# Ethiopia National Health Insurance Scale-Up Assessment on Medicines Financing, Use, and Benefit Management: Findings, Implications, and Recommendations

August 2016

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# Ethiopian National Health Insurance Scale-Up Assessment on Medicines Financing, Use, and Benefit Management: Findings, Implications, and Recommendations

August 2016

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## About SIAPS

The goal of the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program is to assure the availability of quality pharmaceutical products and effective pharmaceutical services to achieve desired health outcomes. Toward this end, the SIAPS result areas include improving governance, building capacity for pharmaceutical management and services, addressing information needed for decision-making in the pharmaceutical sector, strengthening financing strategies and mechanisms to improve access to medicines, and increasing quality pharmaceutical services.

## Recommended Citation



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## Key Words

medicines benefits, universal health coverage, private sector

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# ACRONYMS

| | |
|---|---|
| AIDS | Acquired immune deficiency syndrome |
| BG | Benishangul Gumuz |
| CBHI | Community-Based Health Insurance |
| DDD | Defined daily dose |
| DP | Development partner |
| EFMHACA | Ethiopian Food, Medicine, Health Care Administration and Control Authority |
| EHIA | Ethiopian Health Insurance Authority |
| EMA | Ethiopian Medical Association |
| EML | Essential Medicines List |
| EPA | Ethiopian Pharmaceutical Association |
| ETB | Ethiopian Birr |
| FMOH | Federal Ministry of Health |
| FFS | Fee-for-service |
| GDP | Gross domestic product |
| GTP | Growth and Transformation Plan |
| HIV | Human immunodeficiency virus |
| HSTP | Health Sector Transformation Plan |
| ICD | International Classification of Disease |
| ID | Identification |
| IU | International unit |
| MDG | Millennium Development Goal |
| MSH | Management Sciences for Health |
| NGO | Non-governmental organization |
| NHA | National Health Accounts |
| OOP | Out-of-pocket |
| ORS | Oral rehydration solution |
| PBM | Pharmacy benefits management |
| PFSA | Pharmaceuticals Fund and Supplies Agency |
| PPP | Purchasing power parity |
| RDF | Revolving drug fund |
| SCMS | Supply Chain Management System |
| SHI | Social Health Insurance |
| SIAPS | Systems for Improved Access to Pharmaceuticals and Services |
| SNNP | Southern Nations, Nationalities, and Peoples |
| STG | Standard Treatment Guidelines |
| TB | Tuberculosis |
| UHC | Universal health coverage |
| UNFPA | United Nations Population Fund |
| UNICEF | United Nations Children’s Fund |
| USAID | United States Agency for International Development |
| WHO | World Health Organization |

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# EXECUTIVE SUMMARY

## Introduction

Universal health coverage (UHC) is a key component of the Federal Ministry of Health (FMOH) Health Sector Transformation Plan (HSTP) 2015/16–2019/20. The Ethiopian Health Insurance Agency (EHIA) has been steadily preparing for the implementation of Social Health Insurance (SHI) for the formally employed sector. Following a three-year evaluation of piloting Community-Based Health Insurance (CBHI) schemes for the informal sector, these will be scaled up to cover 80% of the communities. The introduction of SHI and CBHI is expected to add considerably to demand for reliable access to quality pharmaceuticals.

SIAPS, in collaboration with key stakeholders and with funding from the United States Agency for International Development (USAID), conducted an assessment on current pharmaceutical financing, SHI and CBHI medicines coverage, and public and private sector medicines prescribing and dispensing and their costs. The Supply Chain Management System (SCMS) program conducted an assessment that addressed the supply chain and public-private partnership implications of the expected increased demand for quality medicines and related health supplies.

This report presents the findings from the SIAPS assessment, the implications for preparing a proof of concept for launching and implementing the SHI scheme, and the potential for opportunities to engage the private sector.

## Objectives

The objectives of the assessment were to:

- Assess prescriber and dispenser practices and beneficiary behaviors and make recommendations to address gaps that can negatively impact the supply chain management and health insurance schemes' medicines benefit management in the private and public sector

- Document the current medicines benefit management approaches used by EHIA by mapping out and identifying strengths and weaknesses of the processes used for selection of medicines, setting medicines reimbursement prices, effecting medicines claims, and tracking medicines utilization with the view of making recommendations for incorporating private sector capacity

- Examine Government of Ethiopia and private sector medicines financing mechanisms such as fund mobilization, cost recovery practices, administrative and governance structures, and regulations that affect availability and affordability of medicines

## Methodology

The Technical Working Group—including EHIA, SCMS, the Pharmaceuticals Fund and Supplies Agency (PFSA), Health Finance and Governance, and SIAPS—compiled an online library of documents for review. The documents included health policies, strategies, health financing, supply chain, and planned medicines management for the CBHI and SHI schemes. During the months of May and June, the SIAPS team reviewed these documents; compiled additional reports and evaluations; and conducted visits and interviews with key stakeholders and representatives of CBHI schemes, private hospitals, health care and pharmaceutical service providers, and professional associations. A local SIAPS team collected data on prescribing and dispensing of medicines at health facilities as well as from CBHI reimbursement claims covering a period of three months (January to March 2016).

## Findings

### *Health and Pharmaceutical Financing*

- The health financing system in Ethiopia is characterized by a high reliance on external assistance and out-of-pocket (OOP) payments. Pharmaceuticals account for the bulk of OOP payments (66%).
- Public health spending accounted for only 16% of total health spending in 2010/11.
- The contribution of health insurance mechanisms to health financing is currently small, but it is expected that both health insurance coverage and health insurance contribution to health spending will increase.
- The UHC strategy aims to provide financial protection through SHI and CBHI schemes for formal sector employees as well as informal sector employees and rural residents, respectively.
- Total pharmaceutical expenditure in Ethiopia was approximately 10.4 billion Ethiopian Birr (ETB) in 2011, which accounts for approximately 39% of total health expenditure.
- Government expenditure on pharmaceuticals, including both federal and regional governments, was estimated at ETB 1.2 billion in 2011 and ETB 2.1 billion in 2014.
- The government-allocated budget for health facilities and hospitals has increased over time, but the proportion of non-salary recurrent budget showed a declining trend in all regions from 2007/08 to 2011/12.
- The proportion of the pharmaceutical budget out of the total recurrent budget was, on average, 10% for hospitals and 9% for health centers in 2011/12.
- Private funding of pharmaceuticals was ETB 6.7 billion in 2011 and reached ETB 12.1 billion in 2014, approximately 64% of total pharmaceutical expenditure and mostly OOP.
- Revenue retention and utilization of user fees is an important component of the health financing system in Ethiopia.
- Pharmaceutical funding through health insurance mechanisms is not yet well developed in Ethiopia, but three types of health insurance schemes are expected to contribute to the coverage of pharmaceutical costs in the future.
- There is great potential for health insurance coverage, including from private health insurance.

- Private health insurance is generally provided by employers through agreements, but will require a standardized accreditation system to select health providers.
- CBHI is designed to cover the full cost of members' medical and pharmaceutical bills, although copayments and OOP payments have been reported by some CBHI schemes.
- EHIA is still preparing to launch the SHI program.
- The total expenditure on pharmaceuticals is expected to rise, following the trend with total health expenditure.

### *Access to Health Services and Medicines*

#### *Where do people go for health services and medicines?*

- The public sector is the major provider of health care services and products, including pharmaceuticals and related services.
- PFSA is the major supplier of medicines for both the public and private sectors. Public health facilities can only procure from private sources when PFSA cannot supply them.
- The private sector is not able to address gaps in supply. Dependence on PFSA stocks, difficulties in forecasting demand, and access to foreign currency exchange for ensuring non-PFSA supply channels are said to impair growth of the private sector.

#### *What are the characteristics of medicines being provided in the public and private sectors?*

- Public sector policy mandates procurement (and dispensing) of generic products.
- While there are neither laws nor regulations formally supporting therapeutic substitution, generic prescribing and substitution, which are supported by the national drug policy, are practiced in both the private and public sectors. This is driven by considerations for product availability and affordability.
- Except for issues of medicines availability, there are no limitations on which medicines may be reimbursed in CBHI schemes.
- Provision of pharmaceutical services and products in CBHI woredas (Oromia and Amhara regions) is quite comprehensive and relies mostly on public health facilities.
- Most CBHIs rely on open access to any provider (public sector) in the CBHI catchment area to provide services.
- Some CBHIs contract providers through selected or accredited health facilities and medicines outlets.
- Private insurance companies do not require their service providers to adhere to approved medicines lists, nor do they negotiate prices.

#### *How do prices in the marketplace relate to proposed SHI List prices?*

- There is significant variation in public compared to private sector prices for selected tracer medicines; prices were higher in the private sector.

- Prices in health centers were lower than the recommended SHI List price (amoxicillin). However, the SHI List prices were lower than prices in both public general and specialized hospitals, as well as in private hospitals.

### *Use of Medicines and their Costs*

#### *Approved and Recommended Medicines for Prescribing and Dispensing*

- The Essential Medicines List (EML) and Standard Treatment Guidelines (STG) for health centers and primary hospitals guide prescribing and dispensing in the public sector.
- The SHI List has been prepared for medicines coverage under the SHI scheme, but includes more medicines than the EML.
- Differences in treatment options for the same therapeutic indication vary significantly in costs. For certain chronic conditions such as hypertension and type 2 diabetes, annual treatment costs would exceed the government subsidy for SHI enrollees who are patients.

#### *Appropriateness of Prescribing and Dispensing*

- The limited data on medicines use suggest that prescribing and dispensing are not optimal, with the potential for unnecessary use, ineffective treatment, prolonged morbidity, and economic waste.
- For acute conditions such as diarrhea and upper respiratory infections, many prescribed medicines are not consistent with standard treatment guidelines.
- Although most upper respiratory infections are due to viruses and do not warrant antibiotic treatment, over half of cases (53%) are prescribed antibiotics.
- Although zinc is recommended for children under five years of age with acute diarrhea, it is under-prescribed for diarrhea; only 55% of patients were prescribed oral rehydration salts, which is the treatment of choice.
- The proportion of diarrhea cases treated with antibiotics or medicines to treat amoeba or intestinal parasite infestations requires further study to determine if they are justified.
- Most of the prescribed medicines were consistent across the EML and SHI List, and were included as approved therapies in the STG. However, on an individual case basis, not all of the prescribed medicines corresponded to the recorded diagnoses. The prescribed medicines could be related to co-morbidities, but the available data did not allow for further analysis.

## Way Forward

The demand for pharmaceuticals has increased dramatically over the past few years and the contribution of pharmaceuticals to the total health expenditure is huge, even in the absence of insurance schemes. Although additional analyses are needed to estimate more precisely the pharmaceutical funding requirements under national health insurance, results from the health sector costing show that the expected health needs cannot be covered in the coming years. It is therefore essential to pursue innovative financing mechanisms, ensure economic use of resources, and operationalize funding and sustainability mechanisms for preparation and implementation of national health insurance.

SHI must pay close attention to controlling costs and ensuring the efficient and equitable use of available funding, a large proportion of which is private (OOP). From a strategic perspective, EHIA should ensure that SHI implementation effectively manages the provision of quality medicines and related services, as well as actively engages the private sector.

### *Managing Medicines for SHI Coverage*

#### *Developing a System or Mechanism that is Accountable for Regularly Updating the SHI List*

- Review and potentially revise the SHI List and align with EML
- Establish a joint process that leads to/supports periodic updating of the EML and SHI List

#### *Accrediting Health Care and Pharmacy Service Providers*

- Develop an accreditation or credentialing system that covers standards and criteria, accreditation, or credentialing process and tools
- Implement accreditation or credentialing of both public and private facilities in phases

#### *Managing Membership and Eligibility of Primary Members and Dependents*

- Set up membership paper-based or electronic membership identification, database, process, and tools for periodic review of membership status

#### *Managing and Processing Claims and Payments*

- Ensure timely processing of claims and payments with sufficient staffing at the outset
- Delayed claims processing and payment for services and products will adversely impact financial management and resupply of medicines in the public and private sectors
- Prepare for automation/electronic claim processing to anticipate increased workload as the program expands

#### *Setting up a Mechanism for Periodic Updating of SHI List Prices*

- Set up a collaborative mechanism involving key relevant public and private sector stakeholders to periodically review and re-negotiate prices for reimbursement, as appropriate

#### *Controlling Costs and Ensuring Sustainability*

- Assess costs of services and medicines
- Assess feasibility of implementing cost-containment measures, such as copayments, tiered payment for medicines, therapeutic use, brand versus generic, alignment with the EML or STG, use of maximum limits on payment coverage, etc.
- Establish a mechanism to periodically review CBHI premiums, in particular
- Advocate for innovative financing mechanisms for resource mobilization, particularly in support for the poorest of the poor

### *Monitoring Utilization*

- Defining essentials for monitoring utilization (what medicines, methods, use of results)
- Ensuring that the management information system supports basic utilization monitoring

### *Promoting Appropriate Use of Medicines*

- Use of and adherence to STG
- SHI enrollee/beneficiary information and education to influence consumers' behaviors toward medicine utilization

## Engaging the Private Sector (Opportunities for Public-Private Partnerships)

The pending launch of SHI will create the largest single-payer pool of health insured lives in Ethiopia. Of note, a large portion of potential SHI clients (employees of private sector firms such as banks, telecommunication firms, insurance companies, local non-governmental organizations, and civil servants and their dependents) have employer-based schemes as well as private health insurance. These groups also tend to access health care services and products, including pharmaceuticals, from a mix of public and private health facilities and pharmacies.

In order to build, enable, and sustain EHIA—the new single-payer's capacity—so as to deliver the SHI health and medicines benefit package in an acceptable, accessible, effective, and efficient manner for the long term and in a short span of time, considerations should be given to engaging relevant partners, including the private sector.

The Government of Ethiopia has established the foundation for engaging the private sector in its Strategic Framework for Public-Private Partnership in Health (June 2013) and the Public-Private Partnerships Implementation Guide (June 2015). The HSTP 2015/16–2019/20 clearly acknowledges that the collaborative endeavor should involve the non-governmental organization (NGO) sector and private for-profit health delivery system, through public-private partnerships.

Opportunities to engage the private sector, whether in the short–medium term or in the longer term, to address potential challenges and risks to SHI, are listed below.

### ***Short–Medium Term***

- Setting up price negotiation committee to include stakeholders, including private sector representatives
- Contracting private hospitals, pharmacies, and drug shops

### ***Longer Term***

- Co-mingling and integrating vertical program funding with pooled funds under health insurance
- Pursuing innovative funding mechanisms, such as mobile phone air time taxes

- Contracting private card development company for membership card management
- Private health insurance and employer-based schemes providing cover for "top up," or services beyond the recommended SHI package
- Development of electronic claims management system
- Contracting private hospitals, pharmacies, and drug shops
- Contracting company for third-party electronic claims management
- Integrated capacity building exercises that include public and private sector providers

The viability of contracting a third-party medicines benefit management organization may also be seriously explored as the pharmacy benefits management industry grows on the African continent.

# INTRODUCTION

The UHC strategy adopted by the Government of Ethiopia intends to provide financial protection through a two-pronged health insurance platform of SHI and CBHI schemes. The SHI scheme will provide financial coverage for formal sector employees, pensioners, and their families while CBHI will target informal sector employees and rural residents.

The CBHI implementation began in 2010/11 as pilot schemes in 13 woredas of Amhara; Oromia; Southern Nations, Nationalities, and Peoples (SNNP); and Tigray regional states. The Oromia region has four pilot woredas and the other three regions each have three pilot woredas. The overall enrollment rate in 2013 reached 52.4% (i.e., a total of 157,553 households and 687,309 beneficiaries have benefited from the pilot schemes)[1] (EHIA CBHI Scale-Up Strategy Document 2015). After three years of piloting, the government has decided to expand CBHI schemes to 80% of woredas and enroll at least 80% of households by 2020 (HSTP 2015/16–2019/20).

SHI is yet to be launched, but it intends to enroll formal sector employees. These include government employees, pensioners, private sector employees, and their dependents. As provided in the legal framework, dependents covered by the SHI system are children and spouses of contributing employees and pensioners. The total eligible population for SHI represents 19% of the population (while the eligible population for CBHI is 81% of the population).[2]

Due to weak public sector service delivery systems, in most low- and middle-income countries the private sector has become an important source of health services and medicines, requiring people to pay OOP to get the services they need. In 2013, the government launched a Public-Private Partnership in Health Strategic Framework for Ethiopia. The document serves as a guide to achieve the broader national health objectives and to highlight the important role and contribution of the private sector in health development. The document defines an institutional framework within which to coordinate, implement, monitor, evaluate, and enrich the public-private partnership. Additionally, it provides policymakers and other stakeholders in health with guidelines for identifying and addressing public-private partnerships in health matters when making policy decisions.

Following a consultative stakeholder workshop held in August 2015, discussions were held regarding the need to provide an overall strategic understanding of the dynamic relationship between the Government of Ethiopia's health insurance initiatives and the demand, supply, and use of pharmaceuticals. The consultative workshop recommended a review of the laws, policies, guidelines, and institutional frameworks that govern medicine use in Ethiopia with the aim of identifying any gaps, as well as developing a model to improve public sector readiness and facilitate private sector participation in the scale up of health insurance in Ethiopia.

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[1] Ethiopia Health Sector Financing Reform/Health Finance and Governance Project, Year One – Annual Performance Report, August 1, 2013–June 30, 2014. Bethesda, MD: Health Finance & Governance Project, Abt Associates, Inc.

[2] The first financial sustainability study for SHI in Ethiopia in 2008 estimated an eligible population for CBHI of 89%.

## Background and Purpose of Work

UHC is a key component of one of four transformation agendas of the FMOH HSTP 2015/16 – 2019/20. The initiation by EHIA to launch SHI, which will be compulsory for all enterprises in the formal/salaried sector with more than 10 employees, and scale up CBHI to 200 districts, to eventually cover 80% of all the communities of the country for the informal/rural sector, is expected to add considerably to demand for reliable access to quality pharmaceuticals.

FMOH's ability to ensure access to insurance scheme-financed medicines through potential public-private partnering in the pharmaceutical supply chain, while at the same time maintaining control of costs and ensuring rational prescribing and use, presents significant challenges for which a proven model does not exist in the country. If not managed well, global experience suggests the potential for medicines benefit delivery to pose significant risks to health insurance programs, such as:

- Unpredictable and increasing drug expenditures
- Over-prescribing
- Abusive or fraudulent claims
- Member dissatisfaction
- Supply and demand not in line with each other as a result of poor planning and control of supply

To systematically address the challenges of including the private sector in the rollout of the SHI program in Ethiopia, it was important to undertake an assessment of the proposed plan, funding sources, and management systems to identify potential gaps and options and actions. Toward this end, SIAPS, with funding from USAID and in collaboration with key stakeholders, conducted an assessment of current pharmaceutical financing, SHI medicines coverage, and public and private sector medicines prescribing and dispensing and cost implications. The findings and recommendations of this assessment will be used to guide SHI rollout strategies; improve the design of the medicines benefit program; and strengthen medicines claims management, pricing, and reimbursement processes.

The objectives of the assessment were to:

a. Assess prescriber and dispenser practices and beneficiary behaviors and make recommendations to address gaps that can negatively impact supply chain management and health insurance schemes' medicines benefit management in the private and public sector

b. Document the current medicines benefit management approaches used by EHIA by mapping out and identifying strengths and weaknesses of the processes used for selection of medicines, setting medicines reimbursement prices, effecting medicines claims, and tracking medicines utilization with the goal of making recommendations for incorporating private sector capacity

c. Examine Government of Ethiopia and private sector medicines financing mechanisms such as fund mobilization, cost recovery practices, and administrative and governance structures and regulations that affect availability and affordability of medicines

Findings are expected to contribute to defining a proof-of-concept framework for understanding the dynamics of establishing purchasing power parity (PPP) within public health insurance schemes. Once there is agreement on the potential public-private partnerships to pursue, the proof-of-concept framework can be prepared with the following components:

- Suggest overall direction
- Define strategy and objectives
- Identify and isolate technical issues
- Identify stakeholder roles and deliverables
- Develop budget estimates
- Define timelines
- Define forms of internal decision-making criteria and processes, while exploring innovation
- Determine critical success factors for realization of PPP in public insurance schemes

SCMS conducted an assessment that addressed the supply chain and public-private partnership implications of the expected increased demand for quality medicines and related health supplies. SCMS findings and recommendations are discussed in a separate report.

## Assessment, Scope, and Methodology

Representing the Technical Working Group, a team composed of EHIA, PFSA, SCMS, and SIAPS provided an online library of documents related to health financing, supply chain, and medicines management on CBHI and the planned SHI scheme. The Technical Working Group provided a review presentation on the Government of Ethiopia's expectations on social insurance, supply chain, and medicines benefit management and shared the proof of concept scope of work, which formed the basis of this assessment.

The assessment was undertaken in May and June 2016. The following activities were conducted.

### *Desk Review of Key Documents*

The team examined the following types of key documents: HSTP; health care financing strategy; health insurance strategy; National Health Accounts reports; EHIA strategic plans and previous pharmaceutical sector assessments; technical documents related to health financing and health coverage; pharmaceuticals benefits management; accreditation of facilities; current claims processing and reimbursement; country policies, regulations, proclamations, and guidelines on pharmaceuticals; and published literature on the national and social health insurance schemes. This was followed by an in-country assessment, which included data collection from a number of health facilities and CBHI schemes, as well as interviews with core members of EHIA, PFSA, and FMOH, as well as key stakeholders.

### *Sampling*

Ethiopia has two city administrations and nine regions. The city administrations and regions are arranged into three strata. The first stratum is the two city administrations: Addis Ababa and Dire Dawa. The nine regions are classified into two strata based on relative developments/socio-economic status. The second stratum consists of relatively developed regions: the Tigray, Amhara, Oromia, SNNP, and Harari regions. The third stratum consists of the developing regions: the Afar, Gambella, Benishangul Gumuz (BG), and Ethiopian Somali regions.

The Addis Ababa city administration and the Amhara, Oromia, BG, and Afar regions were selected for the survey. From the first stratum, Addis Ababa was purposively selected since it is the capital city where all key stakeholders are headquartered. From the second stratum, two regions were selected based on the performance of last year's CBHI and the supply chain coverage by most of PFSA hubs; the Amhara region was selected for CBHI performance and the Oromia region was selected for supply chain coverages (supplied by seven PFSA hubs). From the third stratum, the Afar and BG regions were selected by using purposive sampling techniques.

From the selected regions, further sampling was used to select zones and sub-cities. Twenty percent of the total number of zones, city administrations, and sub-cities were selected by stratified sampling techniques. The regions were stratified in two; the first stratum consisted of zones found within a 160 kilometer radius of the region's base and the second stratum consisted of zones found outside the 160 kilometer radius. Regarding Addis Ababa, two sub-cities were selected by random sampling techniques.

Based on the above criteria, the East Shoa, Southwest Shoa, West Harerge, and West Wellega zones and the Adama and Jimma city administrations were selected based on the inclusion of strong CBHI performing woredas and weak CBHI performaning woredas. From the Amhara region, the West Gojjam and South Wollo zones were selected purposively due to the presence of well performing woredas in their catchment (South Achefer and Tehuledere) and Dessie city administration was selected purposively due to the practice of CBHI linkage with private health facilities. For BG, the Assosa zone was selected; for Afar, Zone 1 was selected; and for Addis Ababa, Addis Ketema and Kirkos sub-cities were selected randomly. A list of the sites and health facilities selected for the assessment is included in annex 1.

### *Data Collection and Interviews*

The assessment team used two tools for gathering data at health care facilities:

- *Adaptation of Management Sciences for Health's (MSH's) Medicines Benefit Management Assessment Tool for Low- and Middle-Income Countries:* This tool helped collect data on the scope of medicines benefits; the design of the medicines benefit program; the financing, political, legal, and regulatory landscape; and the pharmaceutical supply chain.

- *Health Facility Prescribing and Dispensing Assessment Tool:* This tool was used to obtain a retrospective sample of actual prescriptions in CBHI and non-CBHI settings for four

disease conditions (diarrhea, upper respiratory tract infections, type 2 diabetes mellitus, and essential hypertension).

The data were collected from claims submitted over a period of three months (January to March 2015).

The team analyzed the CBHI paper claims data with Microsoft Excel spreadsheets.

The team assessed whether the prescribed medicines were consistent with recommendations for these four conditions, as published in the National Standard Treatment Guidelines.

The team conducted meetings and interviews with the following key stakeholders:

- Donors and partners: USAID, Abt Associates, World Health Organization (WHO), World Bank
- FMOH departments that are involved in medicines management and health programs, including the resource mobilization directorate, policy and planning directorate, and pharmacy directorate
- EHIA management
- Other stakeholders who influence medicines policy development and implementation, such as the Ethiopian Food, Medicine, and Health Care Administration and Control Authority (EFMHACA) and Ethiopian Pharmaceutical Association
- Representatives of pharmaceutical importers, wholesalers, and retailers; Kenema pharmacy chain; and the Red Cross Societyto assess and understand their expectations of SHI

The team visited health facilities (public and private), including teaching hospitals, regional and district hospitals, and health centers, to obtain information on prescribing and dispensing practices, patient cost pricing and its impact on patient cost sharing of selected chronic diseases and maternal and child health products, and the general claim submissions processes that facilities use. The team also visited CBHI schemes to obtain information on medicines claims data and payments to facilities.

The team was not able to meet with the Ethiopian Ministry of Finance and Economic Development nor PFSA for this part of the assessment, but they submitted a request for additional information and a list of data indicators.

## Limitations of the Assessment

Available health expenditure statistics do not include details on medicines spending. Therefore, data on pharmaceutical expenditures were based on existing secondary sources.

The quantitative findings from the retrospective health facility claims and prescriptions survey on prescribing, dispensing, and medicines prices did not allow for rigorous quantitative projections or modeling due to the purposive (non-random) sampling approach and number of health facilities.

Although not necessarily establishing a baseline, the health facility survey findings do provide a snapshot of the current situation and can signal potential issues that need to be addressed in designing a proof of concept (pilot) for the formal sector employee-based health insurance program.

# HEALTH SECTOR FINANCING AND PHARMACEUTICAL FUNDING IN ETHIOPIA

## Levels, Sources, and Allocations of Health Spending

### *Levels of Resources Flowing to the Health Sector*

**Ethiopia spent 5.2% of its national revenue on health in 2010/11.**[3] Total health expenditure per capita in PPP was ETB 71 (approximately USD 21), which is more than observed spending in countries with comparable levels of gross domestic product (GDP) per capita, such as Guinea and Togo, but much less than other countries, such as Sierra Leone and Rwanda. Unlike other countries in table 1, in Ethiopia, health expenditure is mainly financed publicly, which is largely driven by the high contribution of donors to health financing (Cf. section 1.2).

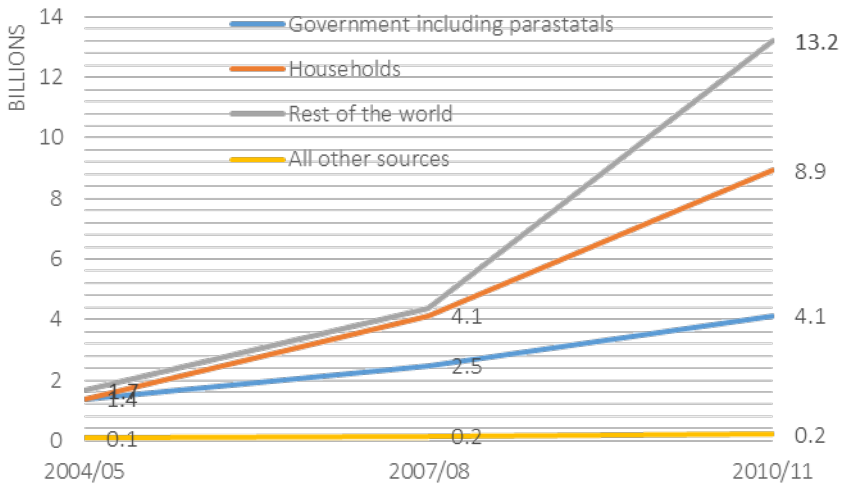
**Table 1. Health financing indicators in selected African countries, 2011**

| | Guinea | Togo | Ethiopia | Madagascar | Sierra Leone | Rwanda |
|---|---|---|---|---|---|---|
| **GDP/Cap, PPP** | 1,184 | 1,255 | 1,355 | 1,372 | 1,390 | 1,397 |
| **Total health expenditure/Cap, PPP** | 56 | 65 | 71 | 58 | 167 | 108 |
| **Total health expenditure % GDP** | 4.7 | 5.2 | 5.2 | 4.2 | 12 | 7.7 |
| **Total health expenditure** | | | | | | |
| - **% Public** | 41.8 | 31.8 | 61.8 | 57.5 | 22.1 | 36.5 |
| - **% Private** | 58.2 | 68.2 | 38.2 | 42.5 | 77.9 | 63.5 |

Source: WHO National Health Accounts (NHA) 2016 (www.nha.who.org), NHA V 2010/11

**In Ethiopia, the level of health expenditure has substantially increased over time.** Total health expenditure reached ETB 26.5 billion (US 1.6 billion) in 2010/11, up from ETB 11.1 billion (US 1.2 billion) in 2007/08. Nominal health spending grew by 138% over the same period. The major driver of this increment is global financing sources, via funding from donors and international NGOs, which increased by 202% between 2007/08 and 2010/11. Household spending increased by 116% over the same period (figure 1).

[3] The year of reference used in the document for health financing indicators is 2010/11, which corresponds to the latest NHA exercise in Ethiopia.

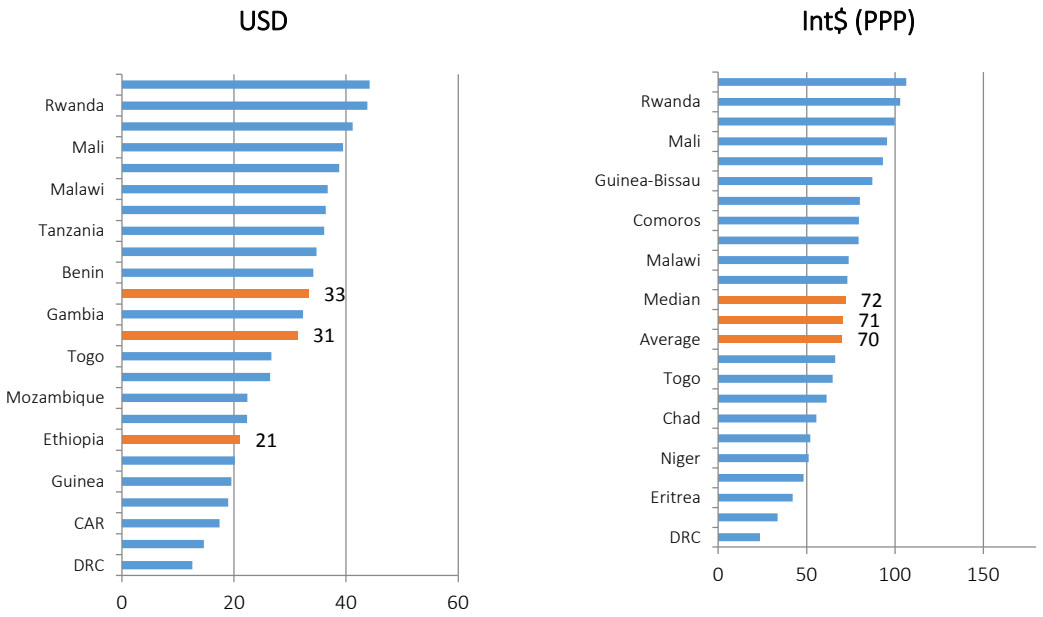



Source: NHA V 2010/11

**Figure 1. Trend in health spending by major financing sources, 2004/05–2010/11**

**Per capita health expenditure has also significantly increased, but remains low compared to other low-income countries in Sub-Saharan Africa.** Health spending per capita increased in real terms from US 6 in 2004/05 to US 11 in 2007/08 to US 21 in 2010/11 (NHA V 2010/11).[4] However, Ethiopia ranks the seventh lowest per capita health spending in Sub-Saharan Africa (out of 47 countries) and among low-income countries in Sub-Saharan Africa (out of 22 countries). When considering health expenditure per capita in PPP, Ethiopia still ranks the 12th lowest in Sub-Saharan Africa, but relatively higher compared to other low-income countries (figure 2).

[4] According to WHO NHA, health spending per capita was USD 27 in 2014 (www.nha.who.org).




Source: WHO Global Health Expenditure Database 2016 (www.nha.who.org), NHA V (2010/11)
*Note: average and median for low-income countries only*

**Figure 2. Health expenditure per capita in USD in Sub-Saharan Africa, low-income countries, 2010**

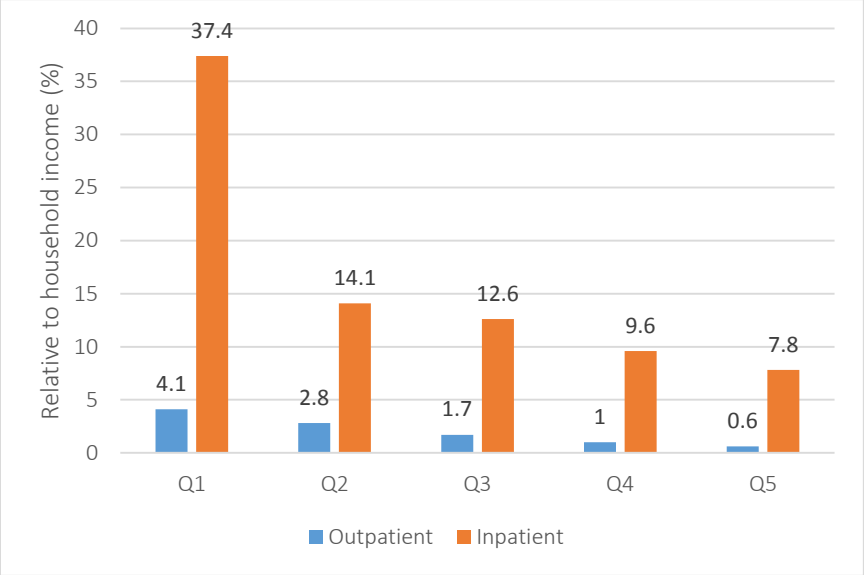
### *Health Financing Sources*

**The health financing system in Ethiopia is characterized by a high reliance on external assistance and OOP payments**. External assistance for health (donors and international NGOs) contributed to half of total health spending in 2010/11; its share has increased in recent years,[5] with substantial commitments from initiatives like the Global Alliance for Vaccine and Immunization Health System Strengthening and the Millennium Development Goal (MDG) Performance Pool Fund.[6] The Global Fund contributes to half of the development partners' (DPs) budget, while the MDG pooled fund constitutes more than a third of DPs' contribution managed by the government (Health Sector Transformation Plan, FMOH, August 2015). Such dependency vis-à-vis external assistance could create predictability and sustainability issues for health sector funding in the future.

**OOP payments represent the second largest source of health spending in Ethiopia**, accounting for 34% of total health expenditure in 2010/11, with a similar share in 2007/08 (approximately 30% of total health spending). OOP payments from households flow to health

[5] From 40% in 2007/08 to 50% in 2010/11 (NHA V)
[6] The MDG Performance Pool Fund is a funding mechanism managed by FMOH using government procedures. It was established in 2007 with the Global Alliance for Vaccine and Immunization Health System Strengthening contribution. As of 2014, 11 partners channel resources to the MDG pooled fund: Australian Aid, UK Department for International Development, Spanish Development Cooperation, Italian Cooperation, Irish Aid, the United Nations Population Fund (UNFPA), the United Nations Children's Fund (UNICEF), WHO, The Netherlands Government, the World Bank, and the European Commission (World Bank 2016).

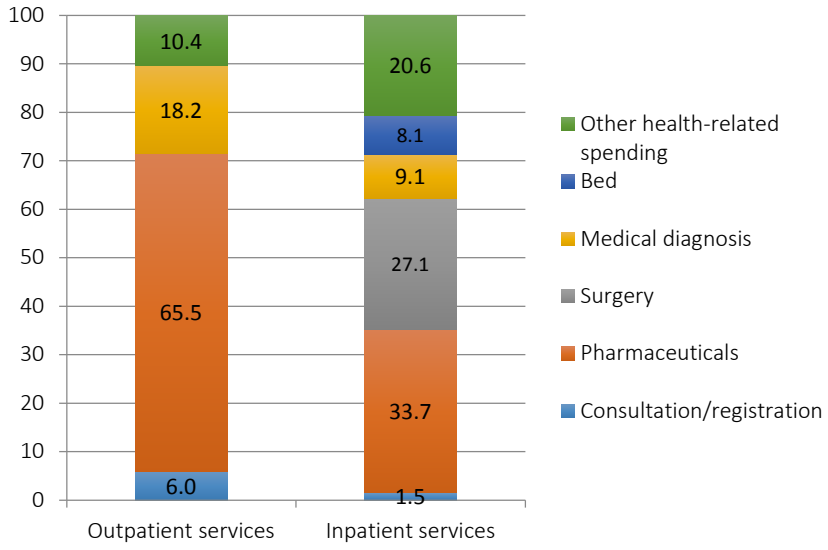
facilities in the form of user fees and are highly regressive, with a higher burden on poorer households (figure 3).




Source: Ethiopia Household Health Service Utilization and Expenditure Survey (2012) and Public Expenditure Review (World Bank, 2016)

**Figure 3. Average outpatient and inpatient costs, by wealth quintiles**

**Most OOP payments were for outpatient services (92%), with pharmaceuticals accounting for the bulk of OOP payments (66%)** (figure 4). Approximately 52% of the total household OOP health spending was paid to government health service providers. Private health service providers accounted for 43% of the total OOP health spending. The remainder (5%) of the total OOP health spending went to not-for-profit health facilities, traditional healers, and religious institutions (NHA V 2010/11).

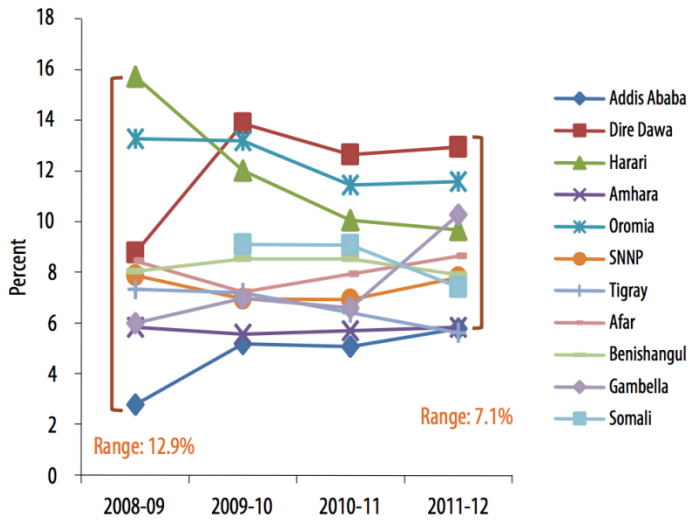



Source: NHA V 2010/11

**Figure 4. Household health spending by components of spending**

**Public health spending accounted for only 16% of total health spending in 2010/11**. This share has decreased compared to 22% in 2007/08, despite a significant increase in absolute[7] (and per capita) terms (NHA V 2010/11). Ethiopia is a federal state and public funding flows to facilities through fiscal transfers from the federal government to regions. At the federal level, the Ministry of Finance and Economic Development transfers funds to federal-level agencies (e.g., Ministry of Health) in line items and to Regional Bureaus of Finance and Economic Development in block grants. A similar process is undertaken at the regional and woreda levels. At the national level, government health spending accounted for 6% of total government spending. The large variations in the proportion of government health spending out of the total government spending suggest inequality across regions, with some regions devoting relatively less to health (e.g., Addis Ababa, Tigray, Somali) and other regions devoting relatively more to health (e.g., Dire Awa, Oromia, Gambella) (figure 5).

[7] A 67% increase in government health expenditure from NHA IV (2007/08) to NHA V (2010/11)




Source: World Bank calculations, Public Expenditure Review (World Bank, 2016)

**Figure 5. Share of public health spending from total government spending**

**Finally, the contribution of health insurance mechanisms to health financing is negligible in Ethiopia**; health insurance expenditure represented less than 1% of total health expenditure in 2010/11, mainly through private health insurance schemes. Moreover, health insurance coverage is still limited, and was only 1.2% at the national level in 2010/11 (NHA V 2010/11); beneficiaries of health insurance schemes consist of a few private organizations and public enterprises. Coverage slightly increased since then in the 13 woredas where CBHI pilot schemes were launched.[8] Generally, financial protection against health shocks is low, with potentially catastrophic consequences for some households; a recent study showed a greater impoverishment effect of OOP payments as well as poverty impact for CBHI non-members than for CBHI members[9] (EHIA May 2015).

**Nevertheless, it is expected that both health insurance coverage and health insurance contribution to health financing will increase in the coming years**. The UHC strategy by 2035 adopted by the government intends to provide financial protection through a two-pronged health insurance strategy of SHI and CBHI schemes. The SHI scheme will provide financial coverage for formal sector employees and their families while CBHI targets informal sector employees and rural residents.

### *The UHC Strategy*

In 2008, the Government of Ethiopia developed a health insurance strategy that has since served

[8] Available statistics in 2013 indicated that the overall enrollment rate reached 52.4% (i.e., a total of 157,553 households and 687,309 beneficiaries have benefited from the pilot schemes). Approximately 25,185 indigent households (109,876 beneficiaries) enrolled, representing 16% of the total enrollees (Abt Associates 2014, Annual Performance Report, August 1, 2013–June 30, 2014).

[9] Nineteen percent of CBHI non-members were impoverished because of OOP payments as opposed to 7% of CBHI members, using a 15% non-food consumption expenditure threshold.

as a road map indicating the overall health insurance system to be followed in the country (FMOH, May 2008). Since then, the legal framework for the formal sector SHI scheme has been put in place. CBHI is being expanded in the informal sector, which comprises over 85% of Ethiopians. To coordinate and regulate health insurance in the country and lead implementation of SHI and CBHI, the Ethiopian Government established EHIA in 2010. The Agency opened its headquarters in Addis Ababa, opened 20 branch offices throughout the country, and hired a staff of more than 500. EHIA prepared and implemented a two-year draft strategy, which concluded in 2014/15. Currently, EHIA is finalizing the preparatory activities to launch SHI and has developed a strategic plan to guide the implementation of health insurance in the country for the next five years (2016–2020), which is also aligned with the five-year National HSTP (EHIA, September 2015).

While the plan is for the formal and informal sectors to be covered under separate health insurance schemes, ultimately, when the socioeconomic conditions are more favorable and public awareness is adequately enhanced, these separate schemes are expected to develop into a nationwide health insurance scheme to ensure UHC (FMOH, May 2008).

### *SHI Scheme*

Employees, pensioners, and their families will benefit from the SHI scheme. The health service package to be provided to beneficiaries will include essential health services and other critical curative services from health facilities that have concluded contract with EHIA. Each member of SHI will contribute 3% of their monthly salary if the person is an employee of the formal sector or 1% of their pension if the beneficiary is a pensioner. For employees, the employer will contribute a matching 3% of the salary, and for pensioners, the government will contribute a matching 1% of the pension.

### *CBHI Scheme*

Since 2011, EHIA has been implementing CBHI pilots in 13 districts in collaboration with the regional governments of Amhara, Oromia, SNNP, and Tigray. The Agency has developed a Scaling-Up Strategy of CBHI (EHIA, 2015) and is now working with the four regional governments to expand CBHI to an additional 185 districts. It is assumed that by end of 2020, 80% of informal sector households in 80% of woredas will be enrolled in the CBHI scheme, of which 10% will be considered the very poor whom the government will subsidize. The CBHI benefit package includes outpatient and inpatient services, laboratory services, imaging services, and supply of drugs and related services (with the exception of eyeglasses, dental implants, dialysis, and cosmetic procedures). Registration fees and premiums are set by region. From the pilot experiences, premiums range from ETB 126 to 180 per household per year.

## *Allocation of Resources Flowing to the Health Sector*

The Government of Ethiopia has developed the HSTP, which is part of the second Growth and Transformation Plan (GTP II). HSTP is the next five-year national health sector strategic plan, which covers July 2015–June 2020, and is also the first phase of a 20-year health sector strategy called “Envisioning Ethiopia’s Path to Universal Health Care Through Strengthening of Primary Health Care” (FMOH, August 2015).

**Table 2. Strategic objectives of the HSTP, 2015–2020**

| Perspective | Strategic Objective |
|---|---|
| **Community** | C1: Improve Health Status C2: Enhance Community Ownership |
| **Financial Stewardship** | F1: Improve Efficiency and Effectiveness |
| **Internal Process** | P1: Improve Equitable Access to Quality Health Services<br>P2: Improve Health Emergency Risk Management<br>P3: Enhance Good Governance<br>P4: Improve Regulatory System<br>P5: Improve Supply Chain and Logistic Management<br>P6: Improve Community Participation and Engagement<br>P7: Improve Resource Mobilization<br>P8: Improve Research and Evidence for Decision-Making |
| **Learning and Growth** | CB1: Enhance Use of Technology and Innovation<br>CB2: Improve Development and Management of Human Resources for Health<br>CB3: Improve Health Infrastructure<br>CB4: Enhance Policy and Procedures |

Source: FMOH, August 2015

### *Efficiency of Health Spending*

**Allocative efficiency is considered to have been achieved through important government allocations to primary care organizations and spending at the primary level on cost-effective interventions** (World Bank, March 2016). Public hospitals, primary health care units, and public health programs receive more than 60% of total government spending. Half of government health spending is used at the primary level and goes toward HIV and AIDS, malaria, tuberculosis (TB), and reproductive health.

**Technical efficiency appears low at the facility level, according to the World Bank Public Expenditure Review**, with one health worker seeing between two to nine patients a day, managing approximately one inpatient case a day, and a low bed occupancy rate (51% in 2009). Nonetheless, the authors acknowledge that the data used to estimate technical efficiency and quality is limited and further data collection and analysis is needed. The government is implementing initiatives such as the Auditable Pharmaceutical Transactions and Services to improve access to medicines through allocating medicines budgets based on the level of public health importance (i.e., categorizing medicines as vital, essential, and nonessential) and minimizing wastage rate from the national average (8.2%) to less than 2%.

### *Fee Waiver and Exempted Services*

**The Government of Ethiopia introduced fee waiver and exemption systems for services at health centers and hospitals aimed at protecting the poorest of the poor against the financial burden of user fees**. Improvements have been made over the last few years in government allocation for fee waivers to facilitate access; the total subsidy for the poor has reached more than ETB 20 million and the number of fee waiver beneficiaries has reached 2 million (FMOH, August 2015). Exempted services include family planning, deliveries, pre- and postnatal care, TB, leprosy, childhood vaccination, voluntary counseling and testing for HIV, antiretroviral treatment, and prevention of mother-to-child transmission of HIV. Most of the exempted services are financed through external funding.

## Pharmaceutical Funding

Pharmaceutical financing in Ethiopia is not specifically included in national health and national medicines policies. As a result, data on pharmaceutical funding is not collected and analyzed systematically or routinely. Due to the characteristics of a federal system and the multiplicity of funding mechanisms, the data appears scattered. However, some reports and previous assessments of the pharmaceutical sector allow for estimates of magnitude for pharmaceutical expenditure.[10]

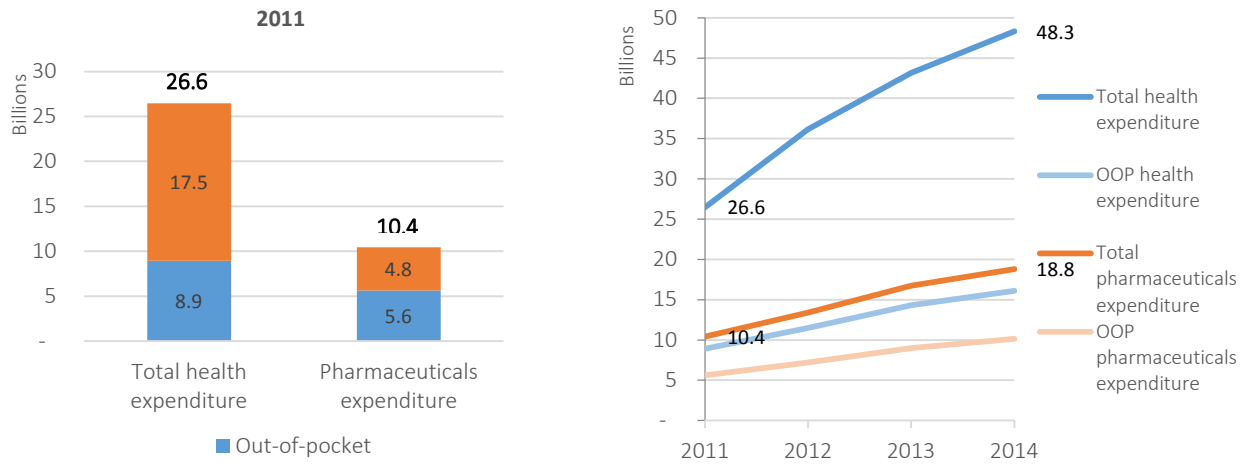
### *Pharmaceutical Spending Trends*

**The total pharmaceutical expenditure in Ethiopia amounted to approximately ETB 10.4 billion in 2011, approximately 39% of total health expenditure (table 3)**. The main source for deriving this number was the NHA V 2010/11 exercise, which provided data on health expenditure in 2011 with a breakdown by financing source. NHA V estimated the total health expenditure in Ethiopia to be worth ETB 26.6 billion and OOP from households to be worth ETB 8.9 billion (approximately 34% of total health expenditure). Households are among the biggest contributors to pharmaceutical expenditure in the country; an average of 63% of OOP health expenditures were for pharmaceuticals in 2011,[11] which represents ETB 5.6 billion at the national level (approximately 54% of total pharmaceutical expenditure).[12] Assuming these ratios are constant, total pharmaceutical expenditure is estimated to have reached ETB 18.8 billion in 2014 (figure 6).

[10] Data from PFSA and FMOH would allow for more accurate estimates.

[11] For outpatient services (65.5%) and inpatient services (33.7%). The remaining OOP payments were spent on consultation/registration (5.6%), surgery (2.3%), medical diagnosis (17.4%), bed (0.7%), and other health-related spending (11.2%) (NHA V 2010/11).

[12] The breakdown of pharmaceutical expenditure at the country level and the contribution of households are unknown. The average of the share of households' pharmaceutical expenditures from total pharmaceutical expenditure over the period 2004–2006 (from the 2007 report on drug financing in Ethiopia) was used to estimate pharmaceutical expenditure in 2011 and 2014 (FMOH, WHO, 2007). The estimates should be revised once updated numbers are available. They may differ depending mainly on the recent evolution of public and donor funding of pharmaceuticals, since the importance of health insurance in terms of funding remains comparable between 2006 and 2011 (and even in 2014).




Source: NHA V 2010/11, WHO Global Health Expenditure Database 2016 (http://apps.who.int/nha/database), FMOH, WHO, 2007

**Figure 6. Health and pharmaceutical expenditure in Ethiopia**

**Most of the pharmaceuticals in the country are procured through PFSA**. In 2009/2010, PFSA procured pharmaceuticals worth USD 388 million (ETB 8.5 billion). The value of pharmaceuticals procured in 2015 is estimated to be worth USD 400–500 million (ETB 8.8–10.9 billion) (PFSA, 2015).

Table 3 provides estimates of the contribution of the public (federal and regional governments), donors, NGOs, parastatals, private employers, and households to pharmaceutical funding from 2011 to 2014. The relative contributions observed over the 2004–2006 period were used for the estimates: public (11.1%), donors (25.4%), NGOs (10.5%), parastatals (0.4%), private employers (0.6%), and households (52.4%). The estimates may vary depending on the recent evolutions of the relative contributions of public, donor, and household funding.

**Table 3. Medicines financing from all sources, ETB**

| Financing source | Average 2004–2006 | | 2010/11 | 2011/12 | 2012/13 | 2013/14 |
|---|---|---|---|---|---|---|
| | Amount | % | | | | |
| **Federal government** | 101,514,945 | 5.1 | | | | |
| **Regional governments** | 110,483,173 | 5.6 | | | | |
| ***Subtotal*** | ***211,998,118*** | ***10.7*** | ***1,151,985,748*** | ***1,482,163,905*** | ***1,848,387,490*** | ***2,079,871,131*** |
| **Donors** | 504,788,859 | 25.4 | 2,538,515,167 | 3,266,095,573 | 4,073,105,665 | 4,583,202,890 |
| **NGOs** | 209,735,645 | 10.5 | 1,053,729,106 | 1,355,745,285 | 1,690,732,459 | 1,902,472,101 |
| **Parastatals** | 8,411,052 | 0.4 | 10,419,174 | 13,405,481.8 | 16,717,803.5 | 18,811,465.1 |
| **Private employers** | 3,737,132 | 0.6 | 20,110,211 | 25,874,130 | 32,267,293 | 36,308,302 |
| **Households** | 1,042,441,161 | 52.4 | 5,609,572,566 | 7,217,368,785 | 9,000,687,525 | 10,127,892,688 |
| **Total pharmaceutical expenditure** | **1,981,111,967** | **100** | **10,419,174,253** | **13,405,481,815** | **16,717,803,473** | **18,811,465,134** |
| **Total health expenditure (THE)** | **-** | **-** | **26,466,072,113** | **36,159,000,000** | **43,169,000,000** | **48,302,000,000** |
| **Pharmaceutical expenditure as % of THE** | **-** | **-** | **39.4** | **37.1** | **38.7** | **38.9** |

Source: Authors calculations from WHO Global Health Expenditure Database 2016 (http://apps.who.int/nha/database), NHA V 2010/11, FMOH, WHO 2007

## *Public and Private Funding of Pharmaceuticals*

Funding options for pharmaceuticals are essentially the same as those for health care in general: government revenues (national and local); direct payment by patients (fee-for-service revolving drug funds [RDFs]); health insurance (national social insurance or voluntary insurance); community, employer, and other voluntary local financing; donor financing; and development loans (figure 7).

**Public financing (government budgets)**

- National government
- Local government

**User fees**

- Public-sector RDFs
- Community pharmaceutical schemes
- Direct private medicine purchases (out-of-pocket purchases)

**Health insurance (prepaid health schemes)**

- Social insurance (compulsory health insurance or social security)
- Private insurance (indemnity insurance that is voluntary or through an employer)
- Community health insurance
- Health savings accounts

**Voluntary and other local financing**

- Private voluntary (NGOs)
- Voluntary community mechanisms
- Cooperatives
- Employer-provided health care

**Donor financing**

- Bilateral grants
- Multilateral grants
- Private foundations
- Global health initiatives

**Development loans**

- World Bank
- Regional development banks

Source: MSH, 2012

**Figure 7. Funding mechanisms for pharmaceuticals**

### *Public Funding through Federal and Regional Budgets*

**Public expenditure on pharmaceuticals, including both federal and regional governments, were estimated at ETB 1.2 billion in 2011 and ETB 2.1 billion in 2014**. The report on health financing in Ethiopia from 2007 indicates that public funding of pharmaceuticals in Ethiopia was approximately 11% of total pharmaceutical funding, taking the average of the years 2004, 2005, and 2006. A similar share[13] has been used in table 3 to estimate public expenditure on pharmaceuticals from 2011 to 2014.[14] The public sector, through PFSA, procures almost 70% of all the medicines consumed in Ethiopia.[15] PFSA procurement increased from US 27 million in 2007 to US 310 million in 2014 (FMOH, July 2015).

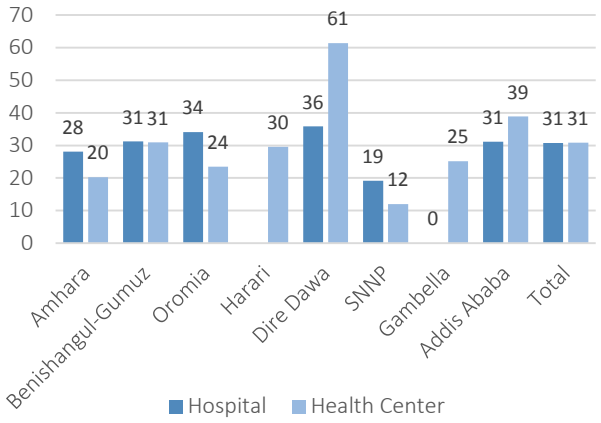
**Government budget allocation and expenditure on medicines are made at three levels in Ethiopia**: the federal government, regional governments, and parastatals. The sources of federal government expenditure on medicines are comprised of the treasury and direct budgetary support

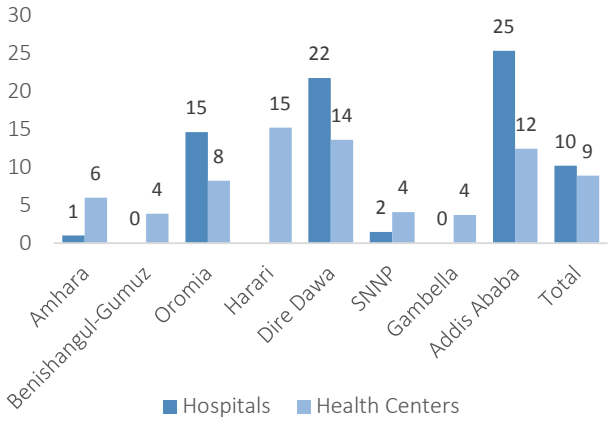
[13] The health financing structure situation on the period 2004-2006 is relatively comparable to the situation in 2014, with a dominance of external assistance and out-of-pocket payments.
[14] Estimates should be updated when latest data is made available.
[15] This includes medicines provided by donors.

from donors. The federal government makes allocations to regions in the form of subsidy. The regions use this, together with their own sources (taxes and retained revenues) and other direct donor support they receive, to purchase the medicines. In general, the funds are made available through the Regional Bureaus of Finance and Economic Development. However, additional funds and medicines are also made available through the Regional Health Bureaus. The Regional Health Bureaus obtain these funds and medicines directly from donors and from FMOH. Such assistance comes mainly from donors, including USAID, UNICEF, WHO, the Global Fund, and others (FMOH, WHO, 2007).

**The government-allocated budget for health facilities and hospitals has increased over time, but the proportion of non-salary recurrent budget showed a declining trend in all regions from 2007/08 to 2011/12** (Abt Associates, 2013). The relative share of the non-salary recurrent budget shows the share of budget allocated for drugs and medical supplies, the allowance to permanent staff, and all other expenditure items relative to the total recurrent budget. In 2011/12, the indicator was, on average, 30.7% for hospitals and 30.8% for health centers. There were wide variations across regions—from 19.2% in SNNP to 35.8% in Dire Dawa for hospitals and from 12% in SNNP to 61.4% in Dire Dawa for health centers (figure 8).

**In 2011/12, the proportion of the drug budget out of the total recurrent budget was on average 10% for hospitals and 9% for health centers**. Once again, there are important variations between regions, with regions where the drug budget for health centers is relatively low (Benishangul-Gumuz, Gambella, SNNP) and others where it is relatively high (Harari, Dire Dawa, Addis Ababa) (figure 9).




Source: Abt Associates 2013.

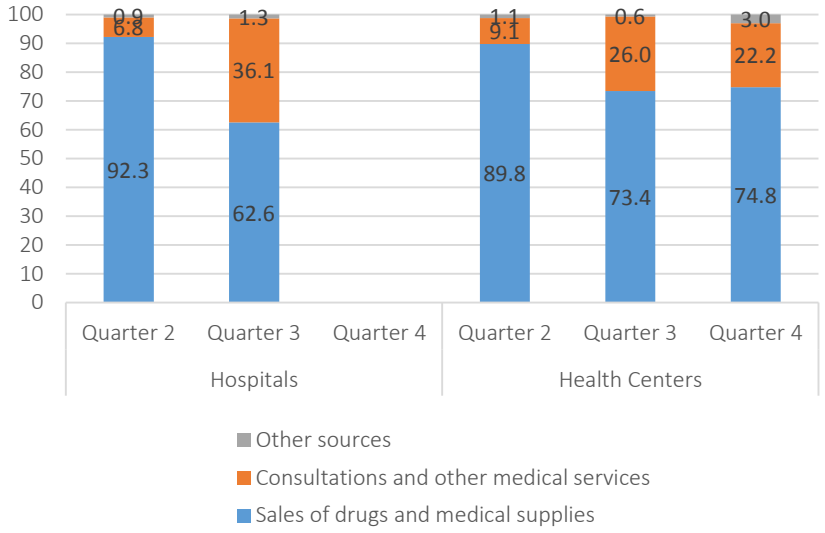
**Figure 8. Proportion of non-salary budget from the total recurrent budget in hospitals and health centers**

**Figure 9. Proportion of drug budget from total recurrent budget in hospitals**

### *Private Sector Funding: Medicine Sales and User Fees*

**Private funding of pharmaceuticals was ETB 6.7 billion in 2011 and reached ETB 12.1 billion in 2014, approximately 64% of total pharmaceutical expenditure** (table 2). The bulk of private expenditure on pharmaceuticals comes from households through OOP payments (84%). The contribution of NGOs and private health insurance to private funding of pharmaceuticals is relatively low in comparison—15.7% and 0.3%, respectively.

**Revenue retention and utilization of user fees is an important component of the health financing system in Ethiopia**. Following the endorsement of a health care financing strategy in 1998, facilities were allowed to retain and utilize user fees. Prior to that, user fees collected from the sale of drugs and delivery of health care services had to be channeled to the central treasury. Hence, public health facilities are allowed to collect, retain, and use the revenues they generate as a revolving fund, in addition to the government budget, to assist facilities in improving the quality of health services and resupplying medicines. Retained revenues from sales of drugs and medical supplies constitute a major source of funding for hospitals and health centers; approximately 63–92% of retained revenue for hospitals and 73–90% of retained revenue for health centers (figure 10) (Abt Associates, 2013).




Source: Abt Associates, 2013
*Note: Sample includes 14 hospitals and 113 health centers in the second quarter, 4 hospitals and 78 health centers in the third quarter, and 1 hospital and 44 health centers in the fourth quarter.*

**Figure 10. Retained revenue generated in health facilities**

### *Health Insurance Funding*

**Pharmaceutical funding through health insurance mechanisms is not yet well developed in Ethiopia, but three types of health insurance schemes are expected to contribute to the coverage of pharmaceutical costs in the future:** private insurance schemes, which are already

in place for some private sector companies and organizations; the SHI scheme, which is not yet effective; and the CBHI scheme, which has already been piloted in a few regions and will be scaled up in the next few years.

### *Private Health Insurance*

**Health insurance coverage is generally at its infancy stage in Ethiopia, including private insurance services**. Only 1.3% of the population was covered by private health insurance in 2010/11 (NHA V 2010/11). The proportion of private insurance out of total health financing was less than 1%, with a comparable range in 2014, according to the latest NHA estimates available. As a result, pharmaceuticals funding through health insurance mechanisms is still low at the country level.

**Private health insurance is generally provided by employers through agreements with accredited health providers**. The service benefit package varies greatly from one agreement to another, as well as schemes' funding mechanisms, which may or may not include a copayment (Interview with private hospitals). There is no standardized approach to accrediting health providers in the private sector for provision of services to the insurance schemes.

### *SHI*

SHI intends to enroll formal sector employees. These include government employees, pensioners, private sector employees, and their dependents. The dependents covered by the SHI system, as provided in the legal framework, are children and spouses of contributing employees and pensioners. In 2015, government employees amounted to 1.9 million, the total number of pensioners was 303,000, the number of private sector employees was 1.9 million, and the number of dependents was 13 million (table 4). The total eligible population for SHI represents 19% of the population (while the eligible population for CBHI is 81% of the population).[16]

**Table 4. Population structure in Ethiopia**

| | | 2015 | | 2025 | |
|---|---|---|---|---|---|
| **Total population** | | **90,076,000** | | **111,645,000** | |
| **Dependants of self-employed** | | 55,451,000 | | 67,880,000 | |
| | % of total pop. | | 61.6% | | 60.8% |
| **Self-employed** | | 17,511,000 | | 21,436,000 | |
| | % of total pop. | | 19.4% | | 19.2% |
| **Government employees** | | 1,902,000 | | 2,358,000 | |
| | % of total pop. | | 2.1% | | 2.1% |
| **Private sector employees** | | 1,902,000 | | 2,626,000 | |
| | % of total pop. | | 2.1% | | 2.4% |
| **(Formal sector) Pensioners** | | 303,000 | | 375,000 | |
| | % of total pop. | | 0.3% | | 0.3% |
| **Other dependants** | | 13,007,000 | | 16,970,000 | |
| | % of total pop. | | 14.4% | | 15.2% |

[16] The first financial sustainability study for SHI in Ethiopia in 2008 estimated an eligible population for CBHI of 89%.

| | 2015 | 2025 |
|---|---|---|
| **Self-employed and dependents** | 81% | 80% |
| **Formal sector and dependents** | 19% | 20 % |

Source: Revisiting financial sustainability of Social Health Insurance in Ethiopia, EHIA, 2015

The SHI benefit package is expected to cover nearly all outpatient and inpatient services and generic drugs included in EHIA's drug list (EHIA, November 2015) and prescribed by medical practitioners. A detailed description of the service benefit package and the exclusion list are provided in the section on accessibility.

Regarding scheme funding mechanism, solidarity-based contributions are adapted. Each member of the SHI will contribute 3% of their monthly salary if the person is an employee of the formal sector, and 1% of their pension if the beneficiary is a pensioner. The employer will match 3% of the employee's salary; similarly, for pensioners the government will match 1% of the pension. EHIA will require 5% copayment for any outpatient visit, and the member will be required to cover 50% of the cost if she/he decides to bypass the referral system, except in emergencies.

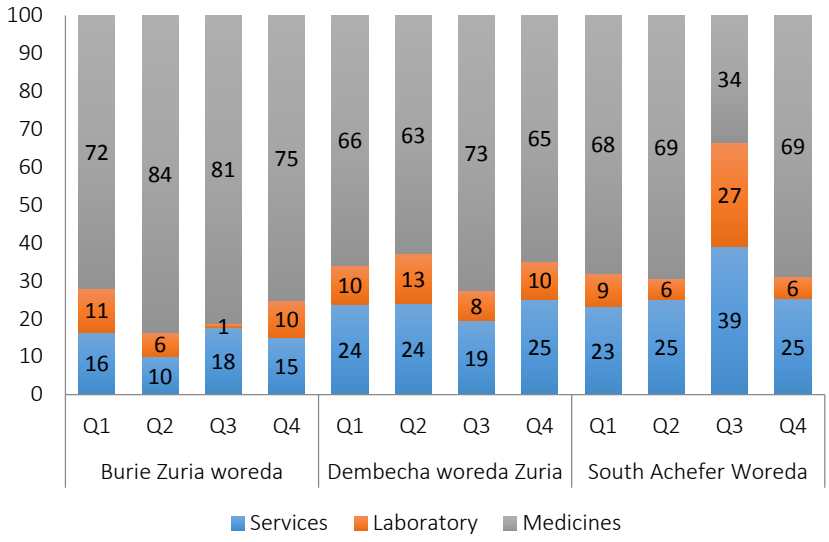
*CBHI*

CBHI implementation began in 2010/11 as pilot schemes in 13 woredas of the Amhara, Oromia, SNNP, and Tigray regional states. The Oromia region has four pilot woredas and the other three regions each have three pilot woredas. The overall enrollment rate in 2013 reached 52.4% (i.e., a total of 157,553 households and 687,309 beneficiaries have benefited from the pilot schemes)[17] (EHIA CBHI Scale-Up Strategy 2015). There are significant variations by region and woreda, with enrollment rates ranging from 25% in Deder to 100% in Yirgalem. Approximately 25,185 indigent households (109,876 beneficiaries) enrolled, representing 16% of the total enrollees in the 13 pilot woredas. After three years of piloting, the government decided to expand CBHI schemes to 80% of the woredas in the country.

The CBHI benefit package includes outpatient and inpatient services available in health centers and hospitals, laboratory services, imaging services, and the supply of drugs and related services (with the exception of eyeglasses, dental implants, dialysis, and cosmetic procedures). All government health centers situated in a woreda that fulfill the minimum standard of service delivery are contracted to provide services to members. All pilot woredas have also signed service contracts with their region's referral hospitals.

According to data collected from a sampling of CBHI payments, pharmaceuticals represent the bulk of expenditure for CBHI schemes; approximately 70–84% of CHI payments to health facilities are for pharmaceuticals (figure 11).

[17] Ethiopia Health Sector Financing Reform/Health Finance and Governance Project, Year One—Annual Performance Report, August 1, 2013–June 30, 2014. Bethesda, MD: Health Finance and Governance Project, Abt Associates, Inc.



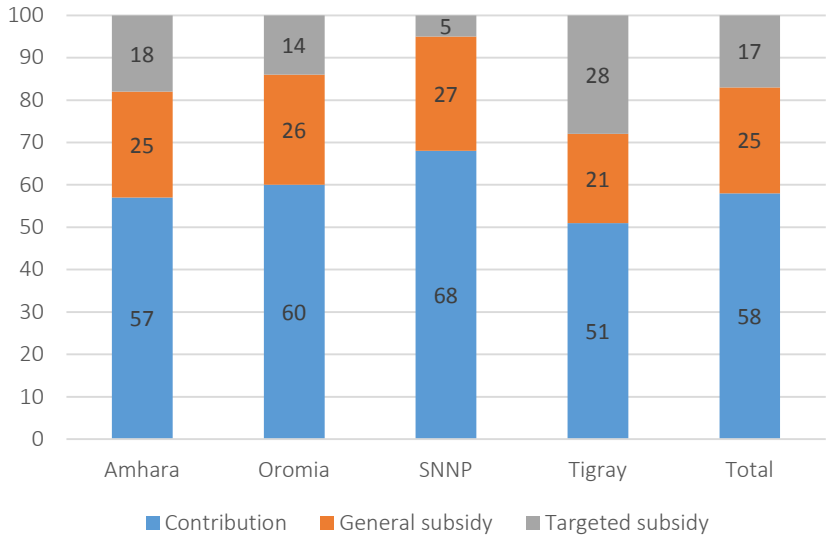

Source: CBHI Survey May 2016

**Figure 11. CBHI payments to health facilities**

Regarding scheme funding mechanisms, CBHI includes community premium contributions, government subsidies (general and targeted), and funding for the scheme management costs paid by woredas (salaries, office space, and operational costs). According to the federal guidelines, registration fees and premiums are set by regions, regions and woredas pay registration fees and premiums for the very poor, and the federal government finances 25% of overall enrollment contributions per year (general subsidy) for all CBHI members.

As part of the survey, 13 CBHI offices were interviewed and asked to provide financial and performance-related information on their scheme.[18] However, the quality of the information collected does not allow for relevant analysis or comparing revenue to expenditure. The CBHI evaluation report shows that community premium contributions account for the majority of total revenue generated by the schemes, approximately 58% on average (figure 12). Contributions per household per year amounted to ETB 144 in Amhara, ETB 126 in SNNP, ETB 180 in Oromia, and ETB 132 in Tigray. The total amount of community contribution from the 13 pilot woredas through June 2013 was approximately ETB 22.7 million, but the mobilization appears to have declined over the years. Nevertheless, the financial condition of the schemes, when taking into consideration all financial resources, is thus far positive.

[18] Information on revenue by source (central government, regional administration, non-governmental sources, premiums, and others) and on expenditure (payments to health facilities for services, laboratory and medicines, reimbursements to beneficiaries for services, laboratory and medicines, and other payments for recurrent and fixed expenditure). Cf. data collection tools in annex 2.




Source: EHIA, May 2015

**Figure 12. Scheme funding mechanism as percent of total revenue generated by schemes, June 2013**

Regarding the method of payment for pharmaceuticals, CBHI is designed to cover the full cost of members' medical bills; there are no copayments. According to collected data:

- Some CBHI schemes reported the existence of copayment (3 out of 13)
- Most CBHIs (8 out of 13) don't request beneficiaries to pay OOP for medicines
- Only a few CBHIs (4 out of 13) report that the beneficiary pays OOP for medicines and then requests reimbursement from CBHI
- Most CBHIs use fee-for-service as a payment mechanism to pay providers for medicines
- Most CBHIs (10 out of 13) pay for medicines based on actual acquisition cost to the provider

### *Donor Financing*

Donors are a major source of financing for drug acquisition. They also provide drugs in kind. Some of the major donors include UNICEF, the Global Fund, UNFPA, WHO, and USAID. Donors' medicine funds are directed to Ethiopia through three major channels (WHO, 2007):

- Direct budget support with funding flowing through the general budget of the Ministry of Finance and Economic Development
- Flowing through FMOH and/or Regional Health Bureaus of the relevant regions
- Direct support to projects where the donor administers the funds

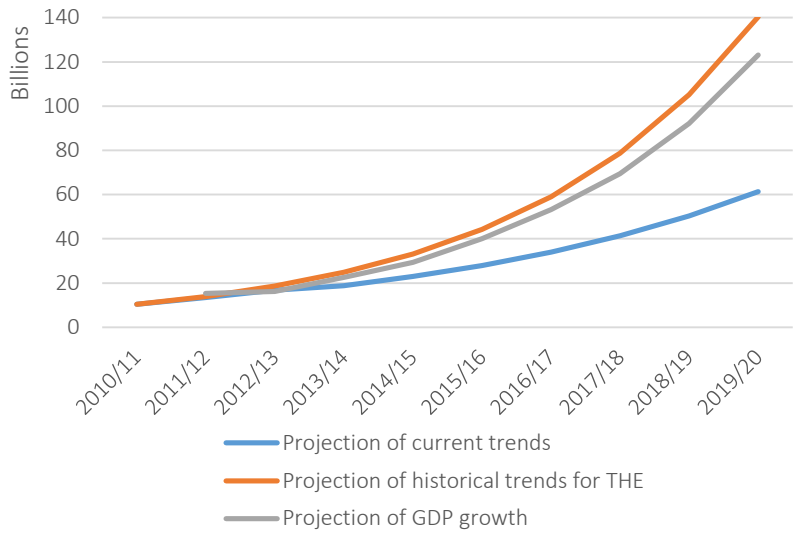
Information on donor funding is neither easy to collect nor to distinguish from public funding through domestic resources and would require a specific survey. But, generally, donor funding is mainly focused on HIV and AIDS; malaria; TB; neglected tropical disease; and reproductive, maternal, newborn, and child health programs.

The analysis of donor funding of pharmaceuticals in Ethiopia and its contribution to total funding was not feasible due to a lack of access to information.

## Health Financing and Pharmaceutical Funding Sustainability

While the Ethiopian government has endorsed a Health Care Financing Strategy in 1998, a specific strategy for drug funding has never been developed. In the same way, a comprehensive estimate of pharmaceutical funding needs has never been performed, particularly in the context of health insurance development. However, pharmaceutical funding and drug availability have been addressed in the strategy through budget allocations and revenue retention at the facility level. Government allocated budget and generated revenue are used in priority for the procurement of drugs and medical supplies (Abt Associates, 2013).

Predicting the evolution of demand and expenditure on pharmaceuticals in the next few years is a difficult exercise due to the lack of information on current levels of expenditure and use of services and medicines. However, it appears reasonable to consider that the demand for pharmaceuticals will dramatically increase in the coming years, especially with the development of health insurance at the national level. The total expenditure on pharmaceuticals estimated at ETB 10.4 billion in 2010/11 (table 2) could reach over ETB 60 billion in 2019/20 if current trends continue. They could be even greater if the evolution of pharmaceutical expenditure follows the evolution of total health expenditure and GDP observed in 2007/08, which is also the date of the latest NHA exercise.




Source: NHA V 2010/11, WHO Global Health Expenditure Database 2016, IMF World Economic Outlook Database April 2016

**Figure 13. Evolution of total pharmaceutical expenditure in Ethiopia**

The costing and resource requirements estimates for implementing HSTP provide an idea of the magnitude of the need for pharmaceuticals by 2020 and the available resources (through government budget allocation, health insurance,[19] and external aid from development partners). This shows that potential and available resources will not be sufficient to cover health needs, which will have important implications for pharmaceutical funding.

The estimates were performed under two scenarios[20] with the One Health Tool, which allows users to create short- and medium-term plans for scaling up essential health services. The total cost estimation for the base and high case scenarios is USD 15.6 billion and USD 22 billion, respectively, for the next five years (2015/16–2019/20). In the base case scenario, 25% (USD 3.9 billion) of the total cost is for medicines, commodities, and supplies;[21] in the high case scenario, it is 19% (USD 4.1 billion). The financial availability for HSTP has also been projected under three scenarios—low, medium, and high.[22] The total projected resources available is USD 12.3 billion under the low case scenario, USD 13 billion under the medium case scenario, and USD

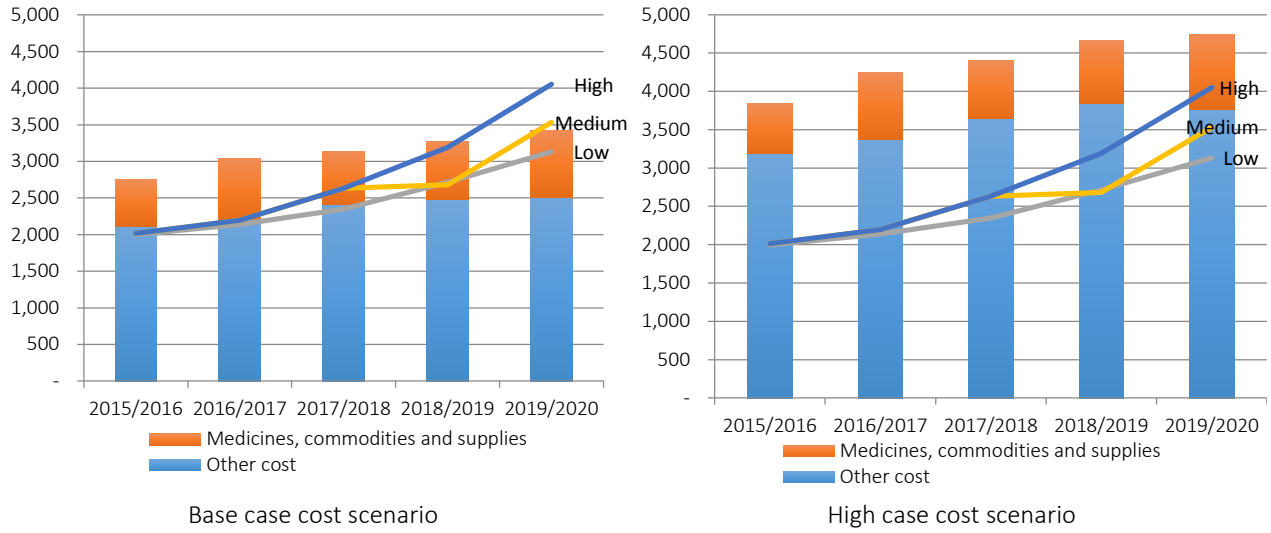
[19] Both community and social health insurances

[20] Base and high case. The base case relies on a set of assumptions related to targets for impact and health outcome indicators (life expectancy, maternal mortality rates, infant mortality, under-five mortality, total fertitility rate, contraceptive prevalence rates, intervention/service coverage) and inputs (supply, infrastructure, human resources).

[21] The rest of the cost is split between human resource development and management (36%), health infrastructure (24%), program cost (6%), and health care financing (5%).

[22] The low scenario considered government allocation (as per the historical 6% allocation from the GTP II resource framework plus government contribution and subsidy to health insurance), community contribution, SHI and CBHI membership contributions, and external assistance based on the commitments provided by DPs. The medium case considered GTP II resource framework with increased percent of General Health Expenditure from 6 to 10%, community contribution, SHI and CBHI membership contributions, and external assistance based on the commitments provided by DPs. The high scenario takes medium case and replaces the external assistance adjusted with average commitments for years that DPs have not shown their commitments.

14.1 billion under the high case scenario. Overall, there is a significant funding gap in all scenarios, ranging from 9 to 50% of the total cost under the low case scenario for projected available resources (figure 15). The cost under the base case scenario could only be met in 2020 under optimistic assumptions regarding funding projections (medium and high scenarios). The cost under the high case scenario could never be met regardless of the fund projections assumptions. Such funding gaps for the sector are likely to have a significant impact on pharmaceutical funding in the future. It is worth noting that these estimates don't directly take into account the potential increase in health service utilization resulting from the implementation of CBHI and SHI.




Source: FMOH (August 2015)

**Figure 14. Costing, funding projections and gaps (HSTP)**

A major challenge for national health insurance is to define a relevant service benefit package and to ensure its sustainability. Costing this package will help in determining the requirements for financial equilibrium for health insurance. The cost estimate should provide an estimate of the standard cost of each intervention, broken down by drugs, tests, medical supplies, and staffs. The various costs of services and financial implications should then be projected, according to scenarios on health service utilization, through actuarial analysis. The results of this exercise will be useful for investment case advocacy, service package planning, resource allocation, cost-effectiveness and efficiency analysis, and establishment of reimbursement rates.

Even if additional analyses are needed to more precisely estimate the pharmaceuticals funding requirements under national health insurance, the results from the health sector costing show that health needs cannot be covered in the coming years. It is therefore essential to pursue the work on innovative financing mechanisms and operationalize funding and sustainability mechanisms for the preparation and implementation of health insurance at the national level. These mechanisms typically relate to domestic resource mobilization, efficiency gains, innovative health financing mechanisms, and cost control mechanisms to be developed early enough in the context of the implementation of health insurance.

## ACCESS TO MEDICINES AND PHARMACEUTICAL SERVICES

### Ethiopian Health and Pharmaceutical Systems

**Ethiopia has a three-tiered public health care delivery system composed of primary, secondary, and tertiary levels with defined catchment populations.**[23] The primary care, which is the lowest tier, includes satellite health posts, health centers, and primary care hospitals, all at the district level. This lowest tier infrastructure is referred to as a primary health care unit. General hospitals make up the secondary level and the top tier is devoted to specialized tertiary care. The majority of the health systems workforce is in urban areas and the introduction of the Health Extension Program—a primary care model that makes use of over 38,000 trained and deployed health extension workers and appropriate referral systems—has helped alleviate the challenge of a lack of qualified health staff in rural areas. The Ethiopian Government is well aware of the rapidly increasing demand for health services and the existing limitations in the availability of human and other resources, and remains determined to harness the private health sector to engage in productive public-private partnerships in health,[24] a commitment well-articulated in the strategy framework document on private-public partnerships in health. According to the HSTP (2015/16–2019/20),[25] the number of health facilities in 2015 includes 16,440 health posts, 3,547 health centers, and 311 hospitals. In 2010, there were 9 hospitals run by NGOs, 12 hospitals run by other governmental agencies, 271 private not-for-profit clinics, and 1,788 private for-profit clinics.[26]

The Ethiopian FMOH is, therefore, a major provider of health care services, followed by the private sector. With an active for-profit and not-for-profit private sector, Ethiopia has a number of formal and informal health and pharmaceutical services providers. These providers include hospitals, clinics, diagnostic laboratories and diagnostic imaging facilities, pharmacies, drug stores, and rural drug vendors. There are also approximately 14 local manufacturers of pharmaceuticals and health technologies, 114 importers, 92 distributors (wholesalers), and roughly 1,088 registered private pharmacies and drug shops; most of the retail shops are independent, but a few (<30) operate as chains, providing 30% of the medicines consumed in Ethiopia.

The Ethiopian pharmaceutical market is estimated to be worth between USD 400–500 million.[27] The public sector, through PFSA, procures almost 70% of all the medicines consumed in Ethiopia, while the remaining 30% is procured by a mix of private sector players.

[23] The Federal Republic of Ethiopia MOH. HSTP. 2015/2016–2019/2020, August 2015. Addis Ababa.
[24] FMOH. Public-Private Partnership in Health. Strategic Framework for Ethiopia. June 2013.
[25] FMOH. 2015. HSTP 2015/16–2019/20. August 2015. Addis Ababa.
[26] WHO. Assessment of Pharmaceutical Sector, 2010, Addis Ababa.

### *Stakeholders—Health Insurance and Pharmaceutical Sector in Ethiopia*

**The EHIA medicines benefit program will depend on a mix of stakeholders who support the various financing, provision, and regulatory functions**. Financing functions include raising revenue, pooling resources, and purchasing services (WHO framework for financing), while the service provision stakeholders will include entities that deliver health and pharmaceutical services. The existing regulatory frameworks will guide health service and medicines service and product provision.

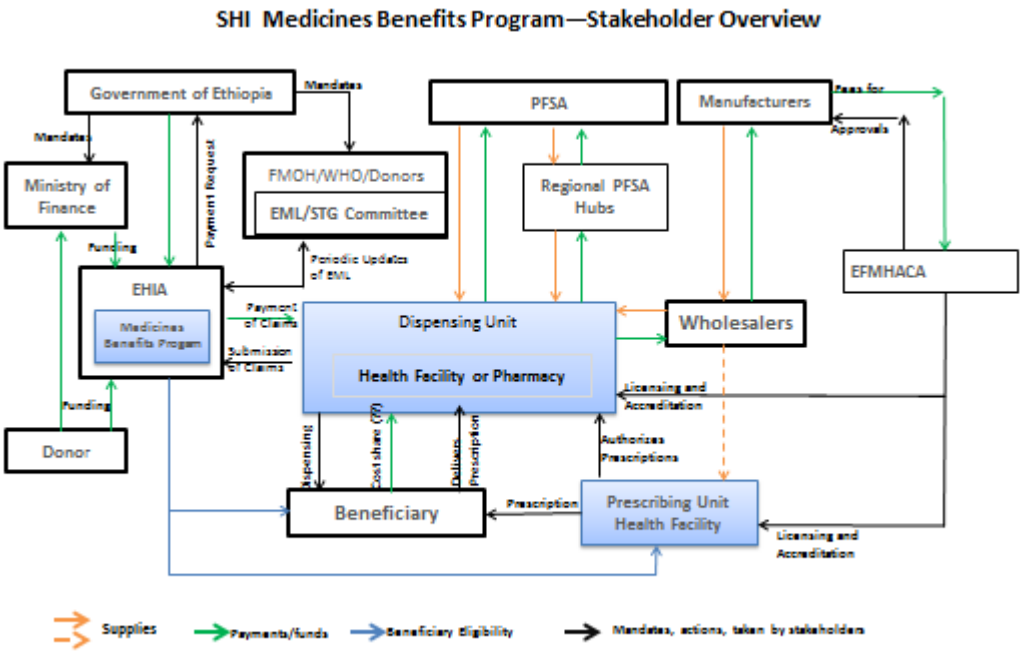



**Figure 15. SHI stakeholders—EHIA and pharmaceutical sector interrelations**

**Table 5. Stakeholders and their roles in Ethiopia**

| Function | Stakeholder | Core actions and responsibilities |
|---|---|---|
| **Regulation and governance** | FMOH | Medicine policy development |
| | EFMHACA | Licensing and regulation of manufacturers and importers of medicines, regulation of medicines and related substances, registration of health care providers, setting health care standards and norms for medical and dental practices, EML and STG development, monitoring rational use of medicines in the country |
| | Pharmaceutical and Medical Associations of Ethiopia | Advocacy |
| **Revenue collection** | Ministry of Finance | Collection of taxes, EHIA premiums, and funds; budgetary allocation and disbursement of funds to EHIA |
| | EHIA | SHI premium collection and management |
| **Pooling of resources** | EHIA | Pool resources for purchasing health services and medicines benefits |

| Function | Stakeholder | Core actions and responsibilities |
|---|---|---|
| **Purchasing functions** | EHIA | Use of appropriate purchasing and payment mechanisms, fee-for-service, and capitation to purchase services and medicines on behalf of clients; set medicine prices, tariffs for health services diagnostics |
| | PFSA and private wholesalers | Supply medicines to public facilities, NGOs, private health facilities and pharmacies |
| **Service provision delivery** | Hospitals and primary health care facilities, general practitioners, and community pharmacies | Provision of health care services and medicines through dispensing to subscribers (patients) |
| | Pharmaceutical industry (manufacturers, importers, exporters, wholesalers) | Manufacture, procure, and sell medicines to providers |

## Policy, Legislative, and Structural Frameworks

### *National Medicines Policy*

**The National Medicines Policy was launched in 1993 with the aim of providing universal access to good quality essential medicines.** The National Medicines Policy addresses important activities such as selection of essential medicines, procurement, distribution, medicines regulation, rational use of medicines, human resource development, research, and traditional medicine. This is a 23-year-old document that needs to be updated to include the recent health policy focus on local pharmaceutical manufacturing, medicines financing, and health insurance.

### *Regulatory System*

**EFMHACA (re-established in 2010 by Proclamation No. 661/2009 and Regulation No. 189/2010) is responsible for ensuring safety in the delivery of health services, products, and practices. It ensures that medicines imported and manufactured are of good quality**. EFMHACA has the legal mandate for inspection and quality control of products, inspection and quality control of premises, inspection of professional practice, inspection of food products, etc., under which market authorization and registration, inspection, import control, licensing, quality control, medicines advertising and promotion, clinical trials, pharmacovigilance, and traditional herbal medicines are included.

### *Laws and Regulations Regarding Sourcing, Procurement, Importing, and Distribution of Medicines*

PFSA procures (Proclamation 649/2009) medicines for public health facilities and select private sector facilities. Public health facilities can procure from private sources only when there is stockout of needed commodities from PFSA.

### *Laws and Regulations Regarding Generic and/or Therapeutic Substitution Programs*

The cost of medicines varies considerably between the generic and brand versions. The National Medicines Policy promotes generic prescribing instead of brand prescribing. The public sector is

mandated to procure generics with few exceptions, while the private sector may include originator brands and branded generics. Furthermore, there is no explicit policy guiding substitution with a generic when the prescriber prescribes branded products. Similarly, there is no policy guide on therapeutic substitution. Generic substitution in the private sector does happen—involving pharmacists, pharmacy departments, and prescribers—and is mostly driven by affordability and availability of brand product, as well as client preference.

### *Laws and Regulations Governing Health Insurance and Enforcement*

The overall insurance industry is guided by Proclamation 746/2012 (having been revised from the 1975 Proclamation 68/1975). The Ethiopian Insurance Corporation, the lead insurance entity, administers a mix of life and non-life products, including medical insurance for select formal sector organizations. The SHI Proclamation 690/2010 establishes an autonomous health insurance agency at the federal level to manage the health insurance fund, provide overall guidance, and undertake monitoring and evaluation as well as capacity building activities. Accessing the impact and implementation challenges of formal sector medical coverage from private insurance to the new mandatory SHI was a part of this assessment.

**Most likely, private health insurance may still provide top-up coverage for formal sector employees, as has been observed in countries such as Ghana and Rwanda that have rolled out compulsory national health insurance with payroll premium deductions**

## Availability, Accessibility, and Affordability

### *Availability of Medicines*

Availability of medicines is reported as the percentage of medicines outlets where selected medicines (usually from the nationally agreed tracer list) were located on the day of survey or assessment. The supply chain assessment (Part I) addressed concerns regarding the availability of medicines and supply chain capacity to meet the anticipated increased demand for medicines with the launch and scale-up of health insurance schemes.

### *Accessibility*

#### *Geographic Access*

**Geographical accessibility is reported mainly as a relationship between the location of the medicine or service in relation to the eventual user (clients/patients) of the product or service**. This was not a key component of this assessment. It is, however, noted that the Ethiopian health sector is undergoing tremendous reforms with increased construction of health facilities at the primary care level. This, coupled with the expansion of CBHI and launch of the SHI scheme, will ultimately improve access to health and pharmaceutical products and services (Cf. discussion below). However, there is limited evidence regarding the effect of these health

care financing reforms on geographic accessibility to essential medicines in the country.[28] Thus, there exists a clear need for well-organized research on the issue.

### *Access to Health Services and Medicines through Health Insurance*

Private health insurance: Employers acquire policies for their employees enabling them to obtain medical services and receive pharmaceuticals based on physician prescription. Services and medicines covered vary significantly with the agreement. According to interviews at several private hospitals, there is no limit on the number of services (outpatient or inpatient) that the hospital can provide to patients and bill to employers, up to a predetermined monetary coverage amount. For patients who require long treatments, the hospital will provide notice to the insurance company and the employer on the status of accruals.

The implementation of national health insurance in Ethiopia is expected to increase access to services and medicines.

- SHI: Beneficiaries will be entitled to receive health services from health facilities that have concluded contract with the Agency (Regulation No. 271/2012). These include:
    - Outpatient care
    - Inpatient care
    - Delivery services
    - Surgical services
    - Diagnostic tests and generic drugs included in the drug list of the Agency (EHIA, November 2015) and prescribed by medical practitioners

Some of the health services that are excluded from the SHI health service package are any treatment outside Ethiopia; treatment of injuries resulting from natural disasters, social unrest, epidemics, and high-risk sports; problems related to drug abuse or addiction; periodic medical checkup unrelated to illness; occupational injuries, traffic accidents, and other injuries covered by other laws; cosmetic surgeries; organ transplants; dialysis, except in case of acute renal failure; eyeglasses and contact lenses; in vitro fertilization; hip replacement; dentures, crowns, bridges, implants, and root canal treatments, except those required because of infections; and provision of hearing aids and those services that are anyway provided to patients free of charge.

- CBHI: According to federal guidelines, the benefits package provided under CBHI includes outpatient and inpatient services available in health centers and hospitals, laboratory services, imaging services, and the supply of drugs and related services (with the exception of eyeglasses, dental implants, dialysis, etc.) All government health centers that are situated in the woreda and fulfill the minimum standards of service delivery are contracted to provide services to members. All pilot woredas have also signed service contracts with their region's referral hospitals.

[28] Health Care Financing in Ethiopia: Implications on Access to Essential Medicines. Addis Ababa. June 2014.

According to data collected in 13 CBHI woredas in the Oromia and Amhara regions, the provision of pharmaceutical benefits is quite comprehensive and relies mostly on the public sector.

- All 13 CBHI schemes cover medicines for both inpatients and outpatients
- The majority of CBHI (10 out of 13) cover all types of diseases and all types of medicines
- All CBHI report that there is no explicit list stating which medicines are covered or not covered
- Most CBHI (10 out of 13) rely on open access (i.e., any provider (public sector) in the CBHI catchment area to provide services)
- A few CBHI (3 out of 13) rely on selected or accredited health facilities and medicine outlets to contract with providers
- Many (8 out of 13) said they used an open list of drugs registered by EFMHACA; 3 out of 13 indicated that they reimbursed all drugs on Ethiopian EML based on level of care; 2 out of 13 did not have a list

### *Affordability*

Affordability of medicines was estimated using the salary of the lowest paid unskilled government worker to establish the number of days the employee must work to pay for a standard recommended course of therapy for a tracer condition for which selected medicines are indicated.

#### *Prices of Pharmaceuticals*

The price of medicines on the FMOH essential medicines tracer list was assessed. Table 6 shows the distribution of 56 of the 96 health facilities where price data were collected.

**Table 6. Number and type of facilities at which medicine price data were collected**

| Facility Type | Frequency | Percent |
|---|---|---|
| Health center | 19 | 33.9 |
| Primary hospital | 3 | 5.4 |
| General hospital | 8 | 14.3 |
| Specialized hospital | 4 | 7.1 |
| Private hospital | 2 | 3.6 |
| Private pharmacies | 13 | 23.2 |
| Drug store/shop | 4 | 7.1 |
| Public pharmacy | 3 | 5.4 |
| **Total** | **56** | **100** |

Source: Authors (data collection from May 2016 assessment)

**A large variation in prices of selected tracer list medicines were observed between the public and the private sector**. Prices of 23 out of 33 (68%) tracer medicines were obtained from 56 different facilities that procured and dispensed medicines. Medicine prices in the private sector were significantly higher (from 1.5 to 9.2 times) than in the public sector. Both public and private sector prices were observed to be higher than the proposed SHI prices for medicines. This was not unexpected as there is no medicines pricing policy in Ethiopia. Generally, in most health systems in low- and middle-income countries, the observed trend was for prices of dispensed medicines to vary according to source of medicines (locally manufactured or imported), distribution channel (public or private), and type of product (originator, generic or branded generic).

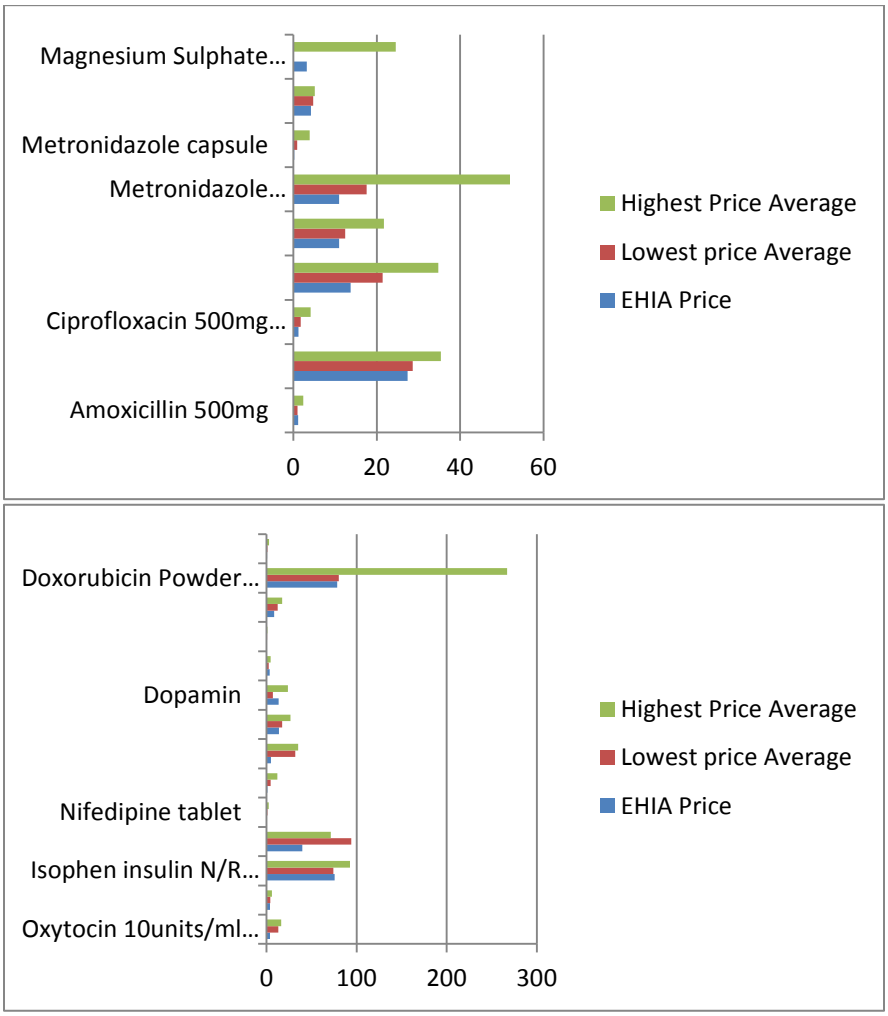



**Figure 16. Average medicine prices (highest and lowest) compared with EHIA (SHI List) prices**

Comparison of medicine prices across facilities showed wide variations between the EHIA and facility prices. Figures 17 a, b, c, and d illustrate the variation for amoxicillin capsules (oral antibiotic), pharmaceutical syrup (antipyretic for children), insulin isophane (injectable anti-

diabetic), and nifedipine oral tablets (antihypertensive). The lowest and highest priced oral amoxicillin 500mg capsules in health centers on the day of the survey were lower than the recommended EHIA price. However, the prices were higher in general, specialized, and private hospitals. Similarly, the lowest and highest priced versions of paracetamol 125mg syrup were all observed to be higher than the EHIA process.

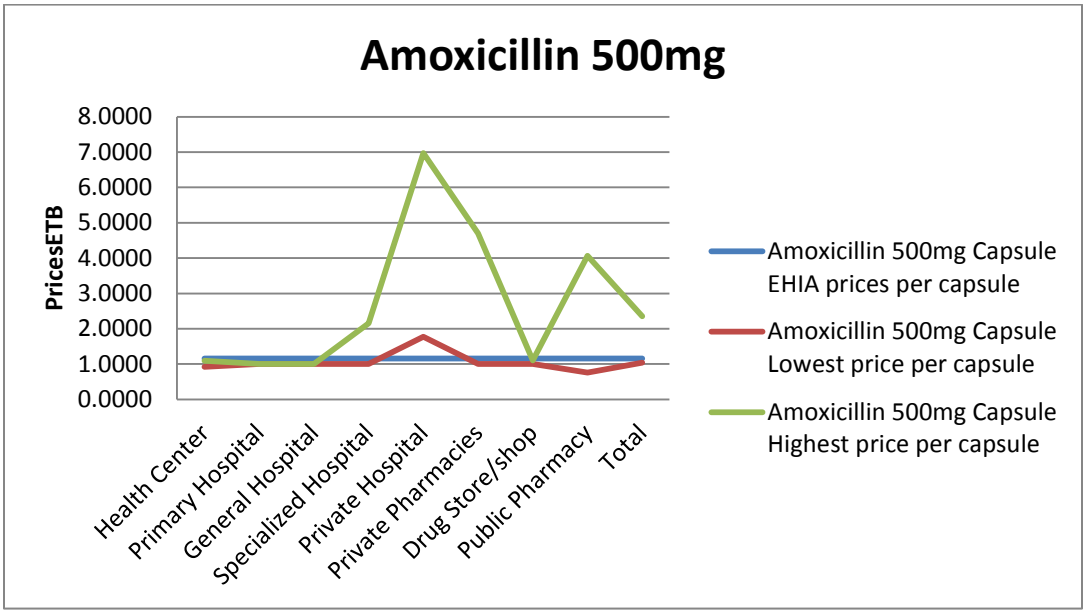



**Figure 17a.**

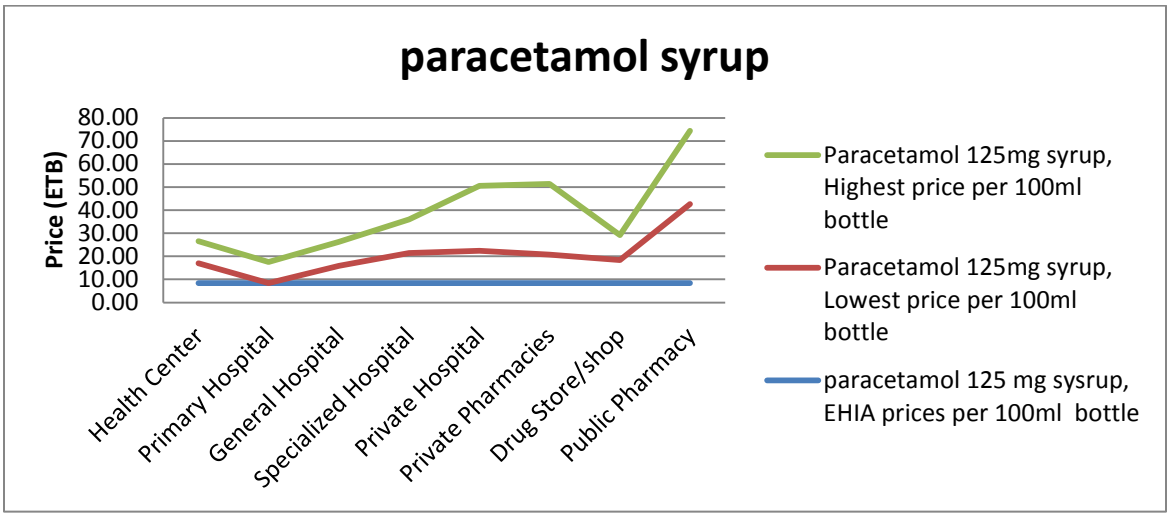



**Figure 17b.**

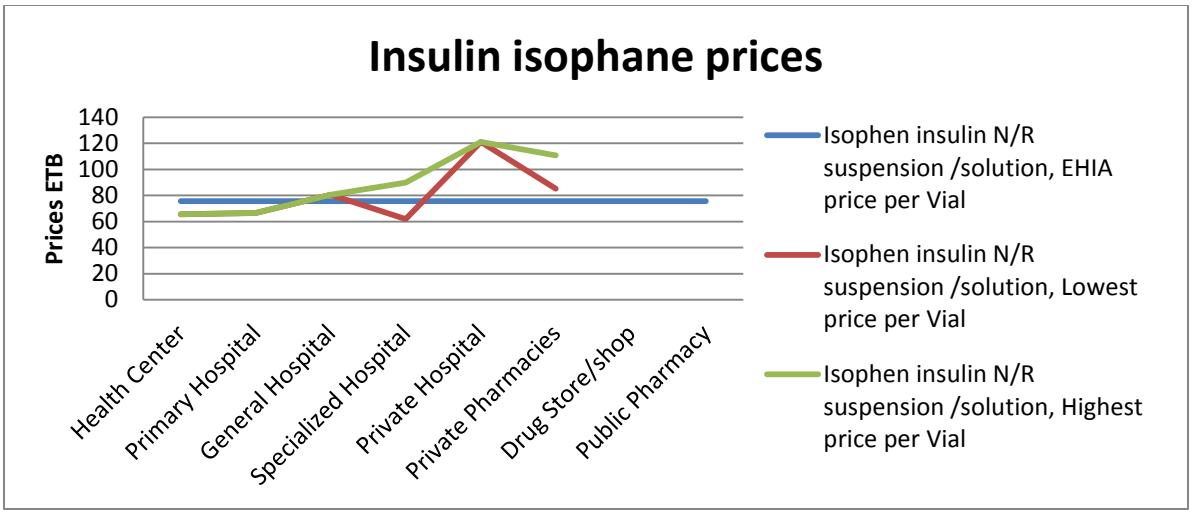



**Figure 17c.**

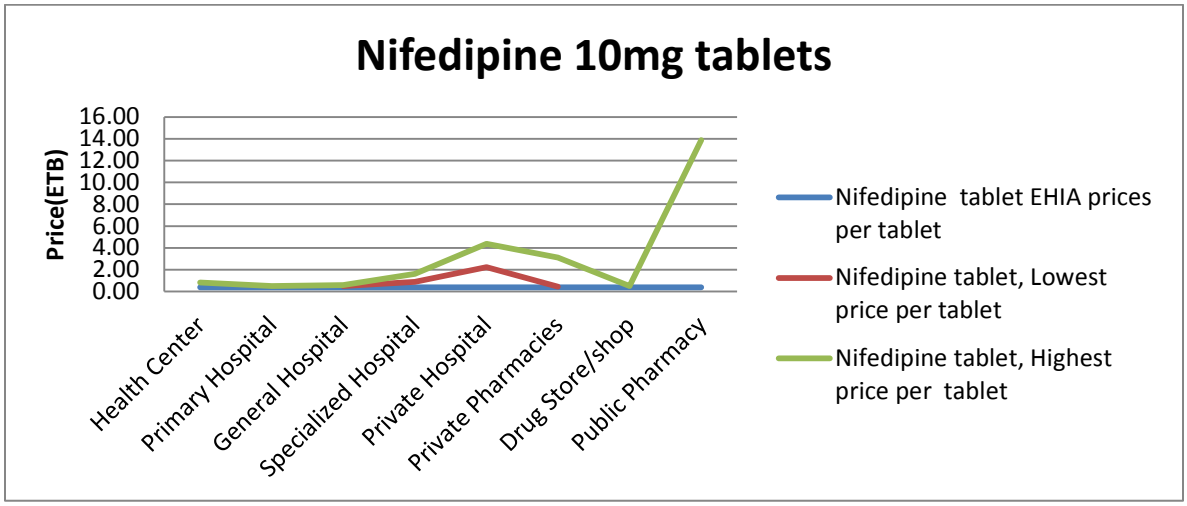



**Figure 17d.**

**Figure 17 a, b, c, d. Tracer list price variation across health facilities in Ethiopia**

The highest and lowest prices of insulin isophane available were lower than the EHIA prices at the health center and primary hospital level. However, a number of private and specialized hospitals had prices lower than the EHIA prices. For insulin, it is reported that several client access and discount schemes exist on the Ethiopian market, which may warrant a more detailed analysis to better explain trends at health entities.

The current EHIA model of adopting PFSA prices and adding a 25% markup may not be reflective of actual market prices. A potential unintended consequence of this pricing methodology may be that facilities will request OOP payments for differences from clients for non-PFSA medicines. If efforts are not made to address these differences this may lead to client dissatisfaction with the insurance program. In addition, price changes at PFSA may not be

automatically reflected at EHIA to address those changes, which could lead to financial loss for health facilities that could in turn negatively affect the supply chain.
This range of prices also indicates that CBHIs that do not use a defined reimbursement list are paying out medicines claims based on provider submissions. This practice may negatively affect CBHI funding and sustainability.

Using the pricing data obtained during assessment at the CBHI level, the following estimates of affordability of medicines for non-insured clients were calculated. Based on a 21-day work month, the lowest paid government employee earns approximately ETB 730 (equivalent to USD 36.5) per month before tax.[29] A patient belonging to this salary group would require 0.67 and 1.4 days of gross wages to purchase amoxicillin (500mg caps, 1x3 for 7 days), the cheapest drug for the treatment of uncomplicated pneumonia (without hospitalization), using the lowest and highest average prices, respectively. Patients with essential hypertension needing 30 days of nifedipine (10mg daily) would require 0.8 and 2.1 wage days to purchase at the average low and high prices, respectively. Besides varied OOP payments, the implication of this analysis to the sustainability of CBHI is that, without a defined reimbursement list with fixed or set prices for medicines, CBHIs are potentially paying varied claims to providers for the same disease, depending on which cost the provider presented.

[29] wageindicator.org. Minimum Wages in Ethiopia. These wages refer to public servants only. Information last updated on this page: 28-01-2016. Minimum wage rates in ETB.

## USE OF MEDICINES AND COSTS

### Treatment Options and Comparative Costs

EFMHACA has published the EML and STG to guide public procurement and health care provider prescribing of medicines. The EML is a subset of medicines that were previously listed in the National Medicines List, which EFMHACA will maintain as the database of registered medicines approved for manufacture, importation, and use in the country.

EHIA has prepared a list of medicines to be covered by SHI. This was done separately from the EML process, although both the EML and SHI List were supported technically by many of the same organizations. While the EML has been updated at approximately five-year intervals, once published, the SHI List will likely require more frequent revisions and updating, even if minimal changes are made.

**Table 7. Medicines reference lists and prescribing and dispensing guidance in Ethiopia**

| | Most recent edition | Year of publication | Number of items |
|---|---|---|---|
| National Medicines List | 6th edition<br>Unpublished communication | 2010<br>2014 (unofficial) | ~ 560<br>1,185 |
| EML | 4th edition | 2015 | 489<br>(345 in 2010) |
| SHI List | 1st edition (draft) | 2016 (draft) | 540 |
| STG for Health Centers | 3rd edition | 2014 | n.a. |
| STG for General Hospitals | 3rd edition | 2014 | n.a. |
| STG for Primary Hospitals | 3rd edition | 2014 | n.a. |

Source: See references for document citations

For many conditions, both the EML and SHI List include more than one medication that may be used to treat the same condition. Overall, the SHI List is larger than the EML by approximately 51 items. For example, in hypertension treatment, 5 of the SHI-listed 18 medicines (28%) are not on the EML. The two lists agree for 13 of the medicines and are listed in the STG.

The availability of numerous therapeutic options may have significant financial implications for those who pay for these medications, whether it be the patient or insurance scheme. Using the proposed SHI List prices as a reference, the daily costs of medications for treating one condition requiring four to eight weeks of treatment were compared to three conditions requiring long-term daily treatment:

- Four medications for peptic ulcer disease
- Five oral medications for type 2 diabetes
- Six formulations for three medicines for lowering high cholesterol
- Twenty-three formulations for 18 medicines to treat hypertension

The daily costs for different treatment options in each of these conditions may vary as much as 2.4 times (median 1.0, peptic ulcer treatment); 6.3 times (median 3.4, type 2 diabetes); 13.6 times (median 3.5, high cholesterol); and 205 times (median 4.9, hypertension). Figures 18, 19, 20, and 21 compare the daily costs in ETB based on defined daily dose (DDD)[30] calculations, with the prices listed in the SHI List.

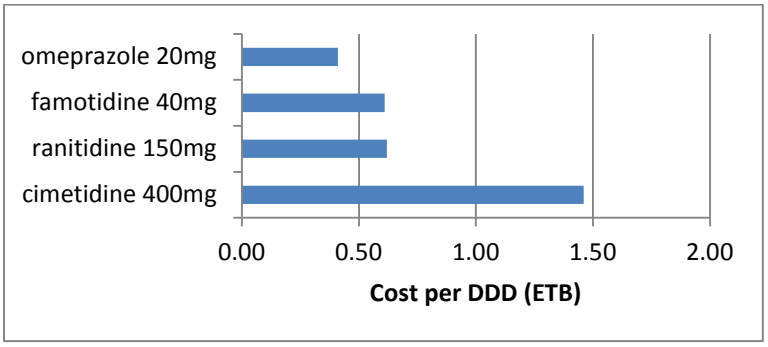



**Figure 18. Comparative cost per DDD for SHI-listed medicines for peptic ulcer treatment**

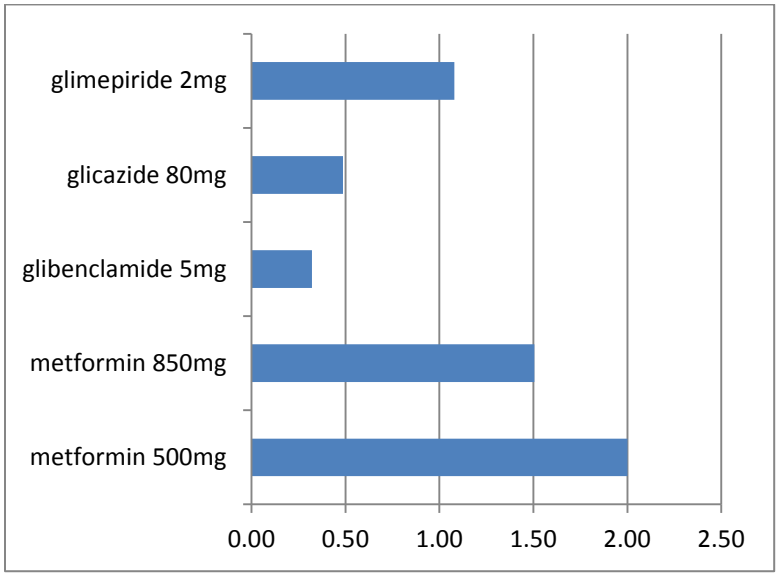



**Figure 19. Comparative cost per DDD for SHI-listed medicines for type 2 diabetes treatment**

[30] DDD is a conventional unit of measurement for medicine utilization studies. DDD is the assumed average maintenance dose per day for a drug used for its main indication in adults. See WHO. 2003. Introduction to Drug Utilization Research. Geneva, Switzerland: WHO.

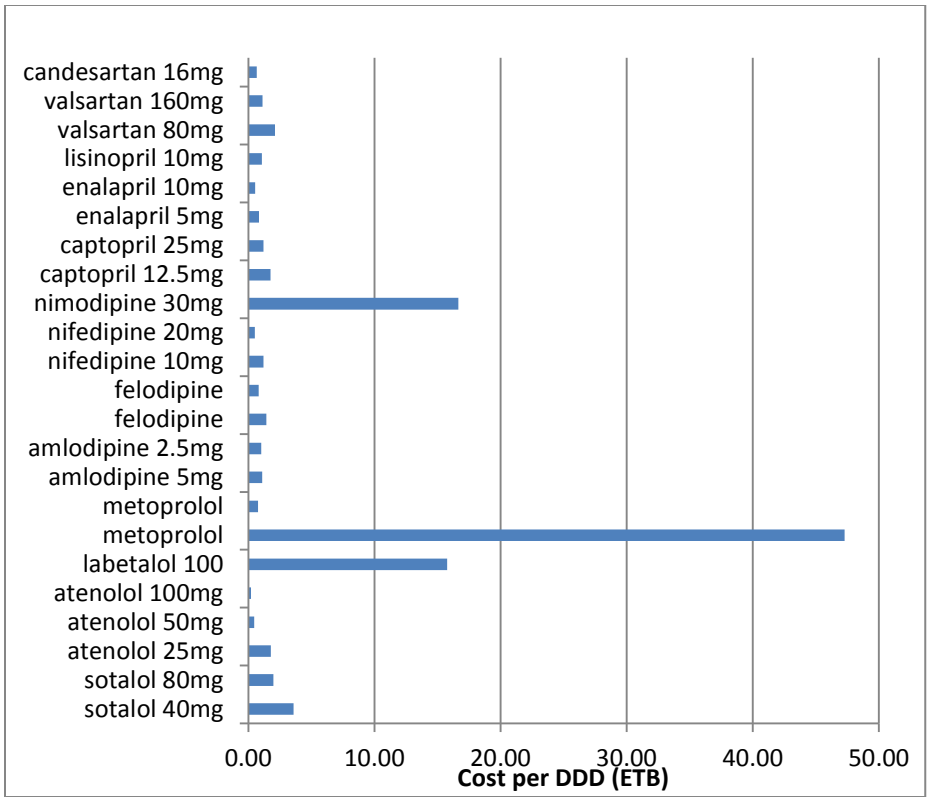



**Figure 20. Comparative cost per DDD for selected SHI-listed medicines for hypertension treatment**

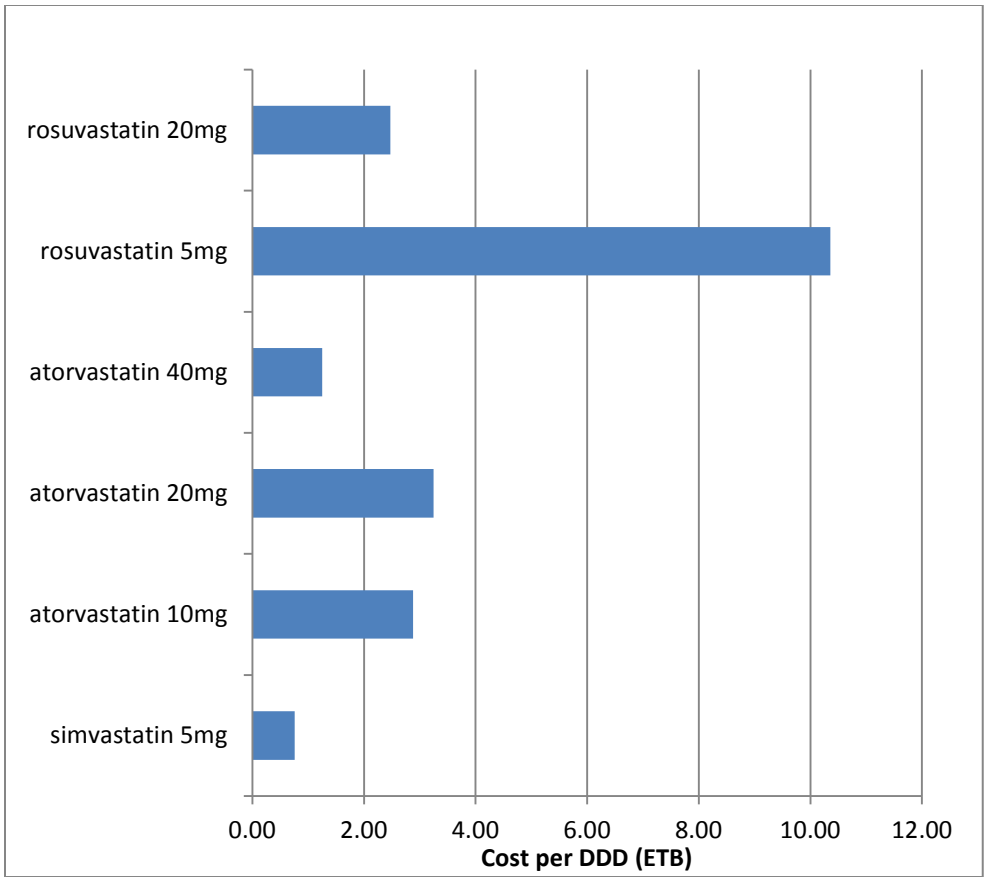



**Figure 21. Comparative cost per DDD for SHI-listed medicines for treating high cholesterol levels**

At these illustrative daily dose costs, the annual cost estimate for each of 23 of 34 medicines for the selected chronic conditions (peptic ulcers, type 2 diabetes, hypertension, and high cholesterol) exceeds the proposed government subsidy (USD 16, or ETB 350) for each SHI enrollee. The CBHI subsidy is only USD 2.5 (Ethiopia Public Expenditure Review 2016). While these chronic diseases are not currently among the top 10 causes of morbidity, they have significant cost implications. The Government of Ethiopia has determined noncommunicable diseases to be a priority and will implement a strategy to, "Ensure availability and affordability of essential medicines and technologies to ensure diagnosis, treatment, and monitoring of noncommunicable diseases is available to the public."

## Medicine Use in the Public and Private Sectors

According to the pharmaceutical sector country profile, on average, 8.3% of public health facilities had a copy of the EML and 19.4% had a copy of the STG in 2010. With WHO assistance, Ethiopia plans to update its pharmaceutical sector profile this year. This includes conducting a survey to assess standard prescribing and dispensing indicators, as well as determine medicines availability and prices for a standard basket of medicines.

The assessment did not find any peer-reviewed publications or targeted grey literature studies on private sector patterns of medicine prescribing, and no information was available from the 2010 Ethiopia country pharmaceutical sector profile.

Data on prescribing and dispensing are not recent, but date back to a survey conducted six years ago, in 2010. The indicators refer primarily to the public sector:

- The average number of medicines prescribed per patient contact in public health facilities (mean) is 2.01.
- The percent of medicines prescribed in outpatient public health care facilities that are in the national EML is 98.3%.
- The percent of patients in outpatient public health care facilities receiving antibiotics (mean) is 60%.
- The percent of patients in outpatient public health care facilities receiving injections (mean) is 23.3%.
- The percent of prescribed drugs dispensed to patients (mean) 86%.
- The percent of medicines adequately labeled in public health facilities (mean) is 87%.
- The percent of children with diarrhea who were treated with oral rehydration solution (ORS) was 70.9%.

**Table 8. Results of selected indicators comparing four studied conditions with 2010 general prescribing indicators**

| | Pharmaceutical Profile (2010) | Upper respiratory infections (2016) | Acute diarrhea (2016) | Essential hypertension (2016) | Type 2 diabetes (2016) |
|---|---|---|---|---|---|
| No. medicines per encounter | 2.0 | Overall 1.9<br>Public 1.9<br>Private 1.7 | Overall 2.2<br>Public 2.2<br>Private 2.0 | Overall 1.7<br>Public 1.7<br>Private 1.8 | Overall 1.6<br>Public 1.6<br>Private 1.0 |
| % patients on antibiotics | 60% | 62.1% | 61.8% | n.a. | n.a. |
| % patients on injections | 23.3% | 9.9% | -- | 3.1% | 7.6% |
| % prescriptions on EML | 98.3% | 100% (top 10) | 100% (top 10) | 100% (top 10) | 100% (top 10) |
| Appropriate prescribing | 80% (diarrhea) | | ORS: 107% of under-fives)<br>Zinc only: 47.7% of under-fives<br>Antibiotic: 61.8% | 7 unique medicines prescribed for hypertension treatment | |
| Availability of STG | 19.4% | | | | |

Source: Ethiopia Country Pharmaceutical Sector Profile 2010, data from SIAPS survey 2016

A survey was conducted this year with a purposive sample of 991 patient records treated for two acute conditions (upper respiratory tract infections and acute diarrhea) and two chronic conditions (essential hypertension and type 2 diabetes). The results reflect a small difference in the number of medicines per patient (1.8 medicines prescribed per patient) for the overall sample. As the characteristics of the 2016 prescribing study differ from that of 2010, it is not possible to determine if this 11% decrease in the indicator is truly meaningful. Table 8 presents the results of selected indicators, comparing the prescribing in public and private facilities for each condition.

Considering sample size and its selection limitations, the results suggest the following:

- Diarrhea cases were seen predominantly in children under 5 years and those less than 14 years (69.1%).
- Upper respiratory infections were seen in adults (15 to 64 years) (55.6%) and in children (less than 14 years) (39.6%).
- The number of medicines per encounter ranged from 1.9 to 2.2 for upper respiratory infection and diarrhea, respectively, and from 1.6 to 1.7 for type 2 diabetes and essential hypertension, respectively.

These average values are consistent with, albeit slightly lower than, the 2.0 medicines per patient observed in the 2010 pharmaceutical sector profile. Prescribing for acute conditions (upper respiratory infection and diarrhea) was higher (1.9 and 2.2, respectively) than for chronic conditions (type 2 diabetes and essential hypertension) (1.6 and 1.7, respectively).

Although the private facility sample is only approximately 5% of the total, a comparison of the situation in public versus private sector indicates many similarities.

The number of medicines prescribed per patient is similar in both public and private facilities for three of the four conditions, but significantly different for type 2 diabetes, with 1.6 medicines per patient in public facilities compared to 1.0 prescribed in private facilities.

Over 90% of the medicines prescribed in the public sector were a generic name, while less than half of the medicines prescribed in the private sector were generic names. In private facilities, 41.2% to 45.0% of medicines were prescribed by generic name for upper respiratory infections and diarrhea, but much less for type 2 diabetes and essential hypertension (20.0% to 22.2%, respectively).

Medicines availability in public facilities is a significant issue, as only 55.8% to 62.8% of prescribed medicines are dispensed. In private facilities, 94.4% to 100.0% of prescribed medicines are dispensed.

## Medicine Costs in the Public Versus Private Sector

The survey data show that in the private sector, prescribed medicines are dispensed most of the time, while the percentage of non-filled prescriptions in the public sector is significant (between

55.8% for type 2 diabetes and 62.8% for upper respiratory infections). The observed average treatment cost for chronic conditions is two to three times higher than for acute conditions. For the selected conditions, private sector costs can be 9.2 times that of the public sector (for upper respiratory tract treatments; 2.1 times for acute diarrhea, 1.5 times for essential hypertension, and 3.9 times for type 2 diabetes).

**Table 9. Selected dispensing and medicine cost indicators comparing four conditions with general results from 2010 survey**

| | Pharmaceutical Profile (2010) | Upper respiratory infections (2016) | Acute diarrhea (2016) | Essential hypertension (2016) | Type 2 diabetes (2016) |
|---|---|---|---|---|---|
| No. medicines per encounter | 2.0 | Overall 1.9 | Overall 2.2 | Overall 1.7 | Overall 1.6 |
| % prescribed medicines that are dispensed | 86.0% | Public 62.8%<br>Private 100.0% | Public 56.4%<br>Private 100.0% | Public 57.7%<br>Private 94.4% | Public 55.8%<br>Private 100.0% |
| Average cost (private/public) | Not determined | 9.2 times | 2.1 times | 1.5 times | 3.9 times |

Source: Ethiopia Country Pharmaceutical Profile, SIAPS facility prescribing and dispensing survey data

**Table 10. Selected prescribing, dispensing, and cost indicators in 39 non-CBHI health facilities compared with 17 CBHI health facilities**

| Diagnosis | Upper respiratory infections | Acute diarrhea | Essential hypertension | Type 2 diabetes |
|---|---|---|---|---|
| Non-CBHI | | | | |
| No. patients | 176 | 164 | 182 | 166 |
| % prescribed medicines that are dispensed | 86.2% | 84.8% | 78.3% | 84.9% |
| No. medicines per patient | 1.8 | 2.2 | 1.7 | 1.6 |
| Average cost per patient (ETB) | 36.88 | 24.19 | 50.36 | 96.53 |
| CBHI | | | | |
| No. patients | 85 | 85 | 75 | 58 |
| % prescribed medicines that are dispensed | 96.5% | 96.0% | 92.4% | 98.9% |
| No. medicines per patient | 2.0 | 2.3 | 1.6 | 1.5 |
| Average cost per patient (ETB) | 32.47 | 31.94 | 23.11 | 72.25 |

Source: SIAPS facility prescribing and dispensing survey data

With the exception of upper respiratory tract infections, the number of medicines prescribed per patient was similar for non-CBHI and CBHI health facilities. The percent of prescribed medicines that were dispensed was higher in CBHI health facilities compared to non-CBHI health facilities, but the average costs were paradoxically lower. This finding warrants further study to understand the reasons behind this.

## Appropriateness of Prescribing

Although the prescribed medicines are consistent with listings in the EML and SHI List, there are potential issues with the appropriateness of prescribing for the selected acute conditions.

- A high proportion of upper respiratory infections were treated with antibiotics.

- Zinc is under-prescribed for diarrhea, when one compares the number of zinc prescriptions with the number of children under five who were treated.

- The proportion of cases of diarrhea treated with antibiotics does not seem to be warranted.

Since these three reference documents—the EML, SHI List, and STG—are not identical in their listings, the prescribed medicines may not be consistent with all and may vary with at least one, between 9.8% (hypertension) and 19.6% (for diarrhea). In particular, for acute conditions such as diarrhea and upper respiratory infections, many prescribed medicines are not consistent with the STG (table 11).

**Table 11. Percent of prescribed medicines that correspond with treatment guidelines and medicine lists**

| Reference document | STG 2014 | EML 2015 | SHI List 2016 | Variance with at least one |
|---|---|---|---|---|
| Acute diarrhea | 82.1% | 92.9% | 92.9% | 19.6% |
| Upper respiratory infection | 89.9% | 91.3% | 95.7% | 11.6% |
| Type 2 diabetes | 96.7% | 93.3% | 96.7% | 10.0% |
| Hypertension | 93.4% | 91.8% | 91.8% | 9.8% |

Prescribed medicines for upper respiratory tract infection diagnoses were listed in the EML and SHI List in 91.3% and 95.7% of cases, respectively, and were consistent in 89.9% with STG listing. While most upper respiratory infections are viral and do not require antibacterial treatment, 53.3% of the prescribed medicines were an antibiotic.

Prescribed medicines for diarrhea treatment were listed in the EML and the SHI List in 92.9% of the cases, but in only 82.1% of the STG. Only 55% of patients were prescribed ORS, but 45.6% were prescribed an antibiotic, an anti-amoeba, or an intestinal parasite medicine, which may or may not have been appropriate (unclear without additional data for analysis).

Prescribed hypertension medicines were listed in the EML and the SHI List in 91.8% of cases, and 93.4% in the STG. However, not all medicines prescribed to these patients were medicines for hypertension treatment. Only 80.6% of the medicines were directly related to hypertension treatment; the other 19.4% of the medicines may have been prescribed for co-morbid conditions, but there was insufficient recorded claims data to allow further analysis. This underscores the need for ensuring capture of sufficient data elements in payment claims to allow medicines utilization review.

For type 2 diabetes treatment, the prescribed medicines were listed in the EML and the SHI List in 93.3% and 96.7% of cases, respectively, and in the STG in 96.7% of cases. However, not all medicines prescribed to these patients were medicines for diabetes treatment; only 87.1% of medicines prescribed were directly related to type 2 diabetes treatment. As for hypertension, the other 12.9% of the medicines may have been prescribed for co-morbid conditions, but these other diagnoses were not recorded; again, the data were insufficient to allow further analysis.

# THE WAY FORWARD

## Pharmaceuticals Financing

The demand for pharmaceuticals has been increasing dramatically over the past few years and their share in the total health expenditure is huge, even in the absence of insurance schemes. Although additional analyses are needed to more precisely estimate the pharmaceutical funding requirements under national health insurance, the results from the health sector costing show that the health needs cannot be covered in the coming years. It is therefore urgent to design a mechanism to help the country's health system better leverage financing by using pooled contributions of beneficiaries to increase the working capital (seed money) of PFSA's revolving drug fund. Increased working capital can improve procurement and improve availability of medicines. The existing health facility revenue retention schemes should allow for flexibility in allocating a sufficient budget for the procurement of medicines and avail to beneficiaries. In addition, it is essential to pursue additional innovative financing mechanisms, efficient use of resources, operationalization of funding, and sustainability mechanisms for preparation and implementation of national health insurance.

SHI must pay close attention to controlling costs and ensuring the efficient and equitable use of available funding, a large proportion of which is private (OOP). From a strategic perspective, EHIA should ensure that SHI implementation effectively manages the provision of quality medicines and related services, as well as actively engages the private sector.

## Managing Medicines for SHI

### *Developing a System or Mechanism for Regular Updating of SHI List*

**The process for developing and reviewing the EML, STG, and EHIA medicines list is intensive, time consuming, and donor dependent**. EFMHACA leads the stakeholder consultative process of periodically reviewing and printing the EML and STG. EFMHACA receives technical and financial support from international organizations such as WHO, the European Union (through the European Union/African, Caribbean, Pacific/WHO renewed partnership), USAID partners, and local partners. The medicine selection process involves a review of the prevalent health problems, identification of treatment choices, and selection of individual medicines and dosage forms for treating disease at the various health care levels (Health, 2014). The essential medicine selection takes into account the qualification of personnel at each level of the three-tier health care system.

As previously discussed, Ethiopia has three national medicine lists. EFMHACA's register contains 1,185 imported and locally manufactured medicines; EML includes 489 medicines for public sector procurement and use; and the recently prepared EHIA SHI List has 560 medicines with reference prices. The SHI List includes many, if not most, of the EML medicines. The interrelations between the EML and SHI List must be addressed and aligned, using harmonized criteria and common evaluation standards, as well as a process that optimizes the use of limited

technical and financial resources for timely updating of these lists. This process may also support the use of subsets of the EML or SHI List to support CBHI.

EHIA will need to revise and update the SHI List more frequently than the existing cycle for revising the EML. A cost and budget impact analysis will be a useful consideration for EHIA prior to expanding the existing SHI List.

### *Setting Up Mechanism for Periodic Updating of SHI List Prices*

**EHIA, in collaboration with FMOH, may need to set up a Medicines Pricing Negotiation platform, with membership from the private sector (local manufacturers, wholesalers, and providers) and the public sector supplier (PFSA).** Large variations exist between the proposed SHI prices for medicines and the prices observed during the recent assessments. Price build-up varies with the type of supply chain channel in Ethiopia. Table 12 shows that how medicine prices are determined based on the supply channel. Prices tend to be cheaper through the public supply chain system. Many stakeholders indicated that prices are dependent on mark-ups and on exchange rates, as well as availability of foreign exchange.

**Table 12. Price build-up according to supply channel**

| | Private sector | Public sector—local products (PFSA) | Public sector—imported products (PFSA) | Special pharmacy networks (NGO, Red Cross) |
|---|---|---|---|---|
| **Manufacturer Price + freight** | 100 | 100 | 100 | 100 |
| **Import duty + value-added tax** | 100 | 100 | 100 | 100 |
| **Levies (5%)** | 105 | | 105 | 105 |
| **Landed cost** | 105 | 100 | 105 | 105 |
| **Importer margin (25–35%)** | 131–142 | 10% mark-up | 25% mark-up | 0% for insulins; 131 (25% mark-up) |
| **Wholesalers get 10–15% discount** | 131–142 | | | 131 |
| **Retail pharmacies (25–35% mark-up)** | 164–192 | 110 | 131 | 164–177 |
| **Price to patient** | 164–192 | 110 | 131 | 164–177 |

There is no pricing policy or pharmaco-economic evaluation system for medicines in Ethiopia. Hence, the situation is characterized by variation in mark-ups and prices of medicines (Eshetu Ali et al., 2015). To address these issues and concerns, EHIA may have to take the lead in establishing the medicines negotiation platform and, in collaboration with stakeholders, develop a costing model for pharmaceuticals that is cognizant of both macro and operational factors that influence prices on the Ethiopian market.

### *Controlling Costs and Supporting Sustainability*

To determine the requirements for financial equilibrium for health insurance, a costing of the service benefit package should be undertaken. Similarly, a costing of private health care services and strategies to engage private health care providers in the health insurance schemes should be developed.

Well-managed insurance programs always look for ways to limit adverse selection and control expenditure while ensuring quality. Controlling the cost of individual services allows an insurance scheme to keep premiums down and expand benefits. Health insurance programs usually control pharmaceutical expenditures through measures related to payment, but also related to management, prescribing patterns, and use.

Cost control of payment methods that insurance systems might consider include the following:

- Copayments made by the insurance beneficiary could be utilized to limit moral hazard. Copayments are intended to encourage the patient to carefully consider whether the medication is useful or not. However, they may discourage poor patients from taking needed medications.

- Tiered copayments require patients to pay different amounts of money for their prescriptions (see table 5), depending on how the medicines are classified. A simple tiered plan will include generics and brand-name medicines. Other tiers may include preferred branded versus non-preferred branded.

    - Coinsurance is a specified percentage to be paid by the beneficiary (e.g., 25% for drugs used in serious and chronic illnesses, 50% for most other pharmaceuticals, and 75% for symptomatic treatments for minor illnesses).

    - A deductible is a specified initial amount the insured must pay before services are covered. It is usually a set amount per quarter or per year.

- Maximum allowable cost or maximum reimbursement price (benefit capping) specifies the highest reimbursement amount for each item to control medicine charges, encourage generic substitution, or establish copayment levels.

Currently, there is no limit set for each subscriber for medicines coverage. A subscriber can visit the clinic as many times as they need and be prescribed medicines as many times as they can. It may be necessary to set annual or monthly value limits for medicines per patient to manage expenditure.

Other cost control measures might include a rigorous referral system mechanism to assist in terms of limiting unnecessary use of hospital services. The provider payment system should be simple to operate and inexpensive to audit. Using a capitation basis for paying for health center services would remove the risk of overbilling and reduce administrative costs. Using some form

of service bundling, such as case-based payments, would help to achieve the same outcomes at the hospital level.

Several challenges for sustainability were mentioned earlier in the report. Approaches to address these issues include advocacy with the government (Ministry of Finance) for health care financing; development of alternative financing mechanisms; and introduction of risk assessment methods, including actuarial forecasting practices for strategic decisions to avert risks.

For resource mobilization, a mechanism should be developed to revise premiums every two to three years to take into consideration changes in the use of services and prices. Reassurance and fund stabilization mechanisms could be considered in the longer run to stabilize CBHI schemes that are not financially viable in the initial stages.

Finally, mechanisms to ensure equity should also be developed. These include a mechanism to fund insurance premiums for the poorest, so they are not excluded from the system. It is already expected that the government will subsidize the premiums for the poor under CBHI (approximately 10% of the population), but it will be important to secure funding for this category of the population through the creation of a dedicated fund led by either the government or donors, or through specific taxes (e.g., on international financial transactions, value-added tax, or on mobile phones). A contribution mechanism to health insurance based on capacity to pay should also be developed in the longer run. This mechanism could be based, for example, on a categorization of the population for which different premium levels would be applied.

### *Credentialing Health Care and Pharmacy Service Providers*

Credentialing is an effective way to ensure quality service delivery in an insurance scheme. Licensure of health facilities is done by the regulatory authority (EFMHACA), whereas credentialing by the insurance entity (EHIA) relates to the process of authorizing facilities to provide specified services to insurance program enrollees and beneficiaries, according to pre-determined standards. In Ethiopia, EFMHAC licenses health facilities, but does not have a credentialing system in place. It is important that this process is developed by EHIA in concert with FMOH, EFMHACA, Regional Bureaus, and any other relevant stakeholders.

The evaluation team recommends that EHIA develop a credentialing system and tools that are facility-type specific. Hence, relevant sets of credentialing checklists to be developed could include:

- Hospitals to provide comprehensive outpatient and inpatient clinical services
- Clinics to provide outpatient clinical services and limited observation in observation rooms
- Primary health units/centers to provide outpatient clinical services and limited observation in observation rooms

- Pharmaceutical services, either as part of a facility providing a broad spectrum of health services (e.g., a hospital) or as community outlets providing limited pharmaceutical services (e.g., community pharmacy drug shops and rural vendors)

- Diagnostic units to provide laboratory and imaging services, either as part of a facility providing a broad spectrum of health services (e.g., a hospital) or as a community-based diagnostic center

The same tool should apply to the same type of facility across ownership type (e.g., private versus public sector). For example, the same clinic checklist would be used to assess all clinics irrespective of ownership. Tools may have the same basic character and structure.

To be credentialed, providers should fulfill explicit criteria that may include, but not be limited to:

- Licensing from the regulatory body (EFHMACA)
- Minimum number of months or years of operation
- Good record of service provision
- The required human resources, equipment, physical structures

Noncompliance with any of the requirements and conditions of credentialing, such as fraud, non-renewal, non-issuance, or loss of EFMHACA license to operate, may lead to revocation of accreditation status.

There are a number of chains or facilities that could serve as the basis for an accredited network of pharmaceutical outlets. EHIA, in collaboration with pharmacies, will first need to conduct a survey to identify locations of pharmacies and their respective costs of operation. In collaboration with EFMHACA, EHIA may need to adopt the minimal licensure standards to define accreditation or a credentialing checklist to select potential pharmacy service providers. The credentialing and/or accreditation checklist may include location of pharmacy, staff size, licensure status with EFMHACA, presences or absence of a pharmacist, storage practices, and standard operating procedures. EHIA should work in close collaboration with the regional health bureaus and the Medical Services Directorate to accredit providers across the country. EHIA should also adopt a phased approach to accreditation of private pharmacies:

- Phase 1: Adopt a preferred pharmacy provider approach through negotiations with and accreditation or credentialing of network pharmacies (Ethiopian Red Cross Society, Kenema Pharmacy, and other local chains)

- Phase 2: Accredit commercial independent pharmacies willing to contract at SHI network prices

### *Managing Membership and Eligibility of Primary Members and Dependents*

**EHIA will need a robust membership and eligibility management database for the 17 million potential SHI clients**. Typically, all these members will need a form of identification

(ID). This membership ID may be in the form of a standard paper or plastic card, or a "smart card," which could allow the provider to access the member's information electronically, or potentially be included as part of a mobile phone application. The choice of ID type should be based on the technology available (or easily procurable) and the costs to implement and manage the process.

SHI will have to define the period for reviewing each member's eligibility to participate. In most situations, review occurs annually. But, given the level of effort and associated costs required to conduct the review and member renewal process, it may be necessary to lengthen the period to two or more years. Long intervals between reviews or failure to review eligibility will waste money, as the program pays for services and medicines for people who may no longer be eligible for coverage.

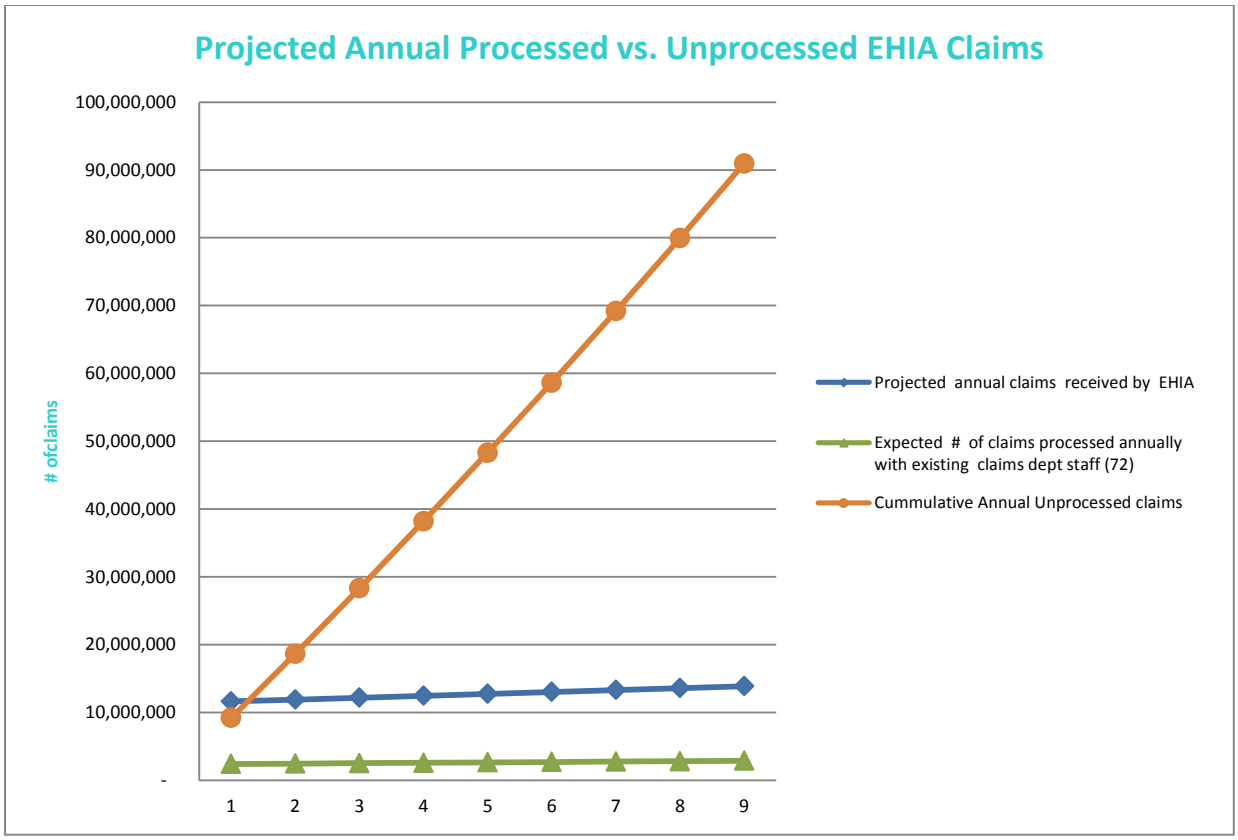
**Potential implementing partners:** Outsource the production of ID cards for enrollment and re-enrollment to a private company with capability in terms of technology and geographic reach to design and maintain the ID system.

### *Managing and Processing EHIA Claims*

**EHIA will be responsible for ensuring timely processing and reimbursements of claims received from all accredited or credentialed providers.** When countries initiate social or national health insurance schemes, they often underestimate the volume of claims needed to be processed and have consequently not resourced their claims management units with the necessary technologies and staff numbers to address claim management challenges. Under-resourcing the claims management unit in SHI will cause delays in reimbursement of clients and payments to providers and will lead to overall client and provider dissatisfaction with the scheme. Delays can also have a negative impact on pharmaceutical supply chains, leading to stockouts because providers could not meet their financial commitments to suppliers due to delayed payment of claims.

SHI targets formal sector civil servants and private sector workers, their dependents, and pensioners. The total potential population to be covered under SHI is 18.1 million in year one, and is expected to grow to 21.2 million in 10 years.

It is projected that utilization will grow from a low of 0.47 to 0.75 in two to three years (using CBHI rates). The potential encounters of insured clients with the health sector are expected to increase from a low of 13.3 million to 16.5 million encounters per year in 10 years. It is assumed that each encounter translates to a claim action by an EHIA accredited provider. Currently, EHIA has no software to adjudicate and process claims, and plans to process claims manually (with a paper-based system). The analysis in table 13 shows that a staff size of 72 is woefully inadequate for the level of anticipated claims. At the current staff size of 72, and using a paper-based system, it is projected that there will be over 11 million unprocessed claims at the end of year one, with cumulative delays leading to over 80 million unprocessed claims by the 10th year (figure 22).




Source: Authors (claims load projections and staff need analysis)

**Figure 22. Proposed EHIA paper-based claims management and projected volume of unprocessed claims**

With a client load of 9 million subscribers and a utilization rate of 0.6 and 3,500 health facilities, Ghana's claims unit employs a staff of 500 (data entry and claims offices). Despite this large staff size, the claims and provider payment process is notorious for delays of up to 180 days for unpaid claims. Ghana has recently introduced an electronic claims system that currently supports processing of large-volume health facilities.

It is critical that EHIA focusses on implementation of electronic claims management systems as a matter of urgency and the recruitment of additional staff to manage the anticipated claims processing load.


**Figure 23. Estimated number of staff needed to process projected volume of claims**

An initial option will be to increase the staff size to a minimum of 400 data entry and claims officers (figure 23) while efforts are made to move from a paper-based system to an electronic claims management system.

Another long-term option is to outsource this function to a private sector third party entity, a pharmacy benefits management (PBM) company that can immediately deploy and manage the medicines claims. Several countries, including South Africa, Namibia, and the United States of America, have such an arrangement in place. These third-party claims management entities may be a private for-profit or private not-for-profit entity.

The report recognizes that as part of its 2016–2020 strategic plan, EHIA targets strengthening the Information, Communication, and Technology infrastructure management. EHIA plans to network its branch offices with the head office, and provide adequate computers and software to strengthen data management capacity. EHIA also plans to implement software that supports proper management of members' data (registration fees and contributions), claims and reimbursement requests, payment executions, financial reporting, human resources management, and data reporting and documentation. However, interviews and discussion indicate that these are long-term objectives. It is critical that EHIA urgently focuses on implementation of software or electronic claims management systems. The electronic claims systems should enable EHIA to receive and process claims electronically.

**Table 13. Projected claims load: Staff numbers vs. claims volumes**

| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|---|
| Formal civil servants | 1,902,000 | 1,947,000 | 1,993,000 | 2,038,000 | 2,084,000 | 2,129,000 | 2,175,000 | 2,221,000 | 2,267,000 |
| Formal private sector | 1,902,000 | 1,947,000 | 1,993,000 | 2,038,000 | 2,084,000 | 2,129,000 | 2,175,000 | 2,221,000 | 2,267,000 |
| Pensioners | 303,000 | 310,000 | 324,000 | 332,000 | 339,000 | 346,000 | 353,000 | 361,000 | 368,000 |
| Total population covered | 18,181,800 | 18,611,800 | 19,058,200 | 19,489,200 | 19,928,600 | 20,358,600 | 20,798,000 | 21,238,400 | 21,677,800 |
| Number of health facility encounters per annum using projected utilization rate of 0.75 | 13,636,350 | 13,958,850 | 14,293,650 | 14,616,900 | 14,946,450 | 15,268,950 | 15,598,500 | 15,928,800 | 16,258,350 |
| Projected annual claims received by EHIA | 13,636,350 | 13,958,850 | 14,293,650 | 14,616,900 | 14,946,450 | 15,268,950 | 15,598,500 | 15,928,800 | 16,258,350 |
| Average number of claims processed annually by CBHI: Staff of 3 | 100,800 | 100,800 | 100,800 | 100,800 | 100,800 | 100,800 | 100,800 | 100,800 | 100,800 |
| Expected # of claims processed annually with existing claims department staff (72) | 2,419,200 | 2,476,414 | 2,535,810 | 2,593,158 | 2,651,622 | 2,708,837 | 2,767,301 | 2,825,899 | 2,884,364 |
| Cumulative annual unprocessed claims | 11,217,150 | 22,699,586 | 34,457,425 | 46,481,168 | 58,775,995 | 71,336,109 | 84,167,307 | 97,270,208 | 110,644,194 |
| Staff needed to meet gap | 406 | 415 | 425 | 435 | 445 | 454 | 464 | 474 | 484 |

Assumptions: Average size of household = 4.7.(HSTP 2015/16–2019/20). No dependents of pensioners are covered. The utilization of services without insurance at primary care level in 2014 (WHO) is 0.32–0.35. Utilization after introduction of CBHI was 0.75–1.1.Health service utilization in SHI is conservatively projected at 0.75 for purposes of this analysis. Every encounter results in a provider-generated claim to EHIA. Average number of working days per annum in Ethiopia = 260; working days per month = 21 days. Annual claims processing rate assumed conservatively to be same as average annual claims by CBHI (100,800 = 400x21x12). CBHI input is also based on a staff size of three, with all three staff providing same level of effort to the claims processes.

### *Monitoring Utilization*

Monitoring SHI beneficiaries and providers' use and costs of services and medicines is critical to SHI financial sustainability. Collecting and processing relevant data to assess prescribing is labor intensive, but necessary for assessing adherence to SHI List and STG to determine appropriateness and quality of health care and use of medicines.

The SHI program should monitor the:

- Average cost per beneficiary (by eligible beneficiaries, by utilizing beneficiaries)
- Top 200 products (by value, by volume of claims)
- Top 20 therapeutic groups (by value, by claims)
- Top 100 utilizing beneficiaries (by value, by claims)
- Top 100 providers (by value, by claims)
- Top 100 prescribers (by value, by claims)

Medicines utilization review is the analysis of available data to understand, interpret, evaluate, and improve the prescribing and use of medications. The aim for conducting the reviews is to prevent problems by detecting potential problems with inappropriate use, misuse, and fraud by providers and beneficiaries. Findings from medicines utilization reviews can be used to promote more efficient use of SHI funding and contain costs while improving the quality of care.

Monitoring utilization and SHI program performance is much easier with automated information systems. However, SHI must start with the existing system, even if it is paper-based. The capacity to collect and analyze available data and use the findings to take specific corrective actions is critical. Therefore, SHI needs to ensure that its management information system supports basic utilization monitoring.

### *Promoting Appropriate Use of medicines*

To support the appropriate prescribing, dispensing, and use of medicines, EFMHACA and FMOH have published STG for health centers, general hospitals, and primary hospitals. While these reference documents have been widely distributed in public sector health facilities, the limited data on prescribing suggest that greater efforts may be needed to ensure adherence to best treatment recommendations. The SHI program should endorse and support the use of these national guidelines in private health facilities. These guidelines can be the basis for conducting medicines utilization reviews and support or interventions to improve prescribing practices.

The SHI program should target both providers and beneficiaries and provide them with print and online materials that support the appropriate and cost-effective use of medicines. These include descriptions of program medicines coverage; the rationale for policies and procedures; and the benefits of formularies, STG, and generic medicines.

The SHI program can also require verification of functional Pharmacy and Therapeutics Committees as a criterion for credentialing health facilities. This will provide an incentive for

using and strengthening these technical advisory resources to support provision of quality health services, particularly in hospitals.

## Engaging the Private Sector

The pending launch of SHI will create the largest single-payer pool of health-insured lives (estimated at 18 million in year one) in Ethiopia. Of note, a large portion of potential SHI clients (employees of private sector organizations, such as banks, telecommunication firms, insurance companies, local NGOs, civil servants, and their dependents) have employer-based schemes as well as private health insurance. These groups also tend to access health care from a mix of public and private health facilities and pharmacies.

In order to build, enable, and sustain EHIA—the new single-payer's capacity—so as to deliver the SHI health and medicines benefit package in an acceptable, accessible, effective, and efficient manner for the long term and in a short span of time, considerations should be given to engaging relevant partners, including the private sector.

Engaging the private sector will require a policy-driven strategy, as well as governance and institutional structures to manage public-private partnerships. This approach is specifically endorsed by the Government of Ethiopia in its Strategic Framework for PPP in the Health Sector in Ethiopia (June 2013) and in the associated Ministry of Health's Public-Private Partnerships Implementation Guide (June 2015).

A structured engagement with the private sector is also envisaged by Ethiopia's HSTP, where it is stated that, *"The health sector itself cannot be the exclusive domain of the public sector, but should be a collaborative endeavor through public/private partnership, the involvement of the NGO sector, and private for-profit health delivery system."*[31]

Therefore, the Government of Ethiopia has in place a clear process[32] and governance structure33 for potential PPP projects in the health sector to follow, which offers a structured and well-governed procedure for exploring the feasibility of PPP.

The public sector remains the largest provider of pharmaceutical services and product delivery in Ethiopia. Though a smaller player, the growing private sector in Ethiopia is made up of a heterogeneous mix of pharmaceutical services and product providers including hospitals, clinics, pharmacies, drug stores, and rural vendors.

Given the respective strengths and weakness of these two sectors, the potential benefits from public-private partnerships will include improved geographic accessibility and reach of services; improved equity through the strategic purchasing of health care benefits at agreed upon prices;

[31] HSTP, 2016–2020, page 146
[32] Ministry of Health's Public-Private Partnerships Implementation Guide, June 2015, pages 31–35
[33] Strategic Framework for PPP in the Health Sector in Ethiopia, June 2013, page 21

and an opportunity to improve quality and appropriate use practices through accreditation, as well as credentialing, contracting, and capacity building.

Table 14 lists potential challenges for SHI and corresponding opportunities for private sector engagement.

**Table 14. Potential challenges and opportunities for private sector engagement**

| Potential Challenges and Risks to SHI | Element | Responsibility/Lead Implementing Partner | Opportunities for Public-Private Partnership | |
|---|---|---|---|---|
| | | | Short-Medium Term | Long term |
| Potential client dissatisfaction with shift from existing employer-based health coverage package and private health insurance to SHI package | Definition of health and medicine benefit package | EHIA, FMOH | | Private health insurance and employer-based schemes have option to provide cover for "top up"/services beyond recommended SHI package |
| Delays in issuance of identification/membership card<br>Electronic/magnetic cards and need for smart card readers<br>Re-issuance of cards over agreed period<br>Non-core tasks of EHIA | Membership card development, renewals, determination of eligibility and maintenance of database | EHIA, national ID production; Regional Health Bureaus | EHIA and national ID unit to initiate card rollout | Outsource to private card development company |
| Difference in prices of medicines and prices of services between public and private sector | Development of tariffs and setting prices of services | EHIA; private sector stakeholders, such as Ethiopian Pharmaceutical Association (EPA), Ethiopian Medical Association (EMA), wholesalers | Set up negotiation committee made up of stakeholders, including private sector representatives | |
| Accessibility and acceptability of health service providers | Contracting of service providers | EHIA, EFMHACA, EPA, EMA | Contract with private hospitals, pharmacies, and drug shops | Contract with private hospitals, pharmacies, and drug shops |
| Paper-based claims management and potential delays of claims payment | Claims management | EHIA | EHIA to initiate paper system and evolve to electronic system | Third-party electronic claims systems company (private for-profit or not-for-profit) |
| Limited adherence to STG in the private and public sectors | Appropriate use of medicines | EHIA, EPA, EMA EFMHACA | | Integrated capacity building exercises for both public and private sectors |

### *Contracting with a Third-Party PBM Organization*

Although less prevalent in low- and middle-income countries, the presence of PBM organizations is growing. For example, PBM organizations provide services in South Africa and Namibia, and there is a budding industry in Kenya and Ghana. PBM companies can be for-profit or not-for-private private sector organizations. This industry will likely continue to grow as more countries roll out large scale health insurance plans with medicines benefits.

The services offered by a comprehensive PBM firm may include:

- Consultation concerning benefit design
- Claims processing and adjudication
- Business intelligence, including management, operational, and executive reports
- Development and performance management of the contract provider network
- Managing claims expenditure
- Billing to beneficiaries and collection of copayments
- Negotiation of pricing and rebate contracts with manufacturers and distributors and management of those contracts
- Development and management of medicine lists (formularies)
- Management of medicine utilization review programs
- Management of programs aimed at correcting inappropriate utilization by beneficiaries and providers
- What-if studies and impact analysis

EHIA can select which services to be contracted out. The flexibility of a PBM to accommodate the different requirements is therefore necessary. Payment terms for the PBM services will depend on the nature of the services and the willingness of the PBM company and EHIA to consider risk-sharing arrangements. Potential options include:

- Fee-for-service variations, where EHIA pays a specified amount for each claim processed, and each payment processed, and so forth
- Payment of a specified amount for overall management services plus a fee for each specific service provided

- Contracts should specify that the PBM organization pass on the benefit of any rebates or discounts from manufacturers

- Capitation, where a fixed payment is made based on a negotiated per-member, per-month amount

- Shared risk arrangements based on a target total cost for outpatient pharmacy services

- Performance-based contracts, where the PBM company's fee may be increased or reduced based on achievement of specified objectives

If the PBM company is prepared to consider capitation or risk-sharing contracts, it will probably demand control of formulary management and generic or therapeutic substitution processes to restrain costs. Selection of a PBM company should be internationally competitive.[34]

A more comprehensive costing of this public-private partnership option can be done if EHIA and the Government of Ethiopia consider these technically sound and politically feasible options.

Although further investigation and costing of options are required, the results of the assessment provide broad directions for action.

[34] Vogenberg, F.R. 2011. Pharmacy Benefits—Plan Design and Management. Brookfield, WI. International Foundation of Employee Benefit Plans.

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# ANNEX 1. SUMMARY OF SITES AND HEALTH FACILITIES SELECTED FOR THE ASSESSMENT

| No. | Public Pharmacy HFs | Private Pharmacy HFs | Region | Zone | City |
|---|---|---|---|---|---|
| 1 | Bishoftu Hospital | Private Pharmacy | Oromia | East Shoa | Bishoftu |
| 2 | Batu Hospital | Private Pharmacy | | | Ziway |
| 3 | Chefe Donsa HC | | | | Chefe Donsa |
| 4 | Meki HC | | | | Meki |
| 5 | Metehara HC | Private Pharmacy | | | Metehara |
| 6 | Adama R. Hospital | Adama G. Hospital Pharmacy | | Adama | Adama |
| 7 | Adama HC | 2 Private Pharmacies | | | Adana |
| 8 | Tulubollo Hospital | Private Pharmacy | | S. West Shoa | Tullubollo |
| 9 | Woliso HC | Private Pharmacy | | | Woliso |
| 10 | Tefki HC | | | | Tefki |
| 11 | Gindo HC | | | | Gindo |
| 12 | Ambo Hospital | Private Pharmacy | | West Shoa | Ambo |
| 13 | Jimma S. Teaching Hospital | Private Hospital Pharmacy | | Jimma | Jimma |
| 14 | Jimma HC | 2 Private Pharmacies | | | Jimma |
| 15 | Gimbi Hospital | Private Pharmacy | | West Wellega | Gimbi |
| 16 | Nejo Hospital | Private Pharmacy | | | Nejo |
| 17 | Gimbi HC | | | | Gimbi |
| 18 | Menesibu HC | | | | Menesibu |
| 19 | Kiltu Kara HC | Private Pharmacy | | | Kiltu kara |
| 20 | Bisidimo Hospital | Private Pharmacy | | East Harerghe | Bisidimo |
| 21 | Garamuleta Hospital | Private Pharmacy | | | Garamuleta |
| 22 | Babile HC | Private Pharmacy | | | Babile |
| 23 | Chelenko HC | | | | Chelenko |
| 24 | Kersa HC | | | | Kersa |
| 25 | Finoteselam Hospital | Private Pharmacy | Amhara | West Gojjam | Finoteselam |
| 26 | Felege Hiwot R. Hospital | Private Hospital Pharmacy + 2 Private Pharmacies | | | Bahir Dar |
| 27 | Burie HC | | | | Burie |
| 28 | Durbete HC | | | | Durbete |
| 29 | Dembecha HC | | | | Dembecha |
| 30 | Borumeda Hospital | | | South Wello | Borumeda |
| 31 | Hidar 11 Hospital | | | South Wollo | Akesta |
| 32 | Haik HC | Private Pharmacy | | | Haik |
| 33 | Kombolcha 02 HC | Private Pharmacy | | | Kombolcha |
| 34 | Kelala HC | | | | Kelala |
| 35 | Dessie R. Hospital | Private Hospital Pharmacy | | Dessie | Dessie |
| 36 | Dessie HC | 2 Private Pharmacies | | | Dessie |
| 37 | Assosa Hospital | Private Pharmacy | BG | Assosa | Assosa |
| 38 | Assosa HC | | | | Assosa |
| 39 | Menge HC | | | | Menge |
| 40 | Dupti Hospital | Private Pharmacy | Afar | Zone 1 | Dupti |
| 41 | Aysaiyta Hospital | Private Pharmacy | | | Aysaita |
| 42 | Logia HC | Private Pharmacy | | | Logia |
| 43 | Mille HC | | | | Mille |
| 44 | Semera HC | | | | Semera |
| 45 | St. Emanuel Hospital | Merkato Kenema Pharmacy | Addis Ababa | Addis Ketema | Addis Ababa |
| 46 | St. Paul Hospital | Girum Hospital Pharmacy | | Gulele | Addis Ababa |
| 47 | Addis Ketema HC | Private Pharmacy | | Addis Ketema | Addis Ababa |
| 48 | Woreda 7 HC | Private Pharmacy | | | Addis Ababa |
| 49 | Felege Meles HC | Private Pharmacy | | | Addis Ababa |
| 50 | Black Lion Hospital | Bethzatha Hospital Pharmacy | | Lideta | Addis Ababa |
| 51 | Zewditu Hospital | Stadium Knema Pharmacy | | Kirkos | Addis Ababa |
| 52 | Minilik Hospital | Red Cross Pharmacy (Piassa) | | Yeka | Addis Ababa |
| 53 | Meshualekia HC | Gishen Pharmacy | | Kirkos | Addis Ababa |
| 54 | Kazanchis HC | Soloda Pharmacy | | | Addis Ababa |
| 55 | Efoita HC | Axum Pharmacy | | | Addis Ababa |

## ANNEX 2. LIST OF KEY PERSONS AND ORGANIZATIONS INTERVIEWED

| Name and Title or Position | Affiliation |
|---|---|
| Mr. Petros Kidanu, Providers Affairs and Quality Assurance Director | EHIA |
| Mr. Juan Charro, Actuary (Consultant) | |
| Mr. Abduljeli Rashid, Deputy Director General | |
| Mr. Mulat Tegegn, Deputy Director General | |
| Dr. MizaN Kiros, Resource Mobilization Director | FMOH |
| Dr. Mekdim Enkossa, Resource Mobilization Directorate | |
| Mr. Mideksa Adugna, Resource Mobilization Directorate | |
| Ms. Meherat Tena, Resource Mobilization Directorate | |
| Mr. Mebratu, Policy and Planning Directorate | |
| Sufyan Abdulber, Pharmaceuticals and Medical Equipment Director | |
| Ms. Heran Gerban, Deputy Director General | EFMHACA |
| Dr. Teferi Gedif, President | EPA |
| Ezera Muluneh, General Manager | Kenama Pharmacies |
| Natan, Head Pharmacist, Zewditu Hospital | |
| Tizazu Sema, Head, Admin and Finance | |
| Mr. Kibiret, Operations Manager, and Mr. Fasil, Credit Service Head | Bethezantha General Hospital |
| Getachew, Pharmacy Head | |
| Dr. Girma Kibiret, Medical Director | |
| Tilahun Alemu, Customer Service and Property Administration Manager | Saint Gabriel General Hospital |
| Petros Samson, Head Pharmacy | |
| Mhiret Tamir, Head of Essential Drugs Programme | Ethiopia Red Cross Society |
| Anne BAakilana, Senior Economist | The World Bank Ethiopia |
| Mrs. Roman Tesfaye, Economist | |
| Abraham G/Giorgis, NPO, Essential Drug Programme | WHO Ethiopia |
| Abebe Mamo, Head | Gimbichu CBHI Office |
| Teketel Kebede, CBHI Coordinator | |
| Teshome Diriba, Representative | Gimbichu Woreda Administration |
| Zelalem Abebe, Senior Health Insurance Advisor | Health Sector Financing Reform Project, HFG |
| HIV and AIDS, HSS and MCH Teams | USAID Ethiopia Office |
| Dr. Nebyou Asnake, Medical Director<br>Mrs. Meriam, CEO<br>Mr. Getachew, Head, Admin and Finance | Kadisco Hospital |