	-
Ear Problem	0.8	1.8	1.4
Eye Problem	1.0	2.2	1.7
Throat Problem	2.3	2.2	2.2
Teeth Problem	1.1	2.5	1.9
Other Neck and Head Problem	-	2.4	1.3
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	9.8	5.7	7.5
Wound on Skin	5.1	3.9	4.5
Leprosy	-	1.1	0.6
Elephantiasis	1.1	-	0.5
Other Skin Problem	3.6	0.7	2.0
MATERNAL HEALTH PROBLEMS	-	1.8	1.0
Complicated Pregnancy	-	-	-
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.9	0.5
Menstruation and Other Maternal Problem	-	0.9	0.5
OTHERS CONDITION	17.4	21	19.4
Malnutrition	-	-	-
Tetanus	-	-	-
Mental Disturbance	6.7	3.4	4.8
Other Conditions not Mentioned above	10.8	17.6	14.6
NOT STATED	2.3	1.8	2.0
Total Prevalence	68.7	87.3	79.1
Total Population	195888	246085	441973

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
ADDIS ABABA-ZONE 5			
ALL FEVER	11.8	16.1	14.1
Malaria	2.2	1.3	1.7
Infectious Jaundice	-	3.1	1.7
Hepatitis	-	0.8	0.4
Meningitis	-	-	-
Typhus/Relapsing Fever	7.4	3.9	5.5
Other Fever	2.2	7.1	4.8
ALL COUGHS	21.4	37.5	30.1
Tuberculosis	2.2	4.0	3.2
Pneumonia	4.6	4.0	4.3
Whooping Cough	1.7	1.0	1.3
other Cough	12.8	28.5	21.3
DIARRHOEA AND ABDOMINAL CONDITIO	25.1	25.7	25.4
Diarrhoea	-	5.5	3.0
Gastro Enteritis	0.9	1.3	1.1
Worms in the Stool	1.4	1.7	1.5
Other Diarrhoea and Abdominal Condition	22.9	17.2	19.8
CONDITION ON NECK AND HEAD	22.8	24.5	23.7
Goiter	-	-	-
Ear Problem	2.4	3.5	3.0
Eye Problem	4.7	3.8	4.2
Throat Problem	2.0	3.3	2.7
Teeth Problem	2.1	4.1	3.2
Other Neck and Head Problem	11.6	9.8	10.6
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	6.9	5.6	6.2
Wound on Skin	6.0	5.0	5.5
Leprosy	-	-	-
Elephantiasis	-	-	-
Other Skin Problem	0.9	0.7	0.8
MATERNAL HEALTH PROBLEMS	-	2.3	1.2
Complicated Pregnancy	-	0.8	0.4
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	1.5	0.8
OTHERS CONDITION	12.2	18.9	15.8
Malnutrition	-	-	-
Tetanus	-	1.0	0.5
Mental Disturbance	-	1.7	0.9
Other Conditions not Mentioned above	12.2	16.3	14.4
NOT STATED	-	-	-
Total Prevalence	77.4	106.1	92.9
Total Population	197491	231721	429212

**Appendix 3.2a cont'd**

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
ADDIS ABABA-ZONE 6			
ALL FEVER	45.0	52.4	48.9
Malaria	9.6	12.0	10.8
Hepatitis	-	4.5	2.4
Meningitis	-	4.5	2.4
Typhus/Relapsing Fever	34.7	22.8	28.5
Other Fever	0.8	8.6	4.9
ALL COUGHS	24.0	20.2	22.0
Tuberculosis	5.0	0.8	2.8
Pneumonia	0.1	0.7	0.4
Whooping Cough	3.0	5.8	4.5
other Cough	15.9	12.9	14.3
DIARRHOEA AND ABDOMINAL CONDITIO	67.5	17.6	41.3
Diarrhoea	44.6	6.3	24.5
Gastro Enteritis	3.6	7.6	5.7
Worms in the Stool	-	0.6	0.3
Other Diarrhoea and Abdominal Condition	19.4	3.1	10.8
CONDITION ON NECK AND HEAD	7.7	7.7	7.7
Goiter	-	0.1	0.1
Ear Problem	0.1	3.0	1.6
Eye Problem	3.5	0.3	1.8
Throat Problem	-	2.8	1.5
Teeth Problem	0.2	1.3	0.8
Other Neck and Head Problem	3.9	0.3	2.0
VENERAL DISEASES	-	-	-
CONDITIONS ON SKIN	4.2	0.7	2.4
Wound on Skin	3.3	0.7	1.9
Leprosy	-	-	-
Elephantiasis	0.7	-	0.4
Other Skin Problem	0.2	-	0.1
MATERNAL HEALTH PROBLEMS	-	2.9	1.5
Complicated Pregnancy	-	2.9	1.5
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	-	-
Menstruation and Other Maternal Problem	-	-	-
OTHERS CONDITION	1.2	6.5	4.0
Malnutrition	0.7	2.9	1.9
Tetanus	-	-	-
Mental Disturbance	-	-	-
Other Conditions not Mentioned above	0.4	3.6	2.1
NOT STATED	-	2.7	1.4
Total Prevalence	141.9	100.3	120.1
Total Population	48884	53869	102753

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
DIRE DAWA PROVISIONAL ADMINISTRATION			
ALL FEVER	36.9	31.4	34
Malaria	29.6	21.5	25.4
Hepatitis	0.6	2.5	1.6
Meningitis	-	0.2	0.1
Typhus/Relapsing Fever	2.8	3.7	3.3
Other Fever	3.9	3.5	3.7
ALL COUGHS	121.1	149.7	136.0
Tuberculosis	11.0	10.0	10.5
Pneumonia	4.4	8.0	6.3
Whooping Cough	3.0	0.2	1.6
other Cough	102.7	131.4	117.7
DIARRHOEA AND ABDOMINAL CONDITIO	60.2	58.6	59.3
Diarrhoea	21.9	25.5	23.8
Gastro Enteritis	7.1	4.1	5.5
Worms in the Stool	6.8	2.3	4.4
Other Diarrhoea and Abdominal Condition	24.3	26.7	25.6
CONDITION ON NECK AND HEAD	27.3	48.3	38.2
Goiter	0.2	0.7	0.5
Ear Problem	2.0	5.3	3.7
Eye Problem	8.5	5.5	7.0
Throat Problem	1.5	4.2	2.9
Teeth Problem	2.0	5.6	3.9
Other Neck and Head Problem	13.1	26.9	20.3
VENERAL DISEASES	0.2	-	0.1
CONDITIONS ON SKIN	7.8	9.7	8.8
Wound on Skin	7.3	7.1	7.2
Leprosy	-	0.6	0.3
Elephantiasis	0.4	0.2	0.3
Other Skin Problem	-	1.7	0.9
MATERNAL HEALTH PROBLEMS	-	3.5	1.8
Complicated Pregnancy	-	2.7	1.4
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.2	0.1
Menstruation and Other Maternal Problem	-	0.6	0.3
OTHERS CONDITION	32.9	42.6	38.0
Malnutrition	0.9	0.4	0.6
Tetanus	-	-	-
Mental Disturbance	3.4	1.2	2.3
Other Conditions not Mentioned above	28.6	41.0	35.1
NOT STATED	1.4	2.6	2.0
Total Prevalence	258.9	295.5	277.9
Total Population	107368	116697	224065

Appendix 3.2a cont'd

Illness and Illness Group	Prevalence Rate		
	Male	Female	Both Sexes
NO ZONES			
ALL FEVER	36.9	31.4	34
Malaria	29.6	21.5	25.4
Hepatitis	0.6	2.5	1.6
Meningitis	-	0.2	0.1
Typhus/Relapsing Fever	2.8	3.7	3.3
Other Fever	3.9	3.5	3.7
ALL COUGHS	121.1	149.7	136
Tuberculosis	11.0	10.0	10.5
Pneumonia	4.4	8.0	6.3
Whooping Cough	3.0	0.2	1.6
other Cough	102.7	131.4	117.7
DIARRHOEA AND ABDOMINAL CONDITIO	60.2	58.6	59.3
Diarrhoea	21.9	25.5	23.8
Gastro Enteritis	7.1	4.1	5.5
Worms in the Stool	6.8	2.3	4.4
Other Diarrhoea and Abdominal Condition	24.3	26.7	25.6
CONDITION ON NECK AND HEAD	27.3	48.3	38.2
Goiter	0.2	0.7	0.5
Ear Problem	2.0	5.3	3.7
Eye Problem	8.5	5.5	7.0
Throat Problem	1.5	4.2	2.9
Teeth Problem	2.0	5.6	3.9
Other Neck and Head Problem	13.1	26.9	20.3
VENERAL DISEASES	0.2	-	0.1
CONDITIONS ON SKIN	7.8	9.7	8.8
Wound on Skin	7.3	7.1	7.2
Leprosy	-	0.6	0.3
Elephantiasis	0.4	0.2	0.3
Other Skin Problem	-	1.7	0.9
MATERNAL HEALTH PROBLEMS	-	3.5	1.8
Complicated Pregnancy	-	2.7	1.4
Abortion	-	-	-
Complicated Child Birth	-	-	-
Complicated Puerperium	-	0.2	0.1
Menstruation and Other Maternal Problem	-	0.6	0.3
OTHERS CONDITION	32.9	42.6	38.0
Malnutrition	0.9	0.4	0.6
Tetanus	-	-	-
Mental Disturbance	3.4	1.2	2.3
Other Conditions not Mentioned above	28.6	41.0	35.1
NOT STATED	1.4	2.6	2.0
Total Prevalence	258.9	295.5	277.9
Total Population	107368	116697	224065

## CHAPTER 4

### ACCIDENT

#### 4.1 Prevalence of Accidents

In the 1998 Health and Nutrition Survey injury due to accident was defined as any physical or organic harm or damage sustained by any person as a result of an accident or physical violence. Data on accident collected by the survey refers to 14 days prior to the survey date. In this survey duration of illness due to accident, days of restricted usual activity as well as external cause of accident were collected.

The data in Table 4.1 show the distribution of persons by status of having accident, sex and age. As shown in the table, out of the total population only two percent were reported as having accident. There were slight variations both by sex and age. Males reported higher prevalence of accident than females (1.7 percent of males against 1.4 percent of females). Likewise, relatively the highest proportion was observed among persons aged 15 years and above, whereas the lowest proportion was noticed among infants. This sounds quite reasonable as infants are usually kept under close supervision of families while individuals aged 15 and above years are active participants in day to day activities thereby are likely to be more affected by accident. Furthermore, according to the data young children aged 1-4 years were more prone to having accident than infants under one and those aged 5 - 9 years. This may suggest that children aged of 1-4 years need more protection because this is the age when they start walking and are much eager to discover new things but are not conscious of the damage that is likely to follow (for details see Table 4.1).

Table 4.2 presents the distribution of persons who reported having accident and no accident by sex and region. According to the data in the table, accident was more prevalent in Tigray, than in the remaining regions. The reported cases of accident in Affar were lowest; less than one percent. Generally, the proportions of persons who had



**Table 4.2 Distribution of persons who Reported having Accident and no Accident, by sex and Region:1998**

Region/ sex	Having Accide		No Accident		Not stated		Total	
	N°	%	N°	%	N°	%	N°	%
<b>Tigray</b>								
Both Sexes	143755	4.1	3309062	94.6	46861	1.3	3499678	100
Male	87774	5.1	1600220	93.5	23477	1.4	1711471	100
Female	55981	3.1	1708842	95.6	23384	1.3	1788207	100
<b>Affar</b>								
Both Sexes	1475	0.5	307199	99.4	348	0.1	309022	100
Male	1269	0.8	155027	99	238	0.2	156534	100
Female	206	0.1	152172	99.8	110	0.1	152488	100
<b>Amhara</b>								
Both Sexes	230395	1.6	13908325	97.5	132480	0.9	14271200	100
Male	140995	2	6912589	97.1	68271	1	7121855	100
Female	89400	1.3	6995736	97.9	64209	0.9	7149345	100
<b>Oromiya</b>								
Both Sexes	319349	1.6	20158617	98	85453	0.4	20563419	100
Male	198828	1.9	9985611	97.6	45162	0.4	10229601	100
Female	120521	1.2	10173006	98.4	40291	0.4	10333818	100
<b>Somali</b>								
Both Sexes	8786	1.3	673066	98.2	3392	0.5	685244	100
Male	5789	1.6	347547	97.9	1630	0.5	354966	100
Female	2997	0.9	325519	98.6	1762	0.5	330278	100
<b>Benishangul Gumuz</b>								
Both Sexes	9680	1.7	566309	97.4	5695	1	581684	100
Male	6228	2.2	279578	96.8	2889	1	288695	100
Female	3452	1.2	286731	97.9	2806	1	292989	100
<b>SNNP</b>								
Both Sexes	189947	1.7	11059045	97.6	81184	0.7	11330176	100
Male	105020	1.9	5447206	97.4	39251	0.7	5591477	100
Female	84927	1.5	5611839	97.8	41933	0.7	5738699	100
<b>Gambela</b>								
Both Sexes	2149	1.5	139000	98.1	521	0.4	141670	100
Male	1150	1.6	69261	98.2	121	0.2	70532	100
Female	999	1.4	69739	98	400	0.6	71138	100
<b>Harari</b>								
Both Sexes	1640	1.1	141497	98.6	333	0.2	143470	100
Male	734	1.1	68471	98.8	72	0.1	69277	100
Female	906	1.2	73026	98.4	261	0.4	74193	100
<b>Addis Ababa</b>								
Both Sexes	15675	0.8	1970009	97.6	33733	1.7	2019417	100
Male	8509	0.9	894349	97.2	16958	1.8	919816	100
Female	7166	0.7	1075660	97.8	16775	1.5	1099601	100
<b>Dire Dawa</b>								
Both Sexes	5126	2.3	218209	97.4	731	0.3	224066	100
Male	2836	2.6	104303	97.1	229	0.2	107368	100
Female	2290	2	113906	97.6	502	0.4	116698	100
<b>All Regions</b>								
Both Sexes	927977	1.7	52450338	97.5	390731	0.7	53769046	100
Male	559132	2.1	25864162	97.2	198298	0.7	26621592	100
Female	368845	1.4	26586176	97.9	192433	0.7	27147454	100

accident during the reference period were higher among males than females. The magnitude of the difference in the proportions of persons who had accident by sex was very small except in Tigray and Benishangul-gumuz Regions. The data indicated that the chance of having accident during fourteen days prior to the survey date was quite low.

The prevalence rates of having any accident(s) during two weeks prior to survey date by sex, age and place of residence are presented in Table 4.3. According to the data in the table, the prevalence rate of having any accident(s) was lowest in urban areas compared to rural areas. About 18 persons in rural areas and 13 persons in urban areas out every 1000 persons reported to have accident during 14 days prior to the survey date. Unlike the prevalence of illness, the prevalence of accident(s) was considerably higher among males than females for all ages. There was no systematic variation of the prevalence rates of accidents by place of residence and age. The observed rates were higher among children under 10 years in urban areas and the reverse was the case for those aged 10 years and above.

According to the data in Table 4.4, the prevalence rate of having any accident during the last two weeks were highest in Tigray Region both among males (51 males per 1000 male) and females (31 females per 1000 female). The least prevalence rates were observed for Affar Region followed by Addis Ababa. In all Regions, males were more prone to having any accident than female. Overall, out of every 1000 males 21 reported as having accident whereas only 14 out of every 1000 females reported as having accident.

**Table 4.3 Prevalence Rate (per thousand) of having any Accident During the last Two Weeks by Age,  
Sex and Place of Residence:1998**

**COUNTRY -TOTAL**

Place of Residence /sex	Age Group								Total persons
	Under 1	1-4	5-9	10-14	15-44	45-49	60+	Not stated	
<b>Urban</b>									
Both Sexes	7.5	23.6	10.9	14.3	10.8	16.4	22.8	-	13.4
Male	14.9	24	18.4	19	10.6	14.5	20.6	-	15
Female	-	23.2	4.5	10	11	18.1	24.4	-	12
<b>Rural</b>									
Both Sexes	7	12.7	10	16.7	21.2	25.9	30.1	12.3	17.9
Male	9.3	14.7	10.1	20.4	27.8	31.8	33.3	-	21.9
Female	4.9	10.7	10	12.7	15.1	19.7	26.4	19.2	13.9
<b>Rural + Urban</b>									
Both Sexes	7.1	13.7	10.1	16.4	19.5	24.6	29.2	11	17.3
Male	9.8	15.5	10.9	20.2	25.1	29.7	31.9	-	21
Female	4.5	11.9	9.4	12.3	14.4	19.4	26:1	16.6	13.6

**Table 4.4 Prevalence Rates ( per thousand) of having any Accident during the last two Weeks  
by Region and sex: 1998**

Region	Sex		
	Male	Female	Both Sexes
<b>Region</b>			
<b>Tigray</b>	51.29	31.31	41.08
<b>Affar</b>	8.11	1.35	4.77
<b>Amhara</b>	19.80	12.51	16.15
<b>Oromia</b>	19.44	11.66	15.53
<b>Somali</b>	16.31	9.07	12.82
<b>Benishangul-Gumuz</b>	21.57	11.78	16.64
<b>SNNP</b>	18.78	14.80	16.76
<b>Gambela</b>	16.30	14.04	15.17
<b>Harari</b>	10.60	12.21	11.43
<b>Addis Ababa</b>	9.25	6.52	7.76
<b>Dire Dawa</b>	26.41	19.62	22.88
<b>All Region</b>	21.00	13.59	17.26

## **4.2 Duration of Illness and Days of Restricted From Usual Activities Due to Accident(s)**

### **4.2a Duration of Illness Due To Accident(s)**

In the 1998 Health and Nutrition Survey individual household members who reported having accident(s) during 14 days prior to the survey date were asked about the number of days of illness. The data presented in the Table 4.5 shows that out of total population who reported accident during 14 days prior to the survey date, more than forty percent reported to have been ill for 7-14 days. The proportions of those who had been ill for 1-3 days and 4-6 days were 28 percent and 22 percent, respectively. For all ages, the proportions of males who had been ill for 4-6 and 7-14 days were higher than females. The reverse was the case regarding the proportion of those who were ill for 1-3 days.

As shown in the table, the reported number of days of illness due to accident(s) lasted longer (7-14 days) among the population in the older age groups (60 and above years). The average number of days of illness is also presented in Table 4.5. According to the result in the table, the average number of days of illness ranged from four days among infants to eight days among those aged 60 and above years. For all ages and both sexes, the average number of days of illness was found to be six days. The average number of days of illness due to accident were the same, six days, both for rural and urban areas (see Tables 4.5a-4.5c for details).

As shown in Table 4.6 there was a considerable variation in the reported number of days of illness by region. The proportion of persons who reported to have been ill for at least seven days was lowest in Dire Dawa (27 percent) followed by Tigray Region (37 percent). The observed proportion was highest in Gambella Region. Likewise, the average number of days of illness ranged from five days in Dire Dawa and Tigray

**Table 4.5a Distribution of Persons who Reported having any Accident by Sex and Days of Illness:1998**  
**COUNTRY -TOTAL**

Days of Illness/ sex		Age Group							Not Stated	All Ages
		Under 1	1-4	5-9	10-14	15-44	45-59	60+		
<b>1 - 3 days</b>										
Both Sexes	N°	4069	29609	27360	33916	118543	27642	14898	-	256037
	%	32.1	30.5	31.1	28.5	27.5	27.5	18.8	-	27.6
Male	N°	1729	17757	13399	20840	70314	18447	8300	-	150786
	%	20.1	31.8	28.2	27.5	26.6	30	18.1	-	27
Female	N°	2340	11852	13961	13076	48229	9195	6598	-	105251
	%	57.2	28.7	34.5	30.3	28.9	23.5	19.9	-	28.5
<b>4 - 6 days</b>										
Both Sexes	N°	2257	15427	16676	27210	99687	23276	15068	-	199601
	%	17.8	15.9	19	22.9	23.1	23.1	19	-	21.5
Male	N°	1386	8478	8869	19080	63020	15071	9843	-	125747
	%	16.1	15.2	18.7	25.2	23.9	24.5	21.4	-	22.5
Female	N°	871	6949	7807	8130	36667	8205	5225	-	73854
	%	21.3	16.8	19.3	18.8	22	21	15.7	-	20
<b>7 - 14 days</b>										
Both Sexes	N°	3745	41854	37897	53250	191405	46926	44681	380	420138
	%	29.5	43.1	43.1	44.7	44.4	46.7	56.5	100	45.3
Male	N°	2867	25396	22066	33190	121126	27180	26821	-	258646
	%	33.3	45.5	46.5	43.8	45.9	44.2	58.4	-	46.3
Female	N°	878	16458	15831	20060	70279	19746	17860	380	161492
	%	21.5	39.8	39.1	46.4	42.1	50.5	53.7	100	43.8
<b>Not Stated</b>										
Both Sexes	N°	2620	10266	6008	4641	21435	2739	4491	-	52200
	%	20.6	10.6	6.8	3.9	5	2.7	5.7	-	5.6
Male	N°	2620	4188	3129	2716	9608	757	938	-	23956
	%	30.5	7.5	6.6	3.6	3.6	1.2	2	-	4.3
Female	N°	-	6078	2879	1925	11827	1982	3553	-	28244
	%	-	14.7	7.1	4.5	7.1	5.1	10.7	-	7.7
<b>Total Persons who had Accident</b>										
Both Sexes	N°	12691	97156	87941	119017	431070	100583	79138	380	927976
	%	100	100	100	100	100	100	100	100	100
Male	N°	8602	55819	47463	75826	264068	61455	45902	-	559135
	%	100	100	100	100	100	100	100	-	100
Female	N°	4089	41337	40478	43191	167002	39128	33236	380	368841
	%	100	100	100	100	100	100	100	100	100
<b>Average N° of days</b>		4.2	5.9	6	6.4	6.3	6.5	7.7	14	6.4

Table 4.5c Distribution of Persons who Reported having any Accident by Sex, Age and days of Illness: 1998

RURAL

Days of Illness/ sex		Age group							Not Stated	All Ages
		Under 1	1-4	5-9	10-14	15-44	45-59	60+		
<b>1 - 3 days</b>										
Both Sexes	N°	4041	23428	23126	28660	107051	23282	13255	-	222843
	%	35.2	28.8	29.6	27.5	27.4	25.4	18.6	-	26.9
Male	N°	1701	14302	10273	16718	65843	17019	7287	-	133143
	%	23.1	29.8	25.8	25.2	26.7	29.5	17	-	26.2
Female	N°	2340	9126	12853	11942	41208	6263	5968	-	89700
	%	57.2	27.2	33.6	31.6	28.5	18.5	21	-	28
<b>4 - 6 days</b>										
Both Sexes	N°	2257	12587	15105	25154	88684	22857	13823	-	180467
	%	19.7	15.5	19.3	24.2	22.7	25	19.4	-	21.8
Male	N°	1386	6142	7520	17263	59428	14850	9230	-	115819
	%	18.8	12.8	18.9	26	24.1	25.7	21.6	-	22.8
Female	N°	871	6445	7585	7891	29256	8007	4593	-	64648
	%	21.3	19.2	19.8	20.9	20.2	23.7	16.2	-	20.1
<b>7 - 14 days</b>										
Both Sexes	N°	2597	36252	33889	46621	175121	42839	39642	380	377341
	%	22.7	44.5	43.4	44.8	44.8	46.8	55.7	100	45.5
Male	N°	1719	23359	18850	29675	112089	25213	25325	-	236230
	%	23.3	48.7	47.4	44.8	45.4	43.7	59.2	-	46.5
Female	N°	878	12893	15039	16946	63032	17626	14317	380	141111
	%	21.5	38.4	39.3	44.8	43.6	52.1	50.4	100	44
<b>Not Stated</b>										
Both Sexes	N°	2569	9201	5944	3668	20387	2534	4491	-	48794
	%	22.4	11.3	7.6	3.5	5.2	2.8	6.3	-	5.9
Male	N°	2569	4119	3129	2656	9303	611	938	-	23325
	%	34.8	8.6	7.9	4	3.8	1.1	2.2	-	4.6
Female	N°	0	5082	2815	1012	11084	1923	3553	-	25469
	%	0	15.1	7.4	2.7	7.7	5.7	12.5	-	7.9
<b>Total Persons who had Accident</b>										
Both Sexes	N°	11464	81468	78064	104103	391243	91512	71211	380	829445
	%	100	100	100	100	100	100	100	100	100
Male	N°	7375	47922	39772	66312	246663	57693	42780	-	508517
	%	100	100	100	100	100	100	100	-	100
Female	N°	4089	33546	38292	37791	144580	33819	28431	380	320928
	%	100	100	100	100	100	100	100	100	100
<b>Average N° of days</b>										
		3.9	6.1	6	6.4	6.3	6.5	7.6	14	6.4

Table 4.5c Distribution of Persons who Reported having any Accident by Sex, Age and days of Illness:1998

Days of Illness/ sex		Age group							Not Stated	All Ages
		Under 1	1-4	5-9	10-14	15-44	45-59	60+		
<b>1 - 3 days</b>										
Both Sexes	N°	4041	23428	23126	28660	107051	23282	13255	-	222843
	%	35.2	28.8	29.6	27.5	27.4	25.4	18.6	-	26.9
Male	N°	1701	14302	10273	16718	65843	17019	7287	-	133143
	%	23.1	29.8	25.8	25.2	26.7	29.5	17	-	26.2
Female	N°	2340	9126	12853	11942	41208	6263	5968	-	89700
	%	57.2	27.2	33.6	31.6	28.5	18.5	21	-	28
<b>4 - 6 days</b>										
Both Sexes	N°	2257	12587	15105	25154	88684	22857	13823	-	180467
	%	19.7	15.5	19.3	24.2	22.7	25	19.4	-	21.8
Male	N°	1386	6142	7520	17263	59428	14850	9230	-	115819
	%	18.8	12.8	18.9	26	24.1	25.7	21.6	-	22.8
Female	N°	871	6445	7585	7891	29256	8007	4593	-	64648
	%	21.3	19.2	19.8	20.9	20.2	23.7	16.2	-	20.1
<b>7 - 14 days</b>										
Both Sexes	N°	2597	36252	33889	46621	175121	42839	39642	380	377341
	%	22.7	44.5	43.4	44.8	44.8	46.8	55.7	100	45.5
Male	N°	1719	23359	18850	29675	112089	25213	25325	-	236230
	%	23.3	48.7	47.4	44.8	45.4	43.7	59.2	-	46.5
Female	N°	878	12893	15039	16946	63032	17626	14317	380	141111
	%	21.5	38.4	39.3	44.8	43.6	52.1	50.4	100	44
<b>Not Stated</b>										
Both Sexes	N°	2569	9201	5944	3668	20387	2534	4491	-	48794
	%	22.4	11.3	7.6	3.5	5.2	2.8	6.3	-	5.9
Male	N°	2569	4119	3129	2656	9303	611	938	-	23325
	%	34.8	8.6	7.9	4	3.8	1.1	2.2	-	4.6
Female	N°	0	5082	2815	1012	11084	1923	3553	-	25469
	%	0	15.1	7.4	2.7	7.7	5.7	12.5	-	7.9
<b>Total Persons who had Accident</b>										
Both Sexes	N°	11464	81468	78064	104103	391243	91512	71211	380	829445
	%	100	100	100	100	100	100	100	100	100
Male	N°	7375	47922	39772	66312	246663	57693	42780	-	508517
	%	100	100	100	100	100	100	100	-	100
Female	N°	4089	33546	38292	37791	144580	33819	28431	380	320928
	%	100	100	100	100	100	100	100	100	100
<b>Average N° of days</b>										
		3.9	6.1	6	6.4	6.3	6.5	7.6	14	6.4

**Table 4.6 Distribution of persons who Reported having any Accident by Region and days of Illness : 1998**

Regions	Days of illness									Total
	1-3		4-6		7-14		Not stated		Average	
	N°	%	N°	%	N°	%	N°	%	N° of Days	
<b>Tigray</b>	56935	39.6	26284	18.3	52757	37	7779	5.4	5.4	143755
<b>Affar</b>	349	23.7	442	30	684	46	-	-	7.1	1475
<b>Amhara</b>	49004	21.3	45673	19.8	116508	51	19209	8.3	6.9	230394
<b>Oromiya</b>	85742	26.8	75733	23.7	141127	44	16746	5.2	6.2	319348
<b>Somali</b>	2573	29.3	1844	21	4038	46	331	3.8	6.7	8786
<b>Benishangul-Gumu</b>	2364	24.4	2503	25.9	4672	48	143	1.5	7.2	9682
<b>SNNP</b>	52748	27.8	42688	22.5	87406	46	7105	3.7	6.6	189947
<b>Gambela</b>	504	23.5	317	14.8	1313	61	15	0.7	7.8	2149
<b>Harari</b>	349	21.3	237	14.5	972	59	81	4.9	7.5	1639
<b>Addis Ababa</b>	3117	19.9	2538	16.2	9274	59	747	4.8	7.2	15676
<b>Dire Dawa</b>	2350	45.8	1341	26.2	1389	27	46	0.9	4.9	5126
<b>All Persons</b>	256035	27.6	199600	21.5	420140	45	52202	5.6	6.4	927977

Regions to eight days in Gambella Region. In most of the regions the reported average number of days of illness was found to be seven days.

#### **4.2 b Duration of Days of Restriction From Usual Activity Due to Accident(s)**

The number of days a person was restricted from his/her usual activity due to accidents was one of the information collected in the 1998 Health and Nutrition Survey. This information may throw some light on the number of days lost from usual activity due to accident(s) which has an economic meaning. Though number of days of restricted activity refers to the events that had taken place within 14 days prior to the survey date, it can be understood that the actual number of days of restricted activity due to accident(s) could be longer than the reported depending on the severity of the accident(s).

The survey data in Table 4.7a-4.7c show that 21 percent of the population who reported having accident(s) have not been restricted from their usual activity. This shows that the vast majority (79 percent) had been restricted from their usual activity due to accident at least for a day. Of those who reported to have had accidents and have been restricted, 32 percent, 14 percent and 24 percent were restricted for 1-3, 4-6 and 7-14 days respectively. The overall average number of days of restricted activity were five days. This shows that the average number of days of restriction from usual activity was less by one day than the average number of days of illness which were six days as shown in Table 4.2a.

In urban areas, 34 percent of the population who reported accident(s) were restricted for 1-3 days, 11 percent for 4-6 days and 23 percent for 7-14 days whereas 23 percent were not restricted from their usual activity at all. In rural, the corresponding percentages were 31 percent, 14 percent, 24 percent and 21 percent respectively. These show that slightly larger proportions of population in the rural areas seem to have been restricted from usual activity at least for four days (4-6 and 7-14 days). The reverse was the case concerning the percentages of population who were restricted from usual activity

Table 4.7a. Distribution of Persons who Reported having Accident by Days of Restricted Activity, Sex and Age: 1998

Days of Restricted Activity/sex		COUNTRY-TOTAL							Not Stated	All Persons
		Age Group								
		Under 1	1 - 4	5 - 9	10 - 14	15 - 44	45 - 59	60+		
<b>None</b>										
Both Sexes	N°	445	22104	21192	24299	95063	24162	11595	190	199050
	%	3.5	22.8	24.1	20.4	22.1	24.0	14.7	50.0	21.4
Male	N°	315	12637	11543	16759	55034	14193	8090	-	118571
	%	3.7	22.6	24.3	22.1	20.8	23.1	17.6	-	21.2
Female	N°	130	9467	9649	7540	40029	9969	3505	190	80479
	%	3.2	22.9	23.8	17.5	24.0	25.5	10.5	50.0	21.8
<b>1 - 3 days</b>										
Both Sexes	N°	3168	28588	32044	42579	135217	33257	18164	-	293017
	%	25.0	29.4	36.4	35.8	31.4	33.1	23.0	-	31.6
Male	N°	828	17476	18108	25596	86761	22441	10200	-	181410
	%	9.6	31.3	38.2	33.8	32.9	36.5	22.2	-	32.4
Female	N°	2340	11112	13936	16983	48456	10816	7964	-	111607
	%	57.2	26.9	34.4	39.3	29.0	27.6	24.0	-	30.3
<b>4 - 6 days</b>										
Both Sexes	N°	1776	11262	10096	13809	67655	14852	10488	-	129938
	%	14.0	11.6	11.5	11.6	15.7	14.8	13.3	-	14.0
Male	N°	457	5887	4715	8601	45086	10142	7196	-	82084
	%	5.3	10.5	9.9	11.3	17.1	16.5	15.7	-	14.7
Female	N°	1319	5375	5381	5208	22569	4710	3292	-	47854
	%	32.2	13.0	13.3	12.1	13.5	12.0	9.9	-	13.0
<b>7 - 14 days</b>										
Both Sexes	N°	2287	21156	14730	28652	96858	23574	32335	190	219782
	%	18.0	21.8	16.7	24.1	22.5	23.4	40.9	50.0	23.7
Male	N°	2287	13479	8616	19952	56983	11995	18539	-	131851
	%	26.6	24.1	18.2	26.3	21.6	19.5	40.4	-	23.6
Female	N°	-	7677	6114	8700	39875	11579	13796	190	87931
	%	-	18.6	15.1	20.1	23.9	29.6	41.5	50.0	23.8
<b>Not Stated</b>										
Both Sexes	N°	5015	14046	9879	9676	36279	4742	6556	-	86193
	%	39.5	14.5	11.2	8.1	8.4	4.7	8.3	-	9.3
Male	N°	4714	6340	4481	4917	20204	2685	1877	-	45218
	%	54.8	11.4	9.4	6.5	7.7	4.4	4.1	-	8.1
Female	N°	301	7706	5398	4759	16075	2057	4679	-	40975
	%	7.4	18.6	13.3	11.0	9.6	5.3	14.1	-	11.1
<b>Total Persons who had Accident</b>										
Both Sexes	N°	12691	97156	87941	119015	431072	100587	79138	380	927980
	%	100	100	100	100	100	100	100	100	100
Male	N°	8601	55819	47463	75825	264068	61456	45902	-	559134
	%	100	100	100	100	100	100	100	-	100
Female	N°	4090	41337	40478	43190	167004	39131	33236	380	368846
	%	100	100	100	100	100	100	100	100	100
<b>Average N° of days</b>										
		2.9	4.3	4	4.7	4.8	5	6.6	10	4.8

Table 4.7b. Distribution of Persons who Reported having Accident by Days of Restricted Usual Activity, Sex and Age: 1998

Days of Restricted Activity/sex		Age Group							Not Stated	All Ages
		Under 1	1-4	5-9	10-14	15-44	45-59	60+		
<b>None</b>										
Both Sexes	N°	-	3019	4175	4151	9416	722	1071	-	22554
	%	-	19.2	42.3	27.8	23.6	8.0	13.5	-	22.9
Male	N°	-	940	3705	2366	3660	236	180	-	11087
	%	-	11.9	48.2	24.9	21.0	6.3	5.8	-	21.9
Female	N°	-	2079	470	1785	5756	486	891	-	11467
	%	-	26.7	21.5	33.1	25.7	9.2	18.5	-	23.9
<b>1 - 3 days</b>										
Both Sexes	N°	29	6252	3299	4986	12588	4507	1909	-	33570
	%	2.4	39.8	33.4	33.4	31.6	49.7	24.1	-	34.1
Male	N°	29	3070	2366	3614	5595	1805	1055	-	17534
	%	2.4	38.9	30.8	38.0	32.1	48.0	33.8	-	34.6
Female	N°	-	3182	933	1372	6993	2702	854	-	16036
	%	-	40.8	42.7	25.4	31.2	50.9	17.8	-	33.5
<b>4 - 6 days</b>										
Both Sexes	N°	-	1654	956	772	5687	657	1062	-	10788
	%	-	10.5	9.7	5.2	14.3	7.2	13.4	-	10.9
Male	N°	-	1654	949	102	2224	301	139	-	5369
	%	-	20.9	12.3	1.1	12.8	8.0	4.5	-	10.6
Female	N°	-	-	7	670	3463	356	923	-	5419
	%	-	-	0.3	12.4	15.4	6.7	19.2	-	11.3
<b>7 - 14 days</b>										
Both Sexes	N°	865	2530	819	2997	8889	2746	3576	-	22422
	%	70.4	16.1	8.3	20.1	22.3	30.3	45.1	-	22.8
Male	N°	865	1456	413	2412	4809	1091	1439	-	12485
	%	70.4	18.4	5.4	25.4	27.6	29.0	46.1	-	24.7
Female	N°	-	1074	406	585	4080	1655	2137	-	9937
	%	-	13.8	18.6	10.8	18.2	31.2	44.5	-	20.7
<b>Not Stated</b>										
Both Sexes	N°	334	2235	629	2008	3248	439	310	-	9203
	%	27.2	14.2	6.4	13.5	8.2	4.8	3.9	-	9.3
Male	N°	334	779	258	1020	1117	328	310	-	4146
	%	27.2	9.9	3.4	10.7	6.4	8.7	9.9	-	8.2
Female	N°	-	1456	371	988	2131	111	-	-	5057
	%	-	18.7	17.0	18.3	9.5	2.1	-	-	10.6
<b>Total Persons who had Accident</b>										
Both Sexes	N°	1228	15690	9878	14914	39828	9071	7928	-	98537
	%	100	100	100	100	100	100	100	-	100
Male	N°	1228	7899	7691	9514	17405	3761	3123	-	50621
	%	100	100	100	100	100	100	100	-	100
Female	N°	-	7791	2187	5400	22423	5310	4805	-	47916
	%	-	100	100	100	100	100	100	-	100
<b>Average N° of days</b>										
		5.4	3.6	3.7	4.3	4.6	5.3	7.6	-	4.7

**Table 4.7c. Distribution of Persons who Reported having any Accident by Days of Restricted Usual Activity, Sex and Age: 1998**  
**RURAL**

Days of Restricted Activity/sex		Age Group							Not Stated	All Ages
		Under 1	1 - 4	5 - 9	10 - 14	15 - 44	45 - 59	60+		
<b>None</b>										
Both Sexes	N°	445	19085	17018	20148	85647	23439	10525	190	176497
	%	3.9	23.4	21.8	19.4	21.9	25.6	14.8	50.0	21.3
Male	N°	315	11697	7839	14393	51374	13957	7911	-	107486
	%	4.3	24.4	19.7	21.7	20.8	24.2	18.5	-	21.1
Female	N°	130	7388	9179	5755	34273	9482	2614	190	69011
	%	3.2	22.0	24.0	15.2	23.7	28.0	9.2	50.0	21.5
<b>1 - 3 days</b>										
Both Sexes	N°	3139	22336	28745	37594	122628	28749	16255	-	259446
	%	27.4	27.4	36.8	36.1	31.3	31.4	22.8	-	31.3
Male	N°	799	14406	15742	21983	81165	20636	9145	-	163876
	%	10.8	30.1	39.6	33.2	32.9	35.8	21.4	-	32.2
Female	N°	2340	7930	13003	15611	41463	8113	7110	-	95570
	%	57.2	23.6	34.0	41.3	28.7	24.0	25.0	-	29.8
<b>4 - 6 days</b>										
Both Sexes	N°	1776	9608	9141	13037	61968	14194	9426	-	119150
	%	15.5	11.8	11.7	12.5	15.8	15.5	13.2	-	14.4
Male	N°	457	4233	3767	8499	42862	9841	7057	-	76716
	%	6.2	8.8	9.5	12.8	17.4	17.1	16.5	-	15.1
Female	N°	1319	5375	5374	4538	19106	4353	2369	-	42434
	%	32.2	16.0	14.0	12.0	13.2	12.9	8.3	-	13.2
<b>7 - 14 days</b>										
Both Sexes	N°	1422	18626	13910	25655	87967	20827	28759	190	197356
	%	12.4	22.9	17.8	24.6	22.5	22.8	40.4	50.0	23.8
Male	N°	1422	12023	8203	17540	52173	10903	17100	-	119364
	%	19.3	25.1	20.6	26.5	21.2	18.9	40.0	-	23.5
Female	N°	-	6603	5707	8115	35794	9924	11659	190	77992
	%	-	19.7	14.9	21.5	24.8	29.3	41.0	50.0	24.3
<b>Not Stated</b>										
Both Sexes	N°	4681	11812	9249	7668	33031	4302	6246	-	76989
	%	40.8	14.5	11.8	7.4	8.4	4.7	8.8	-	9.3
Male	N°	4380	5562	4222	3897	19088	2357	1567	-	41073
	%	59.4	11.6	10.6	5.9	7.7	4.1	3.7	-	8.1
Female	N°	301	6250	5027	3771	13943	1945	4679	-	35916
	%	7.4	18.6	13.1	10.0	9.6	5.8	16.5	-	11.2
<b>Total Persons who had Accident</b>										
Both Sexes	N°	11463	81467	78063	104102	391241	91511	71211	380	829438
	%	100	100	100	100	100	100	100	100	100
Male	N°	7373	47921	39773	66312	246662	57694	42780	-	508515
	%	100	100	100	100	100	100	100	-	100
Female	N°	4090	33546	38290	37790	144579	33817	28431	380	320923
	%	100	100	100	100	100	100	100	100	100
<b>Average N° of days</b>										
		2.6	4.5	4	4.8	4.8	5	6.5	10	4.8

for 1-3 days and those who are not restricted even for a day. The average number of days restricted from usual activity in urban areas ranged from five days to eight days while in rural areas it ranged from three days to seven days. However, the average number of days of restricted usual activity for all ages remained five days both in urban and rural areas (for details see Tables 4.7b and 4.7c).

#### **4.5 External Cause of Accident(s).**

Individuals who reported accidents during two weeks prior to the survey date were asked to state the external cause of the accident(s). Information on external cause of accident(s) may be used to plan for remedial action to alleviate the problem. It may also help to identify number of individuals who are affected by specific cause of accidents. The percentage distribution of persons who reported as having any accident by sex and external cause of accident is presented in Table 4.8.

According to the data the leading causes of accident(s) were accidental fall and stab, cut and/or broken by either agricultural tools and industrial machinery for both sexes of sex (for details see Table 4.8). At country level, the proportions of external cause of accident(s) seem to vary by sex. The proportion for accident during agricultural activity was about four times higher among males (8 percent) than females (2 percent). This could possibly be because males are usually involved more frequently in clearing the land for cultivation and some other related activities than females. On the other hand, the proportion of accidental burns was relatively higher among females (12 percent) than males (9 percent). This possibly could also be attributed to the fact that females are usually responsible for preparation of food for the family which is likely to cause accidental burns.

In the rural as well as urban areas, the leading causes of accident(s) were found to be accidental fall and stab, cut and broken by agricultural tools and industrial machinery. Out of the total populations who reported to have accident(s) during the last fourteen

Table 4.8 Distribution of Persons who Reported having any Accident by Sex and External Cause for Accident :1998

External cause of Accident	COUNTRY -TOTAL				Total persons who had Accident	
	Sex					
	Male	Female	N°	%	N°	%
Accidental Fall	151369	27.0	110628	30.0	261997	28.0
Accidental Fall from Draught Animal	42210	8.0	18116	5.0	60326	7.0
Accidental Burns	50915	9.0	45676	12.0	96591	10.0
Accident by Fire Arms	4855	1.0	1949	1.0	6804	1.0
Poison	821	-	1254	-	2075	-
Car and Other Vechile accidents	5339	1.0	2615	1.0	7954	1.0
Injury Purposely Inflicted by others	40919	7.0	17697	5.0	58616	6.0
Biting and Stings	21924	4.0	15517	4.0	37441	4.0
Accident due to Attempted suicide	432	-	-	-	432	-
Accident during Agricultural Activity	43364	8.0	7736	2.0	51100	6.0
Stab, Cut, Broken by Agricultural and Industrial Machinery	122982	22.0	84022	23.0	207004	22.0
Accident Caused by Flood and over of Flow River	1375	-	1694	-	3069	-
Accident Caused by fall of object on foot and Other Part of Body .	-	-	-	-	-	-
Others	31220	6.0	25323	7.0	56543	6.0
Not Stated	41408	7.0	36618	10.0	78026	8.0
<b>Total Persons</b>	<b>559133</b>	<b>100</b>	<b>368845</b>	<b>100</b>	<b>927978</b>	<b>100</b>
	<b>URBAN</b>					
Accidental Fall	17764	35.0	15478	32.0	33242	34.0
Accidental Fall from Draught Animal	322	1.0	542	1.0	864	1.0
Accidental Burns	6405	13.0	9529	20	15934	16.0
Accident by Fire Arms	251	-	99	-	350	-
Poison	684	1.0	342	1.0	1026	1.0
Car and Other Vechile accidents	2099	4.0	1215	3.0	3314	3.0
Injury Purposely Inflicted by others	6849	14.0	2039	4.0	8888	9.0
Biting and Stings	701	1.0	222	-	923	1.0
Accident during Agricultural Activity	1062	2.0	160	-	1222	1.0
Stab, Cut, Broken by Agricultural and Industrial Machinery	7792	15.0	8786	18.0	16578	17.0
Accident Caused by Flood and over of Flow River	-	-	129	-	129	-
Accident Caused by fall of object on foot and Other Part of Body	-	-	-	-	-	-
Others	3937	8.0	5338	11.0	9275	9.0
Not Stated	2752	5.0	4039	8.0	6791	7.0
<b>Total Persons</b>	<b>50618</b>	<b>100</b>	<b>47918</b>	<b>100</b>	<b>98536</b>	<b>100</b>
	<b>RURAL</b>					
Accidental Fall .	133604	26.0	95151	30.0	228755	28.0
Accidental Fall from Draught Animal	41888	8.0	17575	5.0	59463	7.0
Accidental Burns	44510	9.0	36147	11.0	80657	10.0
Accident by Fire Arms	4603	1.0	1850	1.0	6453	1.0
Poison	137	-	912	-	1049	-
Car and Other Vechile accidents	3240	1.0	1400	-	4640	1.0
Injury Purposely Inflicted by others	34070	7.0	15658	5.0	49728	6.0
Biting and Stings	21223	4.0	15295	5.0	36518	4.0
Accident due to Attempted suicide	432	-	-	-	432	-
Accident during Agricultural Activity	42301	8.0	7576	2.0	49877	6.0
Stab, Cut, Broken by Agricultural and Industrial Machinery	115190	23.0	75235	23.0	190425	23.0
Accident Caused by Flood and over of Flow River	1375	-	1565	-	2940	-
Accident Caused by fall of object on foot and Other Part of Body	-	-	-	-	-	-
Others	27284	5.0	19985	6.0	47269	6.0
Not Stated.	38656	8.0	32579	10.0	71235	9.0
<b>Total Persons</b>	<b>508513</b>	<b>100</b>	<b>320928</b>	<b>100</b>	<b>829441</b>	<b>100</b>

days, accidental fall as a cause of accident(s) accounted for 34 percent of the population in urban and 28 percent of the population in rural areas. Likewise, the proportions of the population who cited stab, cut and broken by agricultural tools and industrial machinery were 17 percent in urban areas and 23 percent in rural areas.

As shown in Table 4.8, external causes such as accidental fall, accidental burns, car and other vehicle accidents and injury purposely inflicted by others were more prevalent in urban areas than in rural areas. On the other hand, accidental fall from draught animal, biting and stings and accident during agricultural activities were more prevalent in rural areas than in urban areas. Overall, accident caused by flood and over flow of rivers was less prevalent external causes of accident both in rural and urban areas whereas the observed prevalence rates for attempted suicide was found to be the least.

## CHAPTER 5

### HEALTH CONSULTATION AND TREATMENT

#### 5.1 Status of Health Consultation and Treatment

In the 1998 Health and Nutrition Survey data was collected to assess the attitudes and practices of consulting modern health service institution, traditional healers and self treatment for assistance among those who reported to have had health problem. Accordingly, the members of households who reported illness(es)/accident(s) during twelve months prior to the survey date were asked whether they had consulted for health assistance or not.

Table 5.1 presents data on the distribution of persons who had health problem during 12 months prior to the survey date. Out of the total population who had health problem during 12 months prior to the survey date, 61 percent reported to have consulted for health assistance. Here it is worth mentioning that the percentage distribution of health consultation presented in the table includes the consultations sought from modern health service institutions as well as from any type of health providers such as traditional healers, lay person and self treatment.

Table 5.1 also shows that there is slight variation in the proportion of health consultations by sex. The proportion of health consultation was slightly higher among males (63 percent) compared to females (59 percent). Comparison of the proportion of health consultation by place of residence showed that the proportion was much higher in urban areas (83 percent) than in rural areas (58 percent). This substantial difference could largely be attributed to the fact that access to health services as well as awareness about

**Table 5.1 Distribution of Persons Who Reported having any Illness\ Accident During the last 12 months by Status of health Consultation and Back ground Characteristics : 1998**

Background Characteristics	Status of Health Consultation						Total	
	Yes		NO		Not Stated		N°	%
	N°	%	N°	%	N°	%		
<b>Sex</b>								
Male	8772725	62.7	5182422	37.1	28689	0.2	13983836	100
Female	8667304	58.8	6037514	41.0	32233	0.2	14737051	100
<b>Place of Residence</b>								
Rural	2733568	83.0	549202	16.7	9672	0.3	3292442	100
Urban	14706461	57.8	10670734	42.0	51250	0.2	25428445	100
<b>Education</b>								
Illiterate	8710444	57.3	6455879	42.5	26970	0.2	15193293	100
1 -6 Grades	2022309	73.4	728649	26.4	5168	0.2	2756126	100
7 - 8 >>	463638	81.5	105123	18.5	361	0.1	569122	100
9 - 12>>	486337	85.9	77708	13.7	1867	0.3	565912	100
Above 12	131292	83.2	25300	16.0	1126	0.7	157718	100
Non formal	228940	61.5	140407	37.7	3198	0.9	372545	100
Not stated	57749	63.2	33328	36.5	292	0.3	91369	100
<b>Region</b>								
Tigray	1408977	62.3	848854	37.5	4668	0.2	2262499	100
*Affar	112184	63.6	64049	36.3	142	0.1	176375	100
Amhara	3527318	45.6	4185167	54.1	19027	0.2	7731512	100
Oromia	7344135	65.8	3793633	34.0	24401	0.2	11162169	100
**Somalie	151067	44.2	190759	55.8	101	-	341927	100
Benishangul - Gumuz	274431	77.0	81693	22.9	441	0.1	356565	100
SNNP	3967247	67.8	1877221	32.1	7103	0.1	5851571	100
Gambela	72916	81.0	16974	18.9	94	0.1	89984	100
Harari	47237	71.5	18609	28.2	222	0.3	66068	100
Addis Ababa	436966	82.7	86562	16.4	4672	0.9	528200	100
Dire Dawa	97552	63.3	56413	36.6	52	-	154017	100
<b>All Population</b>	17440029	60.7	11219935	39.1	60922	0.2	28720886	100

\* includes parts of setteled population covered by Census map work In Zones 1,3,5

\*\* Includes parts of setteled population covered by census map work in Shinile,Jigjiga and Liben Zones

**Table 5.1a Distribution of persons Who Reported having any Illness\ Accident During the last 12 months by Status of health Consultation and Selected Urban Centers: 1998**

Selected urban centers	Status of Health Consultation						Total	
	Yes		NO		Not Stated		N°	%
	N°	%	N°	%	N°	%		
URBAN -TOTAL	2733568	83.0	549202	16.7	9672	0.3	3292442	100
Mekele	44907	79.4	11528	20.4	152	0.3	56587	100
Assayita	7711	95.0	403	5.0	-	-	8114	100
Gonder	45512	76.8	13671	23.1	89	0.2	59272	100
Bahir Dar	41542	90.8	4191	9.2	35	0.1	45768	100
Dessie	21670	77.5	6298	22.5	-	-	27968	100
Jimma	31661	85.9	5142	14.0	37	0.1	36840	100
Nazereth	45082	83.9	8620	16.0	45	0.1	53747	100
Debre Ziett	20951	84.9	3683	14.9	34	0.1	24668	100
Jigjiga	28188	73.5	10181	26.5	-	-	38369	100
Asosa	8290	94.9	438	5.0	8	0.1	8736	100
Awasa	32115	87.7	4516	12.3	-	-	36631	100
Gambela	12322	91.5	1093	8.1	53	0.4	13468	100
Harari	25919	78.9	6716	20.5	199	0.6	32834	100
Addis Ababa	428105	82.8	84145	16.3	4650	0.9	516900	100
Dire Dawa	64699	70.6	26851	29.3	52	0.1	91602	100
Amara Other Urban	364000	75.7	116240	24.2	318	0.1	480558	100
Oromiya Other Urban	767061	84.8	135508	15.0	1597	0.2	904166	100
SNNPR Other Urban	413682	90.6	41776	9.1	1265	0.3	456723	100
Other Urban	330151	82.6	68200	17.1	1138	0.3	399489	100

the benefits of consultation for health assistance is relatively better in urban areas compared to rural areas.

Variations in the proportions of persons who consulted for health assistance were marked by education (the highest grade completed). It was evident from the data that the proportions of persons who consulted for health assistance increase with the advance in highest grades completed. The proportion of health consultation was lowest (57 percent) among population with no education and increases with the highest grade completed until it attained its maximum value (86 percent) for those who completed grades 9-12.

Regional variations in the proportions of persons who fell ill and injured as a result of accident and consulted for health assistance is presented in Table 5.1. In all regions except in Amhara (46 percent) and Somalie (44 percent), more than 60 percent of the population who had health problem during 12 months prior to the survey date reported to have consulted for health assistance. Health consultation was higher in Addis Ababa (83 percent) followed by Gambella Region (81 percent). Though physical proximity as well as availability of health services rendering institutions were partly expected to be the cause of the lower rate of consultation in Somalie Region, the reason for the observed lower proportion of health consultation in Amhara Region is not clear and it calls for further investigation.

The distribution of ill or injured persons as a result of accident who consulted for health assistance by highest grade completed and type of health service institutions visited is presented in Table 5.2. As shown in the table, regardless of the highest grade completed the vast majority reported to have visited either a clinic or a health center. The rank for hospital stood the third among those who completed grades 7-12 and above grade 12. Pharmacies were consulted by more than 16 percent of those who were ill during the last 12 months prior to the survey date.

**Table 5.2 Percentage Distribution of persons who were Ill or Injured and Consulted for Health Assistance, by highest grade completed and Type of Health Institution visited: 1998.**

Type of Health Institution Visited		Highest Grade completed						Total	
		Illiterate	1-6	7-8	9-12	12+	Non Reglar		Not Stated
<b>Hospital</b>	N°	772901	281584	108004	139577	37870	30005	10936	1380877
	%	7.2	11.0	18.2	21.5	20.1	9.5	14.0	9.1
<b>Clinic</b>	N°	3544194	836629	180476	193962	57800	96185	19790	4929036
	%	32.9	32.6	30.4	29.9	30.6	30.5	25.4	32.5
<b>Health Center</b>	N°	1862765	486774	121296	136547	37779	46466	13781	2705408
	%	17.3	19.0	20.5	21.0	20.0	14.7	17.7	17.9
<b>Health Post</b>	N°	245144	53919	3906	3325	1465	9971	3439	321169
	%	2.3	2.1	0.7	0.5	0.8	3.2	4.4	2.1
<b>Pharmacy</b>	N°	1672483	430269	88991	103258	28511	40482	14012	2378006
	%	15.5	16.8	15.0	15.9	15.1	12.8	18.0	15.7
<b>Traditional Healer</b>	N°	1137276	181684	35110	20496	5760	37483	5808	1423617
	%	10.6	7.1	5.9	3.2	3.1	11.9	7.4	9.4
<b>Lay person</b>	N°	42+601	74959	8717	6695	1527	9490	3958	529947
	%	3.1	2.9	1.5	1.0	0.8	3.0	5.1	3.5
<b>Self treatment</b>	N°	538895	105268	20466	25672	9561	25039	5010	729911
	%	5.0	4.1	3.5	4.0	5.1	7.9	6.4	4.8
<b>Others</b>	N°	397645	75010	21208	9907	2930	9558	937	517195
	%	3.7	2.9	3.6	1.5	1.6	3.0	1.2	3.4
<b>Not stated</b>	N°	165888	37382	4849	9772	5497	11058	390	234836
	%	1.5	1.5	0.8	1.5	2.9	3.5	0.5	1.6
<b>Total</b>	N°	10761792	2563478	593023	649211	188700	315737	78061	2E+07
	%	100	100	100	100	100	100	100	100

The percentages of ill or injured persons as a result of accident who reported to have consulted modern health service institutions (Hospital, Clinic, Health Center, Community Health Assistant and Pharmacy) steadily increase with the highest grade completed. Conversely, the percentages of those who consulted traditional healers decrease with the highest grade completed with the percentages ranging from 12 percent among those with non-formal education to three percent among persons who completed grades 9-12 and above. Health post was the least frequently visited health service institutions followed by consultation of lay person.

## **5.2 Reason for not Consulting Modern Health Service Institutions**

Household members in the sampled households who reported to have had health problem but did not consult at all and those who did not consult modern health service institutions for health assistance were asked the main reason why they did not consult modern health service institutions. In this survey the modern health service institutions comprise hospital, clinic, health center, health post and pharmacy. In most of the places pharmacies do provide health assistance besides serving as a dispensary. Hence, it was included as one of the modern health service provider. The data are presented in Tables 5.3 and 5.3a.

Reason for not consulting modern health service institution by place of residence and sex is presented in Table 5.3. The data in the table indicates that both in urban and rural areas the main reason for not consulting modern health service institutions was “too expensive” i.e, 46 percent in rural areas and 45 percent in urban areas. The second main reason was “did not believe it would help”, 35 percent and proportion was slightly higher in urban areas compared to proportion in rural areas. Except very small variations by sex, the reasons for not using remained the same as the patterns observed for urban and rural areas.

The distribution of persons who did not consult modern health service institutions by reason for not consulting and region is also displayed in Table 5.3a. As shown in the table, invariably in almost all regions, the leading reason for not consulting modern health service institutions was high cost of consultation followed by lack of confidence and/or awareness (did not believe it would help). Physical proximity (access) to the health service was forwarded as a main reason for not consulting with proportions that ranged from one percent in Dire Dawa to 36 percent In Affar. In Harari Region, however, lack of access to health service (too far) was not cited as a main reason for not consulting. The proportions who complained about the length of waiting time (waiting time is too long ) ranged from 0.2 percent in Somalie Region to 4 percent in Addis Ababa. This does not mean that the health service institutions are abundant so that waiting time is too short.

The survey data suggest that much is to be done to increase public awareness about the benefit of using of modern health service institutions in order to improve the health status of the society. Because more than one-quarter of the respondents who did not consult modern health service institutions reasoned out that “they did not believe it would help”. Obviously, this reason could mainly arises from lack of awareness about the advantages of consulting modern health service institutions besides the poor services rendered by heath institutions which is also likely to restrict individuals from consulting the available modern health service institutions.

**Table 5.3 Distribution of Persons who reported having illness/Accident During the last 12 months by Sex Place of Residence and Reason for not Consulting Modern Health Institutions:1998**  
COUNTRY-TOTAL

Reasons for not consulting/Sex		Place of residence		
		Urban	Rural	Urban+ Rural
<b>Top Far</b>				
Both Sexes	N°	1481	896617	898098
	%	0.3	8.4	8
Male	N°	731	425431	426162
	%	0.7	18.0	17.3
Female	N°	750	471186	471936
	%	0.2	8.3	7.8
<b>Too Expensive</b>				
Both Sexes	N°	248453	4928695	5177148
	%	45	46.2	46.1
Male	N°	87650	2238914	2326564
	%	42.5	45.0	44.9
Female	N°	160803	2689781	2850584
	%	46.4	47.2	47.2
<b>Used Traditional Medicine</b>				
Both Sexes	N°	19266	267754	287020
	%	3.5	2.5	2.6
Male	N°	6126	120735	126861
	%	3	2.4	2.4
Female	N°	13140	147019	160159
	%	3.8	2.6	2.7
<b>Did not Believe it would help</b>				
Both Sexes	N°	207141	3693565	3900706
	%	37.5	34.6	34.7
Male	N°	82675	1780881	1863556
	%	40.1	35.8	35.9
Female	N°	124466	1912684	2037150
	%	35.9	33.6	33.7
<b>Thought would recover with out treatment</b>				
Both Sexes	N°	14325	194319	208644
	%	2.6	1.8	1.9
Female	N°	5665	90051	95716
	%	2.7	1.8	1.8
Female	N°	8660	104268	112928
	%	2.5	1.8	1.9
<b>Waiting time is too long</b>				
Both Sexes	N°	10020	207250	217270
	%	1.8	1.9	1.9
Male	N°	4244	94668	98912
	%	2.1	1.9	1.9
Female	N°	5776	112582	118358
	%	1.7	2.0	2
<b>Thought that Icould not Get the Required Medicine</b>				
Both Sexes	N°	13207	215058	228265
	%	2.4	2.0	2
Male	N°	3674	89884	93558
	%	1.8	1.8	1.8
Female	N°	9533	125174	134707
	%	2.8	2.2	2.2
<b>Others</b>				
Both Sexes	N°	-	-	-
	%	-	-	-
Male	N°	-	-	-
	%	-	-	-
Female	N°	-	-	-
	%	-	-	-
<b>Not Stated</b>				
Both Sexes	N°	38704	272459	311163
	%	7	2.6	2.8
Male	N°	15466	139563	155029
	%	7.5	2.8	3
Female	N°	23238	132896	156134
	%	6.7	2.3	2.6
<b>Total</b>				
Both Sexes	N°	552597	10675717	11228314
	%	100	100	100
Male	N°	206231	4980127	5186358
	%	100	100	100
Female	N°	346366	5695590	6041956
	%	100	100	100

**Table 5.3a Distribution of Persons who Reported having Illness/Accident during the last 12 Months by Reason for not Consulting Modern Health institution, Sex, Place of Residence and**

**Region:1998**

**TIGRAY-REGION**

Reasons for not consulting/Sex		Place of residence		
		Urban	Rural	Urban+ Rural
<b>Too Far</b>				
Both Sexes	Nº	-	61947	61947
	%	-	7.8	7.3
Male	Nº	-	29185	29185
	%	-	17.0	16.1
Female	Nº	-	32762	32762
	%	-	7.6	7.0
<b>Too Expensive</b>				
Both Sexes	Nº	23858	291353	315211
	%	44.2	36.6	37.1
Male	Nº	8546	131700	140246
	%	43.9	36.1	36.5
Female	Nº	15312	159653	174965
	%	44.4	37.1	37.6
<b>Used Traditional Medicine</b>				
Both Sexes	Nº	914	20165	21079
	%	1.7	2.5	2.5
Male	Nº	109	9392	9501
	%	0.6	2.6	2.5
Female	Nº	805	10773	11578
	%	2.3	2.5	2.5
<b>Did not Believe it would help</b>				
Both Sexes	Nº	22553	346429	368982
	%	41.8	43.6	43.5
Male	Nº	8607	158995	167602
	%	44.2	43.6	43.6
Female	Nº	13946	187434	201380
	%	40.4	43.5	43.3
<b>Thought would recover with out treatment</b>				
Both Sexes	Nº	1737	13131	14868
	%	3.2	1.7	1.8
Female	Nº	501	7582	8083
	%	2.6	2.1	2.1
Male	Nº	1236	5549	6785
	%	3.6	1.3	1.5
<b>Waiting time is too long</b>				
Both Sexes	Nº	936	20515	21451
	%	1.7	2.6	2.5
Male	Nº	805	9729	10534
	%	4.1	2.7	2.7
Female	Nº	131	10786	10917
	%	0.4	2.5	2.3
<b>Thought that Icould not Get the Required Medicine</b>				
Both Sexes	Nº	1799	18797	20596
	%	3.3	2.4	2.4
Male	Nº	-	7083	7083
	%	-	1.9	1.8
Female	Nº	1799	11714	13513
	%	5.2	2.7	2.9
<b>Others</b>				
Both Sexes	Nº	-	-	-
	%	-	-	-
Male	Nº	-	-	-
	%	-	-	-
Female	Nº	-	-	-
	%	-	-	-
<b>Not Stated</b>				
Both Sexes	Nº	2175	22632	24807
	%	2.0	2.8	2.9
Male	Nº	899	10867	11766
	%	4.6	3.0	3.1
Female	Nº	1276	11765	13041
	%	3.7	2.7	2.8
<b>Total</b>				
Both Sexes	Nº	53972	794969	848941
	%	100	100	100
Male	Nº	19467	364533	384000
	%	100	100	100
Female	Nº	34505	430436	464941
	%	100	100	100

Table 5.3a Cont'd

## AFAR-REGION

Reasons for not consulting/Sex		Place of residence		
		Urban	Rural	Urban+ Rural
<b>Too Far</b>				
Both Sexes	Nº	-	23099	23099
	%	-	36.7	36
Male	Nº	-	12813	12813
	%	-	70.4	70
Female	Nº	-	10286	10286
	%	-	34.2	33
<b>Too Expensive</b>				
Both Sexes	Nº	171	15226	15397
	%	13.4	24.2	24
Male	Nº	84	6912	6996
	%	47.7	21.1	21.2
Female	Nº	87	8314	8401
	%	7.9	27.6	26.9
<b>Used Traditional Medicine</b>				
Both Sexes	Nº	30	1823	1853
	%	2.3	2.9	2.9
Male	Nº	24	1210	1234
	%	13.6	3.7	3.7
Female	Nº	6	613	619
	%	0.5	2.0	2
<b>Did not Believe it would help</b>				
Both Sexes	Nº	147	18704	18851
	%	11.5	29.7	29.4
Male	Nº	57	9928	9985
	%	32.4	30.2	30.3
Female	Nº	90	8776	8866
	%	8.2	29.2	28.4
<b>Thought would recover with out treatment</b>				
Both Sexes	Nº	11	589	600
	%	0.9	0.9	0.9
Female	Nº	-	332	332
	%	-	1.0	1
Female	Nº	11	257	268
	%	1.0	0.9	0.9
<b>Waiting time is too long</b>				
Both Sexes	Nº	22	914	936
	%	1.7	1.5	1.5
Male	Nº	-	338	338
	%	-	1.0	1
Female	Nº	22	576	598
	%	2.0	1.9	1.9
<b>Thought that I could not Get the Required Medicine</b>				
Both Sexes	Nº	22	780	802
	%	1.7	1.2	1.2
Male	Nº	11	385	396
	%	6.3	1.2	1.2
Female	Nº	11	395	406
	%	1.0	1.3	1.3
<b>Others</b>				
Both Sexes	Nº	-	-	-
	%	-	-	-
Male	Nº	-	-	-
	%	-	-	-
Female	Nº	-	-	-
	%	-	-	-
<b>Not Stated</b>				
Both Sexes	Nº	874	1773	2647
	%	68.4	2.8	4.1
Male	Nº	-	904	904
	%	-	2.8	2.7
Female	Nº	874	869	1743
	%	79.4	2.9	5.6
<b>Total</b>				
Both Sexes	Nº	1277	62908	64185
	%	100	100	100
Male	Nº	176	32822	32998
	%	100	100	100
Female	Nº	1101	30086	31187
	%	100	100	100

Table 5.3a Cont'd

## AMHARA-REGION

Reasons for not consulting/Sex		Place of residence		
		Urban	Rural	Urban+ Rural
<b>Too Far</b>				
Both Sexes	Nº	96	338940	339036
	%	0.1	8.4	8.1
Male	Nº	96	167252	167348
	%	0.2	17.9	17.5
Female	Nº	-	171688	171688
	%	-	8.0	7.6
<b>Too Expensive</b>				
Both Sexes	Nº	73388	1800871	1874259
	%	52.3	44.5	44.7
Male	Nº	20930	823606	844536
	%	45.7	43.5	43.5
Female	Nº	52458	977265	1029723
	%	55.5	45.4	45.8
<b>Used Traditional Medicine</b>				
Both Sexes	Nº	4198	109997	114195
	%	3.0	2.7	2.7
Male	Nº	349	48672	49021
	%	0.8	2.6	2.5
Female	Nº	3849	61325	65174
	%	4.1	2.8	2.9
<b>Did not Believe it would help</b>				
Both Sexes	Nº	46950	1458731	1505681
	%	33.4	36.0	35.9
Male	Nº	17546	700975	718521
	%	38.3	37.0	37.0
Female	Nº	29404	757756	787160
	%	31.1	35.2	35.0
<b>Thought would recover with out treatment</b>				
Both Sexes	Nº	2250	72025	74275
	%	1.6	1.8	1.8
Female	Nº	2012	29569	31581
	%	4.4	1.6	1.6
Female	Nº	238	42456	42694
	%	0.3	2.0	1.9
<b>Waiting time is too long</b>				
Both Sexes	Nº	3906	107522	111428
	%	2.8	2.7	2.7
Male	Nº	1401	45318	46719
	%	3.1	2.4	2.4
Female	Nº	2505	62204	64709
	%	2.6	2.9	2.9
<b>Thought that I could not Get the Required Medicine</b>				
Both Sexes	Nº	2869	88399	91268
	%	2.0	2.2	2.2
Male	Nº	1098	38789	39887
	%	2.4	2.0	2.1
Female	Nº	1771	49610	51381
	%	1.9	2.3	2.3
<b>Others</b>				
Both Sexes	Nº	-	-	-
	%	-	-	-
Male	Nº	-	-	-
	%	-	-	-
Female	Nº	-	-	-
	%	-	-	-
<b>Not Stated</b>				
Both Sexes	Nº	6745	71780	78525
	%	4.8	1.8	1.9
Male	Nº	2386	39670	42056
	%	5.2	2.1	2.2
Female	Nº	4359	32110	36469
	%	4.6	1.5	1.6
<b>Total</b>				
Both Sexes	Nº	140402	4048265	4188667
	%	100	100	100
Male	Nº	45818	1893851	1939669
	%	100	100	100
Female	Nº	94584	2154414	2248998
	%	100	100	100

Table 5.3a Cont'd

## OROMIYA-REGION

Reasons for not consulting/Sex		Place of residence		
		Urban	Rural	Urban+ Rural
<b>Too Far</b>				
Both Sexes	N°	406	336488	336894
	%	0.3	9.2	8.9
Male	N°	346	149784	150130
	%	0.7	19.7	19.1
Female	N°	60	186704	186764
	%	0.1	9.7	9.2
<b>Too Expensive</b>				
Both Sexes	N°	66108	1603244	1669352
	%	43.2	44.0	44.0
Male	N°	23596	726763	750359
	%	41.3	42.5	42.5
Female	N°	42512	876481	918993
	%	44.4	45.4	45.3
<b>Used Traditional Medicine</b>				
Both Sexes	N°	5465	96006	101471
	%	3.6	2.6	2.7
Male	N°	1844	41014	42858
	%	3.2	2.4	2.4
Female	N°	3621	54992	58613
	%	3.8	2.8	2.9
<b>Did not Believe it would help</b>				
Both Sexes	N°	63692	1258174	1321866
	%	41.6	34.5	34.8
Male	N°	26391	624195	650586
	%	46.2	36.5	36.8
Female	N°	37301	633979	671280
	%	38.9	32.8	33.1
<b>Thought would recover with out treatment</b>				
Both Sexes	N°	5677	75448	81125
	%	3.7	2.1	2.1
Female	N°	1293	35633	36926
	%	2.3	2.1	2.1
Female	N°	4384	39815	44199
	%	4.6	2.1	2.2
<b>Waiting time is too long</b>				
Both Sexes	N°	762	60940	61702
	%	0.5	1.7	1.6
Male	N°	33	32688	32721
	%	0.1	1.9	1.9
Female	N°	729	28252	28981
	%	0.8	1.5	1.4
<b>Thought that I could not Get the Required Medicine</b>				
Both Sexes	N°	3368	81773	85141
	%	2.2	2.2	2.2
Male	N°	470	34320	34790
	%	0.8	2.0	2.0
Female	N°	2898	47453	50351
	%	3.0	2.5	2.5
<b>Others</b>				
Both Sexes	N°	-	-	-
	%	-	-	-
Male	N°	-	-	-
	%	-	-	-
Female	N°	-	-	-
	%	-	-	-
<b>Not Stated</b>				
Both Sexes	N°	7477	129641	137118
	%	4.9	3.6	3.6
Male	N°	3175	64745	67920
	%	5.6	3.8	3.8
Female	N°	4302	64896	69198
	%	4.5	3.4	3.4
<b>Total</b>				
Both Sexes	N°	152955	3641714	3794669
	%	100	100	100
Male	N°	57148	1709142	1766290
	%	100	100	100
Female	N°	95807	1932572	2028379
	%	100	100	100

Table 5.3a Cont'd

## SOMALIE-REGION

Reasons for not consulting/Sex		Place of residence		
		Urban	Rural	Urban+ Rural
<b>Too Far</b>				
Both Sexes	N°	34	13555	13589
	%	0.1	8.6	7.1
Male	N°	34	6886	6920
	%	0.2	17.5	14.3
Female	N°	-	6669	6669
	%	-	8.4	7.0
<b>Too Expensive</b>				
Both Sexes	N°	22700	101170	123870
	%	68.0	64.3	64.9
Male	N°	12000	50601	62601
	%	69.5	65.2	66.0
Female	N°	10700	50569	61269
	%	66.3	63.4	63.9
<b>Used Traditional Medicine</b>				
Both Sexes	N°	282	1172	1454
	%	0.8	0.7	0.8
Male	N°	229	734	963
	%	1.3	0.9	1.0
Female	N°	53	438	491
	%	0.3	0.5	0.5
<b>Did not Believe it would help.</b>				
Both Sexes	N°	9459	38853	48312
	%	28.3	24.7	25.3
Male	N°	4294	18471	22765
	%	24.9	23.8	24.0
Female	N°	5165	20382	25547
	%	32.0	25.6	26.6
<b>Thought would recover with out treatment</b>				
Both Sexes	N°	46	132	178
	%	0.1	0.1	0.1
Female	N°	-	31	31
	%	-	-	-
Female	N°	46	101	147
	%	0.3	0.1	0.2
<b>Waiting time is too long</b>				
Both Sexes	N°	115	525	640
	%	0.3	0.3	0.3
Male	N°	-	142	142
	%	-	0.2	0.1
Female	N°	115	383	498
	%	0.7	0.5	0.5
<b>Thought that I could not Get the Required Medicine</b>				
Both Sexes	N°	-	457	457
	%	-	0.3	0.2
Male	N°	-	143	143
	%	-	0.2	0.2
Female	N°	-	314	314
	%	-	0.4	0.3
<b>Others</b>				
Both Sexes	N°	-	-	-
	%	-	-	-
Male	N°	-	-	-
	%	-	-	-
Female	N°	-	-	-
	%	-	-	-
<b>Not Stated</b>				
Both Sexes	N°	755	1502	2257
	%	2.3	1.0	1.2
Male	N°	702	616	1318
	%	4.1	0.8	1.4
Female	N°	53	886	939
	%	0.3	1.1	1.0
<b>Total</b>				
Both Sexes	N°	33391	157366	190757
	%	100	100	100
Male	N°	17259	77624	94883
	%	100	100	100
Female	N°	16132	79742	95874
	%	100	100	100

Table 5.3a Cont'd

## BENISHANGUL GUMUZ-REGION

Reasons for not consulting/Sex		Place of residence		
		Urban	Rural	Urban+ Rural
<b>Too Far</b>				
Both Sexes	N°	-	9776	9776
	%	-	12.3	11.9
Male	N°	-	4771	4771
	%	-	28.1	27.4
Female	N°	-	5005	5005
	%	-	11.2	10.8
<b>Too Expensive</b>				
Both Sexes	N°	969	38703	39672
	%	44.2	48.6	48.5
Male	N°	302	15951	16253
	%	34.0	45.8	45.5
Female	N°	667	22752	23419
	%	51.1	50.7	50.7
<b>Used Traditional Medicine</b>				
Both Sexes	N°	67	2139	2206
	%	3.1	2.7	2.7
Male	N°	53	887	940
	%	6.0	2.5	2.6
Female	N°	14	1252	1266
	%	1.1	2.8	2.7
<b>Did not Believe it would help</b>				
Both Sexes	N°	857	22650	23507
	%	39.1	28.4	28.7
Male	N°	486	11033	11519
	%	54.7	31.7	32.3
Female	N°	371	11617	11988
	%	28.4	25.9	26.0
<b>Thought would recover with out treatment</b>				
Both Sexes	N°	14	1219	1233
	%	0.6	1.5	1.5
Female	N°	14	118	132
	%	1.6	0.3	0.4
Female	N°	-	1101	1101
	%	-	2.5	2.4
<b>Waiting time is too long</b>				
Both Sexes	N°	113	1972	2085
	%	5.2	2.5	2.5
Male	N°	27	547	574
	%	3.0	1.6	1.6
Female	N°	86	1425	1511
	%	6.6	3.2	3.3
<b>Thought that I could not Get the Required Medicine</b>				
Both Sexes	N°	161	1354	1515
	%	7.3	1.7	1.9
Male	N°	-	503	503
	%	-	1.4	1.4
Female	N°	161	851	1012
	%	12.3	1.9	2.2
<b>Others</b>				
Both Sexes	N°	-	-	-
	%	-	-	-
Male	N°	-	-	-
	%	-	-	-
Female	N°	-	-	-
	%	-	-	-
<b>Not Stated</b>				
Both Sexes	N°	13	1858	1871
	%	0.6	2.3	2.3
Male	N°	7	1008	1015
	%	0.8	2.9	2.8
Female	N°	6	850	856
	%	0.5	1.9	1.9
<b>Total</b>				
Both Sexes	N°	2194	79671	81865
	%	100	100	100
Male	N°	889	34818	35707
	%	100	100	100
Female	N°	1305	44853	46158
	%	100	100	100

Table 5.3a Cont'd

Reasons for not consulting/Sex		SNNP-REGION		
		Place of residence		
		Urban	Rural	Urban+ Rural
<b>Too Far</b>				
Both Sexes	Nº	194	112031	112225
	%	0.4	6.1	6.0
Male	Nº	-	54418	54418
	%	1.0	13.4	13.1
Female	Nº	194	57613	57807
	%	0.7	5.8	5.7
<b>Too Expensive</b>				
Both Sexes	Nº	21081	1046823	1067904
	%	45.5	57.2	56.9
Male	Nº	7772	467979	475751
	%	40.8	55.8	55.5
Female	Nº	13309	578844	592153
	%	48.8	58.3	58.1
<b>Used Traditional Medicine</b>				
Both Sexes	Nº	761	35754	36515
	%	1.6	2.0	1.9
Male	Nº	730	18464	19194
	%	3.8	2.2	2.2
Female	Nº	31	17290	17321
	%	0.1	1.7	1.7
<b>Did not Believe it would help</b>				
Both Sexes	Nº	16333	526526	542859
	%	35.3	28.8	28.9
Male	Nº	6347	246214	252561
	%	33.3	29.4	29.4
Female	Nº	9986	280312	290298
	%	36.6	28.2	28.5
<b>Thought would recover with out treatment</b>				
Both Sexes	Nº	330	31279	31609
	%	0.7	1.7	1.7
Female	Nº	286	16540	16826
	%	1.5	2.0	2.0
Female	Nº	44	14739	14783
	%	0.2	1.5	1.4
<b>Waiting time is too long</b>				
Both Sexes	Nº	1438	13954	15392
	%	3.1	0.8	0.8
Male	Nº	824	5459	6283
	%	4.3	0.7	0.7
Female	Nº	614	8495	9109
	%	2.3	0.9	0.9
<b>Thought that I could not Get the Required Medicine</b>				
Both Sexes	Nº	915	23046	23961
	%	2.0	1.3	1.3
Male	Nº	717	8408	9125
	%	3.8	1.0	1.1
Female	Nº	198	14638	14836
	%	0.7	1.5	1.5
<b>Others</b>				
Both Sexes	Nº	-	-	-
	%	-	-	-
Male	Nº	-	-	-
	%	-	-	-
Female	Nº	-	-	-
	%	-	-	-
<b>Not Stated</b>				
Both Sexes	Nº	5272	41559	46831
	%	11.4	2.3	2.5
Male	Nº	2369	21131	23500
	%	12.4	2.5	2.7
Female	Nº	2903	20428	23331
	%	10.6	2.1	2.3
<b>Total</b>				
Both Sexes	Nº	46324	1830972	1877296
	%	100	100	100
Male	Nº	19045	838613	857658
	%	100	100	100
Female	Nº	27279	992359	1019638
	%	100	100	100

Table 5.3a Cont'd

## GAMBELLA-REGION

Reasons for not consulting/Sex		Place of residence		
		Urban	Rural	Urban+ Rural
<b>Too Far</b>				
Both Sexes	N°	-	419	419
	%	-	2.6	2.5
Male	N°	-	151	151
	%	-	5.5	5.2
Female	N°	-	268	268
	%	-	3.2	3.0
<b>Too Expensive</b>				
Both Sexes	N°	786	9690	10477
	%	72.0	61	61.7
Male	N°	271	5010	5281
	%	63.9	66.3	66.1
Female	N°	516	4680	5196
	%	77.0	56.2	57.8
<b>Used Traditional Medicine</b>				
Both Sexes	N°	30	126	156
	%	2.7	0.8	0.9
Male	N°	15	-	15
	%	3.5	-	0.2
Female	N°	15	126	141
	%	2.2	1.5	1.6
<b>Did not Believe it would help</b>				
Both Sexes	N°	165	4099	4264
	%	15.1	25.8	25.1
Male	N°	76	1879	1955
	%	17.9	24.9	24.5
Female	N°	89	2220	2309
	%	13.3	26.7	25.7
<b>Thought would recover with out treatment</b>				
Both Sexes	N°	-	200	200
	%	-	1.3	1.2
Female	N°	-	61	61
	%	-	0.8	0.8
Female	N°	-	139	139
	%	-	1.7	1.5
<b>Waiting time is too long</b>				
Both Sexes	N°	15	416	431
	%	1.4	2.6	2.5
Male	N°	15	102	117
	%	3.5	1.3	1.5
Female	N°	-	314	314
	%	-	3.8	3.5
<b>Thought that I could not Get the Required Medicine</b>				
Both Sexes	N°	15	249	264
	%	1.4	1.6	1.6
Male	N°	15	160	175
	%	3.5	2.1	2.2
Female	N°	-	89	89
	%	-	1.1	1
<b>Others</b>				
Both Sexes	N°	-	-	-
	%	-	-	-
Male	N°	-	-	-
	%	-	-	-
Female	N°	-	-	-
	%	-	-	-
<b>Not Stated</b>				
Both Sexes	N°	82	684	766
	%	7.5	4.3	4.5
Male	N°	32	198	230
	%	7.5	2.6	2.9
Female	N°	50	486	536
	%	7.5	5.8	6.0
<b>Total</b>				
Both Sexes	N°	1092	15883	16975
	%	100	100	100
Male	N°	424	7561	7985
	%	100	100	100
Female	N°	670	8322	8992
	%	100	100	100

Table 5.3a Cont'd

Reasons for not consulting/ Sex Too Far	HARARI-REGION			
		Urban	Rural	Urban+ Rural
Both Sexes	N°	-	-	-
	%	-	-	-
Male	N°	-	-	-
	%	-	-	-
Female	N°	-	-	-
	%	-	-	-
<b>Too Expensive</b>		1620	6390	8009
Both Sexes	N°	24.1	53.3	42.8
	%	625	2890	3515
Male	N°	24.7	50.6	42.6
	%	995	3500	4495
Female	N°	23.8	55.7	43.0
	%			
<b>Used Traditional Medicine</b>				
Both Sexes	N°	190	173	362
	%	2.8	1.4	1.9
Male	N°	35	131	166
	%	1.4	2.3	2.0
Female	N°	154	42	196
	%	3.7	0.7	1.9
<b>Did not Believe it would help</b>				
Both Sexes	N°	4361	4604	8965
	%	64.9	38.4	47.9
Male	N°	1719	2256	3975
	%	67.8	39.5	48.2
Female	N°	2642	2348	4990
	%	63.2	37.4	47.7
<b>Thought would recover with out treatment</b>				
Both Sexes	N°	159	84	243
	%	2.4	0.7	1.3
Female	N°	80	42	122
	%	3.2	0.7	1.5
Female	N°	80	42	122
	%	1.9	0.7	1.2
<b>Waiting time is too long</b>				
Both Sexes	N°	120	157	277
	%	1.8	1.3	1.5
Male	N°	40	112	152
	%	1.6	2.0	1.8
Female	N°	79	45	124
	%	1.9	0.7	1.2
<b>Thought that I could not Get the Required Medicine</b>				
Both Sexes	N°	151	46	196
	%	2.2	0.4	1.1
Male	N°	35	23	58
	%	1.4	0.4	0.7
Female	N°	116	23	139
	%	2.8	0.4	1.3
<b>Others</b>				
Both Sexes	N°	-	-	-
	%	-	-	-
Male	N°	-	-	-
	%	-	-	-
Female	N°	-	-	-
	%	-	-	-
<b>Not Stated</b>				
Both Sexes	N°	115	543	658
	%	1.7	4.5	3.5
Male	N°	-	263	263
	%	-	4.6	3.2
Female	N°	115	280	395
	%	2.8	4.5	3.8
<b>Total</b>				
Both Sexes	N°	6715	11997	18711
	%	100	100	100
Male	N°	2534	5717	8251
	%	100	100	100
Female	N°	4181	6280	10461
	%	100	100	100

Table 5.3a Cont'd

## ADDIS ABABA-ADMINISTRATION

Reasons for not consulting/Sex		Place of residence		
		Urban	Rural	Urban+ Rural
<b>Too Far</b>				
Both Sexes	N°	646	51	697
	%	0.7	2.1	0.8
Male	N°	254	22	276
	%	1.9	5.2	2.0
Female	N°	392	29	421
	%	0.7	2.0	0.8
<b>Too Expensive</b>				
Both Sexes	N°	26866	626	27492
	%	30.7	25.9	30.6
Male	N°	9422	233	9655
	%	28.2	23.8	28.1
Female	N°	17444	393	17837
	%	32.3	27.3	32.2
<b>Used Traditional Medicine</b>				
Both Sexes	N°	6175	112	6287
	%	7.1	4.6	7.0
Male	N°	1981	93	2074
	%	5.9	9.5	6.0
Female	N°	4194	19	4213
	%	7.8	1.3	7.6
<b>Did not Believe it would help</b>				
Both Sexes	N°	31049	1339	32388
	%	35.5	55.4	36.1
Male	N°	13202	519	13721
	%	39.5	53.0	39.9
Female	N°	17847	820	18667
	%	33.0	57.0	33.7
<b>Thought would recover with out treatment</b>				
Both Sexes	N°	2748	23	2771
	%	3.1	1.0	3.1
Female	N°	970	16	986
	%	2.9	1.6	2.9
Female	N°	1778	7	1785
	%	3.3	0.5	3.2
<b>Waiting time is too long</b>				
Both Sexes	N°	2003	69	2072
	%	2.3	2.9	2.3
Male	N°	871	6	877
	%	2.6	0.6	2.6
Female	N°	1132	63	1195
	%	2.1	4.4	2.2
<b>Thought that I could not Get the Required Medicine</b>				
Both Sexes	N°	3637	71	3708
	%	4.2	2.9	4.1
Male	N°	1328	46	1374
	%	4.0	4.7	4.0
Female	N°	2309	25	2334
	%	4.3	1.7	4.2
<b>Others</b>				
Both Sexes	N°	-	-	-
	%	-	-	-
Male	N°	-	-	-
	%	-	-	-
Female	N°	-	-	-
	%	-	-	-
<b>Not Stated</b>				
Both Sexes	N°	14297	127	14424
	%	16.4	5.3	16.1
Male	N°	5370	45	5415
	%	16.1	4.6	15.8
Female	N°	8927	82	9009
	%	16.5	5.7	16.2
<b>Total</b>				
Both Sexes	N°	87421	2418	89839
	%	100	100	100
Male	N°	33398	980	34378
	%	100	100	100
Female	N°	54023	1438	55461
	%	100	100	100

Table 5.3a Cont'd

## DIRE- DAWA PROVISIONAL ADMINISTRATION

Reasons for not consulting/Sex		Place of residence		
		Urban	Rural	Urban+ Rural
<b>Too Far</b>				
Both Sexes	N°	104	311	415
	%	0.4	1.1	0.7
Male	N°	-	150	150
	%	1.0	2.1	1.7
Female	N°	104	161	265
	%	0.6	1.1	0.8
<b>Too Expensive</b>				
Both Sexes	N°	10907	14601	25508
	%	40.6	49.4	45.2
Male	N°	4104	7270	11374
	%	40.7	50.3	46.3
Female	N°	6803	7331	14134
	%	40.6	48.6	44.4
<b>Used Traditional Medicine</b>				
Both Sexes	N°	1154	289	1443
	%	4.3	1.0	2.6
Male	N°	758	139	897
	%	7.5	1.0	3.7
Female	N°	396	150	546
	%	2.4	1.0	1.7
<b>Did not Believe it would help</b>				
Both Sexes	N°	11575	13457	25032
	%	43.1	45.5	44.4
Male	N°	3950	6416	10366
	%	39.2	44.3	42.2
Female	N°	7625	7041	14666
	%	45.5	46.7	46.0
<b>Thought would recover with out treatment</b>				
Both Sexes	N°	1353	191	1544
	%	5.0	0.6	2.7
Female	N°	509	127	636
	%	5.1	0.9	2.6
Female	N°	844	64	908
	%	5.0	0.4	2.8
<b>Waiting time is too long</b>				
Both Sexes	N°	588	265	853
	%	2.2	0.9	1.5
Male	N°	227	226	453
	%	2.3	1.6	1.8
Female	N°	361	39	400
	%	2.2	0.3	1.3
<b>Thought that I could not Get the Required Medicine</b>				
Both Sexes	N°	269	85	354
	%	1.0	0.3	0.6
Male	N°	-	23	23
	%	-	0.2	0.1
Female	N°	269	62	331
	%	1.6	0.4	1.0
<b>Others</b>				
Both Sexes	N°	-	-	-
	%	-	-	-
Male	N°	-	-	-
	%	-	-	-
Female	N°	-	-	-
	%	-	-	-
<b>Not Stated</b>				
Both Sexes	N°	901	361	1262
	%	3.4	1.2	2.2
Male	N°	527	116	643
	%	5.2	0.8	2.6
Female	N°	374	245	619
	%	2.2	1.6	1.9
<b>Total</b>				
Both Sexes	N°	26851	29560	56411
	%	100	100	100
Male	N°	10075	14467	24542
	%	100	100	100
Female	N°	16776	15093	31869
	%	100	100	100

## **CHAPTER 6**

### **MATERNAL AND CHILD HEALTH CARE**

#### **6.1 Status of Antenatal Care Visit and Tetanus Toxoid Vaccination**

##### **6.1a Status of Antenatal Care Visit**

Antenatal care is important for both the mother and child health. The number and timing of antenatal care visits are considered to be important to prevent adverse pregnancy outcome. However, in this survey information collected on antenatal care is limited to the status of visiting during the most recent pregnancy not the number and timing of antenatal care visits. The data on the distributions of mothers during the two years preceding the survey by status of antenatal care visits and background characteristics are presented in Table 6.1 and 6.1a. This information can be used to identify group of women whose babies are at risk because of non-use of maternal health care.

The survey data showed that there was very small difference in the practice of antenatal care visit during pregnancy by mother's age. However, slightly larger number of women aged 15-34 had made antenatal care visit compared to those aged 35 and above. There was a remarkable difference in the reported proportion of mothers who had made antenatal care visit by place of residence. The prevalence of antenatal care visits were much larger in urban areas (73 percent) compared to rural areas(29 percent).

It was also evident from the data that there was positive relationship between education of mothers and practice of antenatal care visits. The proportions were ranged from 29 percent for women with no education to 95 percent for women who had completed grades above 12. Comparisons of the proportions of mothers who made

**Table 6.1 Distribution of Mothers during the two years prior to the survey by Mothers Status of Antenatal Care visit and Background characteristics: 1998**

Background Characteristics of Mothers	Status of Antenatal Care Visit							
	Yes		NO		Not stated		Total	
	N°	%	N°	%	N°	%	N°	%
<b>Mother's Age</b>								
15 - 19	126911	33.0	251524	65.4	6082	1.6	384517	100
20 - 24	362390	35.0	662042	63.9	11653	1.1	1036085	100
25 - 29	378442	34.4	713490	64.9	6700	0.6	1098632	100
30 - 34	223906	32.4	462186	66.8	6027	0.9	692119	100
35 - 39	169891	30.7	378793	68.5	4312	0.8	552996	100
40 - 44	55873	26.1	156230	72.9	2092	1.0	214195	100
45 +	20473	30.6	45194	67.5	1240	1.9	66907	100
Not Stated	724	42.7	971	57.3	-	-	1695	100
<b>Place of Residence</b>								
Urban	251885	72.7	90154	26.0	4199	1.2	346238	100
Rural	1086725	29.4	2580275	69.7	33907	0.9	3700907	100
<b>Mothers Education</b>								
Illiterate	1019048	28.8	2486160	70.2	35223	1.0	3540431	100
1 - 6	168208	54.9	136353	44.5	1734	0.6	306295	100
7 - 8	65522	70.8	26154	28.3	852	0.9	92528	100
9 - 12	61721	88.7	7695	11.1	190	0.3	69606	100
Above 12	6312	94.8	308	4.6	35	0.5	6655	100
Non Formal	8031	44.1	10097	55.5	73	0.4	18201	100
Not Stated	9768	72.7	3662	27.3	-	-	13430	100
<b>Region</b>								
Tigray	131921	44.5	160328	54.1	4046	1.4	296295	100
*Affar	8376	42.3	11072	56.0	337	1.7	19785	100
Amhara	277686	25.1	817171	73.8	12309	1.1	1107166	100
Oromia	559558	34.8	1036506	64.4	12721	0.8	1608785	100
**Somalie	9854	24.3	30136	74.3	579	1.4	40569	100
Benishangul-Gumuz	21642	47.3	23152	50.6	931	2.0	45725	100
SNNP	266131	31.6	569566	67.7	6192	0.7	841889	100
Gambela	6220	65.1	3180	33.3	153	1.6	9553	100
Harari	4666	58.6	3238	40.7	58	0.7	7962	100
Addis Ababa	46532	80.9	10274	17.9	736	1.3	57542	100
Dire Dawa	6024	50.7	5805	48.9	43	0.4	11872	100
<b>All Birth</b>	1338610	33.1	2670430	66.0	38106	0.9	4047146	100

\* Includes Settled Population Covered by Census map work in Zones 1,3,5

\*\* Includes Settled Population Covered by Census map work in Shiile, Jigjiga and Liben Zones

**Table 6.1a Distribution of Mothers during the two years Prior to the survey, by Status of Antenatal Care visit and Selected Urban Centers:1998**

Selected Urban Centers	Status of Antenatal Care visit						Total	
	Yes		NO		Not Stated		N <sup>o</sup>	%
	N <sup>o</sup>	%	N <sup>o</sup>	%	N <sup>o</sup>	%		
Country Total	251885	72.7	90154	26.0	4199	1.2	346238	100
MEKELE	4974	90.7	436	8.0	73	1.3	5483	100
ASSAYITA	435	84.8	78	15.2	-	-	513	100
GONDER	2708	68.7	1235	31.3	-	-	3943	100
BAHIR DAR	3103	71.6	1117	25.8	116	2.7	4336	100
DESSIE	2097	79.3	546	20.7	-	-	2643	100
JIMMA	2709	82.4	544	16.6	34	1.0	3287	100
NAZRETH	5078	82.3	1095	17.7	-	-	6173	100
DEBRE ZIET	2188	87.2	273	10.9	49	2.0	2510	100
JIJGA	3179	70.3	1341	29.7	-	-	4520	100
ASOSA	957	84.9	170	15.1	-	-	1127	100
AWASA.	3858	93.6	242	5.9	22	0.5	4122	100
GAMBELA	1519	90.0	152	9.0	17	1.0	1688	100
HARARI	2133	87.8	260	10.7	36	1.5	2429	100
ADDIS ABABA	45614	82.5	8977	16.2	709	1.3	55300	100
DIRE DAWA	3979	76.3	1235	23.7	-	-	5214	100
AMARA OTHER URBAN	38344	70.9	15215	28.1	547	1.0	54106	100
OROMIYA OTHER URBA	62013	63.1	34471	35.1	1811	1.8	98295	100
SNNP OTHER URBAN	30589	73.2	11210	26.8	-	-	41799	100
OTHER URBAN	36409	74.7	11560	23.7	785	1.6	48754	100

antenatal care visit during their last pregnancy by region showed that there was a significant difference among regions. The proportions were more than fifty percent in four areas namely : Gambella, Harari, Addis Ababa and Dire Dawa whereas the lowest proportion was observed in Somalie Region (24 percent) and closely followed by Amhara (25 percent). Overall, 33 percent of mothers reported to have visited modern health service institutions at least once during their last pregnancy (for details see Tables 6.1 and 6.1a).

### **6.1b Tetanus Toxoid Vaccination**

Tetanus toxoid injections are given during pregnancy for prevention of neonatal tetanus which is often a fatal disease caused by unhygienic conditions at child birth. For full protection, a pregnant woman needs two dose of the toxoid. However, if a woman was vaccinated during a previous pregnancy, she may only require one dose during subsequent pregnancies. It is to be noted that five dose are considered to provide life time protection. But information collected in the 1998 Health and Nutrition Survey considered only the practice/status of receiving tetanus toxoid injection not the number of tetanus toxoid dosages taken. In case of women who had more than one births during the two years prior to the survey date, the information collected refers to the recent last live birth.

Distribution of mothers during the two years preceding the survey date by status of receiving tetanus toxoid vaccination during their last pregnancy and background characteristics are presented in Tables 6.2 and 6.2a. The data indicated that tetanus toxoid vaccination coverage was not widespread in Ethiopia. Far less than half of mothers (38 percent) who gave birth during the two years prior to the survey date reported to have received tetanus toxoid injection. Tetanus toxoid vaccination coverage was comparatively lower among older mothers (35 and over years). Urban and rural difference in the coverage of tetanus toxoid was found to be very large, more than twice, in urban areas compared to those in rural areas.

**Table 6.2 Distribution of Mothers who gave birth during the two years prior to the survey by Mother's status of Receiving Tetanus Toxoid Vaccination and Background Characteristics: 1998**

Background Characteristics	Status of Receiving Tetanus Toxid						Total	
	Yes		NO		Not Stated		N°	%
	N°	%	N°	%	N°	%		
<b>Mother's Age</b>								
15 - 19	139027	36.2	237355	61.7	8135	2.1	384517	100
20 - 24	413463	39.9	605314	58.4	17308	1.7	1036085	100
25 - 29	428298	39	659291	60	11044	1	1098633	100
30 - 34	262376	37.9	422642	61.1	7100	1	692118	100
35 - 39	200304	36.2	346394	62.6	6299	1.1	552997	100
40 - 44	65255	30.5	145942	68.1	2998	1.4	214195	100
45 - 49	22964	34.3	42297	63.2	1645	2.5	66906	100
50 +	724	42.7	971	57.3	0	0	1695	100
<b>Place of Residence</b>								
Urban	258637	74.7	83466	24.1	4135	1.2	346238	100
Rural	1273773	34.4	2376741	64.2	50393	1.4	3700907	100
<b>Mothers Education</b>								
Illiterate	1203414	34	2285589	64.6	51429	1.5	3540432	100
1 - 6	178282	58.2	126063	41.2	1950	0.6	306295	100
7 - 8	66574	72	25102	27.1	852	0.9	92528	100
9 - 12	60573	87	8843	12.7	190	0.3	69606	100
Above 12	5623	84.5	997	15	35	0.5	6655	100
Non Formal	8341	45.8	9787	53.8	73	0.4	18201	100
Not Stated	9604	71.5	3826	28.5	0	0	13430	100
<b>Region</b>								
Tigray	168401	56.8	123706	41.8	4188	1.4	296295	100
*Affar	8418	42.5	11030	55.7	337	1.7	19785	100
Amhara	316916	28.6	775033	70	15218	1.4	1107167	100
Oromo	635822	39.5	953061	59.2	19902	1.2	1608785	100
**Somalie	12504	30.8	27776	68.5	289	0.7	40569	100
Benishangul-Gumuz	22848	50	22036	48.2	842	1.8	45726	100
SNNP	302774	36	526708	62.6	12407	1.5	841889	100
Gambela	6361	66.6	2999	31.4	194	2	9554	100
Harari	5089	63.9	2793	35.1	79	1	7961	100
Addis Ababa	45675	79.4	10838	18.8	1029	1.8	57542	100
Dire Dawa	7602	64	4227	35.6	43	0.4	11872	100
<b>All Birth</b>	<b>1532410</b>	<b>37.9</b>	<b>2460207</b>	<b>60.8</b>	<b>54528</b>	<b>1.3</b>	<b>4047145</b>	<b>100</b>

\* Includes Settled Population Covered by Census map work in Zones 1,3,5

\*\* Includes Settled Population Covered by Census map work in Shiile, Jigjiga and Liben Zones

**Table 6.2a Distribution of Mothers who gave birth during the last two years prior to the survey by Mother's Status of Receiving Tetanus Toxoid Vaccination During pregnancy and Selected Urban Centers;1998.**

Selected Urban Centers	Status of Receiving Tetanus Toxoid						Total	
	Yes		NO		Not Stated			
	N°	%	N°	%	N°	%	N°	%
Country Total	258637	74.7	83466	24.1	4135	1.2	346238	100
MEKELE	4927	89.9	483	8.8	73	1.3	5483	100
ASSAYITA	445	86.7	68	13.3	-	-	513	100
GONDER	2973	75.4	969	24.6	-	-	3942	100
BAHIR DAR	3249	74.9	971	22.4	116	2.7	4336	100
DESSIE	2145	81.2	498	18.8	-	-	2643	100
JIMMA	2548	77.5	705	21.4	34	1	3287	100
NAZRETH	5049	81.8	1124	18.2	-	-	6173	100
DEBRE ZIET	2347	93.5	115	4.6	49	2	2511	100
JIJGA	3383	74.8	1137	25.2	-	-	4520	100
ASOSA	976	86.7	150	13.3	-	-	1126	100
AWASA	3794	92	306	7.4	22	0.5	4122	100
GAMBELA	1528	90.5	143	8.5	17	1	1688	100
HARARI	2134	87.9	259	10.7	36	1.5	2429	100
ADDIS ABABA	44718	80.9	9579	17.3	1002	1.8	55299	100
DIRE DAWA	4407	84.5	807	15.5	-	-	5214	100
AMARA OTHER URBAN	40791	75.4	12767	23.6	547	1	54105	100
OROMIYA OTHER URBAN	68121	69.3	28363	28.9	1811	1.8	98295	100
SNNPR OTHER URBAN	28688	68.6	13110	31.4	-	-	41798	100
OTHER URBAN	36413	74.7	11912	24.4	428	0.9	48753	100

Similar to the previous results observed for antenatal care visit, there was very strong positive relationship between mother's education and status of receiving tetanus toxoid injections. The proportion of mothers who reported to have received tetanus toxoid increases from 34 percent among mothers with no education to 87 percent among those who completed grades 9-12. This may be attributed to the fact that educated women may have greater access to modern health services, or they may be better informed about the benefits of vaccination and more willing to utilize the services provided.

The data also showed that there was significant variation in the coverage of tetanus toxoid by regions. The variations range from the smallest 29 percent in Amhara to the highest 79 percent in Addis Ababa. It was found that the observed proportions were larger among mainly urban areas (Harari, Addis Ababa and Dire Dawa). The result in Table 6.2a shows that the proportion of tetanus toxoid vaccination ranged from 75 percent in Bahir Dar and Amhara other urban to 94 percent in Debre Zeit town.

## **6.2 Type of Attendants Assisting During Delivery**

The type of assistance a woman obtains during the birth of her child has health implication both for the mother and child. Usually, births that are delivered outside health service institutions are less likely to be assisted by medically trained personnel (medical professionals and community health assistants) compared to births that are delivered in the health service institutions. In the 1998 Health and Nutrition Survey in addition to information on antenatal care visit during the most recent pregnancy, data on type of attendants assisting during delivery was also collected. The distributions of mothers by type of attendant assisting during delivery and place of residence is presented in Table 6.3.

Table 6.3 Distribution of Mothers who gave birth During the last two years prior to the survey by Place of Delivery and Background  
Characteristics:1998

Background Characteristics of Mothers	Their Home/ Relative's Home		Place of Delivery										Total	
			Health Center		Clinic		Hospital		Others		Not Stated			
	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%	No	%
<b>Mothers Age</b>														
15 - 19	352195	91.6	11056	2.9	2592	0.7	9436	2.5	2537	0.7	6700	1.7	384516	100
20 - 24	953699	92	23908	2.3	10275	1	33846	3.3	3979	0.4	10377	1	1036084	100
25 - 29	1034157	94.1	20914	1.9	10169	0.9	23318	2.1	3668	0.3	6406	0.6	1098632	100
30 - 34	651629	94.1	10889	1.6	4680	0.7	16950	2.4	2969	0.4	5002	0.7	692119	100
35 - 39	518871	93.8	11373	2.1	3463	0.6	12867	2.3	2146	0.4	4276	0.8	552996	100
40 - 44	205026	95.7	2719	1.3	1170	0.5	1511	0.7	876	0.4	2893	1.4	214195	100
45 +	61599	92.1	1746	2.6	1255	1.9	937	1.4	311	0.5	1058	1.6	66906	100
Not Stated	1648	97.2	-	-	-	-	47	2.8	-	-	-	-	1695	100
<b>Place of Residence</b>														
Urban	211775	61.2	43125	12.5	9552	2.8	74733	21.6	2731	0.8	4323	1.2	346239	100
Rural	3567050	96.4	39482	1.1	24052	0.6	24178	0.7	13755	0.4	32391	0.9	3700908	100
<b>Mothers Education</b>	7970	4361	3593	16	54.83									
Illiterate	3384570	95.6	50387	1.4	21669	0.6	36217	1	14529	0.4	33060	0.9	3540432	100
1 - 6	266462	87	10013	3.3	6251	2	19388	6.3	1919	0.6	2263	0.7	306296	100
7 - 8	68578	74.1	7679	8.3	1861	2	13615	14.7	39	-	756	0.8	92528	100
9 - 12	32246	46.3	10197	14.6	3027	4.3	23609	33.9	-	-	527	0.8	69606	100
Above 12	2322	34.9	1397	21	598	9	2303	34.6	-	-	35	0.5	6655	100
Non Formal	17513	96.2	535	2.9	-	-	79	0.4	-	-	73	0.4	18200	100
Not Stated	7132	53.1	2399	17.9	199	1.5	3701	27.6	-	-	-	-	13431	100
<b>Region</b>	4000	1979	2002	19	49.71									
Tigray	271696	91.7	4789	1.6	1169	0.4	12031	4.1	2771	0.9	3839	1.3	296295	100
* Affar	17514	88.5	172	0.9	885	4.5	948	4.8	16	0.1	250	1.3	19785	100
Amhara	1057779	95.5	12699	1.1	6441	0.6	14031	1.3	3193	0.3	13021	1.2	1107164	100
Oromo	1516805	94.3	27967	1.7	16966	1.1	30705	1.9	4264	0.3	12077	0.8	1608784	100
** Somalie	37526	92.5	696	1.7	9	-	2014	5	0	0	325	0.8	40570	100
Benishangul-Gumuz	38407	84	1382	3	588	1.3	978	2.1	4104	9	267	0.6	45726	100
SNNP	799510	95	20386	2.4	3256	0.4	10754	1.3	2040	0.2	5943	0.7	841889	100
Gambela	7597	79.5	294	3.1	101	1.1	1385	14.5	24	0.3	153	1.6	9554	100
Harari	5864	73.7	20	0.3	20	0.3	1931	24.3	68	0.9	58	0.7	7961	100
Addis Ababa	16818	29.2	14182	24.6	4169	7.2	21632	37.6	5	-	736	1.3	57542	100
Dire Dawa	9307	78.4	20	0.2	0	-	2501	21.1	-	-	43	0.4	11871	100
All Birth	3778825	93.4	82606	2	33604	0.8	98911	2.4	16486	0.4	36714	0.9	4047146	100

\* Includes Settled Population Covered by Census map work in Zones 1,3,5

\*\* Includes Settled Population Covered by Census map work in Shiile, Jigjiga and Liben Zones

In rural areas, about one woman out of every 12 women (i.e, 9 percent) were assisted by medical professional ,community health assistant and trained traditional birth attendants during the most recent delivery. In urban areas, however, more than half of the mothers (58 percent) were reported to have been assisted by trained personnel. This substantial difference could largely be attributed to the fact that access to health services is better in urban areas, and also mothers in urban areas are likely to be better educated than their rural counterparts. Overall, one out of 8 pregnant women were assisted by medically trained personnel and about twelve percent gave birth without assistance during delivery.

Age of mothers seem to have little effect on the proportion of women who were attended by medical professional and community health assistants. The strong influence of mother's education on the proportion of mothers who were attended by medical professionals and community health assistant was clearly indicated from the data presented in Table 6.3. As shown in the table, the proportions attended by medical professionals and community health assistants (excluding trained traditional birth attendants) strictly increase with the advance in the level of education (highest grade completed) by mothers. The proportions ranged from two percent among women who had only non-formal (non-regular) education to 70 percent among women who had completed grades above 12. This proportion was four percent for mothers who had no education (illiterate).

According to the data in Table 6.3, 21 percent of all mothers who completed grades 9-12 and those who gave birth during the two years prior to the survey date were attended by untrained traditional birth attendants and lay persons during the recent delivery. Similarly, for mothers who had non-formal education, the proportion was as high as 86 percent and this was at least four times less than those who were attended by untrained traditional birth attendants and lay persons among mothers who had completed grades 9-12.

Table 6.3a Distribution of Mothers who gave Birth During the two years Prior to the survey by place of Delivery and Selected Urban Centers:1998.

Selected Urban Center	Place of Delivery												Total	
	Own Home/ Other Home		Health Center		Clinic		Hospital		Others		Not Stated			
	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%
Country Total	211775	61.2	43125	12.5	9552	2.8	74733	21.6	2731	0.8	4323	1.2	346239	100
MEKELE	2884	52.6	930	17.0	30	0.5	1566	28.6	-	-	73	1.3	5483	100
ASSAYITA	390	76.0	112	21.8	11	2.1	-	-	-	-	-	-	513	100
GONDER	1777	45.1	408	10.4	-	-	1757	44.6	-	-	-	-	3942	100
BAHIR DAR	2186	50.4	167	3.9	42	1.0	1825	42.1	-	-	116	2.7	4336	100
DESSIE	1411	53.4	111	4.2	79	3.0	1042	39.4	-	-	-	-	2643	100
JIMMA	1647	50.1	258	7.8	-	-	1382	42.0	-	-	-	-	3287	100
NAZRETH	3965	64.2	-	-	-	-	2172	35.2	-	-	36	0.6	6173	100
DEBRE ZIET	1120	44.6	66	2.6	36	1.4	1239	49.4	-	-	49	2.0	2510	100
JIJGA	2703	59.8	147	3.3	-	-	1670	36.9	-	-	-	-	4520	100
ASOSA	394	35.0	219	19.4	-	-	514	45.6	-	-	-	-	1127	100
AWASA	1865	45.2	1589	38.5	-	-	647	15.7	-	-	22	0.5	4123	100
GAMBELA	574	34.0	50	3.0	-	-	1048	62.0	-	-	17	1.0	1689	100
HARARI	777	32.0	-	-	-	-	1576	64.9	39	1.6	36	1.5	2428	100
ADDIS ABABA	14935	27.0	13957	25.2	4151	7.5	21548	39.0	-	-	709	1.3	55300	100
DIRE DAWA	3045	58.4	-	-	-	-	2169	41.6	-	-	-	-	5214	100
AMARA OTHER URBAN	41089	75.9	4265	7.9	2200	4.1	6004	11.1	-	-	547	1.0	54105	100
OROMIYA OTHER URBAN	68779	70.0	11292	11.5	2103	2.1	13671	13.9	366	0.4	2084	2.1	98295	100
SNNPR OTHER URBAN	27490	65.8	8838	21.1	-	-	5327	12.7	143	0.3	-	-	41798	100
OTHER URBAN	34743	71.3	717	1.5	900	1.8	9577	19.6	2183	4.5	634	1.3	48754	100

As shown in Table 6.3, there was variation among regions concerning the proportion of mothers attended by medical professionals. The proportion of mothers attended by medical professionals in Addis Ababa was the highest (69 percent) followed by Harari Region (29 percent). But it was found to be the least in Amhara Region (3.6 percent). For all regions, the proportions of mothers who have been attended by community health assistants were almost negligible, less than one percent. Except in Dire Dawa, Harari and Affar Regions, the proportion of mothers who have been attended by trained traditional birth attendants were far less than 10 percent. One out of every five women in Benishangul-Gumuz and SNNP Regions reported to have been attended by no one during delivery.

### **6.3 Place of Delivery**

Information on place of delivery during the previous two years prior to the survey date were collected in the 1998 Health and Nutrition Survey. This information may be used to plan for the programs of Maternal and Child Health Care Services improvement or to monitor and evaluate the programs that are under way. Delivery of a child in modern health service institutions is safe for the health of the mothers as well as the child as trained delivery assistants and proper medication are found in these institutions. The distribution of mothers who gave birth during the two years prior the survey date by background characteristics is presented in Table 6.4.

The survey data showed that a considerable proportion (93 percent) of mothers delivered their last child at their home/relative's home. Variations by age of mother's were very small. Almost all mothers in rural areas (96 percent) in the last two years reported to have delivered their last child at their home/relative's home. In urban areas, however, the proportion of those who delivered their last child in their home/relative's home was lower (87 percent). Overall, the proportion of mothers who gave birth in the health service institutions (health center, clinic and hospitals) during the two years prior to the survey date were 37 percent in urban and only 2.4 percent in rural areas.

Table 6.4 Distribution of Mothers who gave birth in the two years Prior the survey by Age of Mothers and Type of Attendant Assisting during Delivery and Background Characteristics:1998

Background Characteristics	Attendant Assisting During Delivery														Total	
	Medical Professional		Community Health Assistant		Trained Traditional Birth Attendant		Untrained Traditional Birth Attendant		Lay person		None		Not Stated			
	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%
<b>Mother's Age</b>																
15 - 19	24711	6.4	416	0.1	20006	5.2	190066	49.4	111120	28.9	30473	7.9	7725	2.0	384517	100
20 - 24	83748	8.1	5458	0.5	64170	6.2	457077	44.1	307792	29.7	107644	10.4	10196	1.0	1036085	100
25 - 29	69482	6.3	5551	0.5	65028	5.9	501106	45.6	317610	28.9	133060	12.1	6796	0.6	1098633	100
30 - 34	41474	6.0	3719	0.5	42715	6.2	312510	45.2	199058	28.8	87551	12.6	5093	0.7	692120	100
35 - 39	34757	6.3	4405	0.8	29966	5.4	233410	42.2	174016	31.5	72103	13.0	4341	0.8	552998	100
40 - 44	7124	3.3	2012	0.9	6641	3.1	106470	49.7	61667	28.8	27770	13.0	2509	1.2	214193	100
45 +	3726	5.6	888	1.3	2792	4.2	29522	44.1	17422	26.0	11358	17.0	1198	1.8	66906	100
Not Stated	47	2.8	-	-	-	-	258	15.2	959	56.6	430	25.4	-	-	1694	100
<b>Place of Residence</b>																
Urban	143221	41.4	3885	1.1	54845	15.8	76942	22.2	48463	14.0	14839	4.3	4043	1.2	346238	100
Rural	121848	3.3	18563	0.5	176474	4.8	1753476	47.4	1141181	30.8	455552	12.3	33813	0.9	3700907	100
<b>Mothers Education</b>																
Illiterate	139417	3.9	19325	0.5	178096	5.0	1659441	46.9	1085195	30.7	424441	12.0	34517	1.0	3540432	100
1 - 6	44699	14.6	1434	0.5	30943	10.1	121674	39.7	73715	24.1	31841	10.4	1990	0.6	306296	100
7 - 8	27413	29.6	907	-	13351	14.4	26237	28.4	17200	18.6	6568	7.1	852	0.9	92528	100
9 - 12	41923	60.2	554	0.8	7556	10.9	8967	12.9	6615	9.5	3600	5.2	390	0.6	69605	100
Above 12	4415	66.3	229	3.4	32	0.5	146	2.2	-	-	1799	27.0	35	0.5	6656	100
Non Formal	410	2.3	-	-	973	5.3	11009	60.5	4564	25.1	1172	6.4	73	0.4	18201	100
Not Stated	6792	50.6	-	-	368	2.7	2944	21.9	2355	17.5	971	7.2	-	-	13430	100
<b>Region</b>																
Tigray	22272	7.5	2875	1.0	20879	7.0	127360	43.0	104227	35.2	14929	5.0	3754	1.3	296296	100
* Affar	3663	18.5	109	0.6	2625	13.3	10431	52.7	2262	11.4	293	1.5	402	2.0	19785	100
Amhara	40105	3.6	3169	0.3	38161	3.4	624861	56.4	343510	31.0	43985	4.0	13375	1.2	1107166	100
Oromo	97457	6.1	10342	0.6	108638	6.8	709778	44.1	454176	28.2	216378	13.4	12015	0.7	1608784	100
** Somalie	5120	12.6	205	0.5	2570	6.3	27755	68.4	3891	9.6	739	1.8	289	0.7	40569	100
Benishangul-Gumuz	3339	7.3	617	1.3	1826	4.0	11288	24.7	18695	40.9	9119	19.9	842	1.8	45726	100
SNNP	46695	5.5	4440	0.5	48528	5.8	299700	35.6	254038	30.2	182299	21.7	6189	0.7	841889	100
Gambela	1874	19.6	-	-	533	5.6	3875	40.6	2066	21.6	1052	11.0	153	1.6	9553	100
Harari	2306	29.0	-	-	1769	22.2	3198	40.2	392	4.9	238	3.0	58	0.7	7961	100
Addis Ababa	39784	69.1	690	1.2	4058	7.1	5468	9.5	5676	9.9	1130	2.0	736	1.3	57542	100
Dire Dawa	2454	20.7	-	-	1731	14.6	6703	56.5	711	6.0	229	1.9	43	0.4	11871	100
All Birth	265069	6.5	22448	0.6	231319	5.7	1830418	45.2	1189644	29.4	470391	11.6	37856	0.9	4047145	100

\* Includes Settled Population Covered by Census map work in Zones 1,3,5

\*\* Includes Settled Population Covered by Census map work in Shiile, Jigjiga and Liben Zones

The impact of mother's education on the choice of place of delivery was clearly exhibited from the survey data. Accordingly, the proportions of mothers who reported to have delivered their last baby in health service institutions steadily increased with the level of the highest grade completed by mothers. The results showed that illiterate women were least likely to deliver their last child at the health center, clinic or hospital. Nevertheless, the proportion was as high as 65 percent among women who had completed grades above 12. This suggests that educating mothers is likely to increase the number of mothers who make use of health service institutions during delivery, which in turn is likely to reduce morbidity and mortality of the mother and child.

The proportions of mothers who delivered their last child during the two years prior to the survey date in health service institutions seem to vary by region. The survey data indicated that the proportions were larger in Harari, Addis Ababa and Dire Dawa the areas where the population is largely urban. In the remaining regions, the proportions ranged from three percent in Amhara to 19 percent in Gambella. This shows that mothers in Amhara Region were apparently more likely to deliver their children outside health service institutions.

Overall, out of the total women who gave birth during the last two years prior to the survey date around five percent of them delivered their last child in either health center, clinic or hospital. This clearly shows that the remaining 95 percent reported not to have delivered their last child in a health service institutions.

#### **6.4 Childhood Vaccinations**

In this survey information on childhood vaccination coverage was collected in two ways; that is using vaccination cards shown to the interviewer as well as mother's verbal reports. In the absence of vaccination cards, only mother's reports were

Table 6.5a Distribution of children aged '0-59' Months who had ever Received Vaccination at any time before the survey by Children's Age and Sex :1998

COUNTRY-TOTAL

Age in Month/ Sex	Percentage of children who Received vaccination												Total	
	Measles		BCG		DPT		Polio		All		None			
	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%
<b>Boys</b>														
< 6	57046	13.5	91171	21.5	84349	19.9	135794	32.0	41285	9.7	266407	62.8	424094	100
6 - 11	148674	32.5	206305	45.0	208472	45.5	355351	77.6	126527	27.6	91603	20.0	458077	100
12 - 23	458474	49.9	493565	53.7	507171	55.2	760216	82.7	417806	45.4	139716	15.2	919381	100
24 - 35	444942	50.1	474577	53.4	481883	54.2	735994	82.8	406059	45.7	137561	15.5	888984	100
36 - 47	466104	51.0	481509	52.7	489349	53.5	742309	81.2	420984	46.0	147423	16.1	914380	100
48 - 59	423986	49.3	434939	50.6	443802	51.6	675369	78.6	376378	43.8	155242	18.1	859494	100
Not Stated	827	7.3	847	7.5	896	7.9	896	7.9	778	6.9	1666	14.7	11311	100
All Ages	2000053	44.7	2182913	48.8	2215922	49.5	3405929	76.1	1789817	40.0	939618	21.0	4475721	100
<b>Girls</b>														
< 6	53676	11.9	90142	20.0	87190	19.3	123597	27.4	37079	8.2	301373	66.8	451316	100
6 - 11	147790	32.2	202792	44.1	205712	44.8	354028	77.1	124599	27.1	94536	20.6	459466	100
12 - 23	432622	47.6	466894	51.3	466760	51.3	736268	81.0	388946	42.8	158214	17.4	909253	100
24 - 35	456726	52.5	474667	54.5	487243	56.0	720709	82.8	419871	48.2	131077	15.1	870421	100
36 - 47	456907	51.3	469460	52.7	468895	52.6	713945	80.1	411769	46.2	156014	17.5	890997	100
48 - 59	405558	50.3	410994	51.0	425737	52.9	640157	79.5	365801	45.4	146529	18.2	805511	100
Not Stated	245	2.8	245	2.8	245	2.8	568	6.5	245	2.8	360	4.1	8700	100
All Ages	1953524	44.4	2115194	48.1	2141782	48.7	3289272	74.8	1748310	39.8	988103	22.5	4395664	100
<b>Both Sexes</b>														
< 6	110722	12.6	181313	20.7	171539	19.6	259391	29.6	78364	9.0	567780	64.9	875410	100
6 - 11	296464	32.3	409097	44.6	414184	45.1	709379	77.3	251126	27.4	186139	20.3	917543	100
12 - 23	891096	48.7	960459	52.5	973931	53.3	1496484	81.8	806752	44.1	297930	16.3	1828634	100
24 - 35	901668	51.2	949244	54.0	969126	55.1	1456703	82.8	825930	46.9	268638	15.3	1759405	100
36 - 47	923011	51.1	950969	52.7	958244	53.1	1456254	80.7	832753	46.1	303437	16.8	1805377	100
48 - 59	829544	49.8	845933	50.8	869539	52.2	1315526	79.0	742179	44.6	301771	18.1	1665005	100
Not Stated	1072	5.4	1092	5.5	1141	5.7	1464	7.3	1023	5.1	2026	10.1	20011	100
All Ages	3953577	44.6	4298107	48.4	4357704	49.1	6695201	75.5	3538127	39.9	1927721	21.7	8871385	100

considered. In order to avoid confusion which is likely to occur when a child took any other vaccination which was different from these six vaccine-preventable diseases, descriptions of the types of administration such as oral, left arm and right arm injection were provided in the interviewers instructional manual. Besides this, regarding the vaccination of DPT and Polio, information collected were restricted to the status of receiving vaccination not the number of dosages taken.

Universal immunization of children from six vaccine-preventable diseases (namely: tuberculosis, diphtheria, Whooping Cough, tetanus, polio and measles) is expected to reduce infant and child mortality. Information on immunization may therefore assist in evaluating and monitoring the universal immunization programs.

The information on vaccination coverage are presented in Tables 6.5a-6.5c. According the survey data at country level, the proportion of children who have taken vaccinations against measles, BCG, DPT and polio were, 45 percent, 49 percent 49 percent and 76 percent respectively. These show that the vaccination coverage for polio was much higher than the coverage for measles, BCG and DPT. Compared to the 1996 there is a slight improvement. In 1996 the reported proportion of children who took vaccinations for measles, BCG and DPT were 39 percent, 40 percent and 40 percent, respectively (CSA,1999).

About forty percent of children under five years reported to have received vaccination for all six vaccine-preventable diseases. This proportion was significantly lower than the proportions observed for each type of vaccinations. This indicates that not all children aged under five have taken vaccination for all the six vaccine-preventable diseases. Obviously, this variation depends on age of a child as some of the children particularly those aged under one were not expected to take all the recommended vaccinations. This is also supported by the survey data. That is, the variations in the magnitude of proportions of vaccination coverage among children who took any one

Table 6.5b Distribution of children aged '0-59' Months who had ever Received Vaccination at any time before the survey by Children's Age and Sex :1998

Age in Month/ Sex	Percentage of children who Received vaccination												Total	
	Measles		BCG		DPT		Polio		All		None			
	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%
<b>Boys</b>														
< 6	10985	26.6	21610	52.4	19669	47.7	21533	52.2	8046	19.5	15762	38.2	41276	100
6 - 11	24542	58.5	34059	81.1	35633	84.9	37738	89.9	20939	49.9	1820	4.3	41971	100
12 - 23	65919	82.2	68478	85.3	67002	83.5	74860	93.3	62561	78	4182	5.2	80234	100
24 - 35	69697	89.5	71708	92.1	71784	92.2	76246	97.9	67425	86.6	1186	1.5	77892	100
36 - 47	71496	87.6	72031	88.3	72121	88.4	78395	96.1	69187	84.8	2583	3.2	81593	100
48 - 59	75410	87.6	75888	88.2	76618	89	80621	93.7	71798	83.4	3877	4.5	86044	100
Not Stated	531	18.3	551	19	601	20.7	601	20.7	482	16.6	0	0	2897	100
All Ages	318580	77.3	344325	83.6	343428	83.4	369994	89.8	300438	72.9	29410	7.1	411907	100
<b>Girls</b>														
< 6	7714	21.4	19509	54.1	17783	49.3	19982	55.4	6557	18.2	13984	38.8	36063	100
6 - 11	26442	60.1	35762	81.3	35176	80	40235	91.5	23146	52.6	2569	5.8	43993	100
12 - 23	67406	87.2	68481	88.6	69262	89.6	74497	96.4	62084	80.3	1142	1.5	77281	100
24 - 35	73445	84.0	75832	86.7	75090	85.9	83985	96	70872	81	2158	2.5	87458	100
36 - 47	72430	84.9	75353	88.4	75760	88.9	79712	93.5	70059	82.2	4659	5.5	85264	100
48 - 59	71092	85.2	71448	85.6	71553	85.7	79834	95.6	67165	80.5	2497	3	83476	100
Not Stated	94	3.9	94	3.9	94	3.9	94	3.9	94	3.9	360	15	2399	100
All Ages	318623	76.6	346479	83.3	344718	82.9	378339	91	299977	72.1	27369	6.6	415934	100
<b>Both Sexes</b>														
< 6	18699	24.2	41119	53.2	37452	48.4	41515	53.7	14603	18.9	29746	38.5	77339	100
6 - 11	50984	59.3	69821	81.2	70809	82.4	77973	90.7	44085	51.3	4389	5.1	85964	100
12 - 23	133325	84.6	136959	86.9	136264	86.5	149357	94.8	124645	79.1	5324	3.4	157515	100
24 - 35	143142	86.6	147540	89.2	146874	88.8	160231	96.9	138297	83.6	3344	2	165350	100
36 - 47	143926	86.3	147384	88.3	147881	88.6	158107	94.8	139246	83.5	7242	4.3	166857	100
48 - 59	146502	86.4	147336	86.9	148171	87.4	160455	94.7	138963	82	6374	3.8	169520	100
Not Stated	625	11.8	645	12.2	695	13.1	695	13.1	576	10.9	360	6.8	5296	100
All Ages	637203	77	690804	83.4	688146	83.1	748333	90.4	600415	72.5	56779	6.9	827841	100

Table 6.5c Distribution of children aged '0-59' Months who had ever Received Vaccination at any time before the survey by Children's Age and Sex :1998

RURAL

Age in Month/ Sex	Percentage of children who Received vaccination												Total
	Measles		BCG		DPT		Polio		All		None		
	N <sup>o</sup>	%	N <sup>o</sup>	%	N <sup>o</sup>	%	N <sup>o</sup>	%	N <sup>o</sup>	%	N <sup>o</sup>	%	
<b>Boys</b>													
< 6	46061	12.0	69561	18.2	64680	16.9	114261	29.8	33239	8.7	250645	65.5	382818
6 - 11	124132	29.8	172246	41.4	172838	41.5	317613	76.3	105588	25.4	89783	21.6	416106
12 - 23	392555	46.8	425086	50.7	440169	52.5	685355	81.7	355245	42.3	135534	16.2	839147
24 - 35	375246	46.3	402869	49.7	410098	50.6	659748	81.3	338634	41.8	136375	16.8	811092
36 - 47	394608	47.4	409478	49.2	417228	50.1	663914	79.7	351797	42.2	144839	17.4	832787
48 - 59	348576	45.1	359051	46.4	367184	47.5	594748	76.9	304580	39.4	151365	19.6	773450
Not Stated	295	3.5	295	3.5	295	3.5	295	3.5	295	3.5	1666	19.8	8415
All Ages	1681473	41.4	1838586	45.2	1872492	46.1	3035934	74.7	1489378	36.6	910207	22.4	4063815
<b>Girls</b>													
< 6	45961	11.1	70633	17.0	69407	16.7	103615	25.0	30521	7.3	287389	69.2	415253
6 - 11	121347	29.2	167030	40.2	170536	41.0	313793	75.5	101453	24.4	91968	22.1	415473
12 - 23	365216	43.9	398414	47.9	397498	47.8	661771	79.5	326862	39.3	157072	18.9	831972
24 - 35	383281	49.0	398835	50.9	412153	52.6	636725	81.3	348999	44.6	128918	16.5	782963
36 - 47	384477	47.7	394106	48.9	393135	48.8	634232	78.7	341710	42.4	151355	18.8	805733
48 - 59	334465	46.3	339546	47.0	354184	49.1	560323	77.6	298637	41.4	144031	19.9	722035
Not Stated	151	2.4	151	2.4	151	2.4	474	7.5	151	2.4	-	-	6301
All Ages	1634898	41.1	1768715	44.4	1797064	45.2	2910933	73.1	1448333	36.4	960733	24.1	3979730
<b>Both Sexes</b>													
< 6	92022	11.5	140194	17.6	134087	16.8	217876	27.3	63760	8.0	538034	67.4	798071
6 - 11	245479	29.5	339276	40.8	343374	41.3	631406	75.9	207041	24.9	181751	21.9	831579
12 - 23	757771	45.3	823500	49.3	837667	50.1	1347126	80.6	682107	40.8	292606	17.5	1671119
24 - 35	758527	47.6	801704	50.3	822251	51.6	1296473	81.3	687633	43.1	265293	16.6	1594055
36 - 47	779085	47.5	803584	49.0	810363	49.5	1298146	79.2	693507	42.3	296194	18.1	1638520
48 - 59	683041	45.7	698597	46.7	721368	48.2	1155071	77.2	603217	40.3	295396	19.8	1495485
Not Stated	446	3.0	446	3.0	446	3.0	769	5.2	446	3.0	1666	11.3	14716
All Ages	3316371	41.2	3607301	44.8	3669556	45.6	5946867	73.9	2937711	36.5	1870940	23.3	8043545

specific vaccination and those who were fully vaccinated seem to increase as age advances.

As shown in the table, variations of vaccination coverage by sex were almost negligible except for polio which depicted slightly higher proportion among boys than among girls. Generally, one fact is clearly evident from the survey data. That is, the coverage of vaccination of six vaccine-preventable diseases is not as high as it should be in Ethiopia. This means that there are more children who are at risk because of non-use of vaccination. Tables 6.5b and 6.5c present the distribution of children under five years who were vaccinated at any time before the survey by place of residence, sex and age of children. The data show that 73 percent of children of both sexes in urban areas were fully vaccinated. There was no apparent observed difference in coverage by sex among those who were fully vaccinated.

Comparing the vaccination coverage among different types of vaccinations show that it was much higher for polio irrespective of place of residence and the lowest proportion was depicted for measles. For all types of vaccinations, the coverage was markedly higher among children living in urban areas than those in rural areas. In rural areas, only 37 percent of children aged 0-59 months were fully vaccinated compared to 73 percent in urban areas. This large difference could mainly be attributed to the fact that access to health service in urban areas is better. Besides, the percentage of Polio coverage in rural areas was twice larger (74 percent) than the percentage for full vaccination. Unlike the variation observed by place of residence, variations by sex in the vaccination coverage were quite small or negligible both in rural and urban areas.

As shown in Table 6.6 a notable difference in the coverage of vaccination was observed by mother's education. Children born to mothers who had completed grades 9-12 were more than twice likely to have received full vaccination compared to those whose mothers had no education. Generally, the results indicated that there was strong positive association between vaccination coverage of children and mother's education.

**Table 6.6 Distribution of Children Aged '0-59' Months who had ever Received Vaccination at any time prior to the Survey by Background Characteristics: 1998**

Background Characteristics	Children who Received vaccination										Total N° %			
	Measles		BCG		DPT		Polio		All				None	
	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%
<b>Mother's Age</b>														
Under 20	189612	38	219172	43.9	221279	44.4	342257	68.6	165356	33.2	140750	28.2	498806	100
20 - 29	1916094	44.8	2096896	49	2117185	49.5	3233251	75.6	1706297	39.9	927975	21.7	4279221	100
30 - 39	1407363	44.7	1525986	48.5	1553994	49.3	2405324	76.4	1270036	40.3	669144	21.2	3149453	100
40+	440506	46.7	456053	48.3	465247	49.3	714369	75.7	396438	42	189851	20.1	943906	100
<b>Sex</b>														
Male	24137	5791	11022	133	5436	899	5	851						
Female	2000053	44.7	2182913	48.8	2215921	49.5	3405929	76.1	1789817	40	939617	21	4475721	100
<b>Place of Residence</b>														
Urban	637203	77	690805	83.4	688147	83.1	748333	90.4	600415	72.5	56780	6.9	827839	100
Rural	3316373	41.2	3607302	44.8	3669557	45.6	5946868	73.9	2937712	36.5	1870940	23.3	8043546	100
<b>Mothers Education</b>														
Illiterate	3026125	41	3308452	44.9	3363919	45.6	5463754	74.1	2696410	36.6	1723092	23.4	7375300	100
1 - 6	393769	61.9	416832	65.5	421110	66.2	535661	84.2	355025	55.8	83218	13.1	636008	100
7 - 8	136352	69.3	154940	78.7	151215	76.8	167376	85	127501	64.8	22107	11.2	196858	100
9 - 12	129730	83.4	141519	91	142639	91.7	146700	94.3	124114	79.8	5346	3.4	155546	100
Above 12	16324	88.1	16383	88.4	16331	88.1	16252	87.7	14029	75.7	1357	7.3	18539	100
Non Regular	23181	53.9	25541	59.4	22183	51.6	31584	73.4	17347	40.3	9381	21.8	43003	100
Not Stated	228095	51.1	234440	52.5	240308	53.9	333875	74.8	203703	45.7	83219	18.7	446131	100
<b>Birth Order</b>														
1	858623	48.9	931042	53	937265	53.4	1343607	76.5	762919	43.5	359641	20.5	1755565	100
2 - 3	1254283	45.7	1360687	49.6	1381073	50.4	2083710	76	1127551	41.1	588246	21.4	2742811	100
4 - 5	864536	42.6	947048	46.7	968262	47.7	1539944	75.9	769805	38	437287	21.6	2028197	100
6+	902709	41.6	980527	45.2	992255	45.8	1605574	74.1	809491	37.3	511351	23.6	2168061	100
Not Stated	73424	41.5	78804	44.6	78849	44.6	122367	69.2	68361	38.7	31196	17.6	176752	100
<b>Region</b>														
Tigray	432697	69.6	458298	73.7	459415	73.9	555228	89.3	392159	63.1	48954	7.9	621727	100
*Affar	11171	26	13982	32.6	14890	34.7	25823	60.1	10519	24.5	16731	39	42949	100
Amhara	1001087	43.2	1041291	44.9	1073146	46.3	1755241	75.7	884302	38.1	500572	21.6	2319533	100
Oromoia	1550116	43.1	1726731	48	1741720	48.5	2736732	76.1	1391089	38.7	762725	21.2	3594598	100
**Somalie	32463	32.6	41745	41.9	42205	42.3	50388	50.5	31467	31.6	47975	48.1	99729	100
Benishangul-Gumuz	44458	44.1	49441	49	54077	53.6	83688	82.9	40524	40.2	15733	15.6	100912	100
SNNP	709597	37.9	779216	41.6	786489	42	1288728	68.8	622772	33.2	524118	28	1873821	100
Gambela	12686	61	14280	68.7	13787	66.3	16962	81.6	11887	57.2	3247	15.6	20795	100
Harari.	12197	63.6	15074	78.7	14484	75.6	16618	86.7	11940	62.3	2303	12	19165	100
Addis Ababa	125984	84.4	134120	89.8	133877	89.6	140162	93.9	120937	81	2743	1.8	149339	100
Dire Dawa	21119	73.3	23931	83	23614	81.9	25631	88.9	20531	71.2	2620	9.1	28818	100
<b>All Children</b>	3953576	44.6	4298108	48.4	4357704	49.1	6695202	75.5	3538127	39.9	1927721	21.7	8871386	100

\* Includes Settled Population Covered by Census map work in Zones 1,3,5

\*\* Includes Settled Population Covered by Census map work in Shiile, Jigjiga and Liben Zones

**Table 6.6a Distribution of Children Aged '0-59' Months who had ever Received Vaccination at any time prior to the survey by Selected Urban Centers: 1998**

Selected Urban Centers	Children who Received vaccination												Total
	Measles		BCG		DPT		Polio		All		None		
	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%	
Country Total	637203	77.0	690805	83.4	688147	83.1	748333	90.4	600415	72.5	56780	6.9	827839
MEKELE	10282	87.5	11005	93.7	10945	93.1	11197	95.3	10031	85.4	298	2.5	11751
ASSAYITA	845	80.6	867	82.7	872	83.2	984	93.9	816	77.9	53	5.1	1048
GONDER	7789	80.3	8881	91.6	8778	90.5	9291	95.8	7789	80.3	408	4.2	9698
BAHIR DAR	7124	78.5	7534	83.0	8026	88.5	8599	94.8	6612	72.9	388	4.3	9074
DESSIE	5442	85.8	5742	90.5	5838	92.1	6051	95.4	5305	83.6	246	3.9	6342
JIMMA	5990	80.9	6287	84.9	6073	82	6790	91.7	5580	75.4	511	6.9	7404
NAZRETH	10841	78.8	12610	91.6	12531	91.1	13191	95.9	10563	76.8	419	3.0	13759
DEBRE ZIET	5427	79.6	6458	94.7	6425	94.2	6454	94.6	5327	78.1	302	4.4	6822
JIJGA	7723	73.3	8540	81.1	8401	79.8	9132	86.7	7570	71.9	1195	11.0	10529
ASOSA	1904	82.3	2005	86.7	1985	85.8	2172	93.9	1847	79.9	95	4.1	2313
AWASA	7603	82.7	8345	90.8	8337	90.7	8096	88.1	7148	77.8	468	5.1	9188
GAMBELA	2894	82.2	3168	90.0	2851	81.0	3374	95.9	2701	76.8	60	1.7	3519
HARARI	5051	86.0	5755	98.0	5755	98.0	5755	98.0	5051	86.0	115	2.0	5870
ADDIS ABABA	122894	85.4	131123	91.1	131103	91.1	135548	94.2	118261	82.2	2037	1.4	143939
DIRE DAWA	11687	83.9	13138	94.3	13134	94.3	13264	95.2	11561	83.0	457	3.3	13926
AMARA OTHER URBAN	109078	83.0	111434	84.8	113871	86.7	125181	95.3	100711	76.6	4143	3.2	131406
OROMIYA OTHER URBAN	158249	69.0	181651	79.2	179293	78.2	200799	87.6	146563	63.9	18978	8.3	229307
SNNPR OTHER URBAN	78283	76.0	80650	78.3	79789	77.5	88938	86.4	72429	70.4	11595	11.0	102947
OTHER URBAN	78095	71.6	85613	78.5	84142	77.2	93520	85.8	74549	68.4	15012	13.8	108997

On the other hand, the survey data indicate no significant variation in the proportion of vaccination coverage by birth order.

The survey result also showed differences in childhood vaccination coverage among regions. The coverage of full vaccination (all the recommended vaccinations) were quite more than fifty percent in Tigray, Gambella, Harari, Addis Ababa and Dire Dawa. On the other hand, the lowest proportion was observed in Affar Region, which was about only 26 percent. For the remaining regions, the coverage ranged from 32 percent in Somali Region to 40 percent in Benishangul-Gumuz Region. Percentage distributions of children aged 0-59 months who received vaccination of all the recommended six vaccine-preventable diseases range from 64 percent in Oromiya other urban to 86 percent in Harar urban (for details see Table 6.6a).

## **6.5 Childhood Illness and ORS Treatment**

Table 6.7 shows that 23 percent of children under five years of age reported to have had diarrhea, vomiting or cough during the two weeks prior to the survey date. Diarrhoea, vomiting or cough episode was more prevalent among children of age 6-23 months, among male children and among children residing in rural areas. Moreover, there was negative relationship between the episode of diarrhoea, vomiting or cough and mothers education. It was lowest among children of mothers who completed grades above 12. Comparison of the proportion of having diarrhoea, vomiting or cough was substantially higher in Dire Dawa (29 percent) compared to Addis Ababa (14 percent).

Table 6.8 shows the proportion of children who were given ORS, home made liquid and/or other fluid and other medicine to children who had Diarrhoea, vomiting or cough by background characteristics. As shown in the table, out of the total children who had diarrhoea, vomiting or cough during the two weeks prior to the survey date 14 percent were given ORS, 10 percent home made liquids and/or other fluid, 25 percent

Table 6.7 Distribution of Children Aged Under five years by status of Having Diarrhoea, Vomiting or Cough during the two weeks prior to the survey by Background Characteristics; 1998.

Background Characteristics	Status of Having Diarrhoea, Vomiting or Cough						Total	
	Yes		NO		Not Stated			
	N°	%	N°	%	N°	%	N°	%
<b>Current Age (in Month)</b>								
< 6	156098	17.8	709291	81.0	10021	1.1	875410	100
6 - 11	307763	33.5	608889	66.4	890	0.1	917542	100
12 - 23	616074	33.7	1208834	66.1	3726	0.2	1828634	100
24 - 35	415277	23.6	1341575	76.3	2553	0.1	1759405	100
36 - 47	328682	18.2	1474076	81.6	2619	0.1	1805377	100
48 - 59	241812	14.4	1424290	84.5	18915	1.1	1685017	100
00 - 59	2065706	23.3	6766955	76.3	38724	0.4	8871385	100
<b>Sex</b>								
Male	1081357	24.2	3375995	75.4	18369	0.4	4475721	100
Female	984349	22.4	3390960	77.1	20355	0.5	4395664	100
<b>Place of Residence</b>								
Urban	176849	21.4	645457	78.0	5533	0.7	827839	100
Rural	1888858	23.5	6121498	76.1	33191	0.4	8043547	100
<b>Mothers Education</b>								
Illiterate	1748491	23.7	5604398	76.0	22411	0.3	7375300	100
1 - 6	142008	22.3	491490	77.3	2510	0.4	636008	100
7 - 8	41868	21.3	154468	78.5	522	0.3	196858	100
9 - 12	24579	15.8	129962	83.6	1005	0.6	155546	100
Above 12	2698	14.6	15841	85.4	-	-	18539	100
Non Regular	9126	21.2	33877	78.8	-	-	43003	100
Not Stated	96936	21.7	336919	75.5	12276	2.8	446131	100
<b>Region</b>								
Tigray	163643	26.3	454873	73.2	3210	0.5	621726	100
*Affar	8457	19.7	34492	80.3	-	-	42949	100
Amhara	552831	23.8	1754282	75.6	12420	0.5	2319533	100
Oromia	859712	23.9	2722833	75.7	12052	0.3	3594597	100
**Somalie	18393	18.4	80787	81.0	548	0.5	99728	100
Benishangul-Gumuz	26725	26.5	73880	73.2	307	0.3	100912	100
SNNP	396967	21.2	1471096	78.5	5759	0.3	1873822	100
Gambela	4263	20.5	16437	79.0	95	0.5	20795	100
Harari	4961	25.9	14161	73.9	43	0.2	19165	100
Addis Ababa	21402	14.3	123837	82.9	4100	2.7	149339	100
Dire Dawa	8352	29.0	20275	70.4	191	0.7	28818	100
<b>All Children</b>	<b>2065707</b>	<b>23.3</b>	<b>6766955</b>	<b>76.3</b>	<b>38724</b>	<b>0.4</b>	<b>8871386</b>	<b>100</b>

\* Includes Settled Population Covered by Census map work in Zones 1,3,5

\*\* Includes Settled Population Covered by Census map work in Shiile, Jigjiga and Liben Zones

**Table 6.7a Distribution of Children Aged Under five years by status of Having Diarrhoea, Vomiting or Cough during the two weeks prior to the survey by Selected Urban Centers :1998**

Selected Urban Centers	Status of Having Diarrhoea, Vomiting or Cough						Total	
	Yes		NO		Not Stated		N°	%
	N°	%	N°	%	N°	%		
<b>COUNTRY-TOTAL</b>	176849	21.4	645457	78.0	5533	0.7	827839	100
MEKELE	2958	25.2	8660	73.7	133	1.1	11751	100
ASSAYITA	332	31.7	716	68.3	-	-	1048	100
GONDER	2076	21.4	7622	78.6	-	-	9698	100
BAHIR DAR	1778	19.6	7296	80.4	-	-	9074	100
DESSIE	686	10.8	5611	88.5	45	0.7	6342	100
JIMMA	1830	24.7	5574	75.3	-	-	7404	100
NAZRETH	2933	21.3	10826	78.7	-	-	13759	100
DEBRE ZIET	962	14.1	5860	85.9	-	-	6822	100
JIJGA	1940	18.4	8468	80.4	121	1.1	10529	100
ASOSA	503	21.7	1810	78.3	-	-	2313	100
AWASA	2120	23.1	7068	76.9	-	-	9188	100
GAMBELA	910	25.9	2585	73.4	25	0.7	3520	100
HARARI	1708	29.1	4162	70.9	-	-	5870	100
ADDIS ABABA	20948	14.6	118904	82.6	4088	2.8	143940	100
DIRE DAWA	3795	27.3	10004	71.8	126	0.9	13925	100
AMARA OTHER URBAN	29409	22.4	101732	77.4	265	0.2	131406	100
OROMIYA OTHER URBAN	47749	20.8	181036	78.9	523	0.2	229308	100
SNNPR OTHER URBAN	23064	22.4	79701	77.4	181	0.2	102946	100
OTHER URBAN	31148	28.6	77823	71.4	26	-	108997	100

Table 6.8 Distribution of Children Aged Under five Years who had Diarrhoea, Vomiting or Cough during two Weeks Prior to the Survey by Type of Treatment given and Background Characteristics:1998

Background Characteristics	Type of Treatment Given												Total	
	ORS		Home Made liquid Other Filuid		Other Medicine		ORS and Home made Liquid or Other Fluid		None		Not Stated			
	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%
<b>Current Age (in Month)</b>														
< 6	11369	7.3	15540	10	34928	22.4	701	0.4	90661	58.1	2899	1.9	156098	100
6 - 11	40716	13.2	25697	8.3	79269	25.8	7827	2.5	153701	49.9	554	0.2	307764	100
12 - 23	105971	17.2	56934	9.2	151259	24.6	10417	1.7	286355	46.5	5138	0.8	616074	100
24 - 35	56813	13.7	42095	10.1	109865	26.5	6235	1.5	196461	47.3	3808	0.9	415277	100
36 - 47	44698	13.6	39783	12.1	77512	23.6	2243	0.7	161109	49	3339	1	328684	100
48 - 59	21061	8.7	34560	14.3	63547	26.3	2994	1.2	116810	48.3	2840	1.2	241812	100
00 - 59	280628	13.6	214609	10.4	516380	25	30417	1.5	1005097	48.7	18578	0.9	2065709	100
<b>Sex</b>														
Male	149381	13.8	108753	10.1	269219	24.9	17429	1.6	525477	48.6	11099	1	1081358	100
Female	131247	13.3	105855	10.8	247160	25.1	12988	1.3	479620	48.7	7480	0.8	984350	100
<b>Place of Residence</b>														
Urban	37744	21.3	25028	14.2	53781	30.4	5711	3.2	53113	30	1472	0.8	176849	100
Rural	242884	12.9	189580	10	462598	24.5	24706	1.3	951983	50.4	17106	0.9	1888857	100
<b>Mothers Education</b>														
Illiterate	224260	12.8	177481	10.2	428589	24.5	22185	1.3	882417	50.5	13557	0.8	1748489	100
1 - 6	22417	15.8	17904	12.6	42138	29.7	2884	2	55166	38.8	1499	1.1	142008	100
7 - 8	10980	26.2	5791	13.8	9595	22.9	2848	6.8	12354	29.5	300	0.7	41868	100
9 - 12	6120	24.9	4019	16.4	8049	32.7	534	2.2	5074	20.6	784	3.2	24580	100
Above 12	32	3.2	189	18.8	480	47.8	0	0	304	30.2	-	-	1005	100
Non Regular	2576	28.2	802	8.8	1772	19.4	8	0.1	3622	39.7	346	3.8	9126	100
Not Stated	14243	14.4	8422	8.5	25755	26.1	1958	2	46159	46.8	2093	2.1	98630	100
<b>Region</b>														
Tigray	40071	24.5	22484	13.7	21999	13.4	6756	4.1	71294	43.6	1040	0.6	163644	100
*Affar	542	6.4	2076	24.5	1643	19.4	206	2.4	3990	47.2	-	-	8457	100
Amhara	64025	11.6	45622	8.3	105987	19.2	4829	0.9	329563	59.6	2804	0.5	552830	100
Oromia	108480	12.6	87756	10.2	236975	27.6	9922	1.2	407200	47.4	9380	1.1	859713	100
**Somalie	2415	13.1	1859	10.1	2815	15.3	166	0.9	10832	58.9	307	1.7	18394	100
Benishangul-Gumuz	6544	24.5	2178	8.1	6243	23.4	741	2.8	11020	41.2	-	-	26726	100
SNNP	46386	11.7	48495	12.2	132715	33.4	6639	1.7	158825	40	3907	1	396967	100
Gambela	1505	35.3	188	4.4	881	20.7	38	0.9	1651	38.7	-	-	4263	100
Harari.	1543	31.1	230	4.6	1455	29.3	37	0.7	1566	31.6	130	2.6	4961	100
Addis Ababa	7084	33.1	2335	10.9	4034	18.8	777	3.6	6162	28.8	1011	4.7	21403	100
Dire Dawa	2034	24.4	1388	16.6	1632	19.5	306	3.7	2993	35.8	-	-	8353	100
<b>All Children.</b>	280628	13.6	214608	10.4	516379	25	30417	1.5	1005096	48.7	18578	0.9	2065706	100

\* Includes Settled Population Covered by Census map work in Zones 1,3,5

\*\* Includes Settled Population Covered by Census map work in Shiile, Jigjiga and Liben Zones

**Table 6.8a Distribution of Children Aged Under five Years who had Diarrhoea, Vomiting or Cough during two Weeks Prior to the Survey by Type of Treatment given and Selected Urban Centers:1998**

Selected Urban Centers	Type of Treatment Given												Total	
	ORS		Home Made liquid Other Filuid		Other Medicine		ORS and Home made Liquid or Other Fluid		None		Not Stated			
	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%
<b>Country Total</b>	37744	21.3	25028	14.2	53781	30.4	5711	3.2	53113	30.0	1472	0.8	176849	100
MEKELE	759	25.7	183	6.2	557	18.8	338	11.4	1084	36.6	37	1.3	2958	100
ASSAYITA	140	42.0	33	9.9	37	11.1	32	9.6	91	27.3	-	-	333	100
GONDER	209	10.1	292	14.1	722	34.8	36	1.7	818	39.4	-	-	2077	100
BAHIR DAR	474	26.7	358	20.1	305	17.2	126	7.1	515	29.0	-	-	1778	100
DESSIE	168	24.5	169	24.7	72	10.5	34	5.0	242	35.3	-	-	685	100
JIMMA	312	17.0	33	1.8	744	40.6	143	7.8	599	32.7	-	-	1831	100
NAZRETH	658	22.4	989	33.7	511	17.4	72	2.5	703	24.0	-	-	2933	100
DEBRE ZIET	269	28.0	63	6.6	375	39.0	-	-	254	26.4	-	-	961	100
JIJGA	840	43.3	72	3.7	300	15.5	118	6.1	610	31.4	-	-	1940	100
ASOSA	173	34.4	53	10.5	209	41.6	-	-	68	13.5	-	-	503	100
AWASA	374	17.6	395	18.6	753	35.5	22	1.0	575	27.1	-	-	2119	100
GAMBELA	448	49.2	62	6.8	175	19.2	-	-	225	24.7	-	-	910	100
HARARI	498	29.2	151	8.8	711	41.7	37	2.2	266	15.6	44	2.6	1707	100
ADDIS ABABA	7003	33.4	2312	11.0	3877	18.5	777	3.7	5968	28.5	1011	4.8	20948	100
DIRE DAWA	1250	32.9	695	18.3	639	16.8	200	5.3	1012	26.7	-	-	3796	100
AMARA OTHER URBAN	4735	16.1	3985	13.5	8385	28.5	304	1.0	11803	40.1	198	0.7	29410	100
OROMIYA OTHER URBAN	10725	22.5	6782	14.2	14730	30.8	2130	4.5	13199	27.6	182	0.4	47748	100
SNNPR OTHER URBAN	2091	9.1	848	3.7	13458	58.4	865	3.8	5802	25.2	-	-	23064	100
OTHER URBAN	6619	21.3	7553	24.2	7220	23.2	479	1.5	9277	29.8	-	-	31148	100

other medicine. Only two percent were given both ORS and home made liquid and/or other fluids. The proportion was higher among children aged 12-23 months compared to those who were aged under six months. Virtually equal proportion of each sex reported to have been given ORS.

The proportions of children with Diarrhoea, vomiting or cough who were treated with ORS were comparatively higher among children in urban areas than those in rural areas. Examination of the proportion of children who were treated showed that the proportions of children who were given ORS, homemade fluid and/or other fluid, both home made fluids and ORS were positively associated with increasing level of education of mothers ( the highest grade completed). Similarly, comparison by region indicated that about twenty percent or more of children with Diarrhoea, vomiting or cough in Tigray, Benishangul-Gumuz, Gambella, Harari, Addis Ababa and Dire Dawa were given ORS whereas in Affar it was only less than seven percent. At country level, forty-nine percent of children who had Diarrhoea, vomiting or cough were given none. The proportion of children with diarrhoea, vomiting or cough who were reported to have been treated with ORS for selected urban centers ranged from 9 percent in SNNP other urban to 42 percent in Assayita town (for details see Table 6.8a).

## **6.6 Vitamin A Coverage**

Vitamin A deficiency is a major cause of blindness in developing countries. Inadequate vitamin A is also associated with impaired immune responses to infection, including lower respiratory tract infection. In addition to questions on immunization, question on vitamin A administration was included in the 1998 Health and Nutrition Survey. During interview to assist mothers to recall and report administration of vitamin A correctly, interviewers were supplied with a sample of vitamin A capsules to show to mothers the sample of the capsules.

Table 6.9 Distribution of Children Aged Under five years by Status of Receiving Vitamin A and Background Characteristics: 1998.

Background Characteristics	Status of Receiving Vitamin A						Total	
	YES		NO		Not Stated			
	N°	%	N°	%	N°	%	N°	%
<b>Current Age (in Month)</b>								
< 6	164557	18.8	699201	79.9	11652	1.3	875410	100
6 - 11	437644	47.7	478883	52.2	1016	0.1	917543	100
12 - 23	985583	53.9	838505	45.9	4546	0.2	1828634	100
24 - 35	971495	55.2	786306	44.7	1604	0.1	1759405	100
36 - 47	953853	52.8	849179	47.0	2346	0.1	1805378	100
48 - 59	864101	51.3	799027	47.4	21888	1.3	1685016	100
00 - 59	4377233	49.3	4451101	50.2	43052	0.5	8871386	100
<b>Sex</b>								
Male	2222888	49.7	2230241	49.8	22592	0.5	4475721	100
Female	2154345	49.0	2220861	50.5	20459	0.5	4395665	100
<b>Place of Residence</b>								
Urban	635580	76.8	186769	22.6	5491	0.7	827840	100
Rural	3741652	46.5	4264334	53.0	37561	0.5	8043547	100
<b>Mothers Education</b>								
Illiterate	3454678	46.8	3894627	52.8	25995	0.4	7375300	100
1 - 6	398833	62.7	234661	36.9	2515	0.4	636009	100
7 - 8	141810	72.0	54308	27.6	739	0.4	196857	100
9 - 12	127878	82.2	26404	17.0	1264	0.8	155546	100
Above 12	14515	78.3	4024	21.7	-	-	18539	100
Non Regular	20932	48.7	21812	50.7	258	0.6	43002	100
Not Stated	218587	49.0	215265	48.3	12279	2.8	446131	100
<b>Region</b>								
Tigray	503523	81.0	115297	18.5	2907	0.5	621727	100
*Affar	19695	45.9	23166	53.9	88	0.2	42949	100
Amhara	1136062	49.0	1171667	50.5	11803	0.5	2319532	100
Oromia	1535337	42.7	2044516	56.9	14745	0.4	3594598	100
**Somalie	43160	43.3	56076	56.2	492	0.5	99728	100
Benishangul-Gumuz	66634	66.0	33886	33.6	392	0.4	100912	100
SNNP	890915	47.5	974140	52.0	8767	0.5	1873822	100
Gambela	13854	66.6	6846	32.9	95	0.5	20795	100
Harari	15947	83.2	3119	16.3	99	0.5	19165	100
Addis Ababa	127222	85.2	18527	12.4	3589	2.4	149338	100
Dire Dawa	24882	86.3	3862	13.4	75	0.3	28819	100
<b>All Children</b>	4377232	49.3	4451102	50.2	43051	0.5	8871385	100

\* Includes Settled Population Covered by Census map work in Zones 1,3,5

\*\* Includes Settled Population Covered by Census map work in Shiile, Jigjiga and Liben Zones

As given in Table 6.9, coverage of vitamin A administration increases with the age of children. Though more than half of the children aged 12-59 months were reported to have taken vitamin A the proportion was lowest among children aged under six months. There was no observed difference by sex regarding vitamin A administration. Almost half of each sex reported to have taken vitamin A. Vitamin A coverage varied significantly by place of residence. As shown in the table the percentage of children in urban areas who received vitamin A was 77 percent compared to 47 percent in rural areas. Among children born to mothers who had no formal education, the coverage of vitamin A administration was remarkably lower than those children whose mothers have completed grades 9-12. Similarly, vitamin A administration was markedly different among regions. In four areas namely: Tigray, Harari, Addis Ababa and Dire Dawa at least more than eighty percent of children aged 0-59 months have received vitamin A. According to the survey result, the least coverage was observed in Oromiya Region (43 percent). Table 6.9a presents the distribution of children under five by status of taking vitamin A and selected urban centers. It shows that the proportion of children who were given vitamin A ranged from 54 percent in Bahir Dar to 92 percent in Harar town.

**Table 6.9a Distribution of Children Aged Under five years by Status of Receiving Vitamin A and Selected Urban Centers:1998.**

Selected Urban Center	Status of Receiving Vitamin A						Total Number of Children	
	YES		NO		Not Stated			
	N°	%	N°	%	N°	%	N°	%
<b>Country Total</b>	635580	76.8	186769	22.6	5491	0.7	827840	100
MEKELE	10668	90.8	958	8.2	124	1.1	11750	100
ASSAYITA	820	78.2	228	21.8	-	-	1048	100
GONDER	7500	77.3	2198	22.7	-	-	9698	100
BAHIR DAR	4887	53.9	4088	45.1	99	1.1	9074	100
DESSIE	5651	89.1	646	10.2	45	0.7	6342	100
JIMMA	5999	81.0	1368	18.5	37	0.5	7404	100
NAZRETH	9703	70.5	4056	29.5	-	-	13759	100
DEBRE ZIET	5316	77.9	1505	22.1	-	-	6821	100
JIJGA	8846	84.0	1608	15.3	75	0.7	10529	100
ASOSA	1863	80.5	450	19.5	-	-	2313	100
AWASA	7159	77.9	2008	21.9	22	0.2	9189	100
GAMBELA	2923	83.0	572	16.3	25	0.7	3520	100
HARARI	5411	92.2	459	7.8	-	-	5870	100
ADDIS ABABA	122923	85.4	17439	12.1	3577	2.5	143939	100
DIRE DAWA	12970	93.1	881	6.3	75	0.5	13926	100
AMARA OTHER URBAN	108397	82.5	22745	17.3	265	0.2	131407	100
OROMIYA OTHER URBAN	152281	66.4	76086	33.2	940	0.4	229307	100
SNNPR OTHER URBAN	75265	73.1	27501	26.7	181	0.2	102947	100
OTHER URBAN	86998	79.8	21973	20.2	26	-	108997	100

## **CHAPTER 7**

### **BREASTFEEDING AND SUPPLEMENTATION**

#### **7.1 Breastfeeding**

Breastfeeding practice has important health and demographic consequences. It influences the growth and development of a child, and thus affects the child's risk of morbidity and mortality. In addition, prolonged lactation protects against pregnancy by delaying the return of ovulation and thereby extends the postpartum nonsusceptible period during which a woman is usually amenorrheic, this in turn affects the length of birth interval, and thus fertility levels. These variables are influenced by both the intensity of breastfeeding and by the age at which children are introduced to food supplements and fluids other than breast milk.

The data in Table 7.1 present the distribution of children under two years of age by status of breastfeeding, sex and region. The data in the table show that virtually equal proportion of children of both sexes aged under two years were being breastfed during the survey. The proportion of children who were being breastfed was higher in Amhara region (95 percent) whereas lower rate was observed in Addis Ababa (70 percent). Except in Addis Ababa, more than three-quarters of children under two years reported to have been breastfeeding. Next to Addis Ababa, the lower rates of children who were being breastfed observed were in Dire Dawa (77 percent), Somalie (79 percent) and Harari (80 percent). In addition, in these regions the proportions of children who were being breastfed were slightly lower among males than females.

According to the data in Table 7.2, the practice of breastfeeding and education of mothers were negatively related. Children of mothers who completed grades 9-12 were reported to have been breastfeeding for shorter period compared to children of mother



Table 7.2 Distribution of Children Aged 0 - 59 Months who were Breastfeeding at the time of the Survey by Age and Background Characteristics: 1998

Background Characteristics	Age (in Month)										Total
	< 6		6 - 11		12 - 23		24 +		Not Stated		
	N°	%	N°	%	N°	%	N°	%	N°	%	
<b>Place of Residence</b>											
Rural	782,451	98.0	816,916	98.2	1,489,623	89.1	936,057	19.8	1,724	11.7	4,026,771
Urban	72,416	93.6	78,375	91.2	124,759	79.2	72,250	14.4	539	10.2	348,339
<b>Mothers Education</b>											
Illiterate	733,501	98.3	777,918	98.9	1,404,762	90.3	902,910	21.1	1,140	14.1	3,820,231
1 - 6	69,559	97.4	64,628	98.1	127,355	86.8	51,899	14.8	-	-	313,441
7 - 8	21,474	97.7	23,412	95.5	31,885	79.2	18,310	16.8	1,123	80	96,204
9 - 12	14,592	89.5	12,701	79.6	22,341	68.6	10,089	11.2	-	-	59,723
Above 12	1,505	100.0	2,130	100.0	1,634	57.9	1,408	11.7	-	-	6,677
Non Regular	5,000	100.0	2,962	100.0	7,359	90.3	4,997	18.6	-	-	20,318
Not Stated	9,236	71.3	11,541	58.1	19,046	44.1	18,693	5.2	-	-	58,516
<b>Birth Order</b>											
1	177,794	97.5	156,180	95.3	302,473	82.5	156,337	15.0	399	25.1	793,183
2 - 3	251,721	97.6	297,281	97.9	513,914	88.5	272,948	17.1	991	50.8	1,336,855
4 - 5	208,011	98.1	217,841	98.3	374,968	91.6	245,711	20.7	69	7.9	1,046,600
6+	201,181	98.4	212,286	98.1	390,857	89.8	307,294	23.4	495	33.7	1,112,113
Not Stated	16,160	86.5	11,704	94.7	32,171	88.1	26,017	27.4	309	2.2	86,361
<b>Mothers Age</b>											
15 - 19	109,262	98.4	91,122	98.6	128,393	89.5	46,279	30.9	745	36.2	375,801
20 - 24	215,644	97.3	241,229	98.3	400,989	86.3	172,992	17.9	523	23.5	1,031,377
25 - 29	226,076	98.3	243,293	97.9	442,654	90.9	254,364	18.0	356	10.5	1,166,743
30 - 34	142,363	97.9	151,614	99.2	273,997	89.2	183,675	19.7	639	50.9	752,288
35 - 39	108,098	98.3	108,027	98.4	228,945	91.3	195,026	23.1	-	-	640,096
40+	53,424	93.1	60,007	87.6	139,404	79.3	155,971	16.9	-	-	408,806
<b>Region</b>											
Tigray	56,402	97.3	61,228	96.6	121,574	92.4	52,758	14.4	580	21.5	292,542
*Affar	4,273	98.3	5,730	98.0	7,026	91.3	4,682	18.9	-	-	21,711
Amhara	231,511	96.5	224,939	98.8	483,182	95.4	400,750	29.9	1,224	-	1,341,606
Oromia	343,885	98.4	362,511	97.2	634,772	84.0	280,164	13.3	309	-	1,621,641
**Somalie	7,930	98.9	7,521	92.8	13,997	75.7	4,097	6.3	-	-	33,545
Benishangul-Gumuz	11,489	97.7	9,904	99.2	16,886	90.6	14,657	24.3	150	-	53,086
SNNP	183,443	98.8	205,200	99.1	310,437	88.6	232,663	20.6	-	-	931,743
Gambela	2,716	98.9	1,801	99.0	3,271	84.6	2,798	22.8	-	-	10,586
Harari	2,229	98.6	1,830	97.9	2,388	69.7	1,073	9.3	-	-	7,520
Addis Ababa	8,173	79.3	11,971	75.9	17,267	66.3	13,423	14.4	-	-	50,834
<b>All Children</b>	<b>854,867</b>	<b>97.7</b>	<b>895,291</b>	<b>97.6</b>	<b>1,614,382</b>	<b>88.3</b>	<b>1,008,306</b>	<b>19.3</b>	<b>2262</b>	<b>11.3</b>	<b>4,375,108</b>

\* Includes Settled Population Covered by Census map work in Zones 1,3,5

\*\* Includes Settled Population Covered by Census map work in Shiile, Jigjiga and Liben Zones

**Table 7.2a Distribution of Children Aged 0 - 59 Months who were Breastfeeding at the time of the Survey by Age and Selected Urban Centers:1998**

Selected Urban Centers	Age (in Month)										Total
	< 6		6 - 11		12 - 23		24 +		Not Stated		
	N <sup>o</sup>	%									
<b>COUNTRY TOTAL</b>	72,416	93.6	78,375	91.2	124,759	79.2	72,250	14.4	539	10.2	348,339
MEKELE	1,030	100	521	79.7	2,231	85.4	440	6.3	181	43.0	4,403
ASSAYITA	162	100	88	100	122	77.7	98	15.3	-	-	470
GONDER	962	100	743	100	1,911	76.8	835	15.2	-	-	4,451
BAHIR DAR	1,082	96.9	889	96.0	1,726	89.6	1,445	28.6	49	100.0	5,191
DESSIE	338	80.1	535	81.9	942	73.3	443	11.2	-	-	2,258
JIMMA	627	100	864	96.3	1,210	89.0	809	17.9	-	-	3,510
NAZRETH	951	94	1,341	87.1	2,398	76.5	1,310	16.2	-	-	6,000
DEBRE ZIET	515	100	895	90.2	746	72.7	499	11.6	-	-	2,655
JIJGA	1,204	95.8	859	74.7	944	57.0	317	5.0	-	-	3,324
ASOSSA	342	100	191	96.5	378	74.3	179	14.2	-	-	1,090
AWASSA	443	91.2	997	89.8	1,509	71.2	895	16.4	-	-	3,844
GAMBELA	358	92.5	254	93.0	583	69.5	308	15.3	-	-	1,503
HARARI	456	93.4	569	93.6	665	59.2	488	13.4	-	-	2,178
ADDIS ABABA	7,657	78.3	11,367	75.1	16,372	65.6	12,905	14.3	-	-	48,301
DIRE DAWA	1,101	95.5	1,160	95.3	1,486	58.4	708	7.9	-	-	4,455
AMHARA OTHER URBAN	9,156	88.9	12,419	89.4	24,186	88.6	18,309	23.0	-	-	64,070
OROMIA OTHER URBAN	23,252	96.8	23,606	96.2	36,984	77.9	17,971	13.5	309	63.1	102,122
SNNPR OTHER URBAN	10,937	98.4	9,988	97.3	12,924	81.2	9,611	14.6	-	-	43,460
OTHER URBAN	11,841	97.3	11,088	100	17,442	91.3	4,680	7.0	-	-	45,051

with no education or mothers who completed primary school (grades 1-6). Birth order have shown to have had little effect on breastfeeding practice. But there were marked difference by age of mothers. Thirty one percent of children aged 24+ months born to young mothers (aged 15-19 years) were being breastfed during the survey compared to only 17 percent of children of mothers aged 40 years and above.

Table 7.3 presents data on the proportion of children aged 0-59 months who were being breastfed during the survey by current age and sex of children. As shown in the table, almost all children (98 percent) aged 0-11 months were being breastfed during the survey. This suggests that breastfeeding is universal in the country. There was no variation in breastfeeding by sex of a children. The proportion of children who were being breastfed at ages 12-23 months was also as high as 88 percent for each sex. Exclusive breastfeeding of infants from birth up to six months of age is usually recommended. Because breast milk is uncontaminated and contains all the necessary nutrients needed for children. It is also expected to minimize the chances of getting infectious disease due to lower immunity to disease. In this survey for those children who were not breastfeeding at the time of the survey information on age at which they stopped breastfeeding were collected.

Table 7.4 presents the percentage distribution of children under five years by age at which a child stopped breastfeeding and background characteristics. According to the data, early weaning (up to the age of six months) of a child was not very common. Out of the total children, only five percent of them were reported to have stopped breastfeeding before they were under six months of age. Almost the same proportion of children were reported to have stopped breastfeeding at ages of 6-11 months. By and large, 10 percent of children who were under five years at the time of the survey have stopped breastfeeding before they celebrated their first birth day. Similarly, 47 percent of the children were reported to have stopped breastfeeding before they celebrated their second birth day and more than half of them were reported to have stopped when they were two and above years old.

**Table 7.3 Distribution of Children Aged 0 - 59 Months Who were Still Breastfeeding by Age and Sex: 1998**

Age / Sex	Status of Breastfeeding						Total Number of Children	
	Yes		No.		Not Stated		N°	%
	N°	%	N°	%	N°	%		
<b>COUNTRY TOTAL</b>								
<b>Boys</b>								
< 6	413,288	97.5	6,059	1.4	4,748	1.1	424,095	100
6 - 11	447,997	97.8	10,080	2.2	-	-	458,077	100
12 - 23	811,307	88.2	106,206	11.6	1,869	0.2	919,382	100
24+	523,251	19.6	2,137,577	79.9	13,342	0.5	2,674,170	100
Total	2,195,843	49.1	2,259,922	50.5	19,959	0.4	4,475,724	100
<b>Girls</b>								
< 6	440,504	97.8	4,648	1.0	5,088	1.1	450,240	100
6 - 11	447,294	97.4	11,559	2.5	613	0.1	459,466	100
12 - 23	803,075	88.3	104,868	11.5	1,310	0.1	909,253	100
24+	487,318	18.9	2,073,806	80.5	13,731	0.5	2,574,855	100
Total	2,178,191	49.6	2,194,881	50.0	20,742	0.5	4,393,814	100
<b>Not Stated</b>								
< 6	1,076	100	-	-	-	-	1,076	100
6 - 11	-	-	-	-	-	-	-	-
12 - 23	-	-	-	-	-	-	-	-
24+	-	-	775	100	-	-	775	100
Total	1,076	58.1	775	41.9	-	-	1,851	100
<b>Total</b>								
< 6	854,868	97.7	10,707	1.2	9,836	1.1	875,411	100
6 - 11	895,291	97.6	21,639	2.4	613	0.1	917,543	100
12 - 23	1,614,382	88.3	211,074	11.5	3,179	0.2	1,828,635	100
24+	1,010,569	19.2	4,212,158	80.2	27,073	0.5	5,249,800	100
Total	4,375,110	49.3	4,455,578	50.2	40,701	0.5	8,871,389	100

Table 7.4 Distribution of Children Aged Under 5 Years by age in months at which the Child Stopped Breastfeeding and Background Characteristics : 1998

Background Characteristics	Age in Months at which the Child Stopped Breastfeeding										Total		
	< 6		6 - 11		12 - 23		24 +		Not Stated		N°	%	
	N°	%	N°	%	N°	%	N°	%	N°	%			
<b>Sex</b>													
Male	120,625	5.3	111,012	4.9	833,806	36.9	1,190,273	52.7	4,204	0.2	2,259,920	100	
Female	101,498	4.6	122,418	5.6	813,546	37.1	1,154,182	52.6	4,011	0.2	2,195,655	100	
<b>Place of Residence</b>													
Urban	168,702	4.2	188,549	4.7	1,488,406	37.4	2,129,258	53.5	6,998	0.2	3,981,913	100	
Rural	53,422	11.3	44,882	9.5	158,946	33.6	215,198	45.4	1,217	0.3	473,665	100	
<b>Mothers Education</b>													
Illiterate	132,224	3.7	150,579	4.3	1,297,756	36.8	1,944,698	55.1	6,047	0.2	3,531,304	100	
1 - 6	21,041	6.6	19,026	5.9	125,753	39.2	154,062	48.1	724	0.2	320,606	100	
7 - 8	10,435	10.4	7,844	7.8	39,295	39.3	42,425	42.4	-	-	99,999	100	
9 - 12	15,335	16.2	10,396	11	29,679	31.4	39,092	41.3	108	0.1	94,610	100	
Above 12	2,410	20.3	1,637	13.8	4,249	35.8	3,565	30.1	-	-	11,861	100	
Non Regular	-	-	603	2.7	8,821	39.3	13,003	58	-	-	22,427	100	
Not Stated	40,678	10.9	43,345	11.6	141,799	37.8	147,610	39.4	1,336	0.4	374,768	100	
<b>Region</b>													
Tigray	13,959	4.3	13,680	4.2	98,656	30.2	199,357	61.1	509	0.2	326,161	100	
* Affar	1,161	5.5	1,488	7.1	11,697	55.8	6,609	31.5	19	0.1	20,974	100	
Amhara	44,543	4.6	19,640	2.0	228,028	23.6	672,210	69.6	1,899	0.2	966,320	100	
Oromia	103,325	5.3	120,003	6.1	847,338	43.3	883,075	45.1	4,049	0.2	1,957,790	100	
** Somalie	2,801	4.3	11,136	17.0	26,400	40.3	24,523	37.4	683	1.0	65,543	100	
Benishangul-Gumuz	1,790	3.8	4,469	9.4	17,495	36.9	23,506	49.6	148	0.3	47,408	100	
SNNP	28,856	3.1	45,360	4.8	379,633	40.5	482,088	51.5	699	0.1	936,636	100	
Gambela	558	5.5	1,192	11.8	2,848	28.2	5,470	54.1	46	0.5	10,114	100	
Harari	620	5.3	1,384	11.9	5,579	48.1	3,983	34.3	37	0.3	11,603	100	
Addis Ababa	23,162	24.5	12,660	13.4	19,865	21.0	39,010	41.2	-	-	94,697	100	
Dire Dawa	1,348	7.4	2,417	13.2	9,816	53.6	4,623	25.2	126	0.7	18,330	100	
<b>Birth Order</b>													
1	61,939	6.5	69,085	7.2	402,463	42.0	422,785	44.1	1,884	0.2	958,156	100	
2 - 3	68,683	4.9	76,542	5.5	533,124	38.1	718,243	51.4	1,690	0.1	1,398,282	100	
4 - 5	39,372	4.0	38,857	4.0	341,377	34.9	556,909	56.9	2,106	0.2	978,621	100	
6+	48,634	4.6	44,826	4.3	349,215	33.2	606,522	57.7	1,800	0.2	1,050,997	100	
Not Stated	3,496	5.0	4,121	5.9	21,174	30.5	39,998	57.5	734	1.1	69,523	100	
<b>All Children</b>	222,124	5.0	233,430	5.2	1,647,353	37.0	2,344,455	52.6	8,214	0.2	4,455,576	100	

\* Includes settled population Covered by Census map work in Zones 1,2 and3.

\* Includes settled population Covered by Census map work in Zones Shinile,Jijiga and Liben Zones.

**Table 7.4a Distribution of Children Aged Under 5 Years by age in months at which the Child Stopped Breastfeeding and Selected Urban Centers: 1998**

Selected Urban Centers	Age in Months at which the Child Stopped Breastfeeding										Total	
	< 6		6 -11		12 - 23		24+		Not Stated			
	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%
<b>COUNTRY</b>	53,422	11.3	44,882	9.5	158,946	33.6	215,198	45.4	1,217	0.3	473,665	100
MEKELE	125	1.8	421	5.9	2,468	34.8	4,045	57.0	37	0.5	7,096	100
ASSAYITA	11	1.9	31	5.4	179	30.9	358	61.8	-	-	579	100
GONDER	483	9.2	408	7.8	1,367	26.1	2,893	55.1	96	1.8	5,247	100
BAHIR DAR	605	15.6	276	7.1	714	18.4	2,287	58.9	-	-	3,882	100
DESSIE	509	12.6	281	7.0	1,504	37.2	1,711	42.4	33	0.8	4,038	100
JIMMA	628	16.1	387	9.9	1,227	31.5	1,652	42.4	-	-	3,894	100
NAZRETH	971	12.5	1,036	13.4	2,210	28.5	3,543	45.7	-	-	7,760	100
DEBRE ZIET	618	15.1	318	7.8	1,122	27.4	2,034	49.7	-	-	4,092	100
JIJGA	687	9.6	1,747	24.5	2,971	41.7	1,727	24.2	-	-	7,132	100
ASOSSA	63	5.2	213	17.4	435	35.6	508	41.6	3	0.2	1,222	100
AWASSA	896	16.8	681	12.8	1,831	34.4	1,913	36.0	-	-	5,321	100
GAMBELA	154	7.7	603	30.3	411	20.7	810	40.7	12	0.6	1,990	100
HARARI	336	9.1	635	17.2	1,336	36.2	1,349	36.5	37	1	3,693	100
ADDIS ABABA	22,895	24.9	12,425	13.5	18,945	20.6	37,589	40.9	-	-	91,854	100
DIRE DAWA	865	9.3	1,419	15.2	4,067	43.5	2,867	30.7	126	1.3	9,344	100
AMHARA OTHER URBAN	5,098	7.6	4,977	7.4	16,198	24.2	40,799	60.8	-	-	67,072	100
OROMIA OTHER URBAN	10,683	8.5	11,189	8.9	50,245	39.8	53,977	42.8	130	0.1	126,224	100
SNNPR OTHER URBAN	4,728	8.0	1,980	3.3	25,028	42.2	27,569	46.5	-	-	59,305	100
OTHER URBAN	3,068	4.8	5,853	9.2	26,688	41.8	27,567	43.1	744	1.2	63,920	100

Variations in the age at which a child stopped breastfeeding was examined by background characteristics. The survey data indicated that there was no significant differences by sex of a children. Early weaning, however, was more common in urban areas than in rural areas. As shown in the table, the proportions of children who stopped breastfeeding before they were one year old were more than twice in urban areas compared to those in rural areas. But the proportions become larger for rural children at ages 12 months and above.

The survey data showed that educational level of mothers has a negative influence on chances of breastfeeding of children until they are six months. The proportion of children who were reported to have stopped when they were under six months increases with advance in the level of mother's education. The percentages ranged from four percent among children of women with no education to 20 percent among children whose mothers completed grades above 12. These percentages suggest that children of educated mothers stop breastfeeding earlier than children born to mothers who have no education. With the exception of Addis Ababa, the proportion of children who quit breastfeeding when they were under six months old showed no significant variation among regions. About one-fourth of the children in Addis Ababa reported to have stopped breastfeeding at ages under six months. Birth order of children seems to have had little effect on the time stopping breastfeeding. Less than five percent of the children of birth order two and above quit breastfeeding when they were under six months old. Over all, more than half the children (53 percent) stopped breastfeeding when they were two years and above.

## **7.2 Initiation of Breastfeeding**

Mothers are encouraged to initiate breastfeeding within half of an hour after birth. Because early initiation of breastfeeding is beneficial to both for mother and the child. In this survey information was collected on time for initiation of breastfeeding and these are

presented in Tables 7.5 and 7.5a. The data showed that more than thirty percent of children aged 0-59 months were reported to have been put to breast within less than an hour after birth, regardless of the current age of children. The observed proportions were slightly higher among young children who did not celebrate their first birth day. About seventy percent of the children covered by the survey were reported to have started breastfeeding within six hours after birth.

There was no variation in the initiation of breastfeeding within less than an hour after birth by sex of children. However, the difference in the proportion by place of residence was quite large, i.e, 22 percent in the urban areas against 33 percent in rural areas. Similarly there was a difference of initiation time of breastfeeding by region. In Affar, Amhara and Somalie Regions breastfeeding was reported to have been initiated later than in the remaining regions. In these three Regions only 6, 14 and 15 percent of children, respectively, were put to the breast within an hour after birth. Overall, 32 percent of new born babies currently aged 0-59 months started breastfeeding within an hour of birth, 79 percent within 12 hours of birth, and 86 percent within 24 hours.

### **7.3 Type of Food/Liquid initially Given to a New Born Baby**

Breast milk is uncontaminated and contains all the nutrients needed for children in the first few months of live and hence mothers are expected to breastfeed their children immediately after birth. However, it is generally known that some women give some type of food or liquid instead of breast milk. This has great implication on the health and growth of a child. To assess the practice and the type of liquid and/or food initially given to a child at birth, in this survey, information on types of food and/or liquid given to a child at birth were collected. The data are presented in the Tables 7.6 and 7.6a.

According to the data in Table 7.6, 42 percent of children were given breast milk, more than 30 percent fresh butter and 15 percent warm water immediately after birth. There was no clear relationship between current age of children and types of food/liquid

Table 7.5 Distribution of Children Aged Under 5 Years by the Initial Age at which a Child Started Breastfeeding (in Hours) after birth and Background Characteristics: 1998

Back ground Characteristics	Initial Age at which a Child started breastfeeding (in hours)														Total			
	< 1hr		1-6hrs		7 - 12 hrs		13 - 24hrs.		25 - 48 hrs		48+		Breastfeed				Not Stated	
	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%
<b>Current Age (in Month)</b>																		
< 6	286,808	32.8	311,049	35.5	88,984	10.2	70,306	8.0	42,220	4.8	60,385	6.9	718	0.1	14,941	1.7	875,411	100
6 - 11	318,839	34.7	337,939	36.8	81,301	8.9	59,821	6.5	44,514	4.9	69,765	7.6	652	0.1	4,712	0.5	917,543	100
12 - 23	557,535	30.5	716,620	39.2	169,794	9.3	126,740	6.9	103,264	5.6	141,413	7.7	2,478	0.1	10,790	0.6	1,828,634	100
24 - 35	559,243	31.8	698,610	39.7	149,183	8.5	113,485	6.5	88,252	5.0	137,428	7.8	3,800	0.2	9,404	0.5	1,759,405	100
36 - 47	572,440	31.7	698,896	38.7	161,442	8.9	120,937	6.7	94,463	5.2	139,660	7.7	6,346	0.4	11,194	0.6	1,805,378	100
48 - 59	518,123	30.7	660,918	39.2	138,290	8.2	117,776	7.0	94,929	5.6	119,478	7.1	4,769	0.3	30,734	1.8	1,685,017	100
00 - 59	2,812,988	31.7	3,424,032	38.6	788,994	8.9	609,065	6.9	467,642	5.3	668,129	7.5	18,763	0.2	81,775	0.9	8,871,388	100
<b>Sex</b>																		
Male	1,392,856	31.1	1,746,227	39.0	402,184	9.0	310,639	6.9	231,184	5.2	342,374	7.6	10,216	0.2	40,041	0.9	4,475,721	100
Female	1,420,131	32.3	1,677,805	38.2	386,810	8.8	298,427	6.8	236,457	5.4	325,755	7.4	8,546	0.2	41,733	0.9	4,395,664	100
<b>Place of Residence</b>																		
Urban	184,703	22.3	324,788	39.2	106,576	12.9	72,768	8.8	41,941	5.1	78,028	9.4	3,530	0.4	15,505	1.9	827,839	100
Rural	2,628,284	32.7	3,099,244	38.5	682,417	8.5	536,297	6.7	425,700	5.3	590,102	7.3	15,233	0.2	66,269	0.8	8,043,546	100
<b>Mothers Education</b>																		
Illiterate	213,847	33.6	241,275	37.9	59,090	9.3	36,535	5.7	28,544	4.5	47,894	7.5	3,116	0.5	5,708	0.9	636,009	100
1 - 6	55,120	28.0	86,249	43.8	17,126	8.7	13,132	6.7	10,124	5.1	13,082	6.6	667	0.3	1,358	0.7	196,858	100
7 - 8	39,331	25.3	55,564	35.7	18,197	11.7	13,610	8.7	9,741	6.3	15,004	9.6	1,835	1.2	2,263	1.5	155,545	100
9 - 12	8,037	43.3	6,363	34.3	1,767	9.5	420	2.3	250	1.3	1,537	8.3	-	-	166	0.9	18,540	100
Above 12	5,216	12.1	12,045	28.0	4,498	10.5	4,464	10.4	9,577	22.3	6,164	14.3	-	-	1,038	2.4	43,002	100
Non Regular	2,491,437	31.9	3,022,537	38.6	688,315	8.8	540,906	6.9	409,404	5.2	584,448	7.5	13,144	0.2	71,240	0.9	7,821,431	100
<b>Region</b>																		
Tigray	169,620	27.3	176,207	28.3	70,782	11.4	62,114	10.0	53,412	8.6	82,734	13.3	914	0.1	5,944	1.0	621,727	100
* Affar	2,424	5.6	11,025	25.7	8,807	20.5	10,228	23.8	1,728	4.0	8,250	19.2	-	-	486	1.1	42,948	100
Amhara	320,290	13.8	734,635	31.7	313,256	13.5	302,245	13.0	277,074	11.9	346,566	14.9	4,472	0.2	20,995	0.9	2,319,533	100
Oromia	1,365,634	38.0	1,493,512	41.5	251,917	7.0	171,048	4.8	99,445	2.8	171,963	4.8	9,476	0.3	31,603	0.9	3,594,598	100
** Somalie	15,318	15.4	29,268	29.3	14,435	14.5	8,739	8.8	10,557	10.6	20,005	20.1	477	0.5	930	0.9	99,729	100
Benishangul-Gumuz	26,273	26.0	40,051	39.7	12,583	12.5	7,991	7.9	5,281	5.2	8,179	8.1	84	0.1	470	0.5	100,912	100
SNNP	849,955	45.4	859,543	45.9	89,806	4.8	31,743	1.7	12,191	0.7	15,542	0.8	2,024	0.1	13,017	0.7	1,873,821	100
Gambela	10,819	52.0	6,494	31.2	1,085	5.2	984	4.7	342	1.6	554	2.7	-	-	516	2.5	20,794	100
Harari	5,067	26.4	8,068	42.1	1,979	10.3	995	5.2	1,108	5.8	1,649	8.6	172	0.9	128	0.7	19,166	100
Addis Ababa	40,355	27.0	52,588	35.2	20,770	13.9	11,189	7.5	5,440	3.6	10,902	7.3	925	0.6	7,170	4.8	149,339	100
Dire Dawa	7,232	25.1	12,642	43.9	3,572	12.4	1,790	6.2	1,063	3.7	1,786	6.2	220	0.8	514	1.8	28,819	100
<b>All Children</b>	2,812,987	31.7	3,424,032	38.6	788,993	8.9	609,066	6.9	467,641	5.3	668,129	7.5	18,763	0.2	81,774	0.9	8,871,385	100

\* Includes Settled Population Covered by Census map work in Zones 1,3,5

\*\* Includes Settled Population Covered by Census map work in Shiile, Jigjiga and Liben Zones

Table 7.5a Distribution of Children Aged Under 5 Years by the Initial Age at which a Child Start Breastfeeding (in hours) after Birth and Selected Urban Centers : 1998

Selected Urban Centers	Initial Age at which started breastfeeding (in hours)																Total	
	< 1hr		1-6hrs		7 - 12 hrs		13 - 24hrs.		25 - 48 hrs		48+		Breastfeed		Not Stated			
	N"	%	N"	%	N"	%	N"	%	N"	%	N"	%	N"	%	N"	%	N"	%
Country Total	184,703	22.3	324,788	39.2	106,576	12.9	72,768	8.8	41,941	5.1	78,028	9.4	3,530	0.4	15,505	1.9	827,839	100
MEKELE	3,532	30.1	2,680	22.8	2,186	18.6	975	8.3	727	6.2	1,055	9.0	60	0.5	536	4.6	11,751	100
ASSAYITA	59	5.6	77	7.3	330	31.5	415	39.6	85	8.1	82	7.8	-	-	-	-	1,048	100
GONDER	2,683	27.7	3,436	35.4	1,414	14.6	604	6.2	218	2.2	1,226	12.6	-	-	117	1.2	9,698	100
BAHIR DAR	3,319	36.6	3,550	39.1	1,224	13.5	554	6.1	200	2.2	228	2.5	-	-	-	-	9,075	100
DESSIE	671	10.6	2,224	35.1	948	15.0	738	11.6	454	7.2	1,131	17.8	129	2	45	0.7	6,340	100
JIMMA	2,181	29.5	3,739	50.5	505	6.8	315	4.3	104	1.4	479	6.5	-	-	81	1.1	7,404	100
NAZRETH	3,729	27.1	6,166	44.8	1,392	10.1	758	5.5	641	4.7	768	5.6	252	1.8	52	0.4	13,758	100
DEBRE ZIET	1,363	20.0	3,633	53.3	692	10.1	419	6.1	259	3.8	324	4.8	60	0.9	71	1.0	6,821	100
JUUGA	1,145	10.9	3,562	33.8	1,649	15.7	1,977	18.8	815	7.7	1,049	10.0	138	1.3	194	1.8	10,529	100
ASOSSA	554	23.9	912	39.4	349	15.1	290	12.5	62	2.7	123	5.3	3	0.1	21	0.9	2,314	100
AWASSA	2,384	25.9	4,459	48.5	716	7.8	333	3.6	410	4.5	778	8.5	-	-	108	1.2	9,188	100
GAMBELA	1,615	45.9	981	27.9	290	8.2	260	7.4	181	5.1	129	3.7	-	-	63	1.8	3,519	100
HARARI	1,388	23.6	2,259	38.5	381	6.5	501	8.5	464	7.9	732	12.5	104	1.8	40	0.7	5,869	100
ADDIS ABABA	38,537	26.8	49,602	34.5	20,392	14.2	11,086	7.7	5,440	3.8	10,830	7.5	914	0.6	7,137	5.0	143,938	100
DIRE DAWA	3,882	27.9	4,445	31.9	1,565	11.2	1,181	8.5	918	6.6	1,370	9.8	199	1.4	365	2.6	13,925	100
AMHARA OTHER URBAN	11,610	8.8	47,618	36.2	25,638	19.5	28,493	21.7	9,365	7.1	7,520	5.7	-	-	1,164	0.9	131,408	100
OROMIA OTHER URBAN	49,469	21.6	113,425	49.5	24,886	10.9	11,777	5.1	9,536	4.2	13,886	6.1	1,670	0.7	4,656	2.0	229,305	100
SNNPR OTHER URBAN	45,120	43.8	47,105	45.8	5,956	5.8	1,353	1.3	1,275	1.2	1,681	1.6	-	-	456	0.4	102,946	100
OTHER URBAN	11,462	10.5	24,914	22.9	16,063	14.7	10,740	9.9	10,787	9.9	34,634	31.8	-	-	396	0.4	108,996	100

given at birth. Similarly, variations by sex and birth order of children were almost negligible. In rural areas, the practice of giving fresh butter to a child at birth was more pronounced compared to the practice in urban areas. However, the proportion of children who were given warm water was much higher in urban areas.

Children born to mothers with at least primary school (1-6 grades) education level were more likely to be given only breast milk immediately after birth compared to children of mothers with no education. Types of food/liquid initially given to infants at birth seem to differ significantly among regions. In Somalie Region, only ten percent of children were given breast milk immediately after birth against 72 percent in SNNP Region. The survey result indicated that large proportion of children in Amhara Region (66 percent) were given fresh butter immediately after birth. As shown in Table 7.6a, the proportion of children who were given breast milk after birth varied from five percent in Jijiga town (Somalie Region) to 74 percent in Assosa town (Benishangul-Gumuz Region).

The survey data also show that eighty eight percent of children in Jijiga town, born during five years prior to the survey date, were given warm water initially at birth (see Table 7.6a for details).

#### **7.4 Supplementation**

Supplementation for pregnant and lactating women as well as for children aged under five years has great implication on health of both the mother and the child. The 1998 Health and Nutrition Survey collected information on status of taking supplementation during pregnancy, lactation and both during pregnancy and lactation for mothers who gave birth during the last two years prior to the survey date.

Information on duration supplementation of mothers by background characteristics is presented in Table 7.7. Any mother was considered to be taking

**Table 7.6 Distribution of Children Aged Under 5 Years Prior to the Survey by Type of Food / Liquid Given to the child Immediately after Birth and Background Characteristics: 1998**

Background Characteristics	Type of Food/Liquid given to the Child Immediately after Birth														Total	
	Breast Milk		Warm Water		Butter (Fresh)		Fenugreek		Milk		Others		Not Stated			
	N <sup>a</sup>	%	N <sup>a</sup>	%	N <sup>a</sup>	%	N <sup>a</sup>	%	N <sup>a</sup>	%	N <sup>a</sup>	%	N <sup>a</sup>	%	N <sup>a</sup>	%
<b>Current Age (in Month)</b>																
< 6	363,092	41.5	129,805	14.8	283,759	32.4	2,715	0.3	33,935	3.9	44,995.0	5.1	17,108	2.0	875,409	100
6 - 11	407,642	44.4	127,127	13.9	299,937	32.7	2,233	0.2	27,853	3.0	46,657.0	5.1	6,093	0.7	917,542	100
12 - 23	754,273	41.2	277,047	15.2	618,622	33.8	7,270	0.4	69,930	3.8	87,593.0	4.8	13,899	0.8	1,828,634	100
24 - 35	746,224	42.4	255,241	14.5	562,538	32.0	11,615	0.7	72,366	4.1	96,108.0	5.5	15,314	0.9	1,759,406	100
36 - 47	763,732	42.3	283,421	15.7	584,062	32.4	7,935	0.4	66,428	3.7	83,731.0	4.6	16,069	0.9	1,805,378	100
48 - 59	706,628	41.9	241,371	14.3	554,650	32.9	6,460	0.4	65,948	3.9	73,006.0	4.3	36,954	2.2	1,685,017	100
00 - 59	3,741,591	42.2	1,314,012	14.8	2,903,568	32.7	38,228	0.4	336,460	3.8	432,090.0	4.9	105,437	1.2	8,871,386	100
<b>Sex</b>																
Male	1,876,284	41.9	701,053	15.7	1,449,108	32.4	17,408	0.4	151,213	3.4	227,570.0	5.1	53,087	1.2	4,475,723	100
Female	1,865,308	42.4	612,959	13.9	1,454,461	33.1	20,820	0.5	185,247	4.2	204,521.0	4.7	52,349	1.2	4,395,665	100
<b>Place of Residence</b>																
Urban	369,951	44.7	296,195	35.8	90,795	11.0	2,797	0.3	18,296	2.2	33,502.0	4.0	16,303	2.0	827,839	100
Rural	3,371,641	41.9	1,017,816	12.7	2,812,774	35.0	35,431	0.4	318,164	4.0	398,589.0	5.0	89,133	1.1	8,043,548	100
<b>Mothers Education</b>																
Illiterate	3,061,569	41.5	990,450	13.4	2,543,614	34.5	32,747	0.4	301,878	4.1	372,160.0	5.0	72,881	1.0	7,375,299	100
1 - 6	317,697	50.0	124,827	19.6	150,798	23.7	4,141	0.7	9,122	1.4	23,713.0	3.7	5,710	0.9	636,008	100
7 - 8	90,002	45.7	54,761	27.8	37,840	19.2	44	-	1,940	1.0	10,279.0	5.2	1,991	1.0	196,857	100
9 - 12	72,936	46.9	63,678	40.9	7,445	4.8	131	0.1	4,304	2.8	4,156.0	2.7	2,895	1.9	155,545	100
Above 12	13,384	72.2	2,420	13.1	1,645	8.9	-	-	481	2.6	556.0	3.0	54	0.3	18,540	100
Non Regular	8,884	20.7	4,979	11.6	23,880	55.5	-	-	1,105	2.6	3,724.0	8.7	431	1.0	43,003	100
Not Stated	177,119	39.7	72,897	16.3	138,347	31.0	1,164	0.3	17,629	4.0	17,502.0	3.9	21,473	4.8	446,131	100
<b>Region</b>																
Tigray	265,410	42.7	50,978	8.2	227,908	36.7	1,601	0.3	5,333	0.9	59,614.0	9.6	10,882	1.8	621,726	100
* Afar	8,071	18.8	9,326	21.7	18,890	44.0	22	0.1	2,031	4.7	3,377.0	7.9	1,232	2.9	42,949	100
Amhara	415,169	17.9	161,617	7.0	1,540,617	66.4	2,231	0.1	9,104	0.4	169,590.0	7.3	21,205	0.9	2,319,533	100
Oromia	1,518,739	42.3	708,463	19.7	898,506	25.0	26,607	0.7	259,999	7.2	139,420.0	3.9	42,863	1.2	3,594,597	100
**Somalia	10,175	10.2	49,097	49.2	697	0.7	-	-	27,129	27.2	11,875.0	11.9	757	0.8	99,730	100
Benishangul-Gumuz	65,039	64.5	4,395	4.4	21,706	21.5	250	0.2	5,417	5.4	2,764.0	2.7	1,341	1.3	100,912	100
SNNP	1,351,187	72.1	249,853	13.3	184,483	9.8	7,243	0.4	23,048	1.2	40,316.0	2.2	17,692	0.9	1,873,822	100
Gambela	15,066	72.4	3,103	14.9	1,061	5.1	-	-	104	0.5	841.0	4.0	621	3.0	20,796	100
Harari	4,513	23.5	12,605	65.8	197	1.0	20	0.1	787	4.1	721.0	3.8	323	1.7	19,166	100
Addis Ababa	83,827	56.1	42,965	28.8	9,329	6.2	199	0.1	2,100	1.4	2,904.0	1.9	8,016	5.4	149,340	100
Dire Dawa	4,397	15.3	21,609	75.0	176	0.6	56	0.2	1,408	4.9	667.0	2.3	505	1.8	28,818	100
<b>All Children</b>	3,741,592	42.2	1,314,011	14.8	2,903,569	32.7	38,228	0.4	336,459	3.8	432,091.0	4.9	105,436	1.2	8,871,386	100

\* Includes Settled Population Covered by Census map work in Zones 1,3,5

\*\* Includes Settled Population Covered by Census map work in Shiile, Jigjiga and Liben Zones

**Table 7.6a Distribution of Children Aged Under 5 Years Before the Survey by type of Food /Liquid Given to the Child Immediately after Birth and Selected Urban Centers:1998**

Selected Urban Centers	Type of Food/ Liquid given to the Child Given Immediately after Birth														Total	
	Breast Milk		Warm Water		Butter (Fresh)		Fenugreek		Milk		Others		Not Stated			
	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%
<b>Country Total</b>	369,951	44.7	296,195	35.8	90,795	11.0	2,797	0.3	18,296	2.2	33,502	4.0	16,303	2.0	827,839	100
MEKELE	6,600	56.2	2,254	19.2	533	4.5	-	-	234	2.0	1,293	11.0	837	7.1	11,751	100
ASSAYITA	58	5.5	725	69.1	175	16.7	-	-	-	-	68	6.5	23	2.2	1,049	100
GONDER	3,644	37.6	4,054	41.8	1,689	17.4	-	-	-	-	257	2.7	54	0.6	9,698	100
BAHIR DAR	5,628	62.0	2,584	28.5	713	7.9	49	0.5	-	-	-	-	100	1.1	9,074	100
DESSIE	1,673	26.4	3,933	62.0	139	2.2	44	0.7	99	1.6	336	5.3	116	1.8	6,340	100
JIMMA	5,799	78.3	1,248	16.9	83	1.1	-	-	-	-	118	1.6	156	2.1	7,404	100
NAZRETH	6,001	43.6	7,097	51.6	452	3.3	87	0.6	-	-	121	0.9	-	-	13,758	100
DEBRE ZIET	2,600	38.1	3,645	53.4	346	5.1	-	-	61	0.9	67	1.0	104	1.5	6,823	100
JJGA	485	4.6	9,236	87.7	28	0.3	-	-	254	2.4	406	3.9	121	1.1	10,530	100
ASOSSA	1,716	74.2	407	17.6	94	4.1	45	1.9	-	-	14	0.6	37	1.6	2,313	100
AWASSA	4,553	49.6	4,496	48.9	28	0.3	-	-	-	-	-	-	110	1.2	9,187	100
GAMBELA	2,051	58.3	1,284	36.5	19	0.5	-	-	-	-	94	2.7	71	2.0	3,519	100
HARARI	2,063	35.2	3,488	59.4	158	2.7	-	-	-	-	42	0.7	118	2.0	5,869	100
ADDIS ABABA	82,464	57.3	42,207	29.3	6,134	4.3	199	0.1	2,084	1.4	2,904	2.0	7,949	5.5	143,941	100
DIRE DAWA	3,095	22.2	10,127	72.7	127	0.9	-	-	289	2.1	-	-	288	2.1	13,926	100
AMHARA OTHER URBAN	48,202	36.7	35,805	27.2	39,420	30.0	255	0.2	319	0.2	6,733	5.1	672	0.5	131,406	100
OROMIYA OTHER URBA	81,136	35.4	110,110	48.0	23,861	10.4	1,107	0.5	6,026	2.6	3,514	1.5	3,552	1.5	229,306	100
SNNPR OTHER URBAN	76,879	74.7	20,862	20.3	2,700	2.6	97	0.1	-	-	1,677	1.6	732	0.7	102,947	100
OTHER URBAN	35,304	32.4	32,633	29.9	14,095	12.9	913	0.8	8,930	8.2	15,857	14.5	1,264	1.2	108,996	100

supplemental food if she was regularly given food item which is better (in quality and in quantity) than what is usually taken by other household members. The data showed that 33 percent of mothers did not take any supplemental food both during pregnancy and lactation. The proportion of mothers who reported to have taken supplemental food during lactation was much higher (49 percent) compared to those who took during pregnancy (3 percent). This may imply that supplementation was relatively more common during lactation than during pregnancy. Overall, only 14 percent of mothers reported to have been taking supplemental food both during pregnancy and lactation.

As shown in Table 7.7, the prevalence of taking supplementation only during pregnancy, and both during pregnancy and lactation was higher in urban areas than in rural areas. On the other hand, supplementation to mothers during lactation only was higher in rural areas than in urban areas (50 percent against 42 percent). It can easily be seen from the survey data that the proportions of mothers who have been taking supplemental food rapidly increases with the advance in the level of their education. Thus, the proportions of mothers who were supplemented both during pregnancy and lactation ranged from 12 percent (for those who have no education) to 49 percent (for those who completed 9-12).

The survey data also showed that there was a difference in the practice of supplementation of mothers by region. It was found to be less common among mothers in Somalie Region. That is, in Somalie Region more than half of the mothers (54 percent) who gave birth during the last two years did not take supplementation. It is evident from the survey result that supplementation was most common among mothers in SNNP Region; 83 percent of them were supplemented either during pregnancy, lactation or both during pregnancy and lactation.

**Table 7.7 Distribution of Women in the Last 2 Years Prior to the Survey date by Supplementation status of Mothers and Background Characteristics:1998**

Background Characteristics	Supplementation Status of Mothers										Total	
	No Supplementation		During Pregnancy Only		During Lactation Only		Both During Pregnancy & Lactation		Not Stated			
	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%
<b>Mother's Age</b>												
15 - 19	120,116	31.2	9,939	2.6	191,269	49.7	55,111	14.3	8,082	2.1	384,517	100
20 - 24	303,264	29.3	39,520	3.8	522,692	50.4	158,040	15.3	12,568	1.2	1,036,084	100
25 - 29	356,570	32.5	33,051	3.0	550,279	50.1	150,673	13.7	8,060	0.7	1,098,633	100
30 - 34	244,317	35.3	21,666	3.1	323,370	46.7	97,310	14.1	5,457	0.8	692,120	100
35 - 39	200,157	36.2	13,087	2.4	260,278	47.1	73,651	13.3	5,824	1.1	552,997	100
40 - 44	83,329	38.9	4,768	2.2	100,643	47.0	22,889	10.7	2,566	1.2	214,195	100
45 - 49	27,096	40.5	1,586	2.4	26,440	39.5	10,140	15.2	1,645	2.5	66,907	100
50+	258	15.2	-	-	1,006	59.4	430	25.4	-	-	1,694	100
<b>Place of Residence</b>												
Urban	67,524	19.5	14,317	4.1	144,590	41.8	115,267	33.3	4,541	1.3	346,239	100
Rural	1,267,584	34.3	109,299	3.0	1,831,387	49.5	452,977	12.2	39,660	1.1	3,700,907	100
<b>Mothers Education</b>												
Illiterate	1,248,191	35.3	103,065	2.9	1,733,692	49.0	416,224	11.8	39,260	1.1	3,540,432	100
1 - 6	63,747	20.8	13,416	4.4	155,124	50.6	70,655	23.1	3,354	1.1	306,296	100
7 - 8	11,648	12.6	2,793	3.0	42,401	45.8	34,834	37.6	852	0.9	92,528	100
9 - 12	4,228	6.1	3,593	5.2	27,306	39.2	34,093	49.0	385	0.6	69,605	100
Above 12	525	7.9	-	-	3,013	45.3	3,082	46.3	35	0.5	6,655	100
Non Formal	4,371	24	75	0.4	9,597	52.7	4,085	22.4	73	0.4	18,201	100
Not Stated	2,399	17.9	675	5.0	4,844	36.1	5,271	39.2	242	1.8	13,431	100
<b>Region</b>												
Tigray	126,568	42.7	14,082	4.8	110,612	37.3	41,055	13.9	3,978	1.3	296,295	100
* Affar	3,840	19.4	1,416	7.2	6,833	34.5	7,261	36.7	436	2.2	19,786	100
Amhara	411,336	37.2	29,311	2.6	526,445	47.5	125,474	11.3	14,601	1.3	1,107,167	100
Oromoia	588,829	36.6	46,965	2.9	730,677	45.4	228,209	14.2	14,105	0.9	1,608,785	100
** Somalie	16,844	41.5	1,762	4.3	11,683	28.8	9,992	24.6	289	0.7	40,570	100
Benishangul-Gumuz	20,516	44.9	1,652	3.6	15,101	33.0	7,615	16.7	842	1.8	45,726	100
SNNP	146,002	17.3	24,593	2.9	537,997	63.9	124,790	14.8	8,507	1.0	841,889	100
Gambela	4,019	42.1	204	2.1	3,099	32.4	2,078	21.8	153	1.6	9,553	100
Harari	2,910	36.6	493	6.2	2,886	36.3	1,614	20.3	58	0.7	7,961	100
Addis Ababa	10,246	17.8	2,433	4.2	25,633	44.5	18,041	31.4	1,190	2.1	57,543	100
Dire Dawa	3,999	33.7	705	5.9	5,011	42.2	2,114	17.8	43	0.4	11,872	100
<b>All Birth</b>	1,335,108	33.0	123,616	3.1	1,975,977	48.8	568,244	14.0	44,201	1.1	4,047,146	100

\* Includes Settled Population Covered by Census map work in Zones 1,3,5

\*\* Includes Settled Population Covered by Census map work in Shille, Jigjiga and Liben Zones

Table 7.7a Distribution of Women in the Last 2 Years Prior to the Survey date by Supplementation Status of Mothers and Selected Urban Centers:1998

Selected Urban Centers	Supplementation Status of Mother										Total	
	No Supplementation		During Pregnancy Only		During Lactation Only		Both During Pregnancy & Lactation		Not Stated			
	N°	%	N°	%	N°	%	N°	%	N°	%	N°	%
<b>COUNTRY TOTAL</b>	67,524	19.5	14,317	4.1	144,590	41.8	115,267	33.3	4,541	1.3	346,239	100
MEKELE	1,181	21.5	435	7.9	2,181	39.8	1,613	29.4	73	1.3	5,483	100
ASSAYITA	77	15.0	22	4.3	199	38.9	214	41.8	-	-	512	100
GONDER	693	17.6	288	7.3	1,496	38.0	1,465	37.2	-	-	3,942	100
BAHIR DAR	862	19.9	497	11.5	1,268	29.3	1,542	35.6	165	3.8	4,334	100
DESSIE	396	15.0	109	4.1	793	30.0	1,344	50.9	-	-	2,642	100
JIMMA	655	19.9	179	5.4	1,404	42.7	1,015	30.9	34	1.0	3,287	100
NAZRETH	472	7.6	51	0.8	2,753	44.6	2,897	46.9	-	-	6,173	100
DEBRE ZIET	106	4.2	67	2.7	967	38.5	1,321	52.6	49	2.0	2,510	100
JIJGA	1,298	28.7	280	6.2	1,053	23.3	1,889	41.8	-	-	4,520	100
ASOSSA	149	13.2	41	3.6	306	27.2	630	56.0	-	-	1,126	100
AWASSA	122	3.0	361	8.8	1,430	34.7	2,187	53.1	22	0.5	4,122	100
GAMBELA	477	28.2	73	4.3	423	25.0	699	41.4	17	1.0	1,689	100
HARARI	572	23.5	264	10.9	638	26.3	919	37.8	36	1.5	2,429	100
ADDIS ABABA	9,842	17.8	2,413	4.4	24,089	43.6	17,794	32.2	1,163	2.1	55,301	100
DIRE DAWA	1,279	24.5	409	7.8	1,735	33.3	1,791	34.3	-	-	5,214	100
AMHARA OTHER URBAN	13,929	25.7	1,153	2.1	22,092	40.8	16,385	30.3	547	1.0	54,106	100
OROMIA OTHER URBAN	14,525	14.8	4,647	4.7	46,667	47.5	30,450	31.0	2,007	2.0	98,296	100
SNNPR OTHER URBAN	8,425	20.2	876	2.1	24,198	57.9	8,300	19.9	-	-	41,799	100
OTHER URBAN	12,464	25.6	2,152	4.4	10,898	22.4	22,812	46.8	428	0.9	48,754	100

## CHAPTER 8

### NUTRITIONAL STATUS OF CHILDREN

#### 8.1 Nutrition

The nutritional status of children can be assessed using anthropometric measurements. Weight and Height are the two anthropometric measurements often used in nutritional surveys. These measurements, in combination with sex and age, can be used to derive three indicators commonly employed to assess the nutritional status in most surveys. These indicators are height-for-age, weight-for-height and weight-for-age. Because the weight and height measurements can be made with minimal equipment and the measurement procedures are not complicated, anthropometric measurement is commonly used to assess the nutritional status of children. Hence, in the 1998 Health and Nutrition Survey anthropometric measurements (weight and height) were used to assess the nutritional status of children aged 3-59 months (in completed months)

The nutritional status of children measured in the survey was evaluated by calculating the extent to which the three anthropometric measurement indices (weight-for-height, height-for-age, and weight-for-age) deviate from the measurements for a standard population of healthy and well-fed children. As recommended by the World Health Organization (WHO), the international reference population, defined by the US National Center for Health Statistics (NCHS) and accepted by the US center for Disease control (CDC) was used as the reference population. The use of this reference population is based on the assumption that well-nourished young children of all population groups follow very similar growth pattern.

## 8.2 HEIGHT-FOR-AGE

The height for age is an indicator of cumulative growth deficit caused by chronically inadequate food intake, ill health, sustained incorrect feeding practices and low socio-economic status. Usually, children falling below the cut off point of minus two standard deviation (-2SD) from the median of the reference population are classified as stunted or short for their age and are chronically undernourished. Those children who are below minus three standard deviation (-3SD) are considered as severely stunted.

Table 8.1 presents the percentage distribution of children aged 3-59 months who were classified as stunted (short for their age) by age in months. According to the data in the table, the proportion of children aged 3-5 months, 6-11 months and 12-23 months who are found to be stunted were 13 percent, 37 percent and 55 percent, respectively. Similarly, the corresponding proportions for those aged 24-35, 36-47 and 48-59 months who were stunted were 54.5 percent, 54.6 percent and 55.4 percent, respectively. Overall, 52 percent of all children aged 3-59 months were classified as stunted. Thus, stunting was less prevalent among children aged 3-5 months followed by those who were 6-11 months. However, the prevalence of stunting was found to be highest among children of age 12-23 months. Similar observations were also made in the previous survey results conducted by CSA (CSA, 1989, 1992). Though the magnitude differs, the same pattern was also depicted from DHS results from African countries (Kenya DHS, 1993; DHS, 1997).

Comparison of the level of stunting by sex presented in the table shows that the proportion of male stunted children was slightly higher (53 percent) than females (50 percent). The 1992 National Rural Nutrition Survey result similarly showed that the prevalence rate of stunting was higher among male children than female children (CSA, 1993). However, the overall level of stunting was slightly lower in this survey compared to the results of previous nutrition surveys. In the 1982/83 Rural Nutrition Survey the

prevalence of stunting were 60.7 percent in Round 1 and 63.1 percent in Round 2 of 1982/83 whereas in the 1992 National Nutrition Survey stunting was 64 percent.

The prevalence of stunting differs by place of residence. According to the survey result presented in Tables 8.1a and 8.1b, stunting was more prevalent in rural areas (53 percent) than in urban areas (39 percent). However, examination of the level of stunting by birth order suggests that stunting was not affected by birth order. The data in the table also indicated that there was negative relationship between mother's education and proportion of children who were classified as stunted. Thus, the prevalence of stunting was more than twice among children of mothers with no formal education compared to those whose mothers have completed grades 9-12.

Prevalence of stunting was examined by region. According to the data in the table there was variation by region. The prevalence of stunting was found to be highest in Amhara Region (60 percent) but lowest in Dire Dawa (32 percent). In Tigray, Affar Amhara and SNNP Regions, more than half of the total children were classified as stunted.

### **8.3 WEIGHT-FOR-HEIGHT**

The weight for height index measures current nutritional status, or wasting. Wasting is a nutritional deficiency of recent incidence caused by inadequate food intake, incorrect feeding practices and ill health. Children who are falling below the cut off point of minus two standard deviation (-2SD) from the median of the reference population are classified as wasted, while children whose weight for height falls below minus three standard deviation (-3SD) are severely wasted.

As shown in the table, acute malnutrition or wasting ranged from six percent among children aged 3-5 months to 13 percent among those aged 12-23 months. The 1992 National Rural Nutrition Survey results similarly indicated that wasting was highest

among children aged 12-23 months. . It should be noted that in the preceding discussion the survey data indicated that substantial proportion (37 percent) of children were reported to have stopped breastfeeding when they were 12-23 months. This may suggest that those children who stopped breastfeeding were likely be affected by inadequate/improper feeding and/or have suffered from concurrent infection due to lack of hygiene/contamination thereby became wasted.

Variation in the level of wasting by sex shows that the proportion of wasted children was slightly higher among males (10 percent) compared to females (8 percent). Similarly, the prevalence of wasting was found to be higher in rural areas than in urban areas. Though apparently the prevalence of wasting was slightly lower among children of birth order one, in general there was no observed marked difference by birth order.

Comparison of the prevalence of wasting by mother's education in showed that highest prevalence rate of wasting was observed for children whose mothers had no education. As shown in the table, the level of wasting appears to decrease as the level of mother's education (grades completed) increases. On the other hand there was slight variation in the level of wasting by region. The proportion of wasting ranged from 13 percent in Tigray to 6 percent in Addis Ababa. More than ten percent of the children in Tigray, Benishangual-Gumuz, Somalie and Gambella Regions were observed to have been wasted. Generally, out of the total children aged 3-59 months, 9 percent were classified as wasted. The proportion of children classified as wasted in this survey ( 9.3 percent for rural areas) was slightly higher than the corresponding proportion observed in the 1992 National Rural Nutrition Survey (8 percent).

#### **8.4 WEIGHT-FOR-AGE**

The weight for age index is a composite of height for age and weight for height and because of this it gives the least clear picture of nutritional status of a population. Weight for age would not indicate whether the malnutrition was due to stunting or

wasting. For instance, a short child with a normal weight for height may have a low weight for age, or, conversely, a tall, wasted child may have a normal weight for age. Children whose weight-for-age index falls below the cut off point minus two standard deviations (-2SD) from the median of reference population are classified as underweight. Those who fall below the cut off point minus three standard deviations (-3SD) are classified as severely under weight.

As shown in Table 8.1, the percentage of children who were classified as underweight according to weight-for-age criterion varied from the lowest 6 percent for children of 3-5 months to the highest 50 percent among children aged 12-23 months. Similar to what was observed for stunting and wasting, proportion of underweight slightly varied by sex of children. The prevalence of underweight was higher among males (46 percent) compared to females (42 percent).

The proportion of underweight markedly differed by place of residence. It was higher among children in rural areas (46 percent) than those in urban areas (30 percent). But, there was slight variation by birth order especially among children of birth order 2 and above. Furthermore, as shown in the table there was inverse relationship between proportion of underweight and mother's education. The percentages vary from 46 percent among children whose mothers had no education to 13 percent among children of mothers who have completed grades above 12. The proportion of underweight also varied by region. Around half of the children under five years were classified as underweight in Tigray and Amhara Regions whereas in Addis Ababa the proportion of under weight was less than one-quarter (20 percent). It can be seen from the survey data that overall 42 percent of children under five years were classified as under weight and 15 percent as severely under weight for their age.

Table 8.1 Distribution of Children aged '3-59' Months Who are classified as under- nourished according to three Anthropometric Indices of nutritional status (Height-for- Age, Weight-for- Height, and Weight-for- Age), by Background Characteristics:1998

Background Characteristics	Height-for-Age		Weight-for-Height		Weight-for-Age		Number of Children
	-3SD	-2SD	-3SD	-2SD	-3SD	-2SD	
<b>COUNTRY- TOTAL</b>							
<b>Age in Month</b>							
Under 6	6.4	12.8	0.8	6.1	0.6	6.1	342020
6 - 11	16.1	37.2	2.2	10.7	13.6	37.7	917895
12 - 23	33.3	56.6	2.5	13.2	20.7	52.1	1828999
24 - 35	29.2	54.5	1.3	8.5	19.0	48.8	1760569
36 - 47	29.9	54.6	1.2	7.6	12.9	43.5	1805583
48 - 59	28.9	55.4	1.3	6.9	10.2	42.4	1671161
<b>Sex</b>							
Male	29.2	52.8	1.8	10.3	15.5	45.8	4219587
Female	26.3	50.3	1.5	8.0	14.4	42.4	4106640
<b>Place of Residence</b>							
Urban	16.7	38.6	1.5	8.0	8.5	30.2	781209
Rural	28.9	52.9	1.7	9.3	15.6	45.6	7545018
<b>Birth Order</b>							
1	25.2	49.9	1.4	8.2	12.0	40.6	1652350
2 - 3	27.1	51.4	1.8	9.3	14.3	42.8	2583402
4 - 5	29.3	53.5	1.9	9.6	17.4	47.0	1896409
6+	29.2	51.3	1.4	9.4	15.9	45.8	2194066
<b>Mother's Education</b>							
Illiterate	29.0	52.6	1.7	9.5	15.9	45.8	7322214
1 - 6	21.4	47.2	1.5	7.9	9.6	35.1	589683
7 - 8	17.5	43.1	1.8	5.2	6.9	28.7	180853
9 - 12	9.4	28.6	0.9	6.9	3.0	21.4	146890
Above 12	3.1	24.6	-	-	3.3	12.8	18250
Non Formal	37.4	63.3	-	8.3	18.7	45.1	39736
Not Stated	13.1	38.0	0.1	5.9	10.1	30.2	28602
<b>Region</b>							
Tigray	27.9	54.5	2.7	13.3	17.9	54.4	583095
*Affar	32.9	54.4	0.6	9.6	12.6	35.2	41283
Amhara	32.9	59.9	1.7	9.9	19.0	52.4	2161197
Oromo	24.3	47.2	1.6	8.9	12.1	40.0	3397345
**Somalie	22.9	42.7	1.3	11.3	12.2	42.0	93780
Benishangul-Gumuz	24.4	45.3	3.4	12.4	17.5	46.8	93967
SNNP	29.9	51.7	1.4	7.5	15.6	41.0	1751453
Gambela	23.2	41.8	1.2	10.2	12.1	40.9	19292
Harari	20.3	40.7	0.7	5.5	6.7	23.2	17895
Addis Ababa	14.9	32.0	0.7	4.2	5.4	20.0	139438
Dire Dawa	14.9	31.6	1.2	8.2	5.8	26.7	27482
<b>All Birth</b>	27.8	51.6	1.6	9.2	15.0	44.1	8326227

\* Includes Settled Population Covered by Census map work in Zones 1,3,5

\*\* Includes Settled Population Covered by Census map work in Shiile, Jigjiga and Liben Zones

Table 8.1a Distribution of Children aged '3-59' Months Who are classified as under-nourished according to three Anthropometric indices of nutritional status (Height-for-Age, Weight-for-Height, and Weight-for-Age), by Selected Urban centers and Background Characteristics: 1998

Background Characteristics and Selected Urban Centers	URBAN						Number of Children
	Height-for-Age		Weight-for-Height		Weight-for-Age		
	-3SD	-2SD	-3SD	-2SD	-3SD	-2SD	
<b>Age In Month</b>							
3 - 5	6.6	14.6	2.4	8.3	0.1	3.4	34855
6 - 11	9.1	25.2	0.7	12.9	11.6	27.9	85998
12 - 23	22.6	44.4	1.6	10.2	12.9	36.3	157590
24 - 35	16.9	43.5	1.6	5.6	10.5	35.8	165350
36 - 47	17.4	40.2	0.9	6.6	5.9	28.4	166857
48 - 59	16.3	38.7	2.2	7.2	5.1	27.3	170559
<b>Sex</b>							
Male	18.6	40.2	1.8	9.4	9.5	32.6	386731
Female	14.9	37.1	1.2	6.6	7.5	27.7	394477
<b>Place of Residence</b>							
Urban	16.7	38.6	1.5	8.0	8.5	30.2	781209
Rural	-	-	-	-	-	-	-
<b>Birt Order</b>							
1	16.3	34.1	0.6	6.2	7.2	25.2	220006
2 - 3	17.3	38.7	2.5	8.8	8.0	30.8	273862
4 - 5	16.7	41.5	0.4	7.5	9.2	34.2	154948
6+	16.2	42.4	2.4	10.0	10.7	32.2	132393
<b>Mothers Education</b>							
Illiterate	20.4	43.9	1.4	8.6	11.1	35.6	392906
1 - 6	17.3	40.2	2.3	8.9	7.4	30.9	157914
7 - 8	13.3	34.7	1.6	6.0	6.6	23.2	87835
9 - 12	9.2	25	1.2	7.6	3.9	21.1	108415
Above 12	0.4	17	-	-	1.2	5.5	16149
Non Formal	28.7	65.8	-	4.5	-	31.8	4529
Not Stated	2.9	17.8	0.2	7.2	4.4	10.4	13461
<b>Mothers Comment</b>							
Normal	13.7	34.3	1.4	6.4	4.4	22.3	579538
Abnormal	26.6	52.2	1.3	12.5	20.9	54.1	184510
Don't Know	12.6	38.0	6.5	15.2	13.0	37.9	17160
<b>Selected Urban Centers</b>							
Country Total	16.7	38.6	1.5	8.0	8.5	30.2	781209
MEKELE	17.3	41.8	1.4	8.1	7.5	34.8	10779
ASSAYITA	20.7	42.5	3.4	8.2	10.9	32.6	974
GONDER	16.3	41.2	1.7	8.8	10.9	28.4	9226
BAHIR DAR	15.8	41.1	-	4.2	8.0	27.5	8299
DESSIE	16.2	40.7	-	4.1	3.2	23.9	6123
JIMMA	14.7	31.6	0.5	5.1	6.2	24.0	7096
NAZRETH	14.6	30.6	0.1	1.9	2.8	16.9	13158
DEBRE ZIET	11.1	27.4	1.5	5.7	4.7	21.5	6540
JIJGA	14.6	36.2	4.0	15.7	13.7	35.7	9507
ASOSA	7.8	26.1	1.0	5.8	3.9	20.3	2194
AWASA	10.3	22.1	1.1	3.2	3.6	14.7	9000
GAMBELA	9.2	24.1	1.8	12.8	4.1	27.8	3340
HARARI	12.0	29.1	-	3.2	4.0	14.8	5726
ADDIS ABABA	14.8	31.7	0.7	4.1	5.3	19.7	134259
DIRE DAWA	16.5	34.6	0.9	7.0	4.3	24.2	13458
AMARA OTHER URBAN	20.4	47.2	1.4	9.0	15.7	38.2	126428
OROMIYA OTHER URBAN	16.4	37.6	2.8	10.6	8.4	33.6	215823
SNNPR OTHER URBAN	13.7	39.6	0.5	4.1	4.9	21.8	97324
OTHER URBAN	20.8	43.0	1.3	11.7	9.8	40.5	101956

Table 8.1b Distribution of Children aged '3-59' Months Who are classified as under-nourished according to three Anthropometric indices of nutritional status (Height-for- Age, Weight-for- Height, and Weight-for- Age), Background Characteristics: 1998

Background Characteristics	RURAL						Number of Children
	Height-for-Age		Weight-for-Height		Weight-for- Age		
	-3SD	-2SD	-3SD	-2SD	-3SD	-2SD	
<b>Age in Month</b>							
3 - 5	6.4	12.6	0.7	5.9	0.7	6.4	307165
6 - 11	16.8	38.5	2.4	10.5	13.9	38.7	831897
12 - 23	34.2	57.8	2.6	13.4	21.5	53.6	1671410
24 - 35	30.4	55.7	1.3	8.8	19.9	50.1	1595219
36 - 47	31.1	56.1	1.2	7.8	13.6	45.0	1638726
48 - 59	30.3	57.3	1.2	6.9	10.8	44.1	1500601
<b>Sex</b>							
Male	30.3	54.1	1.8	10.4	16.2	47.2	3832855
Female	27.5	51.7	1.5	8.2	15.1	43.9	3712162
<b>Place of Residence</b>							
Urban	-	-	-	-	-	-	-
Rural	28.9	52.9	1.7	9.3	15.6	45.6	7545018
<b>Birth Order</b>							
1	26.6	52.3	1.6	8.5	12.7	43.0	1432344
2 - 3	28.3	53.0	1.7	9.3	15.1	44.2	2309539
4 - 5	30.4	54.6	2.0	9.8	18.1	48.1	1741461
6+	30.0	51.8	1.3	9.4	16.2	46.7	2061674
<b>Mothers Education</b>							
Illiterate	29.5	53.1	1.7	9.5	16.1	46.4	6929307
1 - 6	22.9	49.8	1.2	7.5	10.3	36.6	431769
7 - 8	21.4	51.0	2.0	4.6	7.1	33.9	93017
9 - 12	9.9	38.8	-	4.7	0.7	22.3	38475
Above 12	23.8	83.1	-	-	19.9	69.2	2101
Non Formal	38.5	63.0	-	8.7	21.1	46.8	35207
Not Stated	22.2	56.0	-	4.9	15.1	47.9	15142
<b>Mothers Comment</b>							
Normal	25.8	49.9	1.2	7.2	10.9	39.2	5166502
Abnormal	36.9	60.9	2.6	14.6	27.3	61.6	2073672
Don't Know	27.9	48.6	2.5	9.7	16.5	44.4	304843
<b>Region</b>							
Tigray	29.3	56.1	2.8	13.7	19.1	56.4	510691
*Affar	26.7	49.0	0.9	7.8	12.3	36.2	27200
Amhara	33.9	60.9	1.7	10.0	19.4	53.6	2011121
Oromo	24.9	48.0	1.5	8.9	12.4	40.6	3154729
**Somalie	27.7	48.7	1.1	9.5	14.0	41.9	62503
Benishangul-Gumuz	25.4	46.5	3.7	13.1	18.5	48.6	86320
SNNP	31.0	52.6	1.5	7.8	16.3	42.3	1645129
Gambela	26.2	45.5	1.1	9.6	13.8	43.6	15952
Harari	24.2	46.2	1.1	6.6	-8.0	27.1	12170
Addis Ababa	17.9	40.6	0.8	5.3	7.9	27.5	5179
Dire Dawa	13.2	28.7	1.4	9.5	7.3	29.2	14024
<b>All Birth</b>	28.9	52.9	1.7	9.3	15.6	45.6	7545018

\* Includes Settled Population Covered by Census map work in Zones 1,3,5

\*\* Includes Settled Population Covered by Census map work in Shiile, Jigjiga and Liben Zones

## **CHAPTER IX**

### **FERTILITY**

#### **9.1 Introduction**

This chapter presents the fertility level of Ethiopia both at country and regional levels based on data collected in the 1998 Health and Nutrition Survey. In the survey questionnaire, data were collected on both current and retrospective fertility from women aged 15 years and above residing in the sampled households.

Information on current fertility was obtained by asking, “Did you have a live birth during the 12 months prior to the survey date?”. Data on retrospective fertility was collected from each eligible woman by asking the total number of children ever born by sex, number of children living at home, number living elsewhere and those who had died up to the survey date.

Experience of most developing countries shows that data on both current and retrospective fertility are subject to errors. Data on current fertility is often erroneous due to misplacement of dates which results in omission of live births. Information on children ever born is usually under reported due to memory lapse particularly among older women. Children who died soon after birth and children who left their parents’ home long before the date of the survey are more likely to be omitted than the others. As number of births is an important element in determining the level of fertility, these probable errors should be borne in mind during the interpretation of reported fertility measures.

#### **9.2 Reported Fertility Levels**

##### **9.2.1 Current Fertility**

The current level of fertility is measured based on the question asked about the number of live births occurring in the year preceding the survey date. From this information, reported measures of fertility were computed and presented in Table 9.1. The reported summary measures include the Crude Birth Rate (CBR), General Fertility Rate (GFR), and Total Fertility Rate (TFR).

The Crude Birth Rate refers to the total number of births occurring in a given year per 1000 population. The General Fertility Rate is defined as the number of births occurring in a given year per 1000 women in the reproductive ages (women aged 15-49). The reported crude birth rate is 43.73 per 1000 for Ethiopia. The reported number of births is lowest in Addis Ababa (16.79 per 1000) and highest in Tigray Region (49.27 per 1000). Among all the regions, relatively lower number of births are reported for Somali, Dire Dawa, Harari and Affar Regions.

The Total Fertility Rate shows the number of children a woman would have at the end of her reproductive age, if she experienced the current rate of childbearing at each age assuming that she survived up to the end of her reproductive age. Table 9.1 shows the Total Fertility Rates for the total, urban and rural areas of all the regions and the country as a whole. The result indicated that reported TFR for Ethiopia is 6.34. The corresponding figures for the urban and rural areas of Ethiopia are 3.31 and 6.97, respectively. The figures for the TFR also revealed that current fertility is the highest in Tigray Region (7.39) followed by Oromiya Region (6.95). Next to these regions are Southern Nations, Nationalities and Peoples' Region (SNNP), Amhara, and Benishangul-Gumuz Regions which exhibited TFR values of 6.37, 6.36 and 6.33, respectively. The lowest level of TFR (1.80) is obtained for Addis Ababa.

Table 9.1 Summary Measures of Fertility based on Reported Data ,Ethiopia: 1998

Region	Urban+Rural			Urban			Rural		
	CBR	GFR	TFR	CBR	GFR	TFR	CBR	GFR	TFR
Country	43.73	188.72	6.34	28.07	95.26	3.31	46.22	208.44	6.97
Tigray	49.27	221.28	7.39	50.42	189.86	6.17	49.07	227.96	7.63
Affar	38.62	144.02	4.33	52.59	145.04	3.76	32.92	143.37	4.71
Amhara	43.34	189.65	6.36	26.61	91.04	3.03	44.95	202.15	6.78
Oromiya	45.30	204.53	6.95	33.12	120.77	4.21	46.73	217.03	7.34
Somali	32.11	141.81	4.86	27.88	111.68	3.69	34.03	157.61	5.62
Benishangul-Gumuz	45.85	200.62	6.33	38.77	150.10	4.34	46.52	206.07	6.54
SNNP	45.55	192.69	6.37	29.48	107.98	4.19	46.88	200.89	6.57
Gambella	40.19	147.36	4.37	37.02	128.22	3.40	40.80	151.33	4.53
Harari	34.97	132.96	4.24	16.15	53.67	1.63	56.92	260.25	8.25
Addis Ababa	16.79	50.21	1.80	16.42	48.79	1.76	33.80	144.91	4.89
Dire Dawa	33.82	120.58	3.95	23.02	73.30	2.33	52.75	237.93	7.74

## 9.2.2 Age Pattern of Fertility

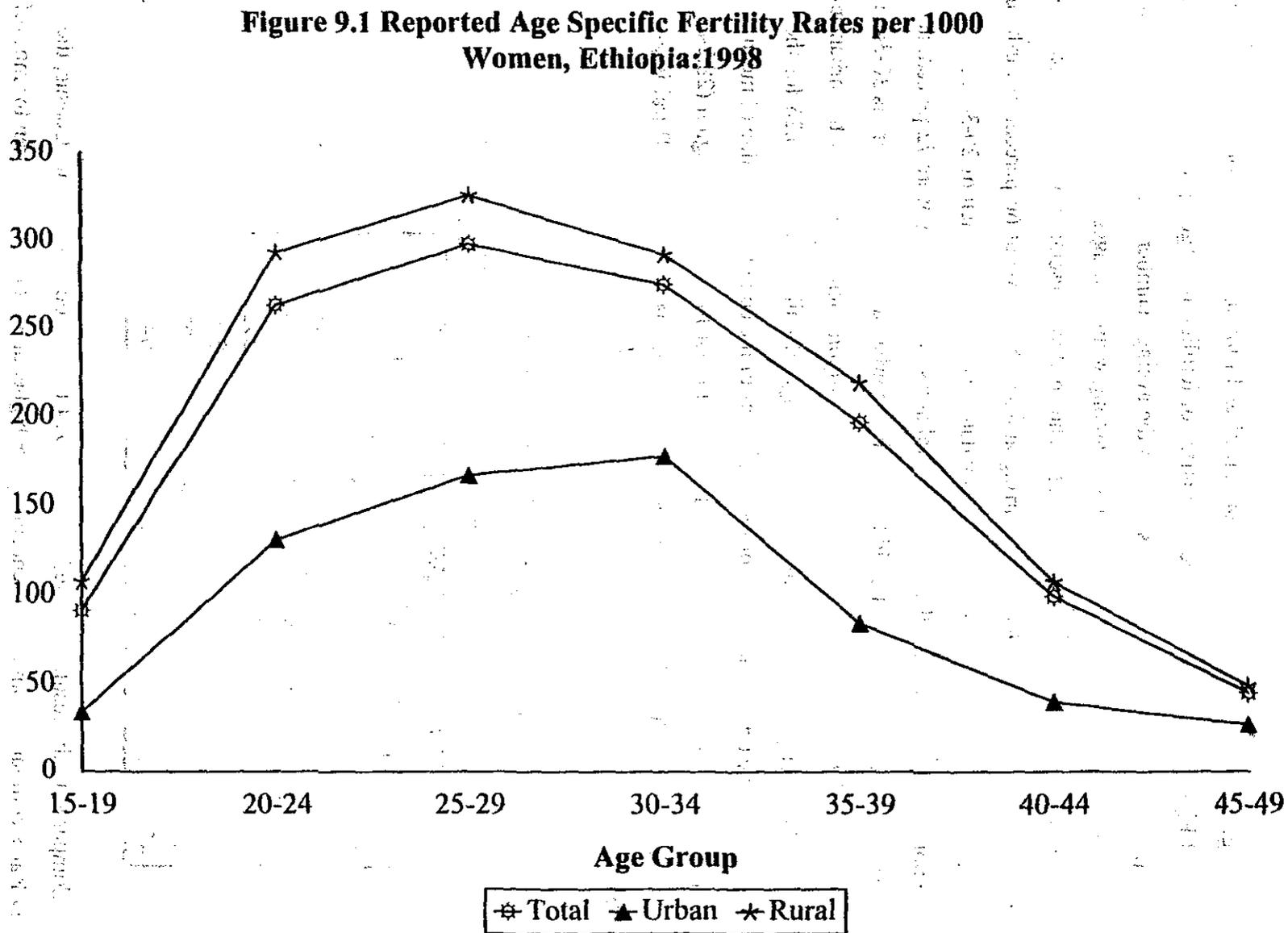
The age pattern of fertility for the total, urban and rural areas of the country is shown in Table 9.2 and Figure 9.1. To examine the age pattern of fertility, the Age Specific Fertility Rates are considered. Age Specific Fertility Rates refer to the average number of live births per woman in each age group. The rate of child bearing is low among women of ages 15-19 and increases up to ages 25-29 and declines thereafter (Table 9.2). The pattern presents a broad peak extending over ages 20-34 with maximum fertility occurring at ages 25-29. About 66 percent of births that occurred during the 12 months prior to the survey date were due to women of 20-34 age groups. The corresponding proportions for the urban and rural areas of the country were 72 percent and 65 percent, respectively. The peak age of child bearing in the urban areas of the country is 30-34. This might be attributed to later age at first marriage and postponement of births in the urban areas compared to the rural parts of the country. The mean age of child bearing is 30.26 for the total country, 30.34 for the urban, and 30.16 for the rural areas of the country. The value of mean age at child bearing is highest for Somali Region (31.05) and lowest for Gambella Region (28.24). The distribution of the Age Specific Fertility Rates for all the regions by Urban and Rural is given in Annex 9.1.

Table 9.2 Reported Age Specific Fertility Rates for the Total Country by Urban and Rural Areas, Ethiopia: 1998

Age Group	Age Specific Fertility Rates		
	Urban+Rural	Urban	Rural
15-19	.091	.034	.107
20-24	.263	.131	.293
25-29	.298	.167	.326
30-34	.275	.178	.292
35-39	.197	.084	.219
40-44	.099	.040	.107
45-49	.045	.027	.049

Compared to the results obtained from the 1994 Population and Housing Census, the Total Fertility Rates computed from the present survey are higher at least by two children for most of the regions (Tigray, Amhara, Oromiya, Benishangul-Gumuz, SNNP, Harari) and the country as a whole. Except Addis Ababa, the remaining regions have also exhibited higher level of TFR. This increment of the TFR may partly be attributed to better reporting in the present survey than that of the census.

## Age Specific Fertility Rates



### 9.2.2 Cumulative Fertility

For every woman of child bearing age, information was collected on the total number of children ever born. Based on this, the mean number of children born per woman (average parity) in a given age is computed to measure the cumulative experience from the beginning of the reproductive time to age at the time of the survey. In addition to this, comparison of the completed fertility of women aged 45-49 at the time of the survey with the level of current fertility as measured by the TFR is an indicator of recent trends in fertility. If fertility remained constant in the past and the reported data on both children ever born and births during the 12 months prior to the survey date are reasonably accurate, the completed fertility and the total fertility rate should be equal in magnitude.

Table 9.3 presents the total number of children ever born per woman by urban and rural areas for all the regions and the country as a whole. The data indicated that the average completed fertility for Ethiopia is 6.8. The corresponding figures for the urban and rural areas of the country are 5.6 and 7.0, respectively. The highest number of average completed fertility is recorded for women of Somali Region followed by women of Oromiya and SNNP Regions, respectively. Low levels of average completed fertility are recorded for Affar, Gambella and Addis Ababa Regions. Comparison of the average completed fertility with the TFR revealed a difference of 2.3 children for urban areas of Ethiopia while the rural areas exhibited no significant difference between the two measures. The observed large disparity between the two measures could be mainly explained by recent decline in the fertility level of urban areas of Ethiopia.

The distribution of women aged 15-49 by number of children ever born and mean parity by age group of women, urban and rural areas, for all the regions and at country level is given in Annex 9.2. Childlessness is examined by taking the proportion of women aged 45-49 with no living children. The proportion of childless women in Ethiopia accounted for 3.4 percent. Childlessness is more prevalent in the urban areas of the country than that of the rural areas. The proportion of childless women aged 45-49 is 5.9 percent in the urban areas and 3.0 in the rural areas. Variations in childlessness are also observed among women who reside in the different regions of the country. The largest proportion of childless women is observed in Gambella Region (8.5 percent) followed by Somali (7.3 percent) and Addis Ababa (4.4 percent), respectively. The proportion of childless women is observed to be the lowest among women of

Dire Dawa Region (1.4 percent). Considering women aged 40-44, the proportion childless in Ethiopia becomes 2.5 percent.

The data also revealed that by the end of their reproductive period, 68.4 percent of women in the country have at least six children while the remaining 31.6 percent bear five or less children. In Ethiopia, 18.5 percent of women aged 15-49 have 10 or more children. Examining the regional differentials, the proportion of women aged 15-49 who have at least six children is highest for Somali Region (78.0 percent) followed by women of SNNP (76.7 percent) and Oromiya (68.9 percent) Regions, respectively. Women who have six or more children are only 27.1 percent in Affar Region, 34.5 percent in Gambella Region and 52.7 in Addis Ababa. According to the data shown in the table, the proportion of women aged 35 years and above who have no children in Ethiopia accounted for 2.8 percent. The proportion is higher in the urban areas of the country than that of the rural areas. The largest proportion of women aged 35 years and above with no children is observed in Gambella Region (9.8 percent) followed by Addis Ababa (7.4 percent) and Dire Dawa (4.5 percent), respectively. The proportion is lowest among women of SNNP Region (2.0 percent).

The pattern of current fertility by age and parity (number of children ever born) group of women is shown in Table 9.4. According to the result, current births are more concentrated among women who had less than three children. The proportion of women who had less than three children and have given births during the 12 months prior to the survey date is 47.1 percent for the total country, 60.9 percent for the urban areas and 45.8 percent for the rural parts of the country.

Parity Progression Ratios (PPR) for Ethiopia by urban rural areas are presented in Table 9.5. Parity progression ratios represent the probability of a woman progressing from one parity level to the next higher level. They are useful measures to assess patterns and changes in fertility. Examining the patterns of the PPRs, a declining trend in the fertility levels of the urban as well as the rural areas is observed. However, at all parity levels, the probability of progressing from one parity level to a higher one is lower for urban women compared to their rural counterparts. The disparity of the ratios between the rural and the urban women is wider for younger women. This

shows that a more rapid decline prevails in the fertility level of women residing in the urban areas compared to those living in the rural areas.

Table 9.3 Total Number of Children Ever Born Per Woman at Age Group 45-49 (Average Completed Fertility) by Region, Ethiopia: 1998

Region	Urban+Rural	Urban	Rural
Country	6.80	5.60	7.00
Tigray	6.70	6.00	6.90
Affar	4.30	2.50	6.00
Amhara	6.60	5.50	6.70
Oromiya	7.20	6.20	7.30
Somali	7.60	6.70	7.90
Benishangul-Gumuz	6.80	6.00	6.80
SNNP	7.30	6.10	7.40
Gambella	5.50	4.80	5.60
Harari	6.30	5.80	8.00
Addis Ababa	5.60	5.60	8.10
Dire Dawa	6.20	5.40	7.90

### 9.3 Adjusted Fertility Levels

In the previous two subsections, the fertility measures were computed based on reported number of births. Reported data on both current and life time fertility are not free from errors. The number of children ever born may be underreported by reluctance of the mothers to report dead children or those living in other households. On the other hand, the number of births during the 12 months prior to the survey date could also be misreported due to misunderstanding of the reference period. Due to these reasons, different demographic techniques have been developed in the past to adjust the reported fertility measures.

In this section, however, adjustment is done only for the rural parts of Affar and Somali Regions. For the remaining regions of the country since the data has shown a better reporting of births, the reported figures are accepted as plausible measures of the level of fertility compared to the 1994 census fertility data (CSA; 1999). Comparing the reported levels of TFR obtained from the present survey with that of adjusted and projected census values of TFR for the period 1995-2000 under the medium variant, the levels are very close to each other for all the regions except

Table 9.4 Births During the Last 12 Months by Age and Parity Group of Women, Urban and Rural areas, Ethiopia: 1998

Age group	Total	Parity Group												
		0	1	2	3	4	5	6	7	8	9	10	11+	Not Stated
<b>Country Total</b>														
<b>All Ages</b>														
No. of Women	12233893	3593676	1330127	1239310	1084287	997493	945413	837637	697128	565809	400682	256805	278859	6667
No. of Births	2341948		417895	393054	293510	277098	273937	198712	162402	131864	81217	57031	51004	4224
<b>15-19</b>														
No. of Women	2870392	2348034	374954	100745	18071	3226	1849	2786	769	1756	2447	4021	9283	2451
No. of Births	262015		181506	55792	10639	1942	1328	0	115	854	531	2125	5231	1952
<b>20-24</b>														
No. of Women	2319423	788065	570806	515559	270581	107621	40763	14198	4675	2577	338	152	1345	2743
No. of Births	608923		180433	215881	117691	58971	21492	8230	2729	1530	145	0	418	1403
<b>25-29</b>														
No. of Women	2095238	281118	219889	359932	407737	360683	248919	125077	52780	22603	10087	2964	2918	531
No. of Births	624331		46915	100122	116175	133446	119149	59366	25931	12607	6762	2051	1492	315
<b>30-34</b>														
No. of Women	1459988	78921	73238	110932	170656	225004	261142	210525	153772	93007	45880	25060	11400	451
No. of Births	401895		6411	13455	37238	57946	77536	77088	55772	42314	19184	9260	5334	357
<b>35-39</b>														
No. of Women	1539101	40798	42062	75638	113112	155088	202451	239895	222895	198806	114250	71178	62928	0
No. of Births	303739		1556	4860	8632	20228	42304	42600	55124	57992	31533	22472	16438	0
<b>40-44</b>														
No. of Women	1128399	28528	28278	44344	60465	87304	115596	144939	157146	137499	132352	87513	104172	263
No. of Births	111200		579	2944	3135	4161	8986	8707	18313	13582	17876	15250	17470	197
<b>45-49</b>														
No. of Women	821352	28212	20900	32160	43665	58567	74693	100217	105091	109561	95328	65917	86813	228
No. of Births	29845		495	0	0	404	3142	2721	4418	2985	5186	5873	4621	0

Table 9.4 (Cont'd)

Age group	Total	Parity Group											Not Stated	
		0	1	2	3	4	5	6	7	8	9	10		11+
<b>Country Urban</b>														
<b>All Ages</b>														
No. of Women	2138164	1016395	241335	196937	157485	133077	107383	88843	76831	46810	30571	19978	22118	401
No. of Births	205601		54835	42434	28001	21977	18391	12183	10935	6789	2967	3589	2964	536
<b>15-19</b>														
No. of Women	600212	555536	36102	7052	789	0	0	0	0	0	0	0	690	43
No. of Births	20227		15841	3172	32	0	0	0	0	0	0	0	690	492
<b>20-24</b>														
No. of Women	440420	268727	90837	55327	17801	5416	842	904	294	0	0	0	214	58
No. of Births	57795		25503	23242	6626	1778	36	553	57	0	0	0	0	0
<b>25-29</b>														
No. of Women	362930	126211	63949	61982	50110	35642	17889	4412	683	1348	535	132	0	37
No. of Births	60464		10962	11831	13841	11486	8120	1935	495	1196	479	75	0	44
<b>30-34</b>														
No. of Women	215931	36248	21622	32178	33725	27423	26039	16193	12726	7265	1356	703	453	0
No. of Births	38449		2253	3264	5135	6062	7451	6595	3681	2931	571	237	269	0
<b>35-39</b>														
No. of Women	245833	16118	13405	20864	32074	36858	29872	31941	29013	16602	9335	6404	3347	0
No. of Births	20542		176	911	1287	2449	2068	2364	5074	2261	1283	2399	270	0
<b>40-44</b>														
No. of Women	147413	6092	8229	10948	12547	14972	18476	20344	20797	11684	7799	7134	8128	263
No. of Births	5856		49	14	1080	202	481	274	1004	401	88	565	1698	0
<b>45-49</b>														
No. of Women	125425	7463	7191	8586	10439	12766	14265	15049	13318	9911	11546	5605	9286	0
No. of Births	2268		51	0	0	0	235	462	624	0	546	313	37	0

Table 9.4 (Cont'd)

Age group	Total	Parity Group											Not Stated	
		0	1	2	3	4	5	6	7	8	9	10		11+
<b>Country Rural</b>														
<b>All Ages</b>														
No. of Women	10095738	2577282	1088793	1042373	926801	864416	838031	748796	620296	518999	370112	236831	256742	6266
No. of Births	2136347		363062	350621	265509	255120	255547	186528	151466	125076	78248	53442	48040	3688
<b>15-19</b>														
No. of Women	2270179	1792498	338853	93692	17281	3226	1849	2786	769	1756	2447	4021	8593	2408
No. of Births	241788		165665	52620	10607	1942	1328	0	115	854	531	2125	4541	1460
<b>20-24</b>														
No. of Women	1879002	519338	479968	460232	252780	102204	39922	13294	4381	2577	338	152	1131	2685
No. of Births	551130		154931	192639	111065	57193	21456	7678	2672	1530	145	0	418	1403
<b>25-29</b>														
No. of Women	1732308	154907	155940	297950	357627	325042	231030	120665	52096	21255	9551	2833	2918	494
No. of Births	563865		35953	88290	102333	121960	111029	57431	25436	11411	6283	1976	1492	271
<b>30-34</b>														
No. of Women	1244058	42673	51616	78754	136930	197581	235103	194332	141046	85742	44525	24358	10947	451
No. of Births	363446		4158	10192	32103	51883	70085	70493	52091	39383	18612	9023	5066	357
<b>35-39</b>														
No. of Women	1293271	24680	28658	54774	81038	118230	172579	207955	193882	182204	104915	64775	59581	0
No. of Births	283199		1381	3950	7345	17779	40237	40235	50050	55731	30250	20073	16168	0
<b>40-44</b>														
No. of Women	980988	22437	20048	33396	47918	72332	97120	124596	136349	125815	124553	80379	96045	0
No. of Births	105342		530	2930	2056	3959	8505	8432	17308	13182	17787	14685	15771	197
<b>45-49</b>														
No. of Women	695932	20749	13710	23575	33227	45801	60428	85168	91773	99650	83783	60313	77527	228
No. of Births	27577		444	0	0	404	2907	2259	3794	2985	4640	5560	4584	0

Table 9.5 Parity Progression Ratios by Age group of Women, Urban and Rural Areas, Ethiopia: 1998

Parity Progressions	Age Groups						
	45-49	40-44	35-39	30-34	25-29	20-24	15-19
<b>Country</b>							
0 to 1	0.966	0.975	0.973	0.946	0.865	0.657	0.173
1 to 2	0.973	0.974	0.971	0.947	0.879	0.625	0.244
2 to 3	0.958	0.958	0.948	0.915	0.773	0.457	0.174
3 to 4	0.941	0.941	0.917	0.858	0.668	0.384	0.161
4 to 5	0.916	0.910	0.878	0.781	0.564	0.353	0.044
5 to 6	0.883	0.869	0.818	0.675	0.458	0.338	
6 to 7	0.823	0.809	0.735	0.609	0.417	0.284	
7 to 8	0.772	0.744	0.666	0.534	0.401	0.297	
8 to 9	0.693	0.701	0.556	0.474	0.388		
9 to 10	0.616	0.589	0.541	0.440	0.316		
10 to 11	0.567	0.541	0.467	0.313	0.319		
<b>Urban</b>							
0 to 1	0.941	0.959	0.934	0.831	0.649	0.389	0.074
1 to 2	0.937	0.940	0.940	0.879	0.728	0.470	0.177
2 to 3	0.923	0.918	0.904	0.792	0.639	0.315	0.101
3 to 4	0.898	0.896	0.835	0.729	0.550	0.304	
4 to 5	0.861	0.863	0.773	0.698	0.415	0.257	
5 to 6	0.819	0.805	0.764	0.601	0.283	0.575	
6 to 7	0.767	0.732	0.666	0.584	0.425	0.208	
7 to 8	0.732	0.629	0.549	0.438	0.671	0.000	
8 to 9	0.729	0.666	0.531	0.254	0.331		
9 to 10	0.564	0.667	0.498	0.468	0.198		
10 to 11	0.622	0.521	0.353	0.392	0.000		
<b>Rural</b>							
0 to 1	0.970	0.977	0.981	0.965	0.910	0.720	0.200
1 to 2	0.979	0.979	0.977	0.957	0.901	0.644	0.251
2 to 3	0.963	0.964	0.956	0.931	0.789	0.471	0.179
3 to 4	0.948	0.948	0.931	0.873	0.680	0.389	0.167
4 to 5	0.924	0.916	0.894	0.789	0.576	0.358	0.044
5 to 6	0.892	0.877	0.825	0.682	0.468	0.330	
6 to 7	0.831	0.817	0.743	0.611	0.417	0.289	
7 to 8	0.777	0.755	0.678	0.541	0.392	0.310	
8 to 9	0.689	0.704	0.558	0.487	0.392		
9 to 10	0.622	0.583	0.544	0.439	0.322		
10 to 11	0.561	0.543	0.475	0.310	0.329		

Affar and Somali (See Table 9.7). But for Affar and Somali Regions the levels of reported fertility are observed to be far lower than the 1994 adjusted levels which indicates that current fertility is underreported in the present survey. Due to these reasons, adjustment is made particularly for these two regions. To adjust the reported TFR for the rural areas of Affar and Somali Regions, the P/F ratio technique (average of P3/F3 and P4/F4) is applied. The adjusted summary measures of fertility by urban rural areas for all the regions and the country as a whole are presented in Table 9.6. According to the results presented in the table, the adjusted level of TFR for the rural areas of Affar and Somali Regions are found to be 6.26 and 6.49, respectively. Thus the estimated TFR for the total Affar Region is 5.18 while it becomes 5.53 for Somali Region. The plausible TFR level for Ethiopia<sup>1</sup> is 6.35. The corresponding figures for urban and rural areas of Ethiopia are 3.31 and 6.99, respectively.

Table 9.6 Adjusted Fertility Measures by Region, Urban and Rural, Ethiopia: 1998

Region	Urban+Rural			Urban			Rural		
	CBR	GFR	TFR	CBR	GFR	TFR	CBR	GFR	TFR
Country	43.80	189.02	6.35	28.07	95.26	3.31	46.35	209.04	6.99
Tigray	49.27	221.28	7.39	50.42	189.86	6.17	49.07	227.96	7.63
Affar	46.20	172.29	5.18	52.59	145.04	3.76	43.75	190.55	6.26
Amhara	43.34	189.65	6.36	26.61	91.04	3.03	44.95	202.15	6.78
Oromiya	45.30	204.53	6.95	33.12	120.77	4.21	46.73	217.03	7.34
Somali	36.54	161.36	5.53	27.88	111.68	3.69	39.30	182.01	6.49
Benishangul-Gumuz	45.85	200.62	6.33	38.77	150.10	4.34	46.52	206.07	6.54
SNNP	45.55	192.69	6.37	29.48	107.98	4.19	46.88	200.89	6.57
Gambella	40.19	147.36	4.37	37.02	128.22	3.40	40.80	151.33	4.53
Harari	34.97	132.69	4.24	16.15	53.67	1.63	56.92	260.25	8.25
Addis Ababa	16.79	50.21	1.80	16.42	48.79	1.76	33.80	144.91	4.89
Dire Dawa	33.82	120.58	3.95	23.02	73.30	2.33	52.75	237.93	7.74

<sup>1</sup> Estimates of region totals are obtained by computing weighted averages (no. of women in reproductive ages are taken as weights) of estimates for the urban and rural areas. Weighted averages of regional estimates will give estimates for the total country.

Table 9.7 Total Fertility Rates by Region, Ethiopia: 1998

Region	Census (1995-2000) Projected	1998 Health survey
Country	6.52	6.35
Tigray	6.72	7.39
Affar	6.20	5.18
Amhara	6.54	6.36
Oromiya	7.00	6.95
Somali	6.30	5.53
Benishangul-Gumuz	6.26	6.33
SNNP	6.91	6.37
Gambella	4.64	4.37
Harari	4.61	4.24
Addis Ababa	2.14	1.80
Dire Dawa	4.85	3.95

**Annex Table 9.1 Women Aged 15-49 Years By Age Group, Number of Children Born Alive During The Last Twelve Months, Age Specific Fertility Rate Total fertility Rate Urban and Rural; Health & Nutrition Survey: 1998**

Age Group	Total			Urban			Rural		
	No. of Women	Birth in Past Year	ASFR	No. of Women	Birth in Past Year	ASFR	No. of Women	Birth in Past Year	ASFR
<b>COUNTRY-TOTAL</b>									
Total	12233898	2349260		2138161	206694		10095737	2142566	
15 - 19	2870392	262016	0.091	600213	20228	0.034	2270179	241788	0.107
20 - 24	2319424	608923	0.263	440421	57794	0.131	1879003	551129	0.293
25 - 29	2095239	624331	0.298	362930	60464	0.167	1732309	563867	0.326
30 - 34	1459988	401894	0.275	215930	38449	0.178	1244058	363445	0.292
35 - 39	1539101	303738	0.197	245832	20540	0.084	1293269	283198	0.219
40 - 44	1128400	111199	0.099	147412	5857	0.040	980988	105342	0.107
45 - 49	821354	37159	0.045	125423	3362	0.027	695931	33797	0.049
Total Fertility Rate (TFR)			6.340			3.305			6.965
<b>TIGRAY REGION</b>									
Total	756635	172315		135234	25927		621401	146388	
15 - 19	176942	25931	0.147	38856	3523	0.091	138086	22408	0.162
20 - 24	140611	45004	0.320	22922	7583	0.331	117689	37421	0.318
25 - 29	129080	42436	0.329	24070	6095	0.253	105010	36341	0.346
30 - 34	92729	29134	0.314	16268	5862	0.360	76461	23272	0.304
35 - 39	94217	20133	0.214	16649	2468	0.148	77568	17665	0.228
40 - 44	64531	7980	0.124	7892	396	0.050	56639	7584	0.134
45 - 49	58525	1697	0.029	8577	-	-	49948	1697	0.034
Total Fertility Rate (TFR)			7.385			6.165			7.630
<b>AFFAR REGION</b>									
Total	81227	11935		32497	4715		48730	7220	
15 - 19	13587	868	0.064	4349	46	0.011	9238	822	0.089
20 - 24	13211	1662	0.126	5989	101	0.017	7222	1561	0.216
25 - 29	17111	5491	0.321	8436	3569	0.423	8675	1922	0.222
30 - 34	15084	1680	0.111	5677	76	0.013	9407	1604	0.171
35 - 39	10045	1909	0.190	3255	915	0.281	6790	994	0.146
40 - 44	6091	161	0.026	1142	8	0.007	4949	153	0.031
45 - 49	6098	164	0.027	3649	-	-	2449	164	0.067
Total Fertility Rate (TFR)			4.325			3.760			4.710

NOTE: Women who did not state number of birth during the last 12 months are omitted from the table.

Annex Table 9.1 (Cont'd)

Age Group	Total			Urban			Rural		
	No. of Women	Birth in Past Year	ASFR	No. of Women	Birth in Past Year	ASFR	No. of Women	Birth in Past Year	ASFR
<b>AMHARA REGION</b>									
Total	3186398	618063		359297	33388		2827101	584675	
15 - 19	711962	81347	0.114	93894	4419	0.047	618068	76928	0.124
20 - 24	576450	161135	0.280	70273	7056	0.100	506177	154079	0.304
25 - 29	542991	156067	0.287	59381	10540	0.177	483610	145527	0.301
30 - 34	377766	95778	0.254	42520	6358	0.150	335246	89420	0.267
35 - 39	417088	81729	0.196	43756	3869	0.088	373332	77860	0.209
40 - 44	323865	32078	0.099	28489	967	0.034	295376	31111	0.105
45 - 49	236276	9929	0.042	20984	179	0.009	215292	9750	0.045
Total Fertility Rate (TFR)			6.360			3.025			6.775
<b>OROMIYA REGION</b>									
Total	4492987	930541		587481	71382		3905506	859159	
15 - 19	1089176	97405	0.089	171627	7005	0.041	917549	90400	0.099
20 - 24	865991	245086	0.283	114189	20648	0.181	751802	224438	0.299
25 - 29	750085	239304	0.319	90742	19064	0.210	659343	220240	0.334
30 - 34	530105	160518	0.303	63371	15913	0.251	466734	144605	0.310
35 - 39	564643	124055	0.220	72350	5833	0.081	492293	118222	0.240
40 - 44	403038	47818	0.119	37066	1923	0.052	365972	45895	0.125
45 - 49	289949	16355	0.056	38136	996	0.026	251813	15359	0.061
Total Fertility Rate (TFR)			6.945			4.210			7.340
<b>SOMALI REGION</b>									
Total	153104	22002		53109	5960		99995	16042	
15 - 19	34835	1580	0.045	11003	540	0.049	23832	1040	0.044
20 - 24	27539	4981	0.181	12520	1604	0.128	15019	3377	0.225
25 - 29	24883	6348	0.255	10156	1316	0.130	14727	5032	0.342
30 - 34	19518	3582	0.184	5774	640	0.111	13744	2942	0.214
35 - 39	20368	3787	0.186	6417	1149	0.179	13951	2638	0.189
40 - 44	17355	1352	0.078	5051	711	0.141	12304	641	0.052
45 - 49	8606	372	0.043	2188	-	-	6418	372	0.058
Total Fertility Rate (TFR)			4.860			3.690			5.620

NOTE: Women who did not state number of birth during the last 12 months are omitted from the table.

Annex Table 9.1 (Cont'd)

Age Group	Total			Urban			Rural		
	No. of Women	Birth in Past Year	ASFR	No. of Women	Birth in Past Year	ASFR	No. of Women	Birth in Past Year	ASFR
<b>BENISHANGUL-GUMUZ REGION</b>									
Total	130967	26668		12853	1945		118114	24723	
15 - 19	28683	3470	0.121	2720	253	0.093	25963	3217	0.124
20 - 24	26790	7110	0.265	4240	676	0.159	22550	6434	0.285
25 - 29	25105	7816	0.311	2169	614	0.283	22936	7202	0.314
30 - 34	14836	4333	0.292	1198	299	0.250	13638	4034	0.296
35 - 39	16742	2848	0.170	1388	96	0.069	15354	2752	0.179
40 - 44	11050	915	0.083	583	-	-	10467	915	0.087
45 - 49	7761	176	0.023	555	7	0.013	7206	169	0.023
Total Fertility Rate (TFR)			6.325			4.335			6.540
<b>SNNPR</b>									
Total	2634195	515528		233237	25517		2400958	490011	
15 - 19	591742	47893	0.081	71706	2585	0.036	520036	45308	0.087
20 - 24	495877	127655	0.257	51411	7805	0.152	444466	119850	0.270
25 - 29	463399	151056	0.326	37993	7118	0.187	425406	143938	0.338
30 - 34	336639	98473	0.293	18120	4086	0.225	318519	94387	0.296
35 - 39	330642	63213	0.191	25290	1567	0.062	305352	61646	0.202
40 - 44	245245	19414	0.079	16262	762	0.047	228983	18652	0.081
45 - 49	170651	7824	0.046	12455	1594	0.128	158196	6230	0.039
Total Fertility Rate (TFR)			6.365			4.185			6.565
<b>GAMBELLA REGION</b>									
Total	38078	5690		6440	851		31638	4839	
15 - 19	8618	908	0.105	1588	74	0.047	7030	834	0.119
20 - 24	8070	1534	0.190	1627	347	0.213	6443	1187	0.184
25 - 29	7374	1627	0.221	1469	306	0.208	5905	1321	0.224
30 - 34	5072	1206	0.238	578	97	0.168	4494	1109	0.247
35 - 39	4052	269	0.066	612	27	0.044	3440	242	0.070
40 - 44	2762	146	0.053	385	-	-	2377	146	0.061
45 - 49	2130	-	-	181	-	-	1949	-	-
Total Fertility Rate (TFR)			4.365			3.400			4.525

NOTE: Women who did not state number of birth during the last 12 months are omitted from the table.

Annex Table 9.1 (Cont,d)

Age Group	Total			Urban			Rural		
	No. of Women	Birth in Past Year	ASFR	No. of Women	Birth in Past Year	ASFR	No. of Women	Birth in Past Year	ASFR
<b>HARARI REGION</b>									
Total	37594	5018		23147	1248		14447	3770	
15 - 19	9576	594	0.062	6144	156	0.025	3432	438	0.128
20 - 24	7917	1513	0.191	4973	413	0.083	2944	1100	0.374
25 - 29	6132	1215	0.198	3825	385	0.101	2307	830	0.360
30 - 34	4465	962	0.215	2400	146	0.061	2065	816	0.395
35 - 39	4291	668	0.156	2691	148	0.055	1600	520	0.325
40 - 44	2763	20	0.007	1585	-	-	1178	20	0.017
45 - 49	2450	46	0.019	1529	-	-	921	46	0.050
Total Fertility Rate (TFR)			4.240			1.625			8.245
<b>ADDIS ABABA</b>									
Total	660446	33927		650518	32474		9928	1453	
15 - 19	190008	1346	0.007	187099	1248	0.007	2909	98	0.034
20 - 24	145375	11108	0.076	143865	10775	0.075	1510	333	0.221
25 - 29	118205	11021	0.093	116466	10379	0.089	1739	642	0.369
30 - 34	56498	4771	0.084	55363	4646	0.084	1135	125	0.110
35 - 39	69207	3983	0.058	68031	3824	0.056	1176	159	0.135
40 - 44	45864	1102	0.024	44888	1016	0.023	976	86	0.088
45 - 49	35289	596	0.017	34806	586	0.017	483	10	0.021
Total Fertility Rate (TFR)			1.795			1.755			4.890
<b>DIRE DAWA PROVISIONAL ADMINISTRATION</b>									
Total	62271	7572		44352	3281		17919	4291	
15 - 19	15265	673	0.044	11227	378	0.034	4038	295	0.073
20 - 24	11594	2134	0.184	8413	785	0.093	3181	1349	0.424
25 - 29	10875	1950	0.179	8224	1077	0.131	2651	873	0.329
30 - 34	7276	1457	0.200	4661	325	0.070	2615	1132	0.433
35 - 39	7804	1143	0.146	5393	642	0.119	2411	501	0.208
40 - 44	5838	215	0.037	4071	74	0.018	1767	141	0.080
45 - 49	3619			2363			1256		
Total Fertility Rate (TFR)			3.950			2.325			7.735

NOTE: Women who did not state number of birth during the last 12 months are omitted from the table.

Annex Table 9.2 Women Aged 15-49 Years By Age Group And Number of Children Ever Born and Mean Number of Children Ever Born, Urban and Rural, Health and Nutrition Survey: 1998

Age Group	Number of Children Ever Born Alive													All Women	Mean Children Ever Born
	0	1	2	3	4	5	6	7	8	9	10	11+			
<b>COUNTRY-TOTAL</b>															
15 - 19	2358504	373549	99652	17650	3226	150	0	0	0	0	0	0	0	2852731	0.2
20 - 24	792457	569119	513728	266759	107442	38826	14198	3968	1677	0	0	0	0	2308174	1.4
25 - 29	282532	219045	360031	406213	357249	250136	123383	52920	21697	9413	2964	1391	2086974	3.0	
30 - 34	79005	73243	111065	169331	223754	258543	210272	152784	92001	46375	25076	11400	1452849	4.7	
35 - 39	40989	43001	75529	113657	153684	200903	239652	221901	196406	112715	70766	61973	1531176	6.0	
40 - 44	28528	28169	44285	59838	86717	114223	145206	157170	136404	131584	86461	101964	1120549	6.7	
45 - 49	28212	21421	32700	43329	58493	74429	99299	105233	109795	95043	65913	86423	820290	6.8	
Total	3610227	1327547	1236990	1076777	990565	937210	832010	693976	557980	395130	251180	263151	12172743	3.2	
<b>COUNTRY-URBAN</b>															
15 - 19	556232	36418	7052	789	0	0	0	0	0	0	0	0	600491	0.1	
20 - 24	269383	91089	55321	17662	5741	842	904	237	0	0	0	0	441179	0.7	
25 - 29	127204	64189	61820	49349	35243	17903	4064	988	1348	535	132	0	362775	1.7	
30 - 34	36248	21578	32627	33754	27362	25292	15844	12471	7265	1313	703	453	214910	3.2	
35 - 39	16310	13864	20864	32338	37200	29796	32267	28994	16558	9430	6047	3303	246971	4.7	
40 - 44	6092	8409	10888	12743	14936	18432	20366	20591	11656	7755	7418	8083	147369	5.6	
45 - 49	7463	7405	8520	10439	12766	14265	15118	13318	9859	11546	5637	9286	125622	5.6	
Total	1018932	242952	197092	157074	133248	106530	88563	76599	46686	30579	19937	21125	2139317	2.0	
<b>COUNTRY-RURAL</b>															
15 - 19	1802272	337131	92600	16861	3226	150	0	0	0	0	0	0	2252240	0.3	
20 - 24	523074	478030	458407	249097	101701	37984	13294	3731	1677	0	0	0	1866995	1.5	
25 - 29	155328	154856	298211	356864	322007	232233	119320	51932	20349	8878	2833	1391	1724202	3.3	
30 - 34	42757	51665	78438	135577	196391	233251	194427	140313	84736	45062	24373	10947	1237937	5.0	
35 - 39	24680	29137	54665	81320	116484	171107	207385	192907	179848	103284	64719	58670	1284206	6.2	
40 - 44	22437	19759	33396	47095	71781	95791	124841	136580	124748	123829	79044	93881	973182	6.9	
45 - 49	20749	14016	24180	32890	45727	60164	84181	91915	99936	83497	60276	77137	694668	7.0	
Total	2591297	1084594	1039897	919704	857317	830680	743448	617378	511294	364550	231245	242026	10033430	3.5	
<b>TIGRAY REGION</b>															
15 - 19	132583	30824	11365	310	0	0	0	0	0	0	0	0	175082	0.3	
20 - 24	33624	35371	42754	16632	5852	2684	1080	246	256	0	0	0	138499	1.6	
25 - 29	15655	9185	26532	28414	21349	16444	4514	1941	1503	495	310	0	126342	3.0	
30 - 34	4524	3541	7020	15414	17058	17900	13636	6265	3281	1798	1188	550	92175	4.4	
35 - 39	3181	3173	3885	8526	12500	11388	15140	16040	7847	5571	2699	3061	93011	5.6	
40 - 44	1261	1346	2494	4074	4771	8130	9334	8681	8633	8985	3575	3672	64956	6.5	
45 - 49	2396	1372	1890	4203	4315	4650	6795	6412	9208	6647	3599	6064	57551	6.7	
Total	193224	84812	95940	77573	65845	61196	50499	39585	30728	23496	11371	13347	747616	3.2	

Annex Table 9.2 (Cont'd)

Age Group	Number of Children Ever Born Alive												All Women	Mean Children Ever Born	
	0	1	2	3	4	5	6	7	8	9	10	11+			
<b>TIGRAY REGION-URBAN</b>															
15 - 19	33089	4397	1371	0	0	0	0	0	0	0	0	0	0	38857	0.2
20 - 24	8017	4119	8139	2253	394	0	0	0	0	0	0	0	0	22922	1.3
25 - 29	5215	1839	8176	3698	2827	1242	0	0	357	0	0	0	0	23354	2.1
30 - 34	1378	624	2247	4623	2722	902	1983	363	1034	0	393	0	0	16269	3.8
35 - 39	1931	1445	336	2141	2827	1702	1225	2164	1270	726	913	0	0	16680	4.6
40 - 44	331	130	1130	585	107	547	1409	766	1160	863	426	378	0	7832	6.0
45 - 49	1219	533	731	0	656	614	1445	566	850	532	55	1378	0	8579	5.6
Total	51180	13087	22130	13300	9533	5007	6062	3859	4671	2121	1787	1756	0	134493	2.4
<b>TIGRAY REGION-RURAL</b>															
15 - 19	99495	26427	9994	310	0	0	0	0	0	0	0	0	0	136226	0.3
20 - 24	25607	31252	34616	14380	5458	2684	1080	246	256	0	0	0	0	115579	1.6
25 - 29	10440	7346	18356	24716	18522	15202	4514	1941	1146	495	310	0	0	102988	3.2
30 - 34	3146	2918	4773	10791	14337	16998	11653	5902	2247	1798	794	550	0	75907	4.6
35 - 39	1251	1729	3549	6384	9673	9685	13915	13876	6577	4846	1786	3061	0	76332	5.8
40 - 44	930	1216	1364	3489	4663	7584	7925	7915	7473	8122	3149	3294	0	57124	6.6
45 - 49	1177	839	1159	4203	3660	4036	5349	5846	8358	6116	3544	4686	0	48973	6.9
Total	142046	71727	73811	64273	56313	56189	44436	35726	26057	21377	9583	11591	0	613129	3.4
<b>AFFAR REGION</b>															
15 - 19	11843	1387	324	157	0	0	0	0	0	0	0	0	0	13711	0.2
20 - 24	7594	2593	1337	771	554	105	130	0	0	0	0	0	0	13084	0.8
25 - 29	4419	4215	2414	2342	1833	815	457	478	0	0	0	0	0	16973	2.0
30 - 34	374	3166	3255	2725	1949	1448	1155	395	162	379	102	12	0	15122	3.2
35 - 39	308	297	399	1655	2455	1573	1254	899	389	271	274	243	0	10017	4.8
40 - 44	456	245	1240	556	818	824	725	612	101	131	212	172	0	6092	4.3
45 - 49	92	894	976	1073	1319	93	395	760	294	127	0	74	0	6097	3.9
Total	25086	12797	9945	9279	8928	4858	4116	3144	946	908	588	501	0	81096	2.4
<b>AFFAR REGION-URBAN</b>															
15 - 19	4283	58	8	0	0	0	0	0	0	0	0	0	0	4349	0.0
20 - 24	4806	1055	115	6	6	0	0	0	0	0	0	0	0	5988	0.2
25 - 29	3607	2826	1008	931	42	0	0	11	0	0	0	0	0	8425	0.9
30 - 34	94	2645	1819	948	80	44	29	11	0	0	0	8	0	5678	1.8
35 - 39	24	44	144	1011	1831	67	41	69	0	0	0	11	0	3242	3.7
40 - 44	0	34	918	78	32	63	8	0	9	0	0	0	0	1142	2.3
45 - 49	27	883	883	905	898	16	12	14	0	11	0	0	0	3649	2.5
Total	12841	7545	4895	3879	2889	190	90	105	9	11	0	19	0	32473	1.3

Annex Table 9.2 (Cont'd)

Age Group	Number of Children Ever Born Alive												All Women	Mean Children Ever Born
	0	1	2	3	4	5	6	7	8	9	10	11+		
<b>AFFAR REGION-RURAL</b>														
15 - 19	7560	1329	316	157	0	0	0	0	0	0	0	0	9362	0.3
20 - 24	2788	1537	1221	765	548	105	130	0	0	0	0	0	7094	1.4
25 - 29	812	1389	1406	1411	1792	815	457	467	0	0	0	0	8549	3.0
30 - 34	280	521	1436	1777	1870	1404	1126	384	162	379	102	4	9445	4.1
35 - 39	283	253	254	644	624	1506	1213	830	389	271	274	232	6773	5.4
40 - 44	456	211	322	478	786	761	717	612	92	131	212	172	4950	4.8
45 - 49	65	10	93	169	421	78	383	746	294	116	0	74	2449	6.0
Total	12244	5250	5048	5401	6041	4669	4026	3039	937	897	588	482	48622	3.1
<b>AMHARA REGION</b>														
15 - 19	537390	136917	31838	4194	1021	150	0	0	0	0	0	0	711510	0.3
20 - 24	143567	156609	150888	80703	30132	9533	1898	482	564	0	0	0	574376	1.5
25 - 29	56814	62011	94626	125835	91323	65730	26365	15197	4305	882	0	0	543088	3.0
30 - 34	14625	15476	26613	44435	67696	76889	56275	35801	23081	6778	4569	1857	374095	4.7
35 - 39	13308	14577	22616	31750	43987	63335	63668	57186	52286	21488	18029	12278	414508	5.7
40 - 44	9458	8650	14435	18994	29474	36171	43114	42756	37616	36233	23353	21217	321471	6.4
45 - 49	8896	6588	9342	16281	19211	20351	29995	29675	29853	30640	15594	20918	237344	6.6
Total	784058	400828	350358	322192	282844	272159	221315	181097	147705	96021	61545	56270	3176392	3.3
<b>AMHARA REGION-URBAN</b>														
15 - 19	83974	8003	2323	0	0	0	0	0	0	0	0	0	94300	0.1
20 - 24	37107	16755	10485	3797	1832	582	54	0	0	0	0	0	70612	0.8
25 - 29	13650	14156	10109	12981	3930	3430	553	413	379	0	0	0	59601	1.9
30 - 34	5083	3751	5626	9138	7134	5833	3235	1213	1231	35	0	34	42313	3.3
35 - 39	3421	3668	3885	4938	8707	6153	4547	4353	2555	1194	1035	0	44456	4.3
40 - 44	964	2274	1699	2272	3247	4997	2172	4422	1683	1710	1812	1236	28488	5.5
45 - 49	2102	1840	1710	1689	2246	1771	2914	1978	1090	2225	930	534	21029	4.9
Total	146301	50447	35837	34815	27096	22766	13475	12379	6938	5164	3777	1804	360799	2.2
<b>AMHARA REGION-RURAL</b>														
15 - 19	453416	128914	29514	4194	1021	150	0	0	0	0	0	0	617209	0.3
20 - 24	106460	139854	140404	76906	28299	8951	1844	482	564	0	0	0	503764	1.6
25 - 29	43164	47855	84517	112854	87393	62300	25812	14784	3926	882	0	0	483487	3.1
30 - 34	9542	11724	20987	35297	60562	71056	53039	34587	21849	6743	4569	1824	331779	4.9
35 - 39	9887	10909	18732	26812	35281	57182	59121	52833	49731	20293	16995	12278	370054	5.9
40 - 44	8494	6376	12736	16722	26227	31173	40941	38334	35933	34523	21541	19981	292981	6.5
45 - 49	6794	4748	7632	14592	16965	18580	27081	27697	28762	28415	14665	20384	216315	6.7
Total	637757	350380	314522	287377	255748	249392	207838	168717	140765	90856	57770	54467	2815589	3.4

Annex Table 9.2 (Cont'd)

Age Group	Number of Children Ever Born Alive												All Women	Mean Children Ever Born	
	0	1	2	3	4	5	6	7	8	9	10	11+			
<b>OROMIYA REGION</b>															
15 - 19	908859	126510	34699	9211	1806	0	0	0	0	0	0	0	0	1081085	0.2
20 - 24	277378	212101	192532	113870	46695	13472	4851	2067	766	0	0	0	0	863732	1.4
25 - 29	76224	66397	130307	145417	138836	98565	54505	22608	9255	2756	2065	432	747367	3.2	
30 - 34	22663	24114	38242	55497	73325	92760	82230	59912	39297	25137	9612	5933	528722	5.0	
35 - 39	9795	12524	22069	37713	49498	67759	91021	81621	83190	50098	30451	25610	561349	6.3	
40 - 44	7350	9439	10972	19391	23768	35339	49270	55985	47208	53602	37802	50881	401007	7.2	
45 - 49	11626	8731	9808	12774	17729	29339	31499	35807	38073	34063	27799	32823	290071	6.9	
Total	1313895	459816	438629	393873	351657	337234	313376	258000	217789	165656	107729	115679	4473333	3.3	
<b>OROMIYA REGION-URBAN</b>															
15 - 19	156179	13190	1141	758	0	0	0	0	0	0	0	0	171268	0.1	
20 - 24	58543	26586	20468	6564	1843	36	0	0	0	0	0	0	114040	0.8	
25 - 29	24403	16255	18508	12586	10942	6800	933	124	130	0	0	0	90681	1.9	
30 - 34	7737	5101	8581	7002	7959	10238	6673	5556	2415	867	241	235	62605	3.8	
35 - 39	2373	1440	5313	8836	7668	8847	12181	11981	5730	3859	2600	1349	72177	5.4	
40 - 44	1509	1655	1267	2969	3220	4968	4565	4487	2721	3563	2573	3765	37262	6.2	
45 - 49	1144	2284	2032	3906	3168	5253	2124	3270	4057	4278	2228	4585	38329	6.2	
Total	251888	66511	57310	42621	34800	36142	26476	25418	15053	12567	7642	9934	586362	2.4	
<b>OROMIYA REGION-RURAL</b>															
15 - 19	752680	113320	33559	8454	1806	0	0	0	0	0	0	0	909819	0.2	
20 - 24	218835	185515	172064	107306	44852	13436	4851	2067	766	0	0	0	749692	1.5	
25 - 29	51821	50142	111799	132831	127894	91764	53572	22484	9125	2756	2065	432	656685	3.4	
30 - 34	14926	19013	29661	48495	65366	82521	75557	54356	36882	24271	9371	5698	466117	5.2	
35 - 39	7422	11084	16756	28877	41829	58912	78841	69640	77460	46239	27851	24261	489172	6.4	
40 - 44	5841	7783	9705	16423	20549	30370	44705	51499	44487	50039	35229	47116	363746	7.3	
45 - 49	10482	6446	7776	8868	14561	24085	29375	32537	34015	29785	25571	28238	251739	7.0	
Total	1062007	393303	381320	351254	316857	301088	286901	232583	202735	153090	100087	105745	3886970	3.5	
<b>SOMALI REGION</b>															
15 - 19	31743	2395	641	120	0	0	0	0	0	0	0	0	34899	0.1	
20 - 24	15816	5671	2734	1527	1100	319	88	0	0	0	0	0	27255	0.8	
25 - 29	4200	2993	5367	4571	3527	2041	1387	164	206	33	0	45	24534	2.6	
30 - 34	2082	465	1612	3093	3580	2345	2467	2256	838	488	236	8	19470	4.3	
35 - 39	413	552	623	1596	1861	2649	3485	3569	2739	1501	455	683	20126	6.0	
40 - 44	156	416	779	1636	828	1345	3117	3271	1023	999	1305	2174	17049	6.7	
45 - 49	620	3	346	187	245	478	987	1013	1432	736	808	1670	8525	7.6	
Total	55030	12495	12102	12730	11141	9177	11531	10273	6238	3757	2804	4580	151858	3.1	

Annex Table 9.2 (Cont'd)

Age Group	Number of Children Ever Born Alive												All Women	Mean Children Ever Born
	0	1	2	3	4	5	6	7	8	9	10	11+		
<b>SOMALI REGION-URBAN</b>														
15 - 19	10180	575	248	0	0	0	0	0	0	0	0	0	11003	0.1
20 - 24	8468	3105	436	197	279	0	34	0	0	0	0	0	12519	0.5
25 - 29	2255	1393	1983	1569	1533	614	810	52	28	0	0	0	10237	2.4
30 - 34	1159	180	403	1061	655	230	313	1173	450	115	34	0	5773	4.0
35 - 39	53	312	175	411	554	575	881	1572	1231	408	211	34	6417	6.1
40 - 44	54	331	148	683	0	72	1377	1366	114	90	62	754	5051	6.3
45 - 49	458	0	46	82	46	97	317	80	233	320	72	437	2188	6.7
Total	22627	5896	3439	4003	3067	1588	3732	4243	2056	933	379	1225	53188	2.6
<b>SOMALI REGION-RURAL</b>														
15 - 19	21564	1820	393	120	0	0	0	0	0	0	0	0	23897	0.1
20 - 24	7348	2566	2298	1330	821	319	54	0	0	0	0	0	14736	1.1
25 - 29	1944	1599	3384	3002	1994	1427	577	112	178	33	0	45	14295	2.7
30 - 34	923	285	1209	2033	2925	2115	2154	1083	388	373	202	8	13698	4.4
35 - 39	360	240	448	1185	1308	2074	2604	1996	1508	1093	244	649	13709	6.0
40 - 44	103	85	632	953	828	1274	1740	1905	909	909	1243	1419	12000	6.8
45 - 49	162	3	300	104	199	382	670	933	1199	416	737	1233	6338	7.9
Total	32404	6598	8664	8727	8075	7591	7799	6029	4182	2824	2426	3354	98673	3.4
<b>BENISHANGUL-GUMUZ REGION</b>														
15 - 19	22487	4058	1669	374	17	0	0	0	0	0	0	0	28605	0.3
20 - 24	8214	6617	6668	2815	1246	687	108	188	79	0	0	0	26622	1.5
25 - 29	2184	2537	3433	5223	4060	3098	2166	1257	473	217	0	0	24648	3.4
30 - 34	742	732	984	1604	2556	2083	3325	898	941	413	339	173	14790	4.8
35 - 39	389	445	763	1159	1534	2241	2144	2211	2288	881	1538	1223	16816	6.3
40 - 44	116	372	520	482	1199	688	1315	1145	1445	2059	1063	530	10934	6.8
45 - 49	227	189	386	294	1075	655	985	1033	1009	401	587	817	7658	6.5
Total	34359	14950	14423	11951	11687	9452	10043	6732	6235	3971	3527	2743	130073	3.3
<b>BENISHANGUL-GUMUZ-URBAN</b>														
15 - 19	2244	305	171	0	0	0	0	0	0	0	0	0	2720	0.2
20 - 24	1702	1253	557	384	195	88	39	0	0	0	0	0	4218	1.2
25 - 29	220	313	330	576	227	457	33	13	0	0	0	0	2169	2.9
30 - 34	106	92	72	256	120	223	98	49	136	7	0	7	1166	4.1
35 - 39	89	100	195	26	154	22	280	274	52	62	39	94	1387	5.3
40 - 44	35	3	9	86	7	33	199	27	91	27	58	7	582	6.0
45 - 49	19	0	0	134	84	17	99	117	65	0	12	9	556	5.4
Total	4415	2066	1334	1462	787	840	748	480	344	96	109	117	12798	2.4

Annex Table 9.2 (Cont'd)

Age Group	Number of Children Ever Born Alive												All Women	Mean Children Ever Born
	0	1	2	3	4	5	6	7	8	9	10	11+		
<b>BENISHANGUL-GUMUZ-RURAL</b>														
15 - 19	20243	3753	1498	374	17	0	0	0	0	0	0	0	25885	0.3
20 - 24	6512	5363	6111	2431	1050	599	69	188	79	0	0	0	22402	1.5
25 - 29	1965	2224	3104	4647	3833	2641	2133	1243	473	217	0	0	22480	3.5
30 - 34	636	640	912	1348	2436	1860	3228	849	805	406	339	166	13625	4.9
35 - 39	300	345	568	1133	1380	2220	1864	1936	2236	819	1499	1129	15429	6.4
40 - 44	81	370	510	396	1192	655	1116	1118	1355	2032	1005	523	10353	6.8
45 - 49	208	189	386	160	991	639	886	916	943	401	575	808	7102	6.6
Total	29945	12884	13089	10489	10899	8614	9296	6250	5891	3875	3418	2626	117276	3.4
<b>SNNPR</b>														
15 - 19	498934	64857	17122	3149	277	0	0	0	0	0	0	0	584339	0.2
20 - 24	177405	122417	105062	47470	20496	11686	5758	705	12	0	0	0	491011	1.3
25 - 29	51376	48448	78566	80012	87878	59157	32940	11016	5417	5031	459	914	461214	3.2
30 - 34	14657	18599	20647	36674	48528	60308	46710	44501	22086	10707	8823	2630	334870	4.9
35 - 39	5462	5419	14908	18237	27257	42256	52913	54833	44241	30345	16058	17401	329330	6.4
40 - 44	6507	4715	9279	8659	17862	24828	31465	36940	35355	27923	16654	21816	242003	6.8
45 - 49	2493	1614	6993	4861	9352	14349	22076	25279	26382	19329	15035	21851	169614	7.3
Total	756834	266069	252577	199062	211650	212584	191862	173274	133493	93335	57029	64612	2612381	3.4
<b>SNNPR - URBAN</b>														
15 - 19	65590	5544	541	32	0	0	0	0	0	0	0	0	71707	0.1
20 - 24	26992	13970	6062	3155	471	95	546	0	0	0	0	0	51291	0.8
25 - 29	7470	5785	5452	5751	8844	2438	1308	351	22	535	0	0	37956	2.6
30 - 34	1694	2455	2241	1726	1729	4452	665	2246	381	54	34	28	17705	3.7
35 - 39	787	1049	961	2590	1861	4017	4278	4141	2912	1299	497	848	25240	5.6
40 - 44	174	1021	1396	337	722	1597	4370	2726	1622	412	731	1059	16167	6.1
45 - 49	847	129	289	363	871	2579	2151	2405	554	1365	262	596	12411	6.0
Total	103554	29953	16942	13954	14498	15178	13318	11869	5491	3665	1524	2531	232477	2.3
<b>SNNPR - RURAL</b>														
15 - 19	433345	59314	16581	3117	277	0	0	0	0	0	0	0	512634	0.2
20 - 24	150413	108447	98999	44315	20024	11591	5213	705	12	0	0	0	439719	1.4
25 - 29	43906	42663	73114	74261	79034	56719	31632	10665	5395	4495	459	914	423257	3.2
30 - 34	12963	16144	18406	34948	46799	55855	46046	42255	21705	10654	8789	2601	317165	5.0
35 - 39	4676	4370	13947	15647	25396	38240	48635	50692	41329	29046	15560	16553	304091	6.4
40 - 44	6333	3694	7883	8322	17140	23230	27095	34214	33733	27511	15923	20757	225835	6.9
45 - 49	1647	1485	6705	4498	8480	11770	19925	22874	25828	17965	14774	21255	157206	7.4
Total	653283	236117	235635	185108	197150	197405	178546	161405	128002	89671	55505	62080	2379907	3.5

Annex Table 9.2 (Cont'd)

Age Group	Number of Children Ever Born Alive												All Women	Mean Children Ever Born
	0	1	2	3	4	5	6	7	8	9	10	11+		
<b>GAMBELLA REGION</b>														
15 - 19	6202	1492	601	105	57	0	0	0	0	0	0	0	8457	0.4
20 - 24	2642	2353	1452	972	393	71	36	17	0	0	0	0	7936	1.3
25 - 29	587	1040	1662	2041	833	764	250	32	15	0	0	0	7224	2.7
30 - 34	119	261	683	550	1065	545	823	454	322	166	0	0	4988	4.5
35 - 39	480	142	323	369	741	718	506	409	183	123	0	61	4055	4.3
40 - 44	205	29	182	169	252	411	336	552	237	66	139	76	2654	5.5
45 - 49	175	268	109	167	348	287	310	182	108	44	70	0	2068	4.3
Total	10410	5585	5012	4373	3689	2796	2261	1646	865	399	209	137	37382	2.6
<b>GAMBELLA REGION-URBAN</b>														
15 - 19	1372	119	65	0	0	0	0	0	0	0	0	0	1556	0.2
20 - 24	432	578	369	166	10	0	0	17	0	0	0	0	1572	1.3
25 - 29	127	214	467	319	116	133	56	0	15	0	0	0	1447	2.5
30 - 34	51	45	101	124	93	42	32	51	27	12	0	0	578	3.6
35 - 39	29	13	36	77	134	128	124	9	53	9	0	0	612	4.6
40 - 44	72	29	0	18	40	54	39	60	26	18	12	15	383	4.8
45 - 49	15	15	28	0	9	20	19	53	12	9	0	0	180	4.9
Total	2098	1013	1066	704	402	377	270	190	133	48	12	15	6328	2.1
<b>GAMBELLA REGION-RURAL</b>														
15 - 19	4830	1373	536	105	57	0	0	0	0	0	0	0	6901	0.4
20 - 24	2210	1775	1083	806	382	71	36	0	0	0	0	0	6363	1.3
25 - 29	461	826	1194	1722	717	631	194	32	0	0	0	0	5777	2.7
30 - 34	68	216	583	425	972	503	791	403	295	154	0	0	4410	4.6
35 - 39	451	129	287	292	607	590	382	399	130	113	0	61	3441	4.3
40 - 44	133	0	182	151	213	358	296	492	211	48	127	61	2272	5.6
45 - 49	160	253	81	167	339	268	291	129	-96	35	70	0	1889	4.3
Total	8313	4572	3946	3668	3287	2421	1990	1455	732	350	197	122	31053	2.7
<b>HARARI REGION</b>														
15 - 19	8503	905	124	23	0	0	0	0	0	0	0	0	9555	0.1
20 - 24	4537	1900	1015	384	64	56	0	0	0	0	0	0	7956	0.7
25 - 29	1910	1039	1249	834	501	269	182	88	21	0	0	0	6093	1.8
30 - 34	551	375	587	317	758	585	474	281	254	112	109	41	4444	4.0
35 - 39	236	262	477	313	641	712	439	347	294	210	215	146	4292	5.0
40 - 44	37	25	164	265	344	381	295	239	286	274	194	179	2683	6.2
45 - 49	79	118	150	147	103	282	367	392	233	197	228	155	2451	6.3
Total	15853	4624	3766	2283	2411	2285	1757	1347	1088	793	746	521	37474	2.4

Annex Table 9.2 (Cont'd)

Age Group	Number of Children Ever Born Alive												All Women	Mean Children Ever Born
	0	1	2	3	4	5	6	7	8	9	10	11+		
<b>HARARI REGION-URBAN</b>														
15 - 19	5678	466	0	0	0	0	0	0	0	0	0	0	6144	0.1
20 - 24	3519	1032	341	80	0	40	0	0	0	0	0	0	5012	0.4
25 - 29	1675	767	800	345	195	0	39	0	0	0	0	0	3821	1.2
30 - 34	499	314	497	180	465	219	73	75	78	0	0	0	2400	2.7
35 - 39	192	262	409	215	603	450	196	149	136	0	40	40	2692	3.9
40 - 44	37	0	148	265	273	254	195	106	119	37	71	0	1505	4.9
45 - 49	40	76	150	78	103	218	200	322	77	112	40	114	1530	5.8
Total	11640	2917	2345	1163	1639	1181	703	652	410	149	151	154	23104	1.7
<b>HARARI REGION-RURAL</b>														
15 - 19	2826	439	124	23	0	0	0	0	0	0	0	0	3412	0.2
20 - 24	1018	868	674	304	64	16	0	0	0	0	0	0	2944	1.2
25 - 29	236	272	449	489	306	269	142	88	21	0	0	0	2272	3.0
30 - 34	52	61	90	138	293	366	401	205	177	112	109	41	2045	5.6
35 - 39	44	0	68	98	38	262	243	198	158	210	176	105	1600	6.8
40 - 44	0	25	16	0	71	127	100	133	168	237	122	179	1178	8.0
45 - 49	39	42	0	69	0	64	167	70	156	85	188	40	920	7.0
Total	4215	1707	1421	1121	772	1104	1053	694	680	644	595	365	14371	3.4
<b>ADDIS ABABA</b>														
15 - 19	185703	3357	1200	7	5	0	0	0	0	0	0	0	190272	0.0
20 - 24	115052	21234	7468	1210	679	51	231	221	0	0	0	0	146146	0.3
25 - 29	65881	19182	13702	9938	6639	2621	253	62	395	0	0	0	118673	1.0
30 - 34	17593	5747	10286	8094	5825	3287	2650	1571	1477	229	0	141	56900	2.3
35 - 39	6923	4942	8864	11407	11990	7391	7990	3964	2499	1991	759	1054	69774	3.9
40 - 44	2755	2464	4033	5055	6920	5321	5652	6205	3970	946	1632	907	45860	4.9
45 - 49	1557	1502	2498	3061	4527	3525	5299	4199	2768	2496	2098	1758	35288	5.6
Total	395464	58428	48051	38772	36585	22196	22075	16222	11109	5662	4489	3860	662913	1.5
<b>ADDIS ABABA-URBAN</b>														
15 - 19	182944	3235	1184	0	0	0	0	0	0	0	0	0	187363	0.0
20 - 24	114224	20986	7273	1061	650	0	231	221	0	0	0	0	144646	0.3
25 - 29	65476	18910	13400	9691	6374	2502	205	25	359	0	0	0	116942	1.0
30 - 34	17466	5603	10144	8008	5609	3046	2526	1541	1456	223	0	141	55763	2.3
35 - 39	6917	4864	8809	11233	11849	7342	7904	3749	2420	1874	712	926	68599	3.9
40 - 44	2721	2464	4010	4916	6897	5265	5595	6093	3837	856	1494	734	44882	4.8
45 - 49	1542	1502	2486	3042	4484	3487	5286	4155	2694	2454	2039	1633	34804	5.6
Total	391290	57564	47306	37951	35863	21642	21747	15784	10766	5407	4245	3434	652999	1.5

Annex Table 9.2 (Cont'd)

Age Group	Number of Children Ever Born Alive												All Women	Mean Children Ever Born
	0	1	2	3	4	5	6	7	8	9	10	11+		
<b>ADDIS ABABA-RURAL</b>														
15 - 19	2758	122	16	7	5	0	0	0	0	0	0	0	2908	0.1
20 - 24	828	248	195	150	29	51	0	0	0	0	0	0	1501	1.0
25 - 29	405	272	302	247	265	119	48	37	36	0	0	0	1731	2.4
30 - 34	127	144	142	86	216	241	123	30	21	6	0	0	1136	3.5
35 - 39	6	78	55	174	142	49	86	214	79	118	46	129	1176	6.1
40 - 44	34	0	23	139	24	56	56	112	133	90	139	173	979	7.3
45 - 49	15	0	12	19	43	38	12	44	74	43	58	125	483	8.1
Total	4173	864	745	822	724	554	325	437	343	257	243	427	9914	2.8
<b>DIRE DAWA PROVISIONAL ADMINISTRATION</b>														
15 - 19	14255	848	69	0	42	0	0	0	0	0	0	0	15214	0.1
20 - 24	6628	2254	1817	403	232	162	18	44	0	0	0	0	11558	0.8
25 - 29	3281	1997	2174	1587	471	631	365	76	108	0	132	0	10822	1.9
30 - 34	1075	767	1135	928	1414	395	527	452	262	168	97	56	7276	3.4
35 - 39	494	667	600	934	1219	881	1093	824	451	237	288	212	7900	4.7
40 - 44	227	467	186	557	479	785	583	786	528	365	532	341	5836	5.9
45 - 49	52	143	202	281	268	418	592	480	437	362	94	294	3623	6.2
Total	26012	7143	6183	4690	4125	3272	3178	2662	1786	1132	1143	903	62229	2.4
<b>DIRE DAWA PROVISIONAL ADMINISTRATION-URBAN</b>														
15 - 19	10699	527	0	0	0	0	0	0	0	0	0	0	11226	0.0
20 - 24	5573	1650	1074	0	60	0	0	0	0	0	0	0	8357	0.5
25 - 29	3106	1731	1587	903	215	286	127	0	60	0	132	0	8147	1.5
30 - 34	982	767	896	688	798	63	217	192	58	0	0	0	4661	2.4
35 - 39	494	667	600	860	1013	493	610	532	198	0	0	0	5467	3.6
40 - 44	194	467	163	533	391	582	435	539	275	178	178	135	4070	5.0
45 - 49	52	143	166	239	201	193	551	356	227	240	0	0	2368	5.4
Total	21100	5952	4486	3223	2678	1617	1940	1619	818	418	310	135	44296	1.8
<b>DIRE DAWA PROVISIONAL ADMINISTRATION-RURAL</b>														
15 - 19	3556	320	69	0	42	0	0	0	0	0	0	0	3987	0.2
20 - 24	1055	604	743	403	173	162	18	44	0	0	0	0	3202	1.6
25 - 29	175	267	588	683	256	345	238	76	48	0	0	0	2676	3.2
30 - 34	93	0	239	239	616	332	310	260	204	168	97	56	2614	5.3
35 - 39	0	0	0	73	207	388	483	292	252	237	288	212	2432	7.2
40 - 44	32	0	23	23	88	203	149	247	254	187	355	206	1767	7.8
45 - 49	0	0	36	42	68	226	41	124	210	123	94	294	1258	7.9
Total	4911	1191	1698	1463	1450	1656	1239	1043	968	715	834	768	17936	3.9

**APPENDIX I**

**SURVEY QUESTIONNAIRE**





## CENTRAL STATISTICAL AUTHORITY

NATIONAL INTEGRATED HOUSEHOLD SURVEY PROGRAM, FERTILITY AND MORTALITY SURVEY QUESTIONNAIRE- 1998

JOB ID.		
1	2	3
w	0	8

### SECTION 1- IDENTIFICATION PARTICULARS OF THE SELECTED HOUSEHOLD

1 REGION			2 ZONE				3 WEREDA			4 TOWN		5 HIGHER/WEREDA			6 KEBELE/FA			7 EA CODE		8 ORDER OF SELECTION		9 H/H SIZE		10 NAME OF HEAD OF HOUSEHOLD			
	4	5		6	7		8	9		10	11		12	13		14	15	16		17	18		19	20		21	22

### SECTION2- FERTILITY AND MORTALITY

11		12		13	14	15		16		17		18		19		20		21	
SERIAL NUMBER	NAME OF USUAL MEMBERS OF HOUSEHOLD	SEX M-1 F-2	AGE (COMPLETED YEARS)	FOR THOSE AGED 15 YEARS AND OVER		FOR WOMEN AGED 15 YEARS AND OVER ONLY													
				MARITAL STATUS		TOTAL NUMBER OF CHILDREN EVER BORN ALIVE				BIRTH DURING THE LAST 12 MONTHS				OF THE LIVE BIRTH					
				1-NEVER MARRIED	2- MARRIED	NO. OF CHILDREN LIVING AT HOME AT PRESENT		NO. CHILDREN LIVING ELSEWHERE AT PRESENT		NO. OF CHILDREN DEAD		TOTAL NUMBER OF CHILDREN EVER BORN ALIVE		DID YOU GIVE BIRTH DURING THE LAST 12 MONTHS? IF YES IF YES ENTER THE NUMBERS OTHERWISE ENTER "0" AND SKIP COLUMN 21		DURING THE LAST 12 MONTHS HOWMANY OF THEM WERE DEAD			
				3- DIVORCED	4- WIDOWED	M	F	M	F	M	F	TOTAL							
23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38				
0	1																		
0	2																		
0	3																		
0	4																		
0	5																		
0	6																		
0	7																		
0	8																		
0	9																		
1	0																		

	NAME	SIG.	DATE
ENUMERATOR			
SUPERVISOR			
HEAD OF BRANCH OFF/CE.			

**APPENDIX II**

**ESTIMATION PROCEDURES OF  
TOTAL, RATIO AND SAMPLING  
ERRORS**

**Annex: Estimation procedures of Total, Ratio and Sampling Errors**

I) Estimate of domain total  $\hat{Y}_h$  in categories I and III is given by:

$$\begin{aligned}\hat{Y}_h &= \sum_{i=1}^{n_h} \frac{M_h H_{hi}}{n_h M_{hi} h_{hi}} \sum_{j=1}^{h_{hi}} Y_{hij} & (1) \\ &= \sum_{i=1}^{n_h} \sum_{j=1}^{h_{hi}} W_{hi} Y_{hij}\end{aligned}$$

$$W_{hi} = \frac{M_h H_{hi}}{n_h M_{hi} h_{hi}} \quad \text{is the sampling weight}$$

ii) Estimate of domain total  $\hat{Y}_h$  in category II is given by:

$$\hat{Y}_h = \sum_{i=1}^{n_h} \frac{M_h}{n_h n_{hi}} \sum_{j=1}^{n_{hi}} \frac{H_{hij}}{M_{hij} h_{hij}} \sum_{k=1}^{h_{hij}} Y_{hijk} \quad (2)$$

$$\sum_{i=1}^{n_h} \sum_{j=1}^{n_{hi}} \sum_{k=1}^{h_{hij}} W_{hijk} Y_{hijk}$$

$$W_{hijk} = \frac{M_h H_{hij}}{n_h n_{hi} M_{hij} h_{hij}} \quad \text{is the sampling weight}$$

Where:

$M_h$  = Total number of households in stratum h obtained from the sampling frame

$M_{hi}$  = Total number of households in EA/PSU i (categories I and III) or in urban center/PSU i (category II), stratum h obtained from the sampling frame

$n_h$  = Number of sample EAs (categories I and III) or urban centers category II) successfully covered in stratum h

$H_{hi}$  = Total number of households obtained from the survey listing in EA/PSU i stratum h (categories I and III)

$h_{hi}$  = Number of households successfully covered in EA/PSU i stratum h (categories I and III)

$M_{hij}$  = Total number of households in EA/SSU j, urban center/PSU i and stratum h obtained from the sampling frame (category II)

$n_{hi}$  = Number of sample EAs successfully covered in urban center/PSU i stratum h (category II)

$H_{hij}$  = Total number of households obtained from the survey listing in EA/SSU j, urban center/PSU i and stratum h (category II)

$h_{hij}$  = Number of households successfully covered in EA j/SSU, urban center/PSU i and stratum h (category II)

$Y_{hij}$  = The observed value of a characteristic y for household j in EA/PSU i stratum h (categories I and III)

$Y_{hijk}$  = The observed value of a characteristic y for household k in EA/SSU j, urban center/PSU i and stratum h (category II)

Note: Estimate of total at country level, Y, is obtained by summing up stratum/domain total estimates.

$$\hat{Y} = \sum_h \hat{Y}_h$$

iii) Sampling error of estimates:

The variance of domain total estimate is:

$$v(\hat{Y}_h) = \frac{n_h}{n_h - 1} \left[ \sum_{i=1}^{n_h} \hat{Y}_{hi}^2 - \frac{\hat{Y}_h^2}{n_h} \right] \quad (3)$$

in which  $\hat{Y}_{hi} = W_{hi} \sum_{j=1}^{h_{hi}} Y_{hij}$  (categories I and III)

and  $\hat{Y}_{hi} = \sum_{j=1}^{n_{hi}} W_{hij} \sum_{k=1}^{h_{hij}} y_{hijk}$  (category II)

$$v(\hat{Y}) = \sum_h V(\hat{Y}_h) \quad (4)$$

Standard error of domain total estimate is:

$$SE(\hat{Y}_h) = \sqrt{v(\hat{Y}_h)} \quad (5)$$

Percentage Coefficient of variation (CV) of domain total estimate:

$$CV(\hat{Y}_h) = \frac{SE(\hat{Y}_h)}{\hat{Y}_h} \times 100 \quad (6)$$

Ninety five percent confidence interval (CI) of domain total estimate:

$$\hat{Y}_h \pm 1.96 \times SE(\hat{Y}_h) \quad (7)$$

ii) Estimator of ratio:

$$\hat{R}_h = \frac{\hat{Y}_h}{\hat{X}_h} \quad \text{and} \quad \hat{R} = \frac{\hat{Y}}{\hat{X}} \quad (8)$$

Where the numerator and the denominator are estimates of domain totals of characteristics y and x, respectively.

$$v(\hat{R}_h) = \frac{1}{\hat{X}_h^2} \left[ v(\hat{Y}_h) + \hat{R}_h^2 v(\hat{X}_h) - 2\hat{R}_h \text{Cov}(\hat{Y}_h, \hat{X}_h) \right]$$

in which

$$\text{Cov}(\hat{Y}_h, \hat{X}_h) = \frac{n_h}{n_h - 1} \left[ \sum_{i=1}^{n_h} \hat{Y}_{hi} \hat{X}_{hi} - \frac{\hat{Y}_h \hat{X}_h}{n_h} \right]$$

Estimates of standard error, coefficient of variation and confidence interval for the ratio estimate can be calculated by adopting formulas 5, 6 and 7.

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