Federal Democratic
Republic of Ethiopia
Ministry of Health

HEALTH SERVICE UTILIZATION AND EXPENDITURE SURVEY AMONG PEOPLE LIVING WITH HIV (PLHIV), 2015/2016

Addis Ababa, August 2017

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Additional information about the Health Service Utilization and Expenditure Survey among People Living with HIV (PLHIV), 2013/14 may be obtained from the Federal Democratic Republic of Ethiopia, Ministry of Health, Resource Mobilization Directorate Lideta Sub City, Addis Ababa Ethiopia. P.O.Box:1234, Telephone: +251115517011/535157; Fax: +251115527033; Email: moh@ethionet.et; website: http://www.moh.gov.et

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HEALTH SERVICE UTILIZATION AND EXPENDITURE SURVEY AMONG PEOPLE LIVING WITH HIV (PLHIV), 2015/16

ETHIOPIANS AND AMERICANS IN PARTNERSHIP TO FIGHT HIV/AIDS

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FOREWORD

Prevention and control of communicable diseases is one of the priority areas enshrined in the Health Sector Transformation Plan (HSTP) of Ethiopia. HIV prevention, treatment and care is one of these priorities. The Ministry of Health (MoH) is focusing on the most at risk population to combat HIV. The Fast Track Cities initiative aims at 90-90-90 implementation: reach all people living with HIV, put and retain them in treatment, and achieve viral suppression. One of the impact-level targets of the HSTP by 2020 is to reduce HIV incidence by at least 60 percent compared with 2010 and achieve zero new HIV infections among children.

Health accounts (HA) are an effective and internationally recognized instrument for monitoring trends in health expenditure. The MoH regularly generates and uses evidence on the magnitude and flow of resources in the health sector using HA. The current HA charted Ethiopia's steady progress in increasing expenditure on health and highlights where investments were made.

The current People Living with HIV (PLHIV) survey, which is conducted as parts of the sixth HA exercise, is the third survey undertaken since the start of health expenditure tracking at household level. The findings from this survey provides critical information on health seeking behavior, health service utilization pattern of PLHIV and health expenditures. The report has shown that the per capita Out-of-Pocket (OOP) expenditure of PLHIV is still significant.

The successful completion of this exercise would not have been possible without the commitments and vital contributions from a wide range of stakeholders. Special thanks go to the United States Agency for International Development (USAID) and its implementing partner Abt Associates Inc.

Finally, I would like to take this opportunity to encourage directorates and teams in MoH, the Regional Health Bureaus (RHB), other health sector agencies and the wider stakeholder community to use the evidence in this edition in their planning, program management and policy decision processes.

Professor Yifru Berhan
Minister
Federal Democratic Republic of Ethiopia Ministry of Health

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ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
ART	Antiretroviral Therapy
ARV	Antiretroviral
CBHI	Community-based Health Insurance
EDHS	Ethiopia Demographic and Health Survey
EPHI	Ethiopian Public Health Institute
FHAPCO	Federal HIV/AIDS Prevention and Control Office
FMOH	Federal Ministry of Health
HA	Health Accounts
HIV	Human Immunodeficiency Virus
HSFR/HFG	Health Sector Financing Reform / Health Finance and Governance
HSTP	Health Sector Transformation Plan
NCDs	Non-communicable Diseases
NEP+	Network of Networks of HIV Positives in Ethiopia
NHA	National Health Account
OOP	Out-of-Pocket
PLHIV	People Living with HIV
SNNP	Southern Nations, Nationalities and Peoples (region)
TB	Tuberculosis
USD	United States Dollar

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The Sixth Health Accounts (HA VI) technical working group (TWG) was instrumental in helping designing the survey, revising the survey instrument and critically reviewing the draft report. The Ministry congratulates the multi-disciplinary team and would like to acknowledge the contributions of the following individuals:

Participant	Organization
Dr. Mizan Kiros	Ministry of Health
Eyerusalem Animut	Ministry of Health
Mideksa Adugna	Ministry of Health
Ermias Dessie	Ministry of Health
Belay Urgessa	Ministry of Health
Leulseged Ageze	Abt HSFR/HFG
Habtamu Tadesse	Abt HSFR/HFG
Hailu Zelelew	Abt HSFR/HFG
Seyoum Aklilu	Abt HSFR/HFG
Tesfaye Dereje	Abt HSFR/HFG
YenehunTawye	Abt HSFR/HFG
Amsalu Shiferaw	UNICEF
Martha Kibur	UNICEF
Dr. Sofonias Getachew	WHO
Surafel Mehari	EPHI

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EXECUTIVE SUMMARY

This is a report of a national survey that was conducted in September-October 2016 to generate evidence for the sixth Ethiopian Health Accounts (HA VI), which estimated health expenditures for 2013/14. The survey collected data on health service utilization and expenditure among people living with HIV/AIDS (PLHIV). It sampled PLHIV from all nine regional states and the two city administrations of Ethiopia. Using the Networks of HIV Positives in Ethiopia (NEP+) – the national-level umbrella of regional PLHIV networks – as a sampling frame, a total of 4,171 PLHIV participated as respondents in the quantitative household survey administered for the study.

Socio-demographic and economic characteristics of respondents: Respondents from urban areas accounted for 88 percent of the respondents, and a large proportion (72.3 percent) of study participants were female. The mean and median ages of the respondents were 39.24 and 38.04 years, respectively. About half (49.9 percent) of study population were married and living together while 24.3 percent were widowed, 20.9 percent were divorced/ separated, and 4.8 percent were single.

Nearly one out of three (32 percent) respondents has no education while 44 percent have attended primary education and less than a quarter reported to have attended secondary school and above. More than seven out of ten (71 percent) respondents were heads of household while 26 percent were spouses of a household head and the remaining 3 percent were either a child, brother, sister, or other relative of the head of household.

Seven out of ten (70.3 percent) of respondents were reported to be working (in both formal and informal sectors); more than half (52 percent) were self-employed and 19 percent were either public or private sectors employees. Average monthly income of all study participants was 1,215 Birr; regional averages ranged from 919 Birr in SNNP to 1,843 Birr in Somali.

With regard to housing characteristics, nearly nine out of ten (88 percent) of respondents' main houses were roofed with corrugated iron sheets; houses with roofing shingles and thatched roofs accounted for only 8.2 percent. Most houses (79 percent) were constructed of mud reinforced with bamboo or trunks followed by stone with lime or cement (11 percent). Overall, 97 percent of households have access to safe drinking water. About 45 percent and 30 percent of the respondent households used unimproved and improved pit latrines, respectively, with only 1.5 percent reporting to have access to flush toilets. In terms of household possessions, 85 percent of the respondents have access to electricity, 78 percent own a mobile phone, 48 percent own a radio, and 46 percent own a television.

HIV sero-status and access to HIV-related services: The majority (55 percent) of the respondents had learned of their sero-status in the 5-10 years preceding the survey, and 29 percent had known it for over 10 years. Public facilities were the main (91 percent) providers of HIV testing services. Health centers and government hospitals provided 48 percent and 43 percent of the services, respectively, while private facilities provided only 8 percent (4.4 percent private for-profit, 3.2 percent private not-for-profit, and 1 percent "other"). Regarding counseling on HIV, about three out of four (73 percent) of respondents had received both pre- and post-test counseling while 23 percent received one or the other (6 percent only pre-test and 17 percent only post-test). About 4 percent of the respondents had not received any counseling.

Almost all (98.3 percent) study participants were receiving antiretroviral therapy (ART) at the time of the survey. A little over one-fourth (26.5 percent) started receiving ART within the last five years, while 54.5 percent started 5-10 years preceding the survey. Public facilities were the major (97.0 percent) providers of ART services. Government hospitals and health centers provided 51.0 percent and 46.0 percent, respectively, while private facilities provided 2.4 percent and other facilities, including facilities owned by defense and police, provided 0.7 percent.

In terms of preventive services, 30 percent of the respondents reported obtaining condoms during the survey recall period. A large majority (95 percent) of these were male condoms, with only 4 percent female condoms and 1 percent both types. Another large majority (97 percent) of recipients reported obtaining condoms for free whereas 3 percent of recipients purchased them.

Utilization of outpatient health services: Thirty-six percent of respondents reported having had an illness during the recall period. Prevalence of self-reported illness was higher for those from Gambella (63 percent), Addis Ababa (62 percent), and Oromia (43 percent) and lower for those from Tigray (23 percent), Amhara (25 percent), and Somali (25 percent). No PLHIV from Afar reported having been ill in the recall period. Prolonged fever (58 percent), skin lesions (45 percent), cough (29 percent), and chronic diarrhea (18 percent) were the commonly reported symptoms among those reporting illness.

Of those who reported illness, 63.5 percent sought health care services, for an annual per capita outpatient service utilization rate of 3.5 visits. The per capita rate of outpatient visits was higher among urban residents (5.5) and females (4.7) than among rural residents (0.7) and males (2.5). In addition, utilization of health services shows an increasing pattern with wealth. The main reported reasons for not seeking health care services during illness were: considering illness as not serious (52 percent); self-medication (21 percent); and shortage of money (17 percent). Among those who reported illness to outpatient health facilities, prolonged fever (51.6 percent), cough (33.6 percent), stomach ache (31.8 percent), and skin lesions (17.8 percent) were the major symptoms.

Regarding choice of providers, public health facilities received 81 percent of outpatient visits (36 percent at health centers, 20 percent at primary hospitals, and 25 percent at general hospitals); only about 6 percent of visits are to specialized hospitals. Private for-profit and private not-for-profit health facilities accounted for 12 percent and 1 percent of outpatient visits, respectively. Use of health centers decreases with wealth, from 56 percent of PLHIV in the lowest quintile to 28 percent in the highest quintile, while use of government hospitals increases with wealth, from 30 percent of PLHIV in the lowest quintile to 58 percent in the highest quintile.

For transport to/from outpatient service visits, a bus or taxi is most commonly used (48.9 percent), followed by walking (43.3 percent); a few PLHIVs reported using an animal-drawn cart (2.6 percent), bicycle (1.1 percent), car (0.9 percent), and ambulance (0.8 percent).

Utilization of inpatient health services: Overall, about 12.2 percent of respondents reported that they had been hospitalized during the 12 months prior to the survey. Urban residents had a higher admission rate (17.8 percent) than rural residents (1.8 percent); females a higher admission rate (15 percent) than males (7.8 percent); and those with higher income a higher admission rate (13.6 percent) than those with lower income (11.5 percent). Most (78 percent) admissions were to public hospitals. Health centers accounted for about 11 percent, while private for-profit and private not-for-profit accounted for 10 percent and 1 percent, respectively.

Top diagnoses for admission include: tuberculosis and infectious parasitic diseases (12.0 percent and 10.5 percent of total admissions, respectively), followed by diarrhea (8.6 percent) and other infections and parasitic diseases (8 percent), hypertension (6.7 percent), accidental emergencies (5.1 percent), and malaria (5 percent).

Outpatient health spending: PLHIV annual out-of-pocket (OOP) expenditure on outpatient health services during 2013/14 was 103,884,750.34 Birr (5,280,038.14 USD). This gives a per capita OOP expenditure of 240.67 Birr (12.23 USD) on outpatient visits. Related to their outpatient visits, PLHIVs paid for health-related expenses that included transportation as well as lodging and food for caregivers. Overall, PLHIV OOP spending on health-related costs was 11,798,237.64 Birr (599,656.30 USD), or about 27.33 Birr (1.39 USD) per person per year. Spending on transportation consumed 88 percent of health-related expenditure while lodging and food for a caregiver accounted for 12 percent. Spending at private for-profit health facilities accounted for the largest share of direct health expenditure (39.4 percent), followed by government general hospitals (24.8 percent), health

centers (16.4 percent), government primary hospitals (10.5 percent), government specialized teaching hospitals (7.2 percent), and private not-for-profit facilities accounted for 1.7 percent

Inpatient health spending: PLHIV annual OOP spending on inpatient admissions during 2013/14 was 16,093,258.25 Birr (817,954.68 USD). This gives a per capita OOP expenditure on inpatient admissions of 37.28 Birr (1.89 USD) for an estimated 431,644 PLHIV. PLHIVs' OOP spending was 1,013,670.75 Birr (51,520.75 USD) on health-related services that included transportation (63.6 percent) and lodging and food for caregivers (36.4 percent).

Total health spending by PLHIV and sources of funds: Combining all expenditures, PLHIV spent a total of 120,607,301.59 Birr (6,129,977.21 USD) out of pocket on health care in 2013/14. This works out to each of the 431,644 PLHIV in need of ART represented in this study spending about 279.41 Birr (14.20 USD) out of pocket on health care. This, in nominal terms, is higher than the per capita amount spent out of pocket by PLHIV and the general population on overall health, which was 241.08 Birr[1] and 112.93 Birr, respectively, in 2010/11 and higher than the general population's OOP spending of 232.00 Birr in the household survey conducted in 2016 for the current HA VI.

OOP expenditure is the source of the majority (91.0 percent) of PLHIV spending on health (91.1 percent for outpatient services and 90.1 percent for inpatient services), while 9 percent of spending (8.9 percent for outpatient and 9.9 percent for inpatient) is assistance from other sources. PLHIV associations (35.4 percent) were the major source of assistance followed by employers (25.0 percent), religious organizations (14.0 percent), international NGOs (12.7 percent), and local NGOs (12.7 percent). Few PLHIV who participated in the study have insurance coverage, and only a fraction of their health expenditure (1.8 percent of inpatient and 0.3 percent overall) was reported to be covered by any form of insurance including community-based health insurance (CBHI) – which could be under-coverage of CBHI implementing woredas in the sampling or under-representation of PLHIV from these woredas.

Conclusion and recommendations: PLHIV reported more frequent episodes of illness and higher rates of utilization of health services than the general population. Both outpatient visits and inpatient admissions are higher for PLHIV urban residents and the relatively wealthy. Public health facilities are seen to be the major providers of both outpatient and inpatient care services for PLHIV. Self-medication, shortage of money, and perceived poor quality of health care are main reasons for not seeking health care services during illness. Among the main recommendations that come from the present study are:

- PLHIV per capita health spending 279.41 Birr (14.20 USD) is found to be higher (nominally) than the per capita amount spent during 2010/11 by PLHIV 241.08 Birr and by the general population 112.93 Birr, as well as the spending by general population (232 Birr) during the current HAVI. This needs special attention, as it might hinder utilization of health services among this population group;
- There is a strong need to devise a long-term HIV/AIDS financing strategy aimed at reducing the financial burden on PLHIV for treatment of opportunistic infections and other diseases. The current OOP spending can be either prohibitive – preventing people from accessing services – or catastrophic, especially for citizens who are HIV positive. Strengthening the health insurance schemes that the country has established is of paramount importance;

[1] The US$ amount was higher in 2010/11 due to changes in exchange rates.

- Though HIV-related services are free of charge, spending on other medicines is significant for both outpatient and inpatient services. This needs special consideration as it might hinder utilization of health services among this population group. Expanding the current fee exemption to all HIV/AIDS-related illness and using the mainstreaming and AIDS fund budgets to cover the health expenditure of PLHIV need to be considered. Strengthening PLHIV associations also should be considered.
- Equity gaps in the utilization and financing of health services are evident across urban/ rural as well as wealth quintile dimensions among PLHIV. As with similar equity issues within the general population, addressing these gaps should be a focus of the government.
- It should also be noted that quality is still one reason for PLHIV not utilizing services when they get sick, requiring special attention on this dimension of the health system.

1. INTRODUCTION

Ethiopia is a Federal Democratic Republic comprising nine regional states (Afar, Amhara, Benishangul-Gumuz, Gambella, Harari, Oromia, Somali, Southern Nations Nationalities and Peoples (SNNP), and Tigray) and two city administrations (Addis Ababa and Dire Dawa). The total land area of Ethiopia is estimated at about 1.1 million square kilometers. Its 2016 population is estimated at around 92 million, more than 80 percent of which is rural (CSA 2013). The proportions of male and female residents are almost equal. Around 23.4 percent of women are of reproductive age (15-49 years) and 44.9 percent of the population is younger than 15 years (CSA 2014).

The country's per capita income of $590 is substantially lower than the regional average; in 2011, 33.5 percent of Ethiopians lived in extreme poverty though this had decreased to 27.2 percent by 2015. The economy has shown strong and broad-based growth over the past decade, averaging 10.8 percent per year from 2003/04 to 2014/15, compared to the regional average of 5.4 percent (World Bank 2017).

Ethiopia has scored significant improvement in the health status of the population in recent years. Under-five mortality rates declined from 166 deaths per 1,000 live births in 2000 to 67 deaths per 1,000 live births in 2016, and infant mortality decreased from 97 deaths per 1,000 live births to 48 deaths per 1,000 live births in the same period (CSA and ICF 2016).

HIV/AIDS is one of the most serious public health and development challenges in Ethiopia. According to the Ethiopian Public Health Institute (EPHI) HIV estimates and projections for Ethiopia, adult (15+ years) HIV prevalence for 2014 was 1.2 percent. HIV prevalence shows regional variation. It is lowest in SNNP (0.7 percent) and Oromia (0.8 percent), and highest in Gambella (5.2 percent) and Addis Ababa (4.1 percent). HIV prevalence is higher among women (1.6 percent) than among men (0.8 percent). In 2014, an estimated 711,446 people were living with HIV, among which 572,540 (80 percent) were adults and 138,906 (20 percent) were children 0-14 years; 443,121 (62 percent) of them were in need of antiretroviral therapy (ART). The projected estimate shows more females 436,655 (61 percent) were living with HIV than males 274,791 (39 percent) during the same reporting period (ENHRI 2012).

Even though this prevalence rate seems low, HIV/AIDS now affects all sectors of Ethiopian society. The future course of the HIV/AIDS epidemic in the country depends on a number of factors, including knowledge about HIV/AIDS, social stigmatization, risk behavior change, provision of HIV counseling and testing, access to high-quality services for sexually transmitted infections, and access to ART. According to the Ethiopian Demographic and Health Survey (EDHS) 2016 Key Indicators Report, only 49 percent of women and 69 percent of men know that both using condoms and limiting sexual intercourse to one uninfected partner are means of preventing HIV (CSA and ICF 2016). The same study shows a lower level of knowledge of HIV prevention among young people age 15-24. Only 24 percent of young women and 39 percent of young men (15-24) have knowledge about HIV prevention.[2]

Ethiopia has been expanding delivery of HIV-related services. In the past several years, more than 10 million people were reached with HIV counseling and testing services annually, and about 394,000 PLHIV are currently receiving ART (FHAPCO 2015).

[2]Knowledge of HIV prevention is defined as knowing that both condom use and limiting sexual intercourse to one uninfected partner are HIV prevention methods, knowing that a healthy-looking person can have HIV, and rejecting the two most common local misconceptions about HIV transmission: that HIV can be transmitted by mosquito bites or by sharing food with a person who has HIV.

HIV prevention and control is still a priority for the country as clearly stated in Ethiopia's Health Sector Transformation Plan (HSTP) (FMOH 2015). The Federal Ministry of Health (FMOH) has targets to increase the proportion of HIV-positive pregnant mothers who received ART to prevent mother-to-child transmission of HIV from 59 percent to more than 95 percent; to test and identify 90 percent of all people living with HIV (PLHVI); to treat 90 percent of all people with diagnosed HIV infection with ART; to achieve viral suppression by intensifying targeted HIV prevention focusing on youth and most-at-risk people; and implementing the Fast-Track Cities Initiative against HIV.

The Federal HIV/AIDS Prevention and Control Office (FHAPCO) has developed the HIV/AIDS Prevention Care and Treatment Strategic Plan 2015-2020 using an Investment Case Tool focused on four core elements: understand the problem, design the optimal program to solve the problem, deliver for impact and ending AIDS. This investment case aimed to pave the way for ending AIDS by 2030 through averting 70,000-80,000 new HIV infections and saving about half a million lives by 2020. The targets set in the investment case are in line with the three 90s (90-90-90) treatment targets[3] set by the Joint United Nations Program on HIV/AIDS (UNAIDS) to help end the AIDS epidemic (FHAPCO 2014).

The Ethiopian FMOH has conducted five rounds of Health Accounts (HA), for 1995/96, 1999/2000, 2004/05, 2007/8, and 2010/11 to track spending on general health and specific disease and demographic categories and to inform its policies and programs. The fourth and fifth rounds disaggregated the out-of-pocket (OOP) expenditure of PLHIV. The fourth-round HA (2007/8) reported a total OOP expenditure of PLHIV of 82,378,649 Birr (8,807,540 USD) with per capita expenditure of 301 Birr (32 USD) (FMOH 2010). The fifth reported a total OOP expenditure of 96,490,649 Birr (5,986,589 USD) with per capita expenditure of 241 Birr (15 USD) (FMOH 2014a).

The sixth Ethiopian HA study required a PLHIV survey to produce evidence that contributes to assessing the progress of health sector financing under the HSTP in general as well as for understanding the utilization of health care services and financial burden on PLHIVs in particular.

Moreover, this survey will provide timely evidence and input for improving the design of HIV/AIDS program interventions by generating evidence on PLHIVs' health seeking behavior, provider choice, service utilization, health spending patterns, and other topics.

[3] The three 90s: by 2020, 90% of all people living with HIV will know their HIV status; 90% of all people with diagnosed HIV infection will receive sustained ART; and 90% of all people receiving ART will have viral suppression.

2. OBJECTIVE OF THE PLHIV HEALTH SERVICE UTILIZATION AND EXPENDITURE SURVEY

The purpose of this survey is to generate up-to-date empirical evidence on health service utilization and spending on health care by PLHIV in Ethiopia. The specific survey objectives are:

- To generate evidence on the relation between HIV/AIDS policy priorities and health and non-health spending by HIV-positive people;
- To understand the financing burden on HIV-positive persons in the country;
- To assess health service utilization rate by level of income and other socioeconomic characteristics of HIV-positive people; and
- To track HIV-positive people's spending on different levels and types of health care services and commodities disaggregated by level of income and other important key features.

3. METHODOLOGY OF THE STUDY

3.1 Study Area and Population

This survey is designed to provide national estimates of health service utilization patterns and expenditures on health among PLHIV. The study covered sampled PLHIV from all nine regional states and two city administrations of Ethiopia. Although the population of interest for the survey were all HIV-positive adults in the country, it was not feasible to use this population as the sample frame as most people in Ethiopia do not know their sero-status, and there is no registry of those who know their status from which to establish the sample frame. In view of this, we used the Network of HIV Positives in Ethiopia (NEP+) – the national-level umbrella of regional PLHIV networks – as the entry point and members of their networks as the sample frame as was the case for previous surveys. According to information obtained from NEP+, there are 588 PLHIV associations throughout the country with a total of 159,757 members.

3.2 Study Design and Period

This is a cross-sectional study design that collected information regarding illness and utilization of health services and spending on HIV/AIDS and related health services among PLHIV sampled from the nine regions and two city administrations of Ethiopia. The survey collected quantitative information from sampled PLHIV using a standard structured questionnaire. The data were collected over the one-month period of mid-September to mid-October 2016.

3.3 Sample Size Determination and Sampling Techniques

A total sample size of 4,208 was determined based on the total HIV-positive population as well as the adult prevalence rate by region using the following formula.

Sample size (n) = Z^{2*} Pi *(1-Pi)/d^2; where:

n = the required sample size

Z^2 = confidence interval (at 99 percent)

Pi = National HIV prevalence rate

d^2 = precision level

Many considerations come into play when designing a research study. Compromises are always being made on decisions such as sample size, acceptable error levels, and sources of bias. As indicated above, the number of PLHIV associations and their respective members by region was obtained from NEP+. The number of PLHIV associations that currently exist in the country is about 588, with total of 159,757 PLHIV members. The sample selection followed a two-stage stratified cluster sampling method. In the first stage, a sample of 105 PLHIV associations were selected and distributed to each region/city administration using probability proportional to size (PPS), where the measure of size is the number of associations in each region/city administration. In the second stage, 40 PLHIVs were selected and interviewed from each sample association using systematic random sampling technique.

Table 1: Population of the Study and Sampled PLHIV Associations by Region/City Administration

Region	# of associations	Total members	Members' relative weight	# of respondents	# of associations to be covered	Adjusted to # of associations covered	Sample respondents to be interviewed
Tigray	61	20,158	0.1262	530	13.25	13	520
Afar	19	2,287	0.0143	60	1.5	2	80
Amhara	161	56,631	0.3545	1489	37.22	37	1480
Oromia	175	40,121	0.2511	1055	26.37	26	1040
Somali	12	1,138	0.0071	30	0.75	1	40
Benishangul-Gumuz	12	1,653	0.0103	43	1.09	1	40
Gambella	9	1,990	0.0125	52	1.31	1	40
SNNPR	112	21,830	0.1366	574	14.35	14	560
Harari	4	1,500	0.0094	39	0.99	1	40
Addis Ababa	17	11,319	0.0709	298	7.44	8	320
Dire Dawa	6	1,130	0.0071	30	0.74	1	40
Total	**588**	**159,757**	**1**	**4,200**	**105**	**105**	**4,200**

3.4 Data Collection Methods and Tools

Data were collected using a structured questionnaire prepared for the purpose by the USAID-funded Health Sector Financing Reform/Health Finance and Governance (HSFR/HFG) project, led by Abt Associates. The questionnaire was developed in English and translated into three languages (Amharic, Oromiffa, and Tigrigna) by qualified translators, then translated back into English by independent translators to ensure consistency and avoid distortion in meanings and concepts of questions.

To overcome the possibility of recall bias, the PLHIV survey gathered information on expenditures on outpatient visits and inpatient admissions in the four weeks and six months prior to the survey, respectively. These survey data were annualized to estimate the survey year's spending.

The data were collected by a team of field staff that included six regional coordinators, 10 supervisors, and 48 enumerators. The team members were trained on the objectives of the PLHIV targeted survey and how the data collected would serve those objectives, as well as on details of the survey questionnaire and ways of interviewing respondents using mock interview sessions for three days. The data were collected using windows-based tablets provided by the FMOH and checked by the supervisors, and uploaded /transferred to the EPHI server on a daily basis.

3.5 Data Management

Several activities have been conducted to gather high-quality data. The activities include close supervision during data collection and verification so as to ensure elements in the data have internal consistency and completeness. A data collection guide was developed and used by the supervisors during field-level supervision on data collection, editing, and cleaning. Supervisors also used spot-checking and re-interviewing on a sampled number of cases.

A data entry template was designed and tested using the latest version of data processing software called CSPro (Census Survey Program) with several features that ensure data quality, including required fields (preventing skips), validation rules (preventing out-of-range values), and checking rules (checking cross-question linkages), among others. All the data collectors were trained beforehand on the system that included pre-testing. The collected data were checked for completeness and consistency by data collectors and supervisors in the field and the data were directly transferred by data collectors to the EPHI server as they finished interviewing each household. Furthermore, BDS-Center for Development Research (CDR), the consultant hired by HSFR/HFG to carry out the survey, assigned one data manager who did further data cleaning and consistency checks of the data on EPHI server before the analysis.

3.6 Data Analysis Procedures

After being cleaned, the survey data were converted to SPSS and analyzed on the basis of the study objectives: describing the data, grouping, tabulation and cross-tabulation, summation, and production of descriptive tables. Data were weighted to represent the PLHIV population distribution and annualized both for outpatient and inpatient services to estimate the survey year's spending and then deflated to estimate PLHIV spending in 2013/14.

3.7 Limitations of the Study

Although the target for the HIV/AIDS survey was all PLHIV, there was no way to get such a list in an ethically acceptable way. Thus, associations and networks of HIV-positive persons were used as entry points and members taken as representative of the universe. Because most people get tested to know their sero-status only after they experience health problems, members of these associations are usually the relatively sick and those with socioeconomic problems. Thus, the sample frame has some bias; all the randomly selected members were either under ART or in need of it. It would have been preferable when tracking expenditures to know spending by the different groups of HIV-positive people, i.e., HIV-positive pre-ART, HIV-positive need ART, and HIV-positive under ART. There is possible urban bias: these associations are established and operate mostly in big cities and their members are mostly urban dwellers. However, there was no other feasible option for identifying PLHIV.

PLHIV associations were used as a sample frame from which individual PLHIV were selected for interview. However, not all PLHIV are members of these associations. Moreover, the list of members are not only incomplete but also are not updated frequently. Thus, the obtained sample is unlikely to be representative of all PLHIV in Ethiopia. The sample size of 4,200 PLHIV was designed for national-level estimates. The sample size distributed to regions may not reflect the regional situation, particularly where regional sample sizes are small. Therefore, the findings for some regions should be interpreted with caution.

3.8 Ethical Considerations

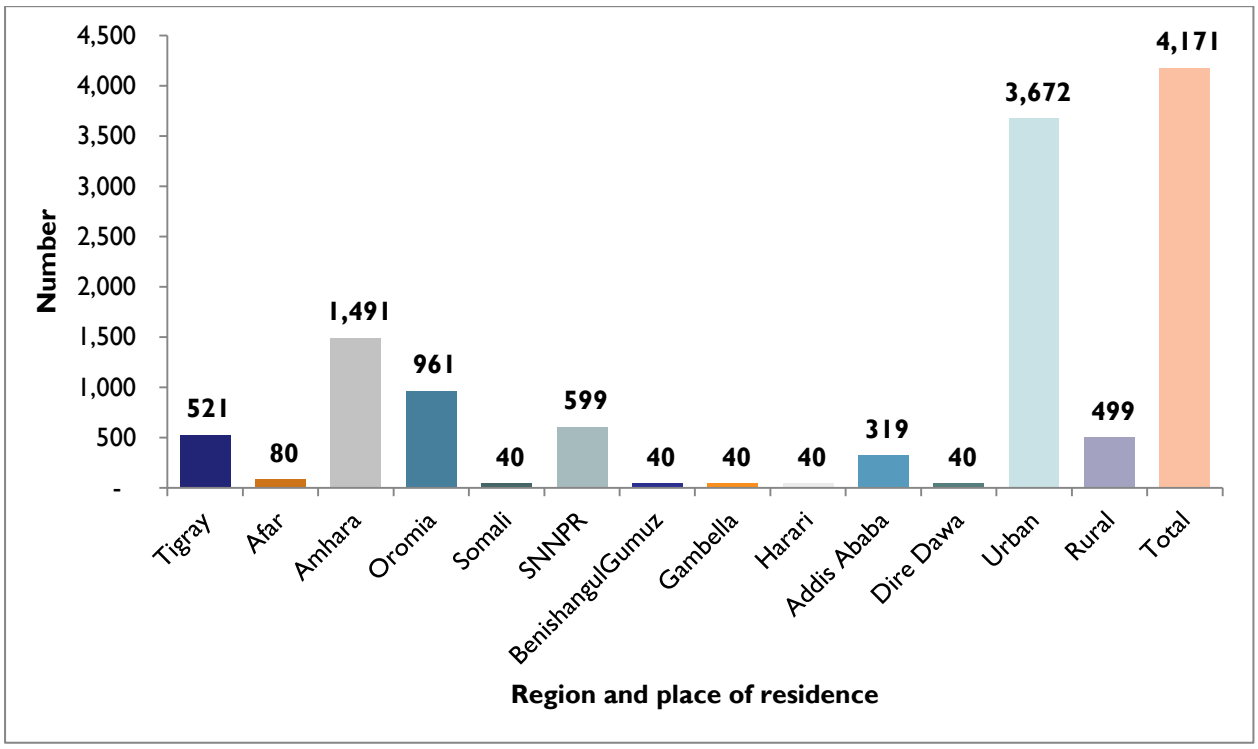
The study secured the necessary ethical clearance from the EPHI before data collection began. The study methodology, and data management and processing also went through review and approval of Abt Associates' Internal Review Board. The study team completed Abt Associates' online human subjects training as one of the ethical considerations. Written consent was prepared and all study participants were made to give their willful consent to participate in the survey. All or partial participation in the study was voluntary and those who did volunteer were allowed to opt out from participating in the study at any stage of the interview.

4. RESULTS

4.1 Socio-demographic and Economic Characteristics of Respondents

Overall, 4,171 from a total of the 4,200 selected PLHIVs participated in the study, giving a response rate of more than 99 percent. As shown in Figure 1, the majority (86 percent) of the participants were from the four regions of Oromia, Amhara, SNNP, and Tigray, and are urban residents (88 percent). This is in line with the regional and urban-rural distribution of PLHIV in Ethiopia.

Figure 1: Distribution of Study Participants by Region and Place of Residence, 2016



A large proportion of study participants were female (72.3 percent). About 91 percent were age 25-54 years with a mean and median age of 39.2 and 38.0 years, respectively. About half (50.0 percent) of the study population were married and living together, while 24.3 percent were widowed, 20.9 percent were divorced/separated, and 4.7 percent were single. Nearly one out of three (32 percent) had no education, while 44 percent attended primary education and less than a quarter reported having attended secondary and above. More than seven out of ten (71.1 percent) of the respondents were heads of household while 25.6 percent were spouses of household heads and the remaining 3.3 percent were either a child, brother, sister, or relative of the head of household. Seven out of ten (70 percent) of respondents were reported to be working (in both formal and informal sectors) with more than half (52 percent) self-employed; 19 percent were either a government or private sector employee.

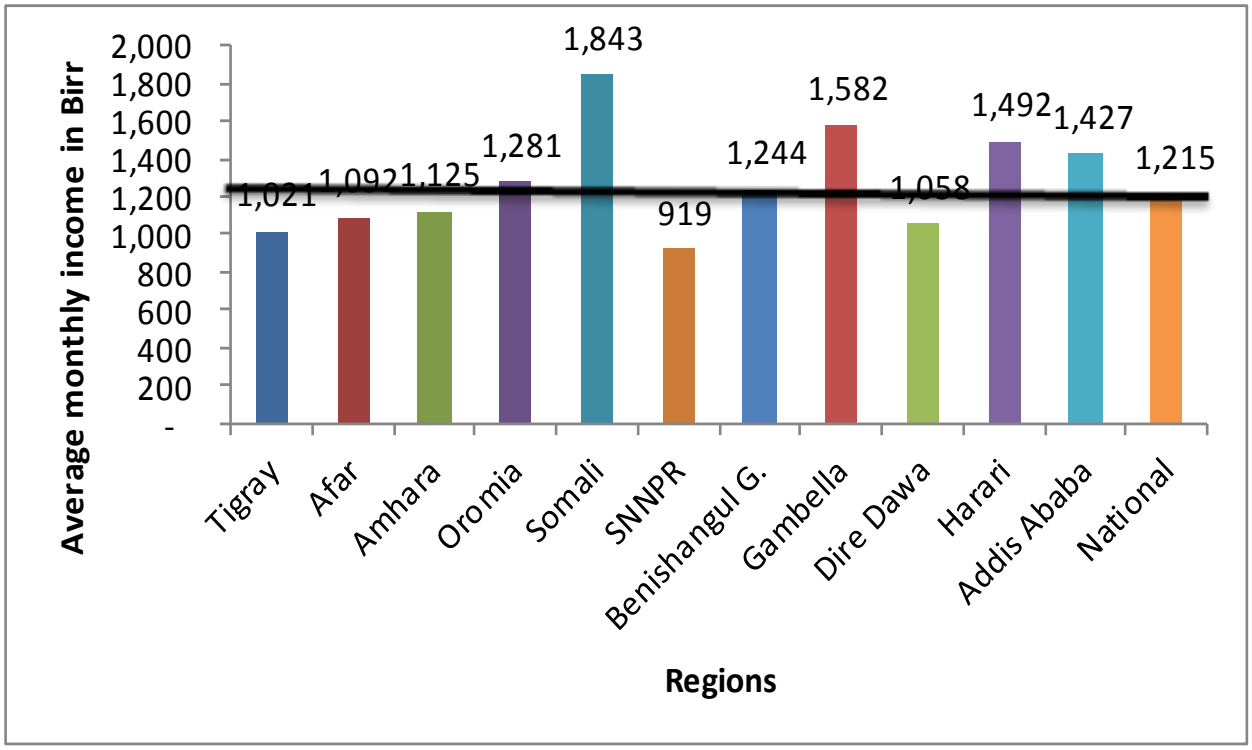
Table 2 shows the demographic and socioeconomic characteristics of the study participants (population).

Table 2: Distribution of Study Participants by Socio-demographic Characteristic, 2016

Socio-demographic Characteristics	Number	Percent
Sex of Respondents		
Male	1156	27.7
Female	3015	72.3
Total	4171	100
Age group		
Mean age in years	39.24	
Median age in years	38.04	
Marital status		
Single	198	4.7
Married	2084	50.0
Widowed	1013	24.3
Divorced/Separated	870	20.9
Co-habiting	6	0.1
Total	4171	100
Level of Education		
No Education	1336	32
Primary	1829	43.9
Secondary	602	14.4
More than Secondary	400	9.6
No response	4	0.1
Total	4171	100
Relation with head of household		
Head of Household	2,966	71.1
Spouse	1,066	25.6
Child, Brother, Sister, Other relative	118	2.8
No relation	21	0.5
Total	4,171	100
Current Employment		
Government (both fulltime or part-time)	413	9.9
Private (both fulltime or part-time)	369	8.8
Self-employed	2152	51.6
Housewife	603	14.5
Unemployed	332	8
Student	32	0.8
Other	270	6.5
Total	**4171**	**100**

The survey collected information on the household's monthly income from the respondents. People are usually reluctant to tell their actual income and a significant proportion of study participants declined to disclose this information. The average monthly income of study participants ranged from 919 Birr in SNNP to 1,843 Birr in Somali with a national average of 1,215 Birr with standard deviation of 1,184. The average monthly incomes of PLHIV from Tigray, Afar, Amhara, SNNP, and Dire Dawa is lower than the national average, while incomes from Oromia, Somali, Benishangul-Gumuz, Gambella, Harari, and Addis Ababa are higher than the national average (Figure 2).

Figure 2: Average Monthly Income of PLHIV by Region, 2016



4.2 Housing and Household Amenities of Study Respondents

The survey collected information on housing characteristics and household amenities: type of roof and wall, main water sources, toilet facilities, and type of fuel used for cooking. Information on these characteristics is useful in that it reflects on the households' socioeconomic status from a public health point of view.

4.2.1 Type of roof

Nearly nine out of ten (88.4 percent) of all main houses are roofed with corrugated iron sheets, while the percentage of houses with roofing shingles and thatched roofs combined account only for 8.2 percent (Table 3).

Table 3: Percentage Distribution of Households by Roofing Material, 2016

Type of Roof	Region											National
	Tigray	Afar	Amhara	Oromia	Somali	SNNPR	Benishangul Gumuz	Gambella	Dire-Dawa	Harari	Addis Ababa	
Corrugated Iron	80.2	93.8	88.9	97.0	100	78.8	0.0	85.0	100.0	100.0	98.4	88.4
Roofing Shingles	16.9	0.0	5.2	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	4.6
Thatch/leaf	0.0	5.0	4.5	0.9	0.0	11.2	2.4	10.0	0.0	0.0	0.0	3.6
Wood	0.2	1.3	0.1	0.3	0.0	0.0	92.7	0.0	0.0	0.0	0.0	1.1
Rustic Mat/Plastic Sheet	0.0	0.0	0.5	0.1	0.0	0.3	0.0	5.0	0.0	0.0	0.0	0.3
Reed/Bamboo	0.0	0.0	0.0	0.3	0.0	0.5	0.0	0.0	0.0	0.0	0.3	0.2
Wood Planks	0.0	0.0	0.0	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0
Calamine/Cement Fiber	0.2	0.0	0.1	1.4	0.0	0.0	2.4	0.0	0.0	0.0	0.6	0.4
Cement/Concrete	0.8	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.6	0.2
Other	1.7	0.0	0.7	0.0		4.5	0.0	0.0	0.0	0.0	0.0	1.1
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

4.2.2 Type of wall

Most (79 percent) of the houses are constructed of mud reinforced with bamboo or trunks; less common materials are stone with lime or cement (11 percent), cement (2.6 percent), plywood (2.6 percent), cement blocks (1.8 percent), corrugated iron (1.3 percent), or other materials (Table 4).

Table 4: Percentage Distribution of Households by Wall Material, 2016

Wall Material	Region											National
	Tigray	Afar	Amhara	Oromia	Somali	SNNPR	Benishangul Gumuz	Gambella	Dire-Dawa	Harari	Addis Ababa	
Bamboo/wood with mud	10.7	86.3	92.1	82.7	100	97.5	95.1	97.5	40.0	42.5	84.3	79.0
Stone with lime/cement	72.0	13.8	3.0	1.2	0.0	0.8	2.4	0.0	0.0	0.0	2.8	11.0
Play wood	3.8	0.0	0.1	8.5	0.0	0.2	0.0	0.0	0.0	0.0	0.9	2.6
Cement	8.6	0.0	0.1	2.3	0.0	0.7	0.0	0.0	50.0	37.5	0.0	2.6
Cement blocks	2.3	0.0	0.8	3.9	0.0	0.2	2.5	0.0	10.0	20.0	0.0	1.8
Corrugated iron	1.5	0.0	0.8	0.6	0.0	0.2	0.0	0.0	0.0	0.0	8.5	1.3
Cane/Trunks/Bamboo/ Reed	0.2	0.0	2.6	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.3	1.0
Uncovered adobe	0.0	0.0	0.2	0.5	0.0	0.0	2.4	0.0	0.0	0.0	0.3	0.2
Carton	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	2.2	0.2
Bricks	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wood planks/Shingles	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1
No walls	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.3	0.1
Other	0.6	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

4.2.3 Sources of cooking energy

Cooking and heating with solid fuels can lead to high levels of indoor smoke, which consists of a complex mix of pollutants that could increase the risk of contracting diseases. Solid fuels include charcoal, wood, straw, shrubs, grass, agricultural crops, and animal dung.

As seen in Table 5, wood straw and charcoal are the major sources of cooking energy, accounting for 39.5 percent and 37.7 percent, respectively. Only about one in ten (9.5 percent) of the households reported using electricity in cooking. Other sources that households reported using were charcoal, lignite, peat (4.9 percent), kerosene (4 percent), and manure (3.5 percent).

Table 5: Percentage Distribution of Households by Sources of Cooking Energy, 2016

Fuel Used for Cooking	Region											National
	Tigray	Afar	Amhara	Oromia	Somali	SNNPR	Benishangul Gumuz	Gambella	Dire-Dawa	Harari	Addis Ababa	
Wood, Straw	17.6	32.1	47.9	40.6	17.6	49.1	60.6	50.0	32.9	38.8	10.5	39.5
Charcoal	42.7	56.5	37.0	44.7	41.9	28.8	18.2	50.0	45.1	31.3	22.4	37.7
Electricity	18.3	11.5	4.8	8.8	20.3	3.7	0.0	0.0	22.0	30.0	29.3	9.5
Charcoal, lignite, peat	8.0	0.0	4.2	0.1	0.0	5.4	0.0	0.0	0.0	0.0	22.4	4.9
Kerosene	13.0	0.0	1.3	1.8	20.3	2.3	0.0	0.0	0.0	0.0	15.0	4.0
Manure	0.1	0.0	4.5	3.6	0.0	5.7	21.2	0.0	0.0	0.0	0.2	3.5
Natural Gas	0.2	0.0	0.0	0.3	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Bio-gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.2	0.1	0.0	4.8	0.0	0.0	0.0	0.0	0.2	0.7
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

4.2.4 Water sources

Water sources that are likely to provide water suitable for drinking are identified as improved sources. These include a piped source within the dwelling, yard, or plot; a public tap/stand pipe, or borehole; a protected well; spring water and rainwater (WHO and UNICEF 2010). Overall, 96.5 percent of all households have access to safe drinking water (Table 6). As the distribution of HIV in Ethiopia is urban biased, this is in line with the EDHS 2016 that reported 97.3 percent of urban and 56.5 percent of rural households have access to drinking water from an improved source (CSA and ICF 2016).

Table 6: Percentage Distribution of Households by Sources of Water, 2016

Main Source of Water	Region											National
	Tigray	Afar	Amhara	Oromia	Somali	SNNPR	Benishangul Gumuz	Gambella	Dire-Dawa	Harari	Addis Ababa	
Piped into dwelling	70.6	17.5	57.8	70.0	50.0	48.1	36.6	87.5	100.0	100.0	87.8	63.2
Public tap	26.5	82.5	32.3	20.2	50.0	38.2	9.8	2.5	0.0	0.0	11.3	28.0
Protected well	2.1	0.0	4.4	4.3	0.0	3.5	7.3	5.0	0.0	0.0	0.0	3.5
River	0.2	0.0	1.7	3.2	0.0	4.3	0.0	5.0	0.0	0.0	0.3	2.1
Spring protected	0.4	0.0	2.2	0.9	0.0	2.3	41.5	0.0	0.0	0.0	0.3	1.8
Unprotected well	0.2	0.0	0.5	0.6	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.6
Unprotected spring	0.0	0.0	0.3	0.2	0.0	1.7	4.9	0.0	0.0	0.0	0.3	0.5
Other	0.0	0.0	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

4.2.5 Toilet facilities

At the household level, adequate sanitation facilities include an improved toilet and disposal that separates waste from human contact. A household is classified as having an improved toilet if it is used only by members of one household (that is, it is not shared) and if the facility used by the household separates the waste from human contact (WHO and UNICEF 2010).

Overall, an unimproved pit latrine, reported by nearly 45 percent of respondents, is the most common type of toilet facility, followed by improved pit latrines, reported by 30 percent. Another 14.1 percent reported using public toilets. Only 1.5 percent of households reported having access to flush toilets (Table 7).

Table 7: Percentage Distribution of Households by Sanitation Facilities, 2016

Type of Toilet	Region											National
	Tigray	Afar	Amhara	Oromia	Somali	SNNPR	Benishangul Gumuz	Gambella	Dire-Dawa	Harari	Addis Ababa	
Not improved pit latrine	15.9	87.5	52.8	47.3	10.0	60.3	2.4	70.0	57.5	27.5	12.9	44.7
Improved pit latrine	65.3	6.3	21.1	27.3	62.5	27.0	95.1	12.5	30.0	70.0	17.6	29.9
Public toilet	8.6	1.3	13.0	12.2	0.0	5.5	0.0	0.0	12.5	2.5	61.1	14.1
Open field	6.5	0.0	11.0	5.9	0.0	3.8	0.0	12.5	0.0	0.0	3.4	7.0
Shared with Neighbours	1.7	5.0	1.4	4.2	27.5	2.0	2.4	5.0	0.0	0.0	0.9	2.5
Flush toilet	1.9	0.0	0.5	3.1	0.0	0.5	0.0	0.0	0.0	0.0	4.1	1.5
Other	0.0	0.0	0.3	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.2
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

4.2.6 Household possessions

The availability of durable consumer goods is another indicator of a household's socioeconomic status. Specific goods have specific benefits. For instance, a radio or a television can bring information and new ideas to a household; a refrigerator prolongs the wholesomeness of foods; and a means of transportation can increase access to many services that are beyond walking distance. The survey covered household possessions: electricity, mobile phone, radio, television, landline telephone, refrigerator, bicycle, motorbike, and car or mini truck. Table 8 presents the proportions of households that have these possessions. Overall, 85 percent of the households have access to electricity, 78 percent own a mobile phone, 48 percent own a radio, and 46 percent own a television. In contrast, few respondents reported owning any means of transportation: bicycle (3.2 percent), motorbike (0.7 percent), and car or mini truck (0.5 percent).

Table 8: Percentage Distribution of Households by Household Assets of Respondents by Region

Asset	Regions											National
	Tigray	Afar	Amhara	Oromia	Somali	SNNPR	Benishangul Gumuz	Gambella	Dire Dawa	Harari	Addis Ababa	
Electricity	93.5	87.5	85.1	87.6	0.0	70.6	73.2	72.5	97.5	100.0	99.4	85.0
Mobile Phone	86.4	83.8	72.3	79.2	95.0	66.1	48.8	92.5	95.0	95.0	99.1	77.7
Radio	57.0	48.8	37.2	54.2	5.0	47.6	36.6	35.0	52.5	60.0	69.3	47.8
Television	59.1	21.3	34.0	52.9	90.0	35.7	22.0	40.0	80.0	75.0	79.3	46.2
Cellphone/ landline in HH	53.7	40.0	31.3	41.1	15.0	22.5	70.7	0.0	72.5	70.0	41.7	36.8
Refrigerator	12.9	0.0	5.1	10.3	37.5	6.8	0.0	17.5	10.0	15.0	19.7	9.1
Biycle	4.4	0.0	1.5	5.6	0.0	3.5	0.0	7.5	5.0	5.0	1.6	3.2
Motorbike	0.8	0.0	0.5	0.9	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.7
Car or Mini Truck	0.2	0.0	0.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.5

4.3 Health Status (Receiving HIV-related services)

All study participants were asked about when and where they were tested positive for HIV, the type of HIV counseling service if they received it, if they were receiving ART and the time they started receiving it, and the type of facility where they received it. The findings are presented as follows.

4.3.1 Providers of HIV testing and counseling, and referral services

Testing for HIV and knowing the result is an important entry point for treatment. Proper and adequate counseling service is of equal importance, to bring the needed behavioral change. As shown in Table 9, a majority (55 percent) of participants tested positive for HIV and knew their result in the 5-10 years preceding the survey; 29 percent knew longer ago than 10 years. Only about 16 percent had tested positive and learned their result within the past five years; this was especially the case with respondents from Afar (where 59 percent had learned their status in the past five years) and Somali (50 percent). Overall, public facilities are the main provider of HIV testing service (91 percent). Health centers, primary hospitals, and general hospitals carry out 48 percent, 20 percent, and 18 percent of testing, respectively, while private facilities account for nearly 8 percent (4.4 percent at private for-profit facilities and 3.2 percent at private not-for-profit facilities). There is considerable regional variation in providers of HIV testing: health centers are the major providers except in Somali, Gambella, Dire Dawa, and Harari, where government-owned general hospitals or primary hospitals dominate. Regarding counseling on HIV, 73 percent of respondents had received both pre- and post-test counseling, while 23 percent received it either pre (6 percent) or post (17 percent) test. Nationally, about 4 percent of respondents hadn't received any counseling; by region, percentages were highest for respondents from Dire Dawa, Tigray, Addis Ababa, and Oromia and Benishangul-Gumuz, at 10 percent, 8 percent, 7 percent, and 5 percent, respectively.

Table 9: Percentage Distribution of Study Participants by Provider, Type of Counseling Service Received and Time When Tested Positive for HIV

Variables	Regions											Total
	Tigray	Afar	Amhara	Oromiya	Somali	SNNPR	Benishangul Gumuz	Gambella	Dire Dawa	Harari	Addis Ababa	
Time period tested positive												
With in the last 5 years	12.3	58.8	13.6	15.0	50.0	21.9	17.1	12.5	12.5	17.5	7.2	15.7
With in the last 5 - 10 years	68.5	35.0	59.6	51.4	37.5	59.1	70.7	55.0	32.5	35.0	29.2	55.3
More than 10 Years	19.2	6.3	26.8	33.6	12.5	19.0	12.2	32.5	55.0	47.5	63.6	29.0
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Providers of HTC services												
Health Center	44.7	48.8	59.4	36.2	2.5	53.3	73.2	-	20.0	5.0	38.2	47.6
Government Primary Hospital	33.4	-	14.5	32.8	2.5	7.7	-	32.5	80.0	92.5	2.8	20.2
Government General Hospital	19.0	51.3	10.0	13.6	77.5	26.4	14.6	65.0	-	2.5	35.7	18.1
Government Specialized/ teaching hospital	0.2	-	8.0	7.4	-	0.7	12.2	2.5	-	-	1.3	4.9
Private for profit Health Facility	1.7	-	3.1	5.4	17.5	4.3	-	-	-	-	13.2	4.4
Private not for profit Health Facility	0.6	-	2.7	3.6	-	5.0	-	-	-	-	8.2	3.2
Other	0.4	-	2.3	0.9	-	2.7	-	-	-	-	0.6	1.5
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Type of counseling services recieved												
Pre-test counseling	1.9	-	7.3	2.2	-	7.3	2.4	-	-	-	18.2	5.8
Post-test counseling	19.0	55.0	9.4	23.5	40.0	16.4	2.4	-	12.5	10.0	27.0	17.2
Both pre & post-test	71.2	45.0	81.4	69.5	60.0	74.1	90.2	100	77.5	90.0	47.6	73.2
Not received counseling	7.9	-	1.9	4.8		2.2	4.9	-	10.0	-	7.2	3.8
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Respondents were asked if they had been referred to another facility once they received their test result and to name the type of health facilities to which they were referred. Responses showed that overall, 23 percent of respondents were referred to another health facility; this ranged from 5.0 percent in Gambella and Harari to 29.5 percent in Addis Ababa (Table 10). Government general hospitals (34.3 percent), health centers (24.5 percent), and primary hospitals (21.3 percent) were the major referral facilities.

Table 10: Percentage Distribution of Respondents by Referral Status and by Region

Variables	Regions											Total
	Tigray	Afar	Amhara	Oromiya	Somali	SNNPR	Benishangul Gumuz	Gambella	Dire Dawa	Harari	Addis Abab	
Referred to other health facility												
Yes	11.3	-	26.9	26.2	20.0	21.2	22.0	5.0	12.5	5.0	29.5	23.0
No	88.7	100	73.1	73.8	80.0	78.8	78.0	95.0	87.5	95.0	70.5	77.0
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Type of referral facility (facility to which PLHIV were referred to)												
Health Center	8.5	-	29.0	31.7	-	13.4	-	-	-	-	18.1	24.5
Government Primary Hospital	27.1	-	27.0	25.0	-	7.1	-	50.0	100	-	2.1	21.3
Government General Hospital	59.3	-	25.5	25.4	100	37.8	88.9	-	-	50.0	67.0	34.3
Government Specialized/ teaching hospital	3.4	-	16.5	13.1	-	12.6	-	-	-	-	-	12.2
Private for profit Health Facility	1.7	-	1.0	2.8	-	0.8	11.1	50.0	-	-	3.2	1.9
Private not for profit Health Facility	-	-	0.5	1.6	-	27.6	-	-	-	-	9.6	5.2
Other	-	-	0.5	0.4	-	0.8	-	-	-	50.0	-	0.5
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

4.3.2 Receiving ART services

The vast majority (98.3 percent) of study participant were receiving ART at the time of the survey (Table 11). A little over one-fourth (26.5 percent) started receiving ART within the last five years, while 54.5 percent had started receiving it 5-10 years before the survey.

Table 11: Percentage Distribution of PLHIV Who Knew Their Status by ART Use, Year of Starting ART, and Region (weighted)

Regions	% Receiving ART	Time when started Using ART			
		<5years	5-10 years	> 10 Years	Total
Tigray	97.5	20.1	67.1	12.8	100
Afar	100.0	62.5	32.5	5.0	100
Amhara	98.9	21.3	59.7	19.0	100
Oromiya	99.1	24.8	55.1	20.1	100
Somali	90.0	63.9	33.3	2.8	100
SNNPR	99.2	34.3	53.2	12.5	100
Benishangul Gumuz	97.6	22.5	72.5	5.0	100
Gambella	100.0	22.5	57.5	20.0	100
Dire Dawa	95.0	29.0	42.1	28.9	100
Harari	100.0	27.5	45.0	27.5	100
Addis Ababa	97.8	14.4	48.1	37.5	100
Total	**98.3**	**26.5**	**54.5**	**19**	**100**

As noted above, public health facilities are the major (97 percent) providers of ART services to study participants, while private health facilities (private for-profit and not-for-profit facilities combined) provide 2.4 percent (Table 12). Nearly 46 percent of the respondents receive ART from a government health center and over 51 percent receive it from a government hospital.

Table 12: Percentage Distribution of PLHIV Who are on ART by Type of Provider and by Region

Providers of ART services	Tigray	Afar	Amhara	Oromia	Somali	SNNPR	Benishangul G.	Gambella	Dire Dawa	Harari	Addis Ababa	National
Health center	31.1	47.5	76.0	34.1	0.0	52.7	95.0	0.0	20.0	0.0	35.9	**45.8**
Gov. Primary Hospital	51.8	0.0	7.7	40.8	0.0	8.2	0.0	5.0	80.0	90.0	1.0	**20.3**
Gov. General Hospital	16.5	52.5	6.7	11.9	100.0	20.7	5.0	95.0	0.0	7.5	49.7	**23.4**
Gov. teaching hospital	0.4	0.0	9.4	9.7	0.0	15.0	0.0	0.0	0.0	2.5	0.3	**7.4**
PFP* Health Facility	0.0	0.0	0.0	2.6	0.0	0.7	0.0	0.0	0.0	0.0	0.0	**0.8**
PNFP** Health Facility	0.2	0.0	0.0	0.9	0.0	2.7	0.0	0.0	0.0	0.0	8.0	**1.6**
Others	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.1	**0.7**
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**

Note: PFP*-Private for-profit; PNFP**- Private not-for-profit

4.4 Use and Expenditures on Condoms

Study participants were asked if they had obtained condoms, the types of condoms obtained, source, and the amount of money they spent on condoms in the last four weeks. Thirty percent obtained condoms in the recall period. Most (95 percent) obtained male condoms, 4 percent obtained female condoms (in Tigray, Amhara, Oromia, and SNNP), and 1 percent obtained both (only in Tigray). Only a few (3 percent) paid for the condoms, while majority (97 percent) obtained the condoms for free.

4.5 Utilization of Outpatient Health Services

4.5.1 PLHIV who reported illness by type of symptoms

Respondents were asked if they had been sick during the four weeks preceding the survey, and if so, the type of symptoms of their illness.

As Table 13 shows, 36 percent reported having had an illness during the recall period. Prevalence of self-reported illness was higher for those from Gambella (63 percent), Addis Ababa (62 percent), and Oromia (43 percent) and lower for those from Tigray (23 percent), Amhara (25 percent), and Somali (25 percent). Even though no PLHIV from Afar reported illness in the recall period, the overall prevalence of self-reported illness was significantly higher than the 12 percent reported by the general population in the fifth HA, for 2010/11 (FMOH 2014a).

Among those who reported illness in the recall period, prolonged fever (58 percent), skin lesions (45 percent), cough (29 percent), and chronic diarrhea (18 percent) were the commonly reported symptoms of illness (Table 13).

Table 13: Percentage Distribution of PLHIV Who Reported Illness by Type of Symptoms and by Region

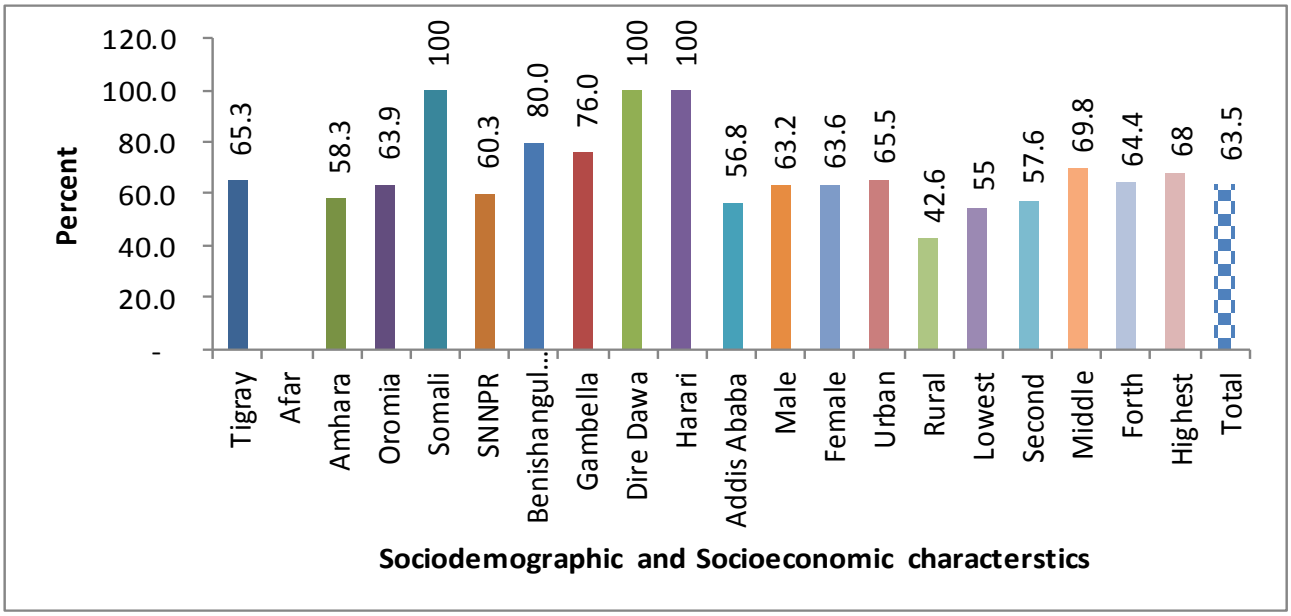
Regions	% Reported illness in the 4 weeks	Symptoms of illness reported						
		Prolonged Fever	Skin lesions	Cough	Chronic diarrhea	White patches on tongue	Stomach ache	Others
Tigray	23	64	55	31	5	19	7	42
Afar	-	-	-	-	-	-	-	-
Amhara	25	68	40	33	20	11	9	26
Oromia	43	57	45	30	14	7	6	19
Somali	25	-	70	10	10	-	10	-
SNNPR	35	56	45	26	25	6	13	46
Benishangul Gumuz	37	80	53	60	7	47	33	33
Gambella	63	88	36	48	16	24	16	44
Dire Dawa	35	-	29	-	29	-	14	29
Harari	30	8	42	42	8	-	-	8
Addis Ababa	62	58	45	25	21	6	5	10
National	**36**	**58**	**45**	**29**	**18**	**9**	**8**	**23**

Note: Respondents gave multiple responses

4.5.2 Health seeking behavior

Study participants who reported illness in the recall period were asked to state whether they had sought medical care. Of those who reported illness, 63.5 percent sought health care services. Almost all PLHIV from Somali, Dire Dawa, and Harari and the majority of PLHIV from Benishangul-Gumuz and Gambella reported having done so (Figure 3). Individuals living in urban areas were more likely to seek care (65.5 percent) than were their rural counterparts (42.6 percent). This is similar to the findings of FMOH's Household Health Services Utilization and Expenditure Survey of 2014 that reported individuals living in urban areas (64 percent) were more likely to seek care than were those living in rural areas (62 percent) (FMOH 2014b). Additionally, utilization of health services shows an increasing pattern with wealth (Figure 3).

Figure 3: Percentage Distribution of PLHIV Who Sought Health Care among Reported Illness



Study participants who reported illness in the last four weeks but did not seek care were asked their reasons for not doing so. The main reasons reported were: illness was not considered serious (52 percent); self-medication was used (21 percent); and shortage of money (17 percent). Factors that accounted for the remaining 10 percent included: quality of health care perceived as poor and long distance to health facility.

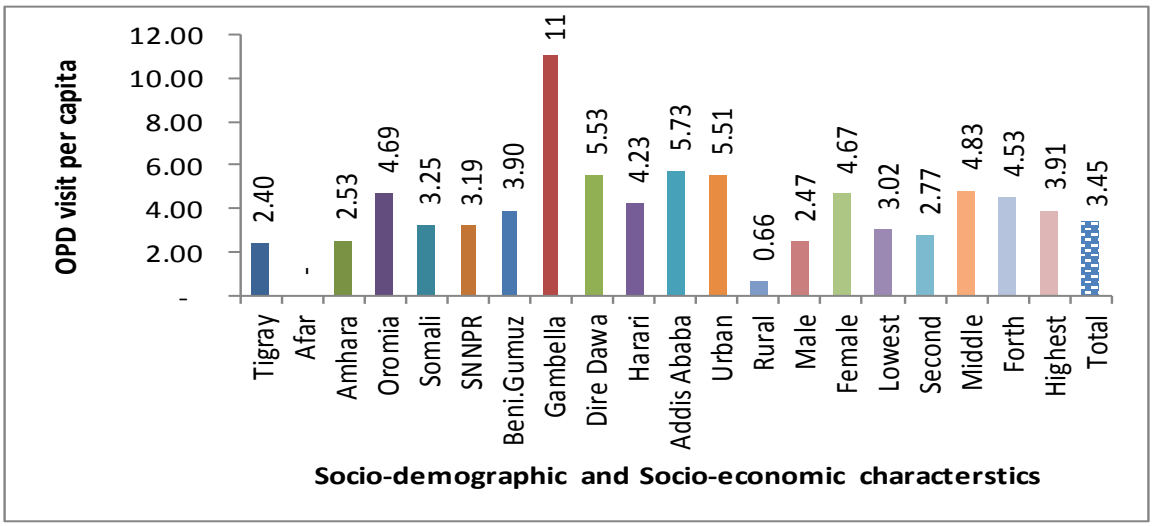
4.5.3 Per capita visits for outpatient health care services

The per capita visit made to outpatient[4] health care facility is determined based on the frequency of reported illness and outpatient visits in the four weeks preceding the survey. As this implies, any routine visit made for ART services is not included.

[4] An outpatient is a person who goes to a health care facility for a consultation/treatment and leaves the facility within hours of the start of the consultation, without being "admitted" to the facility as a patient

During the recall period, a total of 1,107 outpatient visits were made by the 4,171 individuals who participated in the study. Adjusting this to the national PLHIV estimate for 2013/14 and assuming that the seasonal variation in the level of utilization was not marked, the annual PLHIV utilization rate was 3.45 visits per person.[5] The rate was higher for PLHIV from Gambella (11 visits per person), Addis Ababa (5.75 visits per person), Dire Dawa (5.53 visits per person), and Oromia (4.69 visits per person) (Figure 4). The outpatient visit per capita was higher for urban residents (5.51) and females (4.67) compared with rural residents (0.66) and males (2.47).

Figure 4: Outpatient Visit Per Capita by Region, and Socio-demographic and Socioeconomic Characteristics of Respondents



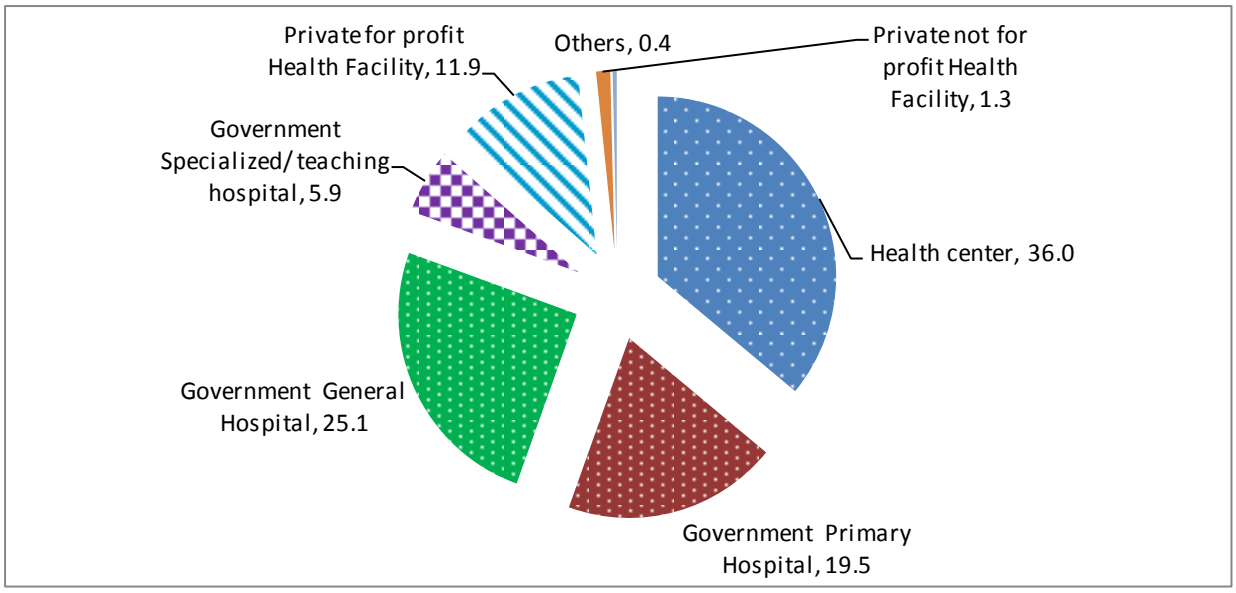
This frequency of the PLHIV outpatient visit per capita was only slightly higher than the 3.42 outpatient visits per capita found by the PLHIV survey conducted for the fifth-round HA study (2010/11) (FMOH 2013) but much higher than the 0.69 visits report by the general population in the household survey done for the sixth-round HA (Harvard TH Chan School of Public Health and Breakthrough International Consultancy PLC 2016). The higher rate of reported illness and care seeking among PLHIV is likely related to the frequent occurrence of opportunistic infections among PLHIV.

[5]Annual utilization rate= Number of visits made in 4 weeks/Number of people in the sample X13

4.5.4 Choice of providers: Distribution of outpatient visits by provider type

Figure 5 shows the providers chosen by patients who sought health care in response to illness. Public health facilities accounted for 87 percent of total outpatient visits; among these facilities, health centers, general hospitals, and primary hospitals served 36 percent, 25 percent, and 20 percent, respectively. About 6 percent of visits were to specialized/ teaching hospitals. Private for-profit and not-for-profit health facilities accounted for 12 percent and 1 percent of outpatient visits, respectively; these lower percentages might be associated with limited distribution of these facilities in the country as well as their higher cost compared with public facilities.

Figure 5: Percentage Distribution of Outpatient Visits by Type of Health Provider



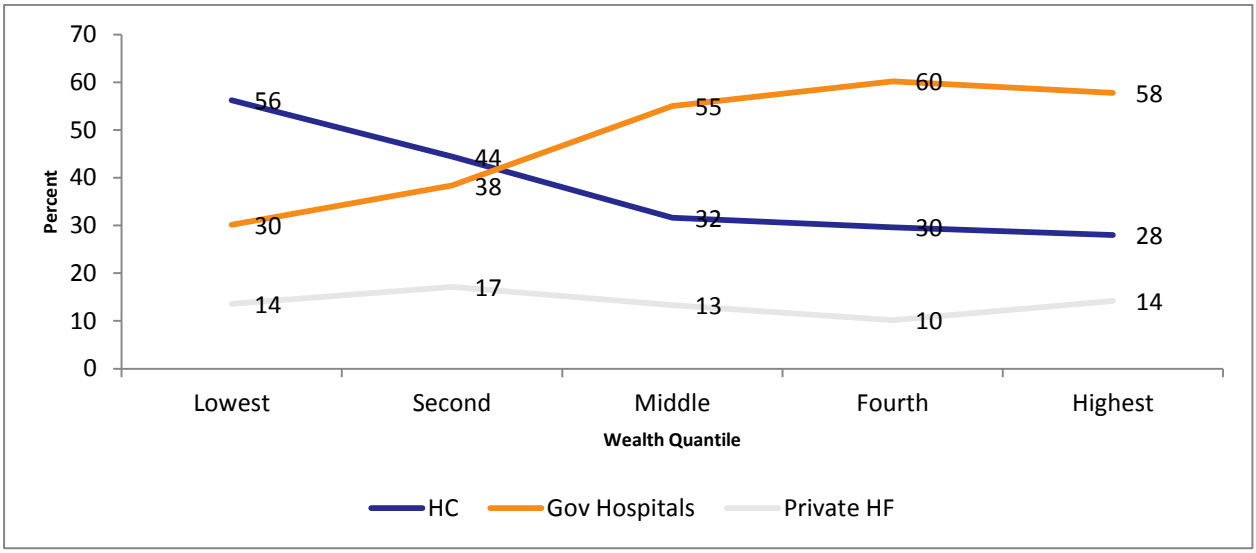
Breaking down choice of outpatient provider by demographic and socioeconomic background shows that residents of rural areas are more likely to use health centers (55 percent) than hospitals (27 percent) or private facilities, while urban residents are more likely to use hospitals (52 percent) than health centers (35 percent) (Table 14).

Table 14: Percentage Distribution of Outpatient Visits by Type of Provider, and Socio-demographic and Socioeconomic Characteristics of Respondents

Demographic & economic Characteristics	Health Center	GO Primary Hospital	GO General Hospital	GO Spec./ teach hospital	Private for profit HF	Private not for profit HF	Others	Total
Place of residence								
Urban	34.8	18.2	27.3	6.2	11.6	1.4	0.4	100
Rural	55.3	24.7	2.1	0.0	16.8	1.0	0.0	100
Sex								
Male	37.4	16.4	31.1	3.9	10.0	0.7	0.5	100
Female	35.6	19.4	24.0	6.5	12.6	1.6	0.3	100
Wealth quintile								
Lowest	56.2	10.5	14.9	4.8	12.5	1.1	0.0	100
Second	44.4	13.7	18.5	6.2	15.1	2.1	0.0	100
Middle	31.4	20.1	31.4	3.1	12.1	1.1	0.8	100
Fourth	29.5	20.3	29.4	10.1	8.9	1.2	0.6	100
Highest	28.0	24.7	28.2	4.8	12.6	1.7	0.0	100
Total	**36.0**	**19.5**	**25.1**	**5.9**	**11.9**	**1.3**	**0.4**	**100**

Breaking down choice of outpatient provider by wealth quintile, use of health centers decreases with wealth, from 56 percent of PLHIV in the lowest quintile to 28 percent of PLHIV in the highest quintile (Figure 6). Use of government hospitals increases with wealth, from 30 percent of PLHIV in the lowest quintile to 58 percent of PLHIV in the highest quintile.

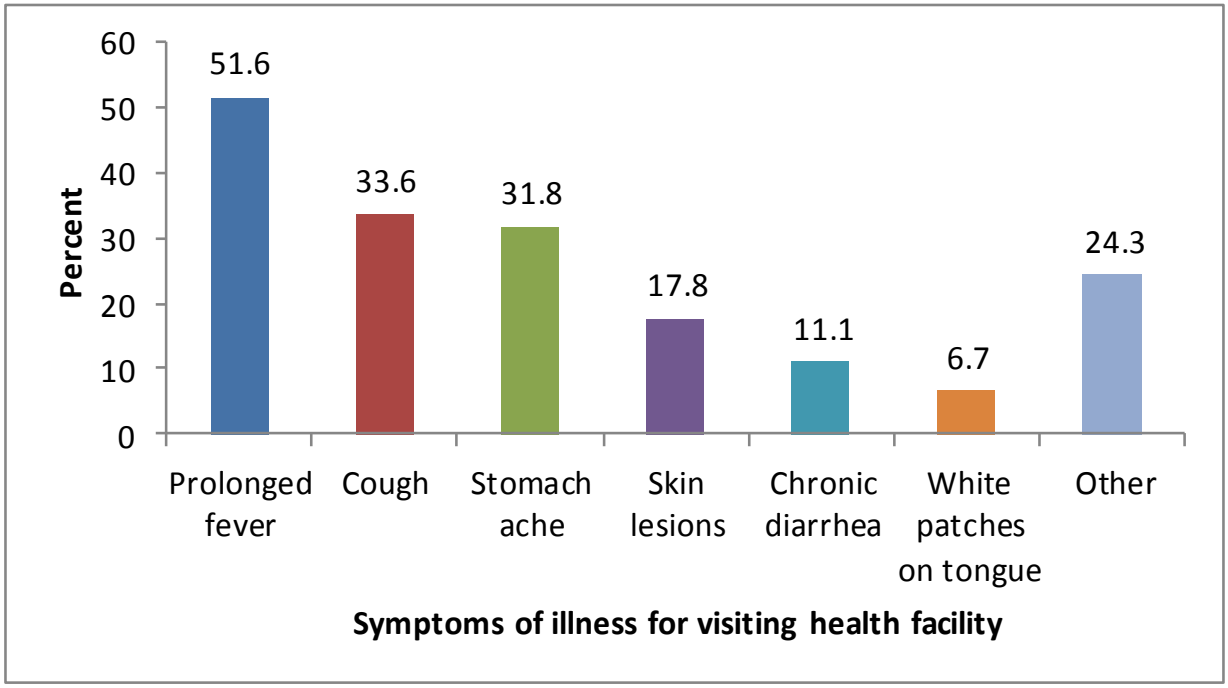
Figure 6: Percentage Distribution of Providers of Outpatient Services by Wealth Quintile of Respondents



4.5.5 Leading symptoms for seeking outpatient care

Study participants who reported illness and who sought health care in the four weeks preceding the survey were asked to state the symptoms of their illness. Most respondents gave multiple responses. Prolonged fever accounted for 51.6 percent of outpatient visits, cough for 33.6 percent, stomach ache for 31.8 percent, and skin lesions for 17.8 percent (Figure 7).

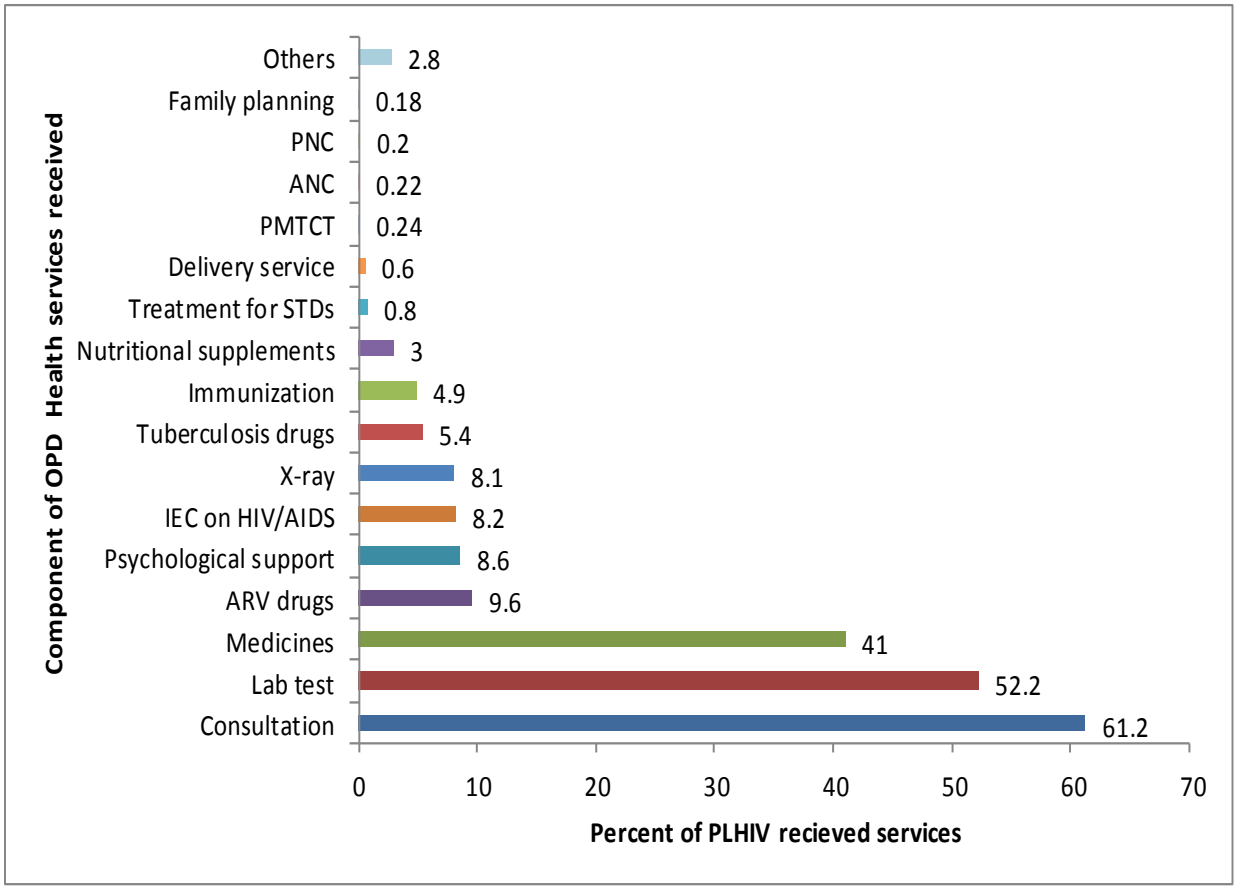
Figure 7: Percentage Distribution of Symptoms for Seeking Outpatient Care



4.5.6 Component of outpatient care services received by PLHIV

The study participants were asked about components of outpatient care services received on their visit to the health care provider. Clinical consultation (61 percent), laboratory test (52 percent), and medicines other than antiretroviral drugs (ARVs) (41 percent) were the commonly reported components (Figure 8).

Figure 8: Health Care Services Received during Outpatient Visit



4.5.7 Means of transportation used for outpatient visits

Study participants were asked about the means of transportation they used for outpatient visits during the recall period (Table 15). Bus or taxi was most commonly used in Oromia (47.8 percent), Somali (80 percent), Dire Dawa (58.8 percent), Harari (57 percent), and Addis Ababa (62 percent) as well as nationally (48.9 percent). Walking was commonly used in Tigray (68 percent), Amhara (50.7 percent), SNNP (52 percent), Benishangul-Gumuz (92 percent), and Gambella (56.7 percent). Animal-drawn cart, bicycle, car, and ambulance were also reported.

Table 15: Percentage Distribution of Means of Transportation Used for Outpatient Visits

Regions	Means of transportation used for outpatient visits									
	Bus/Taxi	Walked	Animal-drawn cart	Bicycle	By car	Ambulance	Carried by family	Friend gave a ride	Other	Total
Tigray	25.6	68.3	-	-	-	3.7	1.2	1.2	-	**100**
Afar	-	-	-	-	-	-	-	-	-	**-**
Amhara	43.2	50.7	-	1.4	1.4	-	1.4	0.4	1.4	**100**
Oromia	47.8	36.3	6.9	1.3	1.6	1.9	0.3	-	4.1	**100**
Somali	80.0	20.0	-	-	-	-	-	-	-	**100**
SNNPR	40.7	52.1	2.1	2.1	0.7	-	0.7	-	1.4	**100**
Benishangul Gumuz	7.7	92.3	-	-	-	-	-	-	-	**100**
Gambella	43.3	56.7	-	-	-	-	-	-	-	**100**
Dire Dawa	58.8	41.2	-	-	-	-	-	-	-	**100**
Harari	57.1	42.9	-	-	-	-	-	-	-	**100**
Addis Ababa	62.4	36.1	-	0.8	-	-	-	0.8	-	**100**
National	**48.9**	**43.3**	**2.6**	**1.1**	**0.9**	**0.8**	**0.5**	**0.3**	**1.8**	**100**

4.6 Utilization of Inpatient Health Services

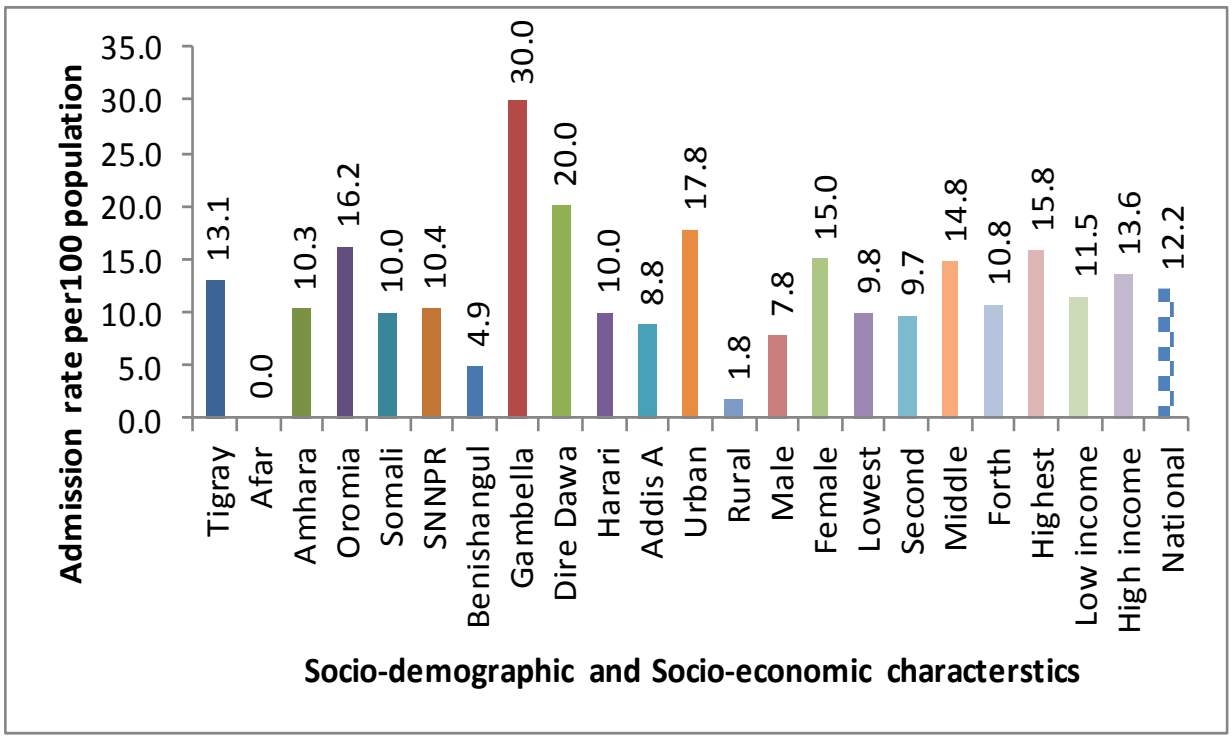
4.6.1 Admission rate

The admission rate reflects the interaction between demand and supply of inpatient care. It is inversely related to certain barriers, which can be physical (distance), economic (cost to patient), cultural (low awareness and health care seeking behavior), or technical (poor quality of health care). Because hospitalization is a relatively rare occurrence, the study participants were asked if they were admitted to a health facility in the past six months, and the result is annualized.

The results show, overall, 12.2 percent of PLHIV reported that they were admitted to the health facilities during the 12 months prior to the survey. The admission rate was highest in Gambella (30 percent), Dire Dawa (20 percent), Oromia (16.2 percent), and Tigray (13.1 percent) (Figure 9). It was lower in Benishangul Gumuz and Addis Ababa, at 4.9 percent and 8.8 percent, respectively; PLHIV from Afar reported no admissions during the period.

Urban PLHIV residents have a higher admission rate (17.8 percent) than rural residents (1.8 percent); female PLHIV higher (15 percent) than males (7.8 percent); and those with a higher income higher (13.6 percent) than those with a lower income (11.5 percent).

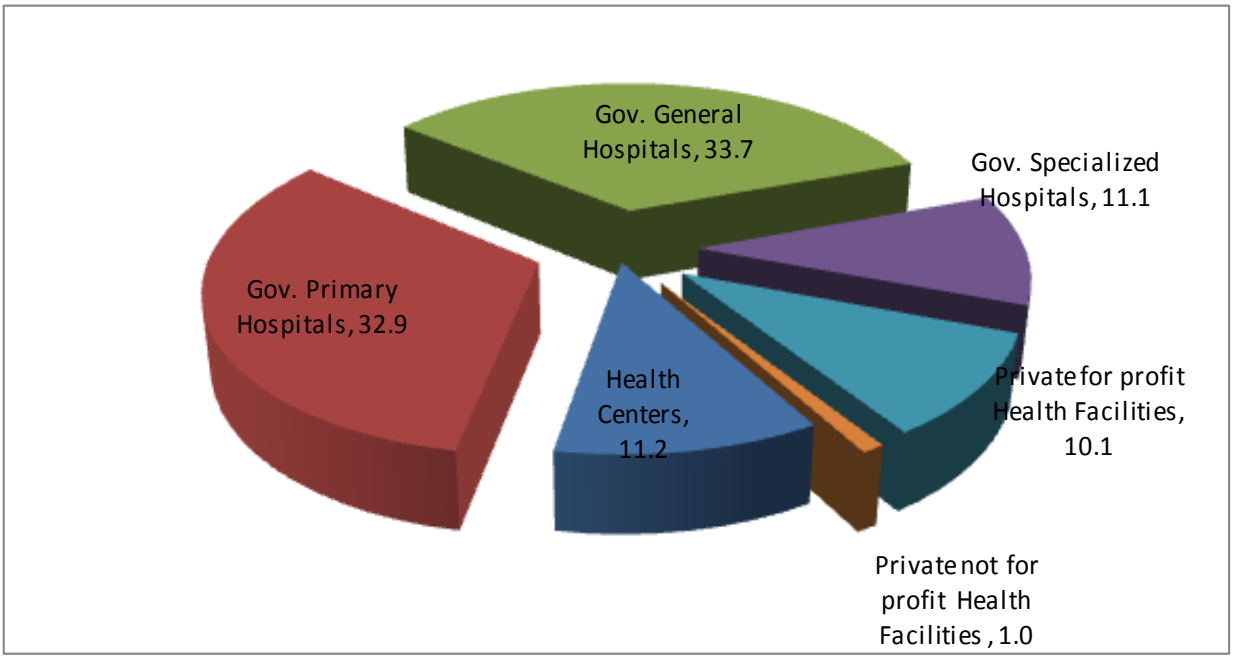
Figure 9: Annual Admission Rate per 100 Population by Socio-demographic and Socio-economic Characteristics of Respondents



4.6.2 Distribution of admissions by provider type

Public facilities admitted the greatest share of patients (Figure 10). Most (78 percent) inpatient[6] services were provided at hospitals. Health centers accounted for about 11 percent while private for-profit and not-for-profit facilities accounted for 10 percent and 1 percent of total inpatient admissions, respectively.

Figure 10: Percentage Distribution of Inpatient Admissions by Type of Health Care Provider



[6] An *inpatient* is a patient who is formally admitted (or "hospitalized") to an institution for treatment and/or care and stays for a minimum of one night in the hospital or other institution providing inpatient care.

Looking at choice of provider for inpatient services by demographic and socioeconomic background shows government-owned health facilities are more likely to be used by rural PLHIV residents (100 percent) than by their urban counterparts (88 percent) (Table 16). Rural PLHIV residents also are more likely to use health centers by (29 percent) than are their urban counterparts (10 percent). Private for-profit facilities are more used by urban PLHIV residents (10.7 percent) and females (13 percent). Use of inpatient service providers by wealth status of PLHIV is mixed.

Table 16: Percentage Distribution of Inpatient Admissions by Type of Providers, Socio-demographic and Socioeconomic Characteristics of Respondents

Demographic & economic Characteristics	Health Centers	Gov. Primary Hospitals	Gov. General Hospitals	Gov. Specialized Hospitals	Private for profit HFs	Private not for profit HFs	Total
Place of Residence							
Urban	10.2	32.2	34.2	11.7	10.7	1.0	100
Rural	28.8	46.5	24.7	0.0	0.0	0.0	100
Sex							
Male	13.5	34.1	37.9	10.2	1.9	2.3	100
Female	10.4	32.6	32.3	11.4	12.9	0.5	100
Wealth Quantile							
Lowest	12.3	31.5	42.1	4.7	5.8	3.5	100
Second	28.1	21.1	28.3	16.7	5.9	0.0	100
Middle	6.3	35.0	29.9	13.2	14.0	1.6	100
Fourth	11.3	24.2	32.2	18.2	14.1	0.0	100
Highest	4.6	45.1	36.4	4.8	9.1	0.0	100
Total	**11.2**	**32.9**	**33.7**	**11.1**	**10.1**	**1.0**	**100**

4.6.3 Distribution of study participants by major reasons for admission

Tuberculosis (TB) and infectious parasitic diseases are the most common causes of inpatient admission, accounting for 12 percent and 10.5 percent of total admissions, respectively (Table 17). This is followed by diarrheas (8.6 percent) and other infectious and parasitic diseases (8 percent), hypertension (6.7 percent), accidental emergencies (5.1 percent), and malaria (5 percent).

Table 17: Distribution of Study Participants by Major Reasons of Admission

Major reasons for admission *	Number	Percent
TB	8,632	12.0
Infectious parasitic diseases	7,573	10.5
Diarrheas	6,158	8.6
Other infectious and parasitic diseases	5,762	8.0
Hypertension	4,850	6.7
Accident emergency	3,646	5.1
Acute respiratory diseases including pneumonia	3,640	5.1
Malaria	3,568	5.0
Nutritional deficiencies	3,192	4.4
Kidney failure	3,127	4.3

Major reasons for admission *	Number	Percent
Surgery	3,101	4.3
Diabetics	2,108	2.9
Intestinal worms	2,059	2.9
Cancer	1,406	2.0
Delivery	1,181	1.6
Neglected tropical diseases	703	1.0
Mental disorders	703	1.0
Vaccine preventable diseases	401	0.6
Others	10,195	14.2
Total	72,006	100.0

*Multiple response

4.6.4 Means of transportation used for admissions

Bus or taxi is the most commonly used means of transportation (64 percent) by PLHIV going to inpatient facilities in all regions (Table 18). It is the only means of transportation reported from Somali, Benishangul-Gumuz, and Harari. Walking is the second most used (15.7 percent) means of transport followed by ambulance (9.7 percent).

Table 18: Percentage Distribution of Means of Transportation Used for Inpatient Admissions by PLJIV for the Recall Period

Regions	Means of transportation used for Inpatient visits							
	Bus/Taxi	Walked	Ambulance	By car	Rode bicycle	Friend gave a ride	Other	Total
Tigray	41.2	32.4	14.7	-	-	2.9	8.8	**100**
Afar	-	-	-	-	-	-	-	**-**
Amhara	63.3	16.5	7.6	3.8	3.8	3.8	1.3	**100**
Oromia	54.0	17.1	14.5	3.9	-	-	10.5	**100**
Somali	100	-	-	-	-	-	-	**100**
SNNPR	67.7	9.7	9.7	3.2	6.5	3.2	-	**100**
Benishangul Gumuz	100	-	-	-	-	-	-	**100**
Gambella	85.7	14.3	-	-	-	-	-	**100**
Dire Dawa	75.0	-	25.0	-	-	-	-	**100**
Harari	100	-	-	-	-	-	-	**100**
Addis Ababa	85.7	14.3	-	-	-	-	-	**100**
National	**64.1**	**15.7**	**9.7**	**2.6**	**1.6**	**1.5**	**4.8**	**100**

4.7 PLHIV Health Care Expenditure

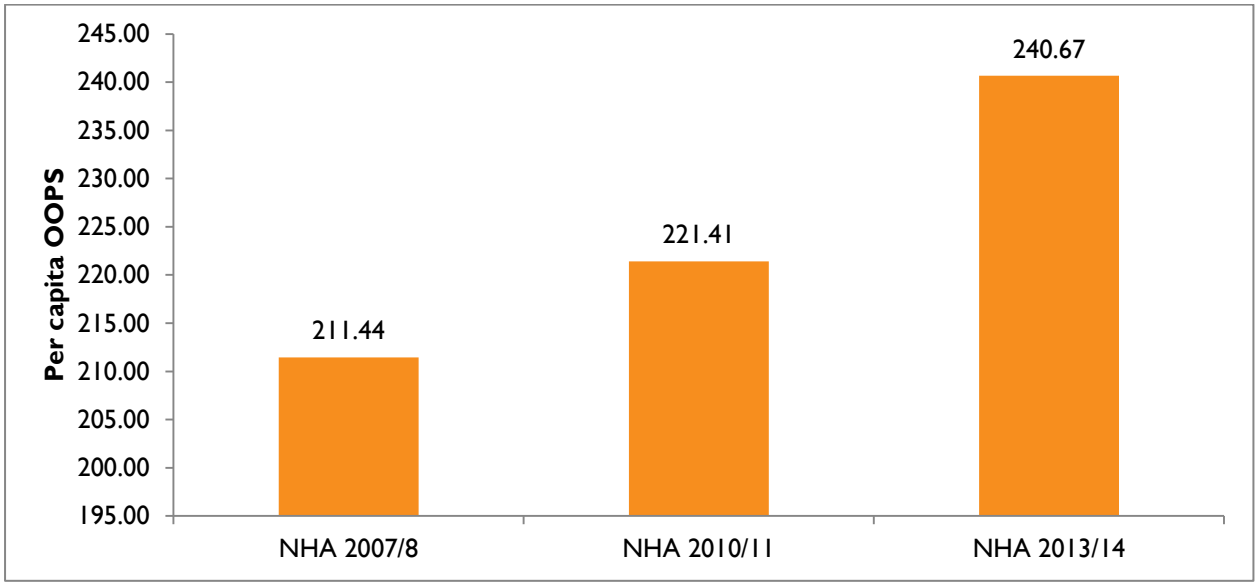
4.7.1 PLHIV OOP spending on outpatient health services

Study participants who reported being ill and making an outpatient visit in the four-week recall period were asked the amount they paid for each health service during each visit. The results were weighted and adjusted for the estimated PLHIV population in need of ART in 2013/14 and then annualized and deflated to show the situation for the reference year. According to the EPHI estimate, 420,167 PLHIVs were in need of ART in 2013 and 443,121 PLHIV were in need of ART in 2014. We averaged the two numbers to get 431,644 PLHIV for the year 2013/14 and used the number for projections.

The annual PLHIV OOP expenditure on outpatient health services in 2013/14 was 103,884,750.34 Birr (5,280,038.14 USD). The per capita OOP expenditure was 240.67 Birr (12.23 USD). This is slightly higher than the per capita OOP expenditure of 221 Birr among general population during the same period and a reported increment of 84 percent from 120 Birr in 2010/11 to 221 Birr in 2013/14.

Figure 11 shows a trend of increasing PLHIV per capita OOP expenditure on outpatient health services, from 211.44 Birr in the HA study for 2007/8 to the 240.67 in 2013/14.

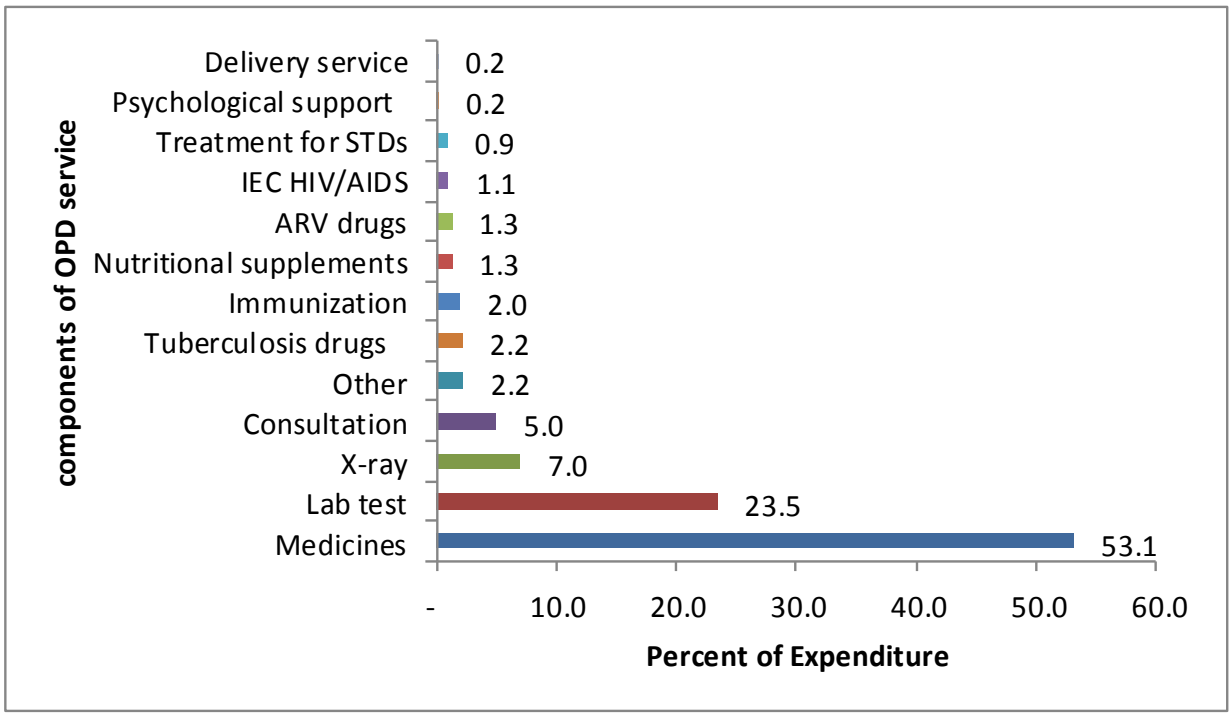
Figure 11: Trends in PLHIV Per Capita OOP Expenditure on Outpatient Health Services (Birr)



4.7.1.1 PLHIV OOP spending on outpatient services by type of health service (function)

Medication accounted for more than half (53.1 percent) of total PLHIV spending on outpatient health care services/functions, followed by lab test, which accounted for almost a quarter (23.5 percent) (Figure 12). The survey also revealed that in a few cases, PLHIV paid for ART (a few respondents from Oromia and SNNP at private for-profit facilities) and other services that should have been provided for free, such as TB drugs, immunization, nutritional supplements, psychological support, and delivery services.

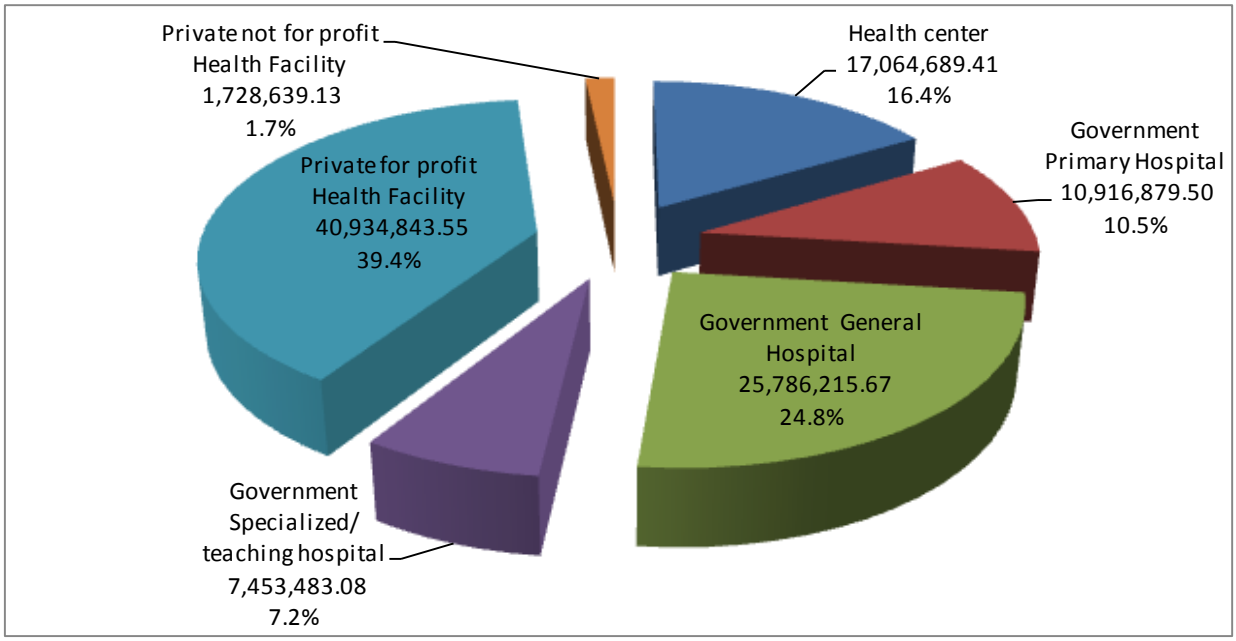
Figure 12: Percentage Distribution of PLHIV OOP Expenditure on Outpatient Services by Type of Service



4.7.1.2 PLHIV OOP spending on outpatient care by providers

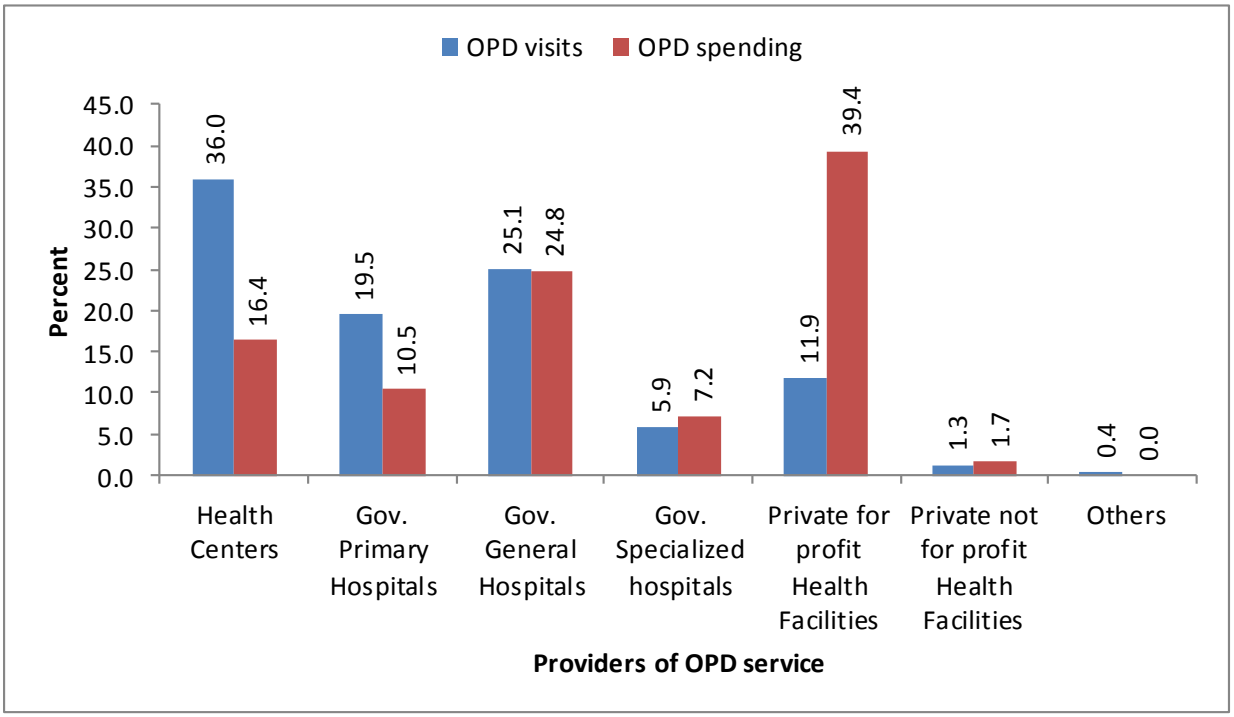
Distribution of the expenditure by providers of outpatient health services shows private for-profit health facilities accounted for larger sum of expenditure (39.4 percent) followed by government general hospitals (24.8 percent), health centers (16.4 percent), government primary hospitals (10.5 percent), and government specialized teaching hospitals (7.2 percent), while private not-for-profit health facilities accounted for 1.7 percent (Figure 13).

Figure 13: Percentage Distribution of OOP Expenditure on Outpatient Services by Providers, Adjusted, Annualized, and Deflated



Comparison of the total number of outpatient visits served and the total outpatient spending on health care by each type of provider shows that private for-profit health facilities have served only 11.9 percent of PLHIV but absorbed 39.4 percent of their spending (Figure 14). Government specialized teaching hospitals and private not-for-profit facilities also absorbed more in OOP spending than the proportion of PLHIV they served. Health centers accounted for 36.0 percent of services provided but for only 16.4 percent of spending; government primary hospitals accounted for 19.5 percent of services and for 10.5 percent of spending; and government general hospitals accounted for an almost equal amount of services and spending (nearly 25 percent each). The reason why spending is equal or lower than visits in public health facilities is that the HIV/AIDS services are exempted or more often freely provided in those facilities than in private for-profit facilities.

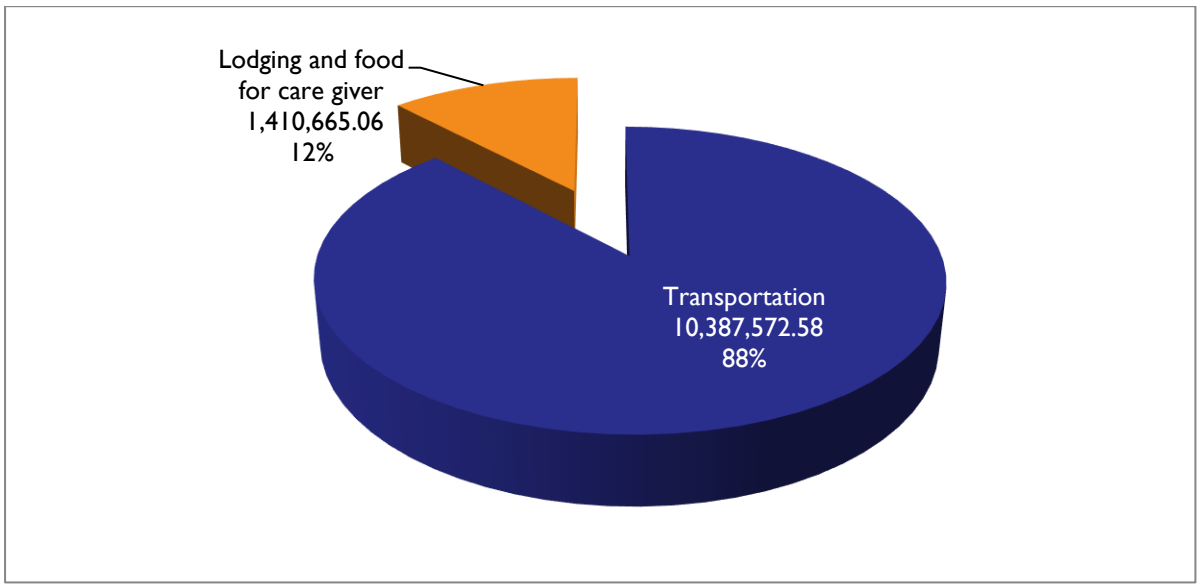
Figure 14: Percentage Distribution of Total Outpatient Visits and Total Outpatient Spending by Provider



4.7.2 PLHIV spending on non-medical services related to outpatient visits

PLHIV also paid for health-related expenses (direct non-medical costs) during their outpatient visits; these included the costs of transportation, and lodging and food for caregivers. Overall, PLHIV spent out of pocket 11,798,237.64 Birr (599,656.30 USD) on health-related costs, or about 27.33 Birr (1.39 USD) per person per year. As Figure 15 shows, spending on transportation took 88 percent, while lodging and food for caregivers accounted for 12 percent.

Figure 15: Percentage Distribution of PLHIV OOP Expenditure on Non-medical Services Related to Outpatient Visits

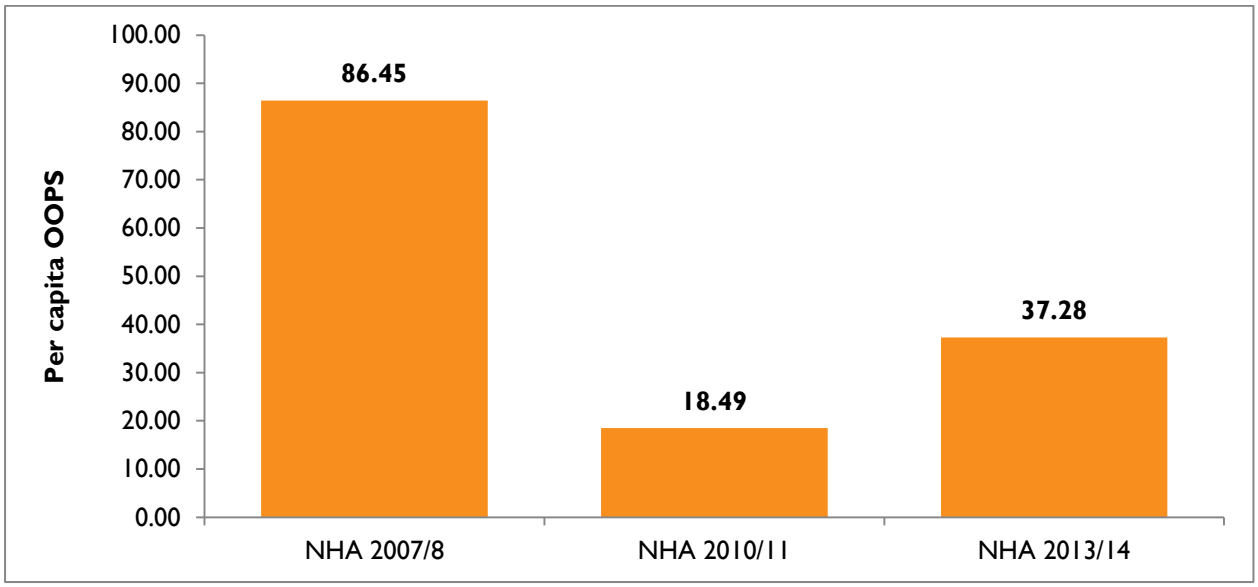


4.7.3 PLHIV OOP spending for inpatient health services

All PLHIV who participated in the study were asked if they had been admitted to a health facility in the six months preceding the survey. All those who reported admission were asked to state the amount of money they paid for each inpatient health service (direct medical inpatient costs) during each admission. The results were weighted and adjusted for the average PLHIV population in 2013/14. Overall, annual PLHIV OOP spending on inpatient admissions in 2013/14 was 16,093,258.25 Birr (817,954.68 USD), or a per capita OOP expenditure of 37.28 Birr (1.89 USD) for the estimated 431,644 PLHIV.

Figure 16 shows a huge reduction in per capita OOP expenditure from the reported amount in 2007/8 but an increase since 2010/11 (fifth HA).

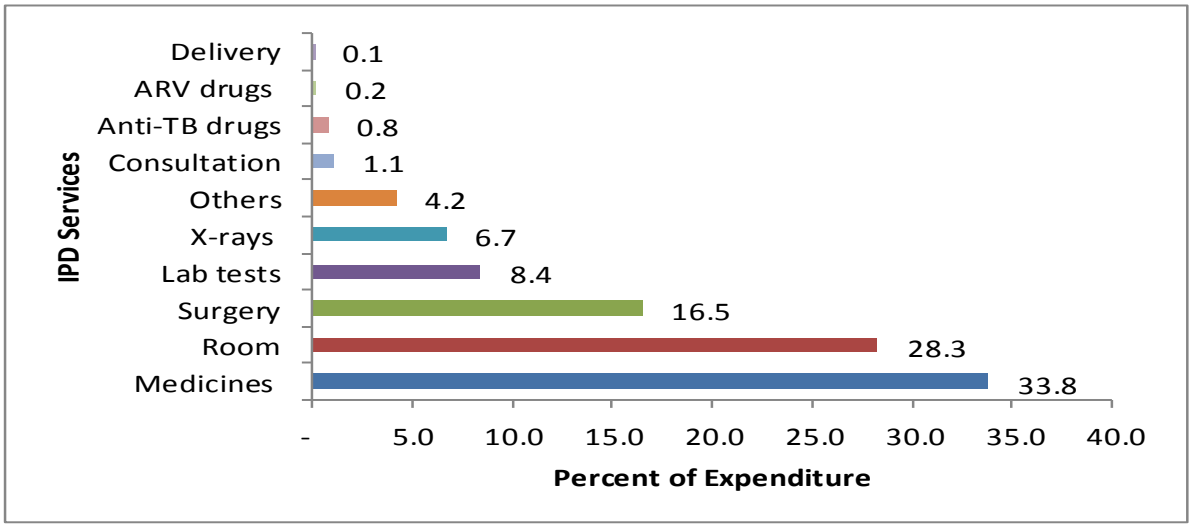
Figure 16: Trends in PLHIV Per Capita OOP Expenditure on Inpatient Health Services (Birr)



4.7.3.1 PLHIV OOP spending on inpatient by function (type of health services)

The analysis of PLHIV OOP spending by type of health service received during an admission shows medicines, room services, and surgery accounted for the majority (78.6 percent) of the spending. Just over one-third (33.8 percent) of PLHIV OOP spending is on medications other than ARVs and more than a quarter (28.3 percent) is on room services, while surgery took 16.5 percent (Figure 17). Anti-TB drugs, ARVs, and delivery services also accounted for small proportions though it is assumed that these services are provided free of charge.

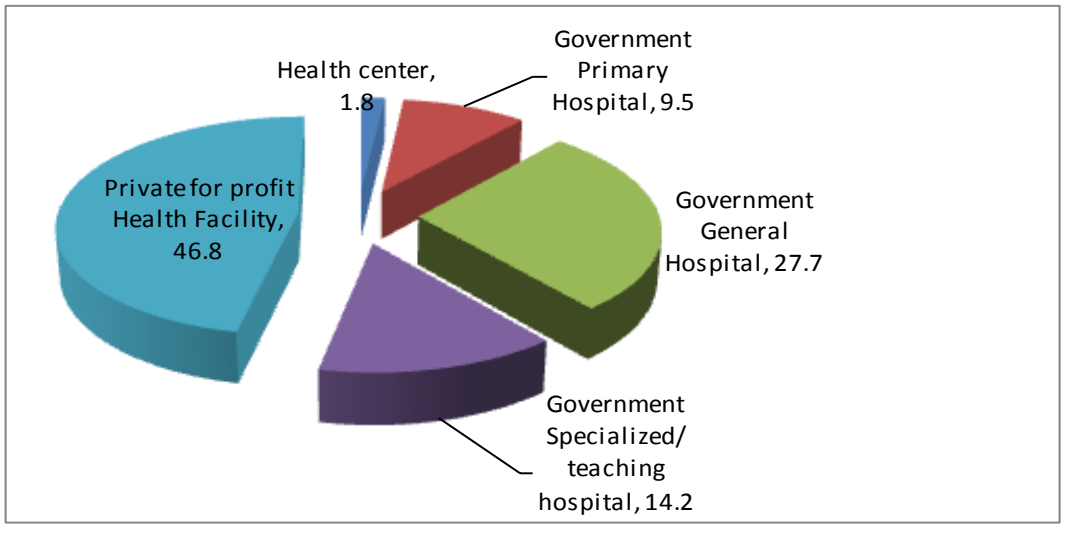
Figure 17: Percentage Distribution of PLHIV OOP Expenditure on Inpatient Services by Type of Health Service



4.7.3.2 PLHIV OOP spending on inpatient health services by providers

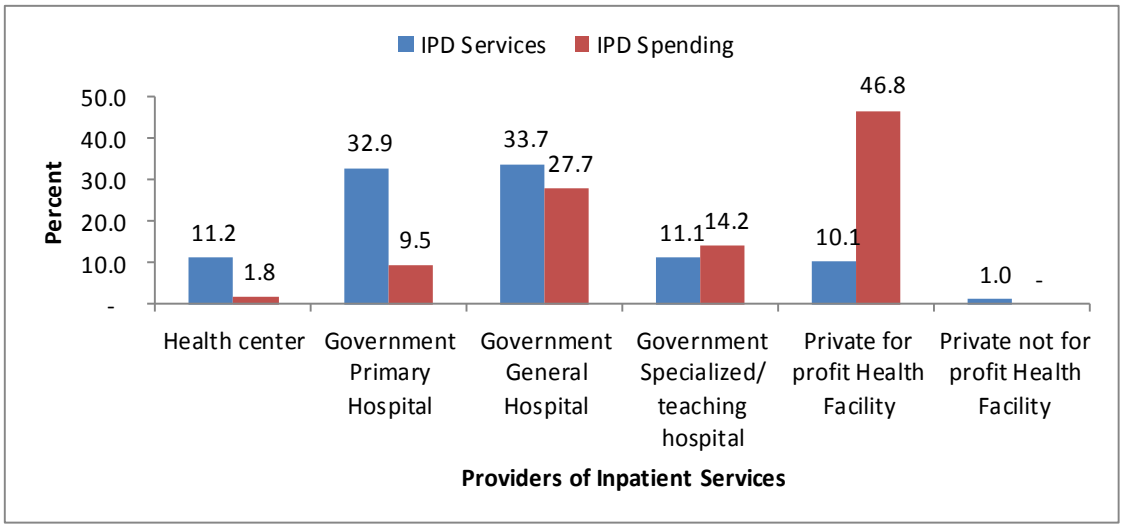
As Figure 18 shows, private for-profit health facilities accounted for 46.8 percent of PLHIV OOP spending on inpatient services while public health facilities accounted for 53.2 percent. Of PLHIV OOP spending in government-owned health facilities, government general hospitals, government specialized/teaching hospitals, and government primary hospitals accounted for 27.7 percent, 14.2 percent, and 9.5 percent, respectively. Government health centers accounted for only 1.8 percent.

Figure 18: Percentage Distribution of PLHIV OOP Expenditure on Inpatient Care by Type of Provider



Comparison of the total number of PLHIV who received inpatient services and the PLHIV OOP expenditure by type of provider shows that private for-profit health facilities provided only 10.1 percent of PLIHV inpatient admissions but consumed 46.8 percent of their spending. Government specialized teaching hospitals absorbed 14.2 percent of OOP spending, also more than the proportion of PLHIV served (11.1 percent). Government general hospitals and primary hospitals provided 33.7 percent and 32.9 percent of inpatient services and accounted for 27.7 percent and 9.5 percent of PLHIV OOP expenditure on inpatient services, respectively. Health centers provided 11 percent of PLIHV inpatient admissions but accounted for only for 1.8 percent of spending (Figure 19). The differences in number of visits and amount of OOP spending between government and private for-profit institutions might be related to the exemptions/free provision of HIV/AIDS services at public facilities.

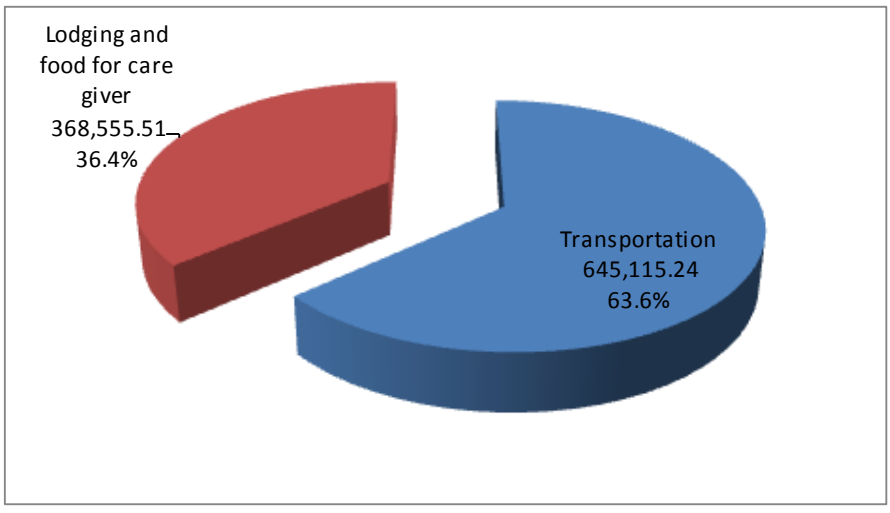
Figure 19: Percentage Distribution of Inpatient Admissions Served and PLHIV OOP Expenditure by Provider



4.7.3.3 PLHIV spending on non-medical services related to inpatient admissions

PLHIV who participated in the study and reported having been admitted to inpatient departments in the six months preceding the study were asked how much they paid out of pocket for transportation and lodging and food for caregivers. Overall, they spent 1,013,670.75 Birr (51,520.75 USD) on these non-medical costs. As Figure 20 shows, spending on transportation took 63.6 percent while lodging and food for caregivers accounted for 36.4 percent.

Figure 20: Percentage Distribution of PLHIV Expenditure on Non-medical Services Related to Inpatient Admissions



4.7.4 Spending on preventive products

PLHIV study participants were asked if they had obtained condoms in the four weeks preceding the survey, and if they did, if they paid for the condoms and the amount they paid. Less than one-third (30 percent) reported having obtained condoms in the period, and only 2.6 percent of them made a payment. Annualizing this and extrapolating to the PLHIV population in need of ART for 2013/14 resulted in a total annual expenditure of 629,293 Birr (31,984.40 USD).

4.7.5 Overall annual PLHIV OOP expenditure on health services

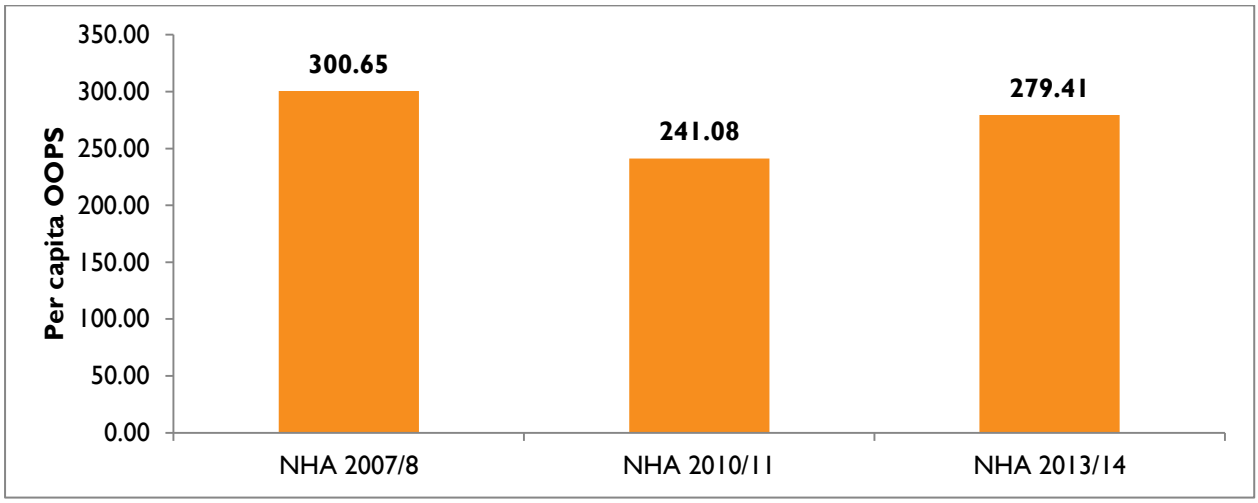
Combining all expenditures, PLHIV spent a total of 120,607,301.59 Birr (6,129,977.21 USD) out of pocket on health care in 2013/14. This implies that, on average, each of the 431,644 PLHIV in need of ART represented in this study spent about 279.41 Birr (14.20 USD) out of pocket on health care (Table 19). This is nominally higher than the per capita amount spent out of pocket by the PLHIV and general population on overall health, which was 241[7] Birr and 112.93 Birr per person in 2011, respectively.

Table 19: Overall PLHIV OOP Expenditure by Type of Health Service

HIV services and commodities	Spending (Birr)	Percentage
Inpatient care	16,093,258.25	13.3
Outpatient care	103,884,750.34	86.2
Preventive products	629,293.00	0.5
Total	**120,607,301.59**	**100.0**

Comparison of overall OOP expenditure of PLHIV with the previous two HA studies shows an increase from 241.08 Birr in 2010/11 to 279.41 in the latest HA (2013/14), while there was a reduction from 2007/08 (Figure 21).

Figure 21: Trends in PLHIV Per Capita OOP Expenditure on Total Health Services (Birr)



[7] The US$ equivalent was higher in 2011 due to change in exchange rates.

4.7.6 Source of funds for financing OOP spending on health

Study participants were asked several questions about the source of the funds for their OOP payments. Some reported receiving assistance from sources including family/friends, employer, church/mission/mosque, international NGOs, and national (local) NGOs. They were asked if they had borrowed money, or had been forced to sell their assets, and if they had insurance coverage and if so the type of insurance.

PLHIV OOP spending of their own money accounted for the majority of their overall health spending (91 percent); 91.1 percent was on outpatient care and 90.1 percent on inpatient care. Nine percent of their spending (8.9 percent for outpatient and 9.9 percent for inpatient) was assistance from other sources. PLHIV associations (35.4 percent) were the major source of assistance followed by employers (25 percent), religious organization (14 percent), international NGOs (12.7 percent), and local NGOs (12.7 percent). The majority of respondents did not have any form of insurance coverage and only a fraction of their health expenditure (1.8 percent of inpatient and 0.3 percent of overall) was reported to be covered by any form of insurance including community-based health insurance (CBHI); this low percentage could show under-coverage of CBHI implementing woredas in the sampling or under-representation of PLHIV from these woredas (Table 20).

Table 20: Percentage Distribution of Outpatient Visits and Inpatient Admissions by Source of Payment

Source of Finance for Health services	OPD spending		IPD spending		Total OPD+IPD spending	
	Amount	%	Amount	%	Amount	%
A. Total expenditures (B+D)	**126,961,298.57**	**100**	**18,976,364.46**	**100**	**145,937,663.03**	**100**
B. Total Out of pocket expenditures	**115,682,987.97**	**91.1**	**17,106,929.00**	**90.1**	**132,789,916.98**	**91.0**
Borrowed money	33,875,753.60	29.3	7,523,287.62	44.0	41,399,041.22	31.2
Rent or sold assets	6,870,385.49	5.9	386,943.52	2.3	7,257,329.01	5.5
C. Out of pocket expenditures on Health Services	**103,884,750.34**	**89.8**	**16,093,258.25**	**94.1**	**119,978,008.59**	**90.4**
D. Expenditures from other assistance	**11,278,310.60**	**8.9**	**1,869,435.46**	**9.9**	**13,147,746.06**	**9.0**
Employer	3,257,667.47	28.9	41,317.95	2.2	3,298,985.42	25.1
Church/ mission/mosque	1,569,793.63	13.9	255,175.85	13.6	1,824,969.48	13.9
National (Local) NGO,	1,615,432.64	14.3	49,153.51	2.6	1,664,586.15	12.66
International organization/NGO	1,324,118.27	11.7	347,765.07	18.6	1,671,883.34	12.72
Insurance (incl. CBHI)	-	-	34,466.31	1.8	34,466.31	0.3
Others (PLHIV associations)	3,511,298.58	31.1	1,141,556.78	61.1	4,652,855.36	35.4

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The findings of this study demonstrated that public health facilities are the major providers of both outpatient and inpatient care services as well as HIV-specific services such as HIV testing and counseling and ART services. More than half of PLHIV who participated in the study had tested positive for HIV, knew their result, and had started on ART during the past 5-10 years.

PLHIV have more frequent episodes of illness and higher rate of utilization of health services as demonstrated by higher outpatient visits per capita (3.45) and admission rates (12.2 percent) than the general population, whose numbers are 0.69 outpatient visit per capita and 1.1 percent admission rate (Harvard TH Chan School of Public Health and Breakthrough International Consultancy PLC. 2016). This is related to the higher prevalence of illness, most likely the frequent occurrence of opportunistic infections, among PLHIV than among the general population. Prolonged fever, skin lesions, cough, and chronic diarrhea are the commonly reported symptoms. Outpatient visit per capita are higher for urban residents, females, and those of greater wealth. Self-medication, shortage of money, perceived poor quality of health care are main reasons for not seeking health care services during illness. The finding that 4 percent did not receive any counseling and 23 percent received only pre-test or post-test counseling shows a quality concern.

Even though per capita utilization of health services seems a bit higher among PLHIV than in the general population, this could be partly a reflection of the higher morbidity and propensity to seek health care within the PLHIV group.

PLHIV have spent 120,607,301.59 Birr (6,129,977.21 USD) out of pocket on health services in 2013/14. This means that of the 431,644 PLHIV represented in this survey, those who are HIV positive and need ART (both not in ART and under ART) spent an average of 279.41 Birr (14.20 USD). This, in nominal terms, is higher than the per capita amount spent out of pocket by the PLHIV and general population on overall health, which was, respectively, 241 Birr and 112.93 Birr per person in 2010/11 and the 232 Birr in per capita OOP spending by the general population in 2013/14.

PLHIV associations are the major sources of assistance for PLHIV, with all other private sources, including local NGOs and private for-profit organizations, covering only a small percentage.

5.2 Recommendations

The numbers of per capita OOP spending just cited show the need for special attention to PLHIV spending, as it might hinder utilization of health services among this population group. Ethiopian policymakers need to devise a long-term HIV/AIDS financing strategy aimed at reducing the financial burden on PLHIV for treatment of opportunistic infections and other diseases. The current OOP spending can be prohibitive, preventing people from accessing services, or catastrophic if they do. Strengthening and expanding the health insurance program that the country is already establishing is of paramount importance.

Though HIV-related services are free of charge, OOP spending on other medicines is significant both for outpatient and inpatient services. This needs special consideration as it might hinder utilization of health services among PLHIV. Expanding the current fee exemption to all HIV/AIDS-related illness and using the mainstreaming and AIDS fund budgets to cover the health expenditure of PLHIV might be considered. Strengthening PLHIV associations should also be considered.

Equity gaps in PLHIV utilization and financing of health services are evident across urban-rural areas as well as wealth quintile dimensions. As with similar equity issues within the general population, addressing these gaps should be a main focus of the government.

Although in lesser proportions than in past years, quality issues are still one of the reasons for PLHIV not accessing health services when they get sick, and lack of providing pre- and post-test counseling for PLHIV requires special attention.

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ANNEX A. PROCEDURES USED IN WEIGHTING, ANNUALIZATION, AND DEFLATION

1. Methods used for weighting the data

The main purpose of weighting is to provide the best possible estimate of wide variety of population characteristics based on the sample. Since it was not possible to get list of a PLHIV who knew their status in an ethically acceptable manner, PLHIV associations were used as the sampling frame to select the PLHIVs. To weight the sample, we considered the total number of population in need of ART by region for EFY 2006 (that is, average of 2013 and 2014). We used the average number of PLHIV who were in need of ART (431,644) disaggregated by regions. The data source we used is an official document from the then-EHNRI "HIV Related Estimates and Projections for Ethiopia – 2012". The document has details of estimates and projection for the years 2011-2016 both nationally and by region. A few major indicators in the document for 2013, 2014, and the average, in that order are:

- Total PLHIV: 734,048 and 711,446 average (722,747)
- ART needs: 420,167 and 443,121 average (431,644).

Since more than 98 percent of the respondents in the survey were found to be in need of ART, the variable "ART received" was used as a weighting variable. Then, the probability of a respondent to be selected from each region was determined by dividing the sample size for each region to those in need of ART. Finally, we calculate the weight for each region independently by taking the reciprocal of the probability of a respondent to be selected from each region (1/Probability of a respondent to be selected from each region). The table below shows PLHIV in need of ART by region used for weighting.

Region	PLHIV in need of ART(A)	Sampled PLHIV (B)	Probablity of a respondent to be selected (P) (B/A)	Weight (1/P)
Tigray	**33,224**	**521**	0.0157	63.77
Afar	**10,864**	**80**	0.0074	135.79
Amhara	**111,724**	**1,491**	0.0133	74.93
Oromia	**120,256**	**961**	0.0080	125.14
Somali	**22,511**	**40**	0.0018	562.78
SNNPR	**58,727**	**599**	0.0102	98.04
Beni Gumuz	**4,755**	**40**	0.0084	118.86
Gambella	**8,945**	**40**	0.0045	223.61
Dire-Dawa	**5,525**	**40**	0.0072	138.11
Harari	**2,132**	**40**	0.0188	53.30
Addis A	**52,983**	**319**	0.0060	166.09
National	**431,644**	**4171**	0.0097	103.49

Source: EHNRI "HIV Related Estimates and Projections for Ethiopia – 2012".

2. Method for annualizing the expenditure data

Annualizing the expenditure data is a straightforward exercise. Since the last six months' expenditure is reported for inpatient care, we annualized it by simply multiplying the six months figures by 2. For outpatient care, however, since the past four weeks is reported, we annualized it by multiplying the figures for the four weeks by 13 to make it 52 weeks, or one year.

3. Methods used to deflate the expenditure data

We used base year adjusted general inflation data to convert outpatient and inpatient expenditures into real values. The annual moving average general inflation index for June 2014 (8.9 percent), June 2015 (7.6 percent), and June 2016 (9.6 percent) were used to convert inpatient and outpatient expenditure values from EFY 2009 to their EFY 2006 values, i.e., using three deflation factors. To reach the final deflated values, the initial expenditure values were multiplied by a three deflation factor starting from 2016 back to 2014 (moving average) and each fractions (which is obtained by multiplying expenditure values by a deflation index) were deducted from the initial values. Finally, since there is no base year adjusted health inflation data at regional level, we employed national deflators.

ANNEX B. WEALTH INDEX CALCULATION FOR PLHIV SURVEY

No single household characteristic or asset gave us enough information to determine whether someone was poor or not. Thus we based the wealth index on a variety of household characteristics and assets that are relevant for that country. Wealth quintiles are always a relative measure of how wealth is distributed within the population from the quintiles calculated.

The wealth index tells us about relative poverty:

- An easy way to understand relative poverty is by dividing the population into wealth quintiles based on the wealth index.
- The wealth index is based on asset ownership and household characteristics rather than monetary income.
- We need a variety of asset and household characteristics to create a meaningful wealth index.
- Principal Components Analysis (PCA) turns the various asset and household characteristics into a wealth index.
- Through PCA, each asset and household characteristic is given a factor weight and based on these each respondent in our survey can be given a wealth index score.

When we calculate the wealth index, household assets, livestock, monthly income, and type of dwelling are considered as the major indicators of wealth.

In calculating the wealth index the following steps were carefully conducted.

Step 1 Selecting variables which measures wealth index Categorical variables

1. What are the main walls made of in the dwelling where your household lives?
2. What is the main material of the roof in the dwelling where your household lives?
3. What kind of toilet does most members of your household use?
4. What is the main source of water for drinking for your household?

A. Binary variables

1. Is there a radio in the household?
2. Is there a bicycle in the household?
3. Is there a motorbike in the household?
4. Is there a car or mini-truck in the household?
5. Is there a cell phone or land line telephone in the household?
6. Do you have a cell phone/mobile or landline by yourself?
7. Is there a refrigerator in the household?
8. Is there a television in the household?
9. Is there electricity in the household?

B. Continuous variables

1. How much is your household monthly income (in kind + cash) in Birr?
2. How many rooms are there in your dwelling?
3. How many goats are owned by the household?
4. How many sheep are owned by the household?
5. How many oxen are owned by the household?
6. How many cows are owned by the household?
7. How many Donkey/Horse/Mule are owned by the household?
8. What is the total number of poultry owned by the household?

Step 2 Recode or restructure variables in preparation for the PCA

Binary variables:

For binary variables, ensure that responses are coded as either 0 or 1.

Continuous variables:

For continuous variables, recode any missing values and 'don't know' answers (often coded as 98 or 998 or something similar) to zero.

The continuous variables for livestock were converted to binary variable because to make consistent with household asset variables.

Categorical variables:

These variables are coded as 1 "Improved" and 0 for "Others" For example the main material of the roof made was codded as follows:

Improved=Corrugated Iron, Wood, Calamine/Cement Fibber, Cement/Concrete

Others or Not improved = Thatch/leaf, Rustic Mat/Plastic Sheets, Reed/Bamboo, Wood Planks

Step 3 Run the Principal Components Analysis

PCA is a statistical method which determines the relative importance of each variable when seeking to summarize a set of variables (Devellis 2012).

Step 4 Assign wealth index scores to each respondent

Step 5 Determine the range of wealth index scores for each quintile

Once each respondent's household has been given a wealth index score, we put all of them in order of wealth and separate them into quintiles. We can then see the range of wealth index scores that correspond to each quintile.

Step 6 Standardize survey variables by survey means and standard deviations

Step 7 Apply factor weights

To calculate wealth index scores for each survey respondent, we simply need to multiply the standardized variable by the factor weight, and then add all the values together.

Step 8 Apply wealth quintile cut-offs

Now that each respondent has a wealth index score, we can determine which wealth quintile they are in.

ANNEX C. ETHIOPIAN SIXTH HEALTH ACCOUNTS (HA VI)

SURVEY QUESTIONNAIRE FOR PEOPLE LIVING WITH HIV

ID No for Respondent

FEDERAL MINISTRY OF HEALTH OF THE GOVERNMENT OF ETHIOPIA

ETHIOPIAN HEALTH ACCOUNTS (HA)

SURVEY QUESTIONNAIRE FOR PEOPLE LIVING WITH HIV/AIDS (2016)

SECTION 1: IDENTIFICATION INFORMATION OF THE QUESTIONNAIRE TO BE COMPLETED BY THE INTERVIEWER

Identification information	**Name**			
A1. Region identification				
A2. Zone				
A3. City Administration identification				
A4. Sub-city Identification				
A5. Woreda/District Identification				
A6. Is your household located in a rural or urban area?	1. Urban 2. Rural 3. Don't know			
A7. Location of interview	1. Heath center 2. Hospital 3. Association 4. Residence of the interviewee Other (Please Specify) _____ .			
A8. Result and codes of visit				
Visit	1st	2nd	Last	
Date				
Time interview started	Time interview ended	Time to conduct the interview		
Interviewer	Name		Code	
Supervisor	Name		Code	

SECTION 2: CHARACTERISTICS OF THE RESPONDENT LIVING WITH HIV and AIDS

Ba.1 Total HH Size_____ Ba.2 Adult Male_____ Ba.3 Adult Female_____

Bb.1 Total Children _____ Bb.2 Male_____ Bb.3 Female_____

No.	QUESTIONS	ANSWERS	GO TO	CODES
B1	Sex of respondent	**1.** Male **2.** Female		_____
B2	How old are you? (Enumerator: Respondent should be 18 and above in complete years)			_____
B3	What is your current marital status?	**1.** Single **2.** Married **3.** Widowed **4.** Divorced **5.** Separated **6.** Co-habiting **7.** Not applicable (99)		_____
B4	Have you ever been enrolled in school?	**1.** Yes **2.** No	 … B6	_____
B5	What was the highest level of education that you successfully completed?	**1.** Primary Grade 1-8 **2.** Secondary Grade 9-10 **3.** preparatory Grade 11-12 **4.** Technical and Vocational Education **5.** College Diploma **6.** Undergraduate degree **7.** Postgraduate Degree **8.** Not Applicable (99)		_____

No.	QUESTIONS	ANSWERS	GO TO	CODES
B6	What is your employment status?	**1.** Government full time employed **2.** Private full time employed **3.** Government part time employed **4.** Private part time employed **5.** Too Young or old to work….. **6.** Retired…….……. **7.** Student..... **8.** Does not work ……. **9.** Self-employed **10.** Housewife ……..	 B10 B10 B10 B10	 _____
B7	What was your main activity during the past month (the job that you own)?	**1.** Farmer **2.** Housewife **3.** Shepherd **4.** Civil servant **5.** Company employee **6.** Student **7.** Pastoralist **8.** Fisher **9.** Self-employed 10. House maid 11. Daily laborer 12. Guard 13. Other(Please specify)_____		 _____
B8	In what sector are you employed: public or private?	**1.** Public sector **2.** Private sector for profit **3.** Private sector not for profit **4.** Employed in individuals house **5.** Self employed **6.** Other(Please specify) _____		 _____

No.	QUESTIONS	ANSWERS	GO TO	CODES
B9	If you are employed what employment position do you have?	**1.** Managerial/Directors **2.** Administrative head **3.** Department head **4.** Section head **5.** Senior expert Independent **6.** Middle expert **7.** Junior expert **8.** Technician /Assistant **9.** Admin supporter **10.** Head of unit / Supervisor **11.** Gourd/Security **12.** Ordinary Employee **13.** Not declared 14. Other(Please specify) _____		_____
B10	How much is your household monthly income (in kind + cash) in Birr?			_____
B11	Were you included in any Income Generating Activities (IGAs)?	1.Yes 2.No		_____
B12	Did you receive training in any income generating activity?	1. Yes 2. No		_____
B13	Did you receive training and seed money?	1.Yes 2.No……..	.B16	_____
B14	Who provides the training? (Multiple options possible)	1. Government organization 2. NGO 3. PLHIV Associations 4. Religious Organizations 5. Private business 6. Other(Please specify) _____		*Yes No* *1 2* *1 2* *1 2* *1 2* *1 2* *1 2*

No.	QUESTIONS	ANSWERS	GO TO	CODES
B15	Who provides the seed money?(Multiple options possible)	1. Government organization 2. NGO 3. PLHIV Associations 4. Religious Organizations 5. Private business 6. Other(Please specify) _____		*Yes* *No* *1* *2* *1* *2* *1* *2* *1* *2* *1* *2* *1* *2*
B16	Did you receive any other support?	1.Yes 2. No ……	 B18	
B17	Which of these supports did you receive?(Multiple options possible)	1. School fee for children 2. Materials 3. School uniform 4. Food 5. Clothing 6. Counseling/treatment and medicine for free 7. Financial 8. Health Care 9. Other (please specify) _____		*Yes* *No* *1* *2* *1* *2* *1* *2* *1* *2* *1* *2* *1* *2* *1* *2* *1* *2* *1* *2*
B18	Do you have any social supportor emergency assistance like *idir (*like psycho-social, financial, material, etc.)?	1.Yes 2. No……..	 B20	

No.	QUESTIONS	ANSWERS	GO TO	CODES
B19	Which of these supports did you receive?(Multiple options possible)	1. School fee for children 2. Educational Materials 3. School uniform 4. Food 5. Clothing 6. Counseling/treatment and medicine for free 7. Financial 8. Health Care 9. Other (please specify) _____		*Yes* *No* *1* *2* *1* *2* *1* *2* *1* *2* *1* *2* *1* *2* *1* *2* *1* *2* *1* *2*
B20	Please indicate your RELATIONSHIP with the head of household(Enumerator: compare against asset section of HH survey)	1. Head of Household 2. Spouse 3. Child 4. Brother, Sister 5. Other relative 6. House Servant **7.** No relation *8.* Not Applicable *9.* Other (please specify)_____		_____

SECTION 3: ASSET QUESTIONS

No.	QUESTIONS	ANSWERS	GO TO	CODES
C1	What are the main walls made of in the dwelling where your household lives?	**1.** No walls **2.** Cane/Trunks/Bamboo/Reed **3.** Bamboo/wood with mud **4.** Uncovered adobe **5.** Play wood **6.** Carton **7.** Cement **8.** Stone with lime/cement **9.** Bricks **10.** Cement blocks **11.** Covered adobe **12.** Wood planks/Shingles **13.** Corrugated iron **14.** Other (please Specify) _____		_____
C2	What is the main material of the roof in the dwelling where your household lives?	**1.** Thatch/leaf **2.** Rustic Mat/Plastic Sheets **3.** Reed/Bamboo **4.** Wood Planks **5.** Corrugated Iron **6.** Wood **7.** Calamine/Cement Fiber **8.** Cement/Concrete **9.** Roofing Shingles **10.** Other (please Specify) _____		_____
C3	How many rooms are there in your dwelling?			
C4	Does this household own any livestock?	1. Yes *2.* No……	C10	_____
C5	How many goats are owned by the household?			_____

No.	QUESTIONS	ANSWERS	GO TO	CODES
C6	How many sheep are owned by the household?			
C7	How many oxen are owned by the household?			_____
C8	How many cows are owned by the household?			_____
C9	How many Donkey/Horse/Mule are owned by the household?			_____
C10	How many Camels are owned by the household?			_____
C11	What is the total number of livestock owned by the household (except poultry)?			_____
C12	What is the total number of poultry owned by the household?			_____
C13	Is there a radio in the household?	**1.** Yes **2.** No		
C14	Is there a bicycle in the household?	**1.** Yes **2.** No		_____
C15	Is there a motorbike in the household?	1. Yes 2. No		_____
C16	Is there a car or mini-truck in the household?	**1.** Yes **2.** No		_____
C17	Is there a cell phone or land line telephone in the household?	**1.** Yes **2.** No		_____
C18	Do you have a cell phone/mobile or landline by yourself?	**1.** Yes **2.** No		_____
C19	Is there a refrigerator in the household?	**1.** Yes **2.** No		_____

No.	QUESTIONS	ANSWERS	GO TO	CODES
C20	Is there a television in the household?	**1.** Yes **2.** No		_____
C21	Is there electricity in the household?	**1.** Yes **2.** No		_____
C22	What kind of toilet does most members of your household use?	**1.** Flush toilet **2.** Improved pit latrine **3.** Public toilet **4.** Open field **5.** Not improved toilet **6.** Neighbors' **7.** Other (please Specify)_____		_____
C23	What kind of fuel does your household usually use for cooking? (More than one response is possible)	**1.** Electricity **2.** Natural Gas **3.** Bio-gas **4.** Kerosene **5.** Coal, lignite, peat **6.** Wood Coal **7.** Wood, Straw **8.** Manure		_____
C24	What is the main source of water for drinking for your household?	1. Pipeline 2. Public 3. Protected well 4. Unprotected well 5. River 6. Spring protected 7. Unprotected spring		_____
C25	Does your household have mosquito nets?	**1.** Yes **2.** No		_____

ROUTINE HEALTH EXPENSES in the last four weeks
(Apply to all Household Members)

C26. Did you incur other expenses on health and health related commodities in the **last four weeks**(e.g. routine medication, FP commodities and services such as condoms, pills etc., ORS, nutrition supplements e.g. Cod liver Oil, multivitamins, zinc, vitamin A, micronutrient powders, baby formula etc.? 1. Yes (go to QC24) 2. No (go to QC25) 3. Don't know (go to QC25)	*Insert code -* ☐
C27. How much did you spend on the following items/commodities? 1. Family planning commodities - 2. Bed/accommodation - 3. ORS *4.* Nutritional commodities (over-the-counter vitamin and mineral supplements (i.e., vitamin A, zinc, multivitamins), micronutrient powders, or even baby formulas) *5.* Other health commodities *6.* Don't know *(Enter 99)*	1. Birr _____ 2. Birr _____ 3. Birr _____ 4. Birr _____ 5. Birr _____

C28. Are you the member of the health development Army or social mobilization committee? 1) Yes 2) No 3) I don't know	
C29. Are you involved LLITN (Long Lasting Insect side Treated Net) distribution, IRS (Indoor Residual Spray) operations (chemical spray) and in the environmental management to control malaria 1) Yes 2) No 3) I don't know	

C30. How much time do you or household members spend in the following activities and what is its estimated value in ETB

Unit cost for daily laborer in the interviewee community _____ETB/Day

	Health Development Army (one-to-five and one-to-thirty networks or social mobilization related activities *in the last four weeks*				**Malaria control program in the last 12 months) (Enumerator: Consider malaria seasons for sum hours)**			
	Regular meeting for experience sharing (1)	Environmental control activities excluding malaria (2)	Pregnant mothers' conference (3)	Traditional Ambulance (4)	LLTINs (5)	IRS operations (6)	Awareness creation (7)	Pond draining & other environmental control activities (8)
Average Time spent for 1-to-5 or social mobilization (in Hours)								
Average Time spent for 1-to-30 network (in Hours)								
Estimated value in ETB(Enumerator: consider local daily laborer cost in estimating value)								

C31.Did your contribute in cash or in kind to the construction and maintenance of health posts, health centers, hospitals, HEWs homes, communal latrine in the last 12 months? 1) Yes 2) No–(Go to Section 4) 3) I don't know –(Go to Section 4)	
C32. Did you contribute in cash, in kind or in labor towards enhancing utilization of services (for strengthening the health system, ambulance running cost, cultural food items and drinks to enhance delivery in the health centers)in the last 12 months? 1) Yes 2) No–(Go to Section 4) 3) I don't know – (Go to Section 4)	

C33. If yes to questions QC31 and QC32, How much did the household spend on the above?

Type of Contribution	**Estimated contribution**				
	HP, HC, hospital construction/ maintenance	HEWs homes construction/maintenance	Construction of communal latrines	Ambulance running cost(contribution for fuel, driver or any related contribution)	Food and drinks contribution for promoting facility delivery
A. In Cash (Eth Birr)					
B. Labor (in days)					
C. In Kind–(Y/N if Yes, fill the table below)					

C34. If Yes toQ30C, fill the box below :Average Unit cost for labor in the local community

(for the above mentioned activities) ___ _____ ETB per /Day

Name of in-kind contribution	Unit of measurement (Use standard measurements)	Quantities for in Kind contributions for the following Activities:					Unit price ETB	Total price ETB
		HP, HC, hospital construction/ maintenance	HEWs homes construction/maintenance	Construction of communal latrines	Ambulance running cost(contribution for fuel, driver or any related contribution)	Food and drinks contribution for promoting facility delivery		

Total cost for the in kind contribution: _____

SECTION 4: HIV DIAGNOSIS

No.	QUESTIONS	ANSWERS	GO TO	CODES
D1	When did you test positive for HIV?	Month**:** _____ *Year:* _____ ***(Eth Cal)***		
D2	Where were you tested positive for HIV	**1.** Health Center **2.** Government Primary Hospital **3.** Government General Hospital **4.** Government Specialized/ teaching hospital **5.** Private for profit Health Facility (Clinic, Hospital, Diagnostic centers,) **6.** Private not for profit:(Health Facility (Clinic, Hospital, Diagnostic centers,) **7.** Other (please Specify) ____		_____
D3	Did you receive HIV /AIDS counseling?	**1.** Yes **2.** No……	..D5	_____
D4	When?	1. pre-test counseling 2. post-test counseling 3. both		_____
D5	Once you received your test result did you referred to other health facility?	1. Yes 2. No……	E1	_____
D6	Where were you referred?	**1.** Health Center **2.** Government Primary Hospital **3.** Government General Hospital **4.** Government Specialized/ teaching hospital **5.** Private for profit Health Facility (Clinic, Hospital, Diagnostic centers,) **6.** Private not for profit Health Facility (Clinic, Hospital, Diagnostic centers,) **7.** Other (please Specify) ____		_____

SECTION 5: HEALTH STATUS

No.	QUESTIONS	ANSWERS	GO TO	CODES
E1	Are you receiving anti-retroviral treatment?	1. Yes **2.** No ……	.E5.	_____
E2	Where do you get the anti-retroviral treatment?	1.Health Center 2.Government Primary Hospital 3.Government General Hospital 4.Government Specialized/ teaching hospital 5.Private for profit Health Facility (Clinic, Hospital, Diagnostic centers,) 6.Private not for profit Health Facility (Clinic, Hospital, Diagnostic centers,) 7.Other (please Specify) ____		
E3	When did you start receiving anti-retroviral treatment?	Month**:** _____ Year**:** _____ **Eth**		
E4	How often did you receive receiving anti-retroviral treatment?	1. once in 3 month 2. in six months 3. monthly 4. weekly 5. Other (please Specify) _____		

E5	How was your activity during the last four weeks? (Read options and multiple options possible)	1.Normal 2.Symptomatic (showing signs of illness) but not-bed ridden 3.Was bed-ridden but spent less than half of my day confined to bed 4.Was bed-ridden and spent more than 50% of my day confined to bed		Yes No *1* *2* *1* *2* *1* *2* *1* *2*
E6	Have you been ill during the last four weeks?	1.Yes **2.** No …(Skip to Section 6)		_____
E7	If yes to QE6, What were the symptoms of your illness? *Interviewer: Multiple answers are possible.*	1. Prolonged Fever 2. Stomach ache 3. Chronic diarrhea 4. Cough 5. White patches on tongue 6. Skin lesions 7. Other (please Specify) _____		Yes No *1* *2* *1* *2* *1* *2* *1* *2* *1* *2* *1* *2*

				1 2
No.	QUESTIONS	ANSWERS	GO TO	CODES
E8	Did your illness in the last four weeks confine you to bed?	1. Yes 2. No…(Skip to Section 6)		_____
E9	For how much of the time were you confined to bed?	1. On average less than half the day 2. On average more than half the day		_____
E10	On how many days in the last four weeks did you spend at least part of the day in bed?"	1. 1-5 days 2. 6-10 days 3. 11-15 days 4. 16-20 day 5. more than 20 days		

SECTION 6: USE AND EXPENDITURES ON HIV PREVENTIVE PRODUCTS

No.	QUESTIONS	ANSWERS	GO TO	CODES
F1	In the last four weeks, did you obtain condoms?	1. Yes 2. No……	**G1**	
F2	What type of condom did you obtain? More than one response is possible	1. Male Condom **2.** Female Condom		
		3.		
		4.		
F3	Where did you obtain these condoms? (multiple options possible)	1. Health Center Government Primary Hospital 2. Government General Hospital 3. Government Specialized/ teaching hospital 5. Private for profit Health Facility (Clinic, Hospital, Diagnostic centers) 6. Private not for profit Health Facility (Clinic, Hospital, Diagnostic centers) 7.Other (please Specify) ____		
F4	How much have you spent on condoms in the past four weeks? ***Interviewer: Record full amount.*** ***If no payment, circle 88. If no response circle 98.***			***Eth. Birr*** _____ ***88/98***
F5	If no payment what is the source of condom? (multiple options possible)	1. Friend/relative 2. Partner 3. Health Center 4. Government Primary Hospital 5. Government General Hospital 6. Government Specialized/ teaching hospital 7. Private for profit Health Facility (Clinic, Hospital, Diagnostic centers) **8.** Private not for profit Health Facility (Clinic, Hospital, Diagnostic centers) 9.Health post 10. Other (please Specify) _____		

SECTION 7: HEATH INSURANCE COVERAGE QUESTIONS

No.	QUESTIONS	ANSWERS	GO TO	CODES
G1	Do you receive coverage for your health expenses from an insurance scheme?	1. Yes 2. No……	H1	
G2	What type of insurance do you have? (Multiple response possible)	1. Private Insurance 2. Community Based Health Insurance (CBHI) 3. not applicable (99) 4. Other (please Specify) _____		
G3	If applicable, how much do you contribute monthly to your insurance plan? ***Interviewer: Record full amount.*** ***If no payment, circle 88. If no response circle 98.***			***Eth. Birr*** _____ ***88/98***

SECTION 8: OUTPATIENT HEALTH CARE UTILIZATION DURING THE LAST FOUR WEEKS

Interviewer: Read the following out loud:

"I would now like to ask you some more details about your outpatient visit(s) during the last four weeks. I will be asking you about each visit you have made to a health care provider in the past four weeks separately."

Record the name and type of each facility visited separately.

No.	QUESTIONS	ANSWERS	GO TO	CODES
H1	When you become ill, did you visit/consult a health provider? (including hospital/ health center/ Health post/ Pharmacy/drug shop/ Traditional Healers)	1. Yes……. 2. No……	.H3 .H2	_____
H2	If No to QH1, what were the main reasons for not making all the visits?	1. Lacked Money 2. Self-medication 3. Poor quality service 4. High Cost of Care 5. Religious /cultural reasons 6. Fear of discovering serious illness 7. Considered illness not serious 8. Long distance to provider 9. Other (please Specify) _____		
H3	If Yes to QH1, Did you make any outpatient visits in the past four weeks?	1. Yes 2. No ……. 3. Don't know……..	 .I1 .I1	_____
H4	If yes in QH1, In the past four weeks, How many outpatient visits did you make (in number)			_____
H5	If yes in QH1,How much did you spend for treatment only in Birr			_____

Interviewer: For the following questions, get information ONLY for last three visits

H9	How much time did it take to go to the facility **(two-way)**?		Hours:_____ Minutes: _____		
H10	What were the symptoms of your illness? (Multiple options are possible)	1. Prolonged fever 2. Stomach ache 3. Chronic diarrhea 4. Cough 5. White patches on tongue 6. Skin lesions 7. Other (please Specify)_____	Code(s): _____ _____	Code(s): _____ _____	Code(s): _____ _____
H11	What kind of services did you receive? *Multiple responses are possible*.	1. Consultation 2. Lab test 3. X-ray 4. Anti-retroviral treatment drugs 5. Tuberculosis drugs 6. Treatment for sexually transmitted diseases 7. Prevention of mother to child transmission 8. Psychological support	Code(s): _____ _____	Code(s): _____ _____	Code(s): _____ _____

		9. Information and education about HIV AND AIDS 10. Ante-natal services 11. Delivery service 12. Post-natal service 13. Family planning 14. Immunization 15. Nutritional supplements 16. (Other medicines) 17. Other (please Specify)_____			
H 12	Did you pay out of pocket for the visit?	**1.** Yes **2.** No …… Skip toH16	Code : _____	Code : _____	Code : _____

No.	QUESTIONS	ANSWERS	GO TO	Last visit during past 4 weeks (a)	Next-to-last visit during past 4 weeks (b)	Second-from-last visit during past 4 weeks (c)
H13	If yes QH12, Can you tell me how much you paid for treatment for this illness episode (or your care)or services? *Interviewer: Record amount in full. If no payment, circle 88. If no response, circle 98.*	1. Consultation 2. Lab test 3. X-ray **4.** Anti-retroviral treatment **5.** Tuberculosis drugs 6. Treatment for sexually transmitted diseases **7.** Prevention of Mother to child transmission Psychological support **8.** Information and education about HIV AIDS **9.** Ante-natal services **10.** Delivery **11.** Post-natal 12. Family planning 13. Immunization 14. Nutritional supplements 15. Other medicines		1. Birr _____ 88 / 98 2. Birr_____ 88 / 98 3. Birr _____ 88 / 98 4. Birr _____ 88 / 98 5. Birr _____ 88 / 98 ***6.*** Birr _____ 88 / 98 ***7.*** Birr_____ 88 / 98	**1.** Birr_____ 88 / 98 **2.** Birr____ 88 / 98 **3.** Birr _____ 88 / 98 **4.** Birr____ 88 / 98 **5.** Birr _____ 88 / 98 **6.** Birr _____ 88 / 98 **7.** Birr _____ 88 / 98	**1.**Birr _____ 88 / 98 **2.**Birr_____ 88 / 98 **3.**Birr _____ 88 / 98 **4.**Birr _____ 88 / 98 **5.**Birr _____ 88 / 98 **6.**Birr _____ 88 / 98 **7.**Birr _____ 88 / 98

		16. Other (please Specify) _____		***8.*** Birr_____ 88 / 98	**8.** FRw____ 88 / 98	**8.**Birr_____ 88 / 98
	Total amount **Interviewer: Add the total.**			Total :____Birr	Total :___ Birr	Total _____Birr

No.	QUESTIONS	ANSWERS	GO TO	Last visit during past 4 weeks	Next-to-last visit during past 4 weeks	Second-from-last visit during past 4 weeks
H14	Based on the information you have provided, the total cost of the visit was _____ Ethiopian Birr. Is this correct? *Interviewer: Use the total amount found in the previous question to ask this question.*	**1.** Yes **2.** No ……..		Code: _____	Code: _____	Code: _____
H15	In addition, how much did you pay for the following items? (If no payment, circle 88 If no response, circle 98)	**1.** Gift/cash to health staff **2.** Lodging and food for care giver		1. *Eth. Birr* _____ 88/98 2. *Eth Birr* _____ 88/98	*1. Eth. Birr* _____ 88/98 *2. Eth Birr* _____ 88/98	*1. Eth. Birr* _____ 88/98 *2. Eth Birr* _____ 88/98
H16	Did you receive assistance from any of these sources to cover your treatment? More than one response is possible.	1. Family/ Friends 2. Employer 3. Church/ mission/mosque 4. International organization/NGO? 5. Local (National) NGO insurance (incl. CBHI)		Code: _____	Code: _____	Code: _____

		6. Other assistance (Please Specify)_____ 7. No assistance……				

No.	QUESTIONS	ANSWERS	Last visit during past 4 weeks	Next-to-last visit during past 4 weeks	Second- from-last visit during past 4 weeks
H17	How much assistance did you receive from each of these sources? (It should not include money borrowed). *Interviewer: Record full amount.* *If no assistance, circle 88.* *If no response, circle 98.*	**1.** Family/Friends **2.** Employer **3.** Church/ mission **4.** International Organization/NGO **5.** National (Local) NGO **6.** Insurance (incl. CBHI) **7.** Other assistance (Please Specify) _____	**1.** Eth. Birr_____88/98 **2.** Eth. Birr_____ 88/98 **3.** Eth. Birr _____ 88/98 **4.** Eth. Birr _____ 88/98 **5.** Eth. Birr _____ 88/98 **6.** Eth. Birr _____ 88/98 **7.** Eth. Birr_____ 88/98	**1.** Eth. Birr _____ 88/98 **2.** Eth. Birr _____ 88/98 **3.** Eth. Birr _____ 88/98 **4.** Eth. Birr _____ 88/98 **5.** Eth. Birr _____ 88/98 **6.** Eth. Birr _____ 88/98 **7.** Eth. Birr _____	1. Eth. Birr _____ 88/98 2. Eth. Birr _____ 88/98 3. Eth. Birr _____ 88/98 4. Eth. Birr _____ 88/98 5. Eth. Birr _____ 88/98 6. Eth. Birr _____ 88/98

				88/98	7. Eth. Birr _____ 88/98
	Total amount of assistance	*Interviewer: Add each category to find total.* ***7.***	Total :_____ Eth. Birr	Total :_____ Eth. Birr	Total :_____ Eth. Birr

No.	QUESTIONS	ANSWERS	GO TO	Last visit during past 4 weeks	Next-to-last visit during past 4 weeks	Second- from-last visit during past 4 weeks
H18	Based on the information you have provided, the total assistance received was _____ Eth. Birr. Is this correct? *Interviewer: Use the total found in the previous question. If the total amount is greater than the total in questionsH17, repeat question.*	**1.** Yes **2.** No …… Go back to QH17 re-fill)		Code: _____	Code: _____	Code: _____
H19	Did you have to borrow any money to pay for your visit?	**1.** Yes **2.** No ……	H11	Code: _____	Code: _____	Code: _____
H20	Whom did you borrow from? (Multiple response possible)	1. Family 2. Friend or neighbors 3. Bank 4. Credit association/Office 5. Organization (MFI, Banks, Rusacos…) 6. Idir 7. Other (please Specify)		Yes No 1 2 1 2 1 2 1 2 1 2 1 2	Yes No 1 2 1 2 1 2 1 2 1 2 1 2	Yes No 1 2 1 2 1 2 1 2 1 2 1 2

		_____				
H21	How much money did you borrow for the visit itself (excluding transportation, lodging and food for care giver, gift/cash to health staff)?			Eth. Birr_____	Eth. Birr_____	Eth. Birr_____
H22	Did you borrow for additional items (transportation, food, for care giver) related to your visit?	1. Yes 2. No……	H14			
H23	How much money did you borrow for additional items related to your visit	*1. Gift/cash to health staff* *2. Lodging and food for caregiver* *3. Transportation to and from facility for self and care giver altogether*		1.Eth. Birr____ 88/98 2.Eth. Birr____ 88/98 3.Eth. Birr____ 88/98	1. Eth. Birr____ 88/98 2. Eth. Birr____ 88/98 3. Eth. Birr____ 88/98	1.Eth. Birr___ 88/98 2.Eth. Birr___ 88/98 3.Eth. Birr___ 88/98
H24	Did you have to rent or sell any of your assets (land, goats/sheep, crops etc.) to pay for your visit to this facility?	1. Yes 2. No……	H26	Code: _____	Code: _____	Code: _____
H25	How much did you receive for what you rented/sold?			Eth. Birr_____	Eth. Birr_____	Eth. Birr_____
H26	Was the medicine you required available at the hospital/health	1. Available at hospital/ Heath Facility		Code:	Code:	Code:

	facility or did you have to buy from a private pharmacy? (Multiple response possible)	2. Obtained it myself from a private pharmacy		_____	_____	_____
H27	Did you need to seek any services related to this episode outside the hospital/health facility?	1. Yes 2. No ……..	..I1	Code: _____	Code: _____	Code: _____
H28	What services did you receive? (multiple options possible)	1.Room 2. Surgery 3. Consultation 4. Lab tests 5. X-rays 6. Anti-retroviral drugs 7. Tuberculosis drugs 8. Other medicines 9. Delivery 10. Other (please Specify) _____		Code : _____	Code : _____	Code : _____
H29	What were the costs of those services?			Eth. Birr _____	Eth. Birr _____	Eth. Birr _____

SECTION 9: INPATIENT HOSPITALIZATION DURING LAST 6 MONTHS

No.	Questions	Answers	GO TO	Code/
I1	During the last 6 months, were you admitted to a health facility?	1. Yes 2. No……..	(End Questionnaire)	_____

Interviewer: Read the following out loud:

"I would now like to ask you some more details about your hospitalizations during the last six months. I will be asking you about each hospital stay you have made in the past six months separately."

Interviewer instructions: Record the name and type of each facility visited separately. Then talk about each hospital stay separately.

Last Three Admit ions

No.	Questions	Answers	Last Admission during past 6 months	Next-to-last Admission during past 6 months	Second- from-last Admission during past 6 months
I2	In which health facility were you admitted? *Interviewer: Record name of facility in full as well as the code indicated.*	1. Health Center 2. Government Primary Hospital 3. Government General Hospital 4. Government Specialized/ teaching hospital 5. Private for profit Health Facility (Clinic, Hospital, Diagnostic centers) 6. Private not for profit Health Facility (Clinic, Hospital, Diagnostic centers) 7. Others	Code _____	Code _____	Code _____

No.	Questions	Answers	Last Admission during past 6 months	Next-to-last Admission during past 6 months	Second- from-last Admission during past 6 months
I3	How did you get to the hospital? (Multiple response possible)	1.Walked 2.Rode bicycle 3.Bus/Taxi 4.Friend gave a ride 5.By car 6. Ambulance 7. Other (Please specify)	Code :_____	Code :_____	Code :_____
I4	If you were to use a bus/taxi, Ambulance (in the above): How much did you pay from and to facility? (Two-way) Interviewer: Record amount in full If no payment, circle 88 If no response, circle 98		Eth. Birr _____ 88/98	Eth. Birr _____ 88/98	Eth. Birr _____ 88/98
I5	How much time did it take to go to the facility **(two-way)?**		Hours: _____ Minutes: _____	Hours: _____ Minutes: _____	Hours: _____ Minutes: _____

No.	Questions	Answers	Last Admission during past 6 months	Next-to-last Admission during past 6 months	Second- from-last Admission during past 6 months
I6	What were the symptoms of your illness? *Multiple responses are possible.*		Yes No	Yes No	Yes No
		1. Prolonged fever	1 2	1 2	1 2
		2. Stomach ache	1 2	1 2	1 2
		3. Chronic diarrhea	1 2	1 2	1 2
		4. Coughing up blood	1 2	1 2	1 2
		5. White patches on tongue	1 2	1 2	1 2
		6. Skin lesions	1 2	1 2	1 2
		7.Other (Please specify) _____	1 2	1 2	1 2
I7	What were the major reasons for being admitted? (*Multiple responses are possible.*)	1. Infectious parasitic Diseases 2. Malaria 3. Diseases of Respiratory including pneumonia 4. TB 5. Pneumonia 6. NCDs (cancer hypertension, diabetes) 7. Diarrheas 8. Intestinal worms 9. Vaccine preventable diseases	Code(s)**:** _____ _____	Code(s)**:** _____ _____	Code(s))**:** _____ _____

No.	Questions	Answers	Last Admission during past 6 months	Next-to-last Admission during past 6 months	Second- from-last Admission during past 6 months
		10. Neglected tropical diseases 11. Other infectious and parasitic diseases 12. Nutritional deficiencies 13. Non-communicable diseases 14. Cancer 15. Diabetics 16. kidney failure 17. Mental disorders 18. Surgery 19. Delivery 20. Accident Emergency 21. Other (Please specify) _____			
I8	How long have you been in the hospital? Interviewer: Please enter the length of stay. If the patient doesn't know, circle 98.		Days**:** _____ Months**:**_____ Don't know 98	Days**:** _____ Months**:** _____ Don't know 98	Days**:** _____ Months**:** _____ Don't know 98
I9	Did you pay anything out of pocket for the stay in the facility?	**1.** Yes **2.** No…. (Skip to QI12)	Code : _____	Code : _____	Code : _____

No.	Questions	Answers	Last Admission during past 6 months	Next-to-last Admission during past 6 months	Second- from-last Admission during past 6 months
I10	How much did you pay for each of the following? (Multiple responses is possible)	1. Room 2. Surgery 3. Consultation 4. Lab tests 5. X-rays 6. Anti-retroviral drugs 7. Tuberculosis drugs 8. Other medicines 9. Delivery 10. Other (Please specify) _____	**1.** Eth. Birr _____ **2.** Eth. Birr _____ **3.** Eth. Birr _____ **4.** Eth. Birr _____ **5.** Eth. Birr _____ **6.** Eth. Birr _____ **7.** Eth. Birr _____	1. Eth. Birr _____ 2. Eth. Birr _____ 3. Eth. Birr _____ 4. Eth. Birr _____ 5. Eth. Birr _____ 6. Eth. Birr_____ 7. Eth. Birr _____ 8. Eth. Birr_____ 9. Eth. Birr_____	**1.** Eth. Birr _____ **2.** Eth. Birr _____ **3.** Eth. Birr _____ **4.** Eth. Birr _____ **5.** Eth. Birr _____ **6.** Eth. Birr _____ **7.** Eth. Birr _____ **8.** Eth. Birr _____ **9.** Eth. Birr _____ **10.** Eth. Birr _____

No.	Questions	Answers	Last Admission during past 6 months	Next-to-last Admission during past 6 months	Second- from-last Admission during past 6 months
			8. Eth. Birr _____ **9.** Eth. Birr _____ **10.** Eth. Birr _____	10. Eth. Birr _____	
	Total amount		**Eth. Birr: _____**	**Eth. Birr: _____**	**Eth. Birr: _____**

No.	Questions	Answers	GO TO :	Last Admission during past 6 months	Next-to-last Admission during past 6 months	Second-from-last Admission during past 6 months
I11	Based on the information you have provided, the total cost of the facility stay was _____ Birr. Is this correct?	1. Yes 2. No ….. (Go back to QI10 re-fill)		Code : _____	Code : _____	Code : _____
I12	In addition, how much did you pay for the following item? If no payment, circle 88 If no response, circle 98?	**1.** Gift/cash to health staff **2.** Lodging and food for care giver **3.** Others (Please Specify) _____		1.Eth. Birr_____ 88/98 2. Eth. Birr _____ 88/98	1.Eth. Birr_____ 88/98 2. Eth. Birr _____ 88/98	1.Eth. Birr_____ 88/98 2.Eth. Birr _____ 88/98
I13	Did you get any assistance from each of these sources to pay for hospital costs? (More than one response is possible	1. Family/ Friends 2. Employer 3. Church/ mission/mosque 4. International Organization/NGO 5. National (Local) NGO 6. Private Insurance (Incl. Mutuelles, CBHI)		Yes No 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	Yes No 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2	Yes No 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2

I14	If yes to QH14, How much assistance did you receive from each of these sources to pay for hospital costs?	*Interviewer: Enter amount.* 1. Family/ Friends 2. Employer 3. Church/mission/mosque 4. International Organization/NGO 5. National (Local) NGO 6. Private Insurance		1.Eth. Birr____ 2.Eth. Birr____ 3.Eth. Birr____ 4.Eth.	1.Eth. Birr____ 2.Eth. Birr____ 3.Eth. Birr____ 4.Eth.	1.Eth. Birr____ 2.Eth. Birr____ 3.Eth. Birr____ 4.Eth.
	Total amount			**Eth. Birr**	**_____ Eth.**	**_____ Eth. Birr**

No.	Questions	Answers	GO TO :	Last Admission during past 6 months	Next-to-last Admission during past 6 months	Second- from-last Admission during past 6 months
I15	Based on the information you have given, the total assistance received was _____ Eth Birr. Is this correct? *Interviewer: If the total amount is greater than the total in question I14, repeat question I15.*	1. Yes 2. No….. (Go back to QI14 re-fill)		Code : _____	Code : _____	Code : _____
I16	Did you have to borrow any money to pay for your hospital stay?	1. Yes 2. No ……	I20	Code : _____	Code : _____	Code : _____
I17	Whom did you borrow from? (Multiple response possible)	1. Family 2. Friend or neighbors 3. Bank 4. Organization		Code :	Code :	Code :

No.	Questions	Answers	GO TO :	Last Admission during past 6 months	Next-to-last Admission during past 6 months	Second- from-last Admission during past 6 months
I18	How much money did you borrow for the visit itself including medicines? (Excluding other costs such as transportation, lodging and food for care giver,			Eth. Birr	Eth. Birr	Eth. Birr
I19	Did you borrow for additional items related to your visit?	1. Yes 2. No…….	I22	Code : _____	Code : _____	Code : _____
I20	How much money did you borrow for additional items related to your visit? *Interviewer : If no payment, circle 88* *If no response, circle 98*	1. Gift/cash to health staff 2. Lodging and food for caregiver ***3.*** Transportation to and from facility for self and care giver altogether		1. Eth. Birr _____ 2. Eth. Birr _____ 3. Eth. Birr _____	1.Eth. Birr _____ 2.Eth. Birr _____ 3. Eth. Birr _____	1.Eth. Birr _____ 2.Eth. Birr _____ 3.Eth. Birr _____
I21	Did you have to rent or sell any of your assets (land, goats/sheep, crops etc.) to pay for your visit to this	1. Yes 2. No	I24	Code :	Code :	Code :
I22	How much did you receive for what you rented/sold?			Eth. Birr	Eth. Birr	Eth. Birr
I23	Was the medicine you required mainly available at:	1. Available at hospital/Heath Facility ***2.*** Obtained it myself from a private pharmacy		Code : _____	Code : _____	Code : _____

No.	Questions	Answers	GO TO :	Last Admission during past 6 months	Next-to-last Admission during past 6 months	Second- from-last Admission during past 6 months
I24	Did you need to seek any services related to this episode outside the hospital/health facility?	**1.** Yes **2.** No--- (End Questionnai		Code :	Code :	Code :
I25	What services did you receive (Multiple response possible)	*1.* Room 2. Surgery 3. Consultation 4. Lab tests 5. X-rays 6. Anti-retroviral drugs 7. Tuberculosis drugs		Code : _____	Code : _____	Code : _____
I26	If yes QH26, What were the costs of those services?			Eth. Birr _____	Eth. Birr _____	Eth. Birr _____
I27	Are you currently in a hospital/health facility?	1. Yes *2.* No	Code :_____			

The Ministry of Health would like to thank you for your collaboration. If you have any questions concerning this questionnaire, please call the supervisor …**JEMAL ABDI** - 0911021294, of this questionnaire or Federal Ministry of Health P. O Box Telephone: 251 115 53 51 57, Addis Ababa, Ethiopia. Enumerator: We ask you to give your completed questionnaire no later than one day to the supervisor of this questionnaire.