

**THE FEDERAL DEMOCRATIC
REPUBLIC OF ETHIOPIA**

CENTRAL STATISTICAL
AUTHORITY

WELFARE MONITORING
SURVEY 2004

ANALYTICAL REPORT

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CHAPTER I

INTRODUCTION

1.1 Overview

The level and distribution of poverty in Ethiopia is extensive. According to the results obtained from the 1995/96 and the 1999/2000 Household Income, Consumption and Expenditure Survey and Welfare Monitoring Survey of the Central Statistical Authority (CSA), about 44 percent of the total populations (45 percent in rural areas and 37 percent in urban areas) are found to be below poverty line. The country together with development partners, as a result, has put poverty reduction strategies high on the agenda and working firmly on the implementation program since the beginning of this decade. With firm dedication to reduce poverty, the government has prepared its poverty reduction program entitled “Sustainable Development and Poverty Reduction Program” in 2002. The strategy has been implemented over the past three years.

In light of the plan to reduce poverty over time, strong system of monitoring and evaluation has been put in place. Consequently, the issue of welfare monitoring in Ethiopia arose as part of the Economic Reform Program (ERP). The ERP specifically and strongly underlies to see the effects of the reform program on poverty and building the analytical capacity of the government to monitor and evaluate such effects. To this end, the government has established a Welfare Monitoring System in 1995 to oversight the following major activities:

- establish an information system that provides a continuous picture of the poverty scenario in the country;
- indicate the impact of reform programs on the level of household welfare;
- establish follow-up procedures on the various programs and activities targeted towards poverty reduction; and
- conduct regular statistical surveys to assess, in particular, the efficiency of targeted programs.

The CSA and WMU of Ministry of Finance and Economic Development (MoFED) has been the key actors in the M&E system in place by way of producing, analyzing and disseminating poverty related data and results. The program has been supported by the World Bank IDA Credit and the Norwegian Trust Fund.

In line with strengthening the established M&E system of the government, the CSA and WMU of MoFED had also submitted a financing requirement proposal (entitled: Strengthening Data Collection, Analysis and Dissemination on Poverty Monitoring and the MDGs) to the Development Assistant Group (DAG). Following the signing of the Memorandum of Understanding (MOU) between MoFED, CSA and the donors, various implementation activities have also been carried out.

In order to meet the data needs of the Welfare Monitoring System, the CSA has been conducting the two surveys that provide poverty related data: Household Income, Consumption and Expenditure Survey (HICES) and Welfare Monitoring Survey (WMS) since 1995/96. The HICE and WMS surveys provide crucially useful information for the designing and monitoring and evaluation of the country's poverty reduction strategy: Sustainable Development and Poverty Reduction Program (SDPRP), the various socioeconomic policies and programs and hence monitor the progress towards meeting the Millennium Development Goals (MDGs). The two surveys are inseparable and provide basic data that reflect the standard of living of households, individuals and the society as a whole.

HICES basically reflects the income dimension of poverty while WMS aims at providing socioeconomic data that reflect the non-income dimension of poverty. The HICE provides statistics on income, consumption and expenditure of households and WMS provides basic indicators on the various socioeconomic areas including health, education, nutrition, access to and utilization and satisfaction of basic facilities/services and related non-income aspects of poverty. The WMS has been conducted together with the HICES in 1995/96 and 1999/2000 and had also been carried out in 1997 and 1998.

Several reports have been produced based on the previous surveys including the statistical reports produced by the CSA. These are report on the 1995/96 HICES and WMS, report on the 1999/2000 HICES and WMS, summary reports for the 1999/2000 HICE and WMS and report on the 1998 WMS survey as well as the two in-depth analytical reports on poverty situation of the country produced by Ministry of Finance and Economic Development (MoFED).

The WMS focuses on wider range of socioeconomic indicators that reflect the non-income dimensions of poverty. The 2004 survey have been improved to accommodate users needs as much as possible. New features in the current survey include shocks and coping mechanisms, HIV/AIDS related information, estimates of orphan and foster children, major prevailing diseases, plot size and other additional variables.

This analytical report provides findings on major welfare indicators and constitutes 10 chapters. Chapter I highlights some background remarks on the survey, Chapter II deals with survey methodology and Chapter III presents Basic Population Characteristics. Indicators on Education sector outputs are presented in Chapter IV followed by findings on Health and Health Related indicators dealt with in Chapter V. Chapter VI describes issues of child care and health. Household-based indicators are presented in Chapters VII to IX. Chapter VII discusses Accessibility of Selected Basic Facilities/Services, Chapter VIII deals with Housing, Housing Facilities and Tenure, Chapter IX that presents results on Possession of Household Assets and Chapter X which discusses the findings on the Selected Indicators on the Living Standard of Households and Chapter XI on HIV/AIDS.

Two Statistical Reports that comprise survey results at country, rural and urban levels are presented on separate volumes. The first one provides statistical tables on Basic Population Characteristics, Education, Health, Nutritional Status and child care while the second one presents statistical tables on Accessibility to Basic Facilities, Household Assets, Indicators on Food Security and Knowledge about HIV/AIDS. Furthermore, statistical tables that show data at country, regional, zone levels and selected urban centers are provided in a CD for references.

1.2 Objectives of the Welfare Monitoring Survey

The main objectives of the WMS are to provide data that enable understand the *non-income aspects of poverty* and has the following objectives:

- to assess the level, extent and distribution of non-income poverty;
- helps assess the quality of life of households/individuals;
- to provide basic data that enables design, monitor and evaluate the impact of socioeconomic policies and programs on households/individuals living standard;
- provide basic indicators on households' and individuals' living standard with respect to basic needs including
 - ✓ Education, Health, Child nutrition and care, Access to and utilization of basic facilities, Housing and housing amenities (drinking water, sanitation, energy, etc.), Household assets, Selected indicators of living standard, Vulnerability (Shocks and coping mechanisms, Food security, etc.), and HIV/AIDS and basic population characteristics.

1.3 Training, Fieldwork and Supervision

Training of Field staff

Training was held in two stages. The first stage was training of trainers and was conducted at the CSA Head Office. A total of 140 participants including professionals and sub-professionals from the Head Office, heads of the branch offices and the respective statisticians from each branch office were trained at this stage. The second stage training involved training of about 4600 field staff consisting of about 3900 enumerators and more than 700 supervisors and was conducted at all branch offices of the CSA.

The training at the head office lasted for about 10 days focusing on theoretical discussions on concepts, definitions, and principles of interview and how to complete questionnaires the training also had focused in practical sessions which include mock

interviews and two-days field practice both in rural and urban areas. The objectives of practical interviewing of households were two fold. First, it enabled to assess how well the theoretical class discussions were understood by all participants so that they could convey the same message to enumerators and supervisors. The second objective was to examine the practical difficulties pertaining to the various socioeconomic groups, which would likely be encountered during the actual fieldwork.

The second stage training was undertaken at the branch offices and took about 12 days. The training was more detailed than the first stage in both theoretical and practical aspects to ensure the full competence of the field staff in collecting the required information. The trainers were professional and sub-professional staffs that were trained at the head office.

Field Organization, Data Collection and Supervision

The CSA branch offices led by the Field Operations Department at the Head Office did the major work of the field organization. All the 25 branch offices of the CSA (Excluding Gambela) had fully participated in the survey undertaking, starting from recruitment of field staff, organizing the second stage training, in deploying the field staff to their respective sites of assignment, field supervision and retrieval of the completed questionnaires to the head office where the data processing activities take place. They were also responsible for administering financial and logistics aspects of the survey. Additionally, line government organizations especially Kebele's had also a significant role in facilitating the fieldwork. Writing administrative letters that introduce the work and the enumerators to the local people particularly the sample households, provision of field guides, etc were tasks of the local government units.

WMS data collection has taken place from 24 June to 3 July 2004. A total of 3873 enumerators and 708 field supervisors with an average supervisor-enumerator ratio of 1 to 5 together with about 75 technical staff from the branch offices were involved in the field work. Nearly 196 four-wheel-drive vehicles were deployed all over the country to undertake the fieldwork (see Summary Table 1.1).

Both interview and objective measurements were introduced to collect data from households and individuals. Interview method was used to gather information related to population characteristics, education, health, household based modules such as accessibility of facilities, household amenities, etc. Objective method was used in assessment of child nutritional status. Which involves anthropometric measurements (weight and height measurements) of the under five children.. Information was collected using questionnaires having nine modules following both subjective and objective methods of data collection.

A regular supervision, which also is compulsory activity in CSA surveys, was undertaken at various levels to ensure the quality of the data. The permanent field supervisors were assigned to take care of the day-to-day supervision activities. Branch office statisticians and heads of the branch offices were also involved in a regular supervision. Most of the professionals and sub professionals that were engaged in training the field staff were also deployed on the actual field supervision. Management group from the head office has also made a field visit to oversight the operation as whole.

1.4 Data Processing

The data processing activities were undertaken at the head office. The first stage of data processing activities was training of data editors and coders which was held at the head office by subject matter department staff. About 55 editors/coders and 39 verifiers were engaged in the manual editing, coding and verification activities, which lasted for about 36 days. Data entry took about 37 days using 125 computers and as many data encoders.

Machine data cleaning, estimation with proper sampling weights and tabulation activities were carried out procedurally by the professional staff from involved departments at the head office. The Integrated Microcomputer Processing System (IMPS) complemented by CSPRO software were used for data entry, consistency checks and tabulation of survey results.

Summary TableI.1: Distribution of Field staff and Vehicles by Branch Statistical Office - 2004

<i>Branch Office</i>	<i>Enumerators</i>	<i>Supervisors</i>	<i>Vehicles</i>
<i>Addis Ababa</i>	501	81	13
<i>Ambo</i>	139	26	9
<i>Arbaminch</i>	165	33	9
<i>Asebe Teferrie</i>	72	14	7
<i>Assosa</i>	110	19	6
<i>Awassa</i>	205	40	9
<i>Asayita</i>	137	23	5
<i>Bahir Dar</i>	265	49	9
<i>Debre Berhan</i>	111	22	9
<i>Dessie</i>	209	39	11
<i>Dire Dawa</i>	144	24	6
<i>Goba</i>	63	12	7
<i>Gondar</i>	161	29	8
<i>Harar</i>	131	21	6
<i>Hossaena</i>	195	38	10
<i>Jijiga</i>	106	18	4
<i>Jimma</i>	183	34	12
<i>Mekelle</i>	209	38	9
<i>Mizan Teferi</i>	117	24	8
<i>Nazereth</i>	206	37	9
<i>Nekemt</i>	121	24	12
<i>Sherie</i>	87	17	5
<i>Negelle</i>	125	24	7
<i>Sodo</i>	111	22	6
Total	3873	708	196

CHAPTER II

SURVEY METHODOLOGY

2.1 Coverage

The year 2004 Welfare Monitoring Survey covered all rural and urban area of the country except the non-sedentary areas in Afar and Somali Regional States. Excluded are three zones of Afar Region, six zones of Somali Region and all zones of Gambella Region. In the rural part of the country it was planned to cover 2,016 enumeration areas (EAs) and 24,192 households.

The response rate is highly satisfactory. Only two EAs and 39 households (owing to various reasons) were not covered in this survey. The ultimate response rate in rural areas is, therefore, 99.9 percent for EAs and 99.8 percent for households. Regarding urban parts of the country all the planned 760 EAs (100 percent) and 99.9 percent of the 12,160 planned sample households were successfully covered in the survey.

2.2 Concepts and Definitions

URBAN CENTER: in principle is defined as a locality with 2000 or more inhabitants. In this survey, 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 Urban Dweller's Association (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.

URBAN DWELLER'S ASSOCIATION, UDA, (KEBELE): is the lowest administrative unit in an urban center with its own jurisdiction. It is an association of urban dwellers (commonly known as Kebele) formed by the inhabitants, and usually constitutes a part of the urban center.

FARMER'S ASSOCIATION (FA): is the lowest administrative unit in a settled rural area with its own jurisdiction. It is an association of rural dwellers formed by the inhabitants of a given area whose members are engaged either in agricultural and/or non-agricultural activities.

ENUMERATION AREA (EA): is a unit of land delineated for the purpose of enumeration housing units and population without omission and duplication. An EA usually consists of 150 to 200 households in rural areas and 150 to 200 housing units in urban areas. An enumeration area should be related to a UDA or an FA 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 is equal to a UDA in urban areas if the number of housing units in the UDA is 150 – 200.
- An EA may be a part of an FA or a UDA and its delineation can not extend outside the boundary of the corresponding FA or a UDA.

COLLECTIVE QUARTER: A collective quarter is a premise (a housing unit, a building or a compound) in which a number of unrelated persons reside together, and share common facilities. Examples of collective quarters are monasteries, prisons, boarding schools, home for aged, children's homes, work camps, military barracks, etc. It is important to note that in the premises of some collective quarters, there may be private households.

HOUSEHOLD: Constitutes of 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 arrangements.

HEAD OF HOUSEHOLD: A head of a household is a person who economically supports or manages the household or for reasons of age or respect, is considered as head by members of the household or declares himself as head of a household. Head of a household could be male or female.

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 lived and ate with the household for at least six months including those who were not within the household at the time of the survey and were expected to be absent from the household for less than six months.
- ii) All guests and visitors who ate and stayed with the household for six months and more.
- iii) House maids, guards, baby-sitters, etc. who lived and ate with the household even for less than six months.

HOUSEHOLD SIZE: Is the total number of members of a household.

DOMESTIC EXPENDITURE: is defined as total expenditure incurred by the household or any of its members and includes expenditure on consumption as well as non-consumption items.

INCOME: Refers to domestic consumption of own crops and own livestock and livestock products, domestic consumption of goods and services purchased for resale or produced or processed in the household enterprise other than agriculture, wages and salaries, allowance, overtime, bonus, pension, commission, discounts (i.e. concessions obtained), imputed rent of free housing (i.e. subsidized amount only), imputed rent of owner occupied housing, other employee's benefit, interest received, profit and dividend received, remittance (regularly received), value of items obtained free (i.e. firewood, water, etc.), rent of personal possessions, alimony (regularly received) and other types of income.

GROSS ENROLLMENT RATIO: is the total enrolment in a given level of school, regardless of age, per 100 children of that school age. For example, the gross enrolment ratio for primary level is defined as a quotient of the total number of pupils in grades 1–6 and the total population aged 7-12 years expressed as percentages.

SCHOOL DROPOUT: A person is considered to be a school dropout if he/she did not appear for the end of year examination or took the examination but did not register the following academic year.

AGE GRADE MISMATCH: is a measure of the age-grade slippage which gives the proportion /number of enrolled persons that are out of school age specified for each level of school (7-12 years for primary and 13-18 years for secondary).

FACILITIES AND AMENITIES: These are basic infrastructures such as food, markets, postal, telephone, school, health, drinking water and transport services etc.

ANTHROPOMETRY: The technique that deals with the measurement of the size, weight and proportions of human body.

ACUTE MALNUTRITION OR WASTING: is a condition of low weight-for-height. Wasting is nutritionally deficient state of recent onset related to sudden food deprivation or malabsorption or poor utilization of nutrients, which results in rapid weight loss.

CHRONIC MALNUTRITION OR STUNTING: is a condition of low height-for-age. Stunting is a nutritional deficient state of long-term food deficiency often combined with persistent ill health.

UNDER WEIGHT: A condition of low weight-for-age. It is a composite index of malnutrition (either acute or chronic malnutrition) based on the principal that a child has an expected weight for that child's age.

Z-SCORE: A statistical measure of the distance, in standard deviation (SD) units, of a value from the mean.

VACCINATION: Any incurable immunizing agent or a preparation containing bacteria so treated as to give immunity from specific diseases when injected in to the subject.

2.3 Sampling Frame

The list of all households obtained from the 2001/02 Ethiopian Agricultural Sample Enumeration (EASE) is used as a frame to select the sample EAs in the rural areas of the country. In urban areas, on the other hand, the frame, consisting of households by EA obtained from the 2004 Ethiopian Urban Economic Establishment Census (EUEEC), is used to select sample sites for the 2004 welfare monitoring survey. The frame from which sample households were selected was based on a fresh list of households taken at the beginning of the survey period in each of the selected urban and rural EAs.

2.4 Sample Design

For the purpose of the survey the country was divided into three broad categories including rural category, major urban centers category and other urban centers category.

Category I - Rural: This category consists of the rural areas of 58 zones and special Weredas, which are considered as zones, in 7 regions of the country. Harari region and Addis Ababa City Council and Dire Dawa City council were treated independently. Each zone/special Wereda of a region was considered to be a survey domain (i.e. reporting level) for which the major findings of the survey are reported. Rural Harari, Addis Ababa and Dire Dawa each were considered as separate reporting levels.

Category I totally comprises 61 reporting levels. A stratified two-stage cluster sample design in which the primary sampling units (PSUs) were EAs was used to select samples. Twelve households per sample EA were selected as a second Stage Sampling Unit (SSU) to which survey questionnaire finally were administered to the members of sample households.

Category II - Major urban centers: In this category all regional capitals (except Gambella region) and four other major urban centers that have relatively larger

population sizes were included. Each of the 14 urban center in this category is taken us a reporting level. Since there is a high variation in the standards of living of the residents of these urban centers (that may have a significant impact on the final results of the survey), each urban center was further stratified into the following three sub-strata.

- Sub-stratum 1: Households having a relatively high standard of living
- Sub-stratum 2: Households having a relatively medium standard of living
- Sub-stratum 3: Households having a relatively low standard of living

In this category too, a stratified two-stage cluster sample design was adopted to select the primary sampling units (the EAs) and the Second Stage Unit. Allocation of sample EAs to a reporting level among the above mentioned strata were accomplished in proportion to the number of EAs in each stratum. Sixteen households from each of the primary sampling units (EAs) in each reporting level were then selected as a Second Stage Unit (SSU).

Category III - Other urban centers: Urban centers in the country other than those under category II were grouped under this category. A domain of other urban centers is formed for each region (excluding Gambella region) and seven reporting levels were formed in this category. However, there is no domain in category III for Harari, Addis Ababa and Dire Dawa as they do not have urban centers other than those grouped under category II.

Unlike the above two categories, a stratified three stage cluster sample design was adopted to select samples from this category. The primary sampling units were urban centers and the second stage sampling units were EAs. Sixteen households from each of the selected EAs were finally selected as a third stage sampling unit.

2.5 Sample Size and Selection Scheme

Category I: A totally of 2,016 EAs and 24,192 households were selected from this category. Sample EAs of each reporting level were selected using Probability Proportional to Size (PPS) with systematic sampling techniques; size being number of household obtained from the 2001/2 Ethiopian Agricultural Sample Enumeration. Twelve households per EA were systematically selected from the fresh list of households prepared at the beginning of the survey.

Category II: In this category 485 EAs and 7,760 households were selected. Sample EAs from each reporting level in this category were also selected using probability proportional to size systematic sampling; size being number of households obtained from the 2004 EUEEC. Sixteen households in each of the selected EAs were systematically selected from the fresh list of households prepared at the beginning of the survey.

Category III: One hundred twenty-seven urban centers, 275 EAs and 4,400 households were selected in this category. Urban centers from each domain as well as EAs in each urban center were selected systematically using probability proportional to size; size being the number of households obtained from the 2004 EUEEC. Sixteen households in each of the selected EAs ultimately were systematically selected from the fresh list of households prepared at the beginning of the survey.

In total, including region rural, region urban and country domains, a total of 148 reporting levels were formed under this design. Annex IV provides distribution of planned and covered samples by region. Estimation procedures and standard errors & coefficients of variations for the estimates of selected variables are also presented in Annex II & Annex III, respectively of this report.

CHAPTER III

BASIC POPULATION CHARACTERISTICS

3.1 Introduction

The 2004 Welfare Monitoring Survey covers the sedentary population in all regions excepting Gambella region. Non-sedentary population areas Somali Region, and Afar Region are also excluded. All population estimates in this report, hence, are pertinent only to the sedentary areas of the country that excludes the aforementioned non sedentary areas as well as residents of collective quarters such as prisons, hospitals, etc. and the homeless.

The chapter presents population estimates of the country, age and sex composition, dependency ratio and household characteristics including household size and distribution by gender of head of household.

3.2 Population Estimates, Age and Gender Composition

According to the survey result, the total population of the sedentary areas of Ethiopia (excluding Gambella) in June 2004 is estimated to be 64.7 million, an increment of 9.1 million over the 2000 WMS estimate (55.6million). Urban dwellers constitute 14.1 percent (9.1 million) and rural residents 85.9 percent (55.6 million). The total population estimate obtained from this survey is lower than the projection made based on the 1994 population and housing census as the survey does not include the areas mentioned in section one of this chapter.

Considering the gender composition of the population of the country, the survey findings have shown that 31.8 million (49.2 percent) are males and 32.9 million (50.8 percent) are females. The sex ratio at country level is 96.9 males to 100 females. This result is also same with that of the 2000 WMS result where 49.2 percent were males and 50.8 percent were females. Among the rural population 27.7 million (49.7 percent) are males and 28.0 million (50.3 percent) are females showing a sex ratio of 99.0 in rural areas. In urban

areas, however, it is observed that the difference between the number of females (4.9 million) and males (4.2 million) population is relatively significant with a sex ratio of 85.4 males to 100 females (see Tables 3.1(a)-3.1(c)).

Summary Table III.1 displays population estimates by broad age group in urban and rural areas. The age distribution indicates that about 46.8 percent of the population are children aged 0 to 14 years and 3.3 percent constitutes aged persons (persons aged 65 years and above). The proportion of population at the working age group (persons aged 15 to 64 years) accounted for 49.9 percent. Such age distribution of the population generally characterizes developing countries with high fertility and high mortality. The survey result also indicated that in the rural areas, the proportion of children aged 0 to 14 years comprises 48.6 percent, the aged population constitutes 3.3 percent and those at working age account for 48.1 percent. In urban areas, the respective percentages are 36.1 percent, 3.3 percent and 60.7 percent, in that order. The distribution of the population by five years age group and gender are presented in Tables 3.1(a)- 3.1(c).

3.3 Dependency Ratio

The dependency ratio is defined as a quotient between the population assumed to be not economically productive (i.e., sum of the population aged 0 to 14 years and those aged 65 years and above) and population assumed to be economically productive (the population at working age group, i.e. age 15 to 64 years). This ratio is usually expressed in percentage and is used as a measure of economic dependency on those who are in the working age groups.

The dependency ratio for the country is computed to be about 100 (Summary Table III.1) which implies that every 100 persons at economically productive age group is responsible to take care of themselves and additional 100 persons (children and aged population). The survey has indicated high variation in dependency ratios with higher dependency ratios in rural areas than urban. The dependency ratios for urban and rural areas are estimated to be 65 and 108, respectively.

**Summary Table III.1 - Percentage Distribution of Population by Broad Age Group,
Place of Residence and Dependency Ratio - Year 2004**

<i>Place of Residence</i>	<i>Broad Age Group</i>					<i>Total Population</i>	<i>Dependency Ratio (%)</i>
	<i>0 - 14</i>	<i>15- 64</i>	<i>65 +</i>	<i>Not Stated</i>	<i>Total</i>		
Urban	36.1	60.7	3.3	0.0	100	9,091,552	64.8
Rural	48.6	48.1	3.3	0.0	100	55,613,137	107.7
Total	46.8	49.9	3.3	0.0	100	64,704,691	100.4

Summary Table III.2 presents the dependency ratio for the rural and urban residents as seen over the four survey years. As can be observed from the table, the ratio in the rural areas has a consistent slowly rising trend from 1996 to year 2004 showing enhancing burden of dependencies on rural working age population. On the other hand, a general tendency of decreasing trend is observed among urban dwellers indicating less stress on urban working population. In addition, the four WMS's consistently indicate significantly higher dependency ratios among rural residents than urban dwellers.

**Summary Table III.2 - Dependency Ratios by Place of Residence
and Survey Years**

<i>Survey year</i>	<i>Place of residence</i>		
	<i>Country</i>	<i>Rural</i>	<i>Urban</i>
<i>1996</i>	98.7	102.9	76.8
<i>1998</i>	97.6	103.3	69.2
<i>2000</i>	101.6	106.6	72.1
<i>2004</i>	100.4	107.7	64.8

3.4 Household Characteristics

The distribution of households by household size, gender of head of household and place of residence is displayed in Summary Table III.3. Total number of households is estimated to be 13.4 million of which 2.1 million (15.8 percent) are urban dwellers and

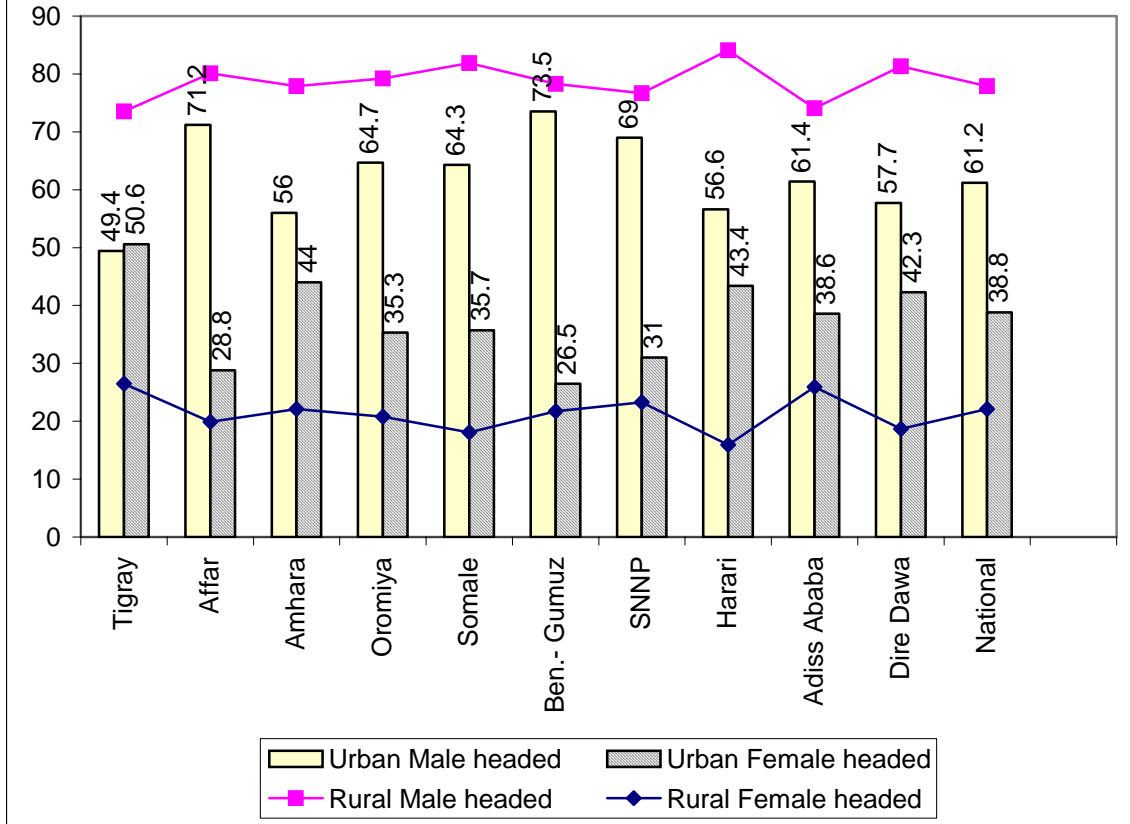
11.3 million (84.2 percent) are rural residents (Tables 3.2(a)-(c). An average household size for the country, rural and urban areas is found to be 4.8, 4.9 and 4.3, respectively.

Summary Table III.3 - Percentage Distribution of Households by Household Size, Gender of Head of Household and Place of Residence -Year 2004

Household Size	Country Level		Rural		Urban	
	Male headed	Female headed	Male headed	Female headed	Male headed	Female headed
1	2.7	13.2	1.7	12.7	9.5	14.7
2	7.7	22.3	7.3	23.0	10.7	20.2
3	13.3	19.7	13.2	19.7	13.9	20.0
4	17.0	16.5	17.0	16.8	16.8	15.5
5	16.7	13.2	16.9	13.4	15.2	12.6
6	15.1	7.1	15.5	7.1	12.4	7.2
7	12.0	4.4	12.4	4.4	8.8	4.4
8	7.7	2.1	8.0	2.1	5.9	2.3
9	4.3	0.8	4.4	0.7	3.3	1.2
10 and above	3.7	0.7	3.7	0.2	3.6	2.0
Total	75.3	24.7	77.9	22.1	61.2	38.8
Total Households	10,125,613	3,322,394	8,825,434	2,449,616	1,300,179	822,778

Of the 13.4 million households, 75.3 percent are male headed and 24.7 percent are female-headed. Headship by urban-rural residence indicates higher proportion of female-headed households in urban areas compared to rural. About one-out-of five rural households (22.1 percent) and nearly two out of five urban households (38.8 percent) are female-headed. It is also indicated that the proportion of female-headed households in general is higher for single persons, while for households with three or more persons the proportion headed by males is quite high compared to those headed by females (Summary Table III.3).

Fig. 3.1 Distribution of Households by Gender of Head of Household and Region, 2004.



Distribution across regions exhibits that more proportion of female-headed households are found in Addis Ababa (38.5 percent) followed by Dire Dawa (35.5 percent) and Harari (32.4 percent) regions. The outputs of the survey also indicate that proportion of female-headed households in Benishangul-Gumuz region is least (22.3 percent). See also Summary Table III.4, Figure 3.1 and Tables 3.2(a)-3.2(c).

Summary Table III.4 - Percentage Distribution of Households by Gender of Head of Household, Place of Residence and Region - Year 2004

<i>Regions</i>	<i>Country</i>		<i>Rural</i>		<i>Urban</i>	
	<i>Male headed</i>	<i>Female headed</i>	<i>Male headed</i>	<i>Female headed</i>	<i>Male headed</i>	<i>Female headed</i>
<i>Country Level</i>	75.3	24.7	77.9	22.1	61.2	38.8
<i>Tigray</i>	68.5	31.5	73.5	26.5	49.4	50.6
<i>Afar</i>	76.4	23.6	80.1	19.9	71.2	28.8
<i>Amhara</i>	75.5	24.5	77.9	22.0	56.0	44.0
<i>Oromiya</i>	77.4	22.6	79.2	20.8	64.7	35.3
<i>Somale</i>	76.3	23.7	81.9	18.1	64.3	35.7
<i>Ben.- Gumuz</i>	77.7	22.3	78.3	21.7	73.5	26.5
<i>SNNP</i>	76.1	23.9	76.7	23.3	69.0	31.0
<i>Harari</i>	67.6	32.4	84.1	15.9	56.6	43.4
<i>Adiss Ababa</i>	61.5	38.5	74.1	25.9	61.4	38.6
<i>Dire Dawa</i>	64.5	35.5	81.3	18.7	57.7	42.3

CHAPTER IV

EDUCATION AND RELATED INDICATORS

4.1 Introduction

Education is the key to development. Its power of enhancing economic growth, generating income and contribution to all other sectors makes the concern for education sector compulsory and decisive. Educational sector development is one of the poverty-oriented sectors that are high on the agenda of the country's poverty reduction strategy: Sustainable Development and Poverty Reduction Program (SDPRP) and the Millennium Development Goals (MDG's).

Ethiopia is progressing well in education. Monitoring quantitative and qualitative changes brought about over time requires regular information on the basic indicators of educational outputs. This chapter discusses indicators of educational performance based on related data collected in the survey. Information was collected on literacy status of individuals, school enrollments, educational attainment, volume of dropout rates and associated reasons, types of school attended and access to education etc.

The achievement in educational developments of the country is assessed on the basis of indicators such as literacy rates, gross and net enrollment ratios at both primary and secondary levels, dropout rates, age-grade mismatches and other related indicators disaggregated by gender, age and other socioeconomic group.

4.2 Literacy and Numeracy

In this survey, a person is considered to be literate if he/she can read with understanding and write a short statement at least in one language. Otherwise, the person is considered to be illiterate. Every member of the households aged 5 years and over was asked to state whether he/she is literate or not. Literacy/Numeracy rate, however, is computed in compliance with the UN recommendations as the proportion of the literate population from the domain of individuals aged 10 years and above.

Summary Table IV.1 presents literacy and numeracy rate for population aged 10 years and over by gender and place of residence. Of the total population in the country only

37.9 percent are found to be literate with a large discrepancy between rural and urban residents. Literacy rate in urban areas is more than two times higher than that of rural areas (74.2 percent against 30.9 percent). This variation might be considered as a clue to difference in accessibility of schools between urban and rural areas.

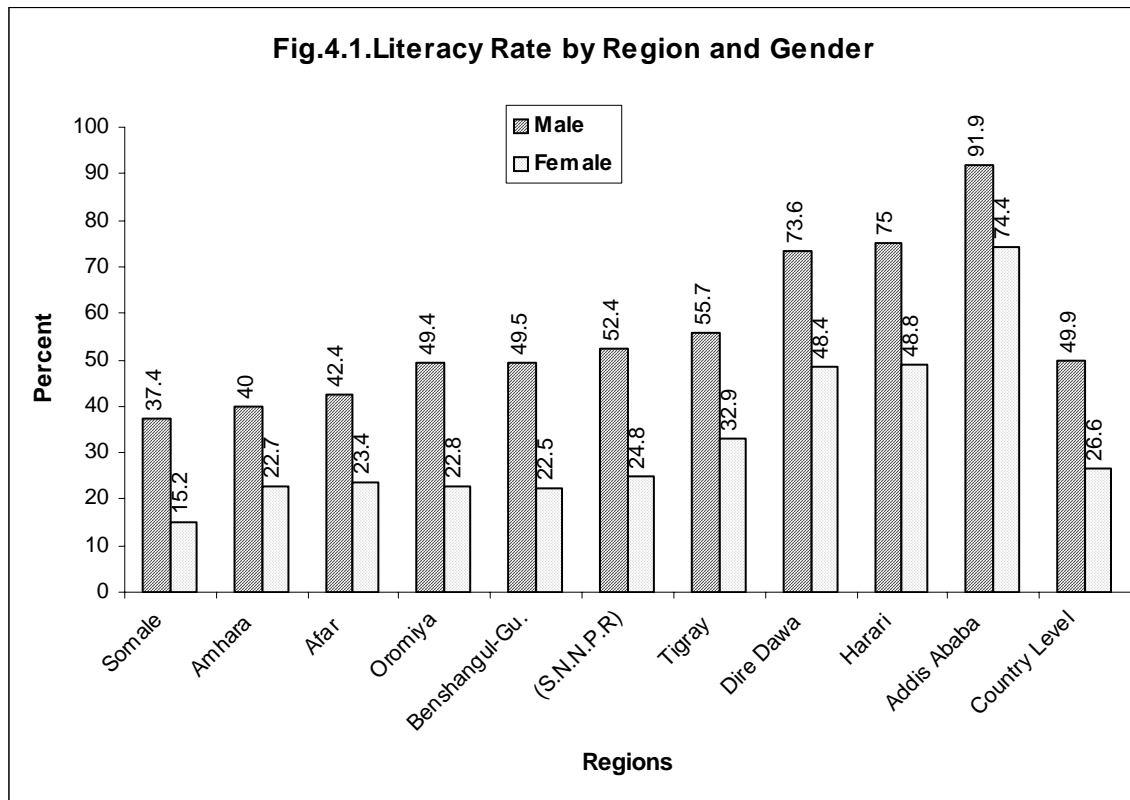
Summary Table.IV.1 Distribution of Literacy and Numeracy Rates by Place of Residence and Gender-Year 2004

Place of Residence and Gender	Literacy Rate		Numeracy Rate	
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
Country Level				
Male	10,463,017	49.9	9,152,687	87.5
Females	5,894,842	26.6	5,186,440	88.0
Total	16,357,859	37.9	14,339,127	87.7
Rural				
Male	7,746,598	43.4	6,547,526	84.5
Females	3,416,257	18.7	2,849,681	83.4
Total	11,162,855	30.9	9,397,207	84.2
Urban				
Male	2,716,419	86.2	2,605,161	95.9
Female	2,478,585	64.4	2,336,759	94.3
Total	5,195,004	74.2	4,941,920	95.1

A clear gender bias is also revealed. Literacy rate among male population (49.9 percent) is found to be nearly two times higher than that of female population (26.6 percent). This discrepancy exists in both rural and urban areas with a wider gap among rural residents. Literacy rate among male population is more than two times higher than the rate observed for the female population in the rural areas (43.4 percent against 18.7 percent) while it is about 86.2 percent and 64.4 percent, respectively, in urban areas (Summary Table IV.1). Fig.4.1.presents distribution of literacy rates by region and gender. It is found that the literacy rate is highest in Addis Ababa Administrative Region as expected (82.4 percent) followed by Harari (61.1 percent) and Dire Dawa (60.5 percent) Regions. The lowest literacy rates were observed in Somale region (26.3 percent) followed by Amhara (31.1

percent) and Afar (32.9 percent) Regions. The rates in other regions ranged from 35.9 in Oromiya to 43.6 percent in Tigray.

Urban-rural discrepancy in literacy rates is also observed in the regions (Tables 4.1(b)-4.1(c)). Urban literacy rate is more than 3 times higher than that of rural in Afar and Dire Dawa Regions. In extreme cases of Somale literacy rate in urban areas is more than 4 times that of rural areas. In all other regions, literacy rates in urban areas are more than twice that of rural areas. The findings also show that in all regions, higher literacy rate for male than for female population are reported (Fig. 4.1)



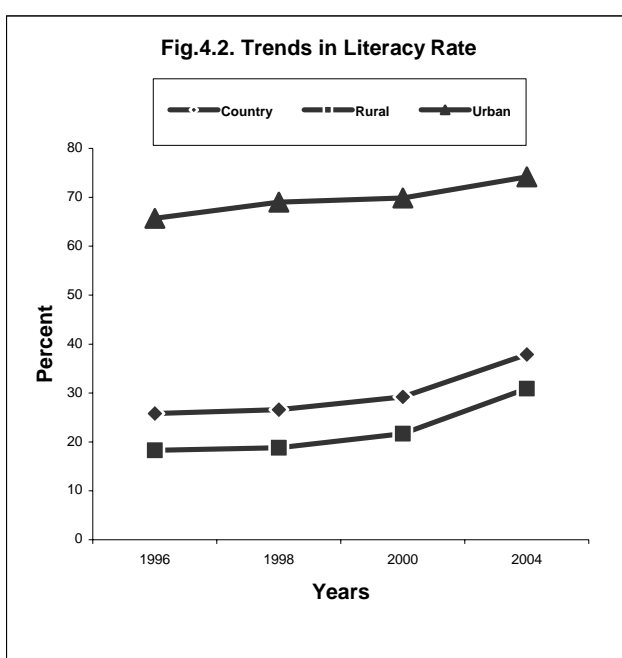
Comparison of literacy rates over the last four survey years (Summary Table IV.2.) revealed a general rising trend in the proportion of the literate population. At all levels, irrespective of gender of the person, the proportion of literate population is increasing from year to year. In rural areas, for instance, literacy rate increased from 18.3 percent to

30.9 percent in eight years time. Besides, all the four surveys revealed that rural residents and female individuals are disfavored in terms of literacy achievements.

Summary Table IV.2 Literacy Rates by Gender, Place of Residence and Survey Year

<i>Year</i>	<i>Country</i>			<i>Rural</i>			<i>Urban</i>		
	<i>M</i>	<i>F</i>	<i>M+F</i>	<i>M</i>	<i>F</i>	<i>M+F</i>	<i>M</i>	<i>F</i>	<i>M+F</i>
1996	34.8	16.9	25.8	27.9	8.4	18.3	77.5	56.7	65.7
1998	36.4	17.2	26.6	28.8	8.8	18.8	81.0	59.0	69.0
2000	39.7	19.4	29.2	32.8	11.0	21.7	81.8	60.6	69.9
2004	49.9	26.6	37.9	43.4	18.7	30.9	86.2	64.4	74.2

All literate persons aged 10 years and over were also asked to state whether or not they



could perform simple arithmetic computations. Numeracy rate is then calculated as the ratio of number of literate persons that have rudimentary arithmetic capability to total literate population. The findings show that numeracy rate prevails at 87.7 percent at country level, 84.2 percent for rural areas and 95.1 in urban areas. It is worth to note that in contrast to the literacy status, female numeracy rates are slightly higher than male at country

level (Table 4.1(a) and Summary Table IV.1).

4.3. Educational Attainment

Educational attainment refers to the highest grade a person ever completed. The categories of education in this report include grades 1-6, grades 7-8, grades 9-11, 12 complete, certificate, completed at least one year but has no certificate, diploma,

completed at least one year but has no diploma or degree and degree and above. Literate population aged 10 years and over by highest grade completed is presented in Tables 4.2(a) - 4.2(c) and Summary Table IV.3.

Most of the literate population has only attained primary level. About 70 percent had completed grades 1 to 6, 83.7 percent grades 1-8. About 12.5 percent completed grades 9-12 while only 3.8 percent completed higher education (certificate, college or university education). The corresponding proportion in rural areas is 83.4 percent, 93.9 percent, 4.9 percent, and 1.3 percent in that order. A significant proportion of urban literate population (44.2 percent) is also in primary school (grades 1 to 6). About 64.2 percent completed grades 1 to 8, 27.1 completed grades 9-12 and the rest 8.6 percent managed to complete higher education. At least around half of urban population aged 10 years and above have completed grades 7 to 12 compared to the attainment in rural areas, which is far less than one-fifth.

The data on educational attainment by gender at country level show a slight variation in favor of males at primary level (grade 1-6) and the reverse at secondary level (grade 7-12). As indicated in Tables 4.2(a)-4.2(c) and Summary Table IV.3, completion of grades 1 to 6 in primary school is 70.3 percent for males and 69.6 percent for females. At secondary school (7-12 grades) level the proportion by gender is 25.9 percent among the males and 27.0 percent among the females. The pattern also differs among urban and rural residents. In rural areas females are slightly favored in primary schools and disfavored in secondary schools. In urban areas, educational attainment of the females is slightly superior to the males at primary level and the reverse at secondary level.

Summary Table IV.3- Percentage Distribution of the Literate Population Aged 10 Years and Above by Gender, Highest Grade Completed, and Place of Residence-2004

<i>Highest Grade Completed</i>	<i>Country</i>			<i>Rural</i>			<i>Urban</i>		
	<i>M</i>	<i>F</i>	<i>M+F</i>	<i>M</i>	<i>F</i>	<i>M+F</i>	<i>M</i>	<i>F</i>	<i>M+F</i>
Grade 1-6	70.3	69.6	70.0	81.7	87.0	83.4	41.8	46.9	44.2
Grade 7- 8	13.9	13.6	13.7	11.6	8.2	10.5	19.4	20.6	20.0
Grade 9- 11	6.4	7.2	6.7	3.9	2.8	3.5	12.7	13.0	12.8
12 complete	5.6	6.2	5.8	1.7	0.9	1.4	15.4	13.0	14.3
Certificate	1.5	1.7	1.6	0.8	1.0	0.9	3.1	2.7	2.9
Completed at least one year but has no certificate	0.1	0.2	0.1	0.0	0.0	0.0	0.3	0.4	0.3
Diploma	1.0	0.8	0.9	0.1	0.0	0.1	3.4	1.7	2.6
Completed at least one year but has no diploma or degree	0.8	0.7	0.8	0.2	0.1	0.2	2.2	1.6	1.9
Degree and above	0.5	0.1	0.3	0.0	-	0.0	1.6	0.2	0.9
Not stated	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

4.4 Enrollment Ratio

Enrollment ratios are basic educational indicators that are more sensitive to educational stress than literacy rates (which are relatively slow in changing). Most education analysts use enrollment ratios to investigate current educational progresses under the prevailing educational system. Two types of enrollment ratios can be computed: Gross Enrollment Ratio and Net Enrollment Ratio. Both indicators are computed for primary and secondary levels disaggregated by gender and socioeconomic groups (Summary Tables IV.4-IV.7).

a. Gross Enrollment Ratio

One of the indices used for measuring the progress in the rate of absorption of the eligible population to the school system is gross enrollment ratio. The gross enrollment ratio for primary level is defined as the total number of pupils attending grades 1-6 during the

current school year divided by the total number of children of primary school age (7-12 years)¹. This ratio for secondary level is calculated by dividing the number of pupils in grades 7-12 by the total number of children aged 13-18 years. Gross enrollment ratio is expressed as the number of enrolled children in a given level, regardless of age, per 100 school age children in primary or secondary level. This measure could be greater than 100 which means that pupils out of the specified school age for primary pupils or secondary were attending the respective level of school.

Summary Table IV.4: School Enrollment Ratio by Level of Schooling, Gender and Place of Residence - Year 2004

<i>Place of Residence and Gender</i>	<i>Gross Enrollment Ratio</i>				<i>Net Enrollment Ratio</i>				
	<i>Primary Level</i>		<i>Secondary Level</i>		<i>Primary Level</i>		<i>Secondary Level</i>		
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	
Country Level									
Male	4,916,972	80.4	1,343,965	28.3	2,377,677	38.9	787,228	16.6	
Female	3,940,514	67.6	845,056	17.9	2,142,229	36.8	586,763	12.4	
Total	8,857,486	74.2	2,189,021	23.1	4,519,906	37.8	1,373,991	14.5	
Rural									
Male	4,107,200	75.1	813,650	20.2	1,868,975	34.2	426,535	10.6	
Female	3,040,135	59.5	335,613	8.8	1,596,454	31.2	225,495	5.9	
Total	7,147,334	67.6	1,149,263	14.7	3,465,429	32.8	652,029	8.3	
Urban									
Male	809,772	125.4	530,315	73.7	508,702	78.8	360,693	50.1	
Female	900,379	125.0	509,443	56.5	545,776	75.8	361,268	40.1	
Total	1,710,151	125.2	1,039,758	64.2	1,054,477	77.2	721,961	44.5	

¹Social Dimensions of Adjustment (SDA) Working Paper Series, World Bank, 1991.

Tables 4.3(a)-4.3(c) and Summary Table IV.4 depicts the enrollment ratio for primary and secondary schools at country, rural and urban levels. The gross enrolment ratio at country level is 74.2 percent for primary level and 23.1 percent for secondary level. Conversely, it can be said that at least 25.8 percent of the primary school and 76.9 percent of the secondary school age population are still outside the purview of the school system. Furthermore, the very lower enrollment rate for secondary level than the primary could be taken as an indication for the extent of school abandoning pupils after the completion of primary schools.

The results of the survey data indicates that primary level gross enrollment rate in urban areas (125.2 percent) is nearly double of rural residents (67.6 percent). Furthermore, the gross enrollment ratios at secondary school level in rural and urban areas are not comparable, for the fact that very small proportion of children at primary school level in rural areas seems to succeed to secondary school (an enrollment rate of 14.7 percent) compared to 64.2 percent of the children in urban areas. This means that at least 85.3 percent of the secondary school age children are not enrolled for secondary school education in rural areas.

The gross enrollment ratio has also indicated differences by gender in favor of the males at both levels of schooling. At country level, a rate of 80.4 percent for the males and 67.6 percent for the females are reported at primary school level. However, in urban areas the gross enrollment ratio for the females at primary school level is found to be the same as that of the males. The result has also shown that gender bias among primary level school children appears to be more severe in rural areas than urban areas (see Table 4.3(a)-4.3(c) and Summary Table IV.4.).

The gross enrollment ratios at primary school level by region can broadly categorized into three based on the relative proportion of enrollment ratios. Lower enrollment ratio is observed in Somale (38.0percent) and Afar (54.5 percent) Regions. Higher enrollment ratios are reported for Addis Ababa (141.4 percent) and Dire Dawa (105.4 percent).In the middle category the gross enrollment ratio ranges from 68.0 percent in Amhara Region to

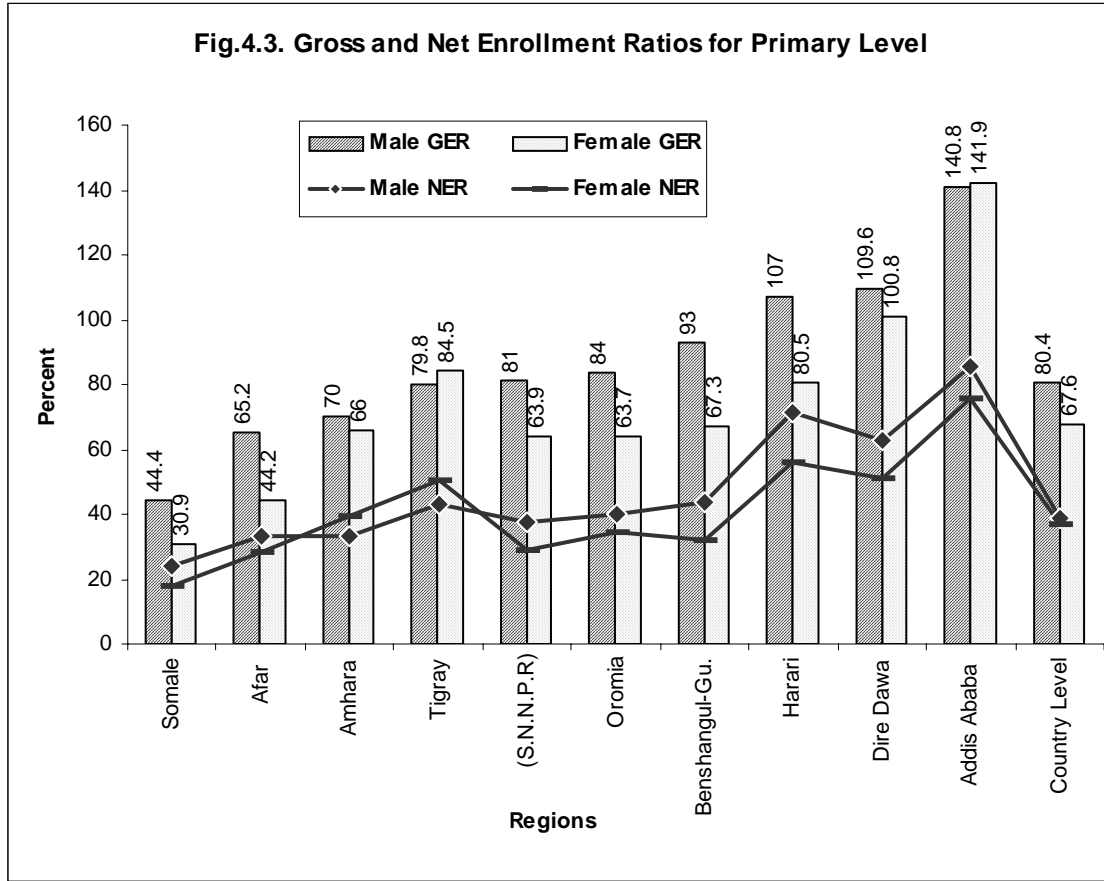
94.5 percent in Harari Region. The Enrollment ratio at secondary school level in Addis Ababa is relatively high (63.7 percent) followed by DireDawa (44.9 percent) and Harari (43.6 percent). Tigray Region stood fourth with gross enrollment ratio of 31.0 percent. Other regions have relatively lower enrollment ratios at secondary school level ranging from 16.3 percent in Somali Region to 29.0 percent in Beneshangul-Gumuz Region. (see Table 4.3(a)-4.3(c))

Summary Table IV.5 School Enrollment Ratio by Level of Schooling, Region and Gender Country Total - 2004

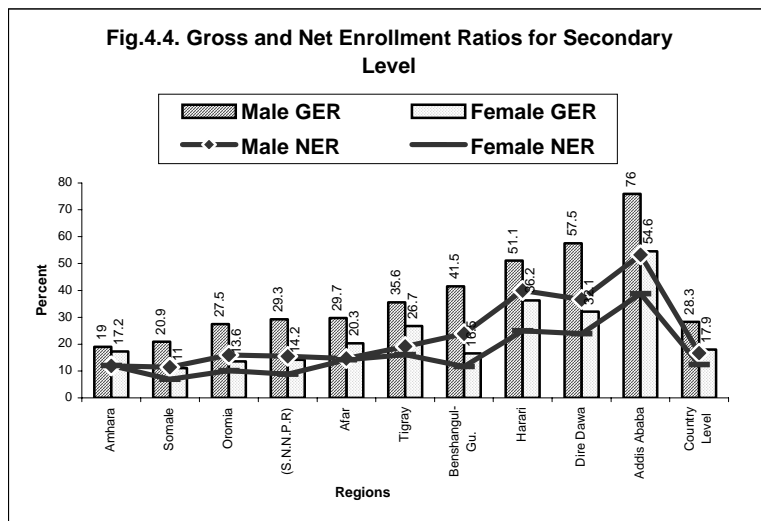
<i>Region</i>	<i>Gross Enrollment Ratio</i>				<i>Net Enrollment Ratio</i>			
	<i>Primary Level</i>		<i>Secondary Level</i>		<i>Primary Level</i>		<i>Secondary Level</i>	
	<i>Male GER</i>	<i>Female GER</i>	<i>Male NER</i>	<i>Female NER</i>	<i>Male GER</i>	<i>Female GER</i>	<i>Male NER</i>	<i>Female NER</i>
Country Level	80.4	67.6	38.9	36.8	28.3	17.9	16.6	12.4
Tigray	79.8	84.5	43.1	50.6	35.6	26.7	19.1	16.0
Afar	65.2	44.2	33.1	28.5	29.7	20.3	14.6	14.2
Amhara	70.0	66.0	33.2	39.3	19.0	17.2	11.9	12.3
Oromia	84.0	63.7	40.2	34.7	27.5	13.6	15.9	10.1
Somale	44.4	30.9	23.9	17.9	20.9	11.0	11.4	6.9
Benshangul-Gumuz	93.0	67.3	43.6	31.7	41.5	16.5	23.9	11.7
(S.N.N.P.R)	81.0	63.9	37.5	29.2	29.3	14.2	15.5	8.8
Harari	107.0	80.5	71.1	56.2	51.1	36.2	40.0	25.0
Addis Ababa	140.8	141.9	85.4	75.9	76.0	54.6	53.3	38.7
Dire Dawa	109.6	100.8	62.7	51.3	57.5	32.1	36.6	23.9

Comparing the male and the female enrollment ratios, gender bias has stood in favour of females in Tigray and Addis Ababa. The gross enrollment ratio for males in Tigray region is less by five percentage points compared to females, while in Addis Ababa the difference is only one Percentage point. At secondary school level, however, the

enrollment ratios for the males and the females are observed to be nearly equal in Amhara Region only. In all the other regions the gross enrollment ratio is higher for the males than the females. (See Summary Table IV.5.)



Looking at the urban-rural distribution of the enrollment ratios both at primary and secondary level by region, the ratio is higher in urban areas for all regions. Rural residents have generally lower enrollment ratios at secondary school level; the highest being 23.3 percent in Beneshangul-Gumuz followed by Addis Ababa

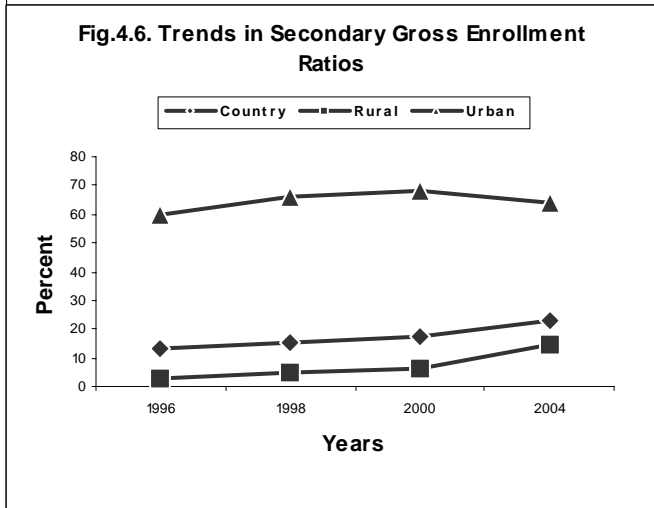
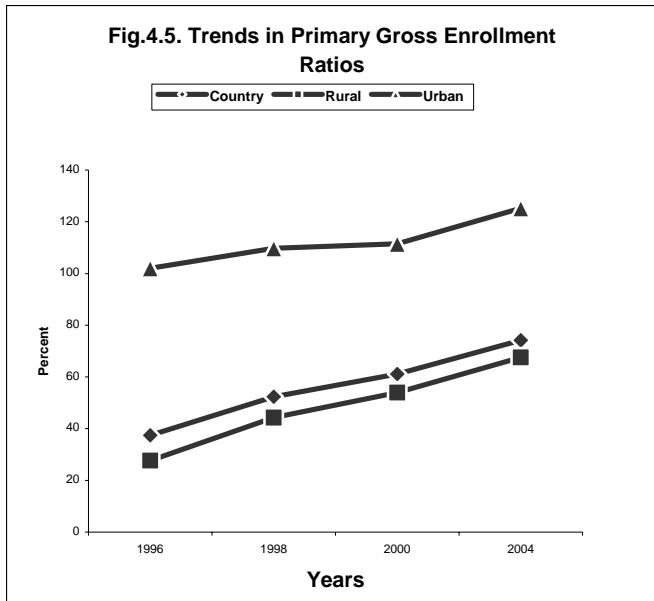


(21.9 percent) and Tigray (20.5 percent). An extremely low enrollment ratio at secondary level is observed in the rural areas of Somali Region (2.1 percent). It is noticed that urban-rural difference in gross enrollment ratios across the regions is also significantly high at both levels of school.

Summary Table IV.6 Trends in Gross Enrollment Ratios by Gender, Place of Residence and Survey Years

<i>Place of Residence and Gender</i>	<i>Gross Enrollment Ratio</i>							
	<i>Primary</i>				<i>Secondary</i>			
	<i>1996</i>	<i>1998</i>	<i>2000</i>	<i>2004</i>	<i>1996</i>	<i>1998</i>	<i>2000</i>	<i>2004</i>
Country								
Male	44.9	63.2	69.8	80.4	13.7	17.4	19.0	28.3
Female	29.4	40.7	52.0	67.6	12.3	13.8	15.2	17.9
Total	37.4	52.3	61.1	74.2	13.0	15.6	17.1	23.1
Rural								
Male	37.0	56.8	64.5	75.1	4.2	7.2	8.9	20.2
Female	17.5	31.0	42.8	59.5	1.6	2.4	3.8	8.8
Total	27.6	44.3	54.0	67.6	3.0	4.8	6.4	14.7
Urban								
Male	97.4	114.6	109.1	125.4	68.3	70.8	74.7	73.7
Female	107.1	105.4	113.7	125.0	53.1	61.7	62.9	56.5
Total	102.1	109.7	111.5	125.2	59.6	65.9	68.2	64.2

The four surveys undertaken so far have plainly indicated a considerable rise in the volume of enrollment ratios over time. At country level, gross enrollment ratio at primary school level has increased from 37.4 percent in 1996 to 61.1 percent in 2000 and 74.2 percent in year 2004 (Summary Table IV.6). This rise could partly be attributed to the fact that more primary schools have been constructed in the rural areas in the year from 1996 to 2004 and as a result a large number of children at primary school age had the chance to get enrolled.



Gross enrollment ratios at all levels of place of residence at primary level has increased at a higher rate from 2000 to 2004 as compared to the rate in the 1996, 1998 and 2000 survey years. Though relatively gradual, consistently increasing enrollment ratios are observed at secondary School levels over time. Gender aspect of these findings discloses that male enrollment ratios are generally higher than that of females at country, rural and urban level with the exception of the higher primary enrollment ratios in urban areas at primary school level for the females compared to their male counterparts in the year 1996 and 2000 surveys.

b. Net Enrollment Ratio

Information on the proportion of school age children not currently attending school is a major indicator that could be used as an important input in monitoring and evaluation of the prevailing education policy. The gross enrollment ratio does not show whether the exact proportion of school age children is currently attending/not attending school. The net enrollment ratio, however, refines the gross enrollment ratio by limiting its domain to

school age children. It shows the proportion of school-age children that are currently attending /not attending school out of the total school age children.

Net enrollment ratio is defined as the number of pupils of primary school age (7-12years) and is currently attending primary school divided by the total number of children in the age group 7-12 years ². Similarly, the net enrollment ratio at secondary school level is defined as the ratio of children aged 13-18 years and is currently attending secondary school (grades 7 to 12) to the total number of children in age group 13-18 years.

The net enrollment ratio for the country is 37.8 percent at primary school level and 14.5 percent at secondary school level. This indicates that out of the total primary school age children (7 to 12 years), only 37.8 percent were attending school at the time of the survey. Similarly, at the secondary school level only 14.5 percent of the secondary school age children (13-18 years) are reported to attend school. Urban-rural variations in net enrollment ratios follow similar pattern with the gross enrollment ratio at both levels of school. Gender differential in rural, urban and at country level also shows higher rates of net enrollment ratios for males than females for both primary and secondary level (see Table 4.3(a)-4.3(c) and Summary Table IV.4.).

Region-wise comparison reveals that Addis Ababa (80.1 percent), Harari (64.1 percent) and Dire Dawa (57.3) have higher net enrollment ratios at primary school level, whereas Somali (21.0 percent) and Afar (30.8 percent) have the lowest net enrolment ratios. At secondary school level, the net enrollment ratios for Addis Ababa (44.9 percent), Harari (32.4 percent) and Dire Dawa (30.3 percent) is also higher than the other regions. (see Table 4.3(a)-4.3(c))

Summary Table IV.7 presents net enrollment ratios over the four WMS years. With the exception of the decline in the rate for secondary schools in urban areas for 2004, net enrollment ratios have shown increase between 1996 and 2004 in both urban and rural areas for both primary and secondary level.

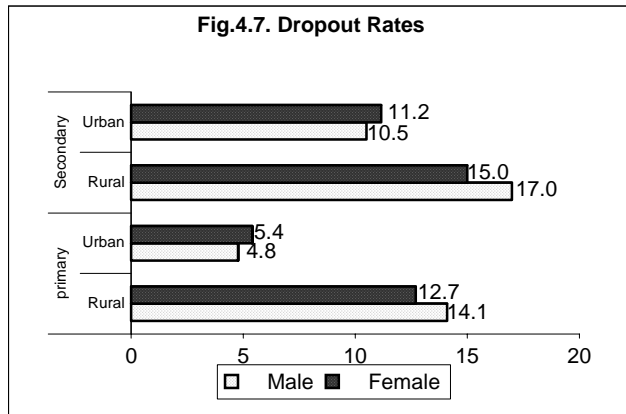
² Social Dimensions of Adjustment (SDA) Working Paper Series, The World Bank, 1991.

Summary Table IV.7 Net Enrollment Ratios by Gender, Place of Residence and Survey year

<i>Place of Residence and Gender</i>	<i>Net Enrollment Ratio</i>							
	<i>Primary</i>				<i>Secondary</i>			
	<i>1996</i>	<i>1998</i>	<i>2000</i>	<i>2004</i>	<i>1996</i>	<i>1998</i>	<i>2000</i>	<i>2004</i>
Country								
Male	24.0	32.5	35.8	38.9	8.8	10.9	12.2	16.6
Female	17.9	24.6	31.6	36.8	8.7	9.6	10.9	12.4
Total	21.0	28.7	33.8	37.8	8.8	10.2	11.6	14.5
Rural								
Male	17.4	27.0	30.7	34.2	1.9	3.6	5.0	10.6
Female	9.9	17.8	25.2	31.2	0.9	1.5	2.6	5.9
Total	13.7	22.5	28.0	32.8	1.4	2.6	3.9	8.3
Urban								
Male	67.6	76.0	74.1	78.8	48.6	48.6	52.2	50.1
Female	70.2	70.2	74.8	75.8	38.6	44.0	45.3	40.1
Total	68.9	72.9	74.5	77.2	42.9	46.1	48.4	44.5

4.5 School Dropout Rates

Enrollment rates are not sensitive enough to capture recent changes and impacts of



education policies. Assessing the recent dropouts together with the enrollment ratios will give a better picture of current educational problems. A person is considered to be a school dropout if he/she is registered in a formal school just before the survey year and did not

appear for the end of the year examination or sat for the final examination but have failed to register during the survey year. Dropout rate is then defined as the proportion of school dropouts out of the total enrolled pupils in the school year just before the survey year.

Summary Table IV.8 presents dropout rates by gender, levels of school and place of residence. The dropout rate at the country level is 11.8 percent in primary schools and 13.5 percent in secondary schools. The problem of school dropout was more serious in rural than in urban areas. Around 13.6 percent of the primary and 16.5 percent of the secondary school pupils in rural areas have dropped-out from school during the reference period. In the urban areas the proportion of dropout is 5.1 percent and 10.8 percent for primary and secondary schools, respectively. Reasons for dropout are given in the next section.

Summary Table IV.8 School Dropout Rates by Gender, Level of Schooling and Place of Residence - Year 2004

<i>Place of Residence and Gender</i>	<i>School Drop-Out Rates</i>			
	<i>Primary Level</i>		<i>Secondary Level</i>	
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
<i>Country Level</i>				
Male	583,442	12.5	142,452	14.2
Female	378,532	10.8	79,913	12.5
Total	961,974	11.8	222,365	13.5
<i>Rural</i>				
Male	544,251	14.1	95,525	17.0
Female	329,266	12.7	32,284	15.0
Total	873,517	13.6	127,809	16.5
<i>Urban</i>				
Male	39,191	4.8	46,927	10.5
Female	49,266	5.4	47,629	11.2
Total	88,457	5.1	94,556	10.8

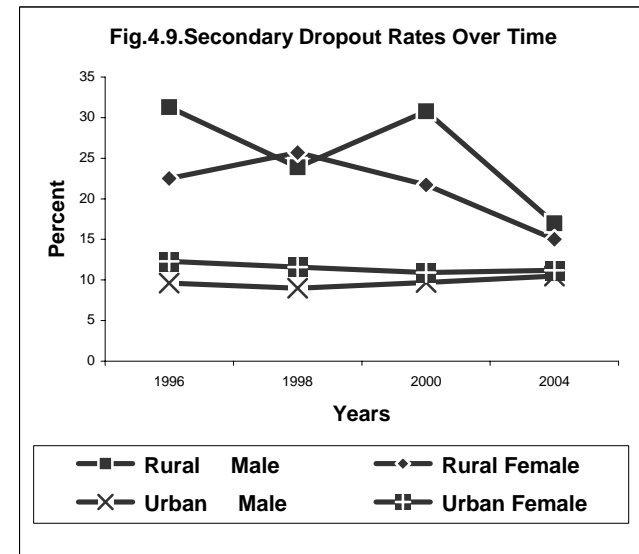
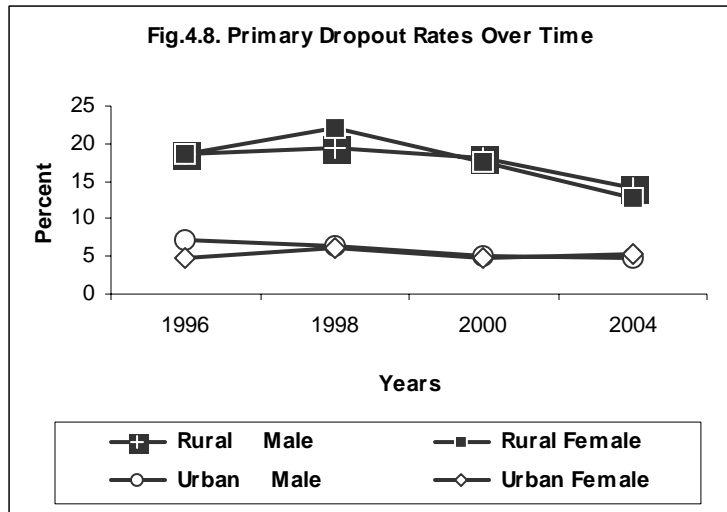
Gender differential in school dropouts indicates a bit higher rate among male than female students at both primary and secondary level in rural areas and at country level. In contrast, in urban areas the dropout rate among the female students is slightly higher compared to the male students (Summary Table IV.8).

The school dropout rates at primary school level in the regions are relatively low for Addis Ababa (4.0 percent) and Dire Dawa (5.5 percent). Higher dropout rates are registered in SNNPR (14.6 percent) and Oromiya (12.0 percent), while a moderate dropout rate is reported in the

remaining regions ranging from 7.2 percent in Somale to 11.3 percent in Amhara (see Table 4.5(a)).

Considering the dropout rates at secondary level, S.N.N.P.R. stands out with highest dropout rate of (17.2 percent) followed by Tigray (17.1 percent). In the remaining regions, this ratio ranged from 7.1 percent in Afar to 14.6 percent in Oromiya Regions.

Across time, dropout rates have significantly reduced, especially in rural areas. Primary



dropout rate in rural areas has declined from 18.5 percent in 1996 to 13.6 percent in 2004, whereas the dropout rate at secondary level in rural areas to decrease from 29.3 percent in 1996 to 16.5 percent in 2004. The declining trend in urban areas has also similar pattern with slower rate (Fig.4.9). Though the gender disparity in school dropout at primary level over the four survey

years is not clearly evident, the result depicts higher male dropout rate at country and rural level in the year 2004. Higher percentage of male secondary school dropouts

particularly in rural areas is indicated in the 1996, 2000 and 2004 surveys. The three surveys, on the other hand, have shown that higher proportion of female students have withdrawn from secondary schools in urban areas. Unlike the rural and country level, in urban areas both male and female dropout rates have shown increase in the year 2004. (Summary Table IV.9)

Summary Table IV.9 Dropout Rates by Gender, Place of Residence and Survey Year

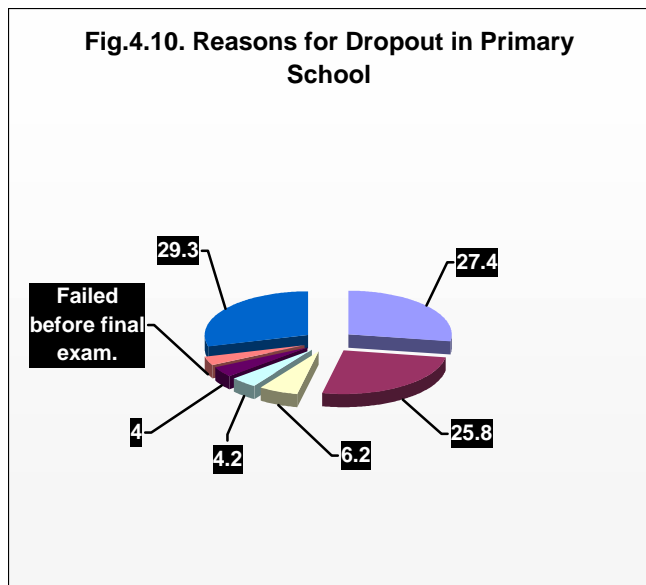
<i>Place of Residence and Gender</i>	<i>Dropout Rates</i>							
	<i>Primary</i>				<i>Secondary</i>			
	<i>1996</i>	<i>1998</i>	<i>2000</i>	<i>2004</i>	<i>1996</i>	<i>1998</i>	<i>2000</i>	<i>2004</i>
<i>Country</i>								
Male	14.9	16.4	15.5	12.5	15.1	13.7	17.5	14.2
Female	10.9	15.9	13.5	10.8	13.3	13.4	12.6	12.5
Total	13.3	16.2	14.7	11.8	14.3	13.6	15.4	13.5
<i>Rural</i>								
Male	18.5	19.5	18.1	14.1	31.3	23.9	30.8	17.0
Female	18.5	22.0	17.6	12.7	22.5	25.7	21.7	15.0
Total	18.5	20.3	17.9	13.6	29.3	24.3	28.4	16.5
<i>Urban</i>								
Male	7.3	6.3	5.1	4.8	9.6	9.0	9.7	10.5
Female	4.9	6.2	4.9	5.4	12.3	11.6	10.9	11.2
Total	6.1	6.2	5.0	5.1	10.9	10.3	10.3	10.8

4.6 Reasons for Dropouts

School dropouts were further asked to state their reason for withdrawal from school in the previous year. The two major reasons cited in both primary and secondary schools were "sickness" and "need to work". Among the primary school dropouts, 27.4 percent said they were sick and 25.8 percent left the school because they "need to work". The two

major reasons given for secondary school dropouts constitute 21.8 percent for sickness and 19.7 percent for desire to work (see Tables 4.6(a)).

For both the urban and the rural residents the major reason for dropping-out at primary school level is sickness (27.7 percent for rural and 24.9 percent for urban areas). In the findings it can be observed that more of the rural (27.0 percent) than the urban dropouts (13.4 percent) did leave school to work. At secondary level, however, the need to work (25.2 percent) in urban areas is also the main reason for withdrawal from school. Loss of hope to get job was hardly mentioned among rural and urban school dropouts.



Material shortage is also one of the major reasons (8.6 percent) for withdrawal from primary school in urban areas.

The two major reasons for withdrawal from both primary and secondary schools in the 1996 and 1998 WMS in both urban and rural areas of the country were "need to work" and "failing in exams". However, in the year 2000 and 2004 WMS, the options given in the questionnaire were further refined to include other reasons. This refinement in effect has brought some other causes like "sickness" into picture as one of the major reasons for school dropouts.

4.7 Type of School Attended

Summary Table IV.10 presents percentage distribution of pupil attending government school by level of school and place of residence. The overwhelming majority of primary and secondary school pupils (92 percent) at country level were attending government owned schools. This holds true in both urban and rural areas with a relatively higher proportion among rural residents. About 95 percent of rural primary and 98 percent of

rural secondary school pupils use government schools. The corresponding percentages in urban areas are 79 percent for primary schools and 89 percent for secondary schools. Distribution among regions has also shown that higher percentage of pupils in primary school are found to attend government owned schools in all regions (above 80 percent) except Addis Ababa (49.7 percent) and Dire Dawa (69.1 percent).

Summary Table IV.10 – Percentage Distribution of Pupil attending in Government School by Level of School and Place of Residence

<i>Level Of School</i>	<i>Place of Residence</i>		
	<i>Country</i>	<i>Rural</i>	<i>Urban</i>
<i>Primary</i>			
1996	90.0	92.9	84.7
1998	92.4	95.2	84.0
2000	93.8	96.1	86.0
2004	91.7	95.0	78.5
<i>Secondary</i>			
1996	92.9	98.4	91.7
1998	93.3	97.4	91.8
2000	93.8	97.7	92.0
2004	93.4	97.9	88.5

Seen over time, the proportion of pupils attending government school in urban areas is generally falling slowly at both levels while in rural areas the trend is still rising.

(Summary Table IV.10, Tables 4.4(a)-(c)).

4.8 Proximity to Schools

The distribution and the extent of availability of schools in the country could be assessed on the basis of the distance from the physical location of the school institution to the households. Sample households were asked how far the nearest is from their place. The term 'nearest' refers to a school which is closest available to the households whether they use it or not. However, it is worth mentioning that information obtained on distance in kilometers might not be the exact distance and sometimes depends on subjective

judgments of the respondents. In cases where households did not know the exact distance in kilometers, attempts was made to convert time taken to reach the school to kilometers on the bases of the assumption that an adult person could walk a distance of six kilometers per hour. The distributions of households by distance in kilometers to nearest primary and secondary schools are given in Summary Table IV.11 and Tables 4.6(a)-4.7(c).

a. Proximity to Primary Schools

Summary Table IV.11 shows that at country level about 25 percent of the households can access to primary school within a distance of less than one kilometer. Urban-rural distribution shows 22 percent of the households in rural areas and 44 percent of urban households need to walk for less than one kilometer to reach the nearest primary school. At country level, however, most of the households (74.5 percent) can access primary schools within a distance of less than 5 kilometers. In urban areas 5 kilometers is the farthest distance for almost all households (98.6 percent) unlike the rural areas where about 30 percent of the households still have to travel for 5-10 kilometers or slightly more to reach the nearest primary school.

Summary Table IV.11 - Percentage Distribution of Households by Distance in Kilometer to the Nearest School, Place of Residence and Level of School - Year 2004

Place of Residence and Level of school	Distance in Kilometer to the Nearest School					
	<i>Less than One</i>	<i>1-4</i>	<i>5-9</i>	<i>10-14</i>	<i>15-19</i>	<i>20 & over</i>
Country						
<i>Primary</i>	25.3	49.2	20.4	3.3	1.2	0.6
<i>Secondary</i>	13.3	14.0	14.2	9.5	15.2	33.8
Rural						
<i>Primary</i>	21.9	48.1	24.0	3.9	1.5	0.7
<i>Secondary</i>	11.1	5.4	15.2	11.3	17.8	39.2
Urban						
<i>Primary</i>	43.5	55.1	1.2	0.1	0.0	0.0
<i>Secondary</i>	24.7	59.5	8.7	0.4	1.7	4.9

According to this measurement, for almost all households in the country (95 percent) there is at least one primary school available within a distance of less than 10 kilometers.

Only 6 percent of rural households and 0.1 percent of urban households are 10 or more kilometers away from the nearest primary school.

Distribution among regions has also shown that primary schools are available in a distance of less than 5 kilometers for nearly all households in Addis Ababa (97.0 percent), Harari (95.1 percent) and Dire Dawa (93.3 percent) Regions. On the other hand, more than 23 percent of households in Tigray, Somali, Amhara, Beneshangul-Gumuz, Oromiya and Afar Regions have to travel for 5-10 kilometers or slightly more to the nearest primary school. About 19 percent of the households in SNNP Regions are also that much far.

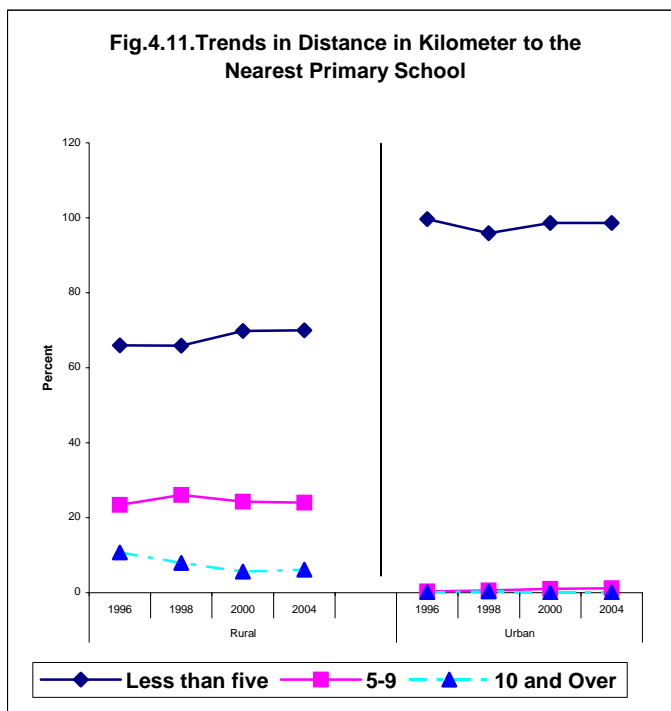
In general, for more than 92 percent of the households in all regions (except Somali and Benishangul Gumuz) primary schools are available within a distance of less than 10 kilometers. At this distance, 89 percent of the households in Benishangul Gumuz and 81 percent of households in Somali Region can have access to primary schools in less than 10 kilometers. Moreover, it is also revealed that considerable proportions of households in Somali Region (11.5 percent) are 15 or more kilometers away from primary schools.

b. *Proximity to Secondary Schools*

Access to secondary schools in terms of distance is very poor compared to primary schools. Secondary schools are available within 5 kilometers radius for only 27 percent of total households in the country. On the other hand, only 41.5 percent of the households are within 10 kilometers distance, whereas 59 percent of the households still have to travel 10 or more kilometers to reach the nearest secondary school. The condition in rural areas is rather worse. For 68 percent of the households, the closet secondary school is located at least 10 kilometers away. Only 32 percent of the rural households have secondary school within 10 kilometers distance. More than 50 percent of the rural households live 15 kilometers or more away from secondary school.

The most favored households in the rural areas comprise 16.5 percent. The members of these households, nevertheless, have to walk up to 5 kilometers to reach the nearest

secondary school. In urban areas the distribution of secondary schools is contrary to this situation. That is, in urban areas, the secondary schools are available at a distance of less than 5 kilometers for 84 percent of the households. About 93 percent of urban households are within less than 10 kilometers from school compounds. Urban dwellers that do not have access to secondary school within 10 kilometers distance constitute only 7 percent of the households (Summary Table IV.11).



The successive WM surveys (Summary Table IV.12) have generally indicated a falling proportion of households that are very far from schools and increasing proportion of households in a closer range to schools suggesting additional construction of schools. The proportions of households that are 10 or more kilometers away from primary schools are generally declining while those households within a distance of

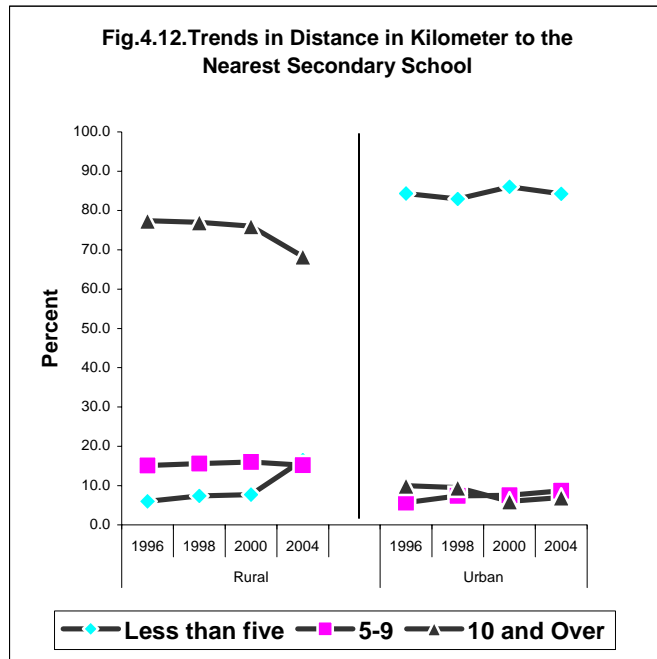
less than 1 kilometer away from schools are increasing over time in both urban and rural areas of the country.

Assessment of proximity of secondary schools in the regions shows relatively better access in Addis Ababa region. About 87 percent of the total households of this region need to walk utmost 5 kilometers to reach the nearest secondary school. Harari Region follows with 70 percent of the households having access to a secondary school within the 5km vicinity. Few households in Beneshangul-Gumuz (22.0 percent), Oromiya (22.3 percent), Amhara (23.6 percent), Afar (27.5 percent) and S.N.N.P. (28.2 percent) can have this facility within less than 5 kilometers. In most of the regions the majority of the

households are at least 10 kilometers away from the nearest secondary schools. It ranges from 53.6 percent in Tigray to 64.8 percent in Beneshangul-Gumuz Region.

Summary Table IV.12 - Proximity to School by Level of School, Place of Residence and Survey Year

<i>Level of School/ Place of Residence</i>	<i>Distance in Kilometer to the Nearest School</i>					
	<i>Less than one</i>	<i>1-4</i>	<i>5-9</i>	<i>10-14</i>	<i>15-19</i>	<i>20 and Over</i>
Country						
Primary						
1996	26.9	44.3	19.9	5.8	1.8	1.3
1998	24.7	46.0	22.5	4.1	1.9	0.9
2000	19.9	54.1	20.9	3.3	1.0	0.5
2004	25.3	49.2	20.4	3.3	1.2	0.6
Secondary						
1996	7.9	10.4	14.0	9.8	13.5	43.5
1998	5.1	13.0	14.4	11.8	13.4	42.2
2000	4.4	14.6	14.8	13.2	13.2	39.9
2004	13.3	14.0	14.2	9.5	15.2	33.8
Rural						
Primary						
1996	19.1	46.9	23.4	6.9	2.2	1.6
1998	19.2	46.7	26.1	4.7	2.2	1.0
2000	15.1	54.7	24.3	3.8	1.2	0.6
2004	21.9	48.1	24.0	3.9	1.5	0.7
Secondary						
1996	1.0	5.0	15.1	11.4	15.4	50.6
1998	1.1	6.3	15.6	13.8	15.4	47.8
2000	0.9	6.8	16.0	15.5	15.2	45.3
2004	11.1	5.4	15.2	11.3	17.8	39.2
Urban						
Primary						
1996	70.43	29.2	0.3	0.0	0.0	0.1
1998	54.4	41.5	0.6	0.0	0.0	0.3
2000	48.1	50.5	1.0	0.0	0.0	-
2004	43.5	55.1	1.2	0.1	0.0	0.0
Secondary						
1996	43.7	40.6	5.7	0.9	3.2	5.9
1998	29.4	53.5	7.4	0.2	1.1	8.2
2000	24.9	61.1	7.6	0.1	1.4	4.5
2004	24.7	59.5	8.7	0.4	1.7	4.9



On the other hand, in Addis Ababa (1.4 percent), Harari (8.5 percent) and Dire Dawa (26.1 percent) Regions have the proportion of households farther than 9 Km from the nearest secondary school are relatively low. The findings, however, have shown that a significant proportion of households of Amhara (57.4 percent), Beneshangul-Gumuz (56.8 percent), Oromiya (52.9 percent), Somali (49.5 percent) and

Afar (48.7 percent) Regions are 15 or more kilometers away from the closest secondary schools.

The successive WM surveys (Summary Table IV.12) have generally indicated a falling proportion of households that are very far from schools and increasing proportion of households in a closer range to schools suggesting increasing number of schools. The proportions of households that are 10 or more kilometers away from primary schools are generally declining while those households within a distance of 1 kilometer away from schools are increasing over time in rural areas and decreasing in urban areas of the country.

CHAPTER V

HEALTH AND RELATED INDICATORS

5.1 Introduction

A healthy population is vital for economic growth and development. Building healthy society would not only be crucial for individuals' health status but also is critical element of development plan. Health indicators are one of the important inputs to national policies and strategies particularly in formulating health sector development programs. Monitoring the impact of policies on the final beneficiaries (the households and individuals) over time and space dimensions could only be realized if we have good comprehensive data.. Health data helps to monitor and evaluate disease control programs and other health service development interventions through continuously available information system that enables asses to what level the required amounts of qualitative and quantitative changes in health services are delivered to the ultimate beneficiaries. Health data also plays a vital role in measuring progress towards monitoring the country's Sustainable Development and Poverty Reduction Program (SDPRP) and the Millennium Development Goals (MDGs). Essential data on access to services, trends in health service coverage, identification of vulnerable groups, etc. is of paramount importance to policy makers.

Welfare Monitoring Survey by its very design, focuses on health service utilization rather than health status of individuals. In the 2004 Welfare and Monitoring survey various indicators that can be used to visualize the extent and distribution of health services in the country are computed on the basis of information collected from the households and/or individuals. Data are collected on health and related issues from which indicators such as illness episodes, incidence of health consultation, types of health institutions visited, access to health services, etc. are computed. The key findings of the survey related to health are presented in the subsequent sections of this chapter.

5.2 Prevalence of Illness (Illness Episode)

The prevalence of illness in this survey is based on a two months reference period unlike the general two weeks time in most health surveys, and refers to an episode of any health problem (self reported) that members of the households came across during the two months period prior to the date of interview. Of the total population covered in the survey, 23.8 percent (15.4 million persons) reported that they had health problems at least once over the two months period prior to the date of interview. This incidence, as expected, is higher among rural population than urban.

Summary Table V.1- Distribution of Population who had Health Problems During the *Two Months Period Prior to the Date of Interview by place of residence and Background*

Variables – Year 2004

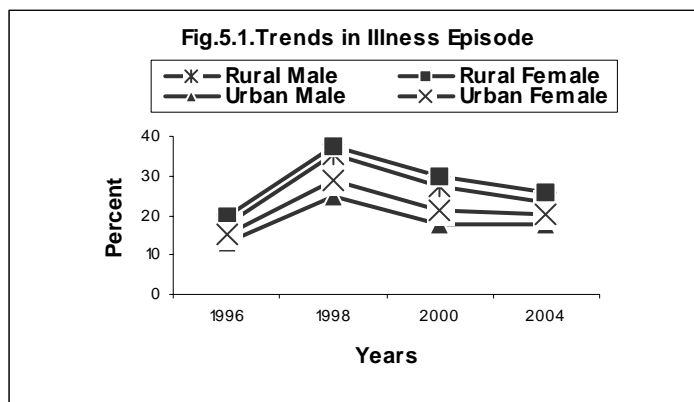
Background Variables	Population Who had Health Problems					
	Country		Rural		Urban	
	No.	%	No.	%	No.	%
Gender						
Male	7,137,187	22.4	6,396,127	23.1	741,060	17.7
Female	8,260,270	25.1	7,265,523	26.0	994,748	20.3
Total	15,397,457	23.8	13,661,650	24.6	1,735,808	19.1
Age Group						
0-4	3,757,407	34.7	3,408,361	34.7	349,045	35.4
5-9	1,427,780	13.3	1,276,805	13.3	150,974	13.64
10-14	1,087,078	12.4	970,680	12.9	116,398	9.8
15-19	1,131,629	15.6	977,827	16.5	153,802	11.7
20-24	1,027,302	20.3	883,289	21.8	144,014	14.4
25-29	1,207,213	25.0	1,058,305	26.7	148,907	17.1
30-34	905,661	26.1	791,286	27.3	114,375	20.1
35-39	904,698	28.0	797,451	29.5	107,248	20.4
40-44	765,537	32.3	679,571	33.8	85,966	24.0
45-49	668,470	32.3	594,309	33.6	74,162	24.4
50-54	630,592	37.9	564,367	39.8	66,225	27.1
55-59	445,507	38.1	396,871	39.8	48,636	28.4
60 -64	500,332	42.0	445,601	43.0	54,731	35.4
65 and over	938,160	44.5	816,927	45.1	121,234	40.8

Around 25 percent of the rural population had reported illness during the reference period compared to 19.1 percent of urban residents. The results of the survey also, revealed slight evidence on gender disparity with respect to the incidence of illness. At country, rural and urban level, less proportion of the male population compared to the female are reported to have health problem during the reference period (Summary Table V.1 and Tables 5.1(a)-5.1(c)). According to the survey findings, the prevalence of illness is higher among young children and individuals aged 50 years and over. About 35 percent of children under the age of 5 years and more than 40 percent of individuals aged 65 years and above were reported to have health problems during the reference period. Relatively lower prevalence is observed among youngsters (5 to 20 years old), the lowest rate being reported for children aged 10 to 14. It is also evidenced that prevalence of illness generally increases with age except for the under five children.

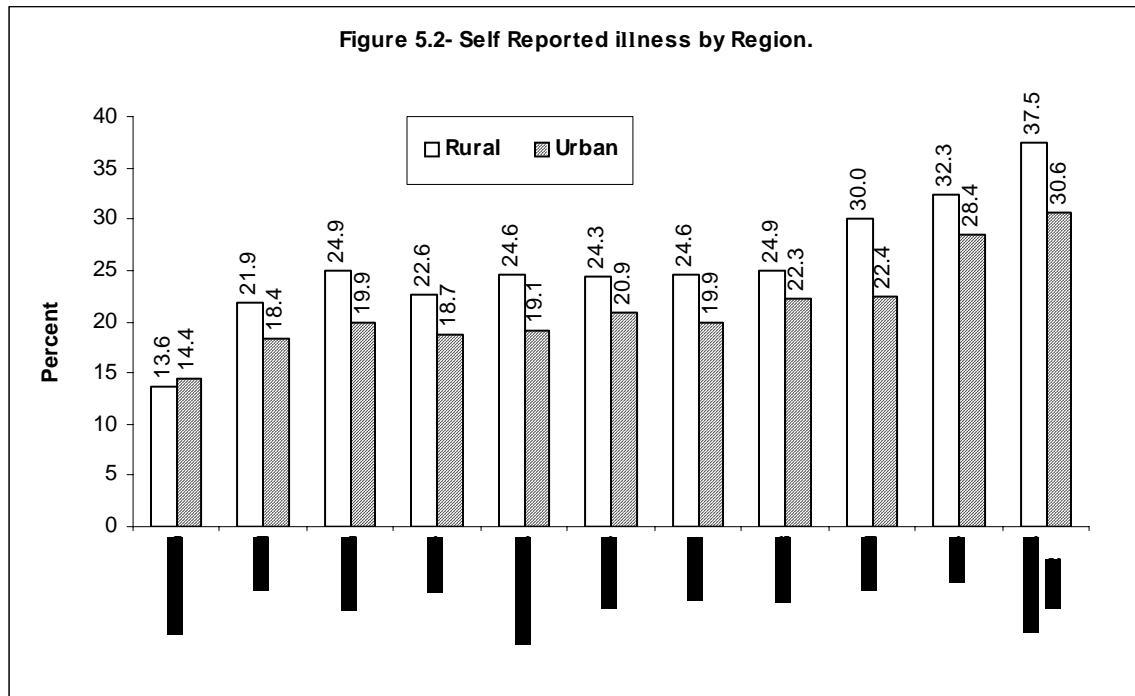
Summary Table V.2- Illness Episode Over the Four Survey Years

Survey year	Country			Rural			Urban		
	Male	Female	Both	Male	Female	Both	Male	Female	Both
1996	17.3	18.9	18.1	17.9	19.7	18.8	13.4	15.0	14.3
1998	33.8	36.3	35.1	35.2	37.6	36.4	24.8	29.0	27.1
2000	25.9	28.4	27.2	27.2	29.7	28.4	17.5	21.2	19.5
2004	22.4	25.1	23.8	23.1	26.0	24.6	17.7	20.3	19.1

Illness episode generally has shown a declining trend over the last four survey years regardless of the place of residence and gender of an individual (Summary Table V.2& Fig 5.1). According to the successive surveys, it can be observed that the burden of illness was in 1996 and high in 1998 followed by substantial declining trend since 1998 irrespective of gender and place of residence.



Regional distribution of population who had health problems during the two months prior to the date of interview is shown in Figure 5.2 and Table 5.1 (a)-(c). The Prevalence of illness ranges from the lowest 14.4 percent in Addis Ababa Administration to the highest 36.7 percent in Beneshangul-Gumuz Region (Table 5.(a)). The other regions have a prevalence rate that ranges from 20.8 percent to 30.9 percent (see Table 5.1(a)-(c)). Besides, the proportion of population with health problems in the rural areas of all the regions is higher than that of urban areas with exception of Addis Ababa where urban prevalence is slightly higher than rural.



5.3. Prevalence of major diseases

This section presents the prevalence of major and easily recognizable diseases and injury that the sampled population under study reported. All members were asked whether they had been ill of specified diseases or injured over the 12 months prior to the date of interview. It has to be noted, however, that as the data is based on self-reported information there may be some elements of bias/ misreporting. The prevalence of self-reported health problems by gender and place of residence at country and regional level is presented in Summary Table V.3 and Table 5.2(a)-(c).

Summary Table V.3: Distribution of Households with Self Reported Health Problems by Type of Diseases, Gender, Place of Residence and Region

Place of Residence/ and Gender	Type of Diseases								
	Malaria	Diarrhea	Dental	Eye	Skin	ENT	Tuberculosis	Injury	Others
Country									
Male	25.2	15.0	1.5	4.8	2.5	3.1	2.0	2.2	43.7
Female.	22.5	12.3	2.7	6.4	2.1	3.3	2.0	1.1	47.6
Total	23.7	13.5	2.2	5.6	2.2	3.2	2.0	1.6	45.8
Rural									
Male	25.4	15.3	1.5	4.7	2.5	2.9	2.0	2.1	43.4
Female.	22.8	12.8	2.7	6.4	2.1	3.1	2.0	1.1	47.0
Total	24.0	14.0	2.1	5.6	2.3	3.0	2.0	1.6	45.3
Urban									
Male	22.7	12.6	2.0	5.2	2.2	4.5	1.8	2.9	45.9
Female.	20.3	8.6	2.9	6.5	1.5	4.5	2.1	1.4	52.0
Total	21.3	10.3	2.5	5.9	1.8	4.5	2.0	2.1	49.4
Regions									
Tigray	20.3	12.7	2.3	6.1	3.6	3.6	4.7	1.7	44.9
Afar	52.9	8.1	1.8	2.7	1.3	1.8	3.2	0.9	26.7
Amhara	29.4	11.5	2.0	8.4	1.3	3.1	1.5	1.6	41.2
Oromia	20.4	15.4	2.0	4.6	2.3	3.3	1.9	1.7	48.2
Somale	15.6	15.6	2.0	3.2	3.9	2.5	1.1	3.6	52.4
Ben -Gumuz	48.7	12.8	2.0	2.9	1.2	2.0	1.1	1.2	27.9
S.N.N.P.R	24.4	13.4	2.4	4.5	2.9	2.7	2.1	1.5	46.1
Harari	9.8	14.6	1.6	4.6	1.4	3.4	1.4	1.6	61.3
Addis Ababa	1.5	10.2	4.2	6.7	2.3	7.5	2.6	2.1	62.9
Dire Dawa	11.3	11.1	1.3	2.6	2.6	5.0	1.8	3.6	60.3

As shown in the table at country level, the most prevalent illness or disease is found to be malaria, followed by diarrhea. The category "others" constitutes all other diseases which could not be easily identified and has the largest proportion.

Gender differential is not pronounced in the prevalence of the specified diseases. At country level overall comparison of the prevalence rates by gender has shown a slight upper bias among males for malaria, diarrhea, skin diseases and injury. Dental, Eye, ENT diseases are more prevalent among females than males. Prevalence of Tuberculosis seems uniform among both males and females.

The survey data also showed among the specified type of diseases malaria, diarrhea and skin disease to be more prevalent in rural areas than urban areas (See Summary Table V.3. and Table 5.2(a)-(c)). Observation of prevalence rates for specific diseases among regions also showed malaria and diarrhea to be most prevalent in both urban and rural areas, with rural population being more affected than the urban. The results also show that the highest prevalence of malaria is indicated in Afar (53 percent) followed by Beneshangul Gumuz (49 percent). It is, nevertheless, worthwhile to note that as the irruption of malaria is very seasonal, this findings might vary over the 12 months of the year. (see Table 5.2. (a)-(c) and Summary Table V.3).

5.4. Incidence of Health Consultation

Respondents identified as having health problems during the reference period were also asked whether they consulted for treatment or not. Individuals who have reported to come across health problems are expected to consult for medical assistance either from modern health institutions such as hospitals, clinics, health centers, etc., or from traditional healers. The survey result showed that at country level only 47.9 percent (7.4 million persons) of the population who had health problem had consulted for treatment. More than half of the population who reported to have health problem (most of whom are rural residents) did not consult for treatment. Only 44.7 percent of rural population who reported health problem consulted for medical assistance compared to 73.4 percent of the population in urban areas (*Summary Table V.4&V.5*).

The observed higher consultation rates in urban areas compared to rural areas could be an indication of the limited access to health services in rural areas.

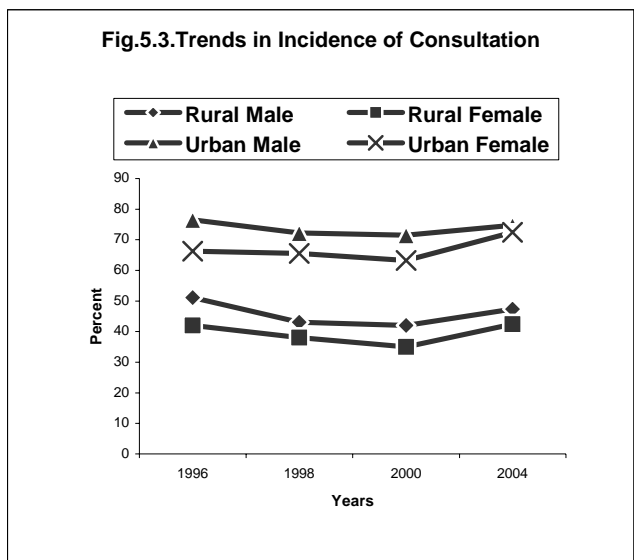
Summary Table V.4 Distribution of Individuals with Self Reported Illness that Consulted for Treatment by Background Variables – Year 2004

Background Variables	Individuals who consulted for treatment					
	Country		Rural		Urban	
	No.	%	No.	%	No.	%
Gender						
Male	3,579,092	50.2	3,025,328	47.3	553,767	74.7
Female	3,799,235	46.0	3,079,442	42.4	719,794	72.4
Total	7,378,327	47.9	6,104,770	44.7	1,273,561	73.4
Age group						
0 - 4	1,578,236	42.0	1,344,049	39.4	234,189	67.1
5 - 9	659,950	46.2	539,744	42.3	120,207	79.6
10-14	501,447	46.1	410,250	42.3	91,195	78.4
15-19	614,781	54.3	498,944	51.0	115,837	75.3
20-24	584,793	56.9	469,837	53.2	114,957	79.8
25-29	695,795	57.6	577,669	54.6	118,125	79.3
30-34	489,986	54.1	404,025	51.1	85,961	75.2
35-39	479,739	53.0	397,317	49.8	82,422	76.9
40-44	390,389	51.0	325,833	47.9	64,556	75.1
45-49	321,793	48.1	267,852	45.1	53,942	72.7
50-54	286,050	45.4	237,227	42.0	48,824	73.7
55-59	207,429	46.6	173,710	43.8	33,719	69.3
60 -64	221,641	44.3	185,613	41.7	36,029	65.8
65 and over	346,207	36.9	272,700	33.4	73,507	60.6

The incidence of consultation varies among male and female individuals with higher proportion of health consultations is observed among the males than the females. At country level, of the total males that reported illness, 50.2 percent received health

assistance while this proportion is 46.0 percent among the females. This difference is consistently observed in urban and rural areas (Summary Table V.4 and V.5 and Figure 5.3).

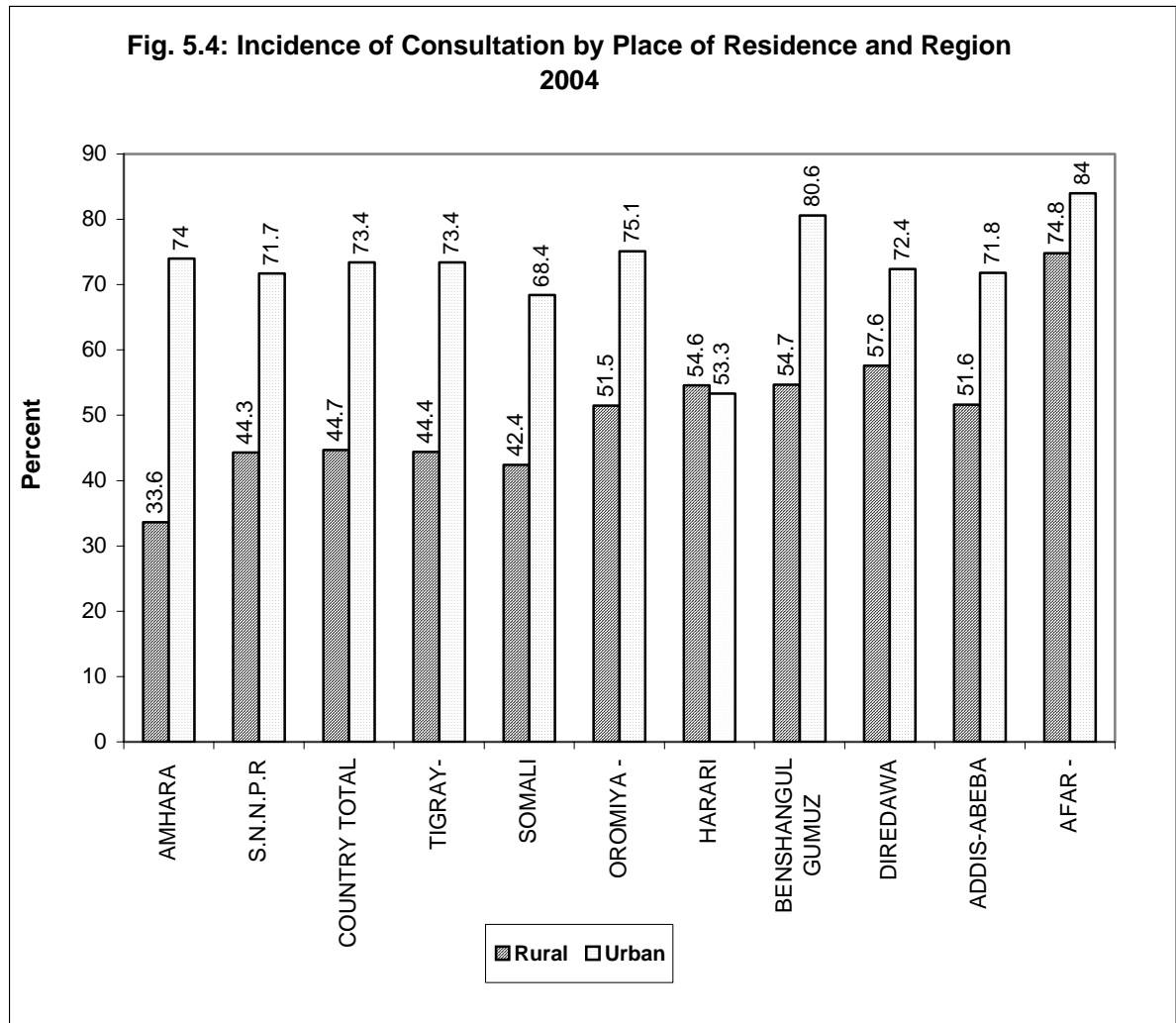
The incidence of consultation generally have shown a consistent declining trend from 1996 to 2000 and rising trend towards 2004 regardless of the place of residence and gender of an individual. The surveys have also portrayed incidence of consultation to be higher among urban dwellers than rural residents. Moreover, all the four surveys evidently indicate that male individuals have higher consultation rates than female in both urban and rural areas of the country (Summary Table V.5 and Figure 5.3).



Summary Table V.5 - Incidence of Consultation Over the Four Survey Years

Survey year	Country			Rural			Urban		
	Male	Female	Both	Male	Female	Both	Male	Female	Both
1996	53.7	45.0	49.1	51.1	42.0	46.4	76.5	66.3	70.7
1998	45.8	41.2	43.4	43.1	38.0	40.5	72.2	65.5	68.3
2000	44.5	38.1	41.1	42.0	35.0	38.3	71.5	63.2	66.6
2004	50.2	46.0	47.9	47.3	42.4	44.7	74.7	72.4	73.4

Regional distribution of incidence of consultation during the two months prior to the date of interview ranges from the lowest 36.8 percent in Amhara Region to the highest 77.8 percent in Afar Region. The other regions have an incidence rate that ranges from 46.3 percent to 71.6 percent (See Table 5.3(a)).



5.5. Types of Problems observed in Health Institutions Visited

Individuals who had health problems during the two months prior to the date of interview and consulted for health assistance were further asked to indicate the type of problem they observed at the health institutions visited. The different types of health institutions visited include government owned hospitals/clinics/health posts, private institutions, and mission/NGO owned health institutions, pharmacies, individual health personnel and traditional healers.

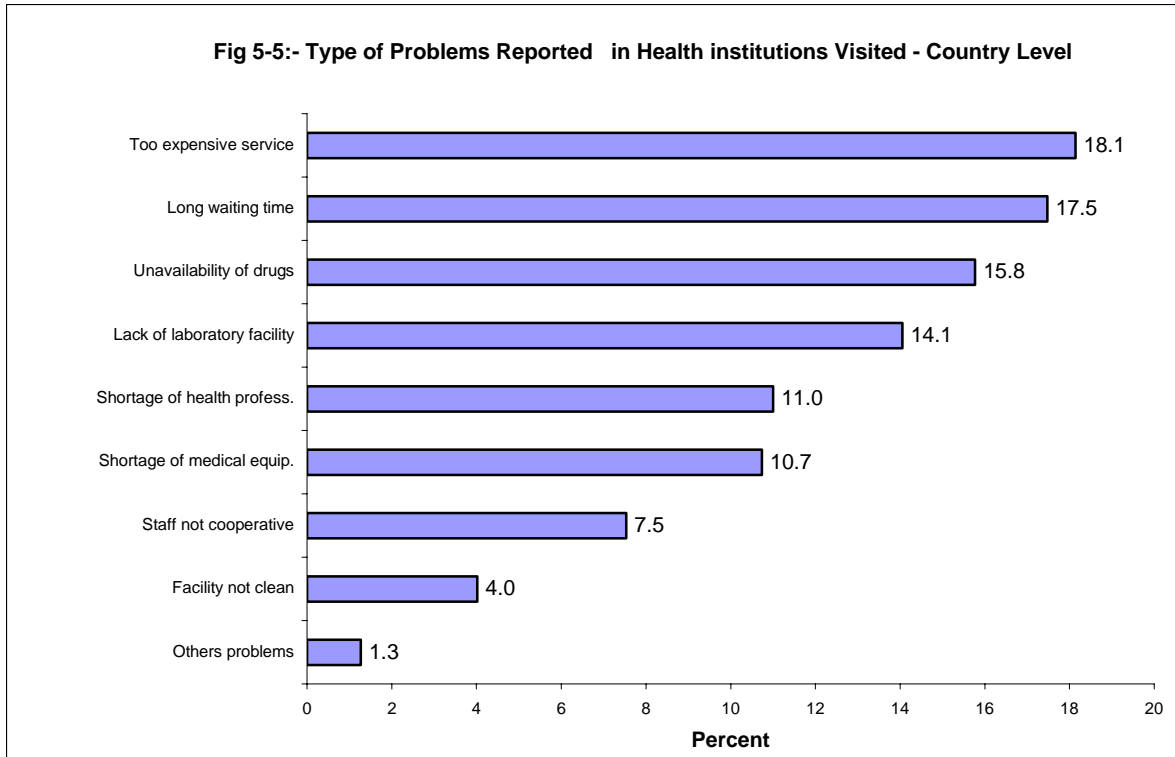
The survey result indicates that close to one-fifth of the total population (18.1 percent) who had health problem and consulted for medical assistance reported that the service is too expensive to consult. Problem of long waiting time is reported by 17.5 percent of the

consulted population followed by about 15.8 percent that reported unavailability of drugs, and 14.1 percent who reported lack of laboratory facilities in the health institutions visited. (Summary Table V.6 & Figure 5.5). Among the total survey population, about 21.7 percent reported shortage of health personnel and medical equipment. A considerable proportion of about 7.5 percent have also come across health institutions with staff not cooperative.

Summary Table V.6 - Percentage Distribution of Population by Type of Problems Reported in the Health Institutions Visited and Background Variables – Year 2004

Background Variables	<i>Individuals By type of problems observed in visited Health Institution.</i>					
	<i>Country</i>		<i>Rural</i>		<i>Urban</i>	
	No.	%	No.	%	No.	%
<i>Population who reported problems</i>						
Male	1,445,509	40.4	1,208,573	39.9	236,936	42.8
Female	1,568,855	41.3	1,245,077	40.4	323,777	45.0
Total	3,014,364	40.9	2,453,650	40.2	560,713	44.0
<i>Type of problems observed</i>						
<i>Facility not clean</i>	303,049	4.0	226,859	3.7	76,190	5.6
<i>Long waiting time</i>	1,316,753	17.5	1,025,882	16.6	290,871	21.5
<i>Shortage of health professional</i>	828,690	11.0	673,391	10.9	155,300	11.5
<i>Too expensive service</i>	1,366,628	18.1	1,158,063	18.7	208,565	15.4
<i>Unavailability of drugs</i>	1,188,134	15.8	930,109	15.1	258,024	19.1
<i>Lack of laboratory facility</i>	1,057,962	14.1	960,391	15.5	97,571	7.2
<i>Shortage of medical equip.</i>	808,874	10.7	689,124	11.2	119,749	8.9
<i>Staff not Cooperative</i>	566,947	7.5	440,443	7.1	126,504	9.4
<i>Other Problems</i>	95,594	1.3	75,307	1.2	20,288	1.5

The survey findings also exhibited "too expensive service", "lack of laboratory facilities" and "shortage of medical equipment" as major problems more in the rural areas than in urban areas. On the other hand, long waiting time and unavailability of drugs are reported problems more relevant among urban health institutions than rural (Summary Table V.6 & Table 5.4(a)-(c)).



Summary Table V.7.shows the extent of reported problems of health institution visited by Region. Most critical problem in each region are well cited. "Long waiting time" in Addis Ababa (24.3 percent), Amhara (22.7 percent), Harari (22.7 percent) and DireDawa (19.8 percent). "Too expensive service" is reported as the most critical problem in Somalia (27.7 percent), Oromia (20.0 percent), Benshangul-Gumuz (18.8 percent) and Harari (18.1 percent). "Unavailability of drugs" is the most serious problem reported in Tigray (22.9 percent), Afar (19.7 percent) and Somali (18.7 percent) Regions.

**Summary Table V.7. Percentage Distribution of Population by Type of Problems
Reported in the Health Institutions Visited- Country Total – Year 2004**

Type of problems Reported	Country level	Tigray	Afar	Amhara	Oromia	Somale	Benshangul-Gumuz	(S.N.N.P.R)	Harari	Addis Ababa	DireDawa
<i>Facility not clean</i>	4.0	4.1	8.0	3.0	3.9	5.2	2.9	4.7	6.4	5.0	10.7
<i>Long waiting time</i>	17.5	14.9	14.7	22.7	15.7	10.5	14.0	17.7	22.7	24.3	19.8
<i>Shortage of medical personnel.</i>	11.0	10.7	14.4	12.1	10.2	11.4	12.5	11.5	8.6	11.8	12.0
<i>Too expensive service</i>	18.1	12.1	15.5	15.3	20.0	27.7	18.8	17.7	18.1	12.3	10.6
<i>Unavailability of drugs</i>	15.8	22.9	19.7	16.7	15.9	18.7	17.9	13.1	16.8	16.3	14.8
<i>Lack of laboratory facility</i>	14.1	12.6	12.1	11.2	15.2	7.8	16.7	15.0	7.1	7.4	6.7
<i>Shortage of medical equip.</i>	10.7	12.2	9.1	9.0	11.1	10.6	11.6	11.4	5.2	8.5	9.9
<i>Staff not cooperative</i>	7.5	9.0	6.0	8.6	6.7	6.8	5.0	8.0	12.6	12.6	12.1
<i>Others problems</i>	1.3	1.6	0.6	1.5	1.3	1.3	0.6	1.0	2.4	1.9	3.5

5.6. Prenatal Care (PNC)

Maternal health care includes the care a mother receives during pregnancy, during delivery and in the postnatal period. Regular prenatal care (PNC) mitigates, those complications of pregnancy and delivery that may jeopardize mothers' and the infants' chances of survival. Thus, adequate care before, during and after child birth is crucial in reducing the risks of infant mortality and maternal mortality and hence for promoting Maternal and infant health and development.

Prenatal care service is relatively at lower level in many developing countries. Possibly because of lack of awareness of the importance of PNC, cultural barriers, inaccessibility of the service, etc. In the 2004 Welfare and Monitoring Survey questions pertaining to maternal health care particularly to prenatal care were forwarded to women who were pregnant during the 12 months prior to the date of interview.

Summary Table V.8 presents distribution of women that received prenatal care by age and place of residence. The data revealed that out of the total pregnant women aged 15 years and above, 37.3 had received prenatal care during the period under review. Significant difference between rural and urban areas is also revealed. In urban areas more than 7 out of 10 women (71.9 percent) reported to have received prenatal care, while the finding in rural areas indicates only three out ten women (34 percent). In other words, the findings suggested that 66 percent of women in rural areas have not received prenatal care compared to 28 percent in urban areas.

Summary Table V.8. Distribution of Women Aged 15 Years and Above that Received Prenatal Care During the 12 Months Prior to the Survey Date by Age- Country Level-2004

Back Ground Variables	Country		Rural		Urban	
	No	%	No	%	No	%
Age Group						
15-19	157,874	39.5	132,636	36.6	25,237	66.6
20-24	324,536	38.5	261,247	34.2	63,289	79.3
25-29	349,763	38.7	290,478	35.2	59,285	73.6
30-34	195,298	34.8	164,759	31.8	30,538	69.9
35-39	128,121	34.5	113,809	33.0	14,312	54.8
40-44	37,610	35.3	32,617	32.6	4,992	74.4
45-49	7,864	24.0	7,717	23.8	147	48.8
Total	1,202,792	37.3	1,004,989	34.0	197,800	71.9

Regional differences in the reported prenatal care services are also quite significant (see Summary Table V.9). About 84 percent of women in Addis Ababa (the largest proportion) received prenatal care compared with the least proportions in Somali (19 percent). The percentage of women who did not receive any prenatal care is highest in Somali (81.3 percent) followed by Amhara (68.8 percent), Benshangul gumuz (67.9 percent) and Oromia regions (63.5 percent).

Summary Table V.9. Prenatal Care Among Women Aged 15 Years and Above During the Past 12 Months Prior to the Survey Date-Country Level-2004

Region Age Group	Country level	Tigray	Afar	Amhara	Oromia	Somale	Benshangul-Gumuz	(S.N.N.P.R)	Harari	Addis Ababa	Dire Dawa
15-19	39.5	48.8	64.1	33.1	42.5	10.2	36.8	38.1	52.4	62.1	45.6
20-24	38.5	56.1	36.0	33.8	37.5	22.0	27.4	39.0	46.5	89.8	65.2
25-29	38.7	53.9	40.9	26.0	38.3	18.5	32.4	42.8	53.4	85.8	37.2
30-34	34.8	43.7	31.7	31.9	32.6	21.1	42.7	35.4	54.8	87.2	32.8
35-39	34.5	42.1	37.4	31.0	33.5	15.8	24.4	36.4	30.8	79.3	59.6
40-44	35.3	51.7	20.4	38.9	23.1	17.1	45.5	43.3	-	59.4	75.8
45-49	24.0	-	-	29.0	16.4	-	-	32.2	-	47.5	-
Total	37.3	50.0	40.1	31.2	36.5	18.7	32.1	39.0	48.3	83.5	47.9

5.7 Access to Health Services

Access to health service in this survey refers to proximity to health institutions, which is assessed on the basis of the distance to the nearest health institution as reported by the households. Availability of health institution at a reasonable distance from households indicates a fair distribution of health service rendering institutions in the communities. In the absence of modern health facilities within a reasonable distance the remaining option would be either to consult traditional healers or abandon health consultations.

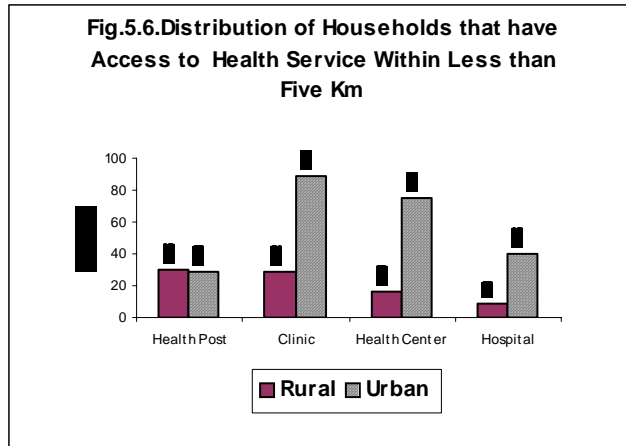
Summary Table V.10 - Percentage Distribution of Households by Distance in Kilometers to the Nearest Health Service and Place of Residence-2004

Type of Health Institution	Distance in Kilometer to the Nearest Health Service							Households using the Health Service
	<i>Less than 1</i>	<i>1-4</i>	<i>5-9</i>	<i>10-14</i>	<i>15-19</i>	<i>20+</i>	<i>Not Stated</i>	
Country								
Health Post	13.8	15.6	21.1	10.9	11.2	18.6	8.7	4,474,620
Clinic	17.7	20.0	24.0	12.7	12.1	13.3	0.3	8,917,822
Health Center	13.4	12.3	15.3	9.5	15.5	33.3	0.7	7,948,826
Hospital	8.1	5.4	5.1	3.8	6.0	71.1	0.6	5,374,694
Rural								
Health Post	11.3	5.2	15.9	11.0	17.7	38.3	0.7	6,389,012
Clinic	13.7	14.5	27.4	14.7	14.0	15.5	0.2	7,501,621
Health Center	13.9	15.5	21.4	10.9	11.6	19.7	6.7	4,280,885
Hospital	7.7	0.7	3.5	3.8	6.5	77.2	0.7	4,001,392
Urban								
Health Post	24.4	50.4	11.6	1.9	4.0	7.1	0.6	1,559,815
Clinic	39.4	49.2	6.1	1.6	1.8	1.4	0.5	1,416,200
Health Center	13.0	16.2	19.4	11.0	9.2	12.5	18.8	193,737
Hospital	10.2	30.3	14.0	4.0	3.3	38.1	0.2	1,373,301

The percentage distribution of households by distance in kilometers to the nearest health service classified by place of residence is presented in the Summary Table V.10. At country level, 29.4 percent, 37.7 Percent, 25.7 percent and 13.5 percent of the households are within a distance of less than five kilometers from the nearest Health post, Clinic, Health Center and Hospital in that order. Among the total households 50.5 percent, 61.7

percent, 41.0 percent, and 18.6 are within a distance of less than 10 kilometers from the respective nearest health service rendering institution.

Urban-rural disparity in the distribution of health facilities is significant. In urban areas health service providers i.e. Health Posts, Clinics, Health Centers and Hospitals are available within a distance of less than 5 kilometers for about 74.8 percent, 88.6 percent, 29.2 percent, and 40.5 percent of the households, respectively (Fig. 5.6), while the corresponding rural households with that opportunity are 16.5 percent, 28.2 percent, 29.4 percent, and 8.4 percent in that order. Nevertheless,



the majority of rural households (77 percent) are 20 or more kilometers away from hospital compared to 38 percent of urban dwellers. Further assessment reveals that almost all of the urban households (95 Percent) could get Clinic in a distance of less than 10 kilometers compared to only 56 percent of rural households. The survey findings have also shown that about half of (21.1 percent) rural households need to travel at least 10 kilometers to reach the nearest Health Post. In extreme cases, more than 38 percent, 15 percent, 19 percent, and 77 percent, of rural households are residing 20 or more kilometers away from the nearest Health Post, Clinic, Health Center and Hospital, respectively.

Regional comparison in accessibility of hospitals reveals that in Harari (72.9 percent), Addis Ababa (60.4 percent) and Dire Dawa Regions (58.4 percent) most of the households can access health institution in a distance of less than five kilometers. In the remaining regions, the proportion of households that have access within five kilometers radius is less than 21 percent. Health post is more commonly available in the regions. The highest proportion of households in Harari (81.9 percent) and Dire Dawa (74.4 percent) regions could access Health Post within a radius of less than five kilometer. In other regions the proportion of households who could access this health institutions in

five kilometers radius ranges from 42.6 percent in S.N.N.P. Region to 5.1 percent in Somali Region (see Tables 5.6 (a)-(c)).

Summary Table V.11 –Percentage Distribution of Households by Distance in Kilometer to the Nearest Health Service, Place of residence and survey year

Place of Residence and Survey Year	<i>Distance in Kilometer to the Nearest Health Service</i>						
	<i>Health Institution</i>	<i>0-4</i>	<i>5-9</i>	<i>10-14</i>	<i>15-19</i>	<i>20+</i>	<i>Not Stated</i>
Country							
1996	Any	36.2	30.3	13.5	10.5	9.0	-
1998	Health Institution	37.5	29.3	15.3	10.7	7.1	0.1
2000		40.1	31.0	15.0	8.5	5.3	0.1
2004	Health Post	29.4	21.1	10.9	11.2	18.6	8.7
	Clinic	37.7	24.0	12.7	12.1	13.3	0.3
	Health Center	25.7	15.3	9.5	15.5	33.3	0.7
	Hospital	13.5	5.1	3.8	6.0	71.1	0.6
Rural							
1996	Any	25.7	34.7	15.9	12.4	11.1	-
1998	Health Institution	27.5	33.9	17.8	12.4	8.3	0.1
2000		31.0	35.3	17.6	10.0	6.1	0.1
2004	Health Post	16.5	15.9	11.0	17.7	38.3	0.7
	Clinic	28.2	27.4	14.7	14.0	15.5	0.2
	Health Center	28.4	21.4	10.9	11.6	19.7	6.9
	Hospital	8.4	3.5	3.8	6.5	77.2	0.7
Urban							
1996	Any	95.0	4.8	-	0.1	0.1	
1998	Health Institution	98.1	1.6	0.1	-	0.1	0.1
2000		94.2	5.2	0.1	-	0.2	0.3
2004	Health Post	74.8	11.6	1.9	4.0	7.1	0.6
	Clinic	88.6	6.1	1.6	1.8	1.4	0.5
	Health Center	29.2	19.4	11.0	9.2	12.5	18.8
	Hospital	40.5	14.0	4.0	3.3	38.1	0.2

Summary Table V.11 indicates that the four WMS conducted so far have implied a high differential in the access (distance) to the nearest health service among urban and rural residents in favor of those residing in urban areas of the country. Nevertheless, the proportion of rural households that are living within five kilometers radius from health service have decreased from 25.7 percent in 1996 to 20.6 percent in year 2004, while the proportion of households that live over 10 Kilometers away from health institutions also in general are tending to increase in the 2004 as compared to the past three survey years. Generally, the survey results have shown that there is a significant proportion of rural households that need to travel a long distance to get health services.

5.8 Status of Utilization of the Nearest Health Service Institutions

Accessibility in terms of distance to health service rendering institutions does not mean that all households utilize these services. Consequently, all households, (having or not having health problem) during the reference period were asked whether or not they use the nearest health service rendering institutions. In addition, households that had reported not to use the nearest health service were further asked to state their reasons for not using the nearest available health services. Factors like proximity, poor quality services, affordability, etc. are included in the survey questionnaire to help the assessment of the extent of utilization of the nearest available health services. Reasons related to lack of trained/professional health personnel and lack of demand for a particular facility in addition are also included in the year 2004 survey. The reason "Have no need of it" refers to households who believe that they do not need the nearest facility and includes households that have never gone to health institutions or never been sick.

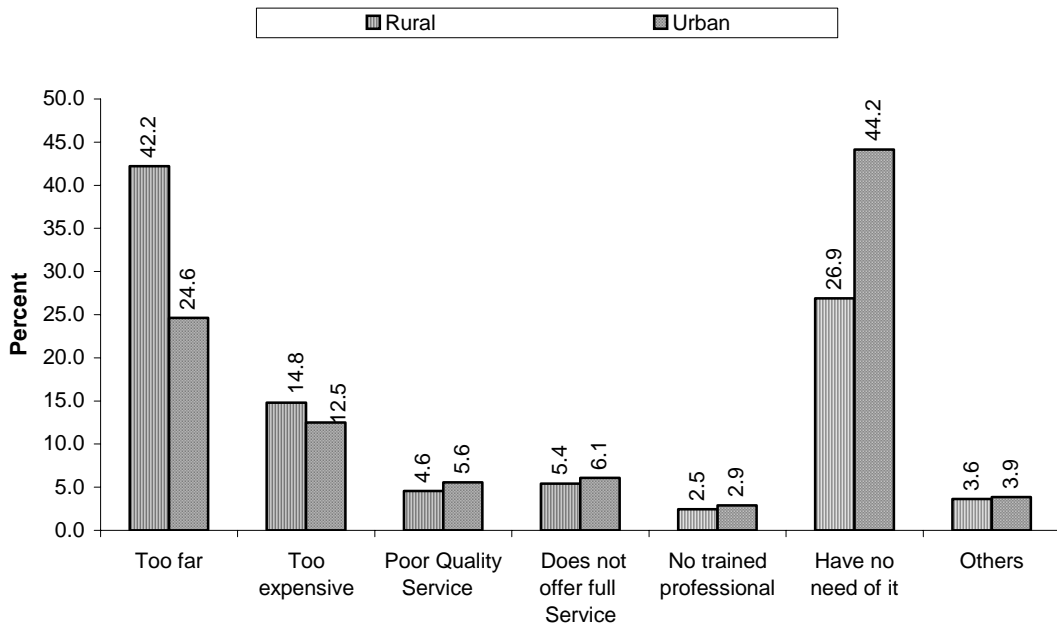
According to survey finding presented in Summary Table V.12 and Tables 5.7(a)-(c) on average about 49 percent of the households reported that they have not used any one of the nearest health services at all due to one or more reasons. Looking at the reasons, on average, nearly two-fifth of the households (39.9 percent) have reported that they were unable to use the service because of its far distance. This is followed by 29.2 percent of the households who reported that they "have no need of the nearest health institutions and 14.5 percent of the households who reported that the service charges are " too expensive".

Summary Table V.12 - Percentage Distribution of Households by Reason for Not Using the Nearest Health Service Institutions by Type and Place of Residence - Year 2004

Background Variables	Too far	Too expensive	Poor Quality Service	Does not offer full Service	Lack of staff/Equipment	Have no need of it	Others	Never use at all	Percent Using the nearest Health service
Country									
Health Post	33.1	8.4	7.0	8.7	4.2	33.9	4.4	62.6	37.2
Clinic	27.4	25.6	5.2	6.3	2.9	28.7	3.7	33.5	66.5
Health Center	44.4	12.5	4.5	5.1	2.0	27.8	3.7	40.4	59.6
Hospital	54.6	11.5	1.9	1.8	0.8	26.5	2.8	59.7	40.3
Rural									
Health Post	33.4	9.5	7.6	9.4	4.5	30.8	4.6	58.9	41.0
Clinic	30.8	24.7	5.1	6.3	2.9	26.5	3.7	33.6	66.4
Health Center	47.7	13.4	4.0	4.5	1.7	25.3	3.5	43.2	56.8
Hospital	56.9	11.6	1.6	1.5	0.7	24.9	2.7	64.3	35.7
Urban									
Health Post	31.1	2.3	3.9	4.6	2.2	51.8	3.4	86.6	12.1
Clinic	9.3	30.9	5.8	6.5	3.3	40.6	3.5	32.8	67.2
Health Center	20.3	6.3	8.2	9.1	4.3	46.4	5.1	25.3	74.6
Hospital	37.8	10.5	4.3	4.2	1.8	37.8	3.4	35.2	64.8

The findings also indicate that the reason for not using the nearest health service for more rural households (42.2 percent) than urban (24.6 percent), is the long distance rural households need to travel to access the health institutions (Summary Table V.12).

Fig 5.7:- Distribution of Households by Reason for Not Using the Nearest Health Service Institution



CHAPTER VI

NUTRITIONAL STATUS AND CHILD CARE

6.1 Introduction

Malnutrition is a malicious problem of children of developing countries. Studies show that millions of lives are ruined by malnutrition every year. It destroys physical and mental capability of children by inhibiting normal body growth starting with the formation of life and continuing over the entire life span of an individual. High vulnerability to diseases, lower cognitive ability and lack of physical and mental fitness due to improper growth of organs including brain are some consequences of malnutrition.

The problem of malnutrition yet is preventable if dealt with on time. In light of this, children suffering from malnutrition deserve serious attention not only for keeping them in good health but also on the account that the future world will be vain with out them.

The alarming situation in the prevalence of child malnutrition in Ethiopia indisputably raises the need for monitoring the extent and distribution of malnutrition. Past studies show that prevalence of child malnutrition in the country is high. As part of WMS, the CSA is permanently providing data on nutritional status of children since 1996 which favorably will be of benefit to all data users.

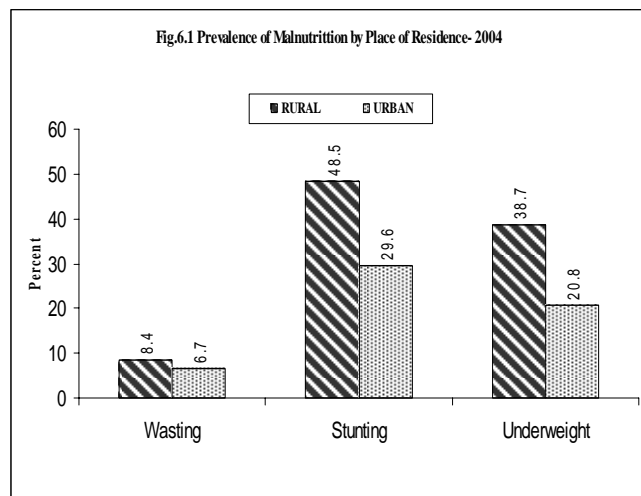
Anthropometric measurements (weight and height in this case) can be used to assess the degree of malnutrition among population groups and help, for instance, to set priorities of food-targeting policies to the severely malnourished groups. Children are chosen for the purpose of anthropometric analysis for they are more susceptible to nutritional deficiencies, which could be an indication of lower welfare status of households. In addition, nutritional indices in the case of children are sensitive indicators and signal serious problems that might require an immediate policy response.

The survey has provided data on the anthropometric measurements for children aged 3-59 months that, in conjunction with age and gender of the child, are used to calculate nutritional indices. Accordingly, three nutritional indices, namely, height-for-age, weight-for-height and weight-for-age are computed from the data. Nutritional status of the children is then determined by comparing the observed measurements with the anthropometric standards of the reference population developed by the United States National Center for Health Statistics and US Center for Disease Control (NCHS/CDS). The analysis is based on the standardized measurements (Z-scores) depending on the cut-off set up to -2 standard deviations (-2SD). A child is identified as wasted, stunted or under weight if his/her weight-for-height, height-for-age or weight-for-age z-score is -2SD or less.

This chapter discusses briefly each of the above indices and describes the findings on each by assessing the variations across gender of a child, age and place of residence. The estimated number of children is about 10.4 million, which constitutes 5.1 million female children and 5.3 million male children. The results are presented in Tables 6.1(a) - 6.4(c) and Summary Tables VI.1 - VI.4. Presented in this chapter also includes issues of child care such as immunizations, delivery places, etc. and are dealt with in sections 6.6 to 6.9.

6.2 Weight-for-height (Wasting)

Weight-for-height is an age-independent nutritional status indicator of acute malnutrition or wasting based on the principle that a child of a certain height has an expected weight³. It also indicates obesity in the case of high weight-for-height, though it is not a point of interest in this case. Wasting, a



³ Assessing the Nutritional status of Young Children, United Nations, New York, 1990.

condition of low weight-for-height, is a reflection of recent malnutrition in a population which may be caused by acute food shortage or serious infections. For the purposes of our analysis a child is considered wasted, if his/her weight-for-height Z-score is -2 standard deviations or less⁴.

Summary Table VI.1 - Prevalence of Wasting Among Children by Gender, Age and Place of Residence- Year 2004

<i>Gender</i>	Age group (Months)	Place of Residence		
		<i>Country</i>	<i>Rural</i>	<i>Urban</i>
<i>Boys</i>	3-5	8.0	7.2	18.9
	6-11	10.4	10.3	11.5
	12-23	15.7	16.5	7.3
	24-35	7.4	7.5	6.3
	36-59	5.9	5.9	5.2
	<i>Total</i>		8.6	8.8
<i>Girls</i>	3-5	6.2	6.0	8.6
	6-11	9.4	9.7	5.9
	12-23	11.0	11.2	9.0
	24-35	7.5	7.6	7.3
	36-59	6.5	6.8	4.1
	<i>Total</i>		7.9	8.1
<i>Both</i>	3-5	7.1	6.6	13.2
	6-11	9.9	10.0	8.8
	12-23	13.4	13.9	8.1
	24-35	7.5	7.5	6.7
	36-59	6.2	6.3	4.7
	<i>Total</i>		8.3	8.4

Summary Table VI.1 presents the prevalence of wasting by gender, age, and place of residence. The degree of recent malnutrition among children is on the higher side. According to the findings of the survey, the prevalence of wasting at country level is 8.3

⁴ *ibid*

percent. The prevalence of wasting is higher among rural children than urban. That is, 8.4 percent of rural children are wasted compared to 6.5 percent of urban children.

Prevalence of wasting by gender suggests a possibility of bias with boys suffering higher degree of acute malnutrition than girls. This phenomenon is consistently observed among both rural and urban children. Prevalence of wasting for boys is higher by about one percent than girls in both urban and rural areas. At country level, for example, the prevalence of wasting for boys is 8.6 percent compared to 7.9 percent for girls (Summary Table VI.1).

The results of the survey in relation to age of a child (Summary Table VI.1) revealed that the prevalence of wasting at country level is lower for children of age two years and older than three years and is highest for children aged 6 months to 23 months. Urban-rural distribution irrespective of gender of a child has exhibited very similar phenomenon except for urban children aged 3 to 5 months whose prevalence is the highest among both male and female children.

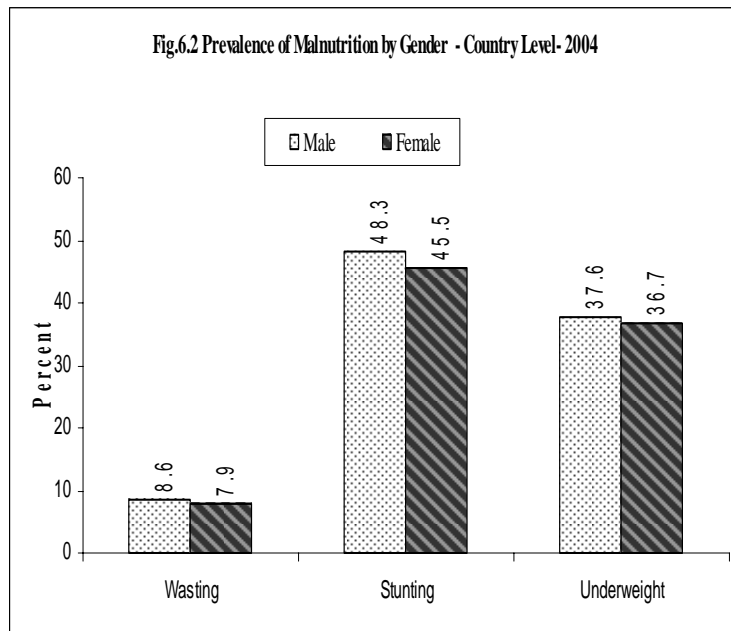
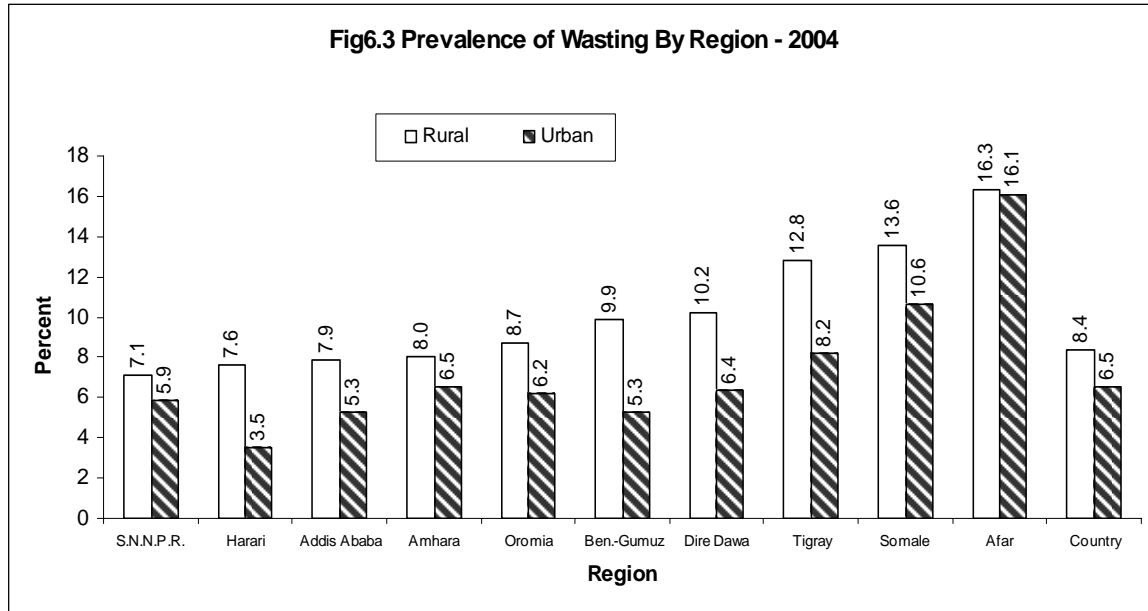


Table 6.2(a) – (c) presents the prevalence of low weight-for-height by region. Among the regions the prevalence of wasting is highest (16.2 percent) for children in Afar Region. Somali and Tigray Regions have a prevalence rate of more than 10 percent.



The lowest prevalence of wasting is indicated for Addis Ababa (about 5 percent). Oromia and Beneshanule-Gumuz Regions have moderate prevalence of wasting among children (about 9 percent). (See Table 6.2(a) – (c) and Fig.6.3 for the distribution of wasting among the various regions at country level and urban and rural areas).

6.3 Height-for-age (Stunting)

Height-for-age is a nutritional status indicator of chronic malnutrition or stunting based on the principle that a child has an expected height for his/her age⁵. It is an indicator of long-term or accumulated nutritional deficiency resulting from lack of adequate dietary intake over a long period of time or recurrent illness. In this analysis, a child is identified as stunted if his/her height-for-age z-score is less than -2 standard deviations or less from the reference population⁶.

The distribution of stunted children classified by place of residence, age, gender and region is presented in Tables 6.3(a) - (c) and Summary Table VI.2. According to the survey results, at country level 46.9 percent of the total children aged 3 to 59 months suffer from chronic malnutrition.

⁵ Assessing the Nutritional status of Young Children, United Nations, New York, 1990.

⁶ *ibid*

In this analysis, a child is identified as stunted if his/her height-for-age z-score is less than -2 standard deviations or less from the reference population⁷.

The distribution of stunted children classified by place of residence, age, gender and region is presented in Tables 6.3(a) - (c) and Summary Table VI.2. According to the survey results, at country level 46.9 percent of the total children aged 3 to 59 months suffer from chronic malnutrition.

Summary Table VI.2 - Prevalence of Stunting Among Children by Gender, Age and Place of Residence - Year 2004

<i>Gender</i>	<i>Age group (Months)</i>	<i>Place of Residence</i>		
		<i>Country</i>	<i>Rural</i>	<i>Urban</i>
Boys	3-5	18.4	19.5	3.4
	6-11	41.9	42.8	31.2
	12-23	57.2	58.9	39.0
	24-35	46.3	48.3	27.1
	36-59	49.9	51.6	32.0
<i>Total</i>		48.3	49.9	31.1
Girls	3-5	11.3	11.7	7.2
	6-11	31.6	33.0	16.6
	12-23	54.8	56.6	34.1
	24-35	48.8	50.5	30.2
	36-59	46.7	48.4	28.8
<i>Total</i>		45.5	47.1	27.9
Both	3-5	15.0	15.7	5.4
	6-11	36.9	38.0	23.9
	12-23	56.0	57.8	36.7
	24-35	47.5	49.4	28.5
	36-59	48.3	50.1	30.5
<i>Total</i>		46.9	48.5	29.6

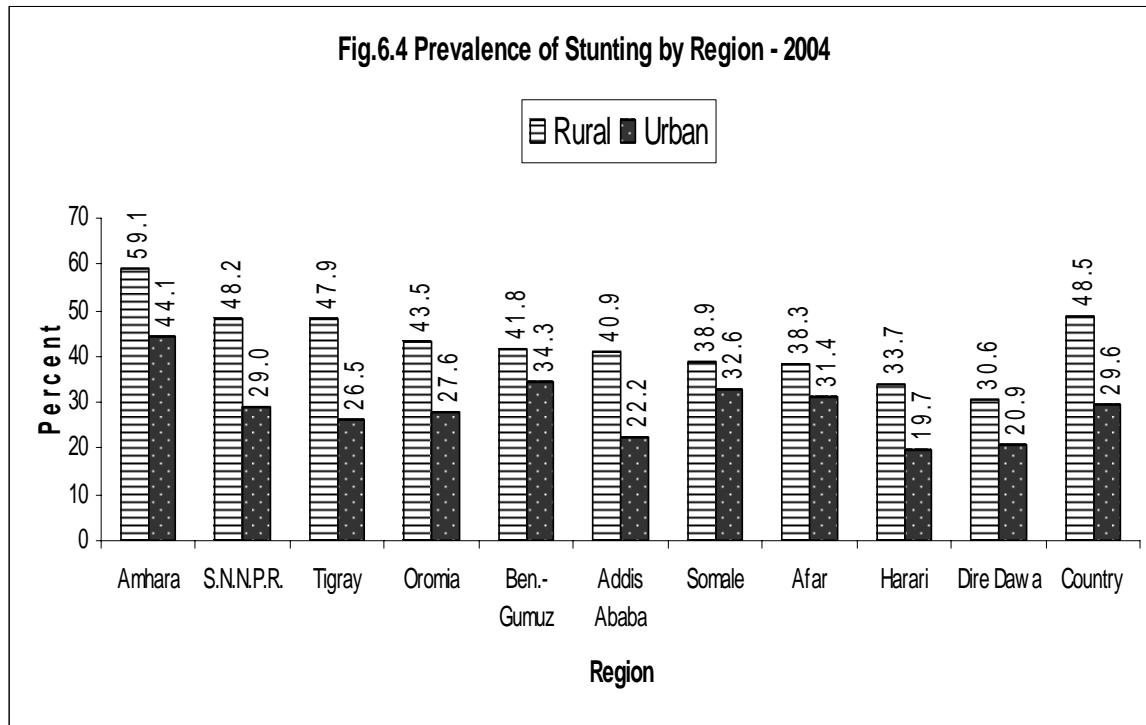
⁷ *ibid*

Urban-rural prevalence of long-term malnutrition (stunting) indicates differences in the level of stunting. The high prevalence among rural children (48.5 percent) than urban (29.6 percent) suggests that rural children are more prone to stunting than urban children (Summary Table VI.2).

Distribution of stunted children by gender also suggests that at country level and in rural areas male children are more vulnerable to malnutrition than female children. The prevalence at country level is 48.3 percent among boys and 45.5 percent among girls. In both urban and rural areas, the results show similar phenomenon that prevalence of stunting among boys is higher than that of girls (Summary Table VI.2)

The prevalence of stunting by age (Summary Table VI.2) reveals that irrespective of gender and place of residence of a child, prevalence of stunting is lowest at age group 3-5 months, then drastically increases among children over 6 months up two years and slightly decreases there after. According to the findings of the survey, younger children below 6 months are consistently characterized by lowest level of stunting while children between one and three years suffer the hardest hits of chronic malnutrition. The lower level of stunting observed for children at age group 3-5 months could likely be due to breastfeeding practices during infancy.

The distribution of stunting at country level among the various regions is presented in Table 6.3.(a). The data indicates that the prevalence of malnutrition is higher in Amhara Region (58.3 percent) followed by S.N.N.P.R. Region (47.0 percent), Tigray (45.0 percent), Oromiya (42.4 percent) and Beneshangul-Gumuz (41.0 percent) Regions. The lowest level of stunting is registered in Addis Ababa (22.7 percent). The proportion of stunted children in the rest of the regions ranges from 26 percent in Dire Dawa to 37 percent in Somali Region. (See Table 6.3(a) – (c) and Fig.6.4 for the distribution of Stunting among the various regions at country level and urban and rural areas).



6.4 Weight-for-age (Under Weight)

Weight-for-age is a nutritional status indicator of malnutrition (either acute or chronic malnutrition) based on the principle that a child has an expected weight for his/her age⁸. Weight-for-age index measures the general nutritional status of children. It is a nutritional deficiency caused by recent and past malnutrition. Since this indicator does not directly depend on the height /length of a child, it is more important in the case of children under two years where measurements of length are relatively difficult and inaccurate.

As presented in Tables 6.4(a) - (c) and Summary Table VI.3, the prevalence of low weight-for-age (underweight) among children of the country is 37.1 percent. This considerable proportion of underweight, which reflects both wasting and stunting also, signals the extensive distribution of malnutrition among young children of the country. Similar to wasting, malnutrition by underweight also indicates that nutritional deficiency

⁸ Assessing the Nutritional status of Young Children, United Nations, New York, 1990.

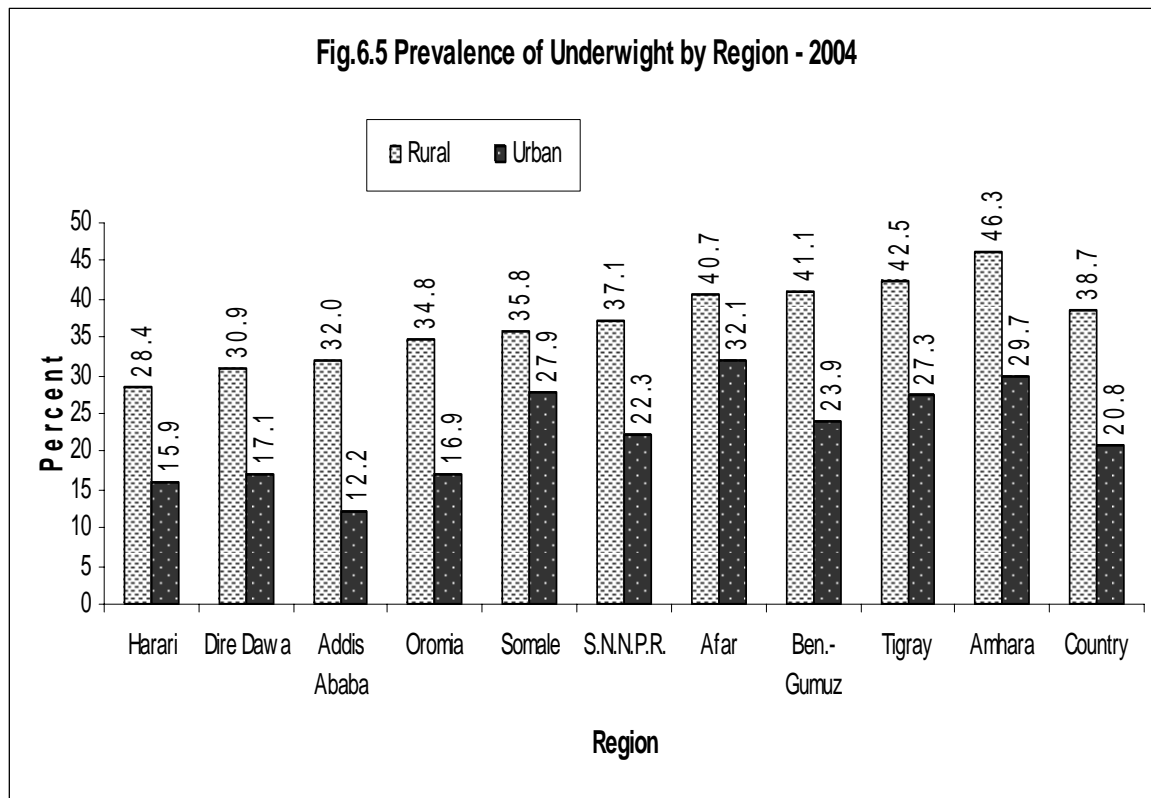
is more serious in the rural areas than in urban areas. The findings of the survey revealed a prevalence rate of 38.7 percent in rural areas and 20.8 percent in urban areas.

Summary Table VI.3 - Prevalence of Underweight Among Children by Age, Gender and place of Residence - Year 2004

<i>Gender</i>	<i>Age group (Months)</i>	<i>Place of Residence</i>		
		<i>Country</i>	<i>Rural</i>	<i>Urban</i>
Boys	3-5	6.7	6.3	11.3
	6-11	31.3	32.6	17.3
	12-23	48.6	51.1	23.0
	24-35	43.2	45.2	24.1
	36-59	35.0	36.3	21.4
Total		37.6	39.1	21.5
Girls	3-5	11.7	12.3	5.7
	6-11	24.5	25.6	13.5
	12-23	41.7	43.3	24.3
	24-35	39.1	40.3	25.8
	36-59	39.3	41.3	18.8
Total		36.7	38.3	20.0
Both	3-5	9.2	9.2	8.2
	6-11	28.0	29.1	15.4
	12-23	45.2	47.2	23.6
	24-35	41.2	42.7	24.9
	36-59	37.1	38.7	20.2
Total		37.1	38.7	20.8

The relationship between the level of underweight and gender of a child is also highlighted in Summary Table VI.3 and Tables 6.4(a) - (c). Nearly the same prevalence

of underweight is observed among male and female children with slightly higher prevalence among boys (about one percent) than girls.



Distribution of malnourished children by age (Summary Table VI.3) exhibits that prevalence of underweight is lowest among younger children (3-5 months) and highest among children between one and three years old. The proportion of low weight-for-age children increases quite steeply up to two years and decreases slowly among children older than two years. This pattern is consistently exhibited in rural and urban areas regardless of gender of the child showing the systematic age-dependency of the prevalence of underweight.

The prevalence of underweight among the regions is shown in Table 6.4(a). It varies from as low as 12.7 percent for Addis Ababa to as high as 45.4 percent for Amhara Region. More than two out of five children in Amhara and Tigray Regions are observed to be underweight, whereas children in Addis Ababa, Harari, and Dire Dawa, Regions are less than 25 percent prevalence rates of underweight. A significant difference is also observed

between urban and rural areas of regions. As shown in Fig. 6.5, the finding of the survey show that the prevalence rates of underweight of rural children ranges from 28.4 percent in Harari Region to 46.3 percent in Amhara Region while in urban areas it ranges from 12.2 percent in Addis Ababa to 32.1 percent in Afar Region.

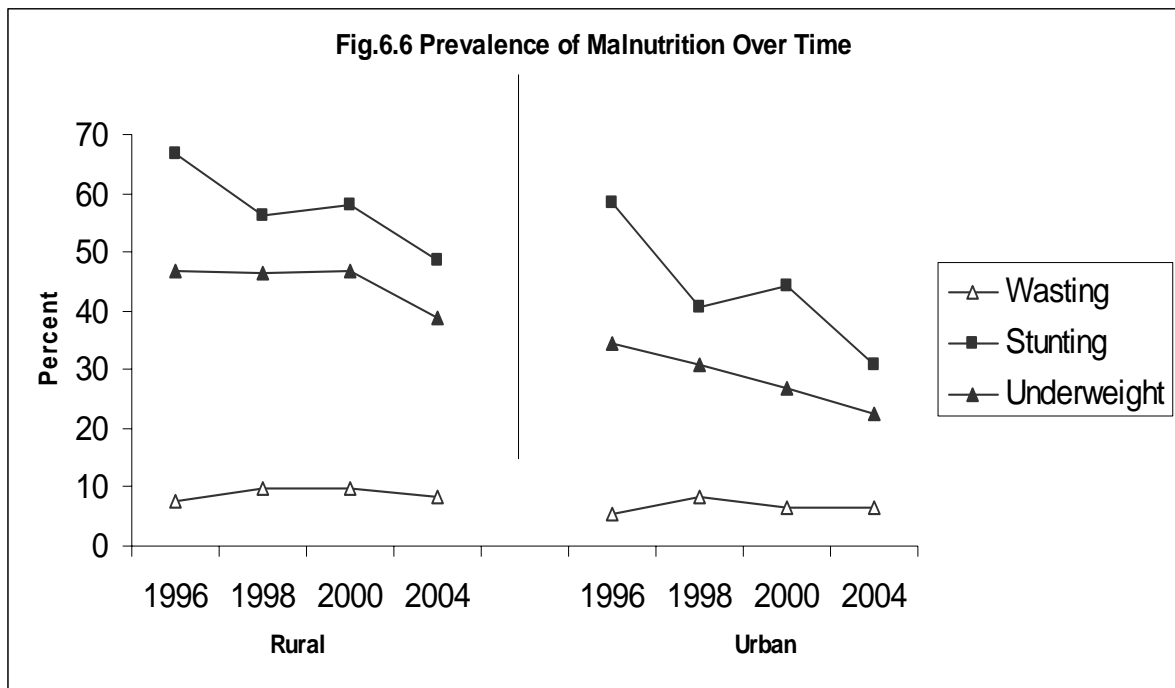
6.5 Prevalence of Malnutrition Over Time

Summary Table VI.4 displays the prevalence of malnutrition as measured by Wasting, Stunting and Underweight over the four WMSs. Generally, all the four surveys have revealed that rural children are more prone to all kinds of malnutrition. Boys are also indicated to be more vulnerable to malnutrition than girls with respect to the three indices.

Summary Table VI.4 Prevalence of Wasting, Stunting and Underweight by Gender, Place of Residence and Survey Year

	<i>Wasting</i>			<i>Stunting</i>			<i>Underweight</i>		
	<i>Boys</i>	<i>Girls</i>	<i>Both</i>	<i>Boys</i>	<i>Girls</i>	<i>Both</i>	<i>Boys</i>	<i>Girls</i>	<i>Both</i>
Country Level									
1996	7.8	6.9	7.3	67.6	63.8	65.7	47.8	42.9	45.4
1998	10.7	8.4	9.6	55.9	53.5	54.7	46.5	43.2	44.9
2000	10.2	8.9	9.6	58.1	55.3	56.7	45.9	44.1	45.0
2004	8.6	7.9	8.3	48.3	45.5	46.9	37.6	36.7	37.1
Rural									
1996	8.0	7.2	7.6	68.4	64.8	66.6	49.3	44.0	46.7
1998	10.8	8.6	9.7	57.4	55.0	56.2	47.9	44.7	46.3
2000	10.4	9.2	9.8	59.4	56.3	57.9	47.6	45.6	46.7
2004	8.8	8.1	8.4	49.9	47.1	48.5	39.1	38.3	38.7
Urban									
1996	6.4	4.1	5.3	61.0	55.5	58.4	35.1	33.6	34.4
1998	9.8	7.2	8.5	42.1	38.9	40.5	32.8	28.7	30.7
2000	7.0	5.8	6.4	44.2	44.7	44.4	26.7	27.4	27.0
2004	6.9	6.0	6.5	31.1	27.9	29.6	21.5	20.0	20.8

The results of the successive surveys (Summary Table VI.4) has indicated that there is a tremendous decrease in the rate of malnutrition in both urban and rural areas. The prevalence of wasting has slightly risen from 1996 (7.3 percent) to 1998 and 2000 for both male and female children (8.4 to 10.2 percent). The year 2000 DHS survey⁹ also indicates a prevalence rate of 11 percent for wasting. Stunting exhibits a sharp decline over the past eight years; from 65.7 percent in 1996 to 46.9 percent in 2004 and the level of underweight over the years period (1996 to 2000) is relatively stable at country level and in the rural areas. While consistent declining rate is exhibited in urban areas for both boys and girls. From year 2000 to 2004 sharp decline in the level of underweight has followed which also is evidenced by the prevalence rate of both stunting and wasting. (See Fig.6.6).



⁹ Ethiopia Demographic and Health Survey, Central Statistical Authority, Addis Ababa, May 2000.

6.6 Child Immunization

Universal Immunization of Children which deals with six vaccine-preventable diseases, namely, Tuberculosis, Diphtheria, Whooping Cough, Tetanus, Polio and Measles plays a great role in mitigating infant and child mortality rates. Continuous feedback information on the extent of immunization is important for monitoring and evaluation of the ongoing immunization programs which again are vital elements of child welfare. In the year 2004 Welfare Monitoring Survey, households were asked whether or not their children (aged 0-59 months), if any, had ever been immunized against Measles, BCG, DPT and Polio. It has to be noted that in the 1996 and 1998 WMS, data referring to immunization pertains to children aged 3 to 59 months unlike the 2000 and the current survey which covers all children under five years of age. Hence, slight variation could result depending on the extent of vaccine coverage among children under 3 months of age when comparing with the year 2000 and 2004 survey results with the previous ones.

In the present survey, further refinement has been made to collect more detailed data on immunization. Each of the DPT and Polio vaccines were treated independently in 2004 WMS unlike the preceding surveys where information on vaccination is collected irrespective of the levels of DPT and Polio vaccination (i.e. DPT1, DPT2, DPT3, Polio0, Polio1, Polio2, Polio3, Polio Campaign).

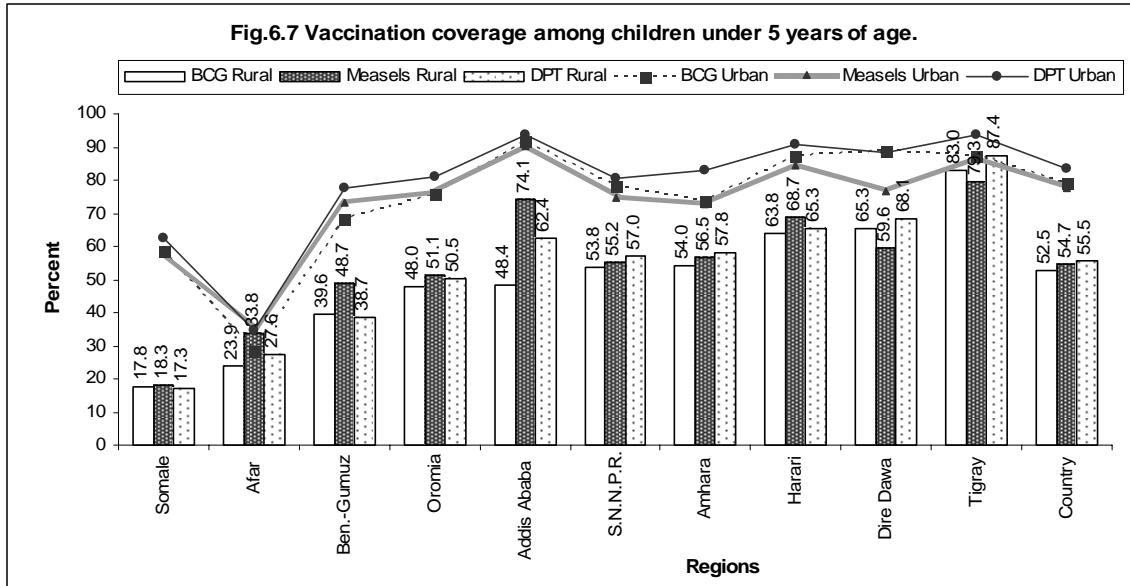
Information on vaccination coverage was collected in two ways: from vaccination cards or from mother's/care takers. According to the results, out of the total children under five years of age, 56.8 percent were vaccinated against Measles and 54.9 percent against BCG. DPT1, DPT2 and DPT3 vaccinations stand at 56.1 percent, 53.1 percent and 48.9 percent respectively.

The proportions of children that took polio vaccination are found to be 20.6 percent for polio 0, 64.2 percent for Polio1, 62.0 percent, for Polio2 and 57.4 percent for Polio3. About 61 percent were also vaccinated during the country wide polio campaign. About 58 and 83 percent of children were respectively vaccinated any type of DPT and Polio vaccination (See Summary Table VI.5. and Tables 6.5(a) - 6.5(c)).

Summary Table VI.5 – Percentage Distribution of Immunized Children under Five Years of Age by Type of Immunization and Background Variables, Year - 2004

Back ground Variables	Types of Vaccination											
	MEASLES	BCG	DPT 1	DPT 2	DPT 3	DPT(Any type)	POLIO 0	POLIO 1	POLIO 2	POLIO 3	Polio Campaign	Polio (Any type)
Gender												
Male	57.5	55.7	57.2	54.1	49.8	59.1	21.3	65.1	63.2	58.7	60.6	83.8
Female	56.1	54.1	55.1	52.1	48.0	57.1	19.9	63.4	60.7	56.1	60.6	82.3
Place of residence												
Rural	54.7	52.5	53.5	50.4	46.1	55.5	17.0	62.1	60.0	55.4	59.5	82.1
Urban	77.8	78.8	82.6	80.1	76.9	83.6	55.7	84.9	82.2	77.8	71.0	93.0
Source of information												
From Vaccination card	52.7	60.1	60.8	60.7	60.0	60.1	55.8	52.1	51.5	51.1	41.7	43.9
Mothers report	46.9	39.5	39.1	39.1	39.9	39.7	44.1	47.6	48.1	48.5	58.2	55.8
Age group(In months)												
0 - 11	30.4	39.7	40.9	34.2	28.2	42.2	15.0	39.0	33.0	27.3	26.5	50.8
12 - 23	59.5	57.0	59.1	55.0	50.3	60.9	19.5	64.1	60.5	55.6	60.5	84.9
24 - 35	64.1	60.4	61.3	59.0	55.0	63.7	22.2	71.9	70.9	66.6	68.8	91.8
36 - 59	64.4	58.4	59.4	58.3	55.0	61.5	22.8	72.3	71.8	67.8	72.6	93.0
All Children (0 - 59)	56.8	54.9	56.1	53.1	48.9	58.1	20.6	64.2	62.0	57.4	60.6	83.1

There is a slight gender differential in vaccination coverage. The difference ranges from 1.4 to 2.6 percentage points in favor of male than female with all of the vaccinations except polio vaccination given during the country wide campaign which stands at 61 percent for both sexes. The slight difference in vaccination coverage among males and females however, does not sound sufficient to lead to firm conclusion of gender bias in child immunization.



A significant difference is observed between urban and rural areas. The findings of the survey show that vaccination coverage in rural areas is much lower than urban areas. The significant difference in coverage of child vaccination between rural and urban areas may partly be attributed to better access to health services and more awareness of families in urban areas than in rural areas.

The survey results also indicate high regional disparity in immunization coverage. In rural areas the coverage ranges from around 17 percent in Somali Region to about 87 percent in Tigray region for Measles, BCG and DPT. In urban areas vaccination coverage ranges from around 28 percent in Afar region to 94 percent in Addis Ababa and Tigray regions. In the rural areas of the rest of the regions, the three types of vaccines cover as low as 23 percent in Afar Region to as high as 74 percent in Addis Ababa Region, while the corresponding coverage in the urban areas for the three types of vaccines range from as low as 58 percent in Somali region to as high as 91 percent in Harari Region. (See Fig 6.7 and Tables 6.5(a) - 6.5(c)).

Summary Table VI.6 – Percentage Distribution of Immunized Children by Place of Residence, Type of Immunization and Survey Year

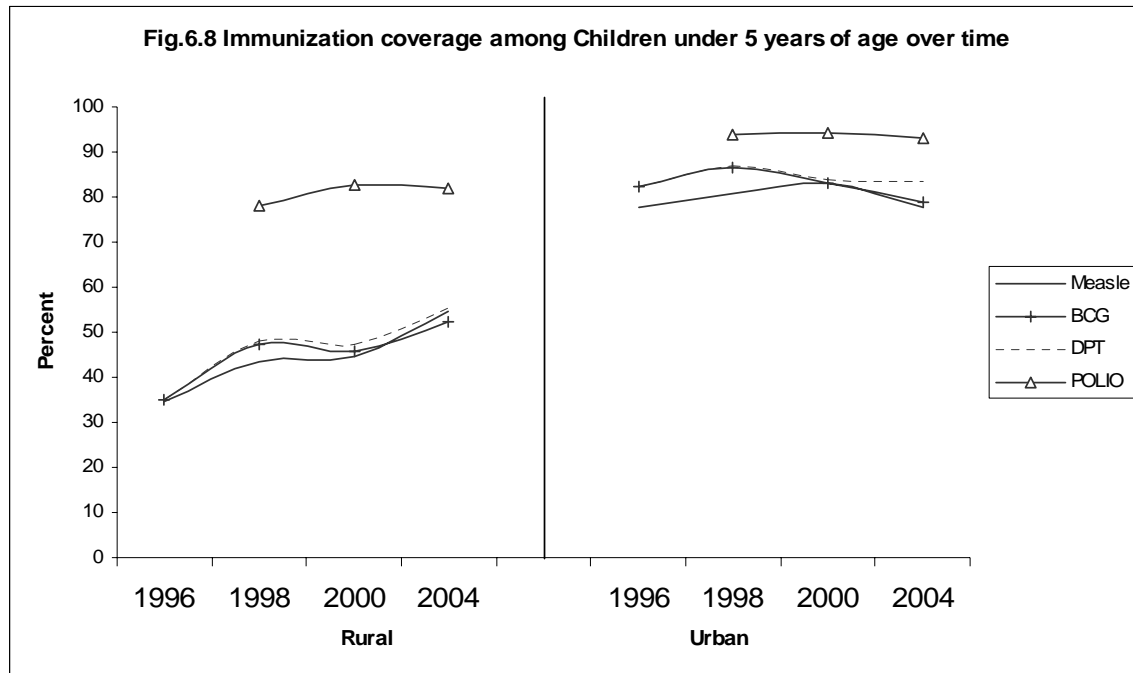
<i>Place of Residence and Survey Year</i>	<i>Type of Immunization</i>			
	<i>Measles</i>	<i>BCG</i>	<i>DPT</i>	<i>POLIO</i>
Country				
1996	39.1	40.1	40.0	-
1998	46.9	50.9	51.6	79.4
2000	48.1	49.1	50.5	83.6
2004	56.8	54.9	58.1	83.1
Rural				
1996	34.6	35.1	35.0	-
1998	43.4	47.2	48.0	77.9
2000	44.8	45.9	47.4	82.6
2004	54.7	52.5	55.5	82.1
Urban				
1996	77.6	82.5	82.4	-
1998	80.8	86.6	86.8	94.0
2000	82.9	83.0	83.8	94.1
2004	77.8	78.8	83.6	93.0

Note : 1. Data in 1996 and 1998 WMS surveys pertains to children aged 3 to 59 months, while the 2000 and 2004 surveys cover all children under five years of age.

2. Vaccination coverage of DPT and Polio pertains to any type of the different levels (i.e. DPT1-3 and Polio 0-3 and campaign).

Immunization coverage among children under five years of age over time has show an increasing trend in rural areas and a falling trend in urban areas (See Summary Table VI.6 and Fig.6.8). The coverage in rural areas has increased from 1996 to 2004 by 20 percentage points for Measles, 17 percentage points for BCG and 21 percentage points for DPT. In urban areas the coverage in 2004 stands at similar level as of 1996 for Measles, 1.2 percentage point increment for DPT and a decrease by four percentage points for BCG. The survey has also indicated that in the year 2004 WMS the coverage of Polio vaccination has higher rate in urban (93 percent) than in rural areas (82 percent).

As compared to the 2000, the coverage of Measles and BCG in 2004 has decreased in urban areas while in rural areas the coverage of Measles, BCG, and DPT vaccinations has considerably increased. Polio vaccination has similar rate in both Rural and Urban areas for 2004 as compared to the year 2000.



Note: Data for Polio in 1996 was not available.

6.7 Prevalence of Diarrhea, Fever and Cough

Dehydration due to diarrhea is one of the major cause of morbidity and mortality among children under five years of age. Studies show that infant mortality and child malnutrition are highly associated with diarrhea. Frequent attack of a child by diarrhea tends to reduce his/her appetite and thereby lower the immunity of the child leading to high vulnerability to diseases. Repeated incidence of diarrhea may also be a reflection of lack of safe water and unclean environment.

Information on diarrhea, fever and cough episode during the two weeks prior to the survey date pertaining to children under five years of age was collected from mothers and/or caretakers of the children. Summary Table VI.7 and Tables 6.6(a) - 6.6(c) presents the results of the survey on prevalence of diarrhea, fever and cough by age and gender in rural and urban areas.

Summary Table VI.7 - Prevalence of Diarrhea, Fever and Cough by Age, Gender and Place of Residence – Year 2004

<i>Age group (in months)</i>	<i>Country</i>			<i>Rural</i>			<i>Urban</i>		
	<i>Male</i>	<i>Female</i>	<i>Both</i>	<i>Male</i>	<i>Female</i>	<i>Both</i>	<i>Male</i>	<i>Female</i>	<i>Both</i>
<i>Diarrhea</i>									
0-11	23.5	20.8	22.2	23.7	20.8	22.3	21.2	20.9	21.1
12-23	30.2	29.6	29.9	30.1	29.8	30.0	30.3	26.7	28.6
24-35	21.5	19.6	20.5	21.3	19.9	20.6	23.3	15.7	19.7
36-47	17.4	14.1	15.8	17.5	13.9	15.7	16.7	16.8	16.8
48-59	12.3	10.9	11.6	12.4	11.2	11.8	11.3	8.3	9.8
All Ages	20.7	18.7	19.7	20.8	18.8	19.8	20.4	17.4	18.9
<i>Fever</i>									
0-11	24.5	22.1	23.3	24.6	22.2	23.4	23.2	20.7	22.0
12-23	26.0	24.5	25.2	26.0	24.2	25.1	25.2	27.3	26.2
24-35	21.5	20.6	21.0	21.5	20.9	21.2	21.7	17.0	19.4
36-47	18.8	17.8	18.3	18.8	17.9	18.3	19.4	15.9	17.8
48-59	16.4	15.4	15.9	16.7	15.3	16.0	13.4	17.1	15.2
All Ages	21.3	19.9	20.6	21.4	20.0	20.7	20.5	19.4	20.0
<i>Cough</i>									
0-11	21.2	18.9	20.1	21.9	18.9	20.4	14.3	19.8	17.0
12-23	20.8	21.1	21.0	20.8	21.3	21.1	20.7	19.7	20.2
24-35	19.4	18.5	18.9	19.3	18.6	19.0	19.6	17.3	18.5
36-47	16.6	17.0	16.8	16.6	17.2	16.9	16.3	15.0	15.7
48-59	14.4	14.2	14.3	14.5	14.2	14.4	13.4	14.0	13.7
All Ages	18.4	17.9	18.1	18.6	17.9	18.3	16.8	17.1	16.9

The prevalence of diarrhea, fever and cough among children aged 0-59 months at country level stands 19.7 at percent, 20.6 percent and 18.1 percent, respectively. This rate is more or less the same among male and female children irrespective of the place of residence. At country level, 20.7 percent of male and 18.7 percent of female children had diarrhea, while 21.3 percent of male and 19.9 percent of female children had fever and 18.4 percent male and 17.9 percent of female children had cough during the two weeks prior to the date of interview. However, no visible difference is indicated with prevalence of diarrhea, fever and cough between urban and rural areas.

The prevalence of diarrhea, fever and cough at all levels (country, rural and urban), regardless of gender of the child, is highest for children aged between 12 months and 23 months; the time when most children are introduced to supplementary food. Children over four years are characterized by relatively lower prevalence of diarrhea (see summary table VI.7).

Summary Table VI.8- Prevalence of Diarrhea/Fever by Survey Year and Place of Residence

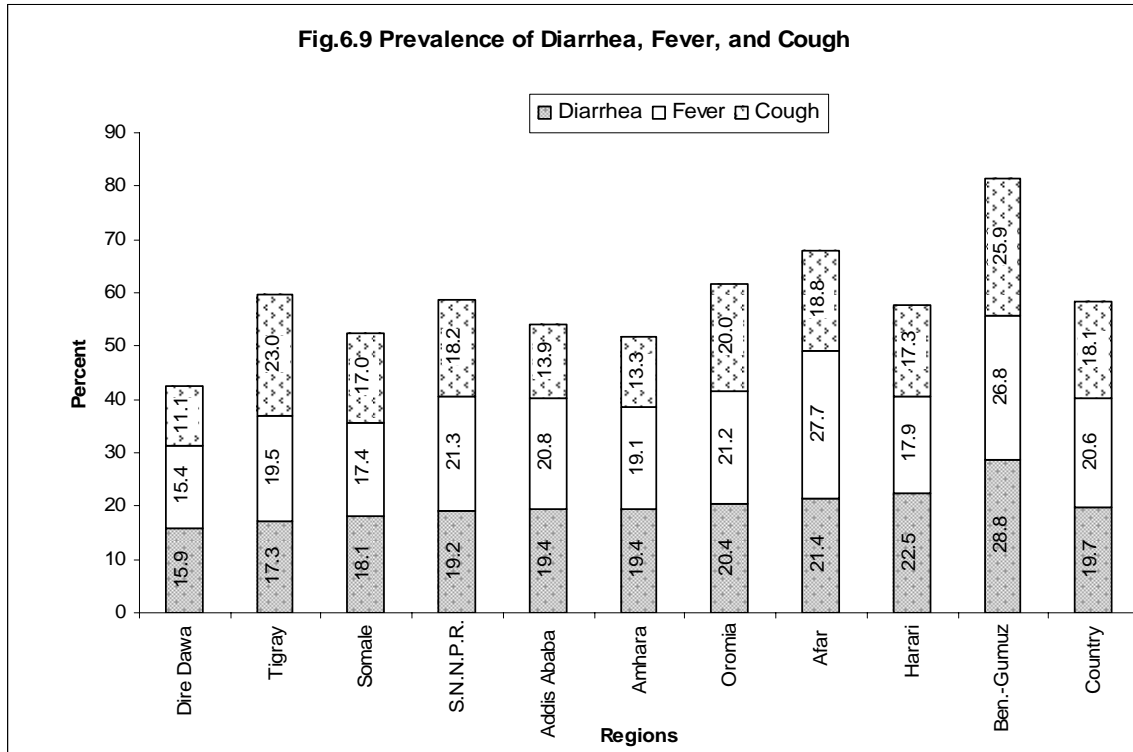
Place of residence	Survey year			
	1996	1998	2000	2004*
Country	25.7	30.6	26.8	19.7
Rural	25.2	30.9	27.4	19.8
Urban	27.7	27.8	21.0	18.9

Note: Data in 1998 WMS surveys pertains to children aged 3 to 59 months, while the 2000 and 2004 surveys cover all children under five years of age.

**Data on Diarrhea, fever and Cough prevalence in 2004 was collected independently for each of the three unlike the preceding surveys where diarrhea or fever were taken.*

Looking at the general pattern, one can also observe that infants (0-11 months) and young children (24-59 months) are characterized by relatively lower prevalence of diarrhea (See Summary Table VI.7), which may partly be due to exclusive breast-feeding in the case of infants and more resistance to disease in the late ages.

Fig.6.9 shows prevalence of diarrhea, fever and cough in the regions. Diarrhea infection ranges from the lowest 15.9 percent in Dire Dawa to the highest 28.8 percent in Benishangul-Gumuz Region. Likewise the prevalence of cough also is lowest in Dire Dawa (11.1 percent) and highest in Benishangul-Gumuz Region(25.9 percent).

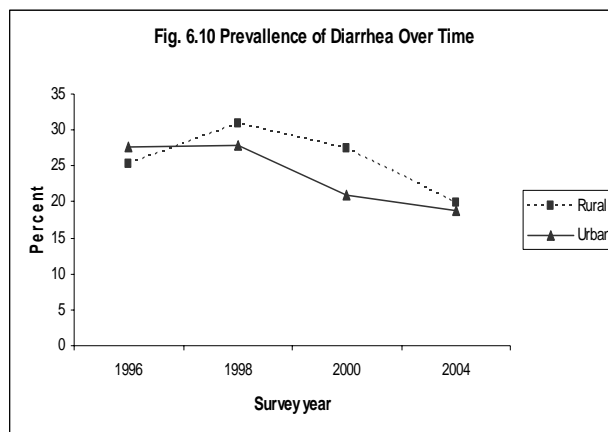


Prevalence of fever among children also depicts relatively higher rates in Afar and Beneshangul-Gumuz and lower rates in Dire Dawa Region. (See Fig.6.9 and Tables 6.6(a) - 6.6(c)).

The general pattern over time in the prevalence of diarrhea shows decreasing trend in both urban and rural areas reflecting possibly improving conditions of health and sanitation (See summary Table VI.8 and Fig. 6.10.).

Diarrhea treatment

In this survey sample households were also asked how they treated their children who had diarrhea. Treatment for dehydration usually are Clinical Oral Dehydration Salts (commonly known as ORS), home made ORS solutions and other liquids.

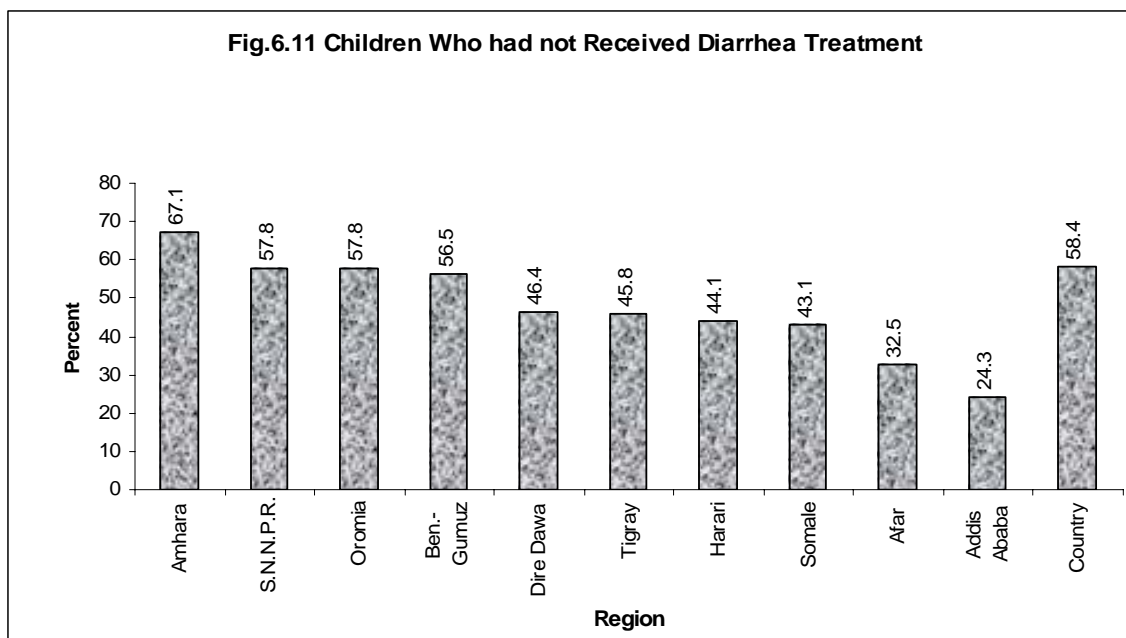


As shown in Summary Table VI.9, out of the total children who had diarrhea during the two weeks prior to the survey date, only 19 percent were given ORS (clinical or home made) and other fluids. About 13 percent were taken to health institution, while 6 percent were treated traditionally. Most of the children with diarrhea (58 percent) were not given any treatment, the percentage being very high among rural children (62 percent) compared to urban (25 percent). Treating the child with ORS or other liquids is also more common in urban areas than rural. This result signifies the extent of children that suffer from all consequences of diarrhea.

Summary Table VI.9 – ORS Administration by Gender, Type of ORS and Place of Residence – Year 2004

Gender and Place of residence	ORS	Home made liquid	Other fluid	Taken health institution	Treated by traditional healer	No treatment	Not stated
Gender							
Male	6.5	8.6	5.1	12.7	6.4	57.1	3.6
Female	6.1	7.4	3.8	13.5	6.2	59.8	3.2
Place of residence							
Rural	5.5	6.9	4.2	12.0	6.6	61.6	3.3
Urban	14.9	20.4	7.6	24.2	3.3	25.2	4.3
Total	6.3	8.0	4.5	13.1	6.3	58.4	3.4

The percentage of children with diarrhea but not treated at all is also very high in all regions, ranging from 24.3 percent in Addis Ababa to 67.1 percent in Amhara region (See Fig.6.11). Regional practices show that Addis Ababa and Dire Dawa have relatively high percentage of households using clinical and home made ORS to treat diarrhea. It has also been observed that home made ORS is the common treatment in all regions (Summary Table VI.9 and Tables 6.7(a) - 6.7(c)).



6.8 Place of Delivery and Attendance

Place of delivery

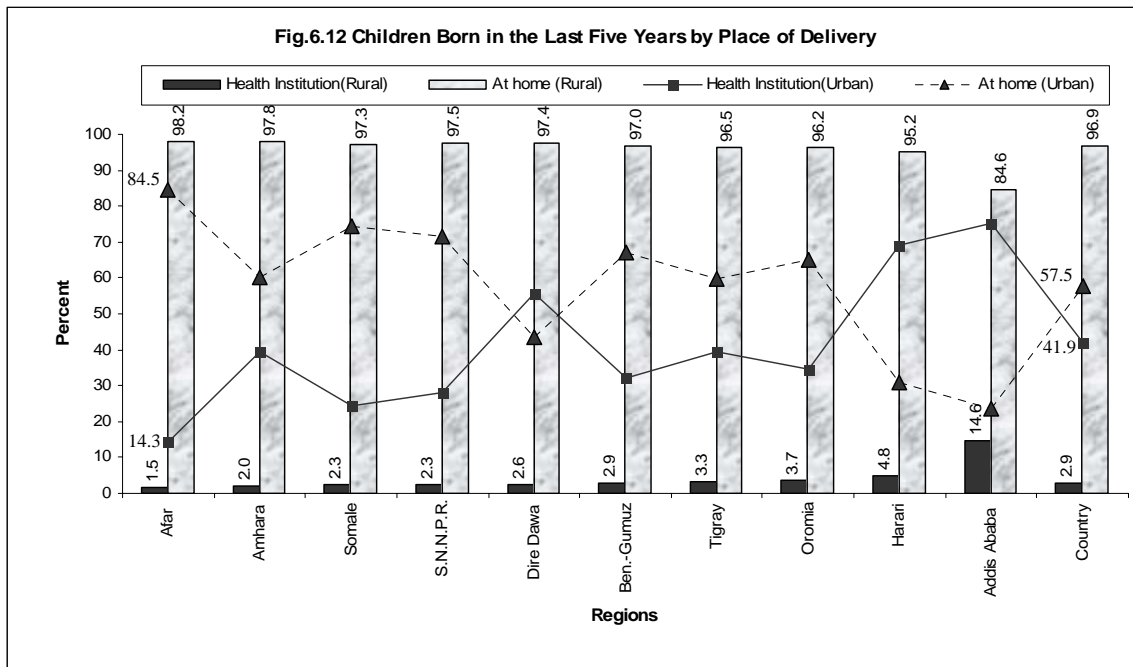
Information on place of delivery during the previous five years prior to the survey data were collected in the 2004 Welfare Monitoring Survey. Such information may be used to plan for maternal and child health service improvement and monitoring and evaluation of the implemented policies and programs. Delivery in modern health service institutions reduces the incidence of maternal and infant mortality rates. The distribution of under five children by place of delivery during the five years period prior to the survey date is presented in Summary Table VI.10 and Tables 6.8(a)-6.8(c).

The survey data shows that considerable proportions of children (93 percent), most of which are rural residents, were delivered at home. At country level, only seven percent were delivered in modern health institutions. A considerable proportion of urban children (42 percent), however were born in health institutions, most of them in hospitals (25 percent) while the majority (57 percent) were still delivered at home. Rural children delivered in health institution constitute only three percent. The findings also show very similar phenomenon across gender.

Summary Table VI.10 Distribution of under five Children by Place of Delivery

	<i>Hospital</i>	<i>Clinic</i>	<i>Health center</i>	<i>Health post</i>	<i>At home</i>	<i>Other places</i>	<i>Don't Know</i>	<i>Not stated</i>
Gender								
Male	3.4	0.9	2.0	0.3	92.4	0.8	0.1	0.1
Female	3.0	1.0	2.1	0.3	92.7	0.8	0.1	0.1
Place of residence								
Rural	1.0	0.8	0.8	0.3	96.2	0.9	0.1	0.1
Urban	24.5	3.0	14.1	0.3	57.2	0.4	0.3	0.3
Total	3.2	1.0	2.0	0.3	92.5	0.8	0.1	0.1

Proportion of children under five years of age by place of delivery and region is depicted in Fig. 6.12 and Tables 6.8(a)-6.8(c). The survey data indicated that the proportion of children, who were delivered in health institutions in rural areas, is generally small ranging from 1.5 percent in rural Afar to 14.6 percent in rural Addis Ababa. As presented in Fig.6.12, in all regions, rural children are unlikely to be born in health institutions. More than 95 percent (excepting Addis Ababa) are born at home. The majority of urban children in all regions except for Addis Ababa, Dire Dawa and Harari are also delivered at home.



Delivery Attendance

Assistance during delivery has strong health implication on mothers and children. Delivery outside health institutions in most cases is not assisted by trained personnel. In the 2004 Welfare Monitoring Survey, information on assistance during delivery was also collected in relation to children under 5 years of age. The distribution of children by type of attendant assisting during delivery and place of residence is presented in Summary Table VI.11 and Table 6.9(a)-6.9(c).

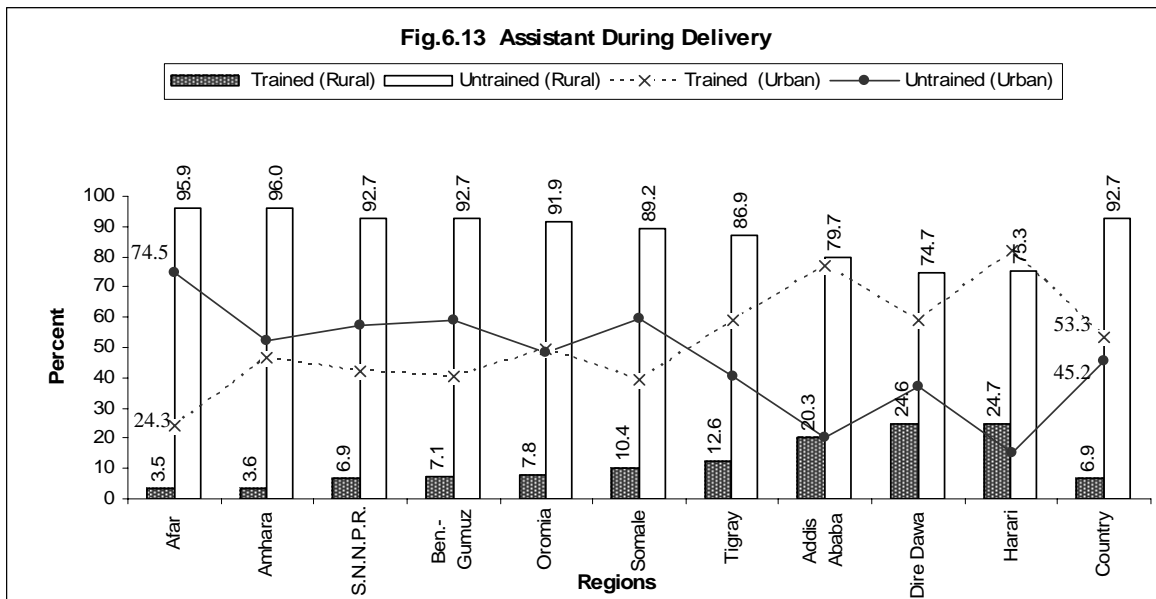
The majority of children under five years of age (58 percent) were born assisted by traditional birth attendant (TBA). At country level, 11.1 percent of under five were attended (during delivery) by either delivery nurse, trained traditional birth attendant (TTBA) or other health personnel. Urban–rural variation is also incomparable (7 percent against 53 percent). The proportion of birth attended by TBA is higher among rural (61 percent) than urban (34 percent). Self-assistance during delivery is also experienced by significant proportion of women. One-fourth of rural and one-out-of ten urban women are found to have self-assisted during delivery. The findings further have shown that there is no gender differential in delivery attendance.

Summary Table VI.11 Percentage Distribution of Under Five Children by Type of Delivery Attendant, Gender and place of Residence – 2004

	<i>Delivery Nurse</i>	<i>Trained Traditional Birth Attendant (TTBA)</i>	<i>Other Health personnel</i>	<i>Traditional Birth Attendant (TBA)</i>	<i>Self Assisted</i>	<i>Others</i>	<i>Don't Known</i>	<i>Not stated</i>
Gender								
Male	3.4	4.7	3.2	58.2	24.5	5.5	0.5	0.2
Female	3.1	4.7	3.2	58.0	24.7	5.7	0.6	0.2
Place of residence								
Rural	1.0	4.2	1.7	60.6	26.1	6.0	0.4	0.2
Urban	25.5	9.6	18.3	33.7	10.1	1.5	1.5	0.4
Total	3.2	4.7	3.2	58.1	24.6	5.6	0.5	0.2

At country level there is variation among regions; the proportion of children born attended by trained personnel in Addis Ababa being the highest (76 percent) followed by Harari (43 percent). Amhara is found to be a region with the least proportion (6.4 percent) of children attended by trained personnel. Trained personnel include Health personnel, delivery nurse and trained traditional birth attendant.

A significant difference is also observed between urban and rural areas of regions. As shown in Fig.6.13, the findings of the survey show that the proportion of rural children attended by trained personnel ranges from 3.5 percent in Afar Region to 24.7 percent in Harari while in urban areas it ranges from 24 percent in Afar to 82 percent in the Harari region.



6.9 Orphan Children

Information on distribution of orphan children could be used to assess the extent of vulnerable children in the country. This indicator could also be used to assess the extent of parents lost over the past 17 years as of the survey date. In the year 2004 survey, households were asked whether or not children members aged under 18 years, if any, were orphan. The findings are presented in Summary Table VI.12 and Tables 6.10(a) - 6.10(c).

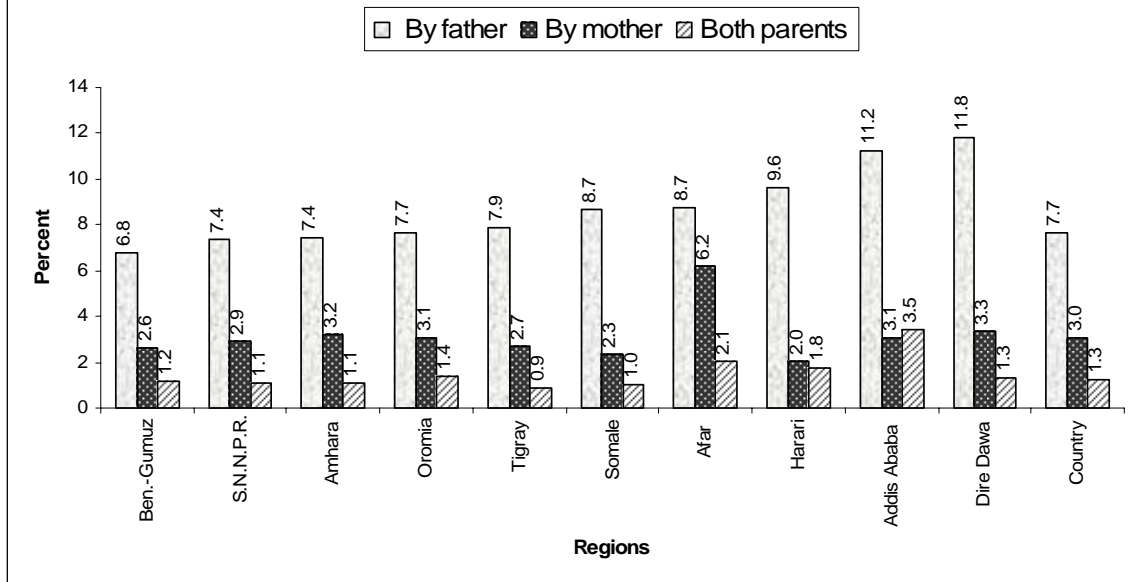
According to the results of the survey, out of the total children under 18 years of age, about 12 percent are found to be orphans comprising 7.7 percent that are orphan by father, 3.0 percent orphan by mother and 1.3 percent orphan by both parents. Proportion of orphans is slightly higher among urban households than rural and among children aged 10-17 years. The results, however, have shown no evidence of gender differential in orphans.

Summary Table VI.12 Percentage of Orphan Children Under 18 years of Age by Place of Residence, Gender and Age Group – 2004

	Orphan by Mother	Orphan by Father	Orphan by Both Parents	Not stated
Place of residence				
Rural	3.0	7.2	1.0	0.7
Urban	3.2	11.2	3.4	1.0
Gender				
Male	3.0	7.7	1.2	0.5
Female	3.1	7.7	1.3	0.9
Age Group				
Under 1	0.4	1.0	0.2	0.4
1 - 4	1.3	2.8	0.3	0.3
5 - 9	2.7	6.6	0.8	0.3
10 - 14	4.5	11.5	1.9	0.6
15 - 17	5.7	15.6	3.6	2.9
Total	3.0	7.7	1.3	0.7

Regional distribution reveals that the proportion of children orphan by father is higher in Dire Dawa (11.8 percent) and Addis Ababa (11.2 percent), while the proportion of those children orphan by mother is relatively higher in Afar (6.2 percent) Region. On the other hand the proportion of children orphan by both parents is higher in Addis Ababa (3.5 percent) than the remaining Regions (See Fig.6.14).

Fig 6.14 Orphan children by region



CHAPTER VII

ACCESSIBILITY AND UTILIZATION OF SELECTED BASIC FACILITIES/ SERVICES

7.1 Introduction

Good infrastructure and proper service delivery mechanisms are vital elements of development programs. Investment plans, rural development programs, urbanization, etc. require accessible infrastructure and proper service delivery in place. To inform development planners and policy makers the extent of accessibility and status of utilization of the basic services, continuous monitoring and evaluation systems have been established. As part of the monitoring and evaluation, system, the CSA via Welfare Monitoring Survey collects and compiles indicators on proximity and utilization of the facilities. Changes in the utilization and the level of satisfaction with basic facilities, which suggests either improving or otherwise deteriorating conditions of infrastructure and service delivery, are also collected in the 2004 WMS.

This chapter presents results on access to, utilization of and satisfaction with selected facilities including food market, schools, health service, source of drinking water, telephone, transport service, post office, all weather road, veterinary service, agricultural inputs service, micro-finance, milling service and source of firewood. Brief discussion of the findings is forwarded in the following sections on proximity of the services, status of usage and reason for not using the services/facilities with exception of education and health services, which are presented in Chapters IV and V, respectively.

7.2 Access to Selected Basic Services

Accessibility of services is assessed on the basis of proximity to the nearest facility. Information on proximity of the basic facilities/services could be used as an indicator of the extent of availability of these services. Sample households were requested to report the distance in kilometers to the nearest facility (Section 4.8 describes how distance in kilometers was assessed in the survey). The distributions of households by distance in kilometers to these facilities are given in Summary Table VII.1 and Tables 7.1(a) - 7.1(c). The findings of the survey on each of the services are described as follows.

a. *Source of Drinking Water*

The inquiry made to households on how far they need to go to reach the nearest source of drinking water revealed that there are still small proportions of households traveling long distances to fetch water. The results presented here are based on source of drinking water during dry season. About 92 percent of rural households are less than five kilometers away from the closest source of drinking water while around 6 percent of the residents still need to travel five to nine kilometers to fetch water for daily uses (Summary Table VII.1 and Fig.7.1). The corresponding accessibility in urban areas is much better. Only 0.9 percent live five or more kilometers away from the nearest source of drinking water. More than 82 percent could access drinking water in less than one-kilometer distance. Change in availability of source of drinking water within five kilometers radius sums insignificant and is found more or less the same over time (See Fig.7.2).

b. *Food Market*

According to the findings of this survey, food markets are available at a distance of less than one kilometer for about 21 percent of the total households in the country. More than half of the population could access these markets in a distance of less than 5 kilometers and the majority of the households (78.5 percent) have food markets located within less than 10 kilometers distance. It is also found that 22 percent of the households need to travel for 10 kilometers or more to reach the nearest food market.

The disparity with respect to distance to the nearest food market among urban and rural households is found to be high. The findings prompt the sparse distribution of markets in rural areas. Almost all urban households (93 percent) can access food markets in a distance of less than 5 kilometers compared to only 44 percent of rural households. Moreover, the findings of the survey have shown that for one out of four rural households the nearest food market is 10 or more kilometers away while in urban areas only less than

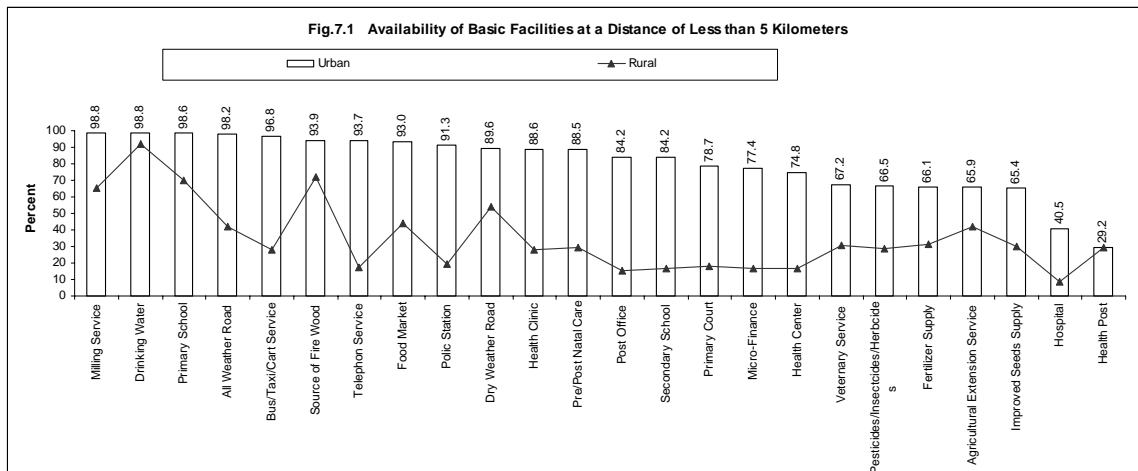
Summary Table VII.1 - Percentage Distribution of Households by Distance in Kilometer to the Nearest Facilities/Services by Place of Residence, Country level- 2004

Type of Type of facility/ Place of Residence	Distance in Kilometer to the Nearest Facilities/services							Total No. Of Households
	Less than 1	1-4	5-9	10-14	15-19	20 & over	Not Stated	
Country Level								
Food Market	21.2	30.5	26.8	10.2	7.7	3.4	0.0	13,412,479
Post Office	14.3	11.9	13.9	9.7	15.9	34.2	0.2	13,429,139
Transport Service	22.0	16.7	15.3	9.5	12.2	24.2	0.1	13,389,275
Source of Drinking water	50.1	42.9	4.9	0.8	0.6	0.5	0.1	13,156,492
Telephone Service	17.3	11.7	15.2	10.7	16.6	28.6	0.1	13,363,249
Milling Service	30.5	40.1	19.6	4.9	3.0	1.9	0.0	13,417,542
Source of Fire wood	36.4	39.1	15.2	5.0	2.5	1.8	0.1	13,183,613
All weather road	29.6	20.9	15.8	8.1	10.1	15.6	0.1	13,271,128
Veterinary service	15.3	21.2	24.1	12.3	11.4	13.2	2.6	13,429,058
Fertilizer supplier	15.7	21.2	21.3	9.9	11.6	17.5	2.9	13,424,991
Improved seeds supplier	15.3	20.5	21.2	10.2	11.8	18.1	2.9	13,421,690
Pest./Insect. Supplier	15.2	19.2	20.7	10.5	12.0	19.4	2.9	13,421,386
Micro finance	13.9	12.2	13.1	9.3	14.6	33.1	3.9	13,384,926
Urban								
Food Market	43.2	49.8	6.3	0.3	0.1	0.2	0.1	2,105,579
Post Office	31.9	52.3	9.4	1.1	2.0	3.0	0.3	2,166,841
Transport Service	59.0	37.8	1.3	0.1	0.0	1.8	0.0	2,083,961
Source of Drinking Water	82.8	16.0	0.8	0.1	0.0	0.0	0.3	1,874,681
Telephone Service	48.7	45.0	4.1	0.2	0.9	1.0	0.2	2,040,933
Milling Service	65.1	33.7	0.8	0.0	-	0.4	0.1	2,102,909
Source of Fire Wood	57.0	36.9	3.9	1.2	0.3	0.5	0.2	2,065,175
All weather road	76.8	21.4	0.6	0.1	-	0.8	0.4	2,012,099
Veterinary service	20.5	46.7	14.2	1.0	0.3	1.2	16.2	2,112,836
Fertilizer supplier	21.4	44.7	13.0	1.0	0.2	2.2	17.6	2,111,492
Improved seeds supplier	20.3	45.1	13.0	1.0	0.9	2.1	17.6	2,109,781
Pest./Insect. Supplier	21.4	45.1	12.1	0.9	0.5	2.5	17.5	2,107,734
Micro finance	28.4	49.0	6.1	0.4	1.8	8.7	5.6	2,091,321
Rural								
Food Market	17.1	26.9	30.6	12.0	9.1	4.3	0.0	11,306,900
Post Office	11.0	4.4	14.7	11.2	18.5	40.1	0.1	11,312,298
Transport Service	15.2	12.8	17.9	11.2	14.5	28.3	0.1	11,305,314
Source of Drinking Water	44.7	47.4	5.6	1.0	0.7	0.6	0.1	11,281,811
Telephone Service	11.6	5.6	17.1	12.6	19.4	33.6	0.1	11,322,316
Milling Service	24.1	41.3	23.1	5.8	3.6	2.2	0.0	11,314,632
Source of Fire Wood	32.5	39.5	17.3	5.7	2.9	2.1	0.1	11,118,438
All weather road	21.2	20.8	18.5	9.5	11.9	18.2	0.1	11,259,029
Veterinary service	14.3	16.4	25.9	14.4	13.5	15.4	0.1	11,316,222
Fertilizer supplier	14.6	16.8	22.9	11.5	13.8	20.4	0.1	11,313,499
Improved seeds supplier	14.4	15.9	22.7	11.9	13.9	21.1	0.2	11,311,909
Pest./Insect. Supplier	14.1	14.4	22.3	12.3	14.2	22.6	0.2	11,313,652
Micro finance	11.2	5.4	14.3	10.9	17.0	37.7	3.6	11,293,604

one percent of the households are that much far away from this facility (Summary Table VII.1 and Fig.7.1).

c. Telephone Services

According to the results obtained from this survey about 45 percent of the total households, need to travel for 15 or more kilometers to reach the nearest telephone service unit. This indicating that a majority of the households need to travel a long distance to reach telephone service centers. In worse conditions, about 29 percent are at least 20 kilometers away from this service. Summary Table VII.1 further displays that only 44 percent of the total households can get telephone service within less than 10 kilometers. Urban-rural differential also manifests the existing incomparable distribution of telephone service. About 94 percent of urban households have telephone within a distance of less than 5 kilometers compared to 17 percent of rural households. On the other hand, 53 percent of rural households compared to 2 percent of urban are 15 or more kilometers away from telephone facilities (Summary Table VII.1 and Fig.7.1). It has also been noted that access to telephone service in less than 5-kilo meters distance has been increasing over time in both rural and urban areas (See Fig.7.2).



d. Postal Services

According to the results of this survey, about half of the total households (50.1 percent) are 15 or more kilometers away from postal service, while about 40.1 percent of them need to travel less than 10 kilometers to reach the nearest postal service unit. This distribution is much more influenced by rural-based households. More than 58 percent of

households in rural areas are 15 or more kilometers away from post office compared to 5 percent of urban households. Only 30 percent of rural households have postal service within 10 kilometers distance compared to more than 94 percent of urban residents. It is also found that this service is available within 4 kilometers distance for 84 percent of the households residing in urban areas in comparison with only 15 percent in rural areas (Summary Table VII.1 and Fig.7.1).

e. All Weather Road

The inquiry made to households on how far they need to go to reach the nearest all weather road indicates that about 42 percent of rural households are less than five kilometers away from the closest all weather road. while around 58 percent still need to travel five or more kilometers to reach the nearest all weather road (Summary Table VII.1 and Fig.7.1). The corresponding accessibility in urban areas, as would be the case, is much better. Around 98 percent live within five kilometer radius of the nearest all weather road. The trend overtime also indicates that availability of all weather roads within five kilo-meters radius has been increasing over time in both rural and urban areas (See Fig.7.2).

f. Transport Services

More than one-third (35.4 percent) of the total households in the country have problems in accessing transportation services. The proportion of households that need to travel over 15 km is more than 43 percent in rural areas and less than 2 percent in urban areas. On the other hand, almost every urban household (98.1 percent) is living within less than 10 kilometers radius from transportation facilities while only 45.9 percent has this opportunity in the rural part of the country. The gap is even wider (comparing urban and rural areas) at accessing transport services in shorter distances. About 97 percent of urban households against 28 percent of rural households can have access to transport services within a distance of less than 5 kilometers (Summary Table VII.1 and Fig.7.1).

g. Veterinary Service

Information on veterinary service is also introduced in the 2004 WMS. At country level, slightly more than one-third (36.5 percent) have access to veterinary service within less than 5 kilometers. About 37 percent of the households are at least 10 kilometers away from the nearest veterinary service providers (Summary Table VII.1 and Fig.7.1). Comparing urban and rural areas, more than 67 percent of the urban households have veterinary service at a distance of less than 5 kilometers while only 31 percent of rural residents have this opportunity. On the other extreme, 43.3 percent of the rural households need to travel 10 or more kilometers to get veterinary service compared to only 2.5 percent of the urban households.

h. Agricultural Inputs

With regard to accessibility of agricultural inputs, results for rural areas only are presented in this report. The inquiry made to households on how far they need to travel to reach the nearest suppliers of agricultural inputs (fertilizer supplier, improved seeds suppliers and pesticide/insecticide suppliers) shows that about 30 percent of rural households could access fertilizer, improved seeds and pesticide/pesticide suppliers within five kilometers distance. The findings also show that around 70 percent of rural residents still need to travel five or more kilometers to get agricultural inputs (Summary Table VII.1 and Fig.7.1).

h. Micro Finance

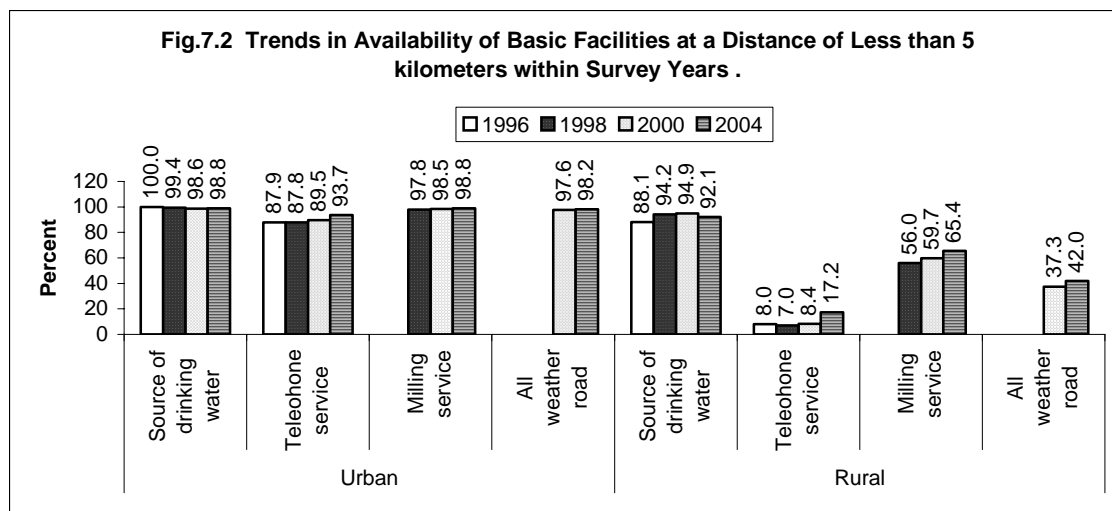
About one-third (33.1percent) of the total households in the country who need to travel 20 or more kilometers to reach the nearest micro finance services provide. The proportion of households that need to travel less than five km is more than 77 percent in urban areas and only 17 percent in the rural areas. On the other hand, most of urban household (83.5 percent) live within less than 10 kilometers radius from micro finance services while only 30.9 percent has this opportunity in the rural part of the country (Summary Table VII.1 and Fig.7.1).

i. Firewood

Rural households mostly use collected firewood. Proximity to the source of firewood will have impact on time allocation, i.e. the closer the place where firewood is collected, the less time spent to access it. This will enable the households to efficiently utilize labour and time in their daily activities. In the urban areas too, the closeness of the source of firewood to households would also facilitate their day-to-day activities and reduce the time spent on obtaining it. The results of the survey indicate that most of the households have relatively good access to source of firewood. About 72 percent of rural and 94 percent of urban households can buy or collect firewood within less than five-kilometer distance. The findings also revealed that about 11 percent of rural and 2 percent of urban households need to go for 10 or more kilometers to collect/buy firewood (Summary Table VII.1 and Fig.7.1).

j. Milling Services

Milling facility is available within less than five kilometers for 71 percent of the total households in the country. Nevertheless, it is also indicated that more than 10 percent of the households are at least 10 kilometers away from the nearest milling houses (Summary Table VII.1 and Fig.7.1). As usually is the case, the extent of availability of milling service among resident households of the country exhibits much better access in urban areas. More than 98 percent of the urban households have milling house at a distance of less than five kilometers while only 65 percent of rural residents have this opportunity. On the other extreme, 12 percent of the rural households need to travel 10 or more kilometers to get milling service compared to almost none of the urban households (0.4 percent). Trend over time prompts that in urban areas, availability of milling services within 5 kilo meters radius is more or less the same where as, in rural areas, the proportion is considerably increased (See Fig.7.2).



7.3 Utilization of and Satisfaction with Basic Facilities/ Services

Households may or may not use the nearest basic facilities in their vicinity. Further questions were imposed on sampled households to assess the status of utilization of these facilities. To analyze further why the households did not use these facilities, the enquiry also included reasons for not using the nearest available facility.

As presented in Summary Table VII.2 and Tables 7.2(a) - 7.2(c), the survey results have shown that almost all of the households reported utilization of the nearest food market (99 percent), source of drinking water (99.8 percent), milling service (96.3 percent) and the nearest source of firewood (94.1 percent). On the other hand, only few households have reported utilization of the nearest available postal service (21 percent) and telecommunication (29.8 percent). Among rural households, veterinary service (55 percent), fertilizer supplier (49 percent) improved seeds supplier (35 percent), and pesticide/insecticide supplier (36 percent) are fairly utilized. The majorities of rural households also have confirmed to use the closest all weather road (73 percent) and transport services (61 percent), respectively.

Summary Table VII.2: Status of Utilization of the Nearest Facilities/Services by Type of Facilities/Services, Place of Residence and Survey years

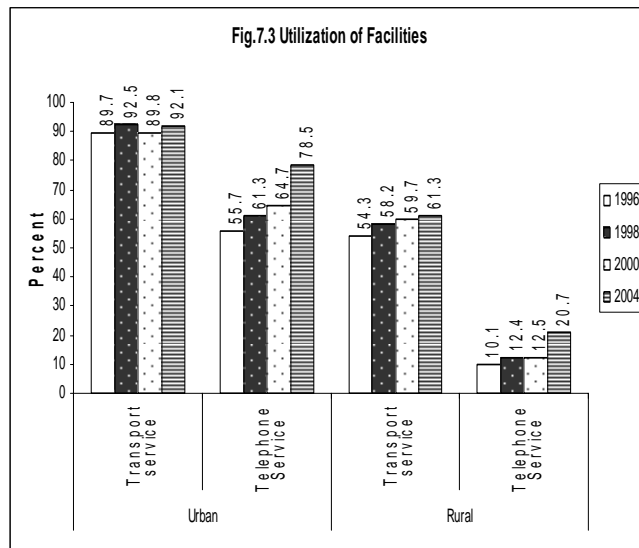
Type of facility \ Place of residence	Survey year			
	1996	1998	2000	2004
Country				
Food Market	99.0	98.8	98.0	99.0
Post Office	16.3	16.0	16.7	21.0
Transport Service	59.7	63.0	64.0	66.2
Source of Drinking Water	89.7	97.5	99.2	99.8
Telephone Service	17.0	19.3	20.1	29.8
Milling Service	-	93.0	93.5	96.3
Source of Fire Wood	-	93.9	94.2	94.1
All weather road	-	-	76.4	76.6
Veterinary service	-	-	-	49.7
Fertilizer supplier	-	-	-	43.7
Improved seeds supp.	-	-	-	31.0
Pesticides/insecticide supp.	-	-	-	32.8
Micro-finance	-	-	-	13.1
Urban				
Food Market	98.5	97.2	95.9	98.6
Post Office	48.2	47.7	47.1	54.1
Transport Service	89.7	92.5	89.8	92.1
Source of Drinking Water	98.5	95.1	99.1	99.7
Telephone Service	55.7	61.3	64.7	78.5
Milling Service	-	92.6	93.4	93.7
Source of Fire Wood	-	90.3	90.4	89.8
All weather road	-	-	95.7	95.8
Veterinary service	-	-	-	17.6
Fertilizer supplier	-	-	-	8.8
Improved seeds supplier	-	-	-	6.9
Pesticides/insecticide supp.	-	-	-	8.6
Micro-finance	-	-	-	14.0
Rural				
Food Market	99.1	99.1	98.4	99.1
Post Office	10.6	10.7	11.6	14.8
Transport Service	54.3	58.2	59.7	61.3
Source of Drinking Water	88.1	97.8	99.3	99.8
Telephone Service	10.1	12.4	12.5	20.7
Milling Service	-	93.0	93.5	96.8
Source of Fire Wood	-	94.5	94.8	94.9
All weather road	-	-	73.1	73.1
Veterinary service	-	-	-	54.7
Fertilizer supplier	-	-	-	49.0
Improved seeds supplier.	-	-	-	34.7
Pesticides/insecticide supplier.	-	-	-	36.5
Micro-finance	-	-	-	13.0

' - ' Designates data not available

Utilization of these facilities by urban-rural based households exhibits a slight variation. Generally, while more proportion of rural households reported to use the nearest basic necessity services: food market, source of drinking water, milling service and source of

Transport and communication, firewood, higher proportion of urban households are observed to use basic infrastructures postal services, telecommunication and transport services (Summary Table VII.2 and Tables 7.2(a) - 7.2(c)).

The previous surveys have also manifested similar phenomenon. There is an increasing proportion of households that utilize the nearest services. The survey, in particular has revealed that utilization of telephone service has considerably increased among urban and rural households. Utilization of the other services is found more or less the same over time (Summary Table VII.2 and Fig.7.3).



Households that use the nearest basic facilities/services were additionally asked whether they are satisfied with the services or not. Change in quality of the facilities over the past one year prior to the survey were also assessed (except source of firewood) The survey results have shown that out of the households that reported utilization of the nearest basic facilities, the majority (57 to 93 percent) responded that they are satisfied with the services provided by each of the facilities (Summary Table VII.3 and Tables 7.2(a) - 7.2(c)).

**Summary Table VII.3: Satisfaction with and Changes in Quality of Basic Services by
Place of Residence - 2004**

Place of residence	Satisfied	Change in quality over the 12 months prior to the survey				
		Worse now	Same	Better now	Don't know	Not stated
Country						
Food market	82.2	7.2	51.6	39.5	1.0	0.7
Post office	77.2	3.9	47.6	36.5	10.1	1.9
Transport service	72.5	5.7	44.1	43.9	4.5	1.8
Source of drinking water	67.7	11.9	64.4	22.8	0.4	0.4
Telephone service	81.7	3.4	32.8	56.1	6.2	1.5
Milling service	86.7	5.6	43.2	49.5	1.0	0.6
All weather road	72.7	6.2	55.4	35.1	2.1	1.3
Veterinary service	70.7	10.4	48.4	35.1	4.7	1.5
Fertilizer supplier	57.8	23.4	43.7	28.4	3.2	1.2
Improved seed supplier	57.3	21.0	45.6	28.6	3.7	1.2
Pestic./Insect.supplier	64.2	14.6	50.1	29.4	4.7	1.3
Micro-finance	73.4	6.6	40.3	40.8	8.6	3.7
Urban						
Food market	83.1	10.7	46.0	41.5	1.2	0.6
Post office	81.0	3.7	46.6	41.2	6.8	1.7
Transport service	80.2	5.5	38.4	52.8	2.2	1.1
Source of drinking water	78.3	9.1	48.1	41.3	1.0	0.4
Telephone service	84.8	2.8	29.8	63.3	2.8	1.4
Milling service	92.6	2.8	40.4	55.0	1.3	0.5
All weather road	80.1	6.9	50.2	40.9	1.1	1.0
Veterinary service	78.1	6.7	39.1	45.0	6.8	2.5
Fertilizer supplier	61.8	20.4	41.1	31.0	5.0	2.5
Improved seed supplier	64.6	16.4	37.8	36.7	5.9	3.2
Pestic ./Insect. Supplier	65.7	14.2	46.3	29.9	5.7	3.9
Micro-finance	77.6	4.8	41.9	41.1	8.3	3.9
Rural						
Food market	82.0	6.5	52.7	39.2	0.9	0.7
Post office	74.6	3.9	48.3	33.3	12.4	2.1
Transport service	70.3	5.8	45.7	41.3	5.1	2.0
Source of drinking water	65.7	12.5	67.5	19.3	0.3	0.4
Telephone service	79.5	3.9	35.0	51.0	8.6	1.6
Milling service	85.6	6.2	43.7	48.6	1.0	0.6
All weather road	70.9	6.0	56.6	33.7	2.4	1.3
Veterinary service	70.3	10.5	48.8	34.6	4.6	1.4
Fertilizer supplier	57.7	23.5	43.8	28.4	3.2	1.2
Improved seed supplier	57.1	21.1	45.8	28.3	3.6	1.1
Pestic./Insec. Supplier	64.1	14.6	50.2	29.4	4.6	1.2
Micro-finance	72.6	7.0	40.0	40.8	8.7	3.7

Households utilizing the nearest basic facilities were also asked whether they have experienced any change in the quality of the services provided by the nearest facilities over the 12 months prior to the survey date (Summary Table VII.3 and Tables 7.2(a) - 7.2(c)). Around 19 to 63 percent of the households reported that the services rendered by the selected facilities are becoming better over the 12 months period prior to the survey date. Very similar proportion of households has also reported the services to remain being under the same quality over the period under consideration. The proportion that reported worsening conditions is below 12 percent except for agricultural inputs where about 21 to 24 percent of rural households reported worsening condition. More than 50 percent of both urban (63 percent) and rural (51 percent) households on the other hand have indicated improving situation of telecommunication services. Transport service is reported to be one of the improving services in urban (53 percent) and rural (41 percent) areas (See Summary Table VII.3 and Tables 7.2(a) - 7.2(c)).

7.4 Reason for Not Using the Nearest Facilities

Households that do not use or occasionally use any of the indicated facilities at their closest vicinity were further asked to state their reasons for doing so. Options given in WMS questionnaire include cost of the services, proximity of the service, poor quality service, incomplete services and lack of experience with the particular service/facility or/and lack of the service. These cent reasons were given those households who were unable to comment on why they did not utilize the nearest facility, or households who believe that they do not need the facility. These households, for instance, are those who have never communicated via post office or telecommunications or those households who never had a school attendant in the nearest available school.

Two major reasons have been cited for high proportion of households that reported not to use telecommunication, postal and transport services available at their closest range. These reasons, as reported by both urban and rural based households, are still far distance to the service and absence of the need for that facility (Summary Table VII.4 and Tables 7.3(a) - 7.3(c)).

Summary Table VII.4. Percentage Distribution of Households by Reason for Not Using the Nearest Facilities/Services, Type of Facilities/Services and Place of Residence - Year 2004

Type of Facilities And Place of Residence	Reason for Not Using the Nearest Facilities/Services						
	Too far	Expensive	Poor Quality Service	Lack of staff/equipment	Facility Doesn't Offer Full Service	Have no need of it/ no experience	Other Reason
Country Level							
Food Market	31.6	16.9	9.1	1.3	17.4	34.8	5.5
Post office	18.4	2.3	1.6	0.5	1.8	72.7	4.1
Transport Service	26.1	22.7	2.7	0.6	4.4	53.9	4.9
Drinking Water	37.5	14.6	11.4	4.3	16.4	21.8	13.5
Telephone Service	19.0	6.7	1.3	0.5	1.5	75.5	4.1
Milling Service	22.0	35.7	8.9	1.5	7.6	37.8	8.2
Source of Fire wood	13.4	10.8	1.0	0.3	1.9	64.4	8.6
All weather road	32.7	15.1	5.0	1.1	7.2	50.9	4.1
Veterinary service	27.4	19.2	4.4	3.6	7.9	51.7	4.4
Fertilizer supplier	17.1	39.8	3.7	1.8	6.4	47.0	5.1
Improved seeds supplier	16.1	40.5	3.9	1.8	7.9	44.0	5.5
Pest/Insect. supplier	16.5	31.0	3.3	2.2	7.3	51.4	4.9
Micro-finance	19.2	6.8	2.3	1.2	5.7	63.0	9.3
Urban							
Food Market	12.0	16.2	5.4	1.4	7.8	56.6	6.8
Post office	7.2	2.5	3.4	1.0	4.6	78.5	4.3
Transport Service	5.3	18.4	4.5	0.8	5.7	64.0	6.4
Drinking Water	13.0	7.4	10.7	5.7	18.3	37.6	11.4
Telephone Service	5.8	12.6	3.0	0.6	3.4	71.7	4.9
Milling Service	3.5	8.2	5.8	1.7	5.7	70.1	6.9
Source of Fire wood	5.3	10.9	1.3	0.3	1.1	72.9	6.0
All weather road	6.1	9.9	6.3	1.5	5.1	65.3	6.9
Veterinary service	1.5	2.3	1.1	0.7	1.8	89.8	2.3
Fertilizer supplier	1.1	3.8	0.6	0.5	1.3	90.6	2.0
Improved seeds supplier	1.3	4.6	0.6	0.6	1.4	89.4	2.2
Pest/Insecticide supplier	1.1	3.7	0.7	0.6	1.6	89.6	2.3
Micro-finance	6.3	3.3	1.6	0.6	2.8	78.6	6.8
Rural							
Food Market	35.3	17.0	9.8	1.3	19.2	30.7	5.3
Post office	20.0	2.3	1.3	0.4	1.5	77.3	4.1
Transport Service	28.0	23.1	2.5	0.6	4.3	52.9	4.7
Drinking Water	47.7	17.6	11.7	3.7	15.6	15.2	14.4
Telephone Service	20.4	6.1	1.1	0.5	1.3	75.9	4.0
Milling Service	25.3	40.7	9.5	1.5	8.0	32.1	8.4
Source of Fire wood	17.5	10.8	0.8	0.3	2.4	59.9	10.0
All weather road	34.1	15.4	5.0	1.0	7.4	50.2	3.9
Veterinary service	32.5	22.6	5.1	4.1	9.1	44.1	4.9
Fertilizer supplier	20.4	47.3	4.4	2.1	7.4	38.0	5.8
Improved seeds supplier	18.7	46.8	4.4	2.0	9.1	35.9	6.1
Pest/Insecticide supplier	19.2	35.9	3.8	2.4	8.4	44.5	5.4
Micro-finance	21.5	7.4	2.4	1.4	6.2	60.3	9.7

CHAPTER VIII

HOUSING, STATUS OF HOUSING FACILITIES AND TENURE

8.1 Introduction

Lack of adequate shelter, poor sanitation, insufficient and unsafe water supply, inappropriate defecating facilities and inadequacy of basic housing facilities, etc in general, characterize the extent of poverty in developing countries. Inaccessibility to these basic needs have adverse effect on individual's health conditions, environmental safety and the general well -being of the society at large. Monitoring quantitative and qualitative changes regarding these basic necessities requires continuous data flow.

The WMS, beginning from 1995/96, has been producing indicators related to basic facilities such as drinking water, energy, quality of houses, tenancy status and related facilities. This chapter specifically presents data useful to assess the prevailing welfare status of households with respect to the basic facilities and hints on whether or not households are experiencing improvements or deterioration in quality of houses, tenancy status, and housing amenities/facilities. The specific issues discussed in this chapter include sources of drinking water, type of fuel used for cooking, type of toilet facilities, methods of waste disposal, sources of energy for lighting, tenancy status, quality of dwelling units and access / use of electricity and its frequency of interruption /power failure.

8.2 Sources of Drinking Water

Lack of safe water is one of the major causes of diseases and death in developing countries. Adequate and safe drinking water for all is an effective way of protecting the expansion of water borne diseases such as diarrhea, cholera, dysentery, etc. which are potential causes of loss of life especially in the case of children. Information on the estimated number of people using unsafe water for drinking would be of great importance for policy considerations in the context of supplying adequate water for body requirement as well as for mitigating the spread of water borne diseases. Within this premise the survey was designed to provide data on sources of drinking water that households mostly

use. Five sources of drinking water are identified in this survey include own tap, public tap (bono), protected well/spring, unprotected well/spring, and river or lakes. The first three are assumed to supply safe water while the last two are classified as unsafe sources of water.

Summary Tables VIII.1 and fig 8.1(a) show that most of the households in the county (63.9 percent) use unclean drinking water comprising from river or lake (27.8 percent) and those households that fetch their water from unprotected well/spring constitute (36.1 percent). Households that have access to safe water account for 35.9 percent which constitutes 12.9 percent of households that use water from protected well or spring, 18.8 percent from public tap, and 4.2 percent households that have their own tap. The problem is much more severe among rural households than urban. About 74.5 percent of rural households do not have clean water compared to 7.6 percent of urban households. More than 90 percent of households in urban areas (92.4 percent) have access to safe water in contrast to almost a quarter of rural residents (25.2 percent).

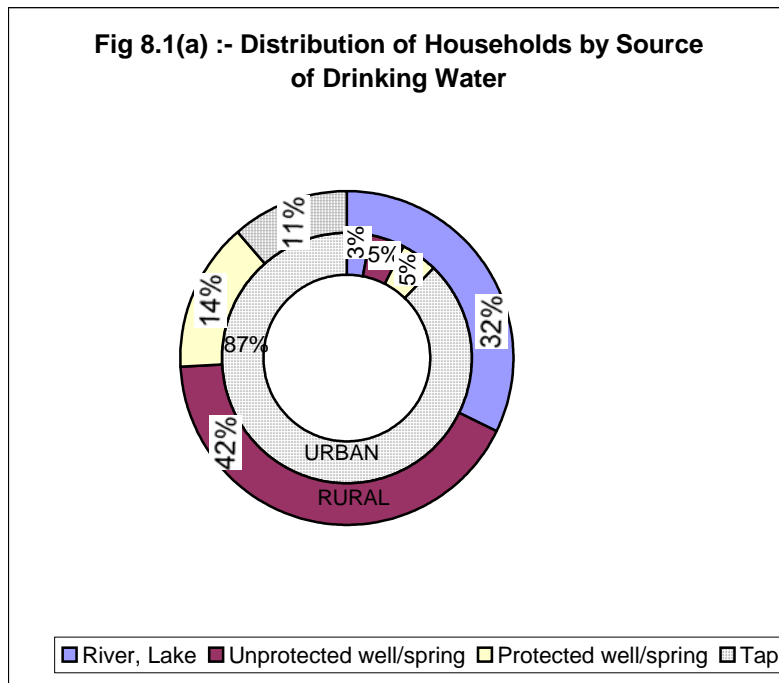
In rural areas, the sources of drinking water for 32.4 percent of the households are rivers and lakes. About 42.1 percent are also found to have reported unprotected well or spring as their source of drinking water. Rural households that have reported protected well/spring and public tap as their source of drinking water constitute 14.4 percent and 10.2 percent, respectively. The survey also reveals that a very negligible proportion of rural households (0.6 percent) have reported to use their own tap as source of drinking water. In the contrary, urban households have better access to the sources of safe water. These comprise 64.4 percent of the households that use public tap, 23.3 percent that use own tap and 4.7 percent that use protected well/spring. On the other hand, urban households that do not have access to safe drinking water constitute 4.5 percent that use their water from unprotected well/spring and 3.1 percent that fetch water from rivers and lakes (see fig 8.1(a)).

Summary Table VIII.1 - Percentage Distribution of Households by Source of Drinking Water Place of Residence and Survey Year

Source of Drinking Water Place of Residence	Survey Year			
	1996	1998	2000	2004
Country level				
River, Lake	48.2	43.5	33.9	27.8
Unprotected well/spring	19.0	28.2	38.1	36.1
Unsafe Water	67.2	71.7	72.0	63.9
Protected well/spring	5.5	10.2	11.1	12.9
Public tap	11.4	10.8	13.5	18.8
Own tap	2.2	2.7	3.3	4.2
Safe water	19.1	23.7	27.9	35.9
Rural				
River, Lake	53.6	49.5	38.9	32.4
Unprotected well/spring	21.5	32.2	43.9	42.1
Unsafe Water	75.1	81.7	82.8	74.5
Protected well/spring	5.3	10.1	11.6	14.4
Public tap	4.2	3.6	5.3	10.2
Own tap	0.1	0.0	0.2	0.6
Safe water	9.6	13.7	17.1	25.2
Urban				
River, Lake	18.1	7.0	4.5	3.1
Unprotected well/spring	5.0	4.1	3.7	4.5
Unsafe Water	23.1	11.1	8.2	7.6
Protected well/spring	6.4	10.6	7.9	4.7
Public tap	51.4	54.1	62.1	64.4
Own tap	14.3	18.8	21.7	23.3
Safe water	72.1	83.5	91.7	92.4

Comparing the situation during the survey year and 12 months before that, more than 93 percent of the total households have reported that they have not experienced any change in the source of drinking water available to them (Tables 8.1(a) - 8.1(c)). The data also shows that urban-rural discrepancy in reporting changes over the period under consideration is negligible. Almost 95 and 89 percent of the rural and urban households respectively, (94.5 percent in rural areas and 89.3 percent in urban areas) have reported no changes in their source of drinking water. Only about two percent (1.8 percent) of urban and almost none of the rural households (0.01 percent) reported to have experienced an improving condition from using public tap to own tap.

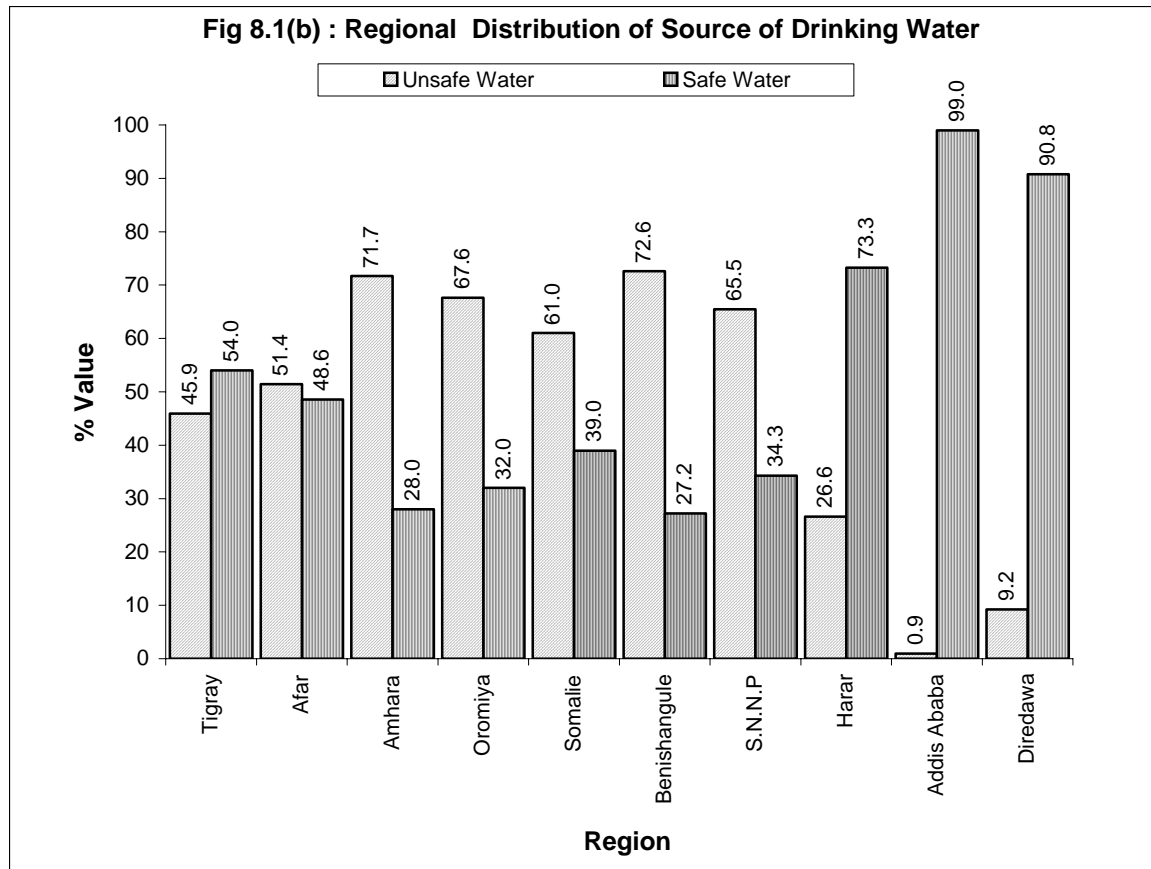
Likely, comparing the condition of water use just before 5 years and the survey time, the majority of the households in the country (80.7 percent) didn't experience any change in the source of drinking water. At country level the proportion of households that change their source from river/lake and unprotected well/spring to protected well/spring, from protected well/spring to public tap and from public tap to own tap are 2.5 percent, 0.4 percent and 0.7 percent respectively.



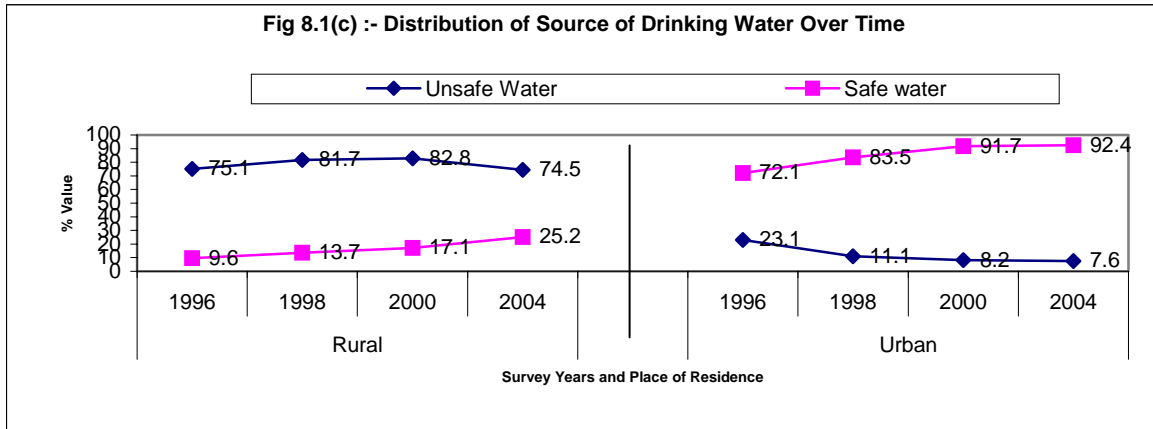
Over 70 percent of the households in Amahara and Beneshangul-Gumuz Regions use unsafe water from rivers, lakes and unprotected well/spring. The findings, on the other hand, have indicated that Harari (73.3 percent), Addis Ababa (99.0 percent) and Dire Dawa (90.8 percent) Regions to have better access to

clean water (Table 8.1(a)).

The results of the survey also revealed that the majority of the households in rural areas of the different regions are subjected to unsafe drinking water. The proportion of households that use unsafe water varies from 79.8 percent in rural areas of Amhara Region to 30.4 percent in rural area of Dire Dawa (Table 8.1(b)). As expected, the majority of urban households use safe water. It ranges from the highest proportion of 99.6 percent in Addis Ababa to the lowest proportion in urban areas of Beshangul-Gumuz (58.4 percent).

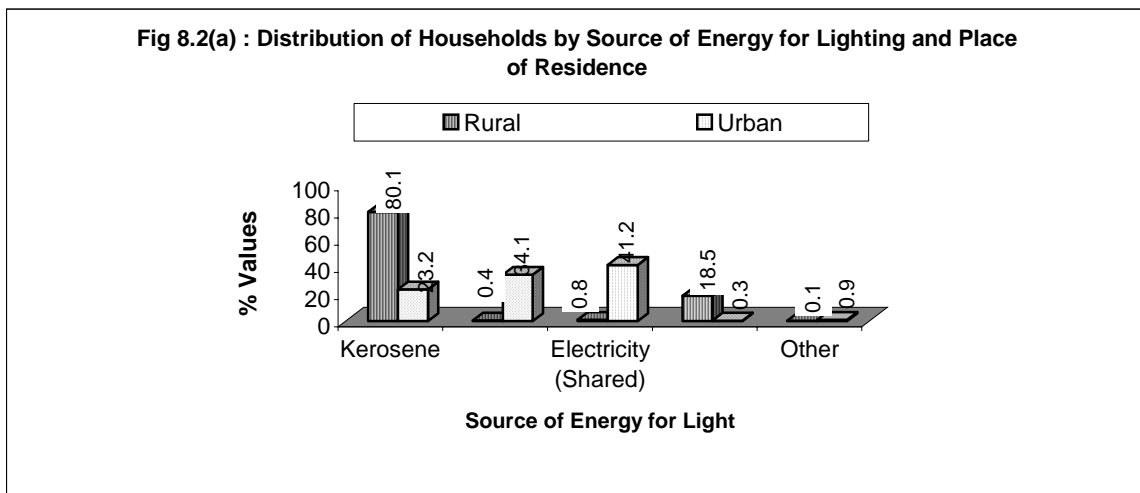


The summary results of the four surveys undertaken so far are also presented in Summary Tables VIII.1. The results of these surveys suggest two major findings. First, in both urban and rural areas and hence at country level, the proportions of households that have access to safe water have increased from 1996 to year 2004. Second, while the households exposed to unsafe water decrease in urban areas, a slight rising trend up to 2000 and then down fall to year 2004 is depicted at country level due to unbalanced conditions in rural areas. The exhibition of increasing trend in proportions of households exposed to unsafe water could possibly be a reflection of the imbalance between population growth and provision of safe water supply (see fig 8.1(c) below).



8.3 Source of Energy for Lighting

Households use different types of energy for lighting depending on the availability and/or affordability of these facilities. Electricity, kerosene, firewood and candles are main options given in the WMS questionnaire. The findings presented in Summary Tables VIII.2 show that about 71.1 percent of the total households use kerosene followed by firewood (15.7 percent) and electricity (12.9 percent). The use of these sources of light energy differ very much among rural and urban residents. A higher proportion of urban residents use electricity (75.3 percent), while the use of kerosene (80.1 percent) and firewood (18.5 percent) are predominant in rural areas.



Tables 8.2(a) - 8.2(c) present comparative results of change in source of energy for lighting referring to the situation now, 12 months ago and before 5 years by region and place of residence. In comparing the current year condition with those that prevailed before 12 Months, about 94.6 percent of the total households reported "no change" in the type of light energy for they use. The proportion of distribution of households for rural and urban areas is 95.9 percent and 87.9 percent, respectively. When looking at the status of using energy for lighting 4 years ago and now, 84.9 percent of the total households are using the same source as they were using 5 years before the survey period.

Summary Table VIII.2 - Percentage Distribution of Households by Source of Energy for Lighting, Place of Residence and Survey Year

Source of Energy for Lighting and Place of Residence	Survey Year			
	<i>1996</i>	<i>1998</i>	<i>2000</i>	<i>2004</i>
Country level				
Kerosene	67.8	73.6	67.9	71.1
Electricity (Private)	4.4	5.2	5.0	5.7
Electricity (Shared)	4.9	5.8	5.8	7.2
Fire Wood	–	–	20.8	15.7
Other*	22.9	15.4	0.4	0.2
Rural				
Kerosene	73.0	81.3	74.6	80.1
Electricity (Private)	0.2	0.8	0.5	0.4
Electricity (Shared)	0.5	0.4	0.4	0.8
Fire Wood	–	–	24.1	18.5
Other*	26.3	17.4	0.4	0.1
Urban				
Kerosene	38.6	26.9	28.6	23.2
Electricity (Private)	27.8	31.5	31.8	34.1
Electricity (Shared)	29.6	38.6	38.2	41.2
Fire Wood	–	–	1.1	0.3
Other*	3.9	3.1	0.4	0.9

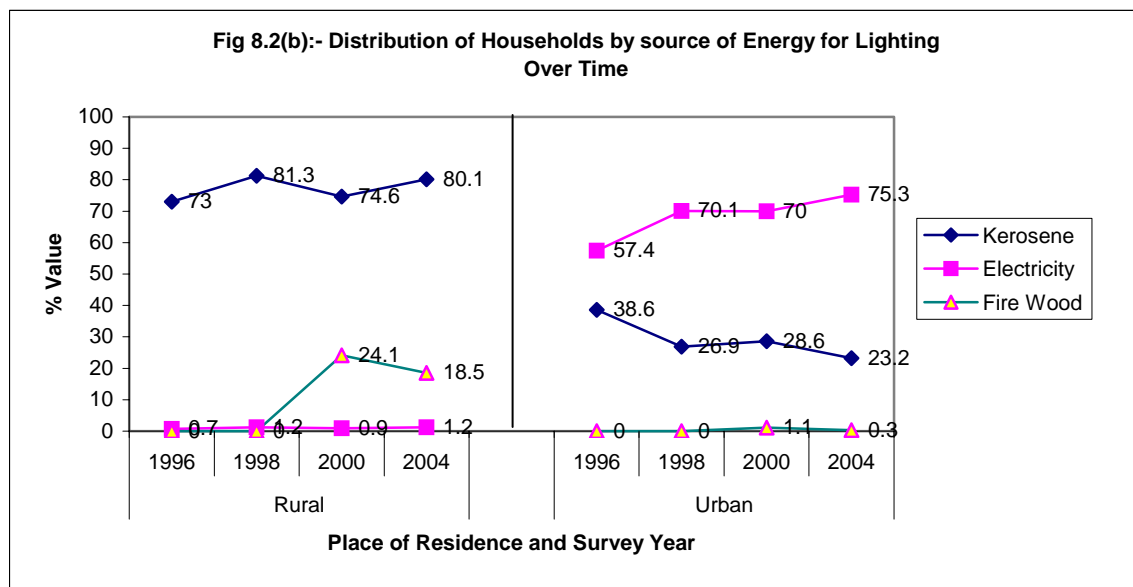
– " designates 'data not available'

* Includes firewood in 1996 and 1998 surveys

In most of the regions, the dominant source of energy for lighting is kerosene followed by firewood. Households that use these sources of energy constitute more than 73 percent ranging from 73.2 percent in Afar Region to 92.9 percent in S.N.N.P (Table 8.2(a)).

Exceptions are observed in Addis Ababa (5.4 percent), Harari (31.2 percent) and Dire Dawa (32.5 percent) with minimum use of kerosene and firewood.

The use of electric light is uncommon (less than 26.5 percent) in all regions except Addis Ababa (94.3 percent), Harai (68.8 percent) and Dire Dawa (67.2 percent). This result however by and large reflection of rural phenomena. The majority of urban households in all regions, however, use electric light except Somali (33.5 percent) and Beneshangul-Gumuz (45.2 percent) Regions.



Looking at the trend over the four survey years the findings have exhibited that the majority of rural households (more than 73 percent) use kerosene as a source of light, while electricity is the major energy for lighting among the majority of urban households (57 to 75 percent). Firewood in rural areas (more than 18 percent of households) and kerosene in urban areas (more than 23 percent) are the second most used sources of energy for light. There is also a slight tendency of increasing trend in the use of electricity in urban areas of the country (Summary Tables VIII.2 and fig 8.2(b)).

8.4 Type of Fuel Used for Cooking

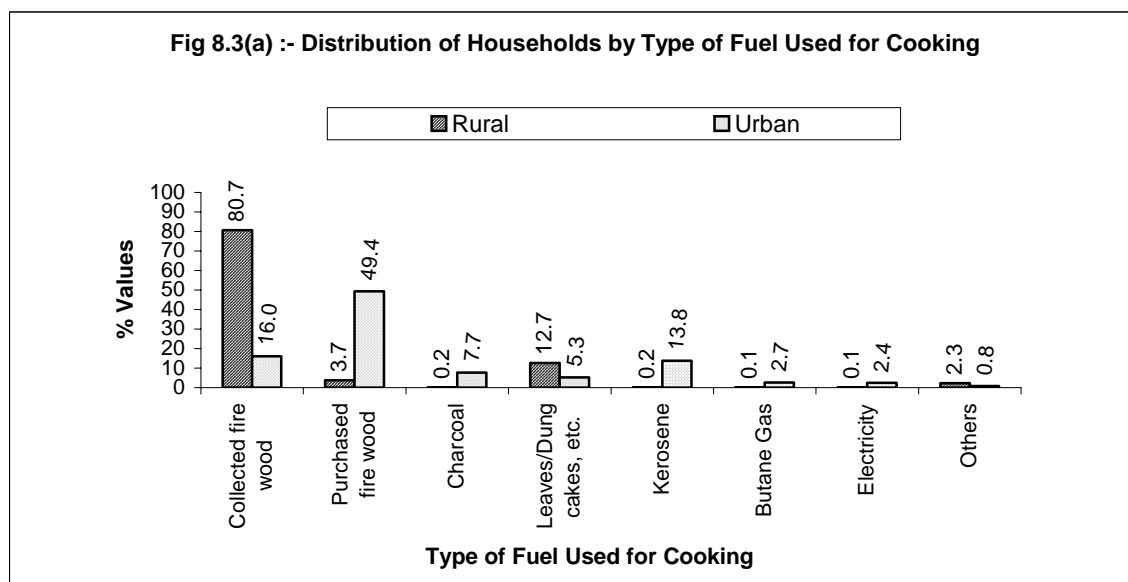
The use of modern fuel for cooking or the use of traditional energy depends on the availability of these facilities and capacity of the households. Electricity, butane gas, kerosene, charcoal, firewood and leaves/dung cakes are the common types of cooking fuel used in the country.

Summary Table VIII.3 - Percentage Distribution of Households by Type of Fuel Used For Cooking, Place of Residence and Survey Year

Type of Cooking Fuel and Place of Residence	Survey Year			
	1996	1998	2000	2004
Country level				
Collected fire wood	65.4	66.1	67.8	70.5
Purchased fire wood	8.0	9.9	8.0	10.9
Charcoal	0.7	0.8	1.2	1.3
Leaves/Dung cakes, etc.	17.4	18.0	15.6	11.5
Kerosene	3.0	2.6	3.3	2.4
Butane Gas	0.2	0.4	0.2	0.5
Electricity	0.4	0.5	0.4	0.4
Others	5.0	1.7	3.4	2.1
Rural				
Collected fire wood	74.1	74.7	76.4	80.7
Purchased fire wood	1.4	3.5	2.4	3.7
Charcoal	0.1	0.1	0.0	0.2
Leaves/Dung cakes, etc.	19.1	20.1	17.2	12.7
Kerosene	0.2	0.2	0.3	0.2
Butane Gas	0.0	0.1	0.1	0.1
Electricity	0.0	0.0	0.1	0.1
Others	5.2	1.4	3.6	2.3
Urban				
Collected fire wood	17.2	13.8	16.6	16.0
Purchased fire wood	44.5	49.1	41.3	49.4
Charcoal	4.3	5.0	8.3	7.7
Leaves/Dung cakes, etc.	7.6	5.3	6.3	5.3
Kerosene	18.9	17.2	21.5	13.8
Butane Gas	1.0	2.5	1.4	2.7
Electricity	2.7	3.8	2.2	2.4
Others	3.8	3.2	2.4	0.8

The distribution of households by type of fuel used for cooking is given in Summary Tables VIII.3. Major types of cooking fuel used by all households are firewood,

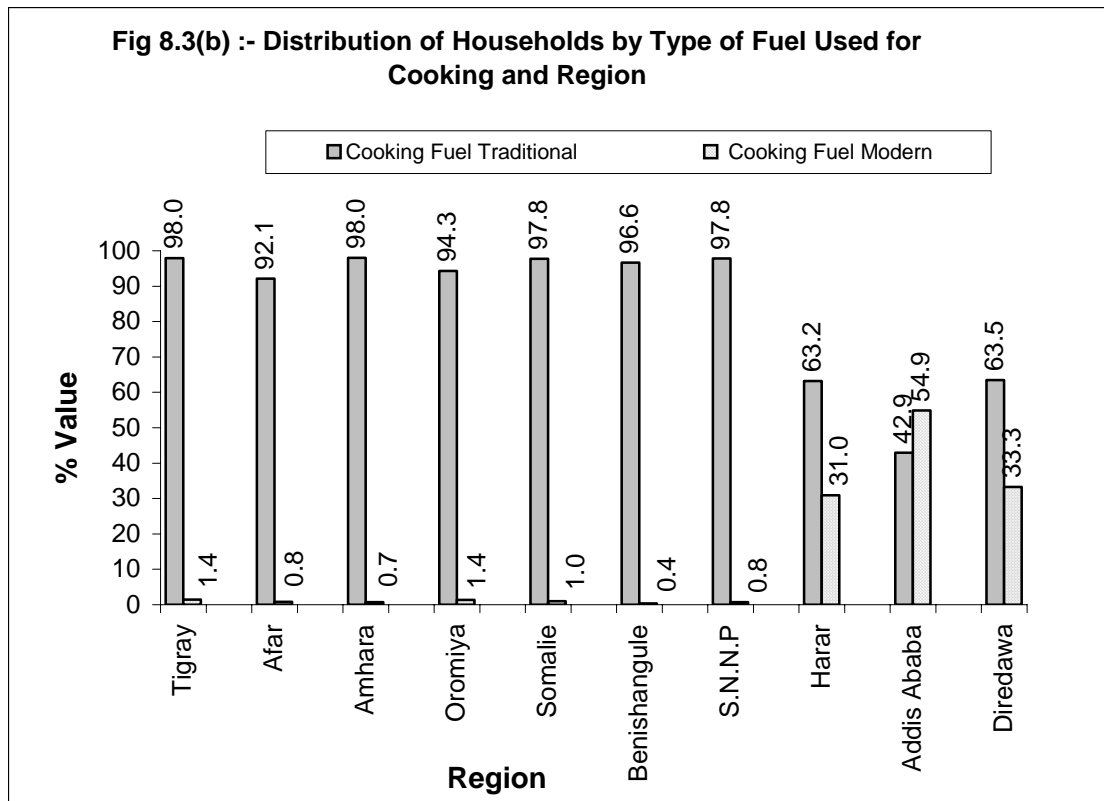
leaves/dung cakes and kerosene. At country level, about 81.4 percent of the households use firewood, around 11.5 percent cook their food using leaves/dung cakes and only 2.4 percent use kerosene for cooking. The majority of rural households use firewood (84.4 percent) and few of them (12.7 percent) use leaves/dung cakes. The use of modern source of cooking fuel such as butane gas, electricity and kerosene for cooking is uncommon in the rural areas (0.4 percent). Use of kerosene is not very common in urban areas stands at 13.8 percent following firewood (65.4 percent). Charcoal (7.7 percent), electricity (2.4 percent) and leaves (5.3 percent) are also used rarely by urban households. On the other hand, only 0.2 percent of the households in rural areas are observed to use charcoal for cooking. In the previous surveys, however, no household was reported to use charcoal as source of cooking fuel.



Results on regional distribution of sources of fuel energy used for cooking are presented in Table 8.3(a) - 8.3(c). Most of the households in both urban and rural areas use traditional ways of cooking which utilizes firewood, charcoal, and crop residue/sawdust as source of energy. Excepting the three regions: Addis Ababa (42.9 percent), Harari (63.2 percent) and Dire Dawa (63.5 percent), in all other regions more than 92.1 percent of the households do use traditional source of energy for cooking. Only very small proportion of households (less than 1.4 percent) are found to use electricity, butane gas

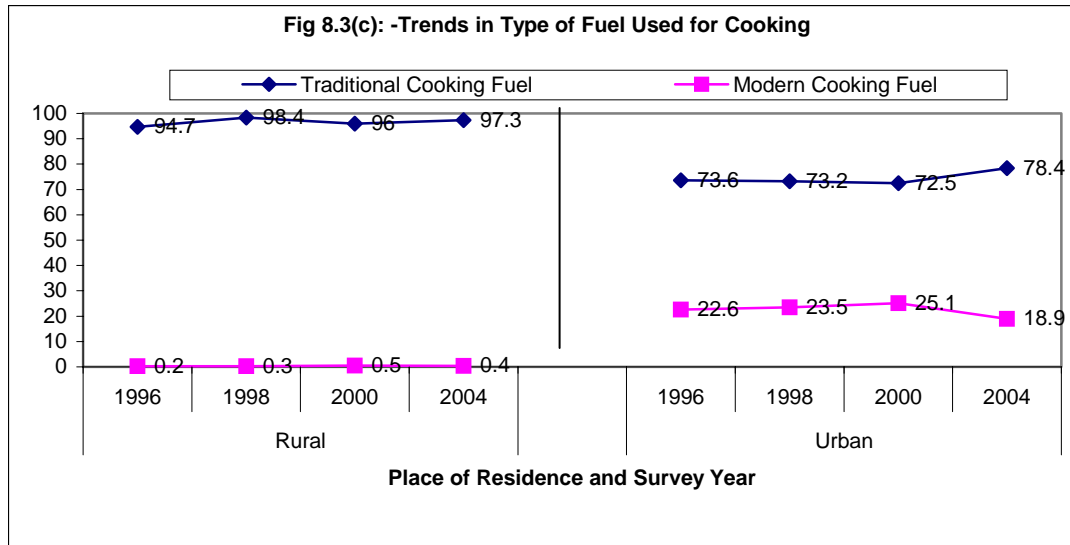
and kerosene for cooking. Nevertheless, far greater proportion of households in Addis Ababa (54.9 percent), Dire Dawa (33.3 percent) and Harari (31.0 percent) regions are observed to use modern cooking fuels (electricity, butane gas and kerosene).

Table 8.3(a) - 8.3(c) also indicate that comparing the conditions prevailing during the survey year and one-year before 95.4 percent of the households reported that they had not come across any change (improvement or deterioration) in the sources of energy they use for cooking. Similarly, comparing the situation 5 years prior to the survey and during the survey time, the proportion of households that have not experienced any change in the type fuel used for cooking is 86.6 percent.



Assessment of the four WMS data reveals that firewood is the major source of fuel for cooking all over the country. The evidences from the series of surveys indicate that more than 75 percent of rural households and more than 57 percent of urban households do use firewood for cooking. The next common types of cooking fuels are leaves/dung cakes among rural residents (13-20 percent) and kerosene among urban dwellers (14-22

percent). Electricity and butane gas as source of energy for cooking are used by less than 6 percent of urban households and about 0.2 percent for the corresponding rural households. Use of kerosene is also rarely common among rural households as well. On the other hand, the general trend over the four years does not depict any conclusive results.



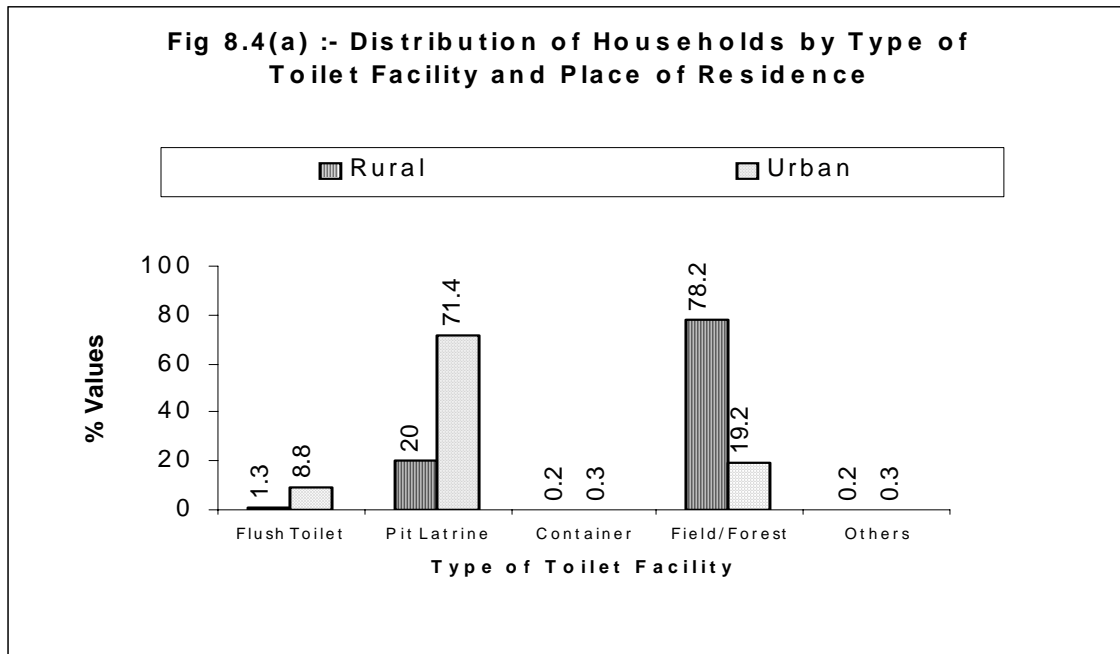
8.5 Toilet Facility

One of the indicators of the well - being of the households welfare incorporated in the Welfare Monitoring Surveys includes availability and quality of toilet facility. Availability of standard toilet facilities for households indicates not only the well being of households but also helps in lessening the spread of disease associated with poor sanitation. The data collected in the WMS enables to assess the extent of availability of toilet facilities as well as identification of the types of toilet the households use. The WMS questionnaire includes four types of toilet facilities including flush toilet, pit latrine, container and field/forest.

It can be observed from Summary Tables VIII.4 that the majority of the households (68.9 percent) do not have toilet facilities and hence use open field or forest. About 28.1 percent of the total households have the opportunity to use pit latrine. This finding is much more influenced by rural households where more than 78 percent do not have toilet facility. Only 20 percent of rural households have pit latrine. The urban households,

though are in a better condition, still have significant proportion of households without toilets. It will be much more serious to observe around one-fifth (19.2 percent) of the urban households not having toilet and using open field. In urban areas, the data also indicates that about 71.4 percent of the households have reported to use pit latrine and 8.8 percent flush toilets.

The data from the four WMS (Summary Tables VIII.4) also indicate that more than 78 percent of the rural households and 19 to 42 percent of the urban households do not have toilet facilities. Nevertheless, there is a significant of improvement towards acquiring better toilet facilities. The proportion of households that use pit latrine rises consistently in both the urban and the rural areas; and the proportion that use field/forest decreases



(with faster rate in the urban than the rural areas) over the four survey years.

Summary Table VIII.4 - Distribution of Households by Type of Toilet Facility, Place of Residence and Survey year

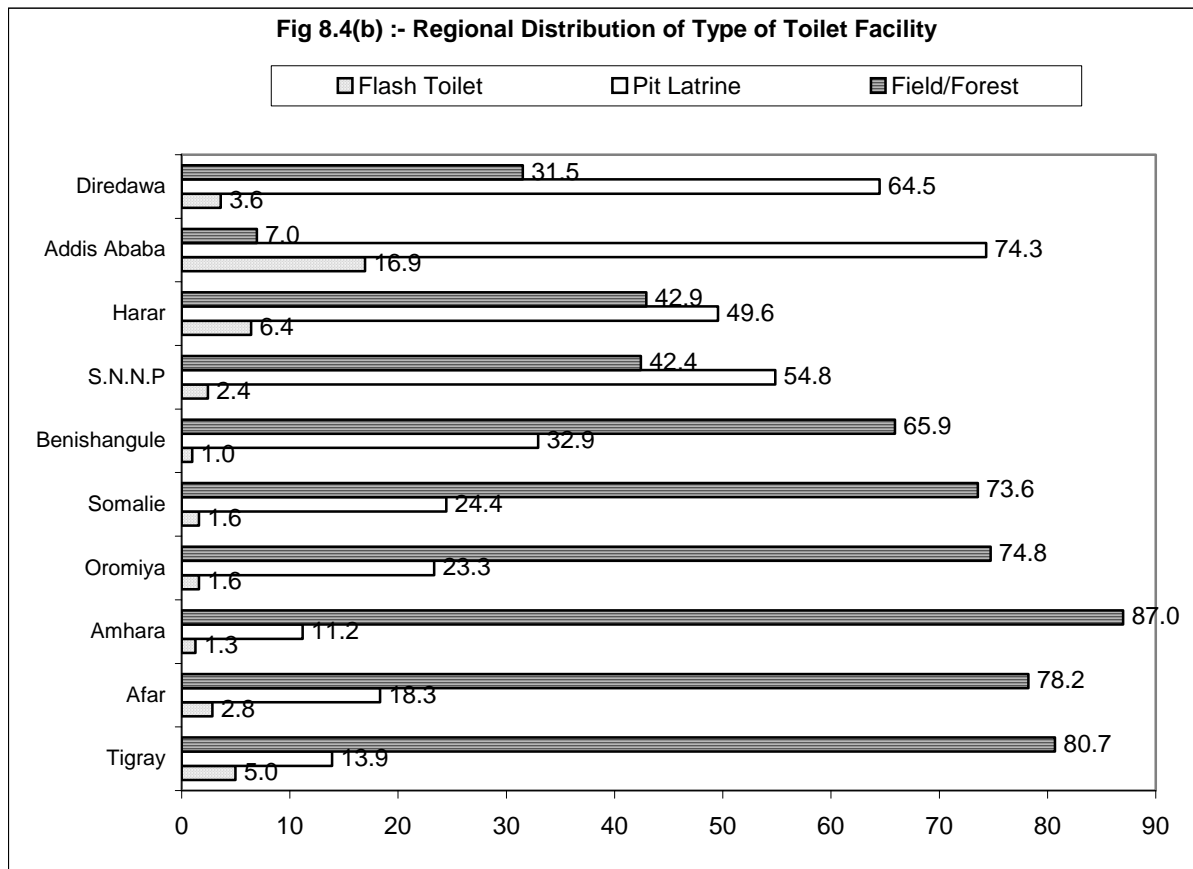
Type of Toilet Facility and Place of Residence	Survey Year			
	<i>1996</i>	<i>1998</i>	<i>2000</i>	<i>2004</i>
<i>Country</i>				
Flush Toilet	0.9	1.4	1.7	2.5
Pit Latrine	12.1	14.6	16.3	28.1
Container	0.1	0.3	0.1	0.2
Field/Forest	84.4	83.3	81.5	68.9
Others	2.5	0.4	0.5	0.2
<i>Rural</i>				
Flush Toilet	0.6	0.9	0.8	1.3
Pit Latrine	4.4	6.6	8.1	20.0
Container	0.1	0.2	0.0	0.2
Field/Forest	92.0	92.0	90.7	78.2
Others	2.9	0.4	0.4	0.2
<i>Urban</i>				
Flush Toilet	2.4	4.4	7.0	8.8
Pit Latrine	55.6	63.3	64.6	71.4
Container	0.2	0.9	0.7	0.3
Field/Forest	41.7	30.6	26.9	19.2
Others	0.2	0.8	0.8	0.3

Comparing the changes in toilet facility over 12 months time, at least 90.2 percent of the households in both rural and urban areas have reported that no change had been experienced in the quality of toilets (Tables 8.4(a) - 8.4(c)). However, a very negligible proportion of the total households (1.0 percent) have come down from using pit latrine to use field/forest. While, conversely, more households (5.1 percent) have moved from using open field to pit latrine. The distribution of the total households that didn't show any change in their toilet facility since 5 years before the survey period is 79.6 percent.

Table 8.4(a) - 8.4(c) presents distribution of households by region and type of toilet facilities. The survey has revealed that the vast majority of the households in the regions

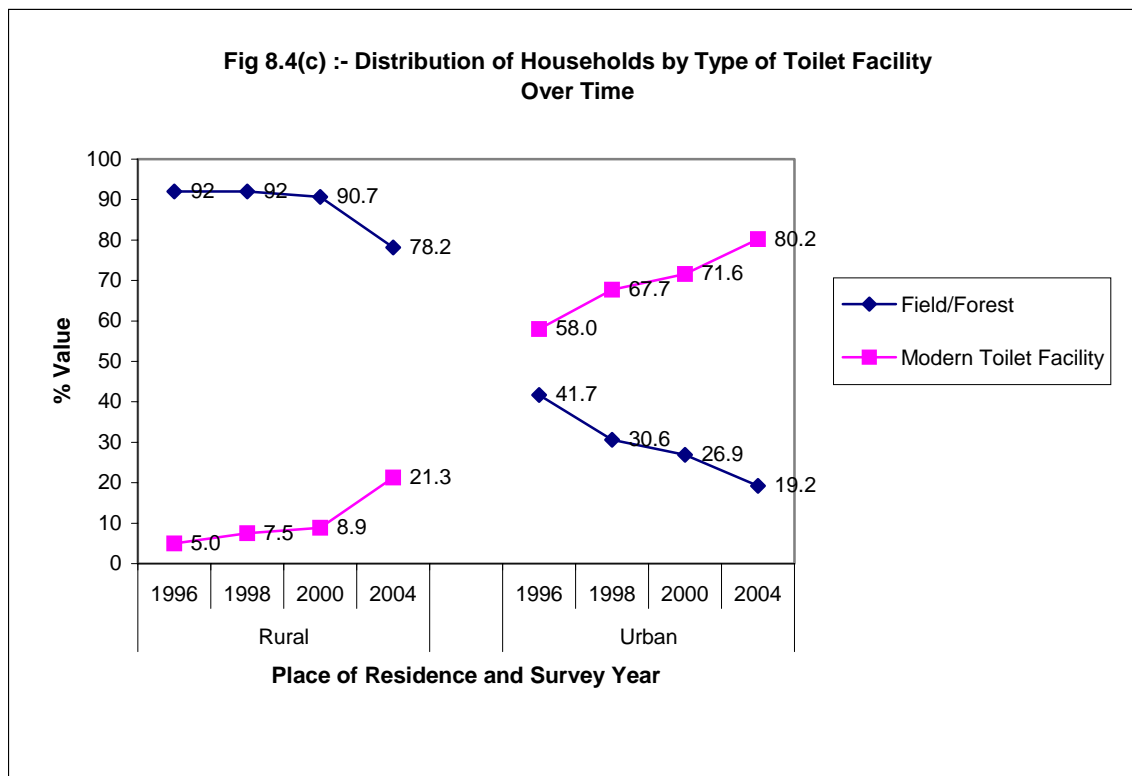
do not have toilets. About 87 percent of households in Amhara Region, 80.7 percent in Tigray, 78.2 percent in Afar and 74.8 percent in Oromia Region use open field/forest.

The least proportion of households that use field/forest are observed in Addis Ababa (7 percent) where 0.9 percent of the households also use containers. In the other regions the proportion of households that use field/forest ranges from 31.5 percent in Dire Dawa to 73.6 percent in Somali Region. Similar to the results at country level, this findings are also much more dominated by rural conditions. More than 92 percent of rural households in Somali, Afar, Amhara, Tigray, Dire Dawa and Harari Regions use open field/forest.



In the remaining regions the proportions of rural households that use field/forest range from 45.1 percent in S.N.N.P to 82.7 percent in Oromiya Regions.

The use of pit latrine in the regions ranges from about 74.3 percent of the households in Addis Ababa, to the lowest 11.2 percent in Amhara Region. Dire Dawa having the next higher proportion of households (64.5 percent) using pit latrine is followed by 54.8 percent in S.N.N.P, 49.6 percent in Harari and less than 32.9 percent in the remaining regions. Flush toilet is rarely available with varying proportions. The highest proportion of household using flush toilet is observed in Addis Ababa (16.9 percent) followed by Harari (6.4 percent), Tigray (5.0 percent), Dire Dawa (3.6 percent) and Afar (2.8 percent). Remaining regions constitute only 2.4 percent of the total households using flush toilet.



8.6 Waste Disposal

Improper waste disposal systems have adverse repercussions on environmental sanitation, which would impede the efforts to control diseases and pollution. The successive Welfare Monitoring Surveys have been collecting information on waste disposal methods that enables the data users, particularly policy makers, observe the extent of sanitation problems. The usual practices to dispose waste include use of waste disposal

vehicles/container, dugouts, throwing away and using the waste as manure. Disposal methods other than those mentioned are treated under the category “others” in WMS questionnaire.

Summary Tables VIII.5 displays the data on how households dispose their waste at country, rural and urban areas. At country level more than half of the total households (52.0 percent) reported that they use the waste as manure (fertilizer) in their fields, these are by and large rural households. A substantial proportion (31.9 percent) of the total households stated that they dispose their waste by just throwing it away. Small proportion of the households reported to have the practice of burning the waste (4.1 percent), using dug-out (6.3 percent) or waste disposal vehicles/container (4.8 percent). Among rural households, throwing away (32.1 percent) and using it as a manure (60.6 percent) are the most common waste disposal methods. Only 7.3 percent of rural residents use other ways of disposing the waste. In urban areas while throwing away the waste is more common (31.1 percent), using waste disposal vehicle/container (29 percent), burning the waste (13.8 percent) and dug-out (16.8 percent) are also practiced by the households.

Poor and unhealthy ways of waste disposal observed in year 2004 survey results was also revealed in the previous three surveys. All surveys indicated throwing-away as a common and mostly practiced way of disposing garbage among households residing in both urban and rural areas of the country. Using garbage as manure is also very common among rural residents. All surveys have indicated that, only few urban households (quite less than 30 percent) are have access to vehicles/containers or dug -out to dispose garbage.

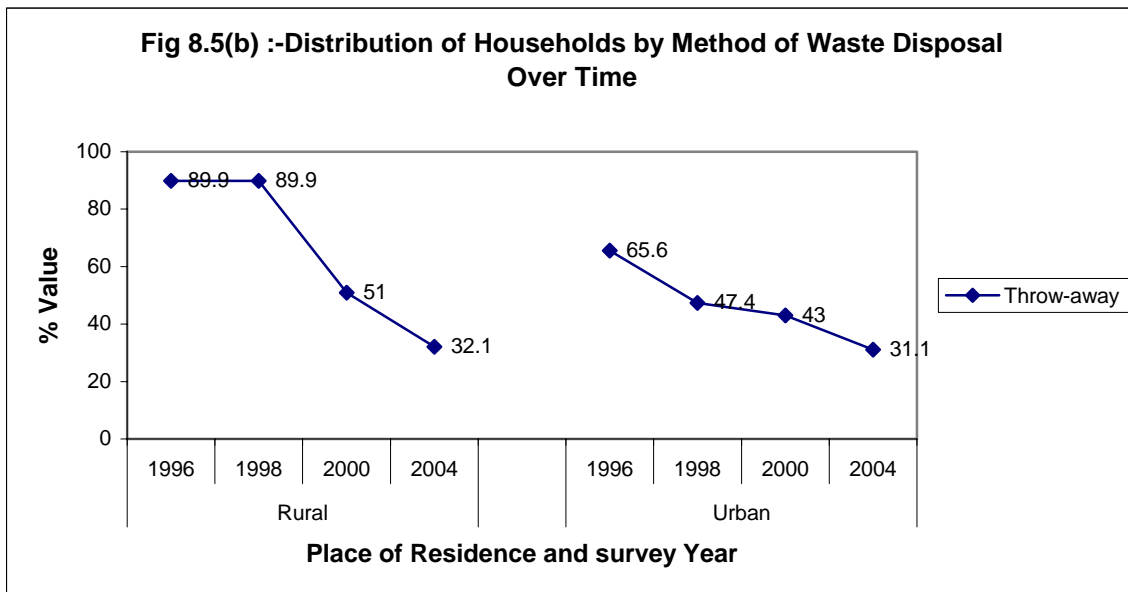
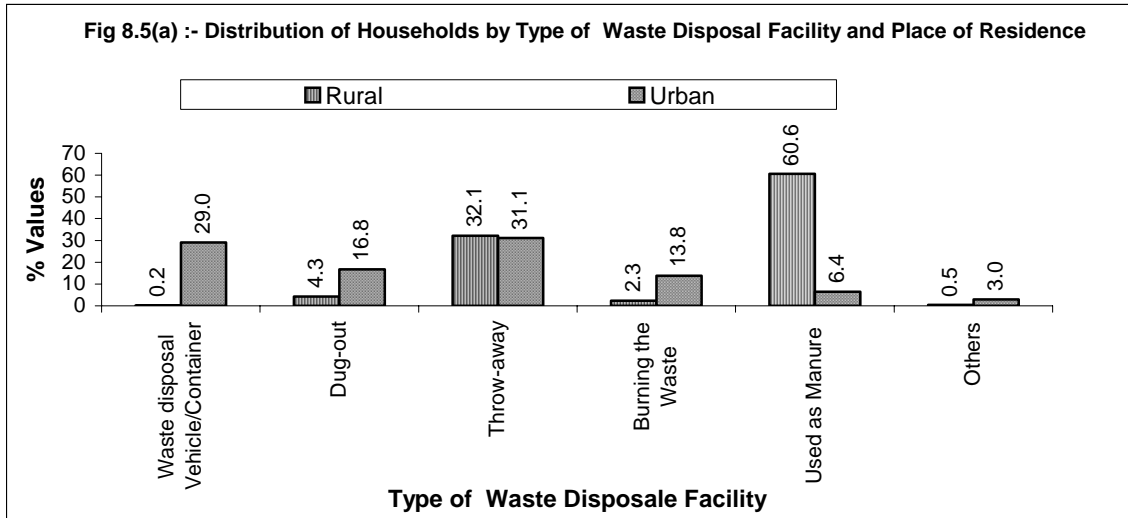
Table 8.5(a) - 8.5(c) display regional statistics on waste disposal methods. More than 30.7 percent of the households in all regions excepting Addis Ababa (11.1 percent), S.N.N.P (17.0 percent) and Harari Region (23.8 percent) have reported that their waste disposal method is no more than throwing away in open fields. Waste disposal vehicles/containers are accessible to households in Addis Ababa (64.2 percent), Dire Dawa (38.2 percent), Harari (22.6 percent) and Tigray (11.6 percent). Only less than 7.6

percent of the households have access to waste disposal vehicles/containers in the remaining Regions. A significant proportion of households in SNNP (67.9 percent), Amhara (59.8 percent), Oromiya (48.3 percent), Beneshangul-Gumuz (36.0 percent), Tigray (35.5 percent) and Harari (23.6 percent) Regions use the waste as manure which is predominantly rural practice. Dug -out as a means of waste disposal is reported by not more than 20 percent of the households of each region.

Summary Table VIII.5 - Distribution of Households by Method of Waste Disposal, Place of Residence and survey year

Method of Waste Disposal	Survey Year			
	1996	1998	2000	2004
Country				
Waste disposal Vehicle/Container	2.1	2.6	2.7	4.8
Dug-out	3.1	4.4	3.1	6.3
Throw-away	86.2	83.9	49.8	31.9
Burning the Waste	-	3.2	3.5	4.1
Used as Manure	-	-	39.8	52.0
Others	8.6	6.0	1.1	0.9
Rural				
Waste disposal Vehicle/Container	0.1	0.2	0.1	0.2
Dug-out	1.1	1.9	1.5	4.3
Throw-away	89.9	89.9	51.0	32.1
Burning the Waste	-	1.9	1.5	2.3
Used as Manure	-	-	45.6	60.6
Others	9.0	6.2	0.3	0.5
Urban				
Waste disposal Vehicle/Container	13.6	17.5	17.7	29.0
Dug-out	14.2	19.8	12.4	16.8
Throw-away	65.6	47.4	43.0	31.1
Burning the Waste	-	10.7	15.4	13.8
Used as Manure	-	-	5.5	6.4
Others	6.6	4.7	5.9	3.0

" - " Data not available



8.7 Tenancy Status

Tenure refers to the arrangements under which the households occupy their living quarters. Information on tenancy status of the households is important for designing programs and formulate housing and rent policies. Tenancy status of households also demonstrates the economic welfare of households. All sampled households had reported their tenancy status during the survey as well as their status a year and five years ago. Tenancy status is categorized in to four: owned, rented, free of rent and others.

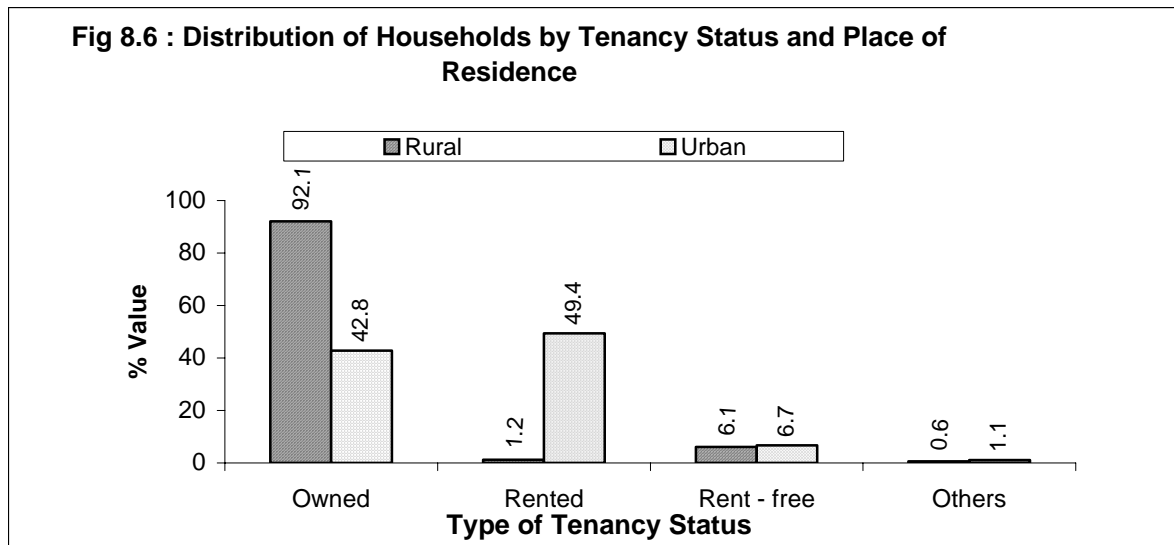
Summary Table VIII.6 - Percentage Distribution of Households by Tenancy Status, Place of Residence and Survey Year

<i>Tenancy Status and place of Residence</i>	<i>Survey Year</i>			
	1996	1998	2000	2004
Country				
Owned	90.3	88.4	85.1	84.3
Rented	6.6	7.2	7.0	8.8
Rent - free	3.1	3.2	6.1	6.2
Others	0.1	0.2	0.7	0.7
Not stated	-	1.0	1.2	-
Rural				
Owned	97.5	95.3	91.4	92.1
Rented	0.4	0.9	0.6	1.2
Rent - free	2.4	2.7	6.3	6.1
Others	0.6	0.2	0.5	0.6
Not stated	-	0.9	1.2	-
Urban				
Owned	52.0	46.9	47.8	42.8
Rented	41.0	45.5	44.5	49.4
Rent - free	6.9	6.0	6.0	6.7
Others	0.1	0.3	0.3	1.1
Not stated	-	1.4	1.4	-

According to the year 2004 WMS (Summary Tables VIII.6), more than 84 percent of the total households in the country live in their own houses, 8.8 percent rented and 6.2 percent live in rent-free houses. The tenancy status, however, is tremendously influenced by the condition in rural areas where more than 92 percent of the households live in their own dwelling units and only 1.2 percent live in a rented houses. In urban areas, however, nearly equal proportions of households live in rented houses as those who live in their own houses. The proportion is 42.8 percent for households that live in their own houses and 49.4 percent for those that live in rented houses. In both urban and rural areas, close

to 6 percent of the households are indicated to live in rent-free houses. This includes households residing with their relatives and others that have opportunities of having rent-free houses.

Distribution of households by type of tenure in the regions is presented in Table 8.6(a)-8.6(c). The proportion of households living in their own houses ranges from 35.4 percent in Addis Ababa to 90.3percent in SNNP Region. Higher proportion of households in Addis Ababa (55.3 percent), Dire Dawa (39.9 percent) and Harari (36.4 percent) live in rented houses. In all the regions, on the other hand, households occupying rent-free houses constitute less than 9.9 percent of the respective total households.



Regarding dwelling units occupied by the owners, there is an indication of slightly declining trend over the four survey years among rural as well as urban households. Proportion of households who live in rented houses is common among urban households and has also shown an increasing tendency over the reference period. General overview (Summary Tables VIII.6) of the four surveys also reveals that the percentage of households that live in rent-free houses generally increase in rural areas but decrease marginally in urban areas.

8.8 Quality of Dwelling House

Information on housing quality is an important indicator of the well-being of household. Good quality houses usually are related to better income, which could be taken as an indicator of better economic well-being. Densely occupation of rooms and use of low quality materials in construction of houses clearly have adverse effects on health status of individuals residing in the housing units. So as to fulfill data needs for the assessment of households' living conditions with regard to their dwelling units, the year 2004 Welfare Monitoring Survey incorporated information on the quality of dwelling units of the household which include number of rooms, construction material of wall and roof.

a. Number of rooms

In this survey a room is defined as a space enclosed by walls reaching from the floor to the ceiling or roof at least to a height of two meters and having an area of at least four square meters. Excepting for bathroom, toilets and passageways, other rooms found in the housing unit are considered as rooms. Information on the number of rooms is intended to highlight on how densely or sparsely household members use the rooms in their dwellings.

Summary Tables VIII.7 and Tables 8.7 (a)-(c) shows that more than half of the total households (53.9 percent) reside in single-room houses and only 31.9 percent of the total households live in dwelling units that have two rooms. The survey in addition has shown that about one-out-of- ten households live in dwelling units that have 3 rooms and less than 5 percent of the households dwell in houses with 4 or more rooms. This result is influenced by rural-based households where 89.0 percent dwell in houses with utmost 2 rooms. More than half of the rural households (57.1 percent) reside in a single-room dwelling units and 31.9 percent live in houses that have two rooms. Households in urban areas have relatively better housing quality in terms of number of rooms their dwelling units comprise. Slightly more than one-third of urban households (31.5 percent) reside in 3 or more roomed houses, 31.8 percent live in dwelling houses with two rooms and 36.6 percent reside in a single-room house.

Summary Table VIII.7 - Distribution Of Households by Number of Rooms in a Dwelling Unit and Place of Residence

Number of rooms	Place of Residence		
	Country	Rural	Urban
Single-room dwellings	53.9	57.1	36.6
Two-rooms dwellings	31.9	31.9	31.8
Three-rooms dwellings	9.9	8.2	18.7
Four-rooms dwellings	2.8	2.0	7.1
Five and more-rooms dwellings	1.5	0.7	5.7

b. Construction material of wall

Distribution of households by construction material of wall is presented in Summary Tables VIII.8 and Tables 8.8 (a) – (c). It can be observed that about three-fourths (76.0 percent) of the country's total households reside in dwelling units with walls constructed from wood and mud. These types of houses are more common among urban households (82.4 percent) than rural (74.8 percent). Slightly more than 9 percent of rural and one percent of urban households are also indicated to dwell in wood and thatch houses. Households living in housing units with walls constructed of stone and mud constitute 9.1 percent in rural and 6.3 percent in urban areas. Dwelling units with wall constructed by other types of materials are uncommon (less than 10 percent) in both the urban and the rural areas.

Summary Table VIII.8 - Distribution of Households by Construction Material of Walls of a Dwelling Unit and Place of Residence

Material of roof	Place of Residence		
	Country	Rural	Urban
Wood and Mud	76.0	74.8	82.4
Wood and Thatch	7.8	9.1	1.0
Reed/Bamboo	3.3	3.9	0.4
Stone and Mud	8.7	9.1	6.3
Stone and Cement	0.7	0.0	4.3
Hollow Blocks	0.5	0.1	3.1
Bricks	0.1	-	0.4
Other	2.8	2.9	2.1

c. Construction material of roof

Among the four types of roofing materials, thatch or grass are predominant in rural areas (69.5) while corrugated iron sheet is the main roofing material in urban areas (92.1 percent). Rural households dwelling in houses roofed with iron sheets account for only 21.6 percent. On the other hand, in urban areas 5.6 percent of the households reside in thatch and grass roofed houses and 0.9 percent of the households reside in houses with roof made of wood and mud and reed or bamboo (Summary Table VIII.9 and 8.9 (a)-(c)).

Summary Table VIII.9 - Distribution of Households by Construction Material of Roof of a Dwelling Unit and Place of Residence

<i>Material of roof</i>	<i>Place of Residence</i>		
	<i>Country</i>	<i>Rural</i>	<i>Urban</i>
Corrugated Iron Sheet	32.7	21.6	92.1
Thatch or Grass	59.4	69.5	5.6
Wood and Mud	3.1	3.5	0.8
Reed and Bamboo	1.5	1.8	0.2
Brick/Tiles	0.0	-	0.1
Other	3.2	3.6	1.3

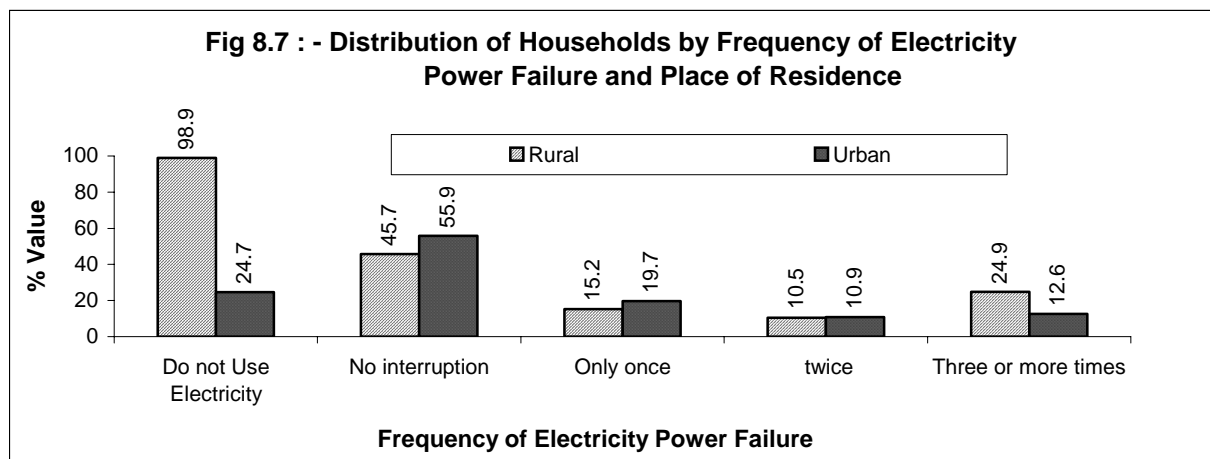
8.9 Frequency of Electric Power Failure/ Interruption

Information on use of electricity is an important indicator of the well being of the household due to external factors to them. Availability and continuous supply of electricity is an important element of infrastructural development. In WMS 2004 questionnaire an attempt has also been made to gather information on efficient use of electricity amongst the households by way of assessing the number of times the households encounter electricity power failure. Households were asked for how many times they had electricity interruption for at least an hour the week prior to the survey date.

Summary Table VIII.10 - Distribution Of Households by Frequency of Electric Power Failure / Interruption and Place of Residence

<i>Frequency of Electric Power Failure / Interruption</i>	<i>Place of Residence</i>		
	<i>Country</i>	<i>Rural</i>	<i>Urban</i>
Do not Use Electricity	87.2	98.9	24.7
No interruption	55.1	45.7	55.9
Only once	19.3	15.2	19.7
Only twice	10.9	10.5	10.9
More than twice	13.5	24.9	12.6
Not stated	1.2	3.7	1.0

Summary Tables VIII.10 and Tables 8.10(a)-(c) show that 87.2 percent of the total households, almost all rural households (98.9 percent) and more than 24 percent of urban households do not use electricity. Looking at the distribution of households by frequency of electricity power failure, 55.1 percent of the total households, 45.7 percent of the rural and 55.9 of the urban households reported that there was no power interruption during the reference period. The survey in addition has shown 24.4 percent of the total households, 35.4 percent of the Rural and 23.5 percent of the urban households had experienced power failure at least twice during the reference week. The proportion of households that encountered electricity power interruption once a week for at least one hour long constitute 19.3 percent, 15.2 percent and 19.7 percent of at country level, rural and urban households respectively.



CHAPTER IX

POSSESSION OF HOUSEHOLD ASSETS

9.1 Introduction

Asset ownership is one of the indicators of economic well being of the households. Acquisition of assets could be a manifestation of improving living standard of households. Sell or depletion of assets without replacement, on the other hand, may be associated with a shrinking household income and thus declining living standard.

This chapter provides data on status of possession of selected household assets at the time of the survey and a comparative statistics based on retrospective information collected from sample households. Included in the questionnaire are major assets such as land and dwelling houses, and other assets: farming equipment, livestock and other household durable items. Descriptive analysis assessment of the findings of the survey on the state of ownership and changes in the possession of these assets over time is presented in the subsequent sections of this chapter.

9.2 Asset Ownership

Summary Table IX.1 and Tables 9.1(a)-(c) present distribution of households that possess different types of selected household assets for the year 2004 and the preceding survey years. The selected assets include farming equipment like plough, sickle, 'Mofer' and 'kenber' (Ploughing Implements) household durable items such as Radio, Television, stove, etc. and livestock including cattle, equine animals, poultry and sheep/goats.

According to the survey result of 2004, the majority of the total rural households possess farming equipment such as 'Mofer' and 'Kenber', plough and sickle and axe. Cattle and sheep and goats and poultry are also owned by large proportion of households in rural areas. A slightly more than a quarter of households at country level own Radio. Detailed descriptions of the results are presented in the subsequent sections.

Summary Table IX.1 - Percentage Distribution of Households by Type and Ownership of Assets and Survey Years - Country Level

Type of Asset	Country				Rural				Urban			
	1996	1998	2000	2004	1996	1998	2000	2004	1996	1998	2000	2004
Farming Implements												
‘Mofer’ & ‘Kenber’	57.0	53.0	53.0	51.8	65.6	60.7	60.8	60.4	8.8	6.2	6.6	6.1
Plough	59.3	54.9	54.8	53.5	68.2	62.8	62.7	62.1	9.1	7.0	7.6	7.6
Sickle	73.0	70.3	72.5	70.6	81.5	78.5	79.3	79.9	25.7	20.8	31.8	21.0
Axe	-	-	75.8	75.2	-	-	78.6	81.7	-	-	58.8	40.5
Livestock/Poultry												
Cattle	-	-	69.6	59.7	-	-	78.1	68.2	-	-	18.9	14.6
Equine	-	-	27.4	20.6	-	-	31.1	24.1	-	-	5.3	2.4
Sheep/Goat	-	-	38.6	42.8	-	-	43.1	48.8	-	-	12.0	10.7
Poultry	-	-	46.9	51.3	-	-	51.3	57.7	-	-	20.9	17.3
Household durables												
Radio	13.8	15.1	18.3	26.3	7.7	8.3	11.2	18.5	47.8	56.5	60.0	68.2
TV	1.1	1.3	2.0	3.8	0.1	0.0	0.0	0.2	6.8	8.8	13.7	22.6
Stove (electrical, gas)	2.8	5.3	7.8	10.1	0.5	0.8	1.3	3.7	15.6	32.2	46.6	44.1

" - " Designates data not available.

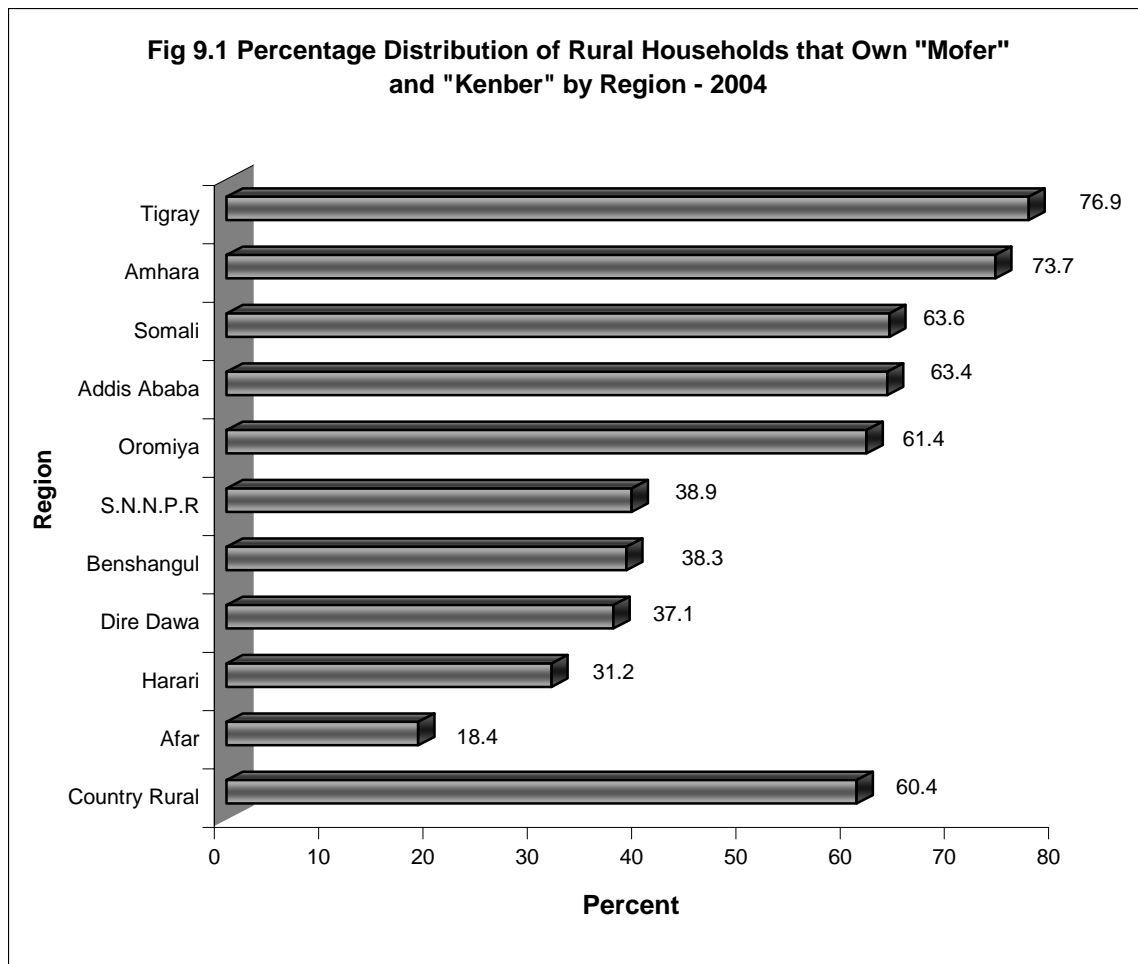
The trend in possession of household assets over time reveals that there is an increasing proportion of households owning household durables. Radio in both urban and rural areas is being introduced more and more. TV set among urban households is at 23 percent of the total urban households. Proportion of households owning cattle and equine animals are slightly decreasing while that of sheep and goats is rising over time in rural areas.

Farm Implements

In rural areas, large proportion of households own farming equipment, though, a significant number of households still do not possess these basic tools that are vital in subsistence agriculture. According to the findings presented in Summary Table IX.1, more than 60 percent of the rural households at country level own ploughing tool

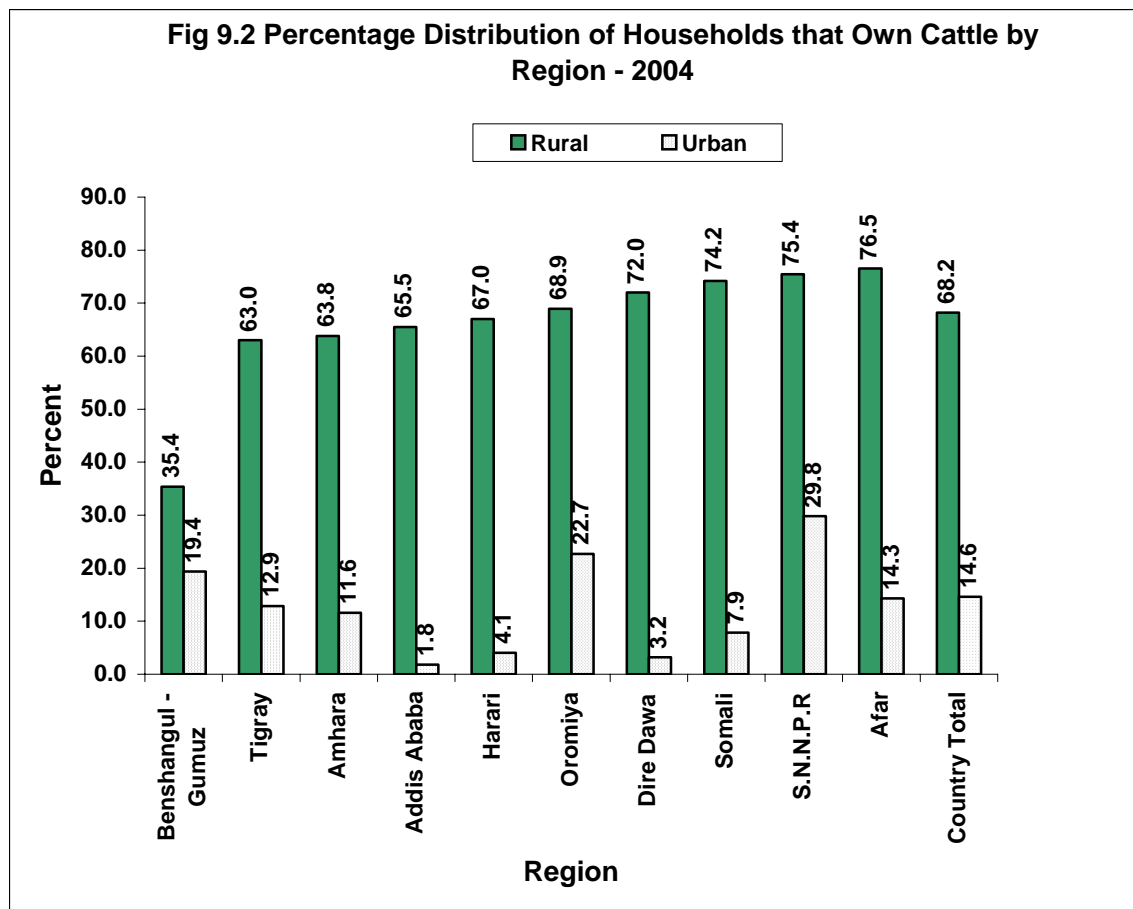
(‘Mofer’and‘Kenber’, plough and sickle and axe) Which means that 40 percent of the households do not own this basic farming tools.

While largest proportion of households (Figure 9.1) owning "Mofer & Keneber " is indicated in rural Tigray (76.9 percent) and Amhara region (73.7 percent). Rural Afar region is characterized as the lowest proportion of households (18.4 percent) possessing this important agricultural tool followed by rural Harari region (31.2 percent). Rural Somali, Addis Ababa and Oromia are in upper middle cluster (61-64 percent) whereas rural SNNP, Benshangul-Gumuz and Dire Dawa are categorized in the lower middle group according to their level of possession “Mofer & Keneber”.



Livestock

The survey result of 2004 as presented in Summary Table IX.1 also indicates that the majority of rural households own large proportion of Cattle than medium Livestock (Sheep and Goat). About 68 percent of rural households own cattle, 58 percent own poultry, about 49 percent possess sheep/goats and 24 percent own equine animals. A considerable proportion of households in urban areas also possess livestock, indicating agricultural activities among urban dwellers.

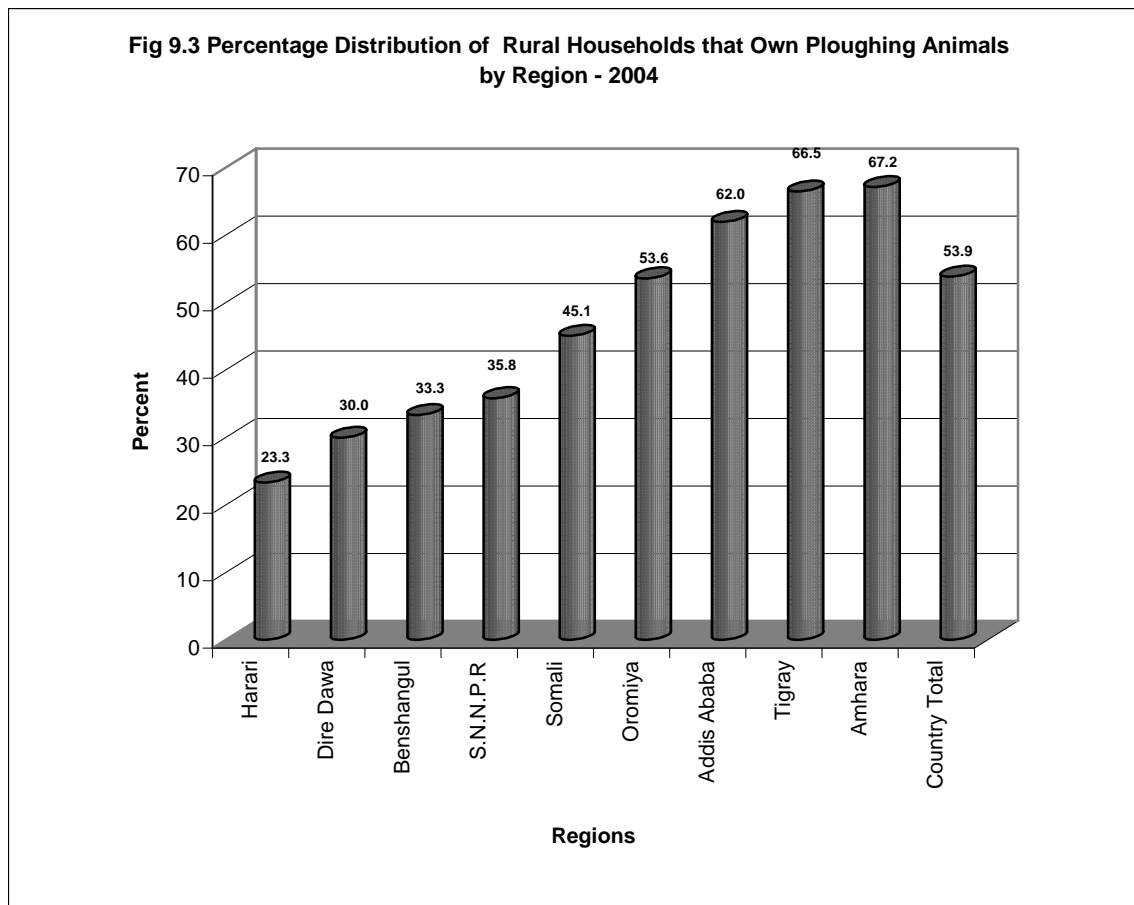


In urban areas, about 15 percent of the households own cattle, 17 percent own poultry, about 11 percent possess sheep and goats and 2.4 percent own equine animals. As shown in Figure 9.2 the largest proportion of cattle possession among regions is observed in the rural Afar (76.5 percent) followed by S.N.N.P (75.4 percent), Somali region (74.2 percent) and Dire Dawa (72.0 percent). The lowest possession of cattle is indicated in Benshangul- Gumuz region (35.4 percent). In the other regions, the proportion of rural

households that own cattle ranges from 63 percent in Tigray to 69 percent in Oromia. With regard to cattle possession in the urban areas of the regions, more proportion of households are shown in S.N.N.P (29.8 percent), Oromia (22.7 percent) and Benshangul-Gumuz (19.4 percent).

Ploughing Animals

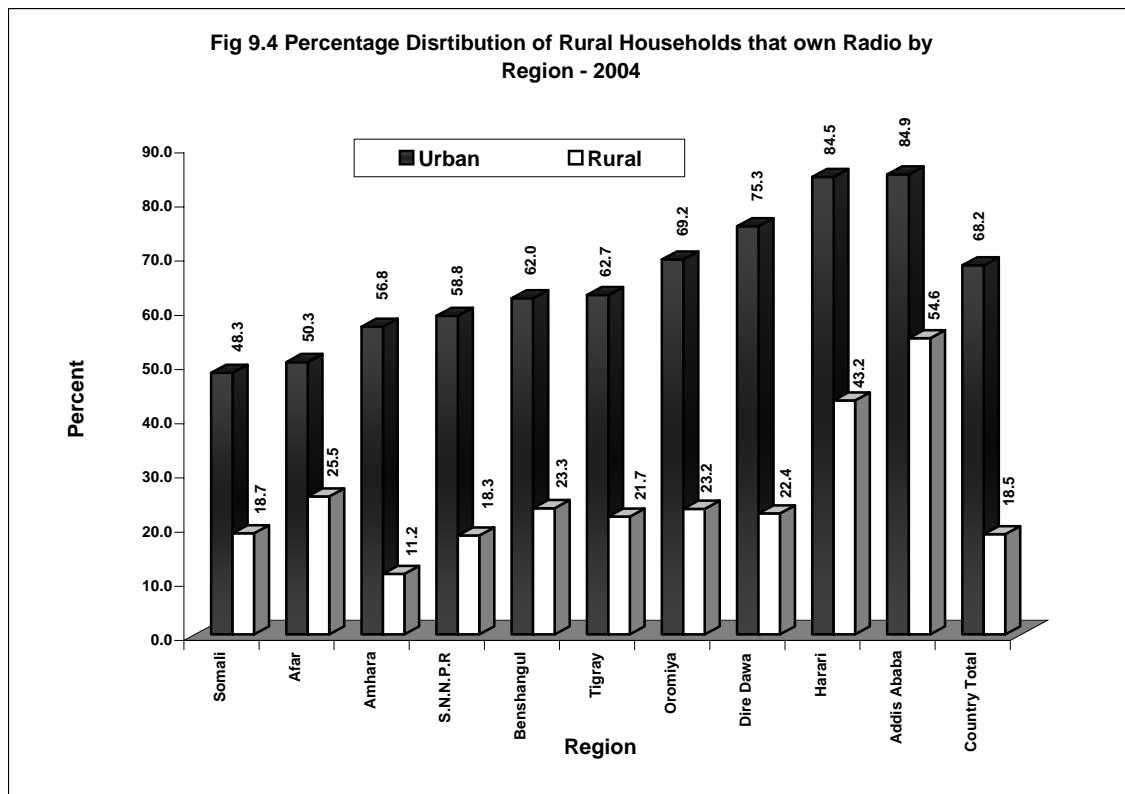
The finding of the survey (Figure 9.3) reveals that in most of the regions the proportion of rural households that own ploughing animals (oxen, horse, etc) is below 50 percent. Among rural households of the regions, the highest concentrations of ploughing animals is in Amhara (67.2 percent), Tigray (66.5 percent), Addis Ababa (62 percent) and Oromia regions (53.6percent) indicating relatively better level of possession of ploughing animals. The proportions of households owning ploughing animals ranges from 23 percent in Harari region to 45 percent in Somali region.



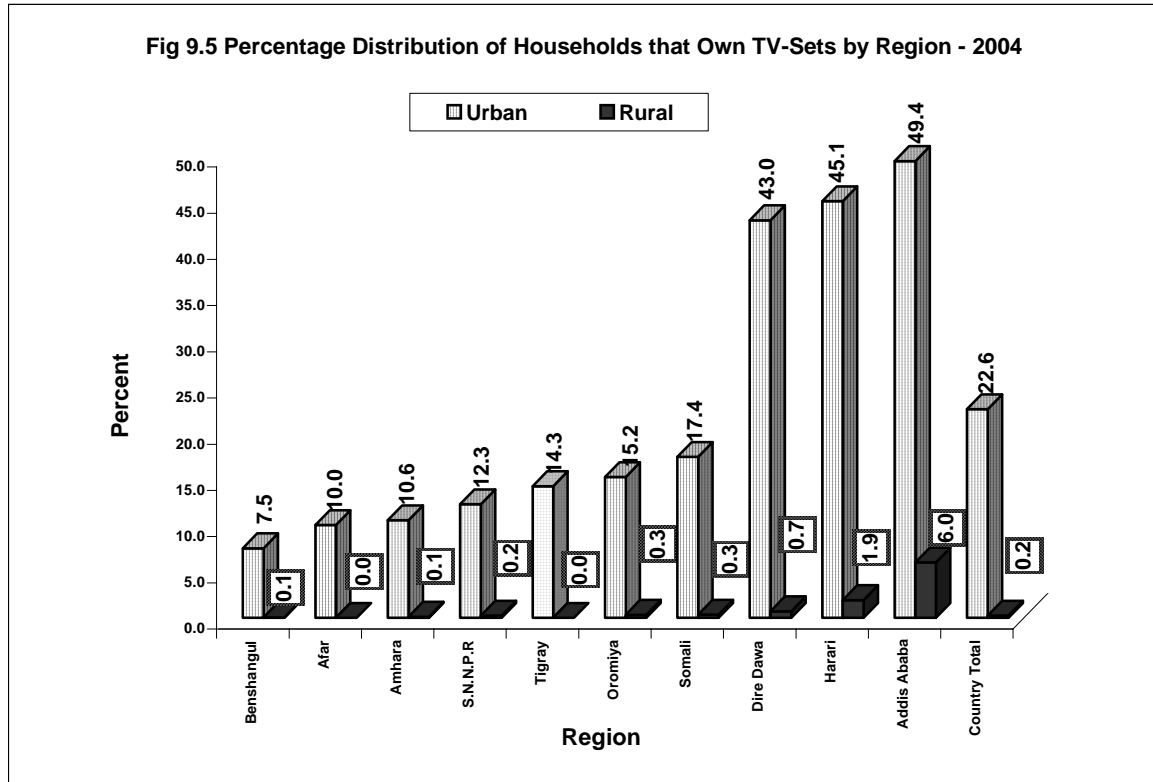
Household Durables

The survey result in Summary Table IX.1 also showed that household durables being possessed largely by urban households than rural households. There is a tremendous variation among urban and rural households in the possession of household durable items such as Radio, TV set, stove, etc. As depicted out in the Figure 9.4 and Summary Table IX.1, at country level, about 68 percent of the urban households compared to and about 19 percent of the rural households own radio, while about 23 percent of the urban households and insignificant proportion of the rural households possess TV-sets.

Pertaining to the regional distribution in urban areas the largest proportion of possession of radio is observed in Addis Ababa (85 percent), Harari (84.5 percents), Diredawa (75.3 percent), Oromia (69.2) and Tigray regions (62.7percent). The lowest proportion households that own radio is observed in Afar (50.3 percent) and Somali regions (48.3 percent). In rural areas the proportion of households in possession of radio ranges from as high as (54.6 percent) in Addis Ababa to as low as 11.2 percent in Amhara. (See Fig 9.4).



The findings of the survey also indicated that almost half of the households in Addis Ababa (49.4 percent), more than 43 percent of the households in Harari and Diredawa Regions own TV-sets. The proportion of households possessing TV-sets is quite less than 20 percent in the rest of the regions.



CHAPTER X

SELECTED INDICATORS ON FOOD SECURITY, SHOCKS AND GENERAL LIVING STANDARD

10.1 Introduction

This chapter deals with issues related to food security and living standard of household that are assumed to reflect the existing living conditions of households. Some basic necessity indicators are computed from subjective information collected from sample households. Households were asked to provide information on their current condition with respect to issues related to food security, general living standard and shocks in comparison with their condition 12 months ago (as of the survey time). The findings of the survey are presented in Summary Tables X.1 to X.5 and Tables 10.1 (a) to 10.6 (c).

10.2 Difficulty in Satisfying Food Needs

In the year 2004 WMS, an attempt has been made to assess the extent of food shortage in the country. For the purpose of this survey food shortage is defined as the situation where a household is unable to feed themselves during any month of the year.

According to the survey, the situation of food shortage seems serious problem for the majority of the households and is broad among households in rural areas than urban areas. Summary Table X.1 shows that over 30 percent of the households in the country reported to have difficulty in satisfying food need during the past 12 months prior to the survey. Looking at rural-urban differential, 34.2 percent of the rural households composed to 14.8 percent of the urban households reported to suffer from food shortage during the reference period.

Results at regional level as presented in [Table 10.1\(a\)](#) indicate that a considerable proportion of households in Oromia (36.3 percent), Tigray (31.9 percent), Amhara (30.5

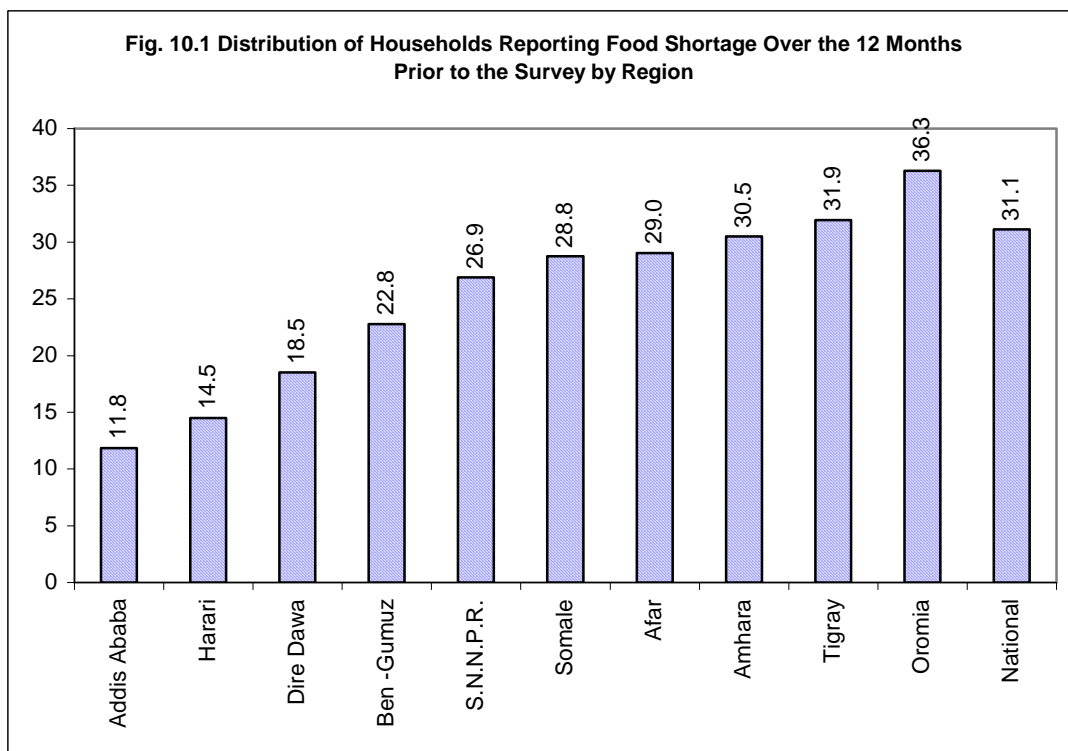
percent), Afar (29.0 percent), Somali (28.8 percent), S.N.N.P (26.9 percent) and Benshangul-Gumuz (22.8 percent) regions had food shortage at least for a month during the 12 months preceding the survey. Relatively small proportion of households had been reported to suffer food shortage in the remaining three regions Addis Ababa (11.8 percent), Harari (14.5 percent) and Dire Dawa (18.5 percent).

Difficulty in satisfying food need is more serious in rural areas of the regions than urban. About 33 to 45 percent of households in rural areas of most of the regions reported that they had food shortage over the year preceding the survey. In the remaining regions the proportions of rural households that use field/forest range from 45.1 percent in S.N.N.P to 82.7 percent in Oromiya Regions.

Summary Table X.1- Distribution of Households by Number of Months with Food Shortage and Place of Residence.

<i>Number of months the household Suffered from food shortage</i>	<i>Place of Residence</i>					
	<i>Country</i>		<i>Rural</i>		<i>Urban</i>	
	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>
Up to 1 Month	358,068	8.6	318,380	8.2	39,688	12.7
2 - 3 Months	1,827,497	43.7	1,703,033	44.0	124,464	39.7
4-6 Months	1,373,037	32.8	1,298,620	33.5	74,417	23.8
7-9 Months	235,854	5.6	223,608	5.8	12,246	3.9
10-12 Months	232,071	5.5	203,623	5.3	28,448	9.1
Total households suffered that food shortage	4,185,573	31.1	3,872,383	34.2	313,189	14.8

Among those rural households that reported to have food shortage over the year preceding the survey, more than three-fourth (77.5 percent) have indicated that the shortage was for two to six months of the year. The result in urban areas is also significant (63.5 percent) reflecting the extent of food insecurity in the country.



10.3 Sufficiency of Own Crop Production

Sufficiency of own crop production in feeding the households is assessed to provide further information on the situation of household food security in rural areas of the country. Summary Table X.2 presents the findings on how long households' current year own crop production lasts in feeding the households. The discussion pertaining to crop production here is limited to rural areas of the country based on the fact that urban households have insignificant activity on production of crops and hence limited dependence on own production of crops.

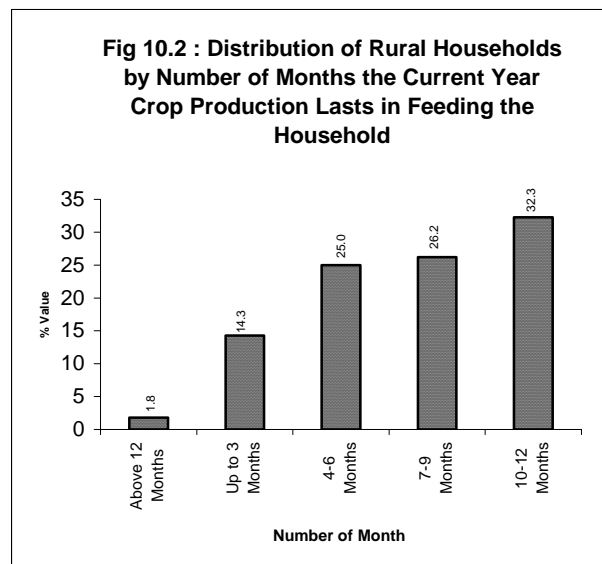
Summary Table X.2 shows that out of the total households of the country, only two percent reported to have enough own production that lasts for more than a year feeding the households. More than one-third of the households reported that their crop production could take them at least 10 months. While slightly more than three-fifth of the households (60.3 percent) believe that their production lasts for seven or more months, about 85

percent have indicated that their production could take them four to twelve months. On the other hand, about 14.3 percent of the rural households explicitly reported that their current year crop production is only sufficient for less than four months.

**Summary Table X.2 - Distribution of Rural Households by Number of Months
the Current Year Crop Production Lasts in Feeding the Households**

<i>Number of Months</i>	<i>Survey year</i>			
	<i>2000</i>		<i>2004</i>	
	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>
Up to 3 Months	2,075,719	21.8	1,547,290	14.3
4-6 Months	3,146,058	33.1	2,701,002	25.0
7-9 Months	1,971,642	20.7	2,829,071	26.2
10-12 Months	1,907,833	20.1	3,484,999	32.3
Above 12 Months	191,939	2.0	197,796	1.8

Regional findings are presented in Table 10.2 (a). The report from the majority of sample households in Dire Dawa (82.2 percent), Afar (69.5 percent) and Somali (60.1 percent) regions show that their current year crop production could last for utmost 6 months. In the other regions this proportion ranges from 26.9 percent in Amhara to 49.7 percent in S.N.N.P. regions. In most of the regions, more than half of the household reported that their crop production lasts for 7 or more months. Comparative data on year 2000 and 2004 also indicates an overall general improving condition in the food sufficiency in the country (Summary Table X.2).



10.4 Status of Living Standard

Summary Table X.3 displays the results of the survey obtained from inquiries on comparative situation of the households' current living standard with that of 12 months ago. Households' and community conditions of food security and the general living standard has been assessed in the 2004 WMS.

Summary Table X.3 - Changes in Living Standard over the 12 Months

Period by Place of Residence

Place of residence	Current living standard Compared to 12 months ago	Living standard with respect to food	General living standard of the household	General living standard of the community
Country	Better	28.2	30.5	29.5
	Worse	37.8	36.0	36.0
	Same	33.6	33.1	26.2
	Don't know	-	-	8.1
	Not stated	0.4	0.4	0.2
	Total households	13,448,008	13,448,008	13,448,007
Rural	Better	29.0	30.9	30.8
	Worse	40.0	37.6	37.7
	Same	30.6	31.2	24.7
	Don't know	-	-	6.6
	Not stated	0.4	0.3	0.2
	Total households	11,325,050	11,325,051	11,325,051
Urban	Better	23.8	28.1	22.5
	Worse	26.0	27.8	26.8
	Same	49.6	43.6	34.1
	Don't know	-	-	16.1
	Not stated	0.6	0.6	0.5
	Total households	2,122,958	2,122,958	2,122,957

Living standard with respect to food (Summary Table X.3) shows that 28.2 percent of the total households have better condition comparing the condition as of the survey time with that of a year ago. According to the results of this survey, nearly 38 percent of the total households believe that their condition with respect to food has gone down, while the reports of the remaining 33.6 percent of the total households indicate unchanged conditions over the 12 months period. In comparing the general living standard (the households), about 36 percent of the total households reported worsening living standard, less than one-third experienced better living standard and about 33 percent had not come across any change in their living standard over the period under comparison (Summary Table X.3).

The data related to urban-rural distribution in the living standard of households shows that more proportion of households in rural areas compared to urban areas has reported better current living standard than 12 months ago. Similar result is also observed in the case of households reporting worsening conditions.

Regional distribution of households by status of changes in general living standard over 12 months is presented in Table 10.4(a). More than 30 percent of the total residents of Afar (39.7 percent), Harari (39.4 percent), Oromia (38.0 percent), S.N.N.P. (32.0 percent), Dire Dawa (31.3 percent) and Benshanul-Gumuz (30.9 percent) regions felt “better” living condition than it was a year ago. This distribution for the remaining regions is less than 25 percent. While more than one-fourth of the total households in all regions perceived that their general living standard is “worse” than that of a year ago.

In almost all regions excepting Addis Ababa (28.1 percent) and Afar (21.4 percent), the perception of changes in the general living standard of households is worse comparing the present condition with that of a year ago (according to the reports by 30 to 50 percent of the rural households of regions). More than one-fifth experienced “better” and but for two regions Dire Dawa (21.7 percent) and Oromia (23.6 percent) in the remaining regions more than one-fourth of the rural households reported that there had not been any change in their living standard.

The general living standard of the community as felt by the households has also been assessed. The results indicate that about one-third of the rural households reported better community standard of living in rural areas compared to 22.5 percent of the households in urban areas. Households that reported worsening conditions of the general living standard of the community comprise 37.7 percent in rural areas and 26.8 percent in urban areas (Summary Table X.3).

10.5 Households' Capability to Raise 100 Birr for Any Contingency

The survey questionnaire also includes an additional component intended to indicate households' financial situation. Assessment is made to evaluate financial capacity of households based on their capacity to raise 100 birr within a week time under unforeseen circumstances. Sample households were asked whether or not they are able to raise 100 birr within a week time for unforeseen condition and what major potential sources they utilize to generate the money. Summary Table X.4 and Table 10.6(a)-(c) present the results by place of residence and source.

According to the findings of the survey, more than one-third of the total households (36.9 percent) are unable to produce 100 Birr with in a week time. The capacity differs among rural and urban households. The proportion of rural and urban households unable to raise 100 Birr with in a week time are 35.7 percent and 43.1 percent, respectively.

Four major source of raising 100 birr are identified. At country level, which is highly influenced by rural households, sale of animals and their products (40.3 percent), loan from relatives (17.6 percent), sale of crops (13.9 percent) and own cash (9.1 percent) are the main sources to raise 100 Birr. The proportions in rural areas are very similar with higher percentage of households reporting sale of animals and crops and lower percentage of own cash and loan from relatives.

Summary Table X.4 - Distribution of Households Capable of Raising 100 Birr Under Unforeseen Situation by Source and Place of Residence - Year 2004

Main Source of Raising 100 Birr	Place of Residence					
	Country		Rural		Urban	
	No.	%	No.	%	No.	%
Sale of animals and their products	3,416,015	40.3	3,340,554	45.9	75,461	6.3
Sale of crops	1,178,917	13.9	1,152,173	15.8	26,743	2.2
Sale of forest products	27,191	0.3	25,755	0.4	1,435	0.1
Sale of household assets	37010	0.4	15,582	0.2	21,429	1.9
Own cash	768,580	9.1	371,770	5.1	396,810	32.9
Withdrawal from bank	69,922	0.8	17,548	0.2	52,373	4.3
'Equb'	35,227	0.4	24,205	0.3	11,022	0.9
'Edir'	416,794	4.9	394,974	5.4	21,820	1.8
Loan from relatives	1,490,579	17.6	1,225,311	16.8	265,268	22.0
Loan from other sources	753,654	8.9	535,018	7.4	218,637	18.1
Gifts	108,427	1.3	50,806	0.7	57,621	4.8
Households unable to raise 100 Birr	4,961,334	36.9	4,046,807	35.7	914,527	43.1

The source of raising 100 birr among urban households, however, is slightly different. The three main sources to raising 100 birr for urban households comprise of own cash (32.9 percent), loan from relatives (22.0percent), and loan from other sources (18.1 percent).

10.6 Major Shocks

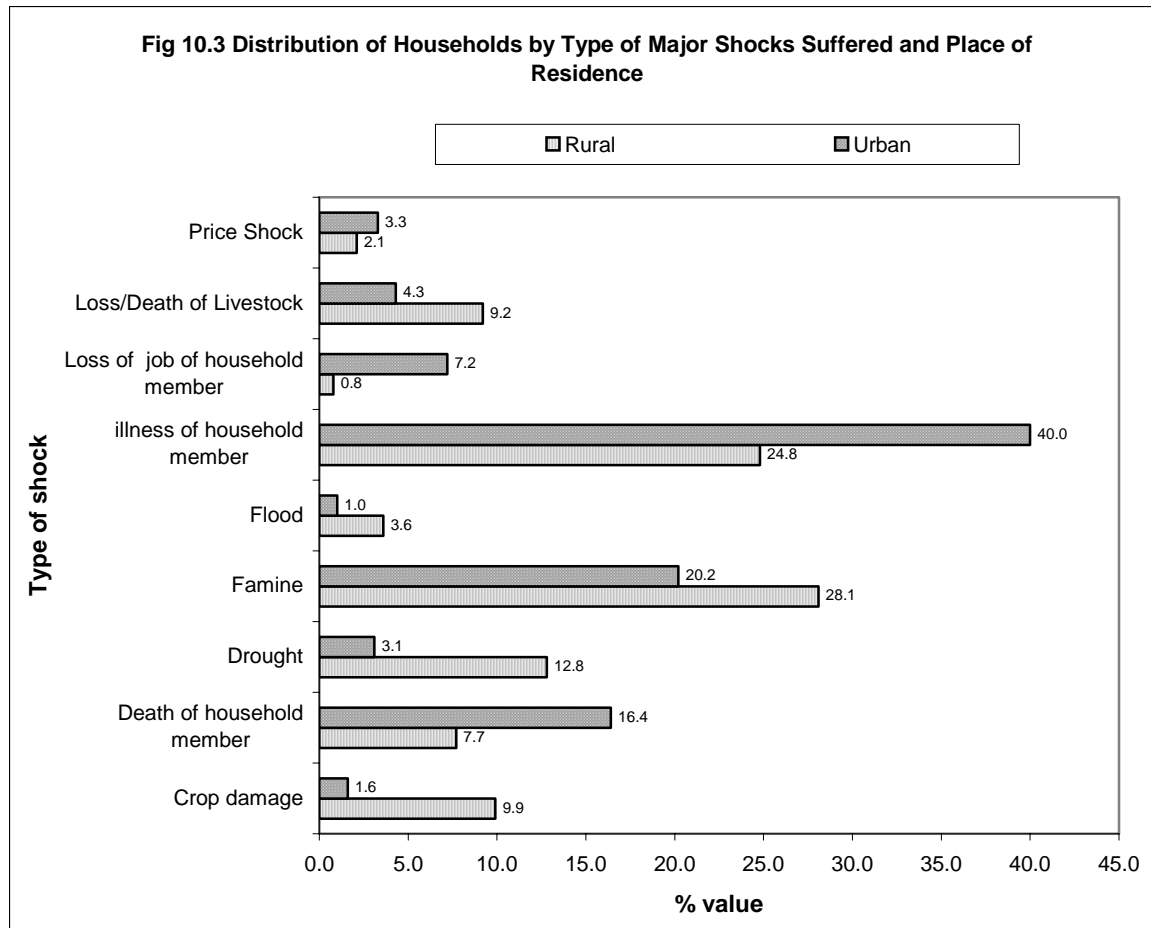
This section deals with the major shocks that the households suffered during the 12 months period prior to the survey date. Households were asked to give information on their experience in the shocks that seriously affected their livelihood during the reference period. Major shock-related indicators included in this survey questionnaire were death of household member, major illness of household member, loss of job of household

member, famine, drought, flood, major plot damage, death or loss of animals and price shocks. The result are presented in Summary Table X.5 and Tables 10.7(a) - (c)

Summary Table X.5 Distribution of Households by Majors shocks and Place of Residence - Year 2004

<i>Types of Shock</i>	Place of Residence					
	Country		Rural		Urban	
	No.	%	No.	%	No.	%
Death of household member	1,012,475	8.5	839,756	7.7	172,720	16.4
Illness of household member	3,113,313	26.1	2,692,922	24.8	420,391	40.0
Loss of job of household member	159,471	1.3	83,608	0.8	75,862	7.2
Famine	3,263,202	27.4	3,050,760	28.1	212,443	20.2
Drought	1,424,518	12.0	1,391,769	12.8	32,749	3.1
Flood	399,174	3.4	388,535	3.6	10,640	1.0
Crop damage	1,091,283	9.2	1,074,601	9.9	16,682	1.6
Loss/Death of livestock	1,049,152	8.8	1,004,234	9.2	44,918	4.3
Price shock	265,610	2.2	231,249	2.1	34,361	3.3
Others	140,784	1.2	110,202	1.0	30,582	2.9

The survey findings showed that, among the major shocks encountered, about 39 percent of the total households had suffered from famine and drought shocks. More than 34 percent of the households have been encountered with shocks as a result of death and illness of household members, while about 18 percent suffered from crop damage and death / loss of livestock.



More of rural households than urban do suffer shocks related to famine, drought, crop damages, loss of livestock and flood. On the other hand, more proportion of urban households than rural are indicated to suffer from loss of job, death and illness of household member and price shocks. The findings disclosed that about 41 percent of the rural households suffered from famine and drought shocks, 32.5 percent of the households were affected by death and illness of household member, and 19.1 percent had suffered from crop damage and death/loss of livestock.

According to the survey results, the distribution of urban households that suffered from death and illness of household members and loss of job constitute 56.4 percent and 7.2 percent, respectively.

10.7 Coping Mechanisms for Major Shocks

In this section we focus on the mechanisms under which households hide themselves in order to cope with the major shocks that occurred to them during the last 12 months prior to the survey date. In the WMS - 2004 questionnaires 5 main shock coping mechanisms were included; they are: food aid, sale of livestock and livestock products, sale of other agricultural products, sale of household assets and from own cash. Out of these main coping mechanism categories that households might have used during the reference period captured under the category “other”. The WMS - 2004 questionnaire for this part designed in matrix form for the purpose of handling multiple response of coping mechanism used by households for a single shock. Hence, respondents have plenty of space to list the main mechanisms by which they resist the shock that affect its livelihood.

Summary Table X.6 and Table 10.8(a)-(c) indicate data on how households exert effort to withstand shocks at country, rural and urban areas. At country level, among the households who encountered death of household member, 29.5 percent sale their livestock and livestock products, 24.8 percent sale other agricultural products, 20.0 percent from their own cash, 7.3 percent food aid and 3.0 percent sale their household asset used to cop the aforementioned shock. From those distribution of households who suffered from famine and draught, 68.7 percent got food aid, 61.6 percent sale of livestock and livestock products, 27.9 percent sale of other agricultural products, 15.5 percent from own cash and 5.4 percent sale their household asset to cope this shock. Households suffered from crop damage and used coping mechanisms as of sale of livestock, food aid, sale of other agricultural products, from own cash and sale of household asset were 35.1 percent, 24.6 percent, 15.0 percent, 11.9 percent and 2.8 percent respectively.

**Summary Table X.6- Distribution of Households by Major shocks, Coping Mechanism
and Place of Residence - Year 2004**

Place of Residence	Major Shocks	Type of Coping Mechanism							Total Households suffered from Shock
		Food aid	Sale of Livestock and Livestock products	Sale of Other Agricultural products	Sale of Household Assets	From Own Cash	Others	Not Stated	
Country	Death	7.3	29.5	24.8	3.0	20.0	14.8	0.8	1,226,339
	Illness	5.7	31.5	28.0	2.8	20.3	11.1	0.6	3,762,505
	Loss of Job	8.9	18.9	16.1	10.0	27.5	17.2	1.6	164,841
	Famine	32.4	30.3	13.6	3.1	7.8	12.2	0.7	4,243,066
	Draught	36.3	31.3	14.3	2.3	7.7	7.9	0.2	1,905,993
	Flood	17.7	27.9	20.7	2.7	12.8	18.2	0.1	413,432
	Crop Damage	24.6	35.1	15.0	2.8	11.9	10.0	0.7	1,329,660
	Death of Animal	9.2	19.5	29.6	3.8	18.4	18.3	1.2	1,077,854
	Price Shock	7.0	28.6	26.1	6.4	21.2	10.2	0.4	313,592
	Other Shock	5.3	23.1	18.5	3.3	16.3	28.5	5.0	159,027
	Death	7.0	32.9	28.1	2.2	16.2	13.1	0.6	1,052,612
	Illness	5.8	34.4	31.0	2.1	16.0	10.1	0.5	3,323,222
	Loss of Job	12.6	26.5	25.7	5.7	15.7	12.9	0.9	92,170
	Famine	33.0	31.4	14.1	2.3	7.2	11.4	0.6	4,020,475
	Draught	36.3	31.8	14.4	2.3	7.6	7.4	0.2	1,867,468
	Flood	17.9	28.5	20.9	2.6	12.1	18.0	0.1	403,167
	Crop Damage	24.5	35.3	15.1	2.8	11.8	9.9	0.6	1,311,183
	Death of Animal	9.4	19.8	30.3	3.8	17.7	17.8	1.2	1,032,743
	Price Shock	7.4	31.3	28.9	4.9	18.3	8.7	0.5	277,675
	Other Shock	5.7	27.6	22.5	2.3	13.3	24.5	4.1	129,679
Urban	Death	9.1	8.5	4.5	7.6	42.7	25.3	2.2	173,728
	Illness	4.4	9.3	5.3	7.7	52.5	19.1	1.7	439,282
	Loss of Job	4.2	9.3	3.8	15.4	42.4	22.6	2.4	72,672
	Famine	21.4	9.6	4.6	17.0	18.3	26.5	2.7	222,591
	Draught	34.6	8.8	7.5	3.5	13.0	29.0	3.6	38,526
	Flood	10.1	1.6	12.0	9.3	39.3	26.6	1.3	10,265
	Crop Damage	28.7	26.8	6.5	3.7	15.0	16.9	2.4	18,477
	Death of Animal	5.6	12.5	14.7	3.3	33.2	29.9	0.9	45,111
	Price Shock	3.9	7.8	4.7	17.5	43.9	22.4	0.1	35,918
	Other Shock	3.3	3.4	0.5	7.9	29.8	46.1	9.1	29,348

Looking at the rural-urban distribution of households means of coping mechanisms for major shocks, out of those rural households suffered from death and illness of household member 67.3 percent sale their livestock and livestock product, 59.1 percent sale other agricultural products, 32.2 percent reported using own cash, 12.8 percent got food aid and 4.3 percent sold household assets to skip these miseries. The proportion of rural households that faced famine and drought and coped these shocks using food aid, sale their livestock and livestock product, sale other agricultural products, own cash and sale of household asset consists of 69.3 percent, 63.2 percent, 28.5 percent, 14.8 and 4.6 percent respectively. And also among the rural households who suffered from crop damage, 35.3 percent sale livestock and livestock products, about 24.5 percent got food aid and around 29.7 percent reported that they used their own cash and sale of other agricultural products and sale of household assets.

According to the survey result in urban areas, the percentage distribution of households that suffered from death and illness of household member, 95.2 percent used their own cash, 17.8 percent sale livestock and livestock products, 15.3 percent sale of household assets and 9.8 percent reported sale of other agricultural products to cope with these shocks. Out of those urban households suffered from loss of job of member more than 40 percent reported using own cash, 15.4 percent sold household asset, about 9.3 percent sold livestock and livestock product, 3.8 percent sold agricultural products and only 4 percent reported food aid as a means of coping this shock.

CHAPTER XI

HIV/AIDS KNOWLEDGE AND PRACTICE

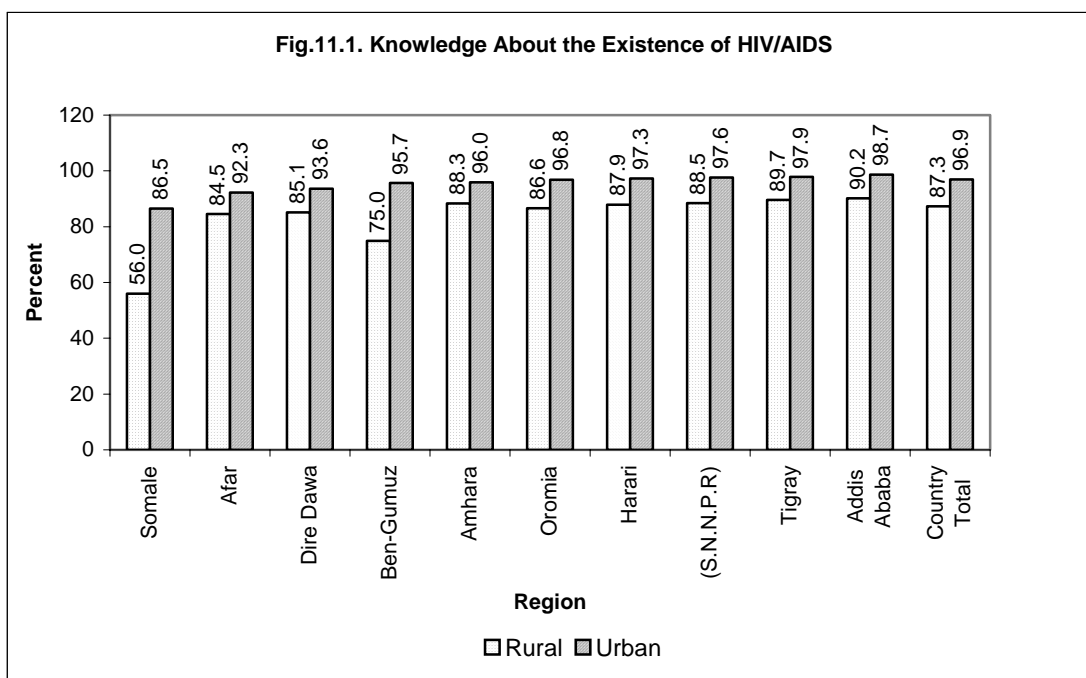
11.1. Introduction

Acquired Immune Deficiency Syndrome (AIDS) is caused by a human immunodeficiency virus (HIV) that weakens the immune system of human beings, making the body susceptible and unable to recover from other diseases. The HIV/ AIDS epidemic has become a serious health and development problem in many countries around the world. In developing countries like Ethiopia, in particular the epidemics have disastrous effect on the socio economic programs of the country. In line with the plan to fight against the spread of HIV/AIDS, the government of Ethiopia has formulated national policy on HIV/AIDS. The CSA in the current WMS has put some elements of HIV/AIDS knowledge and practice indicators that would enable monitoring and evaluation of the policies and programs in place.

11.2. Perception of Existence of HIV/AIDS

"Do you know the existence of HIV/AIDS?" This was the question forwarded to all sampled households to assess the extent of knowledge of the existence of HIV/AIDS among Ethiopian households. Of the total households in the country, 88.8 percent have replied positively. However, the remaining 11.2 percent of the households, most of which reside in rural areas, do not know the existence of HIV/AIDS (See Volume -II Table 11.1 (a) and Fig 11.1).

The survey indicates that households in urban areas have more knowledge about the pandemic problem than that of residents in rural areas (96.9 vs 87.3 percent). The proportion of households that perceive the existence of HIV/AIDS among regions varies from the highest in Addis Ababa (99 percent) to the lowest in Somali (66 percent) and Benshangul-Gumuz (78 percent) Regions.



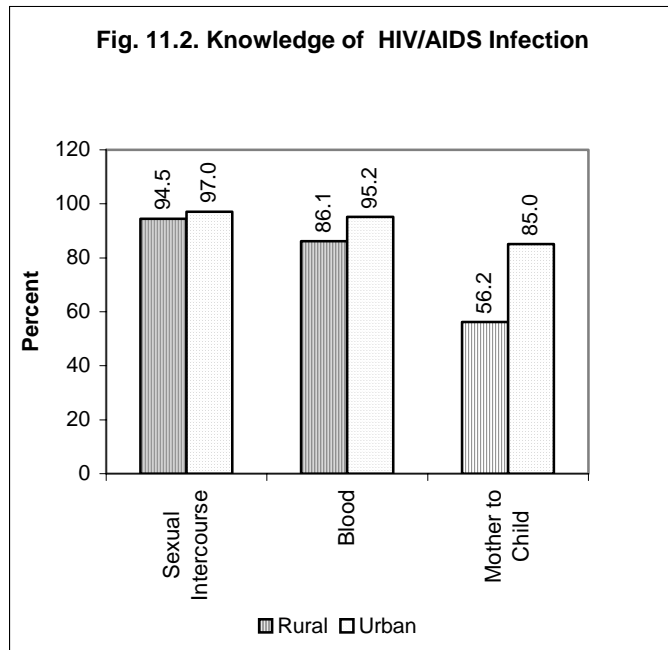
11.3. Knowledge about HIV/AIDS Infection Channels

Information was also collected on whether or not households know how to get infected with HIV/AIDS. Summary Table XI.1 and Tables 11.1(a) – (c) in Volume II presents the findings of the survey on the extent of knowledge of households on HIV transmission by the major channels including sexual intercourse, blood contact and mother to child.

Summary Table XI.1. Distribution of Households Having Knowledge of HIV/AIDS Infection Channels by Place of Residence-Year 2004

<i>Place of Residence</i>	Infection Channels					
	<i>Sexual Intercourse</i>		<i>Blood</i>		<i>Mother to Child</i>	
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
Country	11,339,812	94.9	10,474,392	87.7	7,304,116	61.2
Rural	9,343,693	94.5	8,516,823	86.1	5,555,386	56.2
Urban	1,996,118	97.0	1,957,569	95.2	1,748,730	85.0

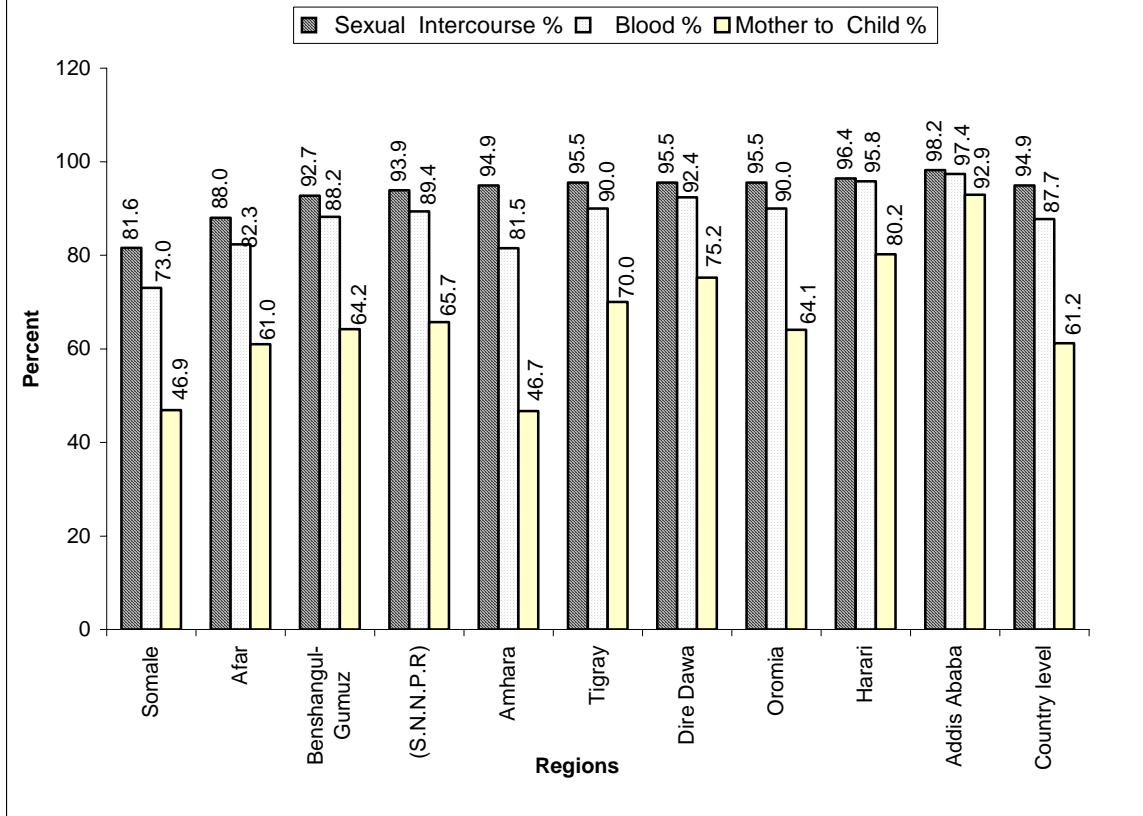
Out of those households that reported to have knowledge about HIV/AIDS, a higher percentage of households (94.9 percent) do know that HIV/AIDS can be transmitted through sexual intercourse, Possibility of infection through blood contact is reported by



lesser percentage of households (87.7 percent). In extreme cases only 61.2 percent of the households have knowledge about mother to child transmission of HIV/AIDS. It has also been observed that households in urban areas have more knowledge about how to get infected with HIV/AIDS than residents in rural areas (See Summary Table XI.1 and Fig.11.2)

Fig.11.3 shows households who have knowledge about infection channels of HIV/ AIDS by regions and place of residence. Percentage of households that reported to know sexual intercourse and blood contact range from more than 97 percent in Addis Ababa to less than 82 percent in Somali region. On the other hand, knowledge of transmission of HIV/AIDS from mother to child ranges from the highest 93 percent of the households in Addis Ababa to the lowest 47 percent in among households of Amhara Region.

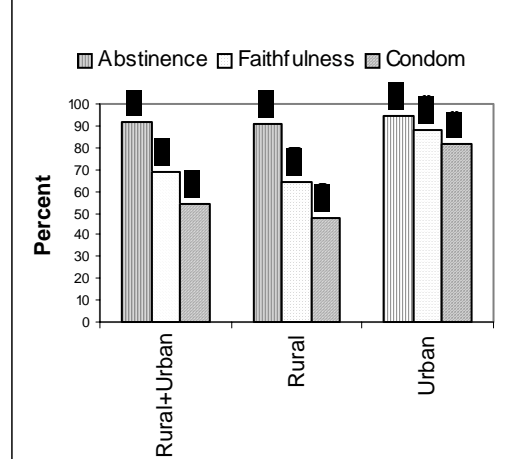
Fig.11.3. Knowledge about HIV/AIDS Infection by Region



11.4. Knowledge of HIV/AIDS Prevention Methods

The 2004 WMS also has collected data on the popular HIV/AIDS prevention methods. These are, abstinence, faithfulness and use of condom. Out of those households that have knowledge about existence of HIV/AIDS, 91.5 percent believe that abstinence protects from HIV/AIDS. Faithfulness stands at 68 percent at country level, while use of condom protection method is reported by only 54 percent of the total households. It

Fig.11.4. Knowledge about HIV/AIDS Protection Methods

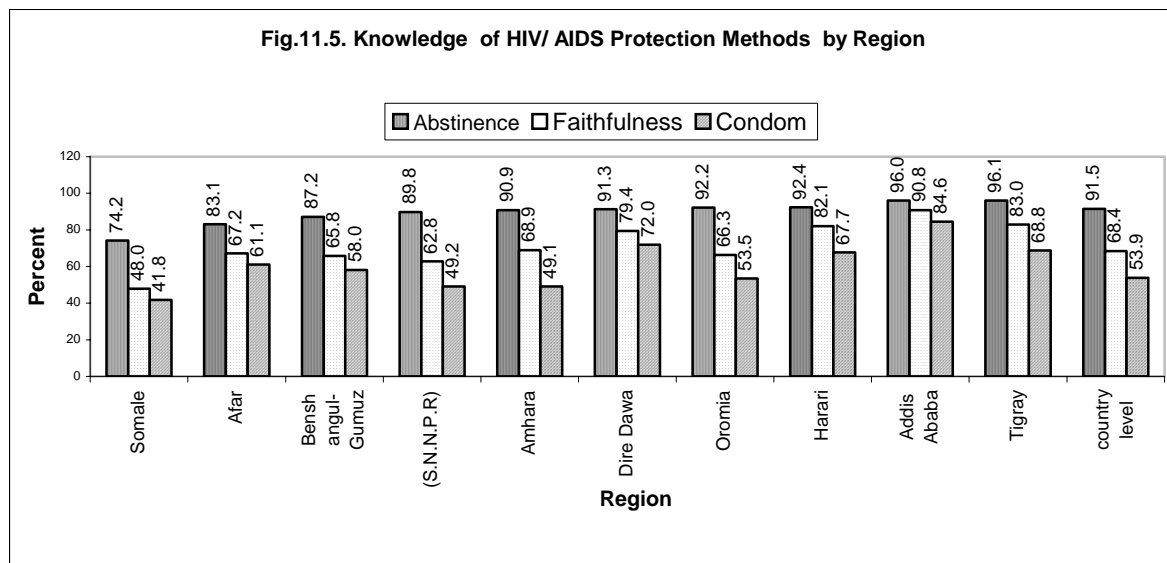


has also been observed that households in urban areas have better knowledge of protection from HIV/AIDS than households in of rural areas. (See Summary Table XI.2. and Fig.11.4)

Summary Table XI.2. Distribution of Households Having Knowledge of HIV/AIDS Protection Methods by Place of Residence - 2004

<i>Place of Residence</i>	Protection Methods					
	<i>Abstinence</i>		<i>Faithfulness</i>		<i>Condom</i>	
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
Country	10,931,109	91.5	8,173,370	68.4	6,432,181	53.9
Rural	8,981,497	90.8	6,367,568	64.4	4,750,254	48.0
Urban	1,949,611	94.8	1,805,802	87.8	1,681,927	81.8

Fig.11.5 shows households who have knowledge of protection from HIV/AIDS by regions. Percentage of households that have knowledge about abstinence constitutes the highest range in Tigray Region (96.1 percent) and the lowest in Somale Region (74.2 percent). On the other hand, highest percentage of households in Addis Ababa reported faithfulness (90.8 percent) and condom (84.6 percent) as a mechanism to protect from HIV/AIDS in contrast to the lowest percentage observed in Amhara and Somale Region (49.1 and 41.8 percent, in that order.)



11.5. Practice on HIV/ AIDS Prevention Methods

To ascertain the depth of knowledge about HIV/AIDS protection methods, households were asked their status of utilization of any of the protection methods abstinence, faithfulness and utilization of condom during the 12 months period prior to the survey date. The results are presented in Summary Table XI.3 and Table 11.3(a)-(c) Volume II.

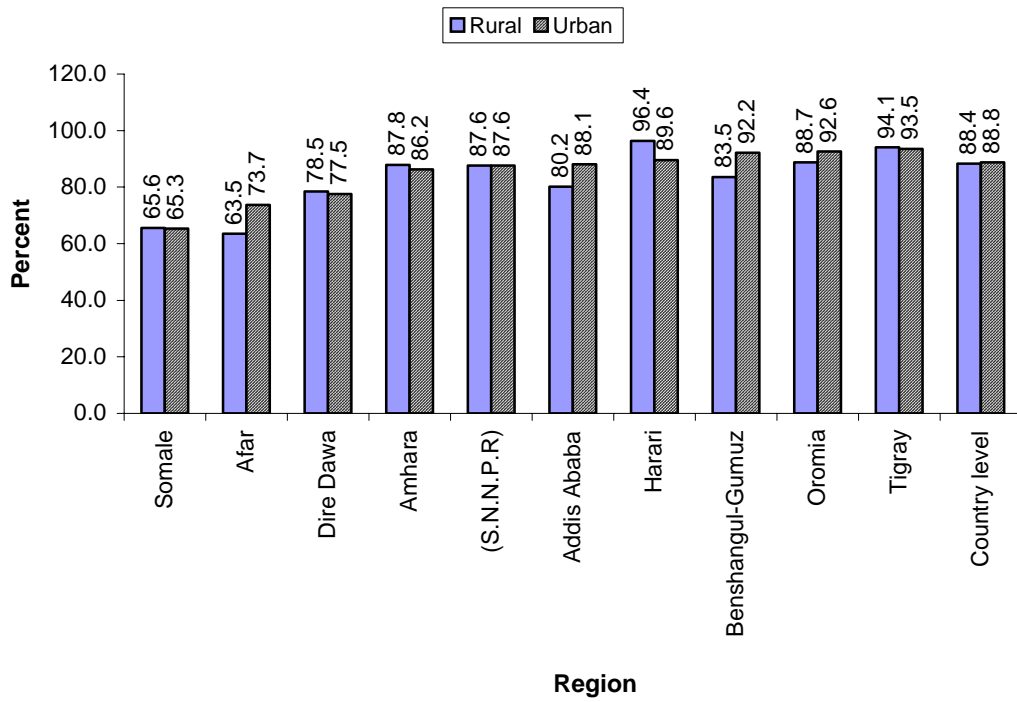
According to the findings of the survey 88.4 percent of the total households at country level reported practicing the protection methods, while 10.6 percent reported not to have practiced any of the protection methods over the reference period. Urban-rural disparity in the status of practice of protection methods is not evidenced in this survey.

Summary Table XI.3 Percentage Distribution of Households by Status of Utilization of HIV/AIDS Prevention Methods Over the 12 Months Time Prior to the Survey by Place of Residence and Region-2004

Region	Total		Rural		Urban	
	Yes	No	Yes	No	Yes	No
Country level	88.4	10.6	88.4	10.7	88.8	10.0
Tigray	94.0	4.4	94.1	4.2	93.5	4.9
Afar	68.6	28.2	63.5	34.5	73.7	21.8
Amhara	87.6	11.6	87.8	11.4	86.2	12.9
Oromia	89.2	9.8	88.7	10.3	92.6	6.6
Somale	65.4	31.9	65.6	34.0	65.3	29.7
Benshangul-Gumuz	85.1	13.6	83.5	15.2	92.2	6.6
(S.N.N.P.R)	87.6	11.8	87.6	11.8	87.6	11.2
Harari	92.0	6.9	96.4	2.8	89.6	9.2
Addis Ababa	88.0	10.7	80.2	17.9	88.1	10.6
Dire Dawa	77.8	19.8	78.5	19.6	77.5	19.8

Observation among regions (Figure 11.6 and Summary Table XI.3) depicts that the highest proportion of households reporting practice of the protection methods is observed in Tigray Region (94.0 percent) followed by Harrari (92 percent), Oromia (89 percent) and Addis Ababa (88 percent). The lowest proportion of households is indicated in Somalie (65.4 percent) and Afar (68.5 percent) Regions.

Fig.11.6: Practice in HIV/AIDS Prevention Methods Over the Last 12 Months Prior to the Survey - 2004



ANNEX I

ESTIMATION PROCEDURES OF TOTALS, RATIOS AND SAMPLING ERRORS

ANNEX I Estimation Procedures of Total, Ratio and Sampling Errors

The following formulas were used to estimate the required variables by reporting levels.

1. Estimate of Total \hat{Y}_h in Rural Domain (Category I)

$$\hat{Y}_h = \sum_{i=1}^{n_h} \frac{M_h H_{hi}}{n_h M_{hi} h_{hi}} \sum_{j=1}^{h_{hi}} Y_{hij} = \sum_{i=1}^{n_h} \sum_{j=1}^{h_{hi}} W_{hi} Y_{hij} \text{-----} \quad (1)$$

Where,

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

2. Estimate of Total \hat{Y}_h in Major Urban Domain (Category II)

$$\hat{Y}_h = \sum_{a=1}^3 \sum_{i=1}^{n_{aih}} \sum_{j=1}^{h_{hai}} W_{hai} Y_{haij} \text{-----} \quad (2)$$

Where,

$$W_{hai} = \frac{M_{ha} H_{hai}}{n_{ha} M_{hai} h_{hai}} \text{ is the basic sampling weight}$$

3. Estimate of Total \hat{Y}_h in Other Urban Domain (Category III)

$$\begin{aligned} \hat{Y}_h &= \sum_{i=1}^{n_h} \frac{M_h}{n_h n_{hi}} \sum_{j=1}^{n_{hi}} \frac{H_{hij}}{M_{hij} h_{hij}} \sum_{k=1}^{h_{hij}} Y_{hijk} \text{-----} \quad (3) \\ &= \sum_{i=1}^{n_h} \sum_{j=1}^{n_{hi}} \sum_{k=1}^{h_{hij}} W_{hij} Y_{hijk} \end{aligned}$$

Where,

$$W_{hij} = \frac{M_h H_{ij}}{n_h n_{hi} M_{hij} h_{hij}} \text{ is basic sampling weight}$$

The following notations were used in the formula:

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

$M_{hi} =$ Total number of households in EA/PSU i for rural and urban domain or in urban center/PSU i for other urban domain, stratum h obtained from the sampling frame.

$n_h =$ Number of successfully covered sample EAs for rural domain in stratum h.

$H_{hi} =$ Total number of households obtained from the survey listing in sample EA/PSU i stratum h for rural domains.

$h_{hi} =$ Total number of households successfully covered in EA/PSU i stratum h for rural domain.

$M_{ha} =$ Total adjusted number of households of the domain in substrata a and stratum h obtained from the sampling frame

$H_{hai} =$ Total number of households obtained from the survey listing in EA/PSU i of substratum a and stratum h

$n_{ha} =$ Number of successfully covered sample EAs/PSUs for major urban domain in substratum a and stratum h

$M_{hai} =$ Total number of households in EA/PSU i in substratum a and stratum h obtained from the sampling frame

$h_{hai} =$ Total number of sampled and covered households in sampled EA/PSU i, substratum a and stratum h

$\hat{Y}_{haij} =$ The observed value of characteristic y for household j, in EA/PSU i, substratum a and stratum h of Major Urban Domain

$M_{hij} =$ Total number of households in EA/SSU j, urban centers/PSU i and stratum h obtained from the sampling frame for other urban center domain.

$n_{hi} =$ Number of sample EAs successfully covered in urban center/PSU i and stratum h for other urban center domain.

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

h_{hij} = Number of sample households successfully covered in EA /SSU j, urban center/PSU i and stratum h for other urban center domain.

Y_{hij} = The observed value of a characteristic y for household j in sampled EA/PSU i and stratum h for rural domain.

Y_{hijk} = The observed value of a characteristic y for household k in EA/SSUj, urban center/PSU i and stratum h for other urban domain.

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

$$\hat{Y} = \sum_{h=1} \hat{Y}_h$$

4. Sampling Variance of the Estimates:

Sampling variance of estimate of stratum total are given by the following formulas:

The variance of domain or reporting total estimate is:

$$V(\hat{Y}_h) = \frac{n_h}{n_h - 1} \left[\sum_{i=1}^{n_h} \hat{Y}_{hi}^2 - \frac{\hat{Y}_h^2}{n_h} \right] \text{-----} \quad (4)$$

in which $\hat{Y}_{hi} = W_{hi} \sum_{j=1}^{h_{hi}} Y_{hij}$ for rural and major urban centers domains,

and $\hat{Y}_{hi} = \sum_{j=1}^{n_{hi}} W_{hij} \sum_{k=1}^{h_{hij}} y_{hijk}$ for other urban center domain.

$$V(\hat{Y}) = \sum_h V(\hat{Y}_h) \text{-----} \quad (5)$$

$$SE(\hat{Y}_h) = \sqrt{Var(\hat{Y}_h)} \text{-----} \quad (6)$$

5. Coefficient of Variation (CV) and Confidence Interval (CI)

The following formulas were used to calculate CV and CI of the domain (reporting level) total.

The coefficient of variation (CV) of domain total in percentage is:

$$CV(\hat{Y}_h) = \frac{\sqrt{VAR(\hat{Y})}}{\hat{Y}} * 100 \text{ ----- (7)}$$

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

$$\hat{Y}_h \pm 1.96 * SE(\hat{Y}_h) \text{ ----- (8)}$$

6. Ratio Estimates:

$$\hat{R}_h = \frac{\hat{Y}_h}{\hat{X}_h} \text{ and } \hat{R} = \frac{\hat{Y}}{\hat{X}} \text{ ----- (9)}$$

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

$$Var(\hat{R}_h) = \frac{1}{\hat{X}_h^2} [Var(\hat{Y}_h) + \hat{R}_h^2 Var(\hat{X}_h) - 2\hat{R}_h Cov(\hat{Y}_h, \hat{X}_h)] \text{ ----- (10)}$$

In which

$$Cov(\hat{Y}_h, \hat{X}_h) = \frac{n_h}{n_h - 1} \left[\sum_{i=1}^{n_h} \hat{Y}_{hi} \hat{X}_{hi} - \frac{\hat{Y}_h \hat{X}_h}{n_h} \right] \text{ ----- (11)}$$

Estimates of standard error, coefficient of variation and confidence interval for the ratio estimate can be calculated by adopting formulas 6, 7 and 8.

ANNEX II

STANDARD ERRORS AND

COEFFICIENTS OF VARIATION OF

SELECTED VARIABLES

Table 3.2(a): Estimates of Standard Errors & Coefficients of Variations of the Estimates of Households by Household size, Gender of Household head and Region - Country Level - 2004

Region	Household size	Gender of Head of Household								
		Male			Female			Total		
		Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Country Total	1	277,261	14,239	5.1	436,899	15,996	3.7	714,161	21,367	3.0
	2	778,163	21,948	2.8	740,950	22,047	3.0	1,519,113	31,768	2.1
	3	1,343,750	28,126	2.1	655,883	19,136	2.9	1,999,633	33,270	1.7
	4	1,716,543	33,783	2.0	548,559	17,773	3.2	2,265,101	38,568	1.7
	5	1,689,973	30,463	1.8	438,045	15,441	3.5	2,128,018	33,683	1.6
	6	1,525,717	30,943	2.0	235,822	11,570	4.9	1,761,539	32,569	1.9
	7	1,211,585	27,750	2.3	146,017	9,507	6.5	1,357,602	29,814	2.2
	8	780,663	22,304	2.9	69,451	6,298	9.1	850,114	23,125	2.7
	9	431,288	16,226	3.8	27,924	3,834	13.7	459,212	16,504	3.6
	10+	370,670	15,709	4.2	22,844	3,055	13.4	393,515	15,796	4.0
	Total HHs	10,125,613	74,886	.7	3,322,395	44,089	1.3	13,448,008	75,847	.6
Tigray	1	20,892	2,666	12.8	46,243	3,695	8.0	67,135	4,658	6.9
	2	54,579	4,910	9.0	71,634	5,107	7.1	126,213	7,003	5.6
	3	70,996	6,432	9.1	61,234	5,266	8.6	132,231	7,719	5.8
	4	100,065	6,108	6.1	48,788	4,368	9.0	148,853	7,793	5.2
	5	102,634	6,334	6.2	31,331	3,557	11.4	133,966	7,287	5.4
	6	97,255	6,034	6.2	17,640	2,395	13.6	114,894	5,846	5.1
	7	81,419	6,176	7.6	7,187	1,493	20.8	88,605	6,375	7.2
	8	61,396	5,772	9.4	5,178	1,480	28.6	66,574	5,916	8.9
	9	26,939	2,938	10.9	499	375	75.1	27,438	2,978	10.9
	10+	13,949	2,261	16.2	88	86	96.8	14,037	2,262	16.1
	Total HHs	630,124	17,591	2.8	289,823	10,969	3.8	919,946	19,999	2.2
Afar	1	2,460	381	15.5	2,459	327	13.3	4,919	550	11.2
	2	4,638	594	12.8	3,166	487	15.4	7,805	812	10.4
	3	6,868	664	9.7	2,064	322	15.6	8,932	812	9.1
	4	5,446	514	9.4	1,373	294	21.4	6,819	662	9.7
	5	6,170	489	7.9	1,186	307	25.9	7,356	638	8.7
	6	5,606	716	12.8	1,252	452	36.1	6,858	1,003	14.6
	7	4,029	639	15.9	222	74	33.5	4,251	643	15.1
	8	2,707	453	16.7	307	225	73.1	3,015	577	19.2
	9	760	242	31.9	239	134	55.9	999	301	30.1
	10+	1,244	360	28.9	92	62	68.0	1,336	365	27.3
	Total HHs	39,928	2,382	6.0	12,360	1,462	11.8	52,289	3,287	6.3
Amhara	1	80,107	8,942	11.2	166,365	11,411	6.9	246,472	13,882	5.6
	2	253,146	13,418	5.3	258,996	14,410	5.6	512,142	20,149	3.9
	3	402,627	16,058	4.0	185,743	11,477	6.2	588,370	19,237	3.3
	4	511,971	19,248	3.8	141,111	9,930	7.0	653,082	22,539	3.5
	5	505,720	17,779	3.5	91,760	7,553	8.2	597,480	18,642	3.1
	6	422,331	17,185	4.1	37,966	5,362	14.1	460,297	17,878	3.9
	7	333,351	15,794	4.7	18,971	3,585	18.9	352,321	16,125	4.6
	8	170,002	11,342	6.7	7,552	2,188	29.0	177,554	11,629	6.6
	9	83,686	7,279	8.7	1,373	621	45.2	85,059	7,284	8.6
	10+	39,913	5,953	14.9	1,843	979	53.1	41,756	6,033	14.5
	Total HHs	2,802,853	36,549	1.3	911,680	25,107	2.8	3,714,533	34,975	.9
Oromia	1	80,389	8,879	11.1	127,277	9,089	7.1	207,666	13,239	6.4
	2	264,282	13,427	5.1	229,235	13,058	5.7	493,518	19,203	3.9
	3	508,190	18,514	3.6	225,286	11,723	5.2	733,476	21,522	2.9

Table 3.2(a): Estimates of Standard Errors & Coefficients of Variations of the Estimates of Households by Household size, Gender of Household head and Region - Country Level - 2004

Region	Household size	Gender of Head of Household								
		Male			Female			Total		
		Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Somale	4	625,770	22,413	3.6	197,838	11,560	5.8	823,607	25,296	3.1
	5	629,351	19,455	3.1	164,086	10,204	6.2	793,437	21,551	2.7
	6	596,239	20,617	3.5	86,832	7,846	9.0	683,071	21,755	3.2
	7	480,144	17,944	3.7	60,508	7,009	11.6	540,653	20,019	3.7
	8	341,827	15,336	4.5	26,900	4,644	17.3	368,727	15,771	4.3
	9	193,995	11,607	6.0	14,378	3,197	22.2	208,373	11,931	5.7
	10+	196,782	12,115	6.2	10,712	2,533	23.6	207,495	12,111	5.8
	Total HHs	3,916,970	50,469	1.3	1,143,052	27,802	2.4	5,060,022	51,107	1.0
	1	4,917	767	15.6	4,771	783	16.4	9,688	971	10.0
	2	8,945	1,150	12.9	4,845	702	14.5	13,790	1,314	9.5
3	13,501	1,558	11.5	6,856	958	14.0	20,357	1,960	9.6	
4	19,653	1,828	9.3	5,139	945	18.4	24,791	1,962	7.9	
5	14,877	1,686	11.3	4,977	771	15.5	19,854	1,797	9.1	
6	15,654	1,667	10.7	3,586	639	17.8	19,241	1,871	9.7	
7	13,961	1,888	13.5	1,941	411	21.2	15,902	1,982	12.5	
8	8,357	1,258	15.1	1,035	309	29.9	9,392	1,289	13.7	
9	4,695	822	17.5	197	107	54.4	4,892	827	16.9	
10+	4,621	786	17.0	498	191	38.4	5,119	811	15.8	
Total HHs	109,181	6,645	6.1	33,845	2,323	6.9	143,026	6,968	4.9	
Benshangul-Gumuz	1	6,003	1,109	18.5	8,957	1,262	14.1	14,960	1,722	11.5
	2	13,720	1,522	11.1	8,793	1,188	13.5	22,513	1,694	7.5
	3	19,439	1,875	9.7	6,094	877	14.4	25,533	2,064	8.1
	4	22,449	2,151	9.6	4,630	769	16.6	27,079	2,247	8.3
	5	18,286	1,681	9.2	3,359	724	21.6	21,645	2,021	9.3
	6	14,772	1,368	9.3	1,350	369	27.3	16,122	1,421	8.8
	7	11,846	1,566	13.2	1,221	476	39.0	13,067	1,665	12.7
	8	8,969	1,184	13.2	864	462	53.4	9,833	1,386	14.1
	9	4,722	826	17.5	292	243	83.5	5,014	916	18.3
	10+	4,456	807	18.1	233	192	82.0	4,690	829	17.7
Total HHs	124,663	5,953	4.8	35,792	2,567	7.2	160,455	6,957	4.3	
S.N.N.P.R	1	55,954	5,450	9.7	58,718	4,839	8.2	114,672	7,319	6.4
	2	148,553	9,404	6.3	131,399	8,613	6.6	279,953	13,036	4.7
	3	272,591	11,602	4.3	131,403	7,851	6.0	403,993	13,872	3.4
	4	367,976	14,478	3.9	112,694	7,557	6.7	480,670	15,778	3.3
	5	359,517	13,359	3.7	107,364	7,513	7.0	466,881	15,716	3.4
	6	324,050	13,542	4.2	64,977	5,788	8.9	389,027	14,574	3.8
	7	251,661	12,166	4.8	40,761	4,821	11.8	292,422	13,083	4.5
	8	164,028	9,665	5.9	16,048	3,012	18.8	180,076	10,313	5.7
	9	101,174	7,971	7.9	6,093	1,790	29.4	107,267	7,991	7.5
	10+	86,005	7,314	8.5	1,695	812	47.9	87,701	7,351	8.4
Total HHs	2,131,509	35,228	1.7	671,154	19,085	2.8	2,802,663	35,891	1.3	
Harari	1	1,945	370	19.0	2,110	369	17.5	4,054	596	14.7
	2	3,013	454	15.1	2,798	513	18.3	5,811	722	12.4
	3	4,532	463	10.2	2,160	413	19.1	6,693	560	8.4
	4	4,695	506	10.8	2,249	378	16.8	6,944	650	9.4
	5	3,851	457	11.9	1,128	263	23.3	4,979	468	9.4
	6	3,119	412	13.2	930	222	23.9	4,049	492	12.2

Table 3.2(a): Estimates of Standard Errors & Coefficients of Variations of the Estimates of Households by Household size, Gender of Household head and Region - Country Level - 2004

Region	Household size	Gender of Head of Household								
		Male			Female			Total		
		Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Addis Ababa	7	2,431	425	17.5	521	153	29.4	2,951	424	14.4
	8	1,159	279	24.1	397	165	41.5	1,556	328	21.1
	9	942	226	24.0	233	109	46.9	1,175	259	22.0
	10+	902	207	22.9	246	170	69.1	1,148	254	22.2
	Total HHs	26,588	811	3.1	12,772	1,282	10.0	39,360	1,296	3.3
	1	21,248	2,175	10.2	16,948	1,794	10.6	38,197	2,852	7.5
	2	22,907	2,011	8.8	25,941	2,153	8.3	48,848	2,881	5.9
	3	39,665	2,720	6.9	30,157	2,198	7.3	69,822	3,377	4.8
	4	51,038	3,469	6.8	30,987	2,284	7.4	82,025	4,318	5.3
	5	43,967	2,842	6.5	29,744	2,566	8.6	73,711	3,705	5.0
	6	41,061	3,382	8.2	20,110	1,845	9.2	61,171	3,730	6.1
Dire Dawa	7	29,134	2,361	8.1	13,934	1,561	11.2	43,067	2,955	6.9
	8	20,029	1,876	9.4	10,756	1,273	11.8	30,785	2,281	7.4
	9	13,489	1,360	10.1	4,220	784	18.6	17,709	1,556	8.8
	10+	21,182	2,068	9.8	7,097	1,073	15.1	28,279	2,334	8.3
	Total HHs	303,720	9,244	3.0	189,894	6,104	3.2	493,614	10,694	2.2
	1	3,347	564	16.8	3,053	548	18.0	6,399	782	12.2
	2	4,380	771	17.6	4,141	784	18.9	8,521	1,185	13.9
	3	5,341	687	12.9	4,886	918	18.8	10,226	1,077	10.5
	4	7,480	1,021	13.7	3,749	726	19.4	11,229	1,231	11.0
	5	5,599	787	14.1	3,110	538	17.3	8,709	922	10.6
	6	5,630	718	12.7	1,179	348	29.5	6,809	756	11.1
7	3,611	534	14.8	751	272	36.2	4,362	563	12.9	
8	2,190	377	17.2	413	207	50.0	2,603	474	18.2	
9	886	300	33.9	400	199	49.7	1,287	376	29.2	
10+	1,615	494	30.6	339	196	57.8	1,954	540	27.7	
Total HHs	40,079	1,784	4.5	22,022	1,716	7.8	62,101	2,399	3.9	

Table 4.1(a): Estimates of Standard Errors & Coefficient of Variations of the Estimates of Numeracy and Literacy of Population Aged 10 Years and Above by Region and Gender - Country Level - 2004

Region	Gender	Literacy			Numeracy		
		Estimate	SE	CV(%)	Estimate	SE	CV(%)
Country Total	Male	10,463,017	120,261	1.2	9,152,687	114,013	1.3
	Female	5,894,842	94,849	1.6	5,186,440	89,608	1.7
	Total	16,357,859	191,431	1.2	14,339,126	181,191	1.3
Tigray	Male	750,988	33,155	4.4	639,483	29,754	4.7
	Female	501,208	29,205	5.8	459,574	28,730	6.3
	Total	1,252,196	58,382	4.7	1,099,057	55,015	5.0
Afar	Male	33,933	3,431	10.1	29,776	3,350	11.3
	Female	18,787	2,039	10.9	16,389	1,818	11.1
	Total	52,720	5,096	9.7	46,165	4,864	10.5
Amhara	Male	2,207,908	57,526	2.6	1,668,416	51,450	3.1
	Female	1,317,186	48,157	3.7	1,064,878	44,584	4.2
	Total	3,525,093	93,645	2.7	2,733,294	86,253	3.2
Oromia	Male	4,018,553	73,838	1.8	3,608,062	72,202	2.0
	Female	1,913,349	60,448	3.2	1,711,065	57,062	3.3
	Total	5,931,902	116,640	2.0	5,319,127	112,530	2.1
Somale	Male	86,051	6,093	7.1	70,460	6,298	8.9
	Female	34,549	3,818	11.1	29,317	3,473	11.8
	Total	120,600	9,142	7.6	99,776	9,155	9.2
Benshangul-Gumuz	Male	120,988	7,468	6.2	108,214	6,426	5.9
	Female	55,275	3,632	6.6	49,894	3,502	7.0
	Total	176,263	9,890	5.6	158,108	8,677	5.5
S.N.N.P.R	Male	2,272,423	63,317	2.8	2,087,372	60,801	2.9
	Female	1,143,018	40,558	3.6	995,919	38,208	3.8
	Total	3,415,441	94,764	2.8	3,083,291	88,927	2.9
Harari	Male	42,421	3,310	7.8	39,886	3,228	8.1
	Female	30,830	3,401	11.0	28,768	3,355	11.7
	Total	73,250	6,405	8.7	68,654	6,317	9.2
Addis Ababa	Male	858,347	21,454	2.5	833,289	20,936	2.5
	Female	830,228	21,729	2.6	783,394	21,260	2.7
	Total	1,688,576	39,945	2.4	1,616,684	39,163	2.4
Dire Dawa	Male	71,405	4,130	5.8	67,728	3,964	5.9
	Female	50,413	3,137	6.2	47,242	3,112	6.6
	Total	121,818	6,240	5.1	114,970	6,045	5.3

Table 4.3(a): School Enrollment Ratios by Level of School, Region and Gender - Country Level - 2004

1. Primary Level 1 - 6 and Secondary Level 7 - 12							
Region	Level of Schooling and Gender	Gross Enrollment			Net Enrollment		
		Estimate	SE	CV(%)	Estimate	SE	CV(%)
Country Total	Primary						
	Male	4,916,972	73,312	1.5	2,377,677	46,769	2.0
	Female	3,940,514	68,548	1.7	2,142,229	45,812	2.1
	Total	8,857,486	119,040	1.3	4,519,906	74,833	1.7
	Secondary						
	Male	1,343,965	34,843	2.6	787,228	25,054	3.2
	Female	845,056	26,759	3.2	586,763	21,194	3.6
	Total	2,189,021	51,419	2.4	1,373,991	38,351	2.8
	Tigray	Primary					
Male		318,902	20,842	6.5	172,374	12,294	7.1
Female		332,033	18,403	5.5	198,961	13,121	6.6
Total		650,935	36,683	5.6	371,334	23,029	6.2
Secondary							
Male		107,706	9,094	8.4	57,752	5,521	9.6
Female		87,055	7,096	8.2	52,252	5,114	9.8
Total		194,761	12,825	6.6	110,005	8,094	7.4
Afar		Primary					
	Male	13,421	1,432	10.7	6,809	764	11.2
	Female	9,408	927	9.9	6,065	681	11.2
	Total	22,829	2,133	9.3	12,874	1,219	9.5
	Secondary						
	Male	4,856	815	16.8	2,393	524	21.9
	Female	3,227	569	17.6	2,256	494	21.9
	Total	8,083	1,191	14.7	4,649	909	19.6
	Amhara	Primary					
Male		1,074,110	36,612	3.4	509,227	23,281	4.6
Female		1,008,498	38,298	3.8	600,161	25,817	4.3
Total		2,082,608	63,425	3.1	1,109,389	39,824	3.6
Secondary							
Male		231,312	15,247	6.6	145,088	11,867	8.2
Female		205,469	14,654	7.1	147,257	11,667	7.9
Total		436,780	24,350	5.6	292,345	18,875	6.5
Oromia		Primary					
	Male	2,098,247	47,203	2.3	1,003,218	31,648	3.2
	Female	1,489,173	43,887	3.0	809,777	29,513	3.6
	Total	3,587,419	74,286	2.1	1,812,995	48,155	2.7
	Secondary						
	Male	521,421	23,302	4.5	300,931	17,276	5.7
	Female	251,692	16,956	6.7	186,730	13,797	7.4
	Total	773,113	34,781	4.5	487,661	26,587	5.5
	Somale	Primary					
Male		31,626	3,561	11.3	17,010	1,938	11.4
Female		19,790	2,332	11.8	11,432	1,384	12.1
Total		51,416	5,543	10.8	28,442	3,046	10.7
Secondary							
Male		11,437	1,781	15.6	6,256	1,022	16.3
Female		5,257	895	17.0	3,280	619	18.9

Table 4.3(a): School Enrollment Ratios by Level of School, Region and Gender - Country Level - 2004

1. Primary Level 1 - 6 and Secondary Level 7 - 12							
Region	Level of Schooling and Gender	Gross Enrollment			Net Enrollment		
		Estimate	SE	CV(%)	Estimate	SE	CV(%)
Benshangul-Gumuz	Total	16,694	2,421	14.5	9,536	1,420	14.9
	Primary						
	Male	60,586	4,423	7.3	28,392	2,738	9.6
	Female	40,658	3,171	7.8	19,188	1,683	8.8
	Total	101,244	6,410	6.3	47,580	3,705	7.8
	Secondary						
S.N.N.P.R	Male	21,878	2,246	10.3	12,609	1,552	12.3
	Female	8,657	1,290	14.9	6,138	1,090	17.8
	Total	30,535	2,881	9.4	18,747	2,084	11.1
	Primary						
	Male	1,109,388	35,757	3.2	512,783	21,380	4.2
	Female	792,255	29,335	3.7	362,537	18,793	5.2
Harari	Total	1,901,643	54,595	2.9	875,320	32,733	3.7
	Secondary						
	Male	287,647	17,634	6.1	151,996	11,428	7.5
	Female	135,258	11,335	8.4	83,421	8,576	10.3
	Total	422,905	23,987	5.7	235,417	16,884	7.2
	Primary						
Addis Ababa	Male	14,780	1,213	8.2	9,820	894	9.1
	Female	9,940	989	10.0	6,945	800	11.5
	Total	24,720	1,951	7.9	16,765	1,419	8.5
	Secondary						
	Male	5,834	880	15.1	4,566	715	15.7
	Female	4,220	819	19.4	2,914	593	20.4
Dire Dawa	Total	10,053	1,410	14.0	7,480	1,103	14.7
	Primary						
	Male	172,945	7,120	4.1	104,901	4,526	4.3
	Female	219,790	9,237	4.2	117,498	5,333	4.5
	Total	392,734	14,381	3.7	222,399	7,876	3.5
	Secondary						
Dire Dawa	Male	139,596	5,812	4.2	97,833	4,710	4.8
	Female	137,471	5,543	4.0	97,473	4,472	4.6
	Total	277,067	9,027	3.3	195,305	6,843	3.5
	Primary						
	Male	22,968	2,576	11.2	13,145	1,548	11.8
	Female	18,969	2,015	10.6	9,664	1,234	12.8
Dire Dawa	Total	41,937	4,016	9.6	22,809	2,216	9.7
	Secondary						
	Male	12,278	1,210	9.9	7,804	942	12.1
	Female	6,750	912	13.5	5,042	909	18.0
	Total	19,028	1,510	7.9	12,845	1,360	10.6

Table 4.3(a): Estimates of Standard Errors & Coefficients of Variations of the Estimates of School Enrollment Ratios by Level of School, Region and Gender
- Country Level - 2004

2. Primary Level 1 - 8 and Secondary Level 9 - 12							
Region	Level of Schooling and Gender	Gross Enrollment Ratio			Net Enrollment Ratio		
		Estimate	SE	CV(%)	Estimate	SE	CV(%)
Country Total	Primary						
	Male	5,783,285	83,732	1.5	3,441,513	57,551	1.7
	Female	4,479,232	75,783	1.7	3,066,028	57,603	1.9
	Total	10,262,518	135,935	1.3	6,507,541	96,235	1.5
	Secondary						
	Male	477,651	18,670	3.9	210,232	10,996	5.2
	Female	306,337	13,558	4.4	171,103	9,177	5.4
	Total	783,989	25,485	3.3	381,334	15,960	4.2
	Tigray	Primary					
Male		380,378	24,966	6.6	228,967	14,687	6.4
Female		388,108	20,943	5.4	274,499	16,933	6.2
Total		768,486	42,957	5.6	503,466	29,312	5.8
Secondary							
Male		46,231	5,394	11.7	17,788	3,138	17.6
Female		30,980	3,458	11.2	13,885	2,048	14.8
Total		77,210	6,663	8.6	31,673	3,971	12.5
Afar		Primary					
	Male	16,523	1,751	10.6	9,903	1,072	10.8
	Female	11,725	1,197	10.2	7,914	838	10.6
	Total	28,248	2,723	9.6	17,816	1,730	9.7
	Secondary						
	Male	1,754	387	22.1	644	188	29.2
	Female	911	238	26.1	373	126	33.7
	Total	2,665	460	17.3	1,017	228	22.4
	Amhara	Primary					
Male		1,236,334	41,188	3.3	724,494	27,846	3.8
Female		1,156,622	42,002	3.6	847,836	32,846	3.9
Total		2,392,956	71,386	3.0	1,572,330	51,062	3.3
Secondary							
Male		69,088	7,022	10.2	36,881	4,718	12.8
Female		57,344	6,886	12.0	29,816	4,132	13.9
Total		126,432	10,706	8.5	66,697	6,817	10.2
Oromia		Primary					
	Male	2,437,689	52,460	2.2	1,465,089	39,113	2.7
	Female	1,647,772	48,255	2.9	1,153,474	37,177	3.2
	Total	4,085,461	83,927	2.1	2,618,563	61,940	2.4
	Secondary						
	Male	181,979	12,316	6.8	76,567	7,906	10.3
	Female	93,092	8,715	9.4	58,636	6,526	11.1
	Total	275,071	17,217	6.3	135,204	11,840	8.8
	Somale	Primary					
Male		37,861	4,042	10.7	24,043	2,638	11.0
Female		22,879	2,604	11.4	14,833	1,667	11.2
Total		60,740	6,283	10.3	38,877	3,996	10.3
Secondary							

Table 4.3(a): Estimates of Standard Errors & Coefficients of Variations of the Estimates of School Enrollment Ratios by Level of School, Region and Gender
- Country Level - 2004

1. Primary Level 1 - 8 and Secondary Level 9 - 12							
Region	Level of Schooling and Gender	Gross Enrollment Ratio			Net Enrollment Ratio		
		Estimate	SE	CV(%)	Estimate	SE	CV(%)
Benshangul-Gumuz	Male	5,202	957	18.4	1,719	368	21.4
	Female	2,168	499	23.0	1,098	346	31.5
	Total	7,370	1,246	16.9	2,817	552	19.6
	Primary						
	Male	75,987	5,389	7.1	43,248	3,657	8.5
	Female	46,839	3,474	7.4	28,656	2,323	8.1
	Total	122,826	7,690	6.3	71,904	4,900	6.8
	Secondary						
	Male	6,477	1,151	17.8	2,487	553	22.3
Female	2,477	586	23.6	1,131	364	32.2	
Total	8,953	1,423	15.9	3,618	699	19.3	
S.N.N.P.R	Primary						
	Male	1,304,990	42,308	3.2	754,692	26,993	3.6
	Female	878,767	32,720	3.7	535,060	22,511	4.2
	Total	2,183,757	63,565	2.9	1,289,753	42,164	3.3
	Secondary						
	Male	92,045	10,060	10.9	31,225	4,295	13.8
	Female	48,746	5,814	11.9	23,189	3,647	15.7
	Total	140,791	12,434	8.8	54,414	5,918	10.9
	Primary						
Male	17,551	1,490	8.5	13,514	1,197	8.9	
Female	12,333	1,284	10.4	9,268	964	10.4	
Total	29,884	2,459	8.2	22,782	1,903	8.4	
Harari	Secondary						
	Male	3,062	550	18.0	2,116	432	20.4
	Female	1,827	481	26.3	1,035	284	27.5
	Total	4,889	806	16.5	3,151	565	17.9
	Primary						
	Male	245,776	9,458	3.9	157,619	5,895	3.7
	Female	290,615	10,685	3.7	179,492	7,178	4.0
	Total	536,391	17,898	3.3	337,110	11,165	3.3
	Secondary						
Male	66,765	3,759	5.6	38,813	2,647	6.8	
Female	66,646	3,669	5.5	40,527	2,554	6.3	
Total	133,410	5,847	4.4	79,340	3,963	5.0	
Dire Dawa	Primary						
	Male	30,196	3,026	10.0	19,944	2,200	11.0
	Female	23,572	2,248	9.5	14,996	1,531	10.2
	Total	53,768	4,542	8.5	34,940	3,004	8.6
	Secondary						
	Male	5,050	690	13.7	1,993	429	21.5
	Female	2,148	603	28.1	1,412	449	31.8
	Total	7,198	914	12.7	3,404	652	19.2

Table 4.5(a): Estimates of Standard Errors & Coefficients of Variations of the Estimates of Education Drop-outs by Level of School, Region and Gender - Country Level-2004

Region	Drop-outs																	
	Primary Level									Secondary Level								
	Male			Female			Total			Male			Female			Total		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Country Total	583,442	22,049	3.8	378,532	18,767	5.0	961,974	32,369	3.4	142,452	8,839	6.2	79,913	7,802	9.8	222,365	12,321	5.5
Tigray	29,256	4,054	13.9	31,719	5,324	16.8	60,975	7,607	12.5	14,809	2,761	18.7	13,755	2,946	21.4	28,564	4,762	16.7
Afar	785	186	23.6	801	242	30.2	1,586	359	22.6	123	81	66.2	290	103	35.7	413	135	32.7
Amhara	119,859	9,924	8.3	89,915	8,781	9.8	209,774	14,191	6.8	15,976	2,742	17.2	17,306	4,239	24.5	33,282	5,094	15.3
Oromia	242,911	15,197	6.3	155,026	13,002	8.4	397,936	22,042	5.5	55,189	5,384	9.8	26,886	5,164	19.2	82,075	7,795	9.5
Somale	2,210	742	33.6	1,099	429	39.0	3,309	1,053	31.8	825	321	38.8	302	140	46.6	1,127	344	30.6
Benshangul-Gumuz	6,573	1,348	20.5	4,250	709	16.7	10,823	1,656	15.3	1,917	534	27.9	188	98	52.1	2,105	534	25.4
S.N.N.P.R	173,054	11,683	6.8	84,274	8,666	10.3	257,328	17,193	6.7	41,744	5,611	13.4	10,916	2,458	22.5	52,660	6,183	11.7
Harari	1,326	277	20.9	582	200	34.3	1,909	340	17.8	363	157	43.2	479	218	45.5	842	258	30.6
Addis Ababa	6,358	1,119	17.6	9,768	1,299	13.3	16,126	1,662	10.3	10,395	1,410	13.6	9,618	1,188	12.4	20,013	1,887	9.4
Dire Dawa	1,109	292	26.4	1,098	306	27.9	2,207	474	21.5	1,111	337	30.4	174	132	75.7	1,285	394	30.7

Table 4.7(a): Estimates of Standard Errors & Coefficients of Variations of the Estimates of Households by Distance in Kilometer to the Nearest School and Region - Country Level - 2004

REGION and distance in KM	Primary School			Secondary School		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Country Total						
Less than 1 KM	3,399,829	90,624	2.7	1,781,989	76,947	4.3
1 - 4 KM	6,617,877	110,379	1.7	1,877,879	72,335	3.9
5 - 9 KM	2,739,660	93,609	3.4	1,909,822	90,417	4.7
10 - 14 KM	438,426	33,659	7.7	1,283,273	70,398	5.5
15 - 19 KM	166,478	20,331	12.2	2,046,918	92,068	4.5
20 & above	82,656	13,170	15.9	4,540,612	137,547	3.0
Not Stated	3,081	963	31.3	7,515	2,756	36.7
Total	13,448,008	75,847	.6	13,448,008	75,847	.6
Tigray						
Less than 1 KM	226,239	19,537	8.6	135,212	17,734	13.1
1 - 4 KM	461,562	28,611	6.2	142,586	23,403	16.4
5 - 9 KM	176,739	17,666	10.0	149,140	19,260	12.9
10 - 14 KM	30,245	7,041	23.3	90,409	12,627	14.0
15 - 19 KM	14,778	4,077	27.6	156,533	19,645	12.6
20 & above	10,058	3,195	31.8	245,740	25,318	10.3
Not Stated	326	331	101.6	326	331	101.6
Total	919,946	19,999	2.2	919,946	19,999	2.2
Afar						
Less than 1 KM	17,925	1,976	11.0	4,273	1,227	28.7
1 - 4 KM	22,114	2,307	10.4	10,107	1,515	15.0
5 - 9 KM	8,265	1,750	21.2	6,740	1,878	27.9
10 - 14 KM	2,126	596	28.0	5,679	1,432	25.2
15 - 19 KM	1,436	609	42.4	3,218	1,162	36.1
20 & above	291	138	47.3	22,271	2,659	11.9
Not Stated	132	96	73.1	-	-	-
Total	52,289	3,287	6.3	52,289	3,287	6.3
Amhara						
Less than 1 KM	914,698	55,898	6.1	459,261	48,684	10.6
1 - 4 KM	1,734,215	66,144	3.8	417,998	41,369	9.9
5 - 9 KM	826,362	56,830	6.9	386,668	47,643	12.3
10 - 14 KM	149,027	21,657	14.5	317,794	41,446	13.0
15 - 19 KM	52,603	13,660	26.0	652,376	56,923	8.7
20 & above	37,628	10,942	29.1	1,480,436	79,443	5.4
Not Stated	-	-	-	-	-	-
Total	3,714,533	34,975	.9	3,714,533	34,975	.9
Oromia						
Less than 1 KM	1,160,230	55,528	4.8	586,976	46,645	8.0
1 - 4 KM	2,433,561	66,479	2.7	541,940	40,214	7.4
5 - 9 KM	1,211,800	64,782	5.4	761,955	61,581	8.1
10 - 14 KM	178,262	19,704	11.1	492,565	45,893	9.3
15 - 19 KM	59,727	11,046	18.5	809,680	59,470	7.3
20 & above	14,955	3,037	20.3	1,864,733	93,660	5.0
Not Stated	1,487	739	49.7	2,172	1,351	62.2
Total	5,060,022	51,107	1.0	5,060,022	51,107	1.0
Somale						

Table 4.7(a): Estimates of Standard Errors & Coefficients of Variations of the Estimates of Households by Distance in Kilometer to the Nearest School and Region - Country Level - 2004

REGION and distance in KM	Primary School			Secondary School		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Less than 1 KM	38,273	4,054	10.6	15,804	2,422	15.3
1 - 4 KM	44,102	5,207	11.8	31,628	4,039	12.8
5 - 9 KM	33,324	5,950	17.9	14,545	3,411	23.5
10 - 14 KM	10,786	2,816	26.1	10,137	3,077	30.4
15 - 19 KM	11,818	4,531	38.3	13,946	4,668	33.5
20 & above	4,653	2,116	45.5	56,896	8,492	14.9
Not Stated	70	61	87.7	70	61	87.7
Total	143,026	6,968	4.9	143,026	6,968	4.9
Benshangul-Gumuz						
Less than 1 KM	50,178	5,376	10.7	15,039	3,466	23.0
1 - 4 KM	64,323	5,545	8.6	20,183	3,845	19.1
5 - 9 KM	28,514	4,554	16.0	19,360	4,196	21.7
10 - 14 KM	8,462	2,728	32.2	12,897	3,824	29.7
15 - 19 KM	2,963	1,250	42.2	25,162	6,117	24.3
20 & above	5,628	3,557	63.2	65,959	8,074	12.2
Not Stated	388	377	97.3	1,855	1,667	89.9
Total	160,455	6,957	4.3	160,455	6,957	4.3
S.N.N.P.R						
Less than 1 KM	720,570	36,986	5.1	416,855	29,458	7.1
1 - 4 KM	1,555,562	48,689	3.1	372,177	34,213	9.2
5 - 9 KM	436,603	30,823	7.1	495,622	40,646	8.2
10 - 14 KM	57,475	14,466	25.2	344,089	30,708	8.9
15 - 19 KM	23,009	8,101	35.2	378,974	35,371	9.3
20 & above	9,443	4,141	43.9	794,649	55,199	7.0
Not Stated	-	-	-	296	294	99.2
Total	2,802,663	35,891	1.3	2,802,663	35,891	1.3
Harari						
Less than 1 KM	21,157	2,079	9.8	12,184	2,158	17.7
1 - 4 KM	16,287	1,829	11.2	15,423	2,350	15.2
5 - 9 KM	1,864	627	33.6	8,409	1,421	16.9
10 - 14 KM	52	51	97.0	984	312	31.7
15 - 19 KM	-	-	-	1,879	783	41.7
20 & above	-	-	-	482	289	59.9
Not Stated	-	-	-	-	-	-
Total	39,360	1,296	3.3	39,360	1,296	3.3
Addis Ababa						
Less than 1 KM	225,992	13,912	6.2	133,235	12,948	9.7
1 - 4 KM	252,804	11,169	4.4	297,046	11,668	3.9
5 - 9 KM	12,622	3,727	29.5	53,398	6,904	12.9
10 - 14 KM	1,619	1,010	62.4	5,080	1,306	25.7
15 - 19 KM	35	-	-	1,401	446	31.8
20 & above	-	-	-	657	406	61.9
Not Stated	542	315	58.2	2,796	1,671	59.8
Total	493,614	10,694	2.2	493,614	10,694	2.2
Dire Dawa						
Less than 1 KM	24,569	2,831	11.5	3,149	1,028	32.6

Table 4.7(a): Estimates of Standard Errors & Coefficients of Variations of the Estimates of Households by Distance in Kilometer to the Nearest School and Region - Country Level - 2004

REGION and distance in KM	Primary School			Secondary School		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)
1 - 4 KM	33,348	2,934	8.8	28,790	3,244	11.3
5 - 9 KM	3,569	811	22.7	13,984	2,777	19.9
10 - 14 KM	371	175	47.0	3,640	1,287	35.4
15 - 19 KM	108	102	94.6	3,748	1,089	29.1
20 & above	-	-	-	8,789	1,770	20.1
Not Stated	137	129	94.6	-	-	-
Total	62,101	2,399	3.9	62,101	2,399	3.9

Table 6.5(a): Cont'd: Estimates of Standard Errors & Coefficients of Variations of the Estimates of Immunized Children Under 5 years of Age by age Group, Gender, Type of Immunization and Region - Country Level - 2004
Country Total

Age and Sex	Measels			BCG			ANY DPT			ANY POLIO		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Boys												
0-11	337,170	14,812	4.4	445,739	17,064	3.8	472,571	17,769	3.8	565,126	18,847	3.3
12-23	598,899	21,425	3.6	575,042	21,015	3.7	620,225	21,493	3.5	851,285	24,445	2.9
24-35	727,363	22,551	3.1	694,979	22,027	3.2	724,981	22,132	3.1	1,041,889	26,033	2.5
36-59	1,462,786	34,027	2.3	1,310,218	33,591	2.6	1,392,832	32,971	2.4	2,096,097	39,170	1.9
Total	3,126,218	60,018	1.9	3,025,978	61,968	2.1	3,210,610	60,273	1.9	4,554,397	66,735	1.5
Girls												
0-11	307,183	14,297	4.7	394,744	16,574	4.2	422,245	17,127	4.1	512,210	18,266	3.6
12-23	561,223	18,986	3.4	535,527	18,323	3.4	567,785	19,024	3.4	804,620	22,931	2.9
24-35	732,234	22,083	3.0	679,037	22,412	3.3	723,951	22,491	3.1	1,048,847	26,039	2.5
36-59	1,420,060	34,675	2.4	1,305,410	33,124	2.5	1,361,053	33,676	2.5	2,067,471	41,226	2.0
Total	3,020,700	57,051	1.9	2,914,718	57,308	2.0	3,075,034	57,033	1.9	4,433,148	66,432	1.5
Both Sexes												
0-11	644,353	22,038	3.4	840,483	25,308	3.0	894,816	26,279	2.9	1,077,335	27,231	2.5
12-23	1,160,122	30,574	2.6	1,110,569	29,873	2.7	1,188,010	29,866	2.5	1,655,905	35,780	2.2
24-35	1,459,597	33,910	2.3	1,374,016	34,454	2.5	1,448,932	34,673	2.4	2,090,736	37,958	1.8
36-59	2,882,846	55,004	1.9	2,615,628	54,006	2.1	2,753,885	53,540	1.9	4,163,568	63,325	1.5
Total	6,146,917	100,097	1.6	5,940,696	103,382	1.7	6,285,643	100,927	1.6	8,987,545	111,184	1.2

Table 6.5(a): Cont'd: Estimates of Standard Errors & Coefficients of Variations of the Estimates of Immunized Children Under 5 years of Age by age Group, Gender, Type of Immunization and Region - Country Level - 2004

Tigray

Age and Sex	Measels			BCG			ANY DPT			ANY POLIO		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Boys												
0-11	39,843	4,396	11.0	51,071	5,303	10.4	50,937	5,524	10.8	51,655	5,576	10.8
12-23	51,231	4,699	9.2	52,348	4,670	8.9	56,283	4,835	8.6	58,392	4,917	8.4
24-35	58,784	4,644	7.9	57,617	4,537	7.9	61,522	4,720	7.7	66,021	4,837	7.3
36-59	129,486	8,469	6.5	128,079	8,477	6.6	136,802	8,405	6.1	144,818	8,415	5.8
Total	279,342	12,555	4.5	289,115	13,535	4.7	305,544	13,390	4.4	320,886	13,507	4.2
Girls												
0-11	27,554	3,678	13.4	35,958	4,241	11.8	36,727	4,178	11.4	35,983	3,933	10.9
12-23	53,777	4,310	8.0	52,568	4,224	8.0	56,815	4,371	7.7	60,332	4,644	7.7
24-35	64,076	5,620	8.8	66,044	5,493	8.3	70,070	5,565	7.9	72,829	5,633	7.7
36-59	117,657	7,918	6.7	121,320	8,165	6.7	127,661	8,029	6.3	133,791	8,059	6.0
Total	263,064	13,243	5.0	275,890	13,522	4.9	291,273	13,244	4.6	302,935	13,182	4.4
Both Sexes												
0-11	67,396	6,055	9.0	87,028	6,763	7.8	87,664	6,779	7.7	87,638	6,486	7.4
12-23	105,008	6,431	6.1	104,917	6,490	6.2	113,098	6,509	5.8	118,724	6,892	5.8
24-35	122,859	7,803	6.4	123,662	7,681	6.2	131,592	7,754	5.9	138,850	8,119	5.9
36-59	247,143	13,092	5.3	249,399	13,400	5.4	264,463	13,170	5.0	278,609	12,907	4.6
Total	542,406	21,064	3.9	565,006	22,646	4.0	596,817	21,656	3.6	623,821	21,381	3.4

Table 6.5(a): Cont'd: Estimates of Standard Errors & Coefficients of Variations of the Estimates of Immunized Children Under 5 years of Age by age Group, Gender, Type of Immunization and Region - Country Level - 2004

Afar

Age and Sex	Measels			BCG			ANY DPT			ANY POLIO		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Boys												
0-11	1,200	294	24.5	1,140	295	25.9	1,533	402	26.2	2,737	441	16.1
12-23	808	228	28.2	517	169	32.8	642	212	33.1	2,161	454	21.0
24-35	1,202	305	25.4	853	224	26.2	1,103	247	22.4	3,968	943	23.8
36-59	2,699	429	15.9	2,133	327	15.3	2,340	367	15.7	6,803	1,036	15.2
Total	5,909	773	13.1	4,642	645	13.9	5,618	709	12.6	15,669	2,112	13.5
Girls												
0-11	869	191	22.0	674	171	25.3	849	213	25.1	2,637	700	26.6
12-23	1,385	311	22.5	864	214	24.7	1,091	232	21.3	3,094	539	17.4
24-35	1,062	226	21.2	727	151	20.8	920	193	21.0	2,530	383	15.1
36-59	2,121	438	20.7	1,465	354	24.2	1,350	352	26.1	5,536	896	16.2
Total	5,437	689	12.7	3,731	570	15.3	4,209	593	14.1	13,796	1,965	14.2
Both Sexes												
0-11	2,069	350	16.9	1,814	341	18.8	2,382	461	19.4	5,374	828	15.4
12-23	2,193	386	17.6	1,381	294	21.3	1,733	336	19.4	5,255	771	14.7
24-35	2,265	374	16.5	1,580	266	16.8	2,023	326	16.1	6,498	1,013	15.6
36-59	4,819	672	14.0	3,598	517	14.4	3,690	591	16.0	12,339	1,791	14.5
Total	11,346	1,220	10.8	8,374	977	11.7	9,828	1,079	11.0	29,466	3,902	13.2

Table 6.5(a): Cont'd: Estimates of Standard Errors & Coefficients of Variations of the Estimates of Immunized Children Under 5 years of Age by age Group, Gender, Type of Immunization and Region - Country Level - 2004

Amhara

Age and Sex	Measels			BCG			ANY DPT			ANY POLIO		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Boys												
0-11	61,818	7,182	11.6	78,710	7,966	10.1	86,542	8,938	10.3	100,808	9,376	9.3
12-23	125,425	10,684	8.5	121,772	10,799	8.9	131,513	10,123	7.7	176,429	11,646	6.6
24-35	186,019	12,412	6.7	173,888	11,595	6.7	186,961	11,573	6.2	254,149	13,496	5.3
36-59	348,464	18,145	5.2	308,397	16,614	5.4	336,281	17,057	5.1	482,829	19,821	4.1
Total	721,726	28,913	4.0	682,767	29,065	4.3	741,297	28,961	3.9	1,014,215	31,146	3.1
Girls												
0-11	55,103	6,332	11.5	71,719	6,659	9.3	82,386	7,603	9.2	97,823	8,789	9.0
12-23	125,329	9,184	7.3	124,766	9,077	7.3	135,944	9,540	7.0	181,378	10,658	5.9
24-35	189,700	12,182	6.4	176,906	12,228	6.9	188,309	12,266	6.5	260,474	14,197	5.5
36-59	334,369	16,751	5.0	313,130	16,687	5.3	325,705	16,643	5.1	446,819	18,496	4.1
Total	704,502	27,370	3.9	686,519	28,418	4.1	732,344	27,795	3.8	986,493	30,034	3.0
Both Sexes												
0-11	116,921	9,797	8.4	150,428	10,699	7.1	168,927	11,852	7.0	198,631	13,081	6.6
12-23	250,755	15,062	6.0	246,538	15,058	6.1	267,457	14,826	5.5	357,807	16,783	4.7
24-35	375,719	18,246	4.9	350,793	18,117	5.2	375,270	18,433	4.9	514,623	20,300	3.9
36-59	682,833	26,762	3.9	621,527	25,968	4.2	661,986	26,343	4.0	929,648	28,116	3.0
Total	1,426,228	46,222	3.2	1,369,286	48,237	3.5	1,473,640	47,526	3.2	2,000,708	48,736	2.4

Table 6.5(a): Cont'd: Estimates of Standard Errors & Coefficients of Variations of the Estimates of Immunized Children Under 5 years of Age by age Group, Gender, Type of Immunization and Region - Country Level - 2004

Oromia

Age and Sex	Measels			BCG			ANY DPT			ANY POLIO		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Boys												
0-11	130,663	9,947	7.6	167,369	10,864	6.5	180,456	11,096	6.2	220,185	11,947	5.4
12-23	250,073	15,203	6.1	228,091	14,458	6.3	249,635	14,945	6.0	376,877	17,551	4.7
24-35	302,871	15,417	5.1	292,098	15,459	5.3	302,393	15,674	5.2	461,105	18,051	3.9
36-59	562,455	23,227	4.1	492,815	23,182	4.7	515,156	22,021	4.3	840,158	26,395	3.1
Total	1,246,061	43,262	3.5	1,180,372	43,905	3.7	1,247,641	42,179	3.4	1,898,325	46,859	2.5
Girls												
0-11	126,444	9,634	7.6	154,571	11,316	7.3	166,339	11,446	6.9	215,100	12,068	5.6
12-23	225,097	13,913	6.2	211,872	13,363	6.3	213,879	13,170	6.2	339,879	16,822	5.0
24-35	302,349	14,844	4.9	278,692	15,409	5.5	296,748	15,280	5.2	468,560	18,334	3.9
36-59	556,743	23,827	4.3	496,673	22,143	4.5	520,705	22,717	4.4	872,311	29,503	3.4
Total	1,210,633	40,891	3.4	1,141,808	40,351	3.5	1,197,670	39,806	3.3	1,895,850	49,510	2.6
Both Sexes												
0-11	257,106	15,167	5.9	321,940	17,163	5.3	346,795	17,953	5.2	435,285	18,269	4.2
12-23	475,170	22,813	4.8	439,963	21,718	4.9	463,514	21,024	4.5	716,756	26,794	3.7
24-35	605,220	23,034	3.8	570,789	24,044	4.2	599,141	23,973	4.0	929,665	26,027	2.8
36-59	1,119,198	38,520	3.4	989,487	37,062	3.8	1,035,861	36,295	3.5	1,712,469	45,406	2.7
Total	2,456,694	73,488	3.0	2,322,179	74,275	3.2	2,445,311	72,020	3.0	3,794,175	81,821	2.2

Table 6.5(a): Cont'd: Estimates of Standard Errors & Coefficients of Variations of the Estimates of Immunized Children Under 5 years of Age by age Group, Gender, Type of Immunization and Region - Country Level - 2004

Somale

Age and Sex	Measels			BCG			ANY DPT			ANY POLIO		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Boys												
0-11	2,163	468	21.6	3,059	543	17.8	3,449	647	18.8	7,276	900	12.4
12-23	3,110	579	18.6	3,347	591	17.7	3,041	535	17.6	8,844	1,267	14.3
24-35	4,806	791	16.5	4,841	825	17.1	5,214	850	16.3	12,996	1,452	11.2
36-59	10,654	1,364	12.8	9,930	1,284	12.9	9,717	1,207	12.4	27,832	2,643	9.5
Total	20,734	2,189	10.6	21,177	2,114	10.0	21,421	2,112	9.9	56,948	4,394	7.7
Girls												
0-11	1,734	414	23.9	2,067	457	22.1	1,989	417	21.0	4,205	775	18.4
12-23	2,422	460	19.0	2,324	467	20.1	2,751	493	17.9	7,087	1,086	15.3
24-35	4,093	675	16.5	4,239	773	18.2	3,871	674	17.4	12,018	1,431	11.9
36-59	7,887	957	12.1	6,715	837	12.5	7,486	912	12.2	22,834	2,294	10.1
Total	16,136	1,669	10.3	15,346	1,535	10.0	16,096	1,602	10.0	46,144	3,817	8.3
Both Sexes												
0-11	3,897	682	17.5	5,126	749	14.6	5,438	825	15.2	11,481	1,317	11.5
12-23	5,533	804	14.5	5,672	786	13.9	5,792	792	13.7	15,930	1,859	11.7
24-35	8,900	1,127	12.7	9,080	1,096	12.1	9,084	1,127	12.4	25,014	2,338	9.4
36-59	18,540	1,902	10.3	16,644	1,684	10.1	17,203	1,645	9.6	50,666	4,144	8.2
Total	36,870	3,280	8.9	36,523	2,970	8.1	37,517	3,100	8.3	103,091	7,372	7.2

Table 6.5(a): Cont'd: Estimates of Standard Errors & Coefficients of Variations of the Estimates of Immunized Children Under 5 years of Age by age Group, Gender, Type of Immunization and Region - Country Level - 2004
Benshangul-Gumuz

Age and Sex	Measels			BCG			ANY DPT			ANY POLIO		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Boys												
0-11	2,984	689	23.1	3,472	885	25.5	4,309	940	21.8	5,536	1,041	18.8
12-23	7,684	1,299	16.9	6,331	1,072	16.9	6,650	1,364	20.5	11,479	1,455	12.7
24-35	6,652	1,090	16.4	5,070	1,019	20.1	4,813	974	20.2	9,831	1,319	13.4
36-59	14,920	1,840	12.3	11,792	1,623	13.8	12,019	1,719	14.3	21,762	2,195	10.1
Total	32,240	3,347	10.4	26,666	3,048	11.4	27,791	3,414	12.3	48,608	3,739	7.7
Girls												
0-11	2,405	558	23.2	2,512	606	24.1	2,606	593	22.8	5,009	844	16.9
12-23	4,811	830	17.3	3,834	706	18.4	3,596	671	18.7	7,758	1,097	14.1
24-35	7,532	1,120	14.9	6,592	1,064	16.1	5,737	933	16.3	12,251	1,369	11.2
36-59	12,986	1,353	10.4	10,238	1,181	11.5	10,286	1,125	10.9	18,989	1,619	8.5
Total	27,735	2,588	9.3	23,177	2,263	9.8	22,225	2,199	9.9	44,008	3,076	7.0
Both Sexes												
0-11	5,389	1,054	19.6	5,984	1,200	20.1	6,915	1,222	17.7	10,545	1,455	13.8
12-23	12,495	1,654	13.2	10,165	1,378	13.6	10,246	1,685	16.5	19,237	1,938	10.1
24-35	14,184	1,526	10.8	11,662	1,486	12.7	10,550	1,298	12.3	22,082	2,015	9.1
36-59	27,906	2,507	9.0	22,031	2,304	10.5	22,305	2,346	10.5	40,752	3,025	7.4
Total	59,975	4,912	8.2	49,842	4,425	8.9	50,016	4,881	9.8	92,616	5,871	6.3

Table 6.5(a): Cont'd: Estimates of Standard Errors & Coefficients of Variations of the Estimates of Immunized Children Under 5 years of Age by age Group, Gender, Type of Immunization and Region - Country Level - 2004

S.N.N.P.R

Age and Sex	Measels			BCG			ANY DPT			ANY POLIO		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Boys												
0-11	86,715	6,826	7.9	124,605	8,827	7.1	128,693	8,821	6.9	158,785	9,403	5.9
12-23	138,498	9,258	6.7	140,663	9,436	6.7	149,811	10,323	6.9	193,017	11,033	5.7
24-35	145,312	9,313	6.4	140,195	9,114	6.5	140,920	8,914	6.3	210,707	11,613	5.5
36-59	349,541	14,269	4.1	314,039	15,168	4.8	337,076	15,084	4.5	524,104	18,768	3.6
Total	720,066	26,251	3.7	719,502	28,904	4.0	756,500	27,984	3.7	1,086,613	32,103	3.0
Girls												
0-11	80,871	7,454	9.2	110,962	9,019	8.1	115,043	9,172	8.0	133,449	9,544	7.2
12-23	127,419	7,743	6.1	118,382	7,295	6.2	132,345	8,631	6.5	182,428	10,094	5.5
24-35	143,740	9,054	6.3	127,269	8,933	7.0	138,433	9,264	6.7	198,791	10,026	5.0
36-59	343,340	16,785	4.9	312,118	15,907	5.1	323,998	16,351	5.1	520,430	20,160	3.9
Total	695,370	25,074	3.6	668,731	25,243	3.8	709,819	26,300	3.7	1,035,098	28,936	2.8
Both Sexes												
0-11	167,586	10,804	6.5	235,567	13,358	5.7	243,735	13,180	5.4	292,234	13,574	4.6
12-23	265,917	11,653	4.4	259,045	11,951	4.6	282,156	13,312	4.7	375,444	14,766	3.9
24-35	289,052	14,504	5.0	267,464	14,392	5.4	279,353	14,583	5.2	409,497	16,208	4.0
36-59	692,881	25,009	3.6	626,156	25,734	4.1	661,074	25,583	3.9	1,044,535	30,696	2.9
Total	1,415,436	44,013	3.1	1,388,232	47,224	3.4	1,466,319	46,512	3.2	2,121,710	51,541	2.4

Table 6.5(a): Cont'd: Estimates of Standard Errors & Coefficients of Variations of the Estimates of Immunized Children Under 5 years of Age by age Group, Gender, Type of Immunization and Region - Country Level - 2004

Harari

Age and Sex	Measels			BCG			ANY DPT			ANY POLIO		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Boys												
0-11	624	167	26.7	1,013	213	21.0	1,312	254	19.4	1,771	306	17.3
12-23	3,097	375	12.1	2,740	356	13.0	2,839	349	12.3	3,308	404	12.2
24-35	2,059	378	18.4	1,935	356	18.4	1,901	364	19.2	2,210	386	17.5
36-59	4,584	601	13.1	4,284	583	13.6	4,184	552	13.2	5,494	617	11.2
Total	10,364	901	8.7	9,972	932	9.3	10,236	914	8.9	12,782	999	7.8
Girls												
0-11	937	250	26.7	1,044	266	25.5	1,235	317	25.7	1,621	333	20.5
12-23	1,679	286	17.1	1,741	309	17.8	1,671	299	17.9	2,071	311	15.0
24-35	1,636	315	19.3	1,473	316	21.4	1,679	313	18.6	2,105	338	16.1
36-59	4,095	438	10.7	3,854	423	11.0	3,808	436	11.5	4,390	454	10.4
Total	8,347	749	9.0	8,113	736	9.1	8,393	743	8.9	10,186	820	8.1
Both Sexes												
0-11	1,562	351	22.5	2,058	359	17.5	2,547	429	16.9	3,392	505	14.9
12-23	4,776	448	9.4	4,481	468	10.5	4,510	430	9.5	5,379	502	9.3
24-35	3,696	499	13.5	3,409	479	14.0	3,580	489	13.7	4,314	498	11.5
36-59	8,679	804	9.3	8,138	796	9.8	7,992	747	9.3	9,883	817	8.3
Total	18,711	1,362	7.3	18,085	1,393	7.7	18,629	1,294	6.9	22,968	1,449	6.3

Table 6.5(a): Cont'd: Estimates of Standard Errors & Coefficients of Variations of the Estimates of Immunized Children Under 5 years of Age by age Group, Gender, Type of Immunization and Region - Country Level - 2004

Addis Ababa

Age and Sex	Measels			BCG			ANY DPT			ANY POLIO		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Boys												
0-11	10,307	1,441	14.0	13,218	1,505	11.4	13,206	1,631	12.4	13,975	1,635	11.7
12-23	16,406	1,869	11.4	16,347	1,803	11.0	16,734	1,899	11.4	17,093	1,904	11.1
24-35	16,818	2,483	14.8	15,548	2,425	15.6	17,177	2,508	14.6	17,421	2,510	14.4
36-59	35,513	2,751	7.8	34,102	2,796	8.2	34,627	2,768	8.0	36,380	2,778	7.6
Total	79,045	5,406	6.8	79,214	5,682	7.2	81,744	5,786	7.1	84,869	5,835	6.9
Girls												
0-11	9,869	1,308	13.3	13,103	1,455	11.1	13,060	1,458	11.2	13,833	1,454	10.5
12-23	17,004	1,636	9.6	16,867	1,608	9.5	17,472	1,667	9.5	17,621	1,667	9.5
24-35	15,800	1,807	11.4	14,680	1,777	12.1	15,607	1,819	11.7	16,412	1,858	11.3
36-59	35,794	2,450	6.9	34,752	2,426	7.0	34,694	2,501	7.2	36,162	2,505	6.9
Total	78,467	4,211	5.4	79,403	4,277	5.4	80,833	4,297	5.3	84,027	4,297	5.1
Both Sexes												
0-11	20,176	2,057	10.2	26,321	2,150	8.2	26,267	2,273	8.7	27,808	2,255	8.1
12-23	33,411	2,445	7.3	33,213	2,377	7.2	34,205	2,507	7.3	34,714	2,505	7.2
24-35	32,618	3,246	10.0	30,228	3,170	10.5	32,784	3,279	10.0	33,833	3,302	9.8
36-59	71,307	4,078	5.7	68,854	4,102	6.0	69,321	4,129	6.0	72,542	4,165	5.7
Total	157,512	7,731	4.9	158,617	8,058	5.1	162,577	8,161	5.0	168,896	8,191	4.9

Table 6.5(a): Cont'd: Estimates of Standard Errors & Coefficients of Variations of the Estimates of Immunized Children Under 5 years of Age by age Group, Gender, Type of Immunization and Region - Country Level - 2004

Dire Dawa

Age and Sex	Measels			BCG			ANY DPT			ANY POLIO		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Boys												
0-11	853	251	29.5	2,082	431	20.7	2,133	431	20.2	2,397	437	18.2
12-23	2,567	483	18.8	2,887	495	17.1	3,077	504	16.4	3,687	543	14.7
24-35	2,839	520	18.3	2,934	580	19.8	2,977	581	19.5	3,481	562	16.1
36-59	4,472	641	14.3	4,648	670	14.4	4,631	706	15.3	5,917	824	13.9
Total	10,731	1,114	10.4	12,551	1,267	10.1	12,818	1,323	10.3	15,481	1,390	9.0
Girls												
0-11	1,397	333	23.8	2,134	391	18.3	2,012	385	19.2	2,551	440	17.2
12-23	2,298	487	21.2	2,307	499	21.6	2,221	486	21.9	2,973	528	17.8
24-35	2,245	481	21.4	2,415	599	24.8	2,577	604	23.4	2,879	681	23.7
36-59	5,069	700	13.8	5,145	695	13.5	5,360	711	13.3	6,210	723	11.6
Total	11,009	1,127	10.2	12,001	1,338	11.2	12,171	1,331	10.9	14,612	1,354	9.3
Both Sexes												
0-11	2,250	432	19.2	4,215	661	15.7	4,145	662	16.0	4,948	688	13.9
12-23	4,866	772	15.9	5,194	777	15.0	5,298	734	13.9	6,660	841	12.6
24-35	5,084	764	15.0	5,349	937	17.5	5,555	962	17.3	6,360	987	15.5
36-59	9,540	1,017	10.7	9,793	1,039	10.6	9,991	1,101	11.0	12,126	1,194	9.9
Total	21,740	1,908	8.8	24,552	2,276	9.3	24,989	2,315	9.3	30,094	2,304	7.7

Table 8.1(a): Estimates of Standard Errors & Coefficients of Variations for the Estimates of Households by Source of Drinking water, Change in Source of Drinking Water and Region - Country Level- 2004

Region	Source of Drinking Water																	
	River, Lake			Unprotected Well/Spring			Protected Well/Spring			Public Tap (Bono)			Own Tap			Total		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Country Total	3,733,635	104,526	2.8	4,860,776	110,045	2.3	1,729,737	82,293	4.8	2,522,902	83,076	3.3	562,015	18,815	3.4	13,448,008	75,847	.6
Tigray	217,855	22,653	10.4	204,663	19,131	9.4	176,945	19,456	11.0	271,319	29,459	10.9	48,498	5,896	12.2	919,946	19,999	2.2
Afar	18,668	2,849	15.3	8,222	1,288	15.7	2,178	619	28.4	19,259	2,035	10.6	3,960	724	18.3	52,289	3,287	6.3
Amhara	1,018,135	62,371	6.1	1,646,370	67,296	4.1	478,048	43,539	9.1	462,521	37,930	8.2	99,465	8,376	8.4	3,714,533	34,975	.9
Oromia	1,477,639	66,565	4.5	1,943,016	72,574	3.7	579,232	54,598	9.4	895,014	57,385	6.4	144,474	11,770	8.2	5,060,022	51,107	1.0
Somale	45,576	5,517	12.1	41,674	7,396	17.8	9,607	2,681	27.9	42,370	4,465	10.5	3,781	764	20.2	143,026	6,968	4.9
Benshangul-Gumuz	84,102	7,635	9.1	32,420	5,755	17.8	28,648	3,997	14.0	13,410	2,433	18.1	1,630	512	31.4	160,455	6,957	4.3
S.N.N.P.R	868,655	44,655	5.1	966,609	43,067	4.5	430,832	38,528	8.9	474,136	34,037	7.2	55,630	7,431	13.4	2,802,663	35,891	1.3
Harari	1,933	773	40.0	8,534	1,453	17.0	12,011	1,445	12.0	13,617	1,828	13.4	3,216	677	21.1	39,360	1,296	3.3
Addis Ababa	878	121	13.8	3,725	583	15.7	6,417	2,372	37.0	287,746	10,099	3.5	194,325	7,196	3.7	493,614	10,694	2.2
Dire Dawa	194	139	71.7	5,542	1,190	21.5	5,818	1,125	19.3	43,511	2,852	6.6	7,036	1,306	18.6	62,101	2,399	3.9

Table 10.1(a): Estimates of Standard Errors and Coefficients of Variations of the Estimates of Households by Number of Months with Food Shortage and Region - Country Level - 2004

Region	Households suffered from food shortage			Number of Months the Household Suffered from Food Shortage															Total		
				Upto 1 month			2 - 3 Months			4 - 6 Months			7 - 9 Months			10 - 12 Months					
	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Country Total	4,185,573	91,412	2.2	358,068	20,019	5.6	1,827,497	46,306	2.5	1,373,037	48,725	3.6	235,854	18,447	7.8	232,071	37,403	16.1	13,448,008	75,847	.6
Tigray	293,874	17,370	5.9	32,403	4,308	13.3	138,928	10,713	7.7	86,407	7,590	8.8	8,465	2,154	25.4	11,092	2,088	18.8	919,946	19,999	2.2
Afar	15,186	2,338	15.4	2,456	609	24.8	7,049	1,395	19.8	3,646	834	22.9	633	210	33.2	708	311	43.9	52,289	3,287	6.3
Amhara	1,133,074	47,944	4.2	113,412	11,597	10.2	557,291	26,447	4.8	353,176	26,661	7.6	48,778	7,644	15.7	32,858	8,179	24.9	3,714,533	34,975	.9
Oromia	1,836,378	68,073	3.7	134,472	13,801	10.3	737,824	31,450	4.3	634,996	35,056	5.5	134,209	15,547	11.6	143,083	36,081	25.2	5,060,022	51,107	1.0
Somale	41,121	4,549	11.1	4,983	1,170	23.5	19,258	2,943	15.3	10,564	1,352	12.8	1,710	423	24.7	3,006	894	29.7	143,026	6,968	4.9
Benshangul-Gumuz	36,570	4,770	13.0	5,330	1,028	19.3	19,657	3,254	16.6	7,840	1,466	18.7	664	337	50.8	941	504	53.5	160,455	6,957	4.3
S.N.N.P.R	753,704	32,474	4.3	54,816	7,292	13.3	321,491	17,708	5.5	260,562	19,215	7.4	37,790	5,888	15.6	33,601	4,793	14.3	2,802,663	35,891	1.3
Harari	5,705	864	15.1	693	186	26.9	2,413	498	20.6	1,589	500	31.5	361	138	38.2	182	98	53.9	39,360	1,296	3.3
Addis Ababa	58,465	3,874	6.6	8,332	1,037	12.4	19,399	2,229	11.5	11,301	1,512	13.4	2,117	592	28.0	5,109	1,157	22.7	493,614	10,694	2.2
Dire Dawa	11,498	1,607	14.0	1,172	358	30.6	4,186	954	22.8	2,956	586	19.8	1,127	380	33.8	1,491	692	46.4	62,101	2,399	3.9

Table 10.2(a): Estimates of Standard Errors & Coefficients of Variations of the Estimates of Households by Number of Months the Current Year Production Lasts in Feeding the Household and Region - Country Level - 2004

Region	Upto 3 months			4 - 6 months			7 - 9 months			10 - 12 months			Above 12 months		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimates	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Country Total	1,547,290	55,020	3.6	2,701,002	61,663	2.3	2,829,071	61,224	2.2	3,484,999	79,121	2.3	197,796	20,843	10.5
Tigray	65,340	8,004	12.3	198,224	13,365	6.7	190,622	12,747	6.7	232,314	15,355	6.6	8,486	3,508	41.3
Afar	6,216	1,612	25.9	6,034	950	15.7	1,990	501	25.2	2,754	400	14.5	217	194	89.5
Amhara	233,905	22,681	9.7	613,180	33,384	5.4	939,916	34,488	3.7	1,308,143	48,069	3.7	48,033	10,277	21.4
Oromia	667,786	38,127	5.7	1,100,541	40,154	3.7	1,123,084	42,217	3.8	1,240,375	49,415	4.0	49,929	10,931	21.9
Somale	22,890	3,327	14.5	30,925	4,822	15.6	18,100	3,182	17.6	16,191	3,346	20.7	1,432	655	45.8
Benshangul-Gumuz	15,156	2,110	13.9	37,647	4,499	12.0	33,699	3,860	11.5	39,797	4,499	11.3	4,125	1,892	45.9
S.N.N.P.R	525,670	31,235	5.9	701,904	29,169	4.2	514,795	24,247	4.7	639,284	35,207	5.5	85,333	13,891	16.3
Harari	2,058	468	22.8	5,374	885	16.5	4,026	803	19.9	3,450	825	23.9	165	91	55.0
Addis Ababa	1,087	-	-	832	-	-	544	-	-	2,062	-	-	77	-	-
Dire Dawa	7,183	1,046	14.6	6,340	929	14.7	2,296	588	25.6	630	240	38.1	-	-	-

Table 11.1(a): Estimates of Standard Errors and Coefficients of Variations if the Estimates of Households Having Knowledge of HIV/AIDS Infection by Region - Country Level - 2004

Region	Households having knowledge of HIV/AIDS			Sexual Intercourse			Blood			Mother to Child		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Country Total	11,945,561	87,280	.7	11,339,812	87,439	.8	10,474,392	92,711	.9	7,304,116	104,737	1.4
Tigray	840,454	21,870	2.6	802,296	20,639	2.6	756,237	20,957	2.8	587,856	24,244	4.1
Afar	45,911	3,141	6.8	40,387	2,648	6.6	37,785	2,692	7.1	28,021	2,238	8.0
Amhara	3,311,484	40,880	1.2	3,142,536	41,852	1.3	2,698,438	48,806	1.8	1,545,060	51,936	3.4
Oromia	4,447,068	60,396	1.4	4,246,927	60,636	1.4	4,004,211	62,831	1.6	2,852,217	72,196	2.5
Somale	93,883	5,281	5.6	76,573	4,647	6.1	68,524	4,205	6.1	44,050	3,184	7.2
Benshangul-Gumuz	124,802	6,143	4.9	115,719	5,559	4.8	110,018	5,023	4.6	80,168	4,593	5.7
S.N.N.P.R	2,502,075	40,273	1.6	2,348,221	40,110	1.7	2,237,722	40,655	1.8	1,642,849	48,101	2.9
Harari	36,815	1,451	3.9	35,506	1,581	4.5	35,281	1,608	4.6	29,529	1,980	6.7
Addis Ababa	486,475	10,759	2.2	477,624	10,732	2.3	473,875	10,752	2.3	451,792	10,639	2.4
Dire Dawa	56,594	2,308	4.1	54,022	2,289	4.2	52,301	2,288	4.4	42,574	2,340	5.5

Table 11.2(a): Estimates of Standard Errors & Coefficients of Variations of the Estimates of Households Having Knowledge of HIV/AIDS Prevention Methods by Region - Country Level - 2004

Region	Abstinence			Fidelity			Condom			Total Households		
	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Country Total	10,931,109	90,649	.8	8,173,370	106,987	1.3	6,432,181	96,880	1.5	11,945,561	87,280	.7
Tigray	807,297	21,194	2.6	697,528	23,159	3.3	577,838	24,583	4.3	840,454	21,870	2.6
Afar	38,147	2,583	6.8	30,853	2,560	8.3	28,062	2,305	8.2	45,911	3,141	6.8
Amhara	3,009,019	42,323	1.4	2,280,474	56,341	2.5	1,627,333	51,217	3.2	3,311,484	40,880	1.2
Oromia	4,098,233	62,810	1.5	2,948,501	74,108	2.5	2,379,841	66,138	2.8	4,447,068	60,396	1.4
Somale	69,665	4,349	6.2	45,041	3,605	8.0	39,245	3,164	8.1	93,883	5,281	5.6
Benshangul-Gumuz	108,763	5,227	4.8	82,102	4,872	5.9	72,394	4,856	6.7	124,802	6,143	4.9
S.N.N.P.R	2,247,118	43,016	1.9	1,571,957	45,651	2.9	1,230,473	40,574	3.3	2,502,075	40,273	1.6
Harari	33,998	1,585	4.7	30,213	1,896	6.3	24,912	2,066	8.3	36,815	1,451	3.9
Addis Ababa	467,174	10,950	2.3	441,796	10,357	2.3	411,355	9,505	2.3	486,475	10,759	2.2
Dire Dawa	51,694	2,440	4.7	44,906	2,307	5.1	40,729	2,047	5.0	56,594	2,308	4.1

Table 11.3(a): Estimates of Standard Errors & Coefficients of Variations of the Estimates of Households Status of Using HIV/AIDS Prevention Methods by Region - Country Total - 2004

Region	Always			Most of the Time			Frequently			Total Households		
	Estimate	SE	CV(%)	Estimate	SE	CV	Estimate	SE	CV(%)	Estimate	SE	CV(%)
Country Total												
Abstinence	8,537,821	94,011	1.1	42,211	5,788	13.7	9,755	2,310	23.7	8,589,786	94,077	1.1
Fidelity	1,357,460	39,688	2.9	104,613	14,921	14.3	18,031	4,500	25.0	1,480,105	42,599	2.9
Condom	146,242	14,093	9.6	77,304	14,308	18.5	73,446	7,301	9.9	296,992	21,990	7.4
Tigray												
Abstinence	607,568	20,122	3.3	3,166	1,355	42.8	-	-	-	610,733	20,105	3.3
Fidelity	154,488	9,026	5.8	7,960	2,688	33.8	3,778	2,032	53.8	166,226	9,168	5.5
Condom	26,574	6,140	23.1	4,521	2,306	51.0	4,881	1,691	34.7	35,976	7,365	20.5
Afar												
Abstinence	21,613	1,793	8.3	353	134	37.8	255	138	54.2	22,221	1,815	8.2
Fidelity	4,162	556	13.4	531	152	28.7	197	126	63.7	4,890	612	12.5
Condom	888	274	30.8	483	142	29.4	531	139	26.2	1,903	337	17.7
Amhara												
Abstinence	2,305,671	47,654	2.1	8,097	2,574	31.8	1,717	1,142	66.5	2,315,485	47,877	2.1
Fidelity	408,944	24,860	6.1	31,277	7,962	25.5	-	-	-	440,220	27,058	6.2
Condom	37,376	9,564	25.6	17,541	6,256	35.7	13,211	3,382	25.6	68,129	12,466	18.3
Oromia												
Abstinence	3,324,721	62,971	1.9	19,388	4,283	22.1	5,800	1,907	32.9	3,349,908	62,904	1.9
Fidelity	414,037	24,397	5.9	36,816	11,321	30.8	6,876	3,655	53.2	457,729	26,460	5.8
Condom	37,648	6,042	16.1	34,768	11,998	34.5	27,096	5,003	18.5	99,512	14,326	14.4

Somale												
Abstinence	42,092	4,160	9.9	-	-	-	287	192	67.2	42,378	4,165	9.8
Fidelity	5,127	872	17.0	2,413	857	35.5	346	204	58.9	7,886	1,208	15.3
Condom	1,692	379	22.4	2,524	889	35.2	707	285	40.3	4,922	1,011	20.5
Benshangul-Gumuz												
Abstinence	83,202	4,997	6.0	401	275	68.7	170	120	70.2	83,773	5,016	6.0
Fidelity	9,401	1,186	12.6	3,347	960	28.7	398	241	60.4	13,146	1,562	11.9
Condom	2,821	578	20.5	2,376	789	33.2	3,707	1,696	45.8	8,904	2,079	23.4
S.N.N.P.R												
Abstinence	1,808,276	45,352	2.5	7,101	2,418	34.1	771	459	59.6	1,816,148	45,369	2.5
Fidelity	216,865	15,555	7.2	16,537	4,607	27.9	2,537	933	36.8	235,939	16,042	6.8
Condom	20,376	5,243	25.7	9,758	3,638	37.3	10,333	2,371	22.9	40,467	7,054	17.4
Harari												
Abstinence	23,786	1,127	4.7	61	60	98.1	-	-	-	23,847	1,129	4.7
Fidelity	7,807	1,022	13.1	173	93	53.9	-	-	-	7,980	1,021	12.8
Condom	830	240	28.9	354	163	46.1	248	113	45.4	1,432	322	22.5
Addis Ababa												
Abstinence	289,645	9,432	3.3	3,262	784	24.0	755	337	44.7	293,662	9,326	3.2
Fidelity	125,728	5,689	4.5	5,025	941	18.7	3,898	1,332	34.2	134,652	5,733	4.3
Condom	17,171	2,176	12.7	4,512	1,256	27.8	11,291	2,275	20.2	32,974	3,612	11.0
Dire Dawa												
Abstinence	31,248	2,087	6.7	382	371	97.2	-	-	-	31,629	2,166	6.9
Fidelity	10,902	1,604	14.7	535	253	47.3	-	-	-	11,436	1,666	14.6
Condom	867	308	35.5	467	196	42.0	1,440	436	30.3	2,773	569	20.5

ANNEX III

REGIONAL DISTRIBUTION OF THE 2004 WMS SAMPLE EA'S AND HOUSEHOLDS

ANNEX III Distribution of sampling units (sampled and covered) by strata

Table 1. Number of Planned and Actually Covered Sampling Units (EAs & Households) of the 2004 (1996 E.C.) Welfare Monitoring Sample Survey

Region	Stratum	Enumeration Areas		Households	
	Zone/Sp.wereda	Sampled	Covered	Sampled	Covered
Tigray	North Western Tigray	32	32	384	384
	Central Tigray	36	36	432	432
	Eastern Tigray	32	32	384	384
	Southern Tigray	36	36	432	432
	Western Tigray	28	28	336	336
	Region Total		164	164	1968
Afar	Zone One	28	28	336	335
	Zone Three	28	28	336	336
	Region Total	56	56	672	671
Amhara	North Gonder	40	40	480	480
	South Gonder	40	40	480	480
	North Wello	40	40	480	480
	South Wello	48	48	576	576
	North Shewa	40	40	480	480
	East Gojam	44	44	528	527
	West Gojam	44	44	528	528
	Wag Hemira	32	32	384	384
	Awi	36	36	432	431
	Oromia	32	32	384	384
	Region Total	396	396	4752	4750
Oromia	West Wellega	40	40	480	480
	East Wellega	36	36	432	432
	Illubabor	36	36	432	432
	Jimma	44	44	528	528
	West Shewa	36	36	432	432
	North Shewa	36	36	432	431
	East Shewa	40	40	480	480
	Arsi	44	44	528	528
	West Harerghe	36	36	432	432
	East Harerghe	44	44	528	528
	Bale	36	36	432	432
	Borena	36	36	432	431
	South West Shewa	36	36	432	432
	Guji	36	36	432	432
	Region Total	536	536	6432	6430

Table 1 (Cont'd)

Region	Stratum	Enumeration Areas		Households	
	Zone/Sp.wereda	Sampled	Covered	Sampled	Covered
Somali	Shinile	24	24	288	288
	Jijiga	32	32	384	383
	Liben	28	28	336	332
	Region Total	84	84	1008	1003
Benishangul-Gumuz	Metekel	28	27	336	324
	Asosa	28	28	336	336
	Kemashi	28	28	336	335
	Region Total	84	83	1008	995
SNNP	Guraghe	36	36	432	432
	Hadiya	32	32	384	384
	Kembata_Tambaro	32	32	384	384
	Sidama	44	44	528	525
	Gedeo	32	32	384	384
	Wolayita	36	36	432	432
	South Omo	32	32	384	384
	Shaka	28	28	336	336
	Keffa	32	32	384	384
	Gamo_Gofa	36	36	432	432
	Bench_Maji	32	32	384	384
	Yem Special Wereda	24	24	288	288
	Amaro Special Wereda	24	24	288	288
	Burji Special Wereda	24	24	288	288
	Konso Special Wereda	24	24	288	288
	Derashe Special Wereda	24	24	288	288
	Dawro	32	32	384	384
	Basketo Special Wereda	24	24	288	288
	Konta Special Wereda	24	24	288	288
	Siltie	28	28	336	335
	Alaba Special Wereda	24	24	288	288
Region Total	624	624	7488	7484	
Harari	Harari	24	24	288	288
Addis Ababa	Addis Ababa	24	23	288	276
Dire Dawa	Dire Dawa	24	24	288	288
Country Total		2016	2014	24192	24153

Table2 Distribution of Sampled and Covered EAs and Households of 2004 (1996 E.C) Welfare and Monitoring Sample Survey for Urban Domain of Regional Capitals and Major Urban Centers

Region	Zone	Wereda	Town	EAs		Households	
				Samples	Covered	Samples	Covered
Tigray	Mekele	Mekele	Mekele	23	23	368	367
Afar	Zone 1	Asayita	Asayita	15	15	240	240
Amhara	North Gonder	Gonder	Gonder	23	23	368	368
	South Wollo	Desse	Desse	23	23	368	368
	Bahir Dar	Bahir Dar	Bahir Dar	23	23	368	368
Oromia	East Shewa	Adaa' Liben	Debre zeit	23	23	368	368
	Adama\Nazreth	Adama\Nazreth	Adama	23	23	368	368
	Jimma	Jimma	Jimma	23	23	368	368
Somali	Jijiga	Jijiga	Jijiga	23	23	368	368
Benishangul	Asosa	Assosa	Asosa	15	15	240	240
SNNP	Sidama	Awassa	Awassa	23	23	368	367
Harari	Harari	Harari	Harar	23	23	368	368
Addis Ababa	Addis Ababa	Addis Ababa	Addis Ababa	200	200	3200	3297
Dire Dawa	Dire Dawa	Dire Dawa	Dire Dawa	25	25	400	398
Total				485	485	7760	7753

Table3 Distribution of Sampled and Covered EAs and Households of the 2004/1996 E.C Welfare and Monitoring Sample Survey for Urban Domain of Other Urban Centers

Region	EAs		Household	
	Samples	Covered	Samples	Covered
Tigray other Urban	33	33	528	528
Afar other Urban	20	20	320	319
Amhara other Urban	56	56	896	896
Oromia other Urban	78	78	1248	1248
Somali other Urban	22	22	352	350
Benishangul other Urban	20	20	320	320
SNNP other Urban	46	46	736	736
Total Other Urban	275	275	4400	4397