



**ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
MBA - PROGRAM**

**The Contribution of Health Care Financing for Enhancing
Drug Supply Capacity in Public Health Centers in Addis
Ababa in the case of Bole Sub city**

BY:

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April 2015

ADDIS ABABA, ETHIOPIA

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**A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOOL
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**ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES
FACULTY OF BUSINESS**

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DECLARATION

I, the undersigned, declare that this thesis is my original work; prepared under the guidance of **Dejene Mamo (Ass't Prof)**. All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

Name

Signature & Date

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ACRONOMIES

AAHB	Addis Ababa Health Bureau
BI	Bamako Initiatives
BoFED	Bureau of Finance & Economy Development
DACA	Drug Administration & Control Authority
FDROE	Federal Democratic Republic of Ethiopia
FMHACA	Food, Medicine & Health care Administration & Control Authority of Ethiopia
FMOH	Federal Ministry of Health
GDP	Government Domestic Product
HAI	Healthcare Association Infections
HC	Health Center
HCF	Health Care Financing
HIV	Human Immunodeficiency Virus
HSDP	Health Sector Development Program
ICC	International Children's Centers
MOF	Ministry of Finance
MOH	Ministry of Health
NGO	Non-Governmental Organization
NHA	National Health Account
OoP	Out of Pocket
PHC	Premier Health Center
RFB	Regional Finance Bureau
RHB	Regional Health Bureau
RRU	Revenue Retention & Utilization
SNNPR	South National & Nationality People Regional
SS	Supportive Supervision
WHO	World Health Organization

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ABSTRACT

The main purpose the study is to examine the contribute Health Care Financing to drug supply of 10 health centers those found in Bole Sub City, Addis Ababa. The study is basically a survey that used both qualitative and quantitative approaches. For the purpose of data collection self-administered questionnaire was adopted, pre-tested and personally administered to the target population following the appropriate ethical procedures. Fifty employees (50), one hundred forty (140) incoming patients planned to collect questionnaires. Ten (10) Broad members and Four (4) from Addis Ababa Health Bureau & USAID Health Care Financing specialist respondents were sampled for interview and focus group discussion respectively, from the total populations of 200 employees, 400,000 community members, 90 board members and 4 from focal & technical person respectively using the sample size determination table developed by Yamen, (1967). Out of the distributed 190 questionnaires only 149 returned constituting 78.42% response rate. The findings of this study showed that the current performance of Health Care Financing improved the drug supply as well as the health service qualities of the selected health centers, but the yet to meet the demand of the community. Based on this the researcher recommended to strengthen the inventory controlling mechanism, proper and favorable drug storage, update current low user fee rate to integrate more money to health sector, to provide incentive and reward for the best performing employees and board members to tackle high employee turnover and create active board member and finally provide technical and administrative training to upgrade employees skills.

CHAPTER ONE

1. INTRODUCTION

The right to the enjoyment of the highest attainable standard of physical and mental health is considered a fundamental human right. Internationally, the right to health was first articulated in the 1946 Constitution of the WHO . The most authoritative interpretation of the right to health is outlined in Article 12 of the International Covenant on Economic, Social and Cultural Rights, which has been ratified by approximately 150 countries including Ethiopia. Nations are required to ensure availability; non discriminating physical, economic, and informational accessibility; cultural and ethical acceptability; and quality of health care (WHO, 2008). Ensuring economic access to health centers are an essential element of the right to health. This fundamental human right cannot be observed in the absence of effective financial protection mechanisms for health care expenditures.

On the ground health care expenditure in most low- and middle-income countries is well below what is needed. A recent analysis suggests that while low-income countries need to spend \$60 per capita for a basic package of health services, the average actual per capita health expenditure in these countries is only \$27 (M. Govinda Rao & M. Choudhury, 2012). Low revenue collections, competing demands for revenues, and relatively low spending priority contribute to this insufficient spending. According to WHO Health financing refers “function of a health system concerned with the mobilization, accumulation and allocation of money to cover the health needs of the people, individually and collectively, in the health system” (WHO, 2008).

In recent years, more and more developing country governments have been experimenting health care financing programs for government health facilities. The economic recession of the 1980s severely strained government budgets, making it more difficult to provide health care to the majority of the population (K. Mcinnes, 1993). As a result, many developing country governments, which traditionally provide health care to the population, have begun to consider alternative mechanisms for financing health services. In times around four models have been using among different nations to give health care service and finance the rapidly increasing health expenditure to manage sustainably the growing health quality demand and rapid population growth (R. Kulesher, & E. Forrestal,2014).

The Beveridge Model named after W. Beveridge 2014, the daring social reformer who designed Britain's National Health Service. In this model, health care is provided and financed by the government through tax payments, just like the police force or the public library. Bismarck model is named after Prussian Chancellor Otto von Bismarck. It uses an insurance system — the insurers are called “sickness funds” — usually financed jointly by employers and employees through payroll deduction. Doctors and hospitals tend to be private in Bismarck countries. Although this is a multi-payer model tight regulation gives government much of the cost-control clout that the single-payer Beveridge Model provides (R. Kulesher, & E. Forrestal,2014).

The third model has elements of both Beveridge and Bismarck. It uses private-sector providers, but payment comes from a government-run insurance program that every citizen pays into. National Health Insurance control costs by limiting the medical services they will pay for, or by making patients wait to be treated. The last one is Out-of-Pocket (OoP) Model is the traditional form of healthcare is direct out-of-pocket payment for services. According to the World Health Organization (WHO) out-of-pocket payment is the most regressive way of healthcare financing which will not be sustainable. In most African countries, India, China and South America, hundreds of millions of people go their whole lives without ever seeing a doctor (R. Kulesher, & E. Forrestal,2014).

In an attempt to improve access to affordable healthcare, a number of Sub Saharan African countries adopt different the above modified models of health care financing, few are successful but most of which have been unsuccessful reaching the poor. The most urgent problem of sub Saharan African countries is that governments lack the fund needed to finance health services expected by their citizens. Hospitals and health stations need to be built qualified health personnel need to be trained, imported equipment, drugs and supplies need to be paid with foreign exchange.

The shortage of health financing affects Ethiopia with frequent drug shortages in public health facilities; a national survey estimates that only 70% of essential medicines are available in the public sector (Carasso et al., 2009; Zelalem Abiye, 2013). Access to medicines is a complex construct because health services require regular availability of relevant medicines (essential drugs) of proven safety, efficacy and quality at an affordable price (Cameron et al., 2009; Robertson et al., 2009; FMHACA, 2010; Zelalem Abiye, 2013).

In 1998 EC after facing these challenges The Federal Ministry of Health of Ethiopia developed a health care financing strategy that was endorsed by the Council of Ministers and became a very important policy document for introduction of health financing reforms. The government recognized that health cannot be financed only by government and also underscored the importance of promoting cost sharing in provision of health services. The reform was initially implemented in three largest regions (Amhara, Oromia, and SNNP) in 2005/2006 (Hailu Zelelew, 2012); these reforms are being scaled up all over the country. For last five years, the health care financing reforms have been expanded to other regions as well as Addis Ababa. This Health Care financing strategy incorporates seven important components to enhance health service quality sustainably and raise financial resource for public health Revenue Retention & Utilization (RRU) is one of the major components of the strategy which this paper concentrates on (Hailu Zelelew, 2012).

Prior to the reform, financing rules required that all revenues collected by health facilities be transferred to the Regional Finance Bureau/Ministry of Finance (RFB/MOF). This meant that health facilities, Regional Health Bureaus (RHBS), and the Federal Ministry of Health (FMOH) received no direct benefit from any of the fees collected. Health facilities faced a serious shortage of resources to cover their operational costs, and, in most cases, their non-salary operational budget was being depleted by the end of the first quarter causing inefficient use of scarce resources and poor quality of health care (G. Purvis, 2011). In response to this problem, the health care financing strategy, followed by the respective regional and federal laws, allowed health facilities to retain and utilize the revenue for health service quality improvements.

FMOH recently introduced a three-tier health care delivery system Level one: The woreda (district) includes a primary hospital (with population coverage of 100,000 people), health centers (1/25,000 population), and their satellite health posts (1/5,000 population) connected to each other by a referral system. Health centers and health posts form a primary health care unit with each health center having five satellite health posts. A health center has an average of 20 staff and provides both preventive and curative services and inpatient capacity of 11 beds (Abebe Alebachew et al, 2014). Level two: a general hospital with population coverage of 1 million people. Level three: a specialized hospital that covers a population of 5 million. The rapid expansion of the private-for-profit and nongovernmental organization (NGO) sectors is playing a significant role in expanding health service coverage and utilization of the

Ethiopian Health care System, thus enhancing the public /private /NGO partnerships in the delivery of health care services in the country (BoFED, 2013).

The Addis Ababa have 42 hospitals of which 6 of them are government owned, 53 government owned health centers, 700 private clinics, 235 and 293 private drug store and pharmacies respectively. Bole sub city is established with the composition of 8 Woredas with the third largest population 422,060 of which around 219,470 are females. In Bole sub city there is 10 public health centers but neither government hospitals nor health posts found. The basic morbidity of the city are acute upper respiratory infection, other unspecified disease the eye and adnexa, pneumonia, Dyspepsia, Dental and gum disease and Diarrhea (non- bloody) are among the tenth that Addis Ababa Heath Bureau listed on 2004 Annual report.

This study paper tried to assess the contribution of one of the HCF strategy component which is Revenue retention and utilization (RRU) for the improvement of vital health care service for essential drug supply within the health centers for those found in Bole sub city.

1.2 Statement of the Problem

The purpose of health financing is to make funding available, as well as to set the right financial incentives to providers, to ensure that all individuals have access to effective public health and personal health care. Also Health financing can be expressed in various ways, there is a general consensus that it should not only seek to raise sufficient funds for health, but should do so in a way that allows people to use the needed services without the risk of severe financial hardship often called financial catastrophe or impoverishment. Health care financing is becomes fundamental to the ability of health systems to maintain and improve human welfare. At the extreme, without the necessary funds no health workers would be employed, no medicines would be available and no health promotion or prevention would take place.

Developing countries account for 84 percent of the global population and 90 percent of the global disease burden, but only 20 percent of global gross domestic product (GDP) and 12 percent of all health spending. The poorest countries bear an even higher share of the burden of disease and injury, yet they have the fewest resources for financing health services (P. Gottret & G. Schieber, 2006).

The reliance of the financing system on tax revenue, donor financing, and households' out-of-pocket expenditure has proven to be unsustainable. One-third of the world's population does not have a regular access to full and effective treatments with the medicine they need. Lack of access to Essential Drugs is still a serious global public problem, despite considerable progress made since introduction of essential drug concept (DACA, 2002; WHO, 2004; WHO/HAI, 2008). In developing countries medicines account for 25-70% of overall health care expenditure, compared to less than 10% in high income countries (Zelalem Abiye, 2013). Moreover, up to 90% of the population in low and middle income countries pay for medicines out of pocket. Therefore, medicines are unaffordable for large sectors of the global population and major burden of government (Watal, 2010). In addition, supply systems in developing countries frequently face problems regarding efficiency and reliability (Hafele-Abah, 2010). The situation is even worse in Africa and Asia where as much as 50% of the population lack access (WHO, 2004). A study conducted by WHO in 36 developing and middle income countries shows that, average public sector availability of generic medicines ranges from 29.4% to 54.4% (Cameron *et al.*,2009).

The per capita government of Ethiopia expenditure on drugs was only 32 birr or US \$3.80 in 2005-2006 and households' out-of-pocket payment is 47% of the total drug expenditure and the share of employer-provided drug insurance was only 0.2% of the total drug expenditure in 2005-2006 (WHO, 2007). The government expenditure for health care per capita is US\$20.77 which is far below from the recently updated WHO report (5th NHA report, 2010/11) Which is a year after the reform begun; according to the report the low income countries like Ethiopia needs to spend a minimum of US\$60 per capital, even though the government spending increasing by 67% in the same period. However, most of the increment came mainly from the rest of the world and households; their respective contribution grew by 202 % and 116% (5th NHA report, 2010/11). The expenditure is incomparable relative to the US \$225 upper middle-income countries and US \$2500 in high-income countries (E. Eshetu et al, 2014).

Availability of drugs within the premises of health facilities is considered an important factor for perceived quality of health care and, thus, for demand for health services. Health centers are responsible of procuring drugs from either from gov't and private producers or whole sellers using internal revenue as well as government budget and stock these drugs (facility-level supply) on sustainable basis and at affordable prices.

The overall country budget was limited, resulting in inadequate financing of health care. In addition, health service delivery was inefficient and inequitable, and quality of health care was generally poor. So since 2009 in addition to government budget public health centers in Addis Ababa allowed to use fee collected from patients, thus the internal financial capacity of the health centers growing year after years. Viewing at the total collected revenue of selected health centers from user fee by the year 2012(2004 EC) from the record is Birr 1,066,696.05 and on the next two consecutive years the total collection from all the selected health centers is 4,575,185.61 birr and 6,636323.53 birr respectively. No question can be raised about the health centers are getting some a relief with the additional revenue collecting, thus this paper measured the essential drug sustainably accessible in their premises due to this revenue collected. The implications of these reforms on supply of essential medicines to the health centers is particularly relevant because medicines take a large share of health care expenditure.

This thesis therefore concentrated on one of the components of the health care financing reform which is RRU in Addis Ababa, with particular emphasis the contribution of the reforms on the access of essential medicines in Bole sub city with in the health centers, and it's implication to close the gap of health expenditure of the government.

1.3 Research Questions

Thus, this study addressed the following questions:-

- What are the main sources as internal revenue for the selected health centers?
- How much of the revenue collected from internal resource spent to acquire essential drug with in the targeted health centers?
- How do Bole sub city health centers managed the internal revenue collected exclusive from government budget?
- Is Bole sub city centers improving the essential drug availability with in the premises after start of HCF reform i.e. revenue retention and utilization?
- Do the health centers have proper stock management system, controlling mechanism and responsibility among the personnel to support procurement procedure?

1.4 General objective of the study

This paper aims mainly to show the magnitude of HCF strategy contribution, focusing on user fee retained revenue for the selected public health facilities for the improvement of availability essential drug with in the premises. Finally based on the outcome the researcher suggested possible recommendations for the future.

1.5 Specific Objective

Beyond the main objective this paper discussed the following specific objectives

- To assess the financial strength and financial management after the reform implemented of the targeted public health centers.
- To Review the improvement of availability of essential drugs within the premises of the health centers in comparison with prior to the reform.
- To assess collected revenue utilization rate for the supply of drug of the health centers
- To discuss how drug store management system, controlling mechanisms and responsibility among the personnel.
- To identify the main sources of the health centers as internal revenue.
- To discuss the problems encountered while implementing HCF strategy and review its current status.

1.6 Scope of the Study

This study paper focused on one of HCF strategy component, which is Revenue Retention & Utilization (RRU) input over the impact of essential drug availability within the public health centers excluding public hospitals. Though quality of health service is a combination of several resources this paper emphasized on the financial capability to possess only the mandatory drug in selected public health centers. Geographically this paper covers only public health facilities those found in Addis Ababa, Bole sub city.

1.7 Significance of the Study

This research gives practical insight for the policy makers the gaps, challenges and the actual impact of HCF in the health centers. The general public or patients also benefited with the change that HCF brought to their respective health centers and roll playing to keep health service quality improving. This study can also be used as a foundation for other researcher who would like to undertake a research on similar and related area of study and also gives good knowledge about health care financing.

1.8 Organization of the Study

This study paper contains five chapters. The first chapter holds the general introduction of the paper which includes background of the study, statement of the problem, scope of the study and organization of the paper. The second chapter deals with the review of related literatures. The third chapter consist the research method used to conduct the paper. When comes to fourth chapter explains of results and discussions finally the fifth chapter includes summary of results and forwarded relevant conclusion and recommendation of the study.

CHAPTER TWO

LITERATURE REVIEW

This chapter reviews the literature from theoretical and empirical point of views on the areas of different types of resource mobilization and utilization for health sectors and its contribution of gradual progress of Nations health service quality improvement, National Budget for Health sector, Health expenditure Per capita. Lastly it shows the conceptual frame work.

2.1 Theoretical Review

2.1.1 Evolution of Health System Reform

In the history of health policy development it seems possible to identify a few stages through which many industrialized countries have passed over time in their approaches to health system organization. During the first wave of reform- from the late 1940s to the early 1970s the emphasis was on creating guaranteed access to modern health care for broad segments of the population, in many cases through universal programs; that is, programs covering the entire population. This was part of the movement by which industrialized societies strengthened the social safety net designed to take care of those who otherwise would not be able to share in the growing prosperity that the expanding economies were creating for the citizenry during the 1950s and 1940s (Mingshan lu et al,2008).

During the first wave, the emphasis thus was on reducing the extent to which the increasing private cost of health care created a barrier against access to modern health care for the population as a whole. Over time, however, all industrialized countries saw the per capita cost of health care grow at the rates substantially in excess of those for the economy as a whole, so that the share of total economic resources devoted to health rose steadily. The emphasis in health policy in many countries shifted toward attempts at controlling aggregate cost during the 1980s and early 1990s. A variety of approaches were tried, including increased charges to patients in some countries, the imposition of firms expenditure ceilings for hospitals and controls on the establishment of new hospitals in other countries (Mingshan lu et al,2008).

These efforts in different countries to control aggregate health care cost have had mixed success. In most countries, health care spending has continued to grow at a faster rate than the economy as a whole, in spite of the spending restraints. At the same time, there has been increasing dissatisfaction with perceived health care “rationing” and waiting list for certain types of examination and treatment (Mingshan lu et al,2008).

2.1.2 Health Care Financing in Developing Countries

Over the last twenty five years, the perspective of health care financing has dramatically changed in developing countries. During the sixties, health care policies focused on fighting major epidemics. Programs were dedicated to reduce the threat to population health. Financing related to the mobilization of resources for these programs and most of them were not managed within national administrations. The success of these policies was not sustainable. After Alma Ata, primary health care became a priority but it took some years before the management of the health care district was introduced as a major topic. In the eighties, with the district policy and the Bamako Initiative, the economic approach became a major part of all health care policies. At that time, most of health care financing was related to cost recovery strategies. The Bamako Initiative was a formal statement adopted by African health ministers in 1987 in Bamako, Mali, to implement strategies designed to increase the availability of essential drugs and other healthcare services for Sub-Saharan Africans (Audibert M1, et al, 2002).

All the attention was then drawn on how it worked: Fee policies, distribution of revenues, and efficient use of resources and so on. In the second half of the nineties, cost recovery was relegated to the back scene, health care financing policy then becoming a major front scene matter. Two major reasons may explain this change in perspective: HIV which causes a major burden on the whole health system, and fighting poverty in relation with debts reduction. In most developing countries, with high HIV prevalence, access to care is no longer possible within the framework of the ongoing health care financing scheme. Health plays a major role in poverty reduction strategies but health care officials must take into account every aspect of public financing. New facts also have to be taken into account: Decentralization/autonomy policies, the growing role of third party payment and the rising number of qualified health care professionals.

All these facts, along with a broader emphasis given to the market, introduce a need for a better management of resources through financing mechanisms. Some major reports from WHO and the World Bank are the landmarks of the evolution on how to approach health care financing: The 1993 World Bank report on investing in health, the 2000 WHO report on health in the world and the WHO report on macroeconomics and health. In this early Millennium, there is a general agreement on some major aspects of health care financing such as: Lack of resources for financing health care; cost recovery as a part of any sustainable health care system; health as a public good needing some extended subsidies; protecting people from the burden of disease as a part of financing schemes; equity in relation with the public private mix at the center of many debates; financing as a key mechanism for the regulation of the whole health care system and not only as a resource mobilization; HIV in bringing up new problems clearly shows how all these matters are related. Health care financing is at the heart of ongoing questions on health care reforms. Although developing countries have low insurance coverage and weak modern medical care, they share the same questions as developed countries (Audibert M1, et al, 2002).

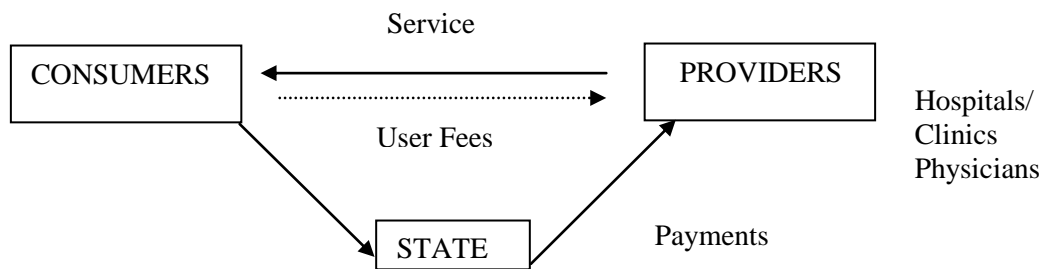
2.1.3 Definition of Health Care Financing

Health financing refers to the “function of a health system concerned with the mobilization, accumulation and allocation of money to cover the health needs of the people, individually and collectively, in the health system... the purpose of health financing is to make funding available, as well as to set the right financial incentives to providers, to ensure that all individuals have access to effective public health and personal health care” (WHO, 2000).

2.1.4 Mechanisms of Health Care Financing

Tax-based financing: health services are paid for out of general government revenue such as income tax, corporate tax, value added tax, import duties etc. There may be special earmarked taxes (e.g. cigarette taxes) for health care (Sara Bennett, et al, 2001.)

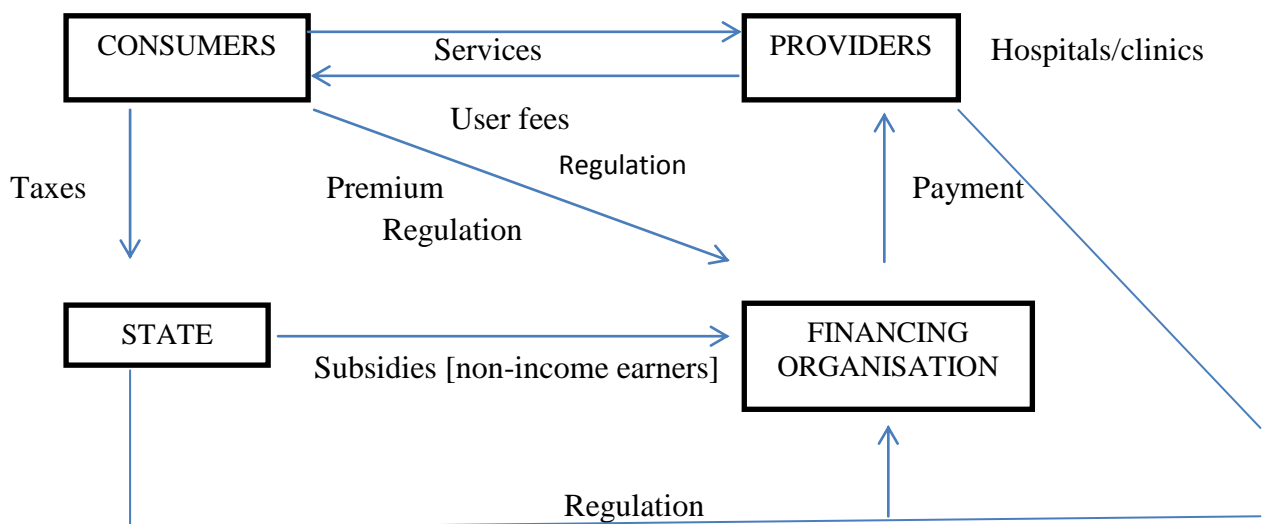
Figure 1: Health Financing Model: General taxation



Source: Adopted from Dr. K. Balasubramaniam, 2001)

Social insurance financing: health services are paid for through contributions to a health fund. The most common basis for contributions is the payroll, with both employer and employee commonly paying a percentage of salary. The health fund is usually independent of government but works within a tight framework of regulations. Premiums are linked to the average cost of treatment for the group as a whole, not to the expected cost of care for the individual. Hence there are explicit cross-subsidies from the healthy to the less healthy. In general, membership of social health insurance schemes is mandatory, although for certain groups (such as the self-employed) it might be voluntary (Ibid).

Figure 2: Health Financing Model: Mandated Social Health Insurance

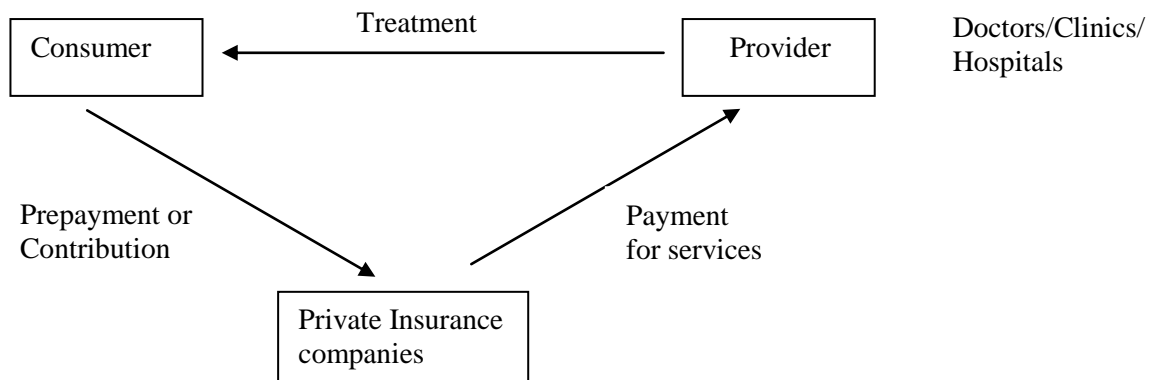


Source: Adopted from Dr. K. Balasubramaniam, 2001)

Private insurance: people pay premiums related to the expected cost of providing services to them. Thus people who are in high health risk groups pay more, and those at low risk pay less. Cross-subsidy between people with different risks of ill health is limited. Membership of

a private insurance scheme is usually voluntary. The insurance fund is held by a private (frequently for-profit) company (Dr. K. Balasubramaniam, 2001).

Figure 3: Health financing model: Separation of payment and treatment

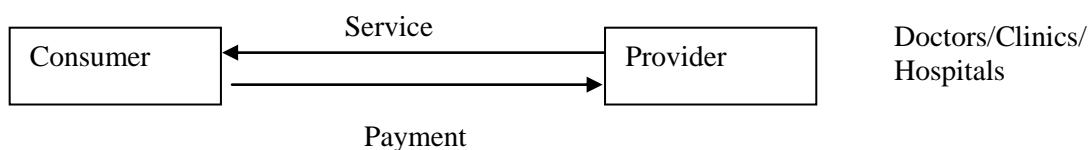


Source: Adopted from Dr. K. Balasubramaniam, 2001)

Community-based health insurance: as for social health insurance, premiums are commonly set according to the risk faced by the average member of the community i.e. there is no distinction in premiums between high and low risk groups. However, unlike social health insurance schemes enrolment is generally voluntary and not linked to employment status. Funds are held by a private non-profit entity (Dr. K. Balasubramaniam, 2001)).

User fees: patients pay directly, according to a set tariff, for the health care services they use. There is no insurance element or mutual support. This is the most common way of paying for privately provided services in developing countries, and is also used as a component of financing for public sector services (Dr. K. Balasubramaniam, 2001)).

Figure 4: Health Financing Model: Out-of-pocket payment



Source: Adopted from Dr. K. Balasubramaniam, 2001)

2.1.5 Objectives of User Fee Systems

National policymakers cite raising revenues as their main objective for introducing user fees. Subsidiary objectives stress that revenues are needed to improve services, for example, by improving drug availability and the general quality of health care and extending coverage (Nolan and Turbat 1995; Russell and Gilson 1995). Although never explicitly identified as an objective of user fees, the desire to raise revenue and improve services can presumably be related to a concern to enhance the sustainability of health systems. Financial sustainability can be defined simply as generating sufficient reliable resources to enable continued and improved provision of health care for a growing population. However, a broader definition, rooted in review of the role of external support to health systems, suggests that system sustainability is the capacity of the health system to function effectively over time with a minimum of external inputs (La Fond 1995).

Achieving sustainability in this sense requires the capacities to

- Secure sufficient resources to enable improvements in the effectiveness of health care
- Use resources effectively and efficiently to meet health needs
- Perform these functions on a continuous basis
- Perform these functions with minimum external inputs.

In other words, generating revenues through some sort of financing mechanism is insufficient by itself to ensure sustainability. Additional measures to redress existing inefficiencies in resource use and to enable any additional revenue to be used effectively over time are vital elements of a sustainable and effective user fee system (Adams and Harnett 1995; Gilson 1995). International analysts have also suggested that using revenues from user fees to improve the quality of services will generate efficiency and equity gains through their impact on utilization (Griffin 1992; Shaw and Griffin 1995). However, while some countries have employed user charges to foster efficiency-related objectives, such as discouraging unnecessary use and preventing by-passing of lower level facilities, only one of the countries surveyed by Nolan and Turbat (1995) explicitly identified improving equity as an objective (Lucy Gilson, 1996).

2.1.6 Functions of Health Care Financing

Health financing has three key functions: revenue collection, pooling of resources, and purchasing of services.

2.1.6.1 Revenue collection: - is concerned with the sources of revenue for health care, the type of payment (or contribution mechanism), and the agents that collect these revenues. All funds for health care, excluding donor contributions, are collected in some way from the general population or certain subgroups. Collection mechanisms include taxation, social insurance contributions, private insurance premiums, and out-of-pocket payments. Collection agents (which in most cases also pool the funds and purchase health care services from providers) could be government or independent public agencies (such as a social security agency), private insurance funds, or public and private health care providers. (Health system20/20, 2012)

2.1.6.2 Pooling of resources: - is the accumulation and management of funds from individuals or households (pool members) in a way that insures individual contributors against the risk of having to pay the full cost of care out-of-pocket in the event of illness. Tax-based health financing and health insurance both involve pooling. Note that fee-for-service user payments do not involve the pooling of resources. Some fees, however, may be set to “cross-subsidize” health care, by charging more than the cost of production for a service or a group so that less than the cost of production can be charged for another service or to another group (Health system20/20, 2012).

2.1.6.3 Purchasing of health services: - is the mechanism by which those who hold financial resources allocate them to those who produce health services. Purchasing of health services is done by public or private agencies that spend money either to provide services directly or to purchase services for their beneficiaries. In many cases, the purchaser is also the agent that pools the financial resources. Purchasers of health services are typically the MOH, social security agency, district health boards, insurance organizations, and individuals or households (who pay out of pocket at time of using care). Purchasing can be either passive or strategic; passive purchasing simply follows predetermined budgets or pays bills when they

are presented, whereas strategic purchasing uses a deliberate approach to seeking better quality services and low prices (Health system20/20, 2012)

2.1.7 Public Finance Theory

Public finance theory indicates that government revenues should be collected centrally and then allocated to those sectors in which the marginal social benefit is greatest. This suggests that, for example, gasoline taxes collected in the capital city might be best used to provide rural health facilities with drugs; alternatively, revenue collected at rural health facilities for services provided might be allocated to remodeling the customs building in a coastal city. Health care is generally considered a merit good to which all members of society are entitled to a minimum level (other examples of merit goods include education, shelter, and food). The World Health Organization emphasized this notion at the Alma Ata conference where the "Health for All by the Year 2000" objectives were declared. To ensure that all citizens receive a minimum amount (e.g., a set of preventive and curative primary health care services), governments can use tax revenues to build health facilities, pay health worker salaries, stock facilities with supplies and pharmaceuticals, or pay for private insurance for their citizens (Keith McInnes, 1993).

In addition to the merit good motive, governments often provide health care (or at least finance it) because of positive externalities. Preventive care, such as vaccines against communicable diseases and the treatment and prevention of sexually transmitted diseases, have benefits to society which are greater than the benefits enjoyed by the individual vaccinated child or individual person cured of tuberculosis. Governments provide or subsidize care to encourage individuals to consume optimal amounts from a society's viewpoint, not just the individual's. Social goals are achieved through a variety of sectors, however, including education, defense, and agriculture. Governments must decide how to allocate tax revenues among sectors to achieve the greatest social benefit. Taxes are collected and government allocates revenues to sectors and programs based on estimates of the greatest marginal return (Keith McInnes, 1993).

A country facing imminent attack from its neighbor may find that the optimal allocation of funds collected through road tolls is for the army, despite the fact that a number of roads are in disrepair. Despite this general theory and the theoretical efficiency it implies, a growing number of health economists argue that it overlooks the disincentive effect of channeling all

health revenues to the central government where they may be spent on totally different sectors. La Forgia and Griffin argue that requiring health care facilities to remit revenues from fee collection to the regional or central government is in effect a tax on the episode of illness. Even if a facility retains some of the fees it collects, the remitted fees are considered a tax on the collecting facility's income. Thus a facility which must transfer 75 percent of its revenue to the central level is in effect paying a 75 percent tax on its income. This tax can have the effect of diminishing the staff's incentive to collect fees since only a small portion becomes available for their direct use. Users are also likely to notice that quality improvements do not reflect the full amount of fees collected (Keith McInnes, 1993).

The issue is not necessarily all or nothing, fee retention or not. Some portion of funds going to a central level can be beneficial; the central level MOH, for example, can subsidize facilities or programs that are not generating sufficient funds to cover their costs (e.g., remote rural facilities or immunization programs). The more important point may be what percent of revenue reverted to the central level is sufficient to subsidize other health facilities or to allocate to other sectors which have a higher social rate of return, without being so onerous that it eliminates the incentive for the local facility to collect fees (Keith McInnes, 1993).

2.1.8 Mobilizing Domestic Resources and Deciding on User Fees

Some countries can improve their domestic resource mobilization efforts, particularly as there appear to be such wide ranges for countries at the same income levels. Various estimates suggest that countries can possibly generate an additional 1–4 percent of their GDPs in government revenues. This is an important area of focus, given the poor revenue performance of many low-income countries in the past decade. User fees have been a contentious source of financing in low-income country settings. In most cases they have occurred spontaneously as a result of the scarcity of public financing, the prominence of the public system in the supply of essential health care, the government's inability to allocate adequate financing to its health system, the readiness of the poor and non-poor to pay fees as a way of reducing the travel and time costs of alternative sources of care, the low salaries of health workers, the limited public control over pricing practices by public providers, and the lack of key medical supplies such as drugs (G. Pablo, et al, 2006).

User fees are likely to remain in place until governments are ready and more able to mobilize greater funding for health care. A blanket policy to remove user fees could do more harm than good by removing a small but important source of revenue at the health care facility level. Until low-income country governments can mobilize alternative (and more equitable) financing mechanisms, the global community should focus on helping countries design policies that can foster access by the poor to health-enhancing services and protect the poor and near-poor from catastrophic health spending (G. Pablo, et al, 2006).

User fees can be harmonized to achieve these objectives if they reduce financial barriers to the poor by improving the quality of public services, reducing waiting time, reducing the need for costly self-medication, or substituting lower-priced quality public services for more expensive private care. Conditional cash transfers provide direct cash payments to poor households, contingent on behaviors such as completing a full set of prenatal visits or attending health education classes. They thus represent a negative user fee. The evidence, largely from middle-income countries, suggests that well-designed conditional 16 Health Financing Revisited cash transfers have the potential to improve health outcomes and reduce poverty with relatively modest administrative costs. But additional research is needed to determine whether such programs can be effective in low-income settings (G. Pablo, et al, 2006).

2.1.9 Revenue Retention at Local Level

It has been widely pointed out that local providers, users and communities will have an incentive to collect or pay user fees only if they are permitted to retain them — in full or in part. If revenues are simply directed to higher-level authorities, there may be little or no incentive to engage in the effort of collection. Transfers to higher administrative levels constitute an effective tax on earnings at the local level with all of the attendant disincentive effects. Moreover, the capacity of user financing to generate a sense of ownership will also be correspondingly undermined. If contributions towards costs cannot be spent as desired at the local level, then there is no reason why they should generate greater local responsibility. The connection between community co-management of resources raised and improvements in services, which suggests that increases in health service utilization under the Bamako Initiative have generally occurred where there has been local revenue retention and local management of the resources raised (S. Reddy & J. Vandemoortele, 1996).

Local revenue retention is also often presumed to minimize administrative costs. However, local retention will require substantial training of local staff to develop adequate capacity and appropriate safeguards and accountability, as well as a comprehensive system of accounting and financial control. This will involve considerable costs of its own Bennett and Musambo (1990), ICC (1990) and Booth et al. (1995) reported serious reservations about the linkage between user fees and greater accountability. Communities that expressed willingness to pay for health care and primary education disagreed with the idea that community-based staff should handle cash, because they had experienced several instances of financial irresponsibility by health workers and teachers in the past (S. Reddy & J. Vandemoortele, 1996).

It should not be assumed that even where revenues are retained at the local level they are necessarily easily or effectively spent. Bennett and Musambo (1990) documented the tendency of local health committees in Zambia to spend resources on construction and facility upgrading projects rather than on measures with much more direct health impacts. Indeed, Waddington and Enyimayew (1990) questioned whether resources raised will be spent at all. They reported in their study of the Volta region of Ghana: “It is perhaps a foible of human nature to assume that spending money will not normally be a problem! Yet there was a considerable reluctance at health centers and health posts to spend their percentage of the fees revenue.” In Burkina Faso, the retained fees were spent by the local communities on services other than health care, thereby undermining the motivation of health workers to raise them (Nolan and Turbat, 1995). In Tanzania, decentralization was reported to have led to “insufficient emphasis” on preventive services and drug supply, which led to a return to centralized and “vertical” programs (Gilson & Mills, n.d.).

2.1.10 Theoretical Benefits of Local Fee Retention

According to Keith McInnes, 1993 proponents of local fee retention put forth a number of arguments:

1. Improving Incentives for Fee Payment and Collection:

When all health facility revenues are sent to the central level MOH or Ministry of Finance (MOF), users are less likely to appreciate the value of making payments since the collected fees do not translate into greater resources available at the facility; thus they may be less

willing to pay for care. Doctors, nurses, and designated fee collectors will be less inclined to collect fees if they know that revenues will be sent to the regional or national level with uncertain benefits for the individual facility. Retention changes the incentives: users may see the improvements in care and availability of supplies, and staff may be more likely to collect fees that they know will make their working conditions better and result in a more appreciative clientele (Keith McInnes, 1993).

2. Accountability:

Users who know that their fees are retained at the facility will be more conscious of the uses of their funds and improvements in service. Users will in effect serve a kind of monitoring function by expressing satisfaction or dissatisfaction with services which are partially or wholly financed from the fees they pay (Keith McInnes, 1993).

3. Signaling the Center/Satisfying Community Needs:

With or without fee retention, revenues signal a health facility as to what services are most valued by the population. When local staff manage their facility revenues, however, the chances are greater that funds will be reinvested in the services most valued by the community, thus increasing the likelihood that the right amounts and types of drugs are available, and that the equipment most in demand is well maintained (Keith McInnes, 1993).

4. Community Involvement and Development:

Involving the community in the management of health funds through, for example, a health committee, develops community decision-making and self-government capacity.

5. Minimizing Administrative Costs:

Remitting fees to the central level requires additional administrative effort at each level of administration, from the local government finance office to regional and central offices. By retaining fees at the local level there is less administrative cost at other levels (Keith McInnes, 1993).

6. Increasing Quality and Utilization:

When local fee retention results in greater revenues for the health facility, it can lead to a noticeable improvement in quality, such as a more complete and dependable drug supply, more motivated staff, and better maintained equipment. These improvements may result in

greater utilization. Increased utilization can be offset, however, by large and sudden price increases, as has occurred in Ghana and Zaire. While this paper focuses on fee retention and its effect on revenue generation, quality of care, and utilization, there are other factors which may be as or more responsible for increasing revenue generation at health facilities. World Bank health economists have suggested that price levels and regular price adjustments to account for inflation contribute most to revenue generation at health facilities. This document does not attempt to suggest that a fee retention policy is more important than price levels for revenue generation; rather, it focuses on the reasons that fee retention can lead to improved health care delivery, with or without appropriate price levels (Keith McInnes, 1993).

2.1.11 Health Financing in Decentralized System

The level of decentralization of the public health care sector and the government overall can influence how resources flow through the health system, as well as issues such as service provision (allocation of resources across programs, budget categories, etc.) and incentives that encourage providers to deliver high-quality services. Under general government decentralization, a portion of government funds allocated to the public health care sector are distributed by the MOF to the MOH, for the general programs the MOH administers. The MOF also allocates block grants to decentralized political units (such as provincial, district, or local government administrations or district councils), typically based on criteria such as share of total population or burden of disease (Health system20/20, 2012).

These grants may or may not include earmarks for health. If they do not, health competes at the local government level with other sectors for budget resources. Alternatively, the MOF might pay certain recurrent costs such as the salaries of employees of public health facilities; here, funds flow directly from the MOF to MOH providers, and local governments do not have discretion over them. In many decentralized systems, local governments at different levels collect taxes and have authority to allocate local tax revenues among health and other sectors; they often fund a large share of the public health administrative unit. In systems with only MOH decentralization, government funds for public health care flow to providers through a hierarchy of MOH administrative units, though the MOF still sometimes pays salaries directly (Health system20/20, 2012).

When government funds for health are allocated within the public health system without regard to local government decisions, the main resource negotiations are first between the central MOH and districts or regions and second between the central MOH and the MOF. Both of these types of decentralization have strengths and weaknesses, and both can be managed well or poorly. Each country's health funding situation has to be examined on its own merits to identify how well it functions for adequate generation of revenues for health and for effective allocation of health resources to the service delivery level (Health system20/20, 2012).

2.2 EMPIRICAL LITRATURE

2.2.1 Health Care Financing in Africa

According to Leighton (1995) financing health care has become very prominent for many governments in Africa. Whereas many forms of health financing mechanisms for Europe were focused on containing costs, in developing countries particularly Africa, health financing reforms have been motivated by growing demand for better health care at a time when governments, faced with shrinking resources, can no longer honor its traditional commitment to providing free care (Vogel, 1988; Vogel, 1990) classifies health financing reforms in sub-Saharan Africa into three strategies. These include:

- Raising revenue through cost recovery techniques (e.g., user fees, community-based social financing).
- Improving allocation and management of existing health resources.
- Increasing the role of the private sector in predominantly government-based health systems.

Given the inadequate and declining government financial support to health care system, many countries in the sub-region have concentrated their health financing reforms primarily on the first strategy, which is raising revenue through cost recovery techniques. Through this system, Ministries of Health have introduced most commonly used cost recovery approaches for public health services through user fees for services, medicines or both (Langenbrunner et al., 2001). Other techniques practiced include community based health insurance, pre-payment plans and private health insurance. The second and third strategies, which are designed to improve efficiency and effectiveness of countries health systems is less widely

used across many countries in the sub-region. As of 1994, about twenty African countries began health sector cost recovery reforms including Ghana, Kenya, Lesotho, Malawi, Mozambique, Namibia and Zambia who have made revenue raising the primary objective Lavy and Germain (1995). Cost recovery could be useful given the amount of revenue raised, use of revenue for intended goals and impact of use.

According to The World Bank (1994) chances of success of cost recovery in sub-Saharan African countries are improved by some of these indicators; introducing fees alongside quality improvements, especially assuring drug availability and ploughing fee revenues back into quality improvements that satisfy patients and keep them coming back. establishing clear cost recovery objectives, understanding the people's demand and use patterns, and measures to cover costs of care to the indigent. designing fee structures to encourage efficient use of services first at the lowest appropriate level, reinforce appropriate referral patterns, and promote use of cost-effective and preventive care.

2.2.2 Fee System Models in Africa

Nolan and Turbat (1995) identify two broad models of user fee systems that African countries have adopted. The differences in these models may underlie some of the differences in country-specific objectives. The standard model is rooted in concern about existing inefficiencies and inequities within health care systems around the world. It assumes that fees not only produce resources, but also offer efficiency and equity benefits. Efficiency benefits result from the introduction of price signals, which offer patients incentives for using the referral system appropriately, and facilitate the reallocation of resources to more cost effective primary health care. The equity benefits result from the use of resources in ways that benefit the poorest (such as improvements in the coverage and quality of primary-level care), and from the use of exemptions or differential charges within fee systems to protect the poor from their full burden (Gilson, Russell, and Buse, 1995).

This model might be applied nationwide within a country initially for curative hospital services, but also accompanied by decentralization over the control of resources to regional or district levels. This would facilitate the use of revenues in ways that promote efficiency and equity. In contrast, the Bamako initiative (BI) model is rooted in Africa's experience of poor primary-level care (Jarrett and Oforu-Amaah, 1992). The model emphasizes that revenues should be raised and controlled at the primary level through community-based activities that

are national in scope, and so are distinguished from “more isolated attempts to initiate community participation and financing in health services” (McPake, Hanson, and Mills, 1992, p. 10). The BI model sees community participation in management as the critical mechanism for ensuring that revenues are used in ways that address the persistent quality weaknesses of primary care, and that the health system is accountable to the users of health care. Thus under this model, the community should determine the financing mechanism that is adopted, which might be a user fee system (with or without a community-determined exemption mechanism), prepayment, or some form of local taxes. Overall, “the attainment of sustainable financial resources, assured essential drugs and sound management, and decentralized decision-making in which the communities themselves are fully involved, are the principal strategies” of BI programs (Jarrett and Ofosu-Amaah, 1992, p. 166).

Francophone countries appear to be more likely to implement the BI model of community financing than the standard model (Nolan and Turbat, 1995), while anglophone and lusophone countries may implement both models at once. For example, Kenya has both a BI program to initiate, fund, and sustain community-level pharmacies in some districts, and a national cost-sharing program in which the government has gradually introduced user fees across all levels of government facilities except dispensaries. Both programs were first initiated in 1989. The BI programs built on earlier experience with community-based health care initiatives, whereas the cost-sharing program reversed the previous policy of no charges at government facilities.

The design of both models suggests that sustainability is an implicit objective. Its proponents see the BI model in particular as a strategy “towards the long-term sustainability of PHC (primary health care) into the next century” (Jarrett and Ofosu-Amaah, 1992). It is intended to raise revenues and ensure effective resource use through the development of community management capacity, and thus permit self-reliance. Although less strongly emphasized, the decentralization of control over resource use to regional or district levels, identified as an element of the standard model, can also be seen as a strategy for developing the capacities necessary to ensure sustainability. Nonetheless, no country, even those engaged in implementing BI programs, has identified actions important for sustainability, such as developing community management or enabling community participation, as ultimate objectives of their fee systems (Nolan and Turbat, 1995; Russell and Gilson, 1995). The failure to emphasize such objectives for fee systems may explain some of the implementation difficulties that countries have experienced. (Lucy Gilson, 1996).

2.2.3 Health Care Financing in Ethiopia

As clearly indicated in the 4th National Health Accounts (2010), health services in Ethiopia are primarily financed from four sources: a) the federal and regional governments; b) grants and loans from bilateral and multilateral donors; c) nongovernmental organizations; and d) private contributions. Although health financing has improved significantly over the years, it remains a major challenge for the health system of Ethiopia. Since 2008, a health care financing strategy was adopted by FMOH, mainly focusing on improving the efficiency of allocation and utilization of public sector health resources. It has also dealt with mobilizing additional resources from international donors and health development partners, retention and utilization of user fee revenues at health facility level, introducing private wings in the public hospitals and, perhaps most importantly, the initiation and development of risk sharing mechanisms such as public and community-based health insurance schemes (Health Sector Development Program IV, 2010).

The objectives of the health care financing component of HSDP are aimed at achieving a sustainable health care financing system. More specifically, the objectives call for mobilization of increased resources to the health sector, promoting efficient allocation, effective expenditure management for allocative equity, and better utilization of available health resources. RHBs of Tigray, Amhara, Oromia, Benishangul-Gumuz, SNNPR, and Addis Ababa translated most of the reforms into action. The reform components include: retention and utilization of revenue, administration of the fee waiver system and establishment of functioning facility governance bodies. Other parts of the reforms have included outsourcing of non-clinical services, establishing private wings in health facilities and the exemption of certain services (Health Sector Development Program IV, 2010).

2.2.4 Retention and Utilization of Revenue

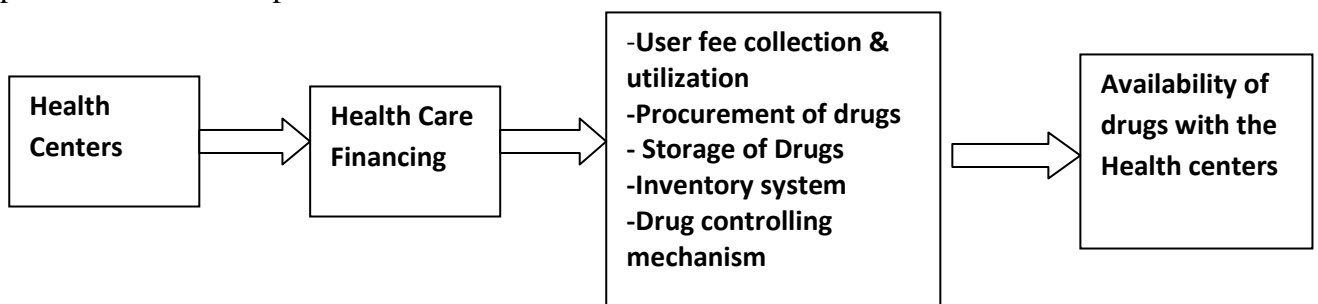
Ratification of the Health Care Financing Reform proclamation and regulation by the regional governments and City Councils was the initial steps to commence user fee revenue retention and use at health facility level. The FMOH has prepared a number of generic operational manuals to be used, if needed with modifications, for the implementation of the reforms adapted to local conditions. The manuals describe in detail the processes of user fee revenue collection, financial administration, accounting, auditing and procurement of goods

and services. The processes steered by a functional health facility governance board with key representatives from health, finance, community and other relevant sectors. The facility board will meet on a regular basis and decide on the use of the retained revenue for the eligible expenditure areas, which is broadly described in the operational manual (Health Sector Development Program IV, 2010).

The performance report for health care financing up to the end of fiscal year 2008/2009 showed that 73 hospitals and 823 health centers have started retaining revenue. Encouragingly, 95% of these units collecting user fees had used the revenue at their level. Regarding the target of retention and use of 100% of revenue generated at hospitals and HCs, the same report showed that out of 172 potential hospitals, 73 of 172 hospitals (42.4%) and 823 of 2,193 health centers (37.5%) were able to collect user fee revenue in 2008/09. Of these, 66 (38.4%) and 782 (35.6%), respectively, utilized their collected revenue (Health Sector Development Program IV, 2010).

2.3 Conceptual Frame Work

The conceptual framework indicates the crucial process, which is useful to show the direction of the study. The study measures the role of HCF for the contribution of drug supply with in public health centers premises.



CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Research Design

As this study is assessing the contribution of RRU which is one component of HCF for essential drugs availability with in the premises of the selected health centers, cross sectional descriptive research design used as a main research method because it is a method that describes the study systematically, factually and accurately utilizing facts. In the course of analyzing the problems both primary and secondary data collection procedures were employed.

3.2 Data Type and Source

In order to gather the data from relevant sources, both primary and secondary data collection instruments were used.

3.2.1 Primary data: originated by the researcher for the specific purpose of addressing the research problems. It is what the researcher originally collected from the sample population. In this study the primary data gathered through questioner from each selected health centers Head of the health centers, finance & Administrators, pharmacist, drug storekeeper and from incoming patients in the selected health centers by using self-designed both closed and open questions. Interview also conducted to each health centers board members and finally focus group discussion conducted with those Addis Ababa Health Bureau (AAHB) HCF focal person and Abt Associates Inc.(USAID project, which support the reform from start Health Care specialist who were closely providing technical assist the reform.

3.2.1 Secondary data: The secondary sources of data were collected from review of books, journals, articles, both published and unpublished earlier research works and from the annual reports of the FMOH, WHO, and AAHB data over the health centers will be presented for comparison of essential drugs availability before and after the reform.

3.3 Methods of Data Collection

Primary data collected through questioner, interviews and focus group discussion. The researcher prepared different structured close ended questioners for respondents; identical questioners distributed to similar positions of the health centers employees, this is because discussed the ongoing change of RRU to the perspective of their day to day duties. Similarly but Amharic version of questioners spread to the incoming patients of the health centers. Primary data due to the inception of HCF also collected using structured interview schedule. Both the questioner and the interview pre tested and from the result of the pre- test is revised and administered under the supervision of the researcher prior to the data collection. Four people approached for two focus group discussions; participants are selected on the basis of their knowledge on the area. The purpose of these group discussions is to collect information of the challenges HCF and obtain technical support on the topic.

Before commencing the actual primary data collection, five enumerators with at least finish secondary education, who knows centers and both language (Amharic & English) recruited to conduct the primary data collection and also they oriented on the objective of the study and trained how to approach the employees and patients.

3.4 Sample and Sampling Technique

Based on the primary level care health centers in urban area expected to serve 40,000 (FMOH guideline) people since Bole sub city selected by simple randomly out of 10 sub cities as a target for this study paper, 10 public health centers exist within the boundary, so the number of total population size is 400,000. To make the study manageable and because of cost and time constraint appropriate sampling methods were employed. Determination table by Yamane (1967) with precision level of $\pm 7\%$ will be used as sample size drive.

According to the MOH standard on average health centers have 20 employees; out of those employees the researcher contacted five personnel from each health centers. Those are Head of the health center, Finance manager, Pharmacist, drug store keeper; a total of 50 currently working employees also contacted. In addition 14 each from the selected health centers incoming patients who were visiting at the time contacted, which is a total 140 respondents questioner distributed. Closed and structured interview scheduled for one member of the

board out of 10 for each of the health centers, which totals 10. Finally focus group discussion held with 2 HCF focal from AAHB and 2 HCF technical specialists from the program implementer project (Abt Associates Inc. HFG project). Therefore this study paper analyzed and interpreted the outcome based on using a total of 204 respondents feedback and based on that the researcher forward favorable recommendations.

3.5 Data Processing and Analysis

In this study after collecting the relevant data analyzed and interpreted by using both qualitative and quantitative techniques which includes descriptive statistics, and percentage method using tables. Spreadsheet and SPSS software employed to analyze the data. Then, after analyzing the data and properly interpreting those findings summarized and based on the findings the appropriate conclusion drawn and with possible recommendations also forwarded.

3.6 Triangulation of Data

Data Type	Data Collected through	Data Collected from	Sample Size	Actual data collected	%age of data collection
Primary Data	Quaternaries	Employees & Patients	140 P +50 E, Total 190	103 P + 46 E, Total 49	78%
	Interview	HC'S Board Members	10 B	10	100%
	Focus group discussion	Focal person & HCF specialists	2F+ 2S Total 4	4	100%
Total			204	163	80%
Secondary Data	Reports, Books, publish & Unpublished work, previous research				

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter consists of the presentation, analysis and the interpretation of data gathered through secondary data, i.e., written documents & primary data, i.e., self-administered questionnaire distributed to patients, employees of the selected health centers, board members and HCF focal person. Under this section, demographic characteristics of respondents, the frequency and mean score of respondents and in general data's which were collected from above listed respondents were presented and analyzed.

In this study 140 questionnaires, were distributed to the incoming patients and only 103 respondents questionnaires were returned, 50 questioners also distributed to health centers employees and 46 respondents returned for the researcher. That means the response rate was 78%. The remaining 22% of the respondents failed to return the questionnaires. Beside the questioner the researcher conduct interview to each health centers board members which is a total of 10 and hold focus group discussion with 2 AAHB HCF focal person and 2 HCF specialists from project support organization within the schedule.

4.2 Respondents' Characteristics

This section presents the data of 103 patients received service from the health center during the data collection period were between Feb.21-28, 2015. The profile covers the gender, age and education level of respondents.

Table.1: Patients Gender, Age, and Occupation of Patients

Respondents Personal data	Number of respondents	Percentage
Gender		
Male	41	39%
Female	62	61%
Age		
18-30	29	28%
31-40	41	39%
Respondents Personal data		
Number of respondents		
Percentage		
41-55	25	24%
Over 56	8	7%
Occupation		
Employed	28	27.18%
Self Employed	23	22.33%
Not Working	52	50.48%
Total	103	100%

Source own survey, 2015

The respondents' gender as displayed in table. 1 above indicates that there were more female went to get treatments in the health center as compared to the male, female respondents represented 61%, the rest were males. As far as age of respondents and table.1 above indicates 28% of the respondents were in the range of 18-30 years, 39% of the respondents were in the range of 31-45 years, 24% were in the range of 46-60 years and 7% of the respondents were above 60 years. From the total respondent of 27% were employed in different organizations, 22% were self-employed and the rest which is 51% currently not working at all.

The responses of 46 health centers employees education level of respondents assessed as follows.

Table .2: Employees: Education level of Respondents

Education level of Employees	Frequency	Percentage
High school Certificate	7	15%
Diploma	18	39%
First degree	21	45%
Second degree & above	0	0%
Total	46	100%

Source own survey, 2015

Looking the educational level of respondents, who are the employees of the health centers, table 2 above shows that, out of 46 respondents High school Certificate holders were 15%, Diploma holders represented 39%, First degree holders represented 45% which takes the largest share but none represent Second degree and above holders. The questionnaire and interview questions are attached in the ANNEX 1, 2, & 3.

4.3 Frequency, Mean and Gap score of visitors response

The questioner for the visitors prepared in three categories, the first category which holds one question represents the preference of the patients while they need treatment. Secondly questions 2-5 grouped to present their opinion over the health centers drug supply and its quality. At the end the researcher categorized question 6-10 represent the capabilities of the health centers to handle service for the communities.

Table.3 Frequency and Mean score of respondents response on their preferences of the Health Centers

Ques. No	Preference	5	%	4	%	3	%	2	%	1	%	Total	Mean
1	Is the HC your first choice	20	19%	55	53%	8	8%	16	16%	4	4%	103	3.69

Source from own survey

As shown in the above table 3, for the question for visitors asked their choice to get treatment on the health centers, out of the total 103 respondents 20 of them responds strongly agree, 55 of them agree, 8 were neutral and 16 responds disagree and 4 respondents highly disagree. The mean score 3.69 is also higher than the median value of 3.00, 72% which is the sum of

strongly agree and agree, that means majority of respondents primarily select the health centers than other facilities when even they need treatment. The survey tries to know the visitors reasons for selecting the health center in the first place, based on the data collected from 103 respondents 41% responds the lower service fee, out of those respondents 68% were females, when we look at the status of occupation; 69% of the visitors who don't have work, 16% employed and 15% self-employed, 28% responds the health centers near to their home, 22% responds they came first because they obtain better treatment than other health facilities, 7% they came first because they are exempted from fee the rest 2% side they came because the illness is simple and solvable at this level and they follow up illness.

The respondents responded how frequently visited the health center, out of 103 visitors 36% responded they visited the centers whenever the caught sick and also females score the highest percentage which is 71%. Respondents who visited the health center for the first and second time scored of the current year 27 % & 24% respectively, lastly visitors who came more than twice score 13 % from the total.

Table. 4 Frequency and Mean score of respondents on the Supply of drugs

Ques. No	Supply of drugs	5	%	4	%	3	%	2	%	1	%	Total	Mean
2	I Always found prescribed drugs found	4	4%	68	66%	13	13%	11	11%	7	7%	103	3.50
3	Is the HC capable of drug supply for the community	3	3%	60	58%	22	21%	13	13%	5	5%	103	3.42
4	Is the drugs sold at lower price	54	52%	44	43%	3	3%	2	2%		0%	103	4.46
5	Quality drugs supplied	0	0%	9	9%	62	60%	31	30%	1	1%	103	2.77

Source from own survey

As illustrated on table 4, on 4 respondents responds strongly agree, 68 of them responds agree, 13 were neutral, 11 of them responds disagree and 7 respondents respond highly disagree and the mean score is 3.50 when visitors responded about supply of the drugs within the health centers premises. That means the majority of patients (70%) either strongly agreed or agrees that they found the prescribed drugs within the health centers, the rest 30% found seldom or didn't found at all. On the above table for the question over the health centers capabilities to supply essential drugs for the entire community, out of the total 103 visitors were asked the over capacity of drug supply for the community, 3 of them responds strongly agree, 60 of them agree, 22 were neutral, 13 disagree and 5 responds highly disagree and the mean score 3.42 which is exceeds the median value 3.00. The result implies that patients believe that

health centers can address the drug demand of the community if they use resource the efficiently and effectively.

As indicated on table 4, for the on lower price of supplied drugs visitors replied, 54 of the respondents responds strongly agree, 44 of them agree, 3 were neutral, 2 disagree and none of them responds highly disagree, the mean score value 4.46 about the lower drug price that the health centers provide to them and the mean is greater than the median value of 3.00 which implies patients found drugs with lower price than the private health providers. Visitors also responded on the quality of the supplied drugs, out of the total respondents none of them responds strongly agree, 9 of them responds agree, 62 were neutral, 31 of them responds disagree and 1 respondent respond highly disagree with mean score of 2.77 which is lower than the median value regarding sufficient quality of drug supply that the health centers provides. The result implies visitors doubted the quality of drugs that the health centers supplying.

Table 5 Frequency and Mean score of patients on capability of the health centers

Ques. No	Capability	5	%	4	%	3	%	2	%	1	%	Total	Mean
6	Health center delivering expected facility	1	1%	15	15%	43	42%	31	30%	13	13%	103	2.61
7	HC improving health problem of the community	7	7%	58	56%	9	9%	24	23%	5	5%	103	3.37
8	HC improved health service after the reform	14	14%	63	61%	5	5%	18	17%	3	3%	103	3.65
9	Well equipped with medical supplies	9	9%	46	45%	11	11%	31	30%	6	6%	103	3.20
10	Competent employees hired	3	3%	12	12%	13	13%	49	48%	26	25%	103	2.19

Source from own survey

As shown in the above table 5, respondents responded on the health centers expectation of the facility providing, out of the total 103 respondents, 1 of them responds strongly agree, 15 of them responds agree, 43 were neutral, 31 disagree and 13 responds highly disagree about ability of the health centers to serve the community. In addition, the mean score 2.61 is lower than the median value 3.00 which indicates visitors do not believe the service provided by the centers enough. As indicated on table 5, which respondents a positive feeling that the centers solving the health problem of the community, they responded, 7 of respondents responds strongly agree, 58 of them responds agree, 9 were neutral, 24 of them responds disagree and 5 respondent responds highly disagree and the mean value 3.37 is greater than the median value 3.00 this result strengthen respondents feeling that the health centers are improving the health problem of the community.

As illustrated on table 5 above which questioned respondents if the health centers improved their service in recent years, out of the total 103 respondents, 14 of the respondents responds strongly agree, 63 of them agree, 5 were neutral 18 disagree and 3 respondent responds highly disagree with mean score of 3.65 it implies that the health centers getting better on the service provided to visitors after the made a reform. Table 5 which asks the visitors if the center well equipped with necessary medical supplies, out of the total 103 respondents, 9 of them responds strongly agree, 46 of them agree, 11 were neutral, 31 of them responds disagree and 6 respondents respond highly disagree with mean score 3.20 higher than the median value of 3.00 it implies majority of the visitors believed the health centers armed with medical equipment at their level.

Finally on visitors respond for question about the employees competency for the job they are assigned, out of the total 103 respondents, 3 of the respondents responds strongly agree, 12 of them agree, 13 were neutral 49 disagree and 26 respondent responds highly disagree with mean score valued 2.19 it denotes that the health centers employees believed to be incompetent for the job in the eyes of the patients. This might affect the entire health service quality of the health centers, doctors or health officers, nurses, pharmacists, Administrators, Finance officers, storekeepers, and others expected to work with respect to their education and work experience with work ethic.

4.4 Frequency and Mean score of Employees response on Health Care Financing

The researcher organized the questioner that is distributed to the employees of each health centers in to three categories. Question 1-5 determines the availability of essential drugs with in the health centers premises, the second category start from question 6-11 and presents health centers controlling mechanism over the drugs and the third category which is question from 12-19 shows the contributions of the HCF for the health centers above the health service as a whole.

Table 6 Frequency and Mean score of employee’s response on supply of essential drugs within the health centers

Ques. No.	Drug supply	5	%	4	%	3	%	2	%	1	%	Total	Mean
1	Patients found drugs always	8	0%	28	61%	5	11%	4	9%	1	2%	46	3.83
2	Drugs available in drug store	6	13%	24	52%	7	15%	5	11%	4	9%	46	3.50
3	Drugs acquired before finished	9	20%	26	57%	4	9%	7	15%	0	0%	46	3.80
4	Supply of essential durg improving	9	20%	35	76%	2	4%	0	0%	0	0%	46	4.15
5	Purchasing procedure less bureaucratic	2	4%	16	35%	5	11%	19	41%	4	9%	46	2.85

Source from own survey

As shown in the above table 6, out of the total 46 respondents: For the question that visitors respond about sustainable drug availability for patients within the pharmacy of the health centers, 8 of responds strongly agree, 28 of them agree, 5 were neutral, 4 disagree and 1 respondents respond highly disagree and the mean score value is 3.83. In relation to the first question employees asked about if drugs available in drug store throughout the year, 6 of the respondents responds strongly agree, 24 of them agree, 7 were neutral, 5 respondents respond disagree and 4 respondents respond highly disagree with the mean score of 3.50 which also more than the median value 3.00. Majority of the employee which is 65% believed the essential drug available for patients in the health center all the time. Over same question was asked to visitors on question 6, 70% visitors responded they found drugs within the premises when they visit the health centers.

According to above Table 6 employees asked if drugs ordered before drugs are out of stock, 9 of them responds strongly agree, 26 of them agree, 4 were neutral, 7 respondents disagree and none respondents respond highly disagree. In addition, the mean score of respondents’ response is 3.80. The rate given by employees to wards on question 4 which asks about if the supply of drugs improving after the reform shows, 9 of the respondents responds strongly agree, 26 of them agree, 5 were neutral, 10 of them were disagree and 2 respondents highly disagree with the mean score value 4.15 it implies health centers are getting improving for the drug supply since the reform is implemented.

As illustrated on table 6 above for the last question if the drug purchasing procedure is less bureaucratic, out of the total 46 respondents, 2 of the respondents responds strongly agree, 16 of them agree, 5 were neutral, 19 respondents disagree and 4 highly disagree with mean score of 2.85. The above results indicate that employees of the health centers believe the

health centers struggling to provide the necessary drugs for the visitors as fast as they can because of the bureaucratic procedure to purchase drugs took a number of days. The statics of the opened question shows 42% employees responded the purchase procedure to from 16- 30 days on average.

Table 7 Frequency and Mean score of health centers drug controlling mechanism

Ques. No.	Controlling	5	%	4	%	3	%	2	%	1	%	Total	Mean
6	Regular physical count	0	0%	17	37%	4	9%	19	41%	6	13%	46	2.70
7	Standard mechanism of drug inventory system	0	0%	22	48%	4	9%	16	35%	4	9%	46	2.96
8	Separate recording of internal revenue & costs	17	37%	26	57%	3	7%	0	0%	0	0%	46	4.30
9	Proper employees segregation of duties	7	15%	19	41%	9	20%	7	15%	4	9%	46	3.39
10	Procurement based on gov't rules & regulations Qus.	12	26%	32	70%	0	0%	2	4%	0	0%	46	4.17
11	Proper storage space with conducive temperature	0	0%	12	26%	8	17%	23	50%	3	7%	46	2.63

Source from own survey

On the table 7 the question about if the health centers conduct regular physical count to control drugs, which score a mean value of 2.70, none responds strongly agree, 17 of them agree, 4 employees were neutral, 19 responds disagree and 6 of them responds highly disagree. Likewise employees asked about the health centers use standard inventory mechanism keeping the drug inventory system safe , no respondents strongly agree, 22 of them responds agree, 4 were neutral, 16 disagree and 4 respondents respond highly disagree. And the mean value is 2.96. In relation on question 8 which the researcher ask if the internal revenue separately recorded, 17 of respondents responds strongly agree, 26 of them agree, 3 were neutral, none responded disagree and highly disagree with a mean value of 4.30.

For category control mechanism, questioned if health centers has proper segregation of duties among employees, the mean score is 3.39 and the response of employees shows 7 of them responds strongly agree, 19 of them agree, 9 were neutral, 7 employee disagree and 4 respondents respond highly disagree. The question over control mechanism on the table above asked if the health centers follow government rules and regulation while purchase drugs, the mean score is 4.17 and 12 of the respondents strongly disagree, 32 of the responses agree, none employees respond neutral, 2 responds disagree and again none respond strongly disagree respectively.

Lastly employees asked if the health centers had proper and conducive storage place, none responded strongly agree, 12 responded agree, 8 were neutral, 23 employees respond disagree and 3 said strongly disagree and the mean score value 2.63. The above analysis on employees' response implies that the health center performing better relating on controlling the drugs because five of the six variables mean scores shows above the median value 3.00.

Table 8 Frequency and mean of respondents on the contribution of HCF to the improvement of health centers performance

Ques. No.	HCF contribution	5	%	4	%	3	%	2	%	1	%	Total	Mean
12	Drug per capita improved	9	20%	30	65%	4	9%	3	7%	0	0%	46	3.98
13	Internal revenue retained & utilized increased	3	7%	27	59%	4	9%	10	22%	2	4%	46	3.41
14	HCF helps health centers to improve the quality of health service	6	13%	25	54%	5	11%	8	17%	2	4%	46	3.54
15	Autonomous structure is helping effective & efficient of resource utilization	4	9%	22	48%	11	24%	6	13%	3	7%	46	3.39
16	Board members participate actively	0	0%	19	41%	5	11%	19	41%	3	7%	46	2.87
17	Number of visitors increased after the reform	7	15%	28	61%	5	11%	6	13%	0	0%	46	3.78
18	Budget deficit not occurred for drug purchase	8	17%	25	54%	9	20%	3	7%	1	2%	46	3.78
19	User fees the major financing of the HCs	8	17%	21	46%	13	28%	4	9%	0	0%	46	3.72

Source from own survey

As shown in the above table 8 holds the third category, which describe HCF contribution for health centers in general, out of the total 46 respondents, for the question 12 asked the drug per capita improvement, 9 of them employees strongly agree, 30 of them agree, 4 were neutral, 3 of them responds disagree and no respondents respond highly disagree. And the mean score is 3.98.

Regarding HCF contribution question 13 that talks about whether internal revenue collection improved or not, 3 of them responds strongly agree, 27 of them agree, 4 were neutral, 10 disagree and 2 respondents respond highly disagree with the mean score of 3.41. The rate given by employees to wards HCF contribution question to check whether the health service quality improved or not, 6 of them responds strongly agree, 25 of them agree, 5 were neutral, 8 respondents respond disagree and 2 respondents respond highly disagree. In addition, the mean score of respondents' response is 3.54. Same question was asked visitors of the centers, according to the data collected 75% the respondents agreed that the health centers are improving the quality services they are providing to the community.

Respondent's response, 4 of them responds strongly agree, 22 of them agree, 11 were neutral, 6 of them disagree and 3 respondents respond highly disagree for the question number 15 which asks about effective and efficiency of the autonomous structure the health centers, mean score value 3.39. Relating to the contribution of HCF about board members involvement over the improvement of the service, none responds strongly agree, 19 of them agree, 5 were neutral, 19 disagree and 3 respondents respond highly disagree for the question for the employees' health centers that budget challenge for the purchase of essential drugs after the reform and the mean value shows 2.87. The reform enabled health centers structured autonomous and ruled through board members, the members composed of from government health office, community member, and health center employees, the above result implies employees believed the members can do better than what they are currently contributed.

The rate given by employees to wards HCF contribution question, the number of health center visitors increased, 7 of them responds strongly agree, 28 of them agree, 5 were neutral, 6 respondents respond disagree and none respondents respond highly disagree. In addition, the mean score of respondents' response is 3.78. Question 18 is about if the health centers faced budget deficit for the purchase of drugs after the reform, 8 of them responds strongly agree, 25 of them agree, 9 were neutral, 3 disagree and 1 respondents respond highly disagree with the mean score of 3.41. Out of 46 respondents a 33 or 71% responded didn't face a budget deficit for the purchase of the drugs. Finally employees of the health centers respond for last question which tries to evaluate the main revenue sources of the health centers, 8 of the respondents strongly agree, 21 of them agree, 13 of the response were neutral, 4 response were disagree and none of the response were strongly disagree, and the mean value pointed at 3.72, the outcome indicates out of the revenue gained the health centers from user fee the highest share but it doesn't mean that the fee charged by the health centers is comparable to the current market.

4.5 Questions Distributed to Health centers Employees

The responses these opened ended questions helped to strengthen the researcher the conclusion. These questioners are distributed along with closed ended questioners, so the returned opened ended questioners same as closed questioners, which are 46 here below summarized each of respondent's answers as follows.

- The Main challenges for the insufficient essential drug within the health center
 - Shortage of finance
 - Time taking procurement procedure
 - Limited Suppliers
 - Increase the volume of visitors
 - Unavailability of decision makers
 - Lose control of drug inventory
- The benefit the health center being administrated by the board (Autonomous)
 - Decisions made on time
 - Government bureaucracy reduced
 - Community problems prioritized
 - New ideas shared
- The major challenges of the health center listed by the employees are
 - Financial and human resource scarcity
 - Very low user health service charge
 - Lack of incentive for best performing employees and health centers
 - Shortage of space to provide proper treatment
 - Major medical equipment shortage
 - High employee turn over
 - Board member carelessness

4.6 Interview with Board Members data presentation

Interview is conducted to the board member of the health centers, according to the researcher schedule the researcher design to do interview 10 board members but due to time and budget constraints the researcher conducted only 4 of health center members selected from the community, but since the head of the health centers are members the board, researcher conducted the interview questions for heads to fulfill the missing respondents.

- The major responsibilities of the board members summarized as follows
 - Participate on major procurement decisions
 - Participate on employees conduct issues
 - Conduct regular supervision on weekly bases

- Participate on planning and budgeting
- The major challenges to perform your responsibilities during implementation
 - Budget shortage to make capital expenditure
 - Very low user fee
 - Conflict with health center employees
 - Planning and forecasting challenges
 - Lack of incentive for the board
 - Lack of leadership skill among the members
 - High employee turnover
 - Lack of government support
- Do you believe HCF reform improves the drug supply of the health center? If yes, how far?

All the respondents say yes, and mentioned as a reason most drugs are available in the stock for visitors most of the time unlike before the reform times.

- What is your opinion on the reform in general?
 - It benefited the health centers to improve more
 - It needs continues training on leadership and planning skills for the employees and board members.
 - Sometimes the HCF policy guide line lacks flexibility
- What is your priority to accomplishment for the health center?
 - Provide drugs sustainably with in the health center
 - Create conducive and attractive environment for the employees and visitors
 - Build shelter for visitors

4.7 Focus Group Discussion

On the focus group discussion schedule 2 person were presented one from Addis Ababa Health Bureau and the other one were from the project implementing office. The researcher raised the general over view the government side for the health sector; the focal person who came from AAHB presented the government commitment to improve the health sector development in all over the country. And the government fully aware of the overseas financial dependency can be to shrink anytime soon without any reason. Government

develops health care sector strategy to enhance the development. This strategy holds two major health sector financing mechanism. The first one is HCF which already started to implement in all health sectors of the country. The second one is health insurance which is on the final stage to start implementing.

Some other questions which have directly related to the study discussed as follows.

The discussed the progress of the Bole health center on the collection of internal revenue improvement year after year. The focal person presented the data obtained during regular supportive supervision all over the city. Here the table below show for internal revenue collection for the health centers found in bole sub city.

Year in EC	Population visit HC	No. of HC start RRU	plan to collect internal revenue	Total collected internal Revenue	Purchasing of drugs from RRU	Drug per capita	%age of collection over budgeted
2004	131,764	Bole 17	1,000,000	785,069.32	200,000.00	1.52	78.50%
	41,742	Bole 17/20	451,282	281,626.73	93,100.00	2.23	62.41%
Total	173,506		1,451,282.00	1,066,696.05	293,100.00	1.69	73.50%

Table 9: source from AAHB SS

According to the above table 9 out of 8 health centers only 2 health centers were started retain the internal revenue. The two health centers collected revenue 785,069.32 birr and 281,626.73 birr which is 73.5% of their plan out of this collected revenue they spend 200,000 birr and 93,100 birr for the purchase of drugs. The per capita drug expenditure on the internal revenue is 1.52 and 2.23 respectively.

S.no	Health centers	Population	Appropriate budget	Actual collected	Expenditure for drug from RR	Budget against Actual collected	RRU for Drug expenditure	Drug per capita
1	Bole 17	91,773	1,000,000.00	1,008,407.35	366,507.35	101%	36%	3.99
2	Bole 17/20	41,186	600,000.00	606,531.64	245,789.35	101%	41%	5.97
3	Goro	36,284	200,000.00	567,700.15	84,537.22	284%	15%	2.33
4	Meri	13,785	200,000.00	293,038.54	121,648.42	147%	42%	8.82
5	Amoraw	54,542	200,000.00	392,632.16	50,000.00	196%	13%	0.92
6	Simit	13,785	200,000.00	148,232.81	10,082.00	74%	7%	0.73
7	Bole Bulbula	16,848	200,000.00	543,649.61	60,000.00	272%	11%	3.56
8	Dilfire	116,543	350,000.00	1,014,993.35	147,960.93	290%	15%	1.27
9	Gerji	37,314	-	-	-			-
	Total	422,060	2,950,000	4,575,186	1,086,525	155%	24%	2.57

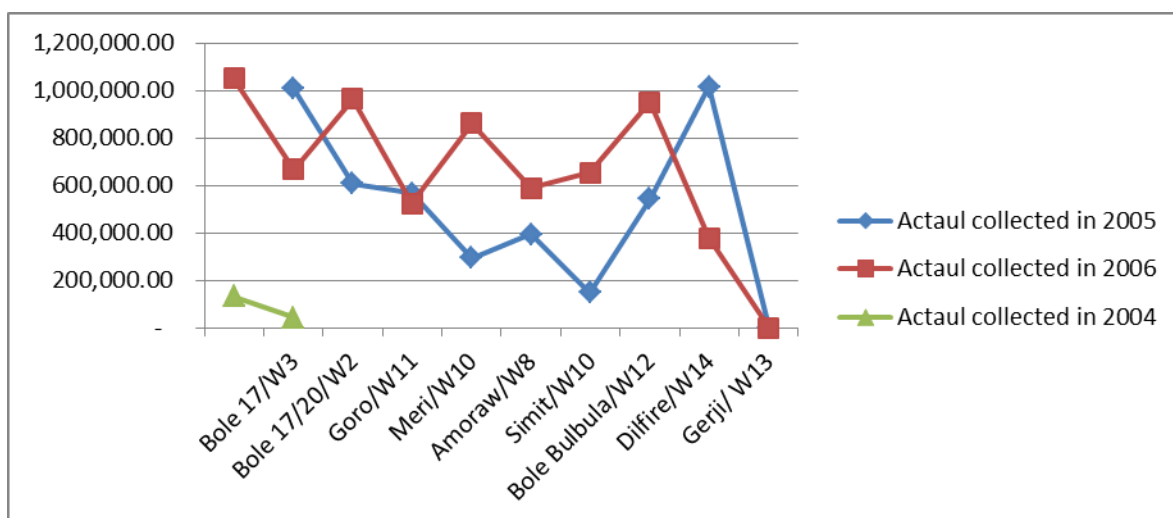
Table 10: data source from SS on 2005 EC

Based on the data from the table 10 above out of 9 health centers 8 of the health centers were started collected and utilized. Out of 8 health centers 7 health centers collected revenue above their targeted. The per capita of spending for drug lay between 8.82 birr to 0.73 cents but if we compare the same health centers from last year it is observed the per capita increased from 1.52 birr to 3.99 birr and 2.23 birr to 5.97 birr respectively.

S.No.	Health centers	Visitors Population	Appropriate budget	Actual collected	Expenditure for drug from RR	Budget against Actual collected	RRU for Drug expenditure	Drug per capita
1	Bole 17/W3	36,856.00	1,090,000.00	1,049,882.67	457,755.75	96%	44%	12.42
2	Bole 17/20/W2	43,102.00	607,954.00	665,541.60	328,141.53	109%	49%	7.61
3	Goro/W11	39,618.00	1,800,000.00	964,040.57	467,591.16	54%	49%	11.80
4	Meri/W10	13,786.00	500,000.00	524,823.73	336,063.05	105%	64%	24.38
5	Amoraw/W8	55,275.00	1,350,000.00	862,138.16	537,105.66	64%	62%	9.72
6	Simit/W10	13,786.00	653,000.00	587,434.74	208,940.22	90%	36%	15.16
7	Bole Bulbula/W12	17,632.00	838,274.00	653,136.76	361,216.97	78%	55%	20.49
8	Difire/W14	72,539.00	1,000,000.00	951,829.87	411,774.69	95%	43%	5.68
9	Gerji/ W13	38,247.00	253,000.00	377,495.43	-	149%	0%	-
10	chefe			-				
	Total	330,841	8,092,228.00	6,636,323.53	3,108,589.03	82%	47%	9.40

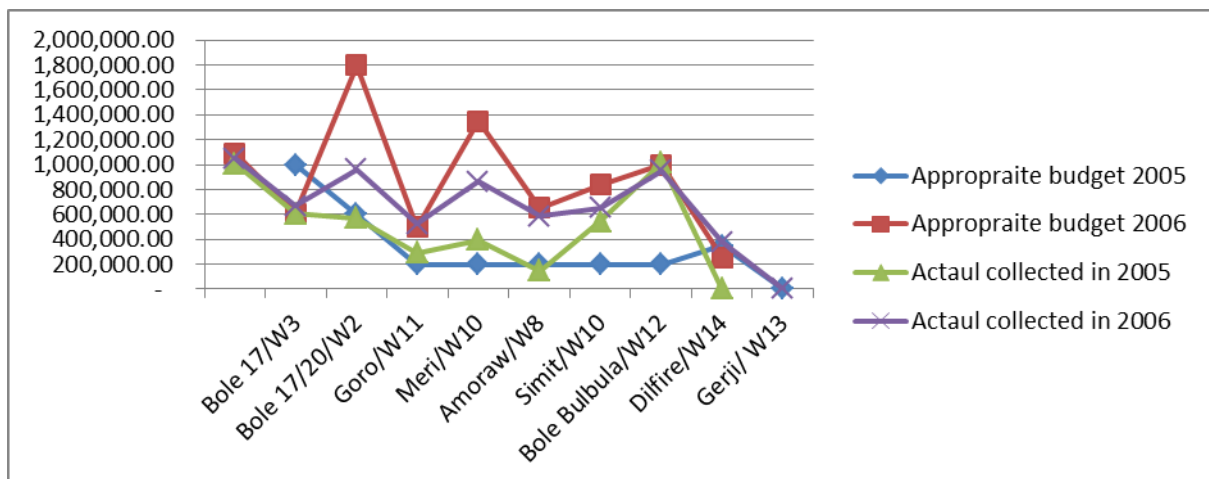
Table 11: data source from SS on 2006 EC

The total collected revenue in 2006 EC is twice with the year 2005 EC collected, the data of “Chefe” health center not included because it started in 2007 EC. As shown on the above table per capita of drug expenditure increased to 9.4 birr person that is three times that of year 2005. Based on the above table 10&11 the below chart shows the per capita expenditure of drugs comparing 2005 and 2006 years.



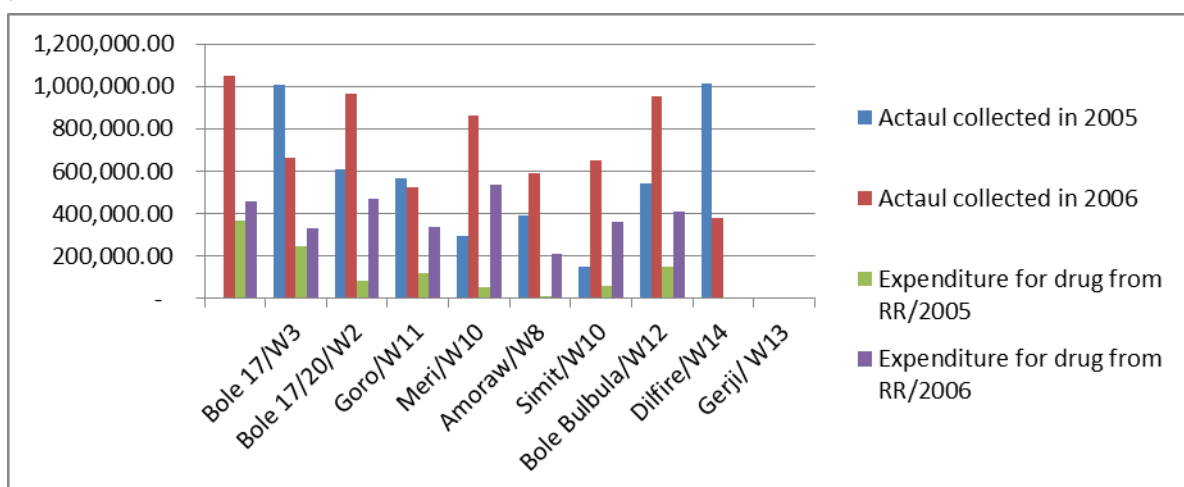
Graph I: Revenue Retention

From each health center collected revenues spend for the purchase of drug has significant increment when we compare with the 2005 year recording that helped the health centers to insure the supply of drugs within the premises of the health centers. The table also shows that out of 10 health centers 3 of them collect revenue above their target, 4 were collected above 75%, 2 of the collected above 50% of their target. The below graph compare the appropriate budget with the actual collection of year 2005 and 2006 based on the table 10&11.



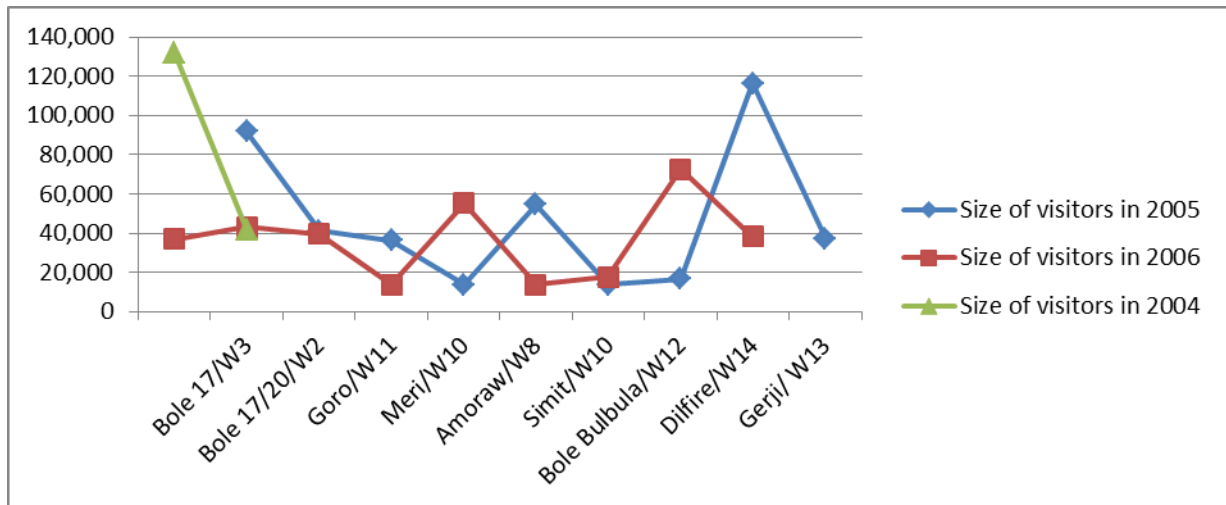
Graph II: Appropriate Budget vs. Actual Revenue Retained

Bole sub city health centers base on the above tables obtained from the AAHB focal person, the health centers spending significant amount money for the purchase of drugs only from their collections. The following graph shows the trend of expenditure for the drug purchase by year 2005 and 2006 based on the above table10&11.



Graph III: Actual revenue retained vs. Utilization for drugs

The below graph IV shows the tendency of patients who visits Bole sub city health centers year after years since the inception of the reform.



Graph IV: Size of visitors

The data indicated 2006 EC out of the 9 health centers in 7 of the health centers attended greater number of visitors than 2005 EC. The rise of visitors from year to year might be followed by the improvement health service by the health centers.

CHAPER FIVE

SUMMARY, CONCLUSION & RECOMMENDATION

5.1 Introduction

The purpose of this thesis paper is to provide, the major progress and achievements of revenue retention and utilization for supply of essential drugs of the health centers for those found in Bole sub city. In this study the researcher tried to collect both secondary and primary data by preparing both open and close ended questionnaires that are distributed to incoming patients, employees of the health centers, also conduct interview the board members and finally a focus group discussion held with AAHB focal person and HCF specialist. Out of the total 140 sample population 103 respondents of respond to the questionnaires. Based on the findings and analysis of this research work the following summary of findings and conclusions were drawn and recommendations were forwarded with regard to the main aim of the research.

5.2 SUMMARY OF THE FINDINGS

The researcher summarized the data presentation with respect to the respondent's class; first patients respond on the categories over preference, supply of drugs and capacity of the health centers. The data collected from employees also summarized with respect of the findings categories on drug supply of the health center, their controlling mechanism and the contribution of HCF for the improvement of service quality of the health facilities those found in Bole sub city.

- ❖ Visitors of the health centers choose primarily the centers to get treatment, based on table 3 75% of the patients scored either strongly agree or agree while asked if the health center is their first choice. On the same table the higher mean score to find out their reason were because of the health centers low health service cost and/or better treatment of the health center.
- ❖ 70% visitors responded acquired the prescribed drug within the promises of the health centers with lower price comparing with others said, and also respondents believed that the health centers capable of supplying the essential drugs for the communities though visitors questioned the drugs are quality or curative. The main reason for

essential drugs unavailability employees mentioned shortage of finance, time taking purchase procedure, limited suppliers, requesting when drugs already empty were some of listed.

- ❖ Visitors gave their witness on the progress of the health centers after started of HCF, first respondents believed the health centers improving the health service by solving community problems, equipped with sufficient medical supplies and created conducive environment for visitors as well as employees. Table 5 also indicates that there is still question on area of employee's skill and altitudes.
- ❖ The survey conducted over the status of drug supply of the health center, employees were so confident that the supply is improving since the inception of the HCF to each center. Additionally patients are getting the prescribed drug within the health center all the time, drug stores, and the health center procure the necessary drugs before it get finished from store but they don't believed the purchased procedure less bureaucratic.
- ❖ While asking the controlling mechanism of the drugs, employees were assured the purchasing procedure follow government rules and regulation and employees segregation of duties done properly. Government budget and internal revenue collections inflow and out flow transactions is also kept separately for controlling purpose. Based on survey on table 7 employees were worried about not conducted regular physical count drugs, also most health centers not using standard mechanism of inventory system and employees not feel confident on the drug storage environment.
- ❖ HCF had huge influence for the improvement of the drug per capita increment because revenue retention and utilization helped the drug supply but they don't feel it's enough to handle the pressure coming from increasing visitors. Employees also confirm the RRU helped the health center to improve its quality of service so that number of visitors increasing year after year. Even through the independent structure from government benefit the centers in many way like reducing government bureaucracy, decisions made faster, community problems given priority and so on, but employees believe board members can do more than their current participation over the health centers different activities.

During the focus group discussion, the participants presented quantitative data to evaluate the contribution of HCF for the essential drug supply and increase of revenue retained year after year. 2004 EC (2012GC) there is only two health centers of Bole sub city started RRU a total

of 1,066,696.05 Birr were collected through internal revenue, out this collection 631,190 Birr which is 59.17% were used for the purchase of drugs.

On the consecutive year 2005 the number health centers that started RRU enlarged to 8 out of the total 9, during this period a total of revenue collected and utilized increased to 4,575,186 Birr more than 4 time of the previous year and expenditure of the purchase of drugs were 1,086,525 Birr which mean 24% of the revenue invested to acquire the necessary drugs. Moreover in 2006 EC 9 health centers were started the reform out of 10 health centers, from the data the focal person presented 6,636,323.53 Birr retained it has 31% increase than the year 2005. Health centers invest 3,108,589.03 Birr for the purchase of the drugs 65% increment that the previous year.

The increase of the expenditure for drug purchase had big influence on the per capita increase, in 2006 the average drug per capita in 9.4 birr (Table 11) that more than three times the previous year which scored 2.57 Birr (Table 10). Moreover when we see visitors size who visited the health centers for three years period, based on data available the size increasing constantly year by year.

5.3 CONCLUSION

From the analysis and findings of the data conclusions can be made as follows:

As discussed in chapter one government budget for the health sector is far below the WHO obligation to spend on the sector, moreover it is incomparable to the health problem of the population. Financing of health sector through donors depend on the will of the countries, it is still another head ace to the nations. Thus the government of Ethiopia is working hard to financing the sector using different local financing mechanisms. This survey conducted to check out the contribution of one of the components of HCF that is RRU to the supply of essential drugs, which implemented throughout the nations wide. The study concentrated only on public health centers that are found in one of the sub cities of Addis Ababa, Bole Sub city. According to the survey data the HCF reform was started in 2004 EC, currently all the 10 of the health centers already start implementing the reform including the newly constructed “Chefie” health center.

As we can see from survey Table 4 70% of visitors or patients got the prescribed drugs with in the health centers and on Table 8 supports the above statement that health centers are

developing their financial strength from year to year, revenues collected on 2006 enlarged by 31% that previous year, which is huge increase comparing with the government yearly budget increase. Meanwhile health centers escaped from budget deficit counted mean value 3.78 which is 71% that means health centers didn't face shortage of money. Again from Table 10 & 11 health centers invested the retained revenue for the purchase of the drugs has increased from 24% by the 2005 to 47 % in 2006. Autonomous structure helped the health centers escape long government bureaucracy, and go through shorter path to decide on different activities of the centers including essential drug purchase. Moreover the problems of the community addressed because the board members contains the community member, so that tasks and challenges are getting prioritized in the order of the urgency.

Drug controlling mechanism were one of the this paper tries to address, Health centers are not protected from the theft and fraud, the data table 7 showed health centers didn't consistently doing the physical count over drugs and other supplies, health centers don't use standardized controlling mechanism for in and out flow of the drugs, unsegregated employees duty and drug storage place is not protective and conducive for drugs. These lead some of the health centers incapable to fulfill the drug supply and also poor health service. Employee high turnover and passive board members is also another challenge of the health centers fronting, because of low salary scale and lack of incentives.

In general, RRU which is one of the components of HCF provide great impact to finance nine of health centers for the availability of essential drugs with in the health centers of Bole sub city. The benefits are not only to improve the drug supply but also leading to improve the quality of the health service.

5.4 RECOMMENDATION

As per the outcomes of this study the following recommendations are forwarded to Bole sub city health centers so as RRU contribution to essential drugs availability in all health centers level all the time.

- ❖ As the survey displayed that the controlling mechanism of drugs of the health centers is weak. Thus the researcher strongly recommend, health centers should have modern inventory system to control the flow of drugs, that will help the health centers from theft and fraud as well as procure drugs before the drugs gets finished from the shelf. Since purchase procedure bureaucratic and took more than 15 days on average drugs were unavailable for patients between those days. The system will allow the status of drugs, and then can be ordered for those who are reached reorder point. In addition to the inventory system health centers should conduct regular and surprise physical count for drugs at least once in year that will guarantee safe handling. Equally segregation of duties among employees must be done, that helps responsibilities to be shared among employees so that health centers will have strong controlling mechanism.
- ❖ The researcher reviewed during the survey, drugs were exposed for damage and expiring due to lack space and improper storage. The researcher suggests health centers should have stored drugs properly with favorable condition of the drugs. This will minimize significantly expiring and spoilage of drugs, beside that it reduces additional cost that the health centers spend for replacement of the drugs and cost for destroy the expired or spoiled drugs. More importantly health centers will not going to fail to deliver prescribed drugs for the visitors.
- ❖ One important suggestion that the researcher would like to endorse is on the current very low user fee that the health center charging for the treatment. Even though health centers can't change the fee by themselves, they can push government officials and can create awareness for the community using data they already on hand and the independent structure of the health centers. That will increase the financial strength of the health centers which also let more money will flow to health sector. If health centers retain more money they will invested on the health service quality. This is also

very important for the achievement of health insurance that is stated on government strategic plan (HSPD). According to the focal person from AAHB the health insurance is going to be implemented in the coming few years, so that visitors demand to the health center will increase by double. At the time health centers need to be financially strong to fulfill the demand of visitors.

- ❖ Human resources development is another solution to create stable environment. High performing employee and board members should get reward or incentive for their contributions and achievement. Helping employees to develop their skills through training and experience sharing is also another point to keep the environment smooth. These will have a direct effect on the improvement of the health service quality, once the service quality improved the size of the visitors will increase and that will increase financial strength of the centers because more money going to be pooled in to the health centers.

- ❖ Finally health centers shall have technical assistant and close supportive supervision from government since there is high employee turnover the replaced employees need to get close attention to continue the work flow, so that problems can be addressed before or earliest stage of any damage.

ANNEX 1 - Questioner for Patients

The objective of this questioner is to study the impact of the Revenue Retention and Utilization (RRU) for the availability of essential drugs within the government owned health centers. The thesis is address for the health centers those found in Addis Ababa Bole sub city. The questions will have 5 options to choose and each options have score from 1-5, the highest score is 5 and the lowest is 1. Please put (X) sign for answers. The researcher appreciates for your careful attention and time.

Part I Demographic Characteristics

Age: _____ Sex: _____

Occupation: 1. Employed 2. Self Employed 3. I am not working

Part II – Questions on patients preference, Drug availability and Health center capacity

Questions on patients preference, Drug availability and Health center capacity	Very strongly agree (5)	Agree (4)	Neither agree nor disagree (3)	Disagree (2)	Very strongly disagree (1)
1. Is this health center your first choice when you or your family members get sick?					
2. I always found all the prescribed drugs within the health center.					
3. Do you agree the health center capable of providing the necessary drugs for the whole community?					
4. The health center offers drugs with lower price when compared to private pharmacies.					
5. The health center pharmacy provides quality and sufficient drugs for the patients/community?					
6. The health center capacity enough for the community.					
7. Did you agree the health center improved the health problem of the community?					
8. Did you agree the health center improves the quality of the health service in the recent years?					
9. The health center is well equipped					
10. The health center has competent employees					

11. What is your main reason for choosing the health center primarily?

- Closeness from home To keep the referral system
- For better treatment Other Specify _____
- Low health service cost

12. How frequent have you visited this health center with a year?

- Once Twice 3 Time whenever I am
sick
- Other _____

ANNEX 2- Questioners for Employees

The objective of this questioner is to study the impact of the Revenue Retention and Utilization (RRU) for the availability of essential drugs within the government owned health centers. The thesis is address for the health centers those found in Addis Ababa Bole sub city. The questions will have 5 options to choose and each options have score from 1-5, the highest score is 5 and the lowest is 1. Please put (X) sign for answers. The researcher appreciates for your careful attention and time.

Age: _____ Sex: _____ Education status: _____

Questions for employees over HC's drug supply, controlling mechanism and HCF contribution	V. strongly agree (5)	Agree (4)	Neither agree nor disagree (3)	Disagree (2)	V. strongly disagree (1)
1. Patients of the health center finds all essential drugs within the premises					
2. Essential drugs available in the drug store of the health center all the time					
3. The health center acquire the essential drugs before it gets finished from the store					
4. The availability of essential drugs in the health center is improving after the reform					
5. The health center drug purchasing has less bureaucratic procedure					
6. The health center conducts regularly drug physical count					
7. The health center drug record and inventory is controlled through with the standard controlling mechanism					
8. The health center has well controlling system to prevent theft of drugs					
9. The health center employees has proper segregation of duties among employee					
10. The procurement of essential drugs is based on government financial policy and rules and regulations					
11. The health center has proper storage space with conducive temperature for the drugs					
12. Per capita drug expenditure of the health center after the reform improved					
13. The internal revenue of the health center increasing					
14. HCF is helping to improve the quality of health service of the health center					
15. Autonomous structure of the health center helps for effective and efficient resource utilization					
16. The board members actively participating to improve the health center health service quality					
17. Number of patients increasing after the reform					
18. The health center didn't face budget deficit for the purchase of essential drugs since the inception of the reform					
19. Retaining the internal revenue is the major source health financing of the health center					

20. How long does it take the ordered drugs until it will stock in the drug store?

1-15 days 16-30 days 31-45 days 46- 60 days

Other, specify _____

21. When do you raise order for the purchase of the essential drugs?

When it reach on the reorder point When it is finished from the shelf (empty)

Depending on the patient needs Other Specify _____

22. Do you believe the HCF reform helps the health facility to have the essential drugs availability throughout the year?

23. Do you believe that health centers autonomous structure fasten the drug procurement process?

24. Do you believe all the board members feel responsible for the health center service daily activities?

25. Does your health center face short of essential drugs after the reform? If yes, how many time and explain the reasons?

26. Do you believe the health center have segregation of duties? If no please explain?

27. What are the main challenges for the insufficient essential drug within the health center?

28. Please discuss the health centers benefited for being administrated by the board (Autonomous)

29. Please discuss the major challenges of the health center

ANNEX 3- Interview Questions for Board Members

1. What are the major responsibilities of the board members?

2. What are the major challenges to perform your responsibilities during implementation?

3. Do you believe HCF reform improves the drug supply of the health center? If yes, how far?

4. What is your opinion on the reform in general?

5. What is your priority challenge to accomplishment for the health center?

ANNEX 4- List of Essential Drugs

Definition	The number of months in which tracer drug was available averaged over all tracer drugs during the specified time period																																																																																																								
Formula	$\frac{\sum (\text{tracer drugs} \times \text{months available})}{\sum \text{tracer drugs} \times \sum \text{total number of months in time period}}$					X100																																																																																																			
Interpretation	<p>Essential drugs should always be available. If an essential drug was unavailable, the cause should be investigated. Essential drug availability is the proportion of months in the time period under consideration for which given tracer drug was available when needed. The availability can be averaged over several tracer drugs to give a general picture of availability. The tracer drugs include drugs used in preventive and curative services, including contraceptives and vaccines.</p> <p>Tracer Drugs by Facility</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th style="text-align: center;">H. Post</th> <th style="text-align: center;">H. Center</th> <th colspan="4" style="text-align: center;">Hospital</th> </tr> </thead> <tbody> <tr><td>Amoxicillin</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td></tr> <tr><td>Oral Rehydration Salts</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td></tr> <tr><td>Arthemisin / Lumphantrine</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td></tr> <tr><td>Mebendazole Tablets</td><td></td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td></tr> <tr><td>Tetracycline Eye Ointment</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td></tr> <tr><td>Paracetamol</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td></tr> <tr><td>Refampicine / Isoniazide / Pyrazinamide / Ethambutol</td><td></td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td></tr> <tr><td>Medroxyprogesterone Injection</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td></tr> <tr><td>Ergometrine Maleate Tablets</td><td></td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td></tr> <tr><td>Ferrous Salt plus Folic Acid</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td></tr> <tr><td>Pentavalent DPT-Hep-Hib Vaccine</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td></tr> <tr><td>Zinc</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td></tr> <tr><td>Gentamycine</td><td style="text-align: center;">X</td><td style="text-align: center;">X</td><td></td><td></td><td></td><td></td></tr> </tbody> </table>								H. Post	H. Center	Hospital				Amoxicillin	X	X					Oral Rehydration Salts	X	X					Arthemisin / Lumphantrine	X	X					Mebendazole Tablets		X					Tetracycline Eye Ointment	X	X					Paracetamol	X	X					Refampicine / Isoniazide / Pyrazinamide / Ethambutol		X					Medroxyprogesterone Injection	X	X					Ergometrine Maleate Tablets		X					Ferrous Salt plus Folic Acid	X	X					Pentavalent DPT-Hep-Hib Vaccine	X	X					Zinc	X	X					Gentamycine	X	X				
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Source	Any month in which a drug is unavailable is experienced, even for only 1 day, is reported as a month in which the drug was unavailable when needed. This information is available from records kept at the facility dispensary.																																																																																																								
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	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly																																																																																																		

ANNEX 5- Sample size determination table

Sample Size for $\pm 3\%$, $\pm 5\%$, $\pm 7\%$, and $\pm 10\%$ Precision Levels where Confidence Level Is 95% and $P=.5$.				
Size of Population	Sample Size (n) for Precision (e) of:			
	$\pm 3\%$	$\pm 5\%$	$\pm 7\%$	$\pm 10\%$
500	a	222	145	83
600	a	240	152	86
700	a	255	158	88
800	a	267	163	89
900	a	277	166	90
1000	a	286	169	91
2000	714	333	185	95
3000	811	353	191	97
4000	870	364	194	98
5000	909	370	196	98
6000	938	375	197	98
7000	959	378	198	99
8000	976	381	199	99
9000	989	383	200	99
10000	1,000	385	200	99
15000	1,034	390	201	99
20000	1,053	392	204	100
25000	1,064	394	204	100
50000	1,087	397	204	100
100000	1,099	398	204	100
>100,000	1,111	400	204	100

a = Assumption of normal population is poor. The entire population should be sampled. (Yamane, 1967)

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