PUBLIC PHARMACEUTICALS PROCUREMENT PRACTICE AND EFFICENCY IN ETHIOPIA IN ACCORDANCE WITH THE FEDERAL PUBLIC PROCUREMENT GUIDELINES

By:

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Research Thesis Submitted to Department of Pharmacy, College of Public Health and Medical Sciences, Jimma University in Partial Fulfillment for the Requirements of Degree of Masters of Science in Pharmaceuticals Supply Chain Management

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Abstract

Background: Worldwide, public procurement (PP) has become an issue of public attention and debate, and has been subjected to reforms, restructuring, rules and regulations. As the demand for medicines and health supplies reflect changes in population health and environmental conditions, so flexibility and responsiveness in procurement practices to aspirations, expectations and needs of the target society is needed.

Objective: The aim of this study was to assess the public procurement practice and efficiency of Pharmaceuticals Fund and Supply Agency (PFSA) in accordance with PP guidelines.

Materials and methods: A cross sectional study design with both quantitative and qualitative research methods was used. Structured self administered questionnaire, document review using observational checklist and in-depth interview were used for data collection. Sixty one workers in PFSA and Public Procurement Agency (PPA) who are directly involved in public procurement practices and regulations were selected for quantitative study and 8 top and mid level managers in both agencies were involved in the qualitative in depth interview. Document review was done on 30% of one year procurement documents at PFSA. Data were analyzed using SPSS version 21.0. For prediction analysis, the study used logistic regression and odds ratio (OR) with 95% confidence interval (CI). Qualitative data were analyzed based on thematic content analysis.

Results: The odds of pharmaceutical procurement efficiency was 16.9 times more likely for high financial thresholds than low financial thresholds AOR (95% CI) =16.9, (CI=3.3, 86.8). Considering nature of pharmaceuticals by the regulation showed 6 times more likely to bring efficient pharmaceutical procurement practices as compared with not considering their nature AOR (95% CI) =6, (CI=1.2, 31) but approved procurement methods didn't have significant association with procurement efficiency.

Conclusion and Recommendation: Low financial thresholds and lack of considerations for pharmaceuticals nature in the PPA guidelines were independent predictors for public pharmaceuticals procurement efficiency. A comprehensive and sector-specific procurement manual having different threshold matrix should be introduced and updated regularly.

Key words: Procurement efficiency, financial thresholds, PFSA, PPA, Ethiopia

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Operational Definitions

Delivery precision: It is Quantity similarity between purchase order and packing list of pharmaceuticals.

Efficient procurement: The procurement practices which is responsive to emergency situations, having high delivery precision and lead time less than 120 days for improving customer services by availing the right product at the right quantity to the right place at right time.

Financial thresholds: The maximum value of each procurement transaction or package permitted in the guideline

Low financial thresholds: Is the 'perceived low financial thresholds of PPA guidelines' by study participants

High financial thresholds: Is the 'perceived high financial thresholds of PPA guidelines' by study participants

Top level manager: A manger working as a general director or vice director at PFSA or PPA

Mid level manager: A manger working as a directorate director at PFSA or PPA

Pharmaceuticals: Medicines, laboratory reagents, chemicals, medical equipments and supplies

Procurement professional: A person who is engaged in an occupation in which directly involved and has experience in the practice of procurement and regulation

Public Procurement Guideline: Is the public procurement proclamation No. 649/2009 or public procurement directive of 2011 or public procurement manual of 2011 of PPA.

Acronyms and Abbreviations

ADB – African Development Bank

FMHACA – Food, Medicine and Heath Care Administration

FPPA- Federal Public Procurement Agency

GDP – Gross Domestic Product

GoE – Government of Ethiopia

GS- General Service

HR- Human Resource

HSDP – Health Sector Development Program

ICB – International Competitive Bidding

LMIS – Logistics Management Information System

MAPS- Methodology for Assessment of Procurement System

MDG – Millennium Development Goal

MoFED- Minister of Finance and Economic Development

NCB – National Competitive Bidding

NDP – National Drug Policy

OECD/DAC– Organisation for Economic Co-operation and Development/Development Assistant Committee

PFSA – Pharmaceuticals Fund and Supply Agency

PHARMID- Pharmaceuticals Distribution and Wholesales Share Company

PLMP – Pharmaceutical Logistics Master Plan

PP – Public Procurement

PPA - Public Procurement Agency

PPOA- Public Procurement Oversight Authority

PPP- Public Pharmaceuticals Procurement

PPR- Public Procurement Regulation

RCB – Restrictive Competitive Bidding

RDF- Revolving Drug Fund

SOP – Standard Operating Procedure

SPSS – Statistical Package for Social Sciences

STD – Standard Tender Document

UNCITRAL-United Nations Commission on International Trade Law

USD – United States Dollar

WHO – World Health Organization

WTO – World Trade Organization

1. Introduction

1.1 Background

Worldwide, public procurement (PP) has become an issue of public attention and debate, and has been subjected to reforms, restructuring, rules and regulations. PP refers to the acquisition of goods, services and works by a procuring entity using public funds (1). According to the Ethiopian Public Procurement Proclamation (No. 649/2009), procurement defined as "obtaining goods, works, consultancy or other services through purchasing, hiring or obtaining by any other contractual means." The proclamation also defines PP as procurement by a public body using public fund. From the proclamation, the overall tasks of procurement is to obtain goods, works, consultancy services and other services at the right quality, in the right quantity, from the right sources, at the right time, place and price to achieve an organizational objectives (2). It has become a socio-economic factor all governments have to reckon with. PP is, generally speaking, done with public fund, it is intended to benefit the general public (3). PP is a key tool to the overall achievements of development goals such as reducing poverty and providing health, infrastructure, education and other services. The ultimate aim of public sector procurement is to provide public services and support government operations at all levels within a country which used as a tool for achieving political, economic and social goals (4).

Public bodies have always been big purchasers, dealing with huge budgets. PP represents 18.42% of the world GDP (Gross Domestic Product). In developing countries, PP is increasingly recognized as essential in service delivery and it accounts for a high proportion of total expenditure. For example, PP accounts for 60% in Kenya, 58% in Angola, 40% in Malawi and 70% of Uganda's public spending (5). Study done on public procurement reform in Ethiopia cited that out of the total public spending, more than 60 percent goes to procuring public goods and services according to the Ethiopian Procurement and Property Administration Agency (PPA) report. This is very high when compared with a global average of 12-20 % (6).

Pharmaceuticals represent one of the largest components of health expenditure. In 2009, the total value of the pharmaceutical market was estimated at USD (United States Dollar) 837 billion (7). Reports by European Commission among OECD (Organisation for Economic Co-operation and

Development) member states showed that on average 14% of public spending goes to health expenditures, which is the second largest next to social protection accounting 41% of public spending (8).

In developing countries, pharmaceutical expenditures and drug procurements account for 20–50% of public health budgets, the largest health expenditure after staff salaries (9). In Ethiopia, the public pharmaceutical procurement maximum capacity in terms of money in 2007/2008 was 624 million birr and reaching 6.7 billion birr in 2012/2013. Local procurement accounted for 8.21% of the total purchase made in 2012/2013 (10). Efficiently handling this size of procurement has been a policy and management concern as well as a challenge for public procurement professionals (11).

It is estimated that almost 2 billion people (one third of the global population) do not have regular access to essential medicines. In some of the lowest-income countries in Africa and Asia, more than half of the population has no regular access (12)**.** WHO (World Health Organization) estimates indicate that improving access to medicines could potentially save the lives of 10 million people every year (13).

Three out of eight Millennium Development Goals (MDGs), 8 of 16 MDG targets and 18 of 48 MDG indicators are health-related. Most health targets cannot be reached without pharmaceuticals. From this it can be seen that access to essential medicines in developing countries is a target in itself (14). In addition, governments in various countries aim to achieve universal health care in their countries; it becomes imperative to ensure that public health facilities always have adequate stock of quality medicines at affordable price. Therefore, an efficient mechanism of procuring medicines is one of the most critical factors for ensuring universal access to medicines (15).

Efficiency is one of the principal hallmarks of proficient public procurement along with economy, fairness, transparency, accountability and ethical standards and which means the best public procurement is simple and swift, producing positive results without protracted delays. In addition, efficiency implies practicality, especially in terms of compatibility with the

administrative resources and professional capabilities of the purchasing entity and its procurement personnel (16).

Pharmaceuticals procurement is an important part of efficient drug management and supply and is critical for all levels of health care institutions. An efficient procurement process ensures the availability of the six rights; right drugs in the right quantities, available at the right time, for the right patient and at reasonable prices, and at recognizable standards of quality (8). Without efficient procurement procedures and processes, we would not be able to meet the six rights (17). Thus, procurement is not simply the act of buying but encompasses a complex range of operational, business, information technology, safety and risk management, and legal systems, all designed to address an institution's (procuring entities) needs (18).

Considering huge volumes of purchase on pharmaceuticals and essential role of procurement and medicines for health a sound procurement system is therefore crucial for ensuring health of the citizen and quality of services (17). Context-specific national procurement policies are among the solutions required to improve access to essential medicines (14).

Public pharmaceuticals procurement in Ethiopia

PP regulation in Ethiopia was started in 1940 EC. In 1950 an independent agency, Ministry of Public Property Organization and Distribution were established under proclamation № 19/1950 which is dissolved in 1956. In 1981 the military government gave two of its chapters about government procurement in its financial regulation. After the introduction of the 1995 constitution the government of Ethiopia (GoE) drafted "The Federal Government of Ethiopia the Financial Administration Proclamation № 57/1996" and "the Council of Ministers Financial Regulations № 17/1997 (6).

Currently in Ethiopia, PP is regulated by the Public Procurement and Property Administration Proclamation No. 649/2009. The Proclamation establishes the Federal Public Property and Administration Agency (FPPA) as a body responsible for regulation and monitoring of public procurement activities. The working proclamation has the legal framework of Public

Procurement proclamation No 649/2009, public procurement directive, public procurement manual, standard tender documents (STD) and guidelines (19).
In the public health sector of Ethiopia PFSA was established in September 2007 by proclamation No. 553/2007 for central public pharmaceuticals procurement (20).

1.2 Statement of the problem

WHO identified efficient procurement and distribution practices are the determinants of reliable medicine supply system to exist (21).

Pharmaceutical procurement is a complex process that involves many steps and many stakeholders. It is also conducted within national and institutional policies, rules, regulations, and structures that may hinder or support the overall efficiency of the procurement process. Inadequate rules, regulations, structures and absence of a comprehensive procurement policy are among the main problems for establishing good pharmaceutical procurement (22).

Each step in the procurement process must be standardized and regulated according to public laws and regulations. However, this can also make the procurement process time consuming. So to ensure continuous availability of pharmaceuticals the procurement process must be planed and completed in a reasonable time (23).

Developing countries in one way or another have reformed their public procurement policies. The reforms include regulations, public procurement process, methods, procurement organizational structure, and the workforce. Nonetheless, most developing countries are facing a problem of rapid changes in public procurement requirements. The changes are impacting pressure on how the procurement function performs its internal and external processes and procedures in order to achieve its objectives (24).

In Kenya, the inefficiency and incompetence of overall administration and management of procurement function in many public institutions contributes to loss of over 50 million Kenyan shilling annually. According to the Kenyan PPOA (Public Procurement Oversight Authority) such procurement expenditure could be minimized through implementation of effective procurement practices (25).

Experiences from Kenya and Uganda notified that after awarding the tender for their annual supply of the anti-malarial artemether-lumefantrine to the lowest bidder, Ajanta Pharma, by using international competitive bidding processes in an effort to increase competition and decrease price resulted wide stock-outs in part due to the company's inability to supply the order in full and on time (26).

Public sector procuring entities face unique challenges and constraints, such as heightened public scrutiny which limits the agility and responsiveness of procurement practices. Additionally, the procurement of health commodities is different from the procurement of non-health products. As the demand for medicines and health supplies reflect changes in population health and environmental conditions and pharmaceuticals, which provide both therapeutic and curative value, contribute to decreased morbidity and mortality, there exists a great need for flexibility and responsiveness in procurement and contracting practices to aspirations, expectations and needs of the target society (27).

Even though the government of Ethiopia shows its commitment towards ensuring community's access to the essential medicines that are safe, effective and of assured quality by considering a regular and adequate supply of pharmaceuticals as one of the core processes in the ongoing health sector reform by stating that Pharmaceuticals will be procured in bulk and will be delivered directly to service delivery points by PFSA, decreasing procurement lead time (average time between order & delivery from supplier) from 240 days to 120 days and decreasing the proportion of health facilities with stock-out for essential drugs from 35% to 0% in the HSDP IV (Health Sector Development Program) (28). But the public procurement guideline presented the estimated lead time for goods for ICB (International Competitive Bidding) to be 175 to 441 days and for NCB (National Competitive Bidding) the estimated lead time for goods (including pharmaceuticals according to the manual) is 91 to 259 days (29) which does not go side by side with the health sectors target.

Reports showed that PFSA which is expected to be regulated by Public Procurement Proclamation applies various procurement methods depending on the nature and quantity of item to be procured. The main procurement methods applied by PFSA are: Restricted Bidding (RB), ICB, NCB, Shopping, and Direct Contracting. The predominant procurement method is Restricted Bidding which accounts for around 55 % of all procurement in PFSA, based on data

collected during the EFY(Ethiopian Fiscal Year) 2003 (2010/2011). ICB which is the default method by the guidelines accounts only for around 18% of total procurement. PFSA is also not adhering to threshold limitations of procurement directive and its procurement processes. The rapid growth in funding levels handled by PFSA hasbeen a challenge in terms of capacity to procure the commodities and equipment required in a timely way. Additionally the issue of restrictions and conditions on procurement such as requiring use of specified suppliers or procedures adds to the complexity of the task for PFSA and can reduce efficiency of procurement (20).

Above all no study has been done in Ethiopia on the public pharmaceutical sector, to assess the effect of public procurement guidelines on the procurement practices and efficiency of PFSA.

1.3 Significance of the study

Considering the nations pharmaceuticals procurement practice is performed under the umbrella of the federal public procurement guidelines, assessing its effect in the actual operation is of paramount importance in the establishment of pharmaceuticals procurement practices that will contribute a great share in the supply chain of the health sector in maintaining uninterrupted pharmaceuticals supply with the required quantity, quality, time, place, cost and delivering to the appropriate clients.

The findings of the research are expected to contribute a lot for different stakeholders. The primary significance of this study will be giving insight to policy makers and interested parties devoting their time on reforming public procurement laws and regulations in the area of public procurement in the country to give due attentions for procurement of pharmaceuticals, considering their nature, value and meaning to the public and politics. It is also hoped that the research will benefit the PFSA and FMOH to influence, convince and negotiate stakeholders when formulating and reforming public procurement policy in the country in making pharmaceuticals procurement environment as an area of responsive to the health needs and programs of the nations.

Further, this research is expected to give a clue for the public procurement regulatory body to revise the policies and reconsidering for improving public procurement practices in the

pharmaceuticals sector as part of their strategic plan for the achievement of best value for public money and supporting the nation's health policies of availing essential medicines to the last miles. It will also provide a basis for further research that will be done in the study area.

2. Literature review

The public procurement system is built on four cardinal pillars – procurement laws and regulations, procurement workforce, procurement process and methods and procurement organizational structure. This system is mostly determined by government and influenced by its economic, cultural, legal, political and social environment (30).

2.1 Public Procurement regulations

The public procurement regulations established by policy makers and management executives becomes the institutional framework within which public procurement professionals (be it contract officers, buyers, or procurement officers), and program managers implement their authorized and funded procurement programs or projects (30).

Procurement laws and regulations are the prerequisite for a sound public procurement system which lead to procurement efficiency or inefficiency. The ideal procurement laws and regulations should be clear, consistent, comprehensive, and flexible. The public procurement legal framework clearly covers the whole scope of PP, all stages of the procurement process, methods of procurement, ethics and transparency (16).

Research done on providing affordable essential medicines to African households, considered pharmaceuticals as an integral of any healthcare system and limited access to pharmaceuticals undermines health systems' objectives of equity, efficiency and health development. In African countries, where it is estimated that 50–60% of the populace lack access to essential medicines, health problems associated with limited drug benefits are more damaging. Context-specific national procurement policies are among the solutions required to improve access to essential medicines (14). Inadequate rules, regulations, structures and absence of a comprehensive procurement policy are among the main problems for establishing good pharmaceutical procurement (22).

Study done in 2009 by Eva Ombaka on status of medicines procurement showed that efficient public pharmaceuticals procurement should be based on operational, business, information

technology, safety and risk management, and legal systems, all designed to address an institution's needs of ensuring the availability of the right drugs in the right quantities, available at the right time, for the right patient and at reasonable prices, and at recognizable standards of quality (18).

Article which showed experiences from Tanzania strongly argued that rigidity of public procurement laws in the developing nations is the major factors tackling the achievement of value for money and attainment of international best practices. Imposition of rigid rules and strengthening of the regulatory frame work alone is no where closer to the achievement of value for money (31).

A descriptive case study among Kenyan secondary schools founded that the public procurement regulations have had a significant influence on pricing of goods procured by public institutions and lead time while the same regulations have had a less significant influence on transparency of the procurement process and quality of goods procured (32).

Another descriptive study done at supplies branch in Nairobi showed that loopholes in legislation hindered efficiency in public procurement with the highest mean rating of 3.87 among five variables (32).

An assessment of Ghana's procurement system in 2007 by the OECD/DAC, even if it confirms substantial progress in public procurement, also alluded that some provisions in the Public Procurement Act have proven to be ineffectual and require adjustments or modifications. These include, incorrect interpretation and application of some provisions of the procurement law, slow pace in regularizing draft regulations, lack of clear procedures for emergency procurement, lack of training avenues for practitioners, poor record management, poor handling of suppliers' complaints, poor procurement planning, poor contract management and high cost of advertisement. According to the assessment these challenges cut across most African countries (33).

2.2 Procurement Function in Operations

The concept of public procurement covers three phases of public procurement processes, deciding which goods or services are to be procured and when (procurement planning), the process of placing contract to acquire those goods and services, administering contract (34).

The public procurement system's ability to accomplish procurement policies or goals is influenced very much by internal forces including: Interactions between various elements of the public procurement systems, various officials and organizations in the government, and actors and organizations external to sub-agencies; and types of goods, services and capital assets required for an agency's missions (30).

Health sector goods, especially pharmaceuticals, vaccines, and contraceptives, differ significantly from the type of goods typically procured in infrastructure, energy, industry, and agricultural projects. For example, pharmaceuticals, vaccines, and contraceptives differ from other goods in terms of diversity, the terminology used to express their specific chemical and generic characteristics, stability criteria, shelf-life limitations, special storage requirements, susceptibility to heat and light, quick obsolescence, and rigid quality control requirements. Significant price differences can exist between brand name and generic products. The procurement of medical equipment raises additional issues. The use of technology for the diagnosis, treatment, and rehabilitation of people is developing very rapidly. Among other factors, increased computerization of equipment makes addressing subjects as quality and safety standards, total costs of ownership (for example: maintenance or software upgrades) and training, a challenge. Therefore, the tasks of preparing broad specifications that will encourage competition and carrying out fair and transparent evaluations have become increasingly more difficult. Issues regarding intellectual property rights must also be addressed (35).

Study in Uganda showed that even though developing countries are reforming their public procurement regulations, most countries are facing a problem of rapid changes in public procurement requirements. The study also pointed that interactions between various elements, professionalism, staffing levels and budget resources, procurement organizational structure whether centralized or decentralized, procurement regulations, rules, and guidance, and internal control policies influence the performance of the procurement function (24).

A descriptive study in Kenya found that the procurement legal framework had strong positive correlation with execution of procurement procedures (r = 0.959). This correlation was found to be statistically significant at 95% significance level (p-value = 0.000) (36).

A case study on the strategic procurement practices of U.S and sub-Saharan African countries stated that public procuring entities responsible for procurement of essential medicines and health commodities used outdated procurement methods, floating tenders multiple times a year, inflexible forecasts and cumbersome tendering processes due to strict public scrutiny and pressures to be transparent, eventually which brings long lead times and stock-outs, and it hampers the manufacturer's or supplier's ability to plan and respond to the government's needs. But public sector procurement of health commodities requires more flexibility and responsiveness to change (in population health and in environmental conditions) than procurement of other products (37).

2.3 Conceptual framework

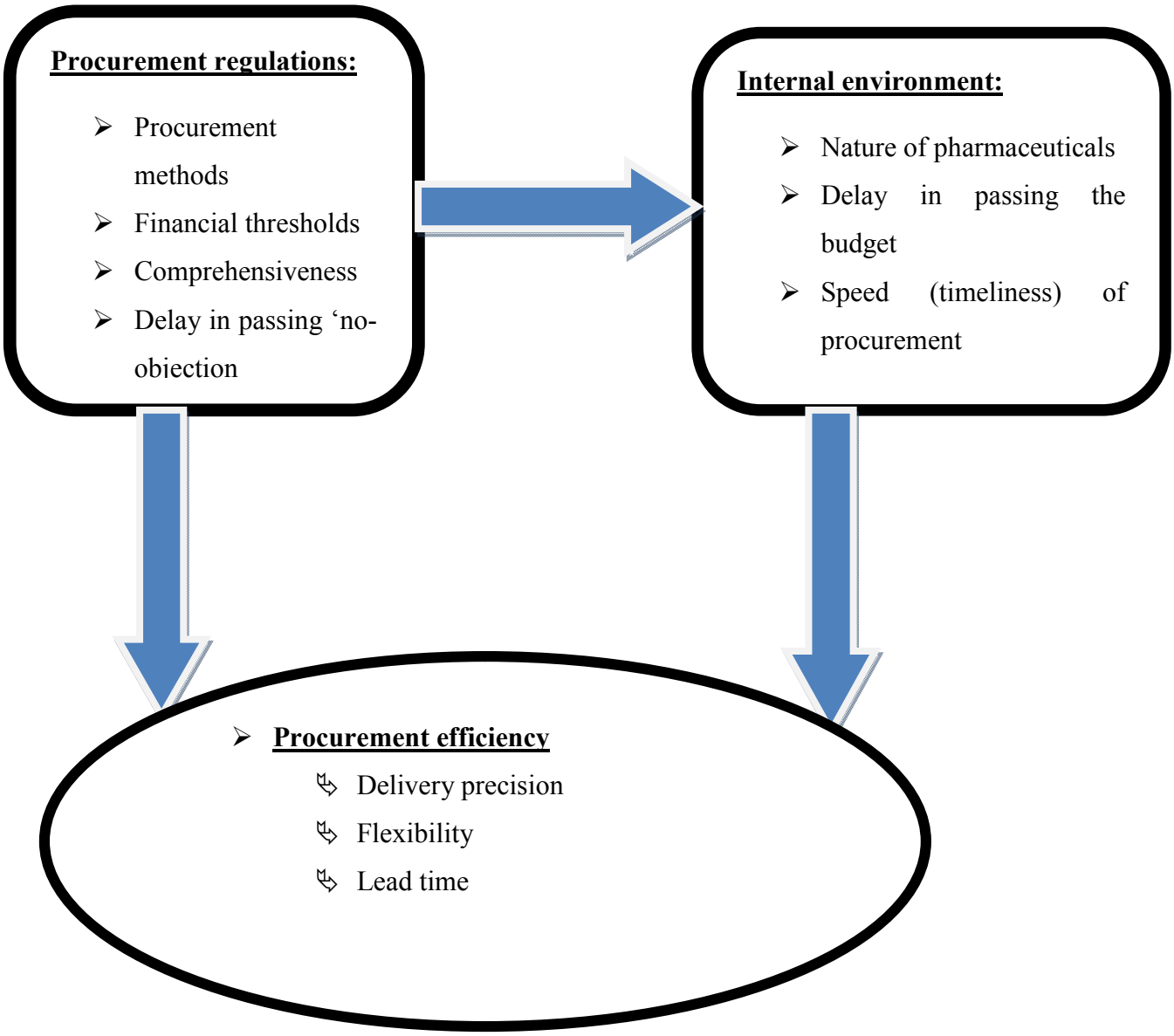

Figure 1: Conceptual framework developed from literatures, 2014/15

3. Objectives

3.1 General objective

- To assess the public pharmaceuticals procurement practice and efficiency of PFSA in accordance with public procurement guidelines, Addis Ababa 2015

3.2 Specific objectives

- To assess the general effect of federal public procurement guidelines on the efficient public pharmaceuticals procurement practice of PFSA
- To assess the effect of approved procurement methods in the FPPA guideline on public pharmaceuticals procurement efficiency of PFSA
- To determine the effect of financial thresholds of FPPA guidelines on efficient procurement practices of PFSA
- To determine the effect of considering nature of pharmaceuticals in the guidelines on procurement efficiency of PFSA

4. Materials and methods

4.1 Study Area and period

The study was carried out at the central PFSA and PPA which are located in the capital of Ethiopia, Addis Ababa. Ethiopia is a federal democratic republic of nine regional states and two city administrations. Ethiopia is Africa's oldest independent country and tenth largest country in Africa, covering 1,104,300 square kilometers (with 1 million sq km land area and 104,300 sq km water). The country is also the major constituent of the landmass known as the Horn of Africa. Ethiopia is among the fastest growing non-oil producing economies in the world and has maintained an average GDP growth rate of 11 percent in the last ten years. The services sector has been expanding, buoyed by an expansion in wholesale and retail trade (34.4 percent); transport and communications (17.1 percent); and hotels and tourism (15.4 percent) (38).

The FMOH is a health service delivery body under a three-tier health system. The three-tier system involve a primary health care unit(PHCU), comprising of five satellite health posts, one health center and primary hospital to serve 5,000, 25,000, and 100,000 population respectively; then secondary level general hospital to serve 1 million population and tertiary or specialized hospital which is expected to serve 5 million people. Primary health service coverage reached 94.5 % with 156 hospitals, 3335 health centers, 16,251 health posts and more than 4000 private for profit and not for profit clinics (39).

The PFSA, an agency under the FMoH replaced PHARMID in late 2007 by proclamation № 553/2007. PFSA is the leading organization for managing the health care supply chain of the country, has been working to ensure the availability, accessibility, and affordability of essential medicines with appropriate quality, safety, and efficacy. To achieve these goals, PFSA designed and implemented various innovative programs such as the Integrated Pharmaceutical Logistics System (IPLS) to create a strong, unified, healthcare supply chain in the country. The agency is organized in to 6 directorates, out of which 3 are in charge of medicines supply chain management: forecasting and capacity building, storage and distribution and procurement. The procurement capacity of the agency was increased by over tenfold from 624 million birr to 6.7 billion birr within 5 years from 2000 to 2005 EFY. The local procurement of the agency was increased from 550 million birr to 790 million birr within 3 years (2003-2005 EFY). The increased capacity was attributed to the role of the agency to procure and distribute program

pharmaceuticals and retain service charge from RDF (Revolving Drug Fund). Central hub at PFSA distributes to eleven hubs in the country, including one in Addis Ababa, Adama, Desse, Gonder, Mekele, Nekemet, Bahirdar, Diredawa, Hawasa, Jimma and Negelle Borena with recent expansions to Arbaminch, Gambella, Assosa, Shire and Semera (10,40).

The Ethiopian Public Procurement and Property Administration Agency has been established under proclamation № 649/2009. The Agency, which is accountable to the ministry of Finance and Economic Development (MoFED) having duties and responsibilities of advising the federal government on all public procurement and property administration policies, principles and implementation, conducting audit to ensure that procurement and property administration activities of public bodies are in accordance with the Proclamation etc, are few among the many others (6).

This study was conducted from March 1-30/ 2015 in the two agencies (PFSA and PPA).

4.2 Study Design

Cross sectional study design with both qualitative and quantitative data collection methods were used.

4.3 Population

4.3.1 Source population

The source populations were all workers working in central PFSA and PPA of Ethiopia.

All procurement documents of RDF pharmaceuticals at PFSA in the year 2006/07 EFY (from July 1/2005-June 30/2006 E.C).

4.3.2 Study population

The study populations were;

- All professional workers who were directly involved in procurement practices in PFSA and procurement regulation in PPA.
- Sampled individuals in PFSA and PPA who were mid level and high level managers for in-depth interview.
- Sampled procurement documents of RDF pharmaceuticals at PFSA in 2006/07 EFY

4.3.3 Inclusion criteria for quantitative study

All professional workers in the PFSA and PPA directly involved in the procurement practices and regulations and who worked at least 1 year before the data collection time.

Randomly selected finished RDF pharmaceuticals procurement documents for observation were used.

4.3.4 Inclusion criteria for qualitative study

Information rich key informants (top and mid level managers in PFSA and PPA) were involved.

4.3.5 Exclusion criteria

- Workers at PFSA and PPA who were not present at the time of data collection were excluded.
- Workers who have less than 1 year experience in the area at the time of data collection were excluded from the study.
- Workers who didn't participate directly in public procurement practice and regulation were excluded from the study.
- Procurement documents with unfinished procurement process were not considered.

4.4 Sample size determination

4.4.1 for quantitative study

All individuals who fulfilled the inclusion criteria were included in the study and a total of 61 individuals were involved in the quantitative study**.**

From a total of 154 procurement documents, 30% were taken randomly, finally 46 procurement documents were observed.

4.4.2 for qualitative study

Purposively 8 Individuals were selected to participate in to the in-depth interview 4 persons from PFSA and 4 persons from PPA.

4.5 Sampling procedure

For quantitative study

Initially, census was conducted since the population was not large. Profile of all workers was taken from each agency human resource directorates. Workers were categorized by the departments they work, their work experience and their job role to get the study population for which the study was intended. Finally 24 workers from PFSA and 41 workers from PPA were selected giving 65. Pretest of the questionnaire was carried out on 5% of the study population that is 4 respondents which result 61 study participants for the study. Document review was conducted retrospectively for 2006/07 EFY (from July 1/2005-June 30/2006 E.C) RDF pharmaceutical procurement documents at PFSA. Documents were selected randomly by lottery method.

Table 1: Study population at PFSA & PPA for quantitative study from census, March 2015

Organizations						
PFSA			PPA			
Job title		**Population**	**Job title**			**Population**
General director		1	General director			1
Operations deputy director		1	Vice director			1
Procurement endorsing committee		4	Directorate	PP & property administration follow up	Director	1
					Officers	8
Procurement evaluation committee		4		Change implementation and planning	Director	1
					Officers	10
Procurement directorate	Director	1		Procurement implementation, property disposal & compliant review	Director	1
					Officers	7
	Pharmaceutical procurement unit	5		Public procurement administration	Director	1
	Laboratory reagents and chemicals procurement unit	4			Officers	10
	Medical equipments and supplies procurement unit	4				
Total		**24**				**41**
Grand total						**65**
Pre test (5%)						**4**
Actual study participants						**61**

For qualitative study

For the in depth interview purposive sampling technique were used to identify the members and 8 top and mid level managers in PFSA and PPA were included. Before conducting the interview, explanation and elaboration of the need to do the in-depth interview were made. The participants were asked for their willingness to participate in the in-depth interview.

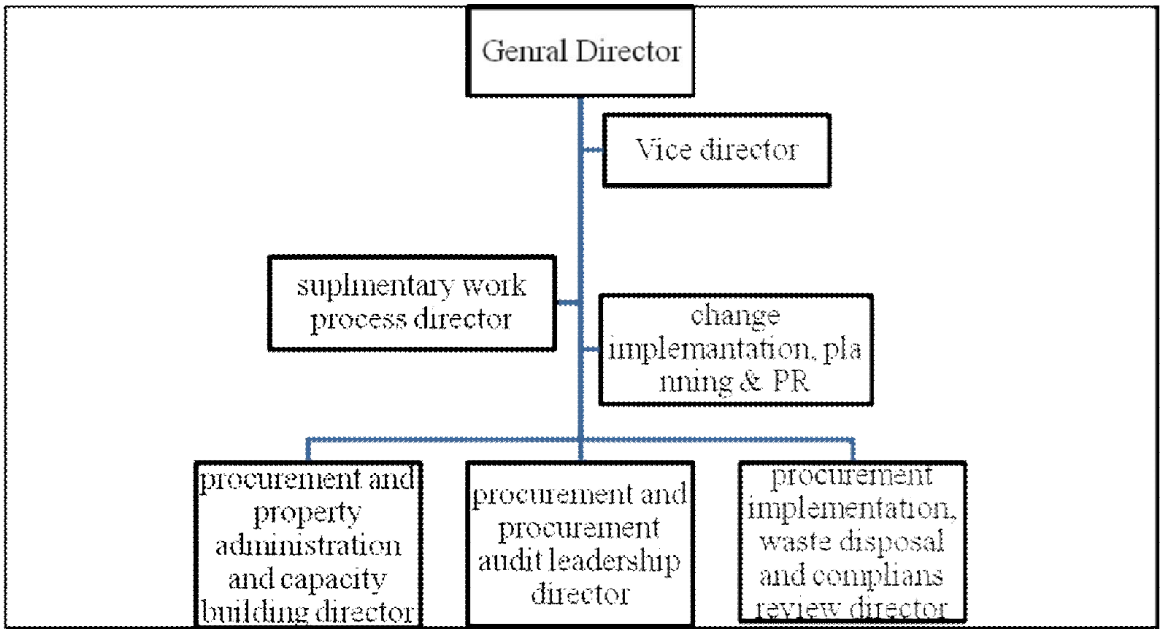

Figure 2: Public Procurement and Property Administration agency's organizational chart, March 2015

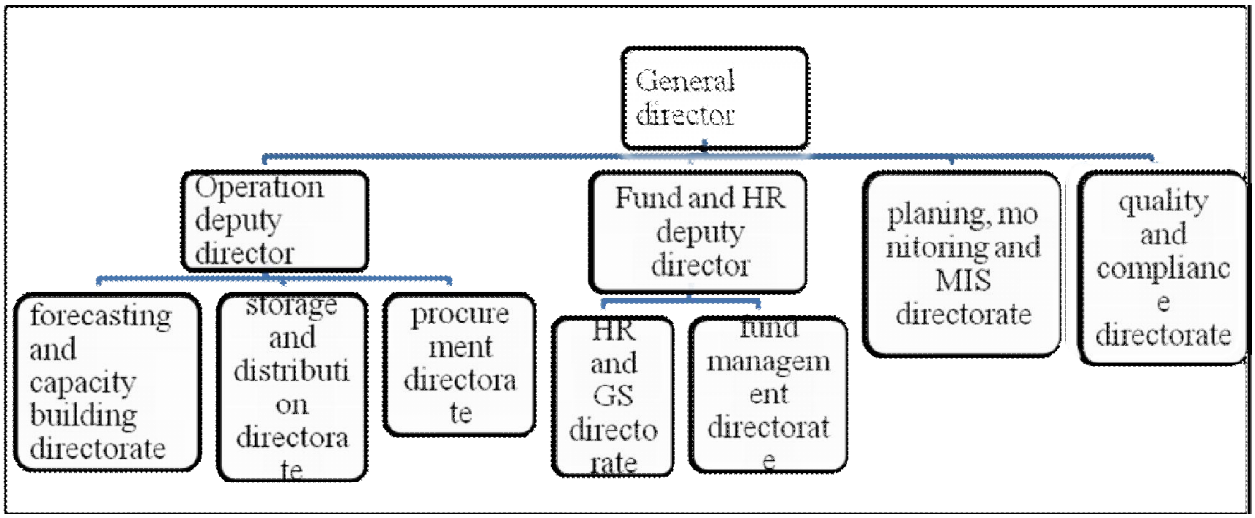

Figure 3: Organizational structure of PFSA, March 2015

4.6 Variables

4.6.1 Dependent Variable

Procurement efficiency

- ➲ Delivery precision
- ➲ Flexibility
- ➲ Lead time

4.6.2 Independent Variables

Procurement Regulations:

- Procurement methods
- Financial thresholds
- Comprehensiveness
- Delay in passing 'no-objection'

Internal environment:

- Nature of pharmaceuticals
- Delay in passing the budget
- Speed (timeliness) of procurement

4.7 Instrument and data collection procedure

4.7.1 Data collection instrument

Different data collection tools were used to collect relevant information based on the study objectives. The structured self administered questionnaire, in depth interview guide and observational checklist were used to collect the data.

4.7.2 Data collection method

Quantitative

A structured, pre-tested and self-administrated questionnaire was used for quantitative data collection.

The questionnaire were adapted from OECD/DAC methodology for assessment of national procurement systems, the World Bank's country procurement assessment review and literatures done on supply chain performance measurements (33,41,42). The instrument was comprised of dimensions indicated in a previous conceptual framework: public procurement legal framework, public pharmaceuticals procurement practices and efficiency.

Two data collection facilitators who are pharmacists and one senior pharmacist were recruited for questionnaire administration and supervision, respectively.

Two days orientation were given for data collection facilitators and supervisor, both before and after the pretest by the principal investigator, on the objectives of the study, the contents of the questionnaire, issues related to the confidentiality of the responses and the rights of respondents. One week prior to data collection, a pretest was conducted on 5% of workers at PFSA and PPA who are included in the study, and then they were excluded at the time of the data collection, to ensure clarity and validity of questions. To ensure maximal response, respondents were assured that the information gathered was treated confidentially.

Observation was also conducted by using observational checklist to assess public pharmaceuticals procurement practice at PFSA about, procurement plan, adherence of the practice with plan and procurement methods used specifically for revolving drug fund (RDF) pharmaceuticals.

Qualitative

In order to support information that was collected through structured questionnaire an in depth interview was conducted after the quantitative data collection. Interview guide was prepared for the in-depth interview. Eight (8) in depth interviews were conducted with purposively selected key informants (top and mid level managers) four individuals from each agencies, to assess effect of public procurement regulations on implementing efficient public pharmaceuticals procurement practice.

4.8 Pretest

Pretest of the questionnaire was carried out on 5% of workers at PFSA and PPA who are included in the study, and then they were excluded at the time of the data collection. During pre test, facilitators and supervisors assessed clarity, understandability and completeness of questions.

The result of the pretest was discussed and some correction and changes like: Ambiguous questions, logic and sequences were revised before the questionnaire was finalized.

Cronbanch's alpha reliability test was done and for each scale Cronbanch's alpha (α) score of 70% was taken as an acceptable measure of internal consistency of items.

4.9 Data processing, analysis and presentation

For Quantitative data

After the completion of quantitative data collection: editing, coding, entry and cleaning were done by Epidata 3.1 and exported to SPSS software, version 21.0 for analysis. Bivariate and multivariate logistic regression analysis was used for assessing the effect of public procurement regulations in public pharmaceuticals procurement efficiency. In the regression model, the effect of variables related to procurement efficiency was assessed. To claim statistically significant effect, crude and adjusted odds ratio with 95% confidence interval was employed. Finally, all significant variables were put into regression to fit the prediction model for public procurement legal factors affecting public pharmaceuticals procurement efficiency.

Procurement efficiency was measured using three (delivery precision, flexibility and lead time) non financial measuring items using five points likert scale. A mean of 2.5 was used as cut-off point decision making for the five items on the instrument (1=strongly disagree, 2=disagree, 3=undecided, 4=agree, 5=strongly agree). Any case with a mean of 2.5 and above was considered efficient and any case with a mean of less than 2.5 was considered inefficient (24,42).

The observed data were descriptively presented and finally, the results were displayed using graphs and tables.

For qualitative data

The tape-recorded qualitative data was translated to English and transcribed. The main points raised from the in-depth interview were categorized under selected themes and coding was done based on the in-depth guide and summarized manually. This study was used a thematic content analysis to coding the comments by starting with a literature-based organizing framework and then identifying themes that were emerged from the experiences of the respondents. The results were presented in narratives for supporting the quantitative results.

4.10 Data quality management

Data quality was ensured during instrument development, collection, coding, cleaning, entry and analysis. Data collectors were trained about the purpose of the study and how to administer the questionnaire.

The Instrument was pre tested on 5% of the target respondents and correction was taken accordingly. Cronbanch's alpha reliability test was done to check reliability of the questionnaire. During data collection, questionnaire was checked for its completeness on daily basis by immediate supervisor.

4.11 Ethical consideration

After approval of the proposal, Ethical clearance and formal letter were obtained from Institutional ethical review board of college of health scinces of Jimma University. The necessary permission was obtained from PFSA and PPA. Written and verbal informed consents were obtained from the study participants after explaining the purpose of the study. Participants were assured that their name will not be stated, data will be kept confidential and anonymous and it will be used only for research purpose. Participants were informed that they will not be forced to answer the entire question and they can withdraw at any time if they don't want to participate.

4.12 Dissemination plan

The findings of this study will be disseminated to Jimma University College of Health Sciences and Department of Pharmacy, FMoH, PFSA, PFSA board of directors, PPA and MoFED. The findings will be also disseminated to different stakeholders that have contributions to reform public procurement guidelines. Finally the finding will be tried to be published on national and international journals to make it accessible for scholars.

5. Results

5.1 Quantitative Study

5.1.1 General information about study participants

From a total of 61 study participants, 60 (98%) completely filled and returned the questionnaire. Out of the 60 respondents 38 (63.3%) were from PPA and 22 (36.7%) were from PFSA. The minimum age was 22, the maximum was 50 and median age of 28. About 45 (75 %) of the respondents were males and 15 (25%) were females. Concerning respondent's educational qualification 50 (83.3%) were degree holders.

Table 2: General information about respondents at procurement functions and regulations of PFSA and PPA, March 2015

Variables (n=60)	Frequency (%)
Sex of respondents	
Male	45 (75%)
Female	15 (25%)
Job role/position	
Junior officer	28 (46.7%)
Senior officer	23 (38.3%)
Mid level manager	6 (10%)
High level manager	3 (5%)
Educational qualifications	
Degree	50 (83.3%)
Post graduate	10 (16.7%)
Work experience	
1-5 years	38 (63.3%)
6-10 years	13 (21.7%)
11- 15 years	4 (6.7%)
16-20 years	3 (5%)
21 and above	2 (3.3%)

5.1.2 Public Procurement Legal Frameworks

5.1.2.1 Source of public procurement legal documents

From a total of 22 respondents from PFSA reported that their source of the public procurement proclamation 649/2009 was, 14 (63.6%) from PPA's website, 4 (18.2%) from PFSA and 4 (18.2%) don't have. Half of the respondents 11 (50%) reported PPA's website as their source of the public procurement directive of 2010. Regarding public procurement manual of 2011, 9 (40.9%) of the participants confirmed PPA's website as their source. Concerning source of the standard bidding document 7 (31.8%) of respondents reported from PPA's website, 13 (59.1%) from PFSA and 2 (9.1%) as they don't have.

From a total of 38 respondents from PPA reported that their source of the public procurement proclamation 649/2009 and public procurement directive of 2010 were 34 (89.5%) from PPA's website and 4 (10.5%) they don't have. All respondents 38 (100%) confirmed that PPA's website as their source of the public procurement manual of 2011 and the standard bidding document.

Fifty four (90%) of study participants agreed that PFSA has procurement planning department and 50 (92.6%) with fully dedicated staff.

Concerning training on public procurement legal frameworks 9 (15%) took procurement training for auditors and officers, 3 (5%) on public procurement manual, 6 (10%) on government procurement performance, 6 (10%) on government procurement policy, 5 (8.3%) on basic procurements, 7 (11.7%) on rules and regulation on procurement and 24 (40%) didn't took training on procurement in the year 2006/07 EFY.

Extent of applying public procurement regulation by PFSA, 6 (10%) responded as most provisions of the regulation, 47 (78.3%) major provisions of the regulation and 7 (11.7%) some provisions of the regulations. Regarding reasons for not applying all provisions of the procurement regulations by PFSA majority of respondents 44 (73.3%) told as difficulties of applying the provisions for pharmaceuticals, 3 (5%) as lack of personnel and capacity, 3 (5%) as the provisions are cumbersome and difficult, 10 (16.7%) as lack of time.

Fifty eight (96.7%) of study participants reported that PFSA used direct and emergency procurement methods and 2 (3.3%) reported as they don't know. From those 58 respondents, 8 (13.8%) reported as PFSA didn't obtain no-objection letter from PPA for direct and emergency

procurement, 37 (63.8%) obtain no-objection and 13 (22.4%) don't know. Regarding types of support PFSA received from PPA, 45 (75%) training, 2 (3.3%) prompt guidance on specific procurement issues, 2 (3.3%) issuance of no objection certificates, 9 (15%) both training and issuance of no objection certificates and 2 (3.3%) no support.

The study further sought to establish the extent at which operating procedures of PPA affect procurement process of PFSA. 6 (10%) of the respondents indicated as very great extent, 22 (36.7%) great extent, 30 (50%) moderate extent, and 2 (3.3%) little extent.

5.1.3 Public Pharmaceuticals Procurement Practices

Regarding availability of procurement plan of PFSA for 2006/07 EFY, 60 (100%) confirmed for the presence. Nearly half of respondents 25 (41.7%) reported that the procurement plan published on PFSA's website, 25 (41.7%) reported as the plan not published on PFSA's website and 10 (16.7%) don't know. Regarding the conformance of the procurement plan of PFSA with the PPA's format, 20 (33.3%) agrees with its conformance, 19 (31.7%) didn't agree with its conformance, 21 (35%) reported as they don't know.

Majority of study participants 54 (90%) reported that PFSA has tender committee, tender opening committee, tender evaluation committee and tender endorsing committee, 6 (10%) responded as they don't know and all study participants confirmed absence of inspection and acceptance committee and disposal committee at PFSA. Forty eight (80%) of respondents mentioned that PFSA has written SOP for procurement of pharmaceuticals. From a total of 48 respondents who reported PFSA has written SOP 32 (66.7%) confirmed that the SOP comply with PPA regulations, 16 (33.3%) told that it didn't comply. All participants 60 (100%) confirmed that tenders for pharmaceuticals by PFSA was publicized in news papers and other means like websites. About half 27 (45%) of respondents reported that there is high conflict between PPA regulatory guidelines and procurement functions of PFSA. Ten (19.2%) of participants explained that approved procurement methods as source of conflict, 19 (36.5%) financial thresholds and 23 (44.2%) both procurement methods and financial thresholds were area of conflict.

On the loopholes in the public procurement regulations of PPA that are bottleneck for efficiency in public pharmaceuticals procurement of PFSA 6 (10%) strongly agree, 24 (40%) agree, 13 (21.7%) disagree, 15 (25%) strongly disagree and 2 (3.3%) undecided.

Table 3: Public pharmaceuticals procurement practices, March 2015

Variables (n=60)	Yes	No	Don't know
Existence of procurement plan for PFSA for the year 2006/07 EFY	60 (100%)	0 (0%)	0 (0%)
Procurement plan published on PFSA's website	25 (41.7%)	25 (41.7%)	10 (11.7%)
Procurement plan of PFSA conform to the format by PPA	20 (33.9%)	18 (30.5%)	21 (35.6%)
Committees available at PFSA			
Tender committee	54 (90%)	0 (0%)	6 (10%)
Tender opening committee	54 (90%)	0 (0%)	6 (10%)
Tender evaluation committee	54 (90%)	0 (0%)	6 (10%)
Tender endorsing committee	54 (90%)	0 (0%)	6 (10%)
Inspection and acceptance committee	0 (0%)	60(100%)	0 (0%)
Disposal committee	0 (0%)	60(100%)	0 (0%)
PFSA have written SOP for procurement of pharmaceuticals	48 (80%)	6 (10%)	6 (10%)
Does PFSA's procurement SOP comply with PPA's regulation(n=48)	32(66.7%)	16(33.3%)	0 (0%)
Are tenders for pharmaceuticals publicized in newspaper or other means like website	60(100%)	0 (0%)	0 (0%)

Is there conflict b/n the PPA regulatory function and the procurement function of PFSA	**VH**	**H**	**NC**	**L**	**VL**
Frequency (%)	6 (10%)	27(45%)	8 (13.3%)	13 (21.7%)	6 (10%)

Areas of conflict	**PM**	**FT**	**Both PM & FT**
Frequency (%)	10(19.2%)	19(36.5%)	23 (44.2%)

Is the procurement laws and regulations of PPA are efficient in the provision of health commodities			**Efficient**		**Inefficient**
Frequency (%)			18 (30%)		42 (70%)
Areas in PPA guidelines which hinder the effective provisions of pharmaceuticals (n=45)	**LFT**	**LCP**	**lack of follow up**	**PM**	**Both LF &PM**
Frequency (%)	20 (44.4%)	11 (24.4%)	7 (15.6%)	3(6.7%)	4(8.9%)
There are loopholes in public procurement regulations of PPA that hinder efficiency in pharmaceuticals procurement	**SA**	**A**	**U**	**DA**	**SD**
Frequency (%)	6 (10%)	24 (40%)	2 (3.3%)	13(21.7%)	15(25%)

VH=Very High, H=High, NC=No Conflict, SA=Strongly Agree, A=Agree=Undecided, A=Disagree, SD=Strongly Disagree, LFT=Low Financial Thresholds, LCP=Less Consideration for Pharmaceuticals, PM=Procurement Methods

Document review

From document review regarding procurement methods applied by PFSA in the year 2006/07 EFY (from July 1/2005-June 30/2006), the findings were as follows. There were a total of 154 tenders for RDF pharmaceuticals. Thirty percent of the tender document which is 46 was reviewed.

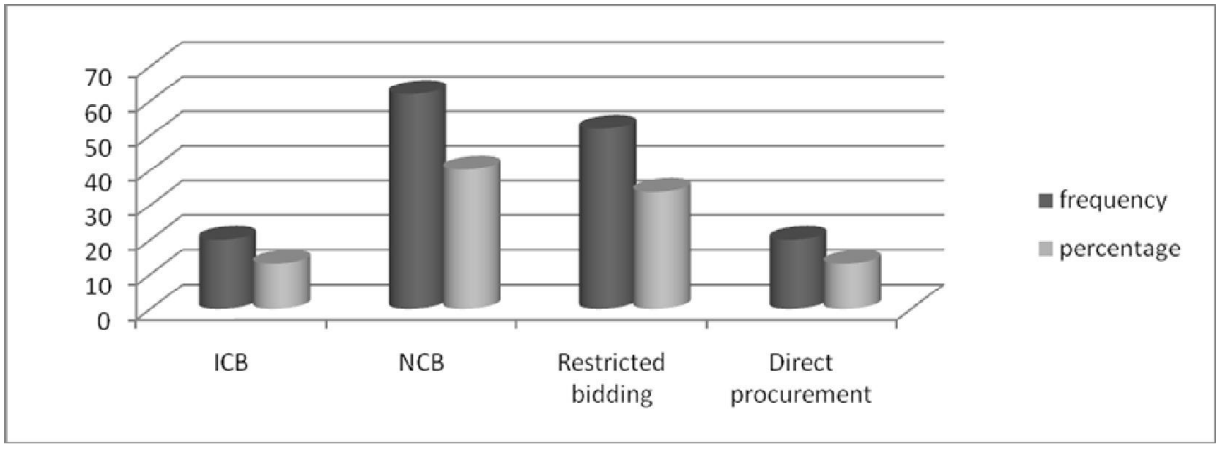

Figure 4: Procurement methods for RDF pharmaceuticals in 2006/07 EFY at PFSA, March 2015

The procurement plan for the year 2006/07 EFY exist at PFSA having list of products to be procured, source of budget as RDF and programs, estimated budget of the procurement in birr and USD and estimated time to procure (estimated time of tender announcement and estimated time of Receiving pharmaceuticals). But the plan had no selected procurement method and procurement type to be used.

From the randomly selected 46 procurement documents, 8 (17.39%) were by ICB, 21(45.65%) by NCB, 13 (28.26%) by restricted tender and 4 (8.7%) by direct tender. Regarding delivery precision in terms of quantity 42 (91.3%) of the documents have the same quantity of pharmaceuticals in the purchase order and packing list. Majority 35 (78%) of the documents indicated that procurements were not implemented by the procurement department according to the planned monetary values/estimated costs.

5.1.4 Public Pharmaceuticals Procurement Efficiency

Nearly half of respondents 25 (41.7%) agree and 4 (6.7%) strongly disagree on the delivery precision of pharmaceuticals in terms of quantity by PFSA. Regarding flexibility of public pharmaceuticals procurement system to meet any emergency situations in health sector, 27 (45%) strongly disagrees. Concerning lead time of procurement majority of participants 37 (61.7%) disagreed on lead time less than 120 days.

Table 4: Efficiency of public pharmaceuticals procurement practices, March 2015

Variables (n=60)	Strongly disagree	Disagree	Agree	Strongly agree
There is Delivery precision of pharmaceuticals by PFSA in terms of quantity	4 (6.7%)	18 (30%)	25 (41.7%)	13(21.7%)
Public pharmaceuticals procurement system is flexible to meet any emergency situations in the health sector	27 (45%)	17(28.3%)	10 (16.7%)	6 (10%)
The average lead time for pharmaceuticals at PFSA is less than 120 days	10(16.7%)	37(61.7%)	6 (10%)	7(11.7%)

For the likert scales questions, for respondents who score above the mean (greater than 2.5) from the three items categorized as 'efficient procurement practices' and those who score below the mean 2.5 categorized as 'inefficient procurement practices'. Finally 40 (66.7%) of respondents reported that there is inefficiency and 20 (33.3%) of participants categorized under efficient pharmaceuticals procurement practice.

Table 5: Summary statistics of efficiency score of respondents in PFSA and PPA, 2015

Efficiency	Expected			Observed (n=60)					
	Min	Max	Range	Min	Max	Range	Mean	SD	Cronbanch's Alpha
	3	15	3-15	4	15	4-15	7.98	3.034	0.758

5.1.5 Factors Affecting Public Pharmaceuticals Procurement Efficiency

Majority of respondents 40 (66.7%) agreed that poor technical expertise of procurement personnel adversely affect procurement efficiency of PFSA. Concerning other factors 40 (66.7%), 23 (38.3%), 29 (48.3%), 24 (40%), 40 (66.7%), 37 (61.7%), 40 (66.7%), 41 (68.3%) and 41 (68.3%) of the study participants reported that poor knowledge on procurement regulations, resistance to change by procurement personnel, interference by elected or appointed political officials, interference by contractors or bidders, delay in passing the pharmaceuticals budget, delay in passing 'no-objection' from PPA, unsuitable procurement methods of PPA for health products, approved low financial thresholds of PPA for health products and not considering nature of pharmaceuticals in the regulation adversely affect procurement efficiency of PFSA respectively. More than half of the respondents 34 (56.7%) agreed that public procurement regulation laws has reduced the speed with which pharmaceuticals are procured.

Table 6: Factors affecting public pharmaceuticals procurement efficiency, March 2015

Variables (n=60)		Procurement efficiency		COR (95%CI)
		Inefficient	Efficient	
Poor technical expertise of procurement personnel	Yes	33 (82.5%)	7 (17.5%)	8.75 (2.56, 29.9)*
	No	7 (35%)	13 (65%)	
Poor knowledge on procurement regulations	Yes	28 (70%)	12 (30%)	1.5 (0.5, 4.7)
	No	12 (60%)	8 (40%)	
Resistance to change by procurement personnel	Yes	16 (69.6%)	7 (30.4%)	1.24 (0.4, 3.78)
	No	24 (64.9%)	13 (35.1%)	
Interference by elected or appointed political officers	Yes	21 (72.4%)	8 (27.6%)	1.65 (0.56, 4.9)
	No	19 (61.3%)	12 (38.7%)	
Interferences by contractors or bidders	Yes	17 (70.8%)	7 (29.2%)	1.37 (0.45, 4.18)
	No	23 (63.9%)	13 (36.1%)	
Delays in passing the budget	Yes	25 (62.5%)	15 (37.5%)	0.56 (0.16, 1.84)
	No	15 (75%)	5 (25%)	
Delays in securing ‘no-objection’ from PPA	Yes	15 (65.2%)	8 (34.8%)	1.1 (0.37, 3.34)
	No	25 (67.6%)	12 (32.4%)	
Unsuitable procurement methods of PPA for health products	Yes	35 (87.5%)	5(12.5%)	21 (5.3, 83.4)*
	No	5 (25%)	15 (75%)	
Approved financial thresholds of PPA for health products	low	36 (87.8%)	5 (12.2%)	27 (6.4, 114)*
	High	4 (21.1%)	15 (78.9%)	
There is Considering Nature of pharmaceuticals by the regulation	Yes	33 (80.5%)	8 (19.5%)	7 (2.1, 23.7)*
	No	7 (36.8%)	12 (63.2%)	
The regulation has reduced the speed with which pharmaceuticals are procured	Yes	29 (85.3%)	5 (14.7%)	7.9 (2.3, 27)*
	No	11 (42.3%)	15 (57.7%)	

*Significant at p value <0.25, COR=Crude Odds Ratio

As shown in the above table poor technical expertise of procurement personnel, approved procurement methods of PPA for health products, approved financial thresholds of PPA for health products, considering nature of pharmaceuticals by the regulation and the speed with which pharmaceuticals procured were the candidates for multiple logistic regression at p-value < 0.25 following binary logistic regression.

Finally, approved financial thresholds of PPA and considering nature of pharmaceuticals by the regulation were significantly associated with public pharmaceuticals procurement efficiency at p-value < 0.05 following back ward step wise multiple logistic regressions.

Table 7: The final model for factors affecting public pharmaceuticals procurement efficiency, March 2015

Variables (n=60)		Procurement efficiency		COR (95% CI)	AOR (95% CI)
		Inefficient (%)	Efficient (%)		
Approved financial thresholds of PPA for health products	low	36 (87.8%)	5 (12.2%)	27 (6.4, 114)*	16.9 (3.3,86.8)**
	High	4 (21.1%)	15 (78.9%)		
There is considering nature of pharmaceuticals by the regulation	Yes	33 (80.5%)	8 (19.5%)	6.68 (1.2, 22.6)*	6 (1.2, 31)**
	No	7 (36.8%)	12 (63.2%)		

*Significant at p value <0.25, **Significant at p value <0.05 AOR=Adjusted Odds Ratio, COR=Crude Odds Ratio

High approved financial thresholds of PPA for health products showed 16.9 times more likely result efficient pharmaceutical procurement practices than low financial thresholds (AOR=16.9, CI=3.3, 86.8). Regarding nature of pharmaceuticals, considering nature of pharmaceuticals by the regulation showed 6 times more likely to bring efficient pharmaceutical procurement practices as compared with not considering their nature (AOR=6, CI=1.2, 31).

Table 8: The statistical output for the final variables in the regression model, March 2015

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 2[a]	Financial threshold (1)	2.827	.829	11.622	1	.001	16.894	3.326	85.812
	Nature of pharmaceuticals (1)	1.812	.832	4.746	1	.029	6.121	1.199	31.238
	Constant	-3.115	.764	16.637	1	.000	.044		

Table 9: Hosmer and Lemeshow test for model fitness on factors affecting procurement efficiency, March 2015

Hosmer and Lemeshow Test

Step	Chi-square	Df	Sig.
1	6.284	5	.280
2	7.909	5	.161

The final model fitness was checked by Hosmer and Lemeshow test which have p-value of 0.161, which confirms the model fitness is good.

5.1.6 General Comments of the Study Participants

Respondents reported that on the area where they would like to see changes in the public procurement regulations regarding pharmaceuticals procurement were 5 (8.3%) on procurement methods, 14 (23.3%) on financial thresholds, 10 (16.7%) on both procurement methods and financial thresholds, 1 (1.7%) on bid evaluation, 2 (3.3%) on procurement of pharmaceuticals and 28 (46.7%) on procurement methods, financial thresholds and procurement of pharmaceuticals.

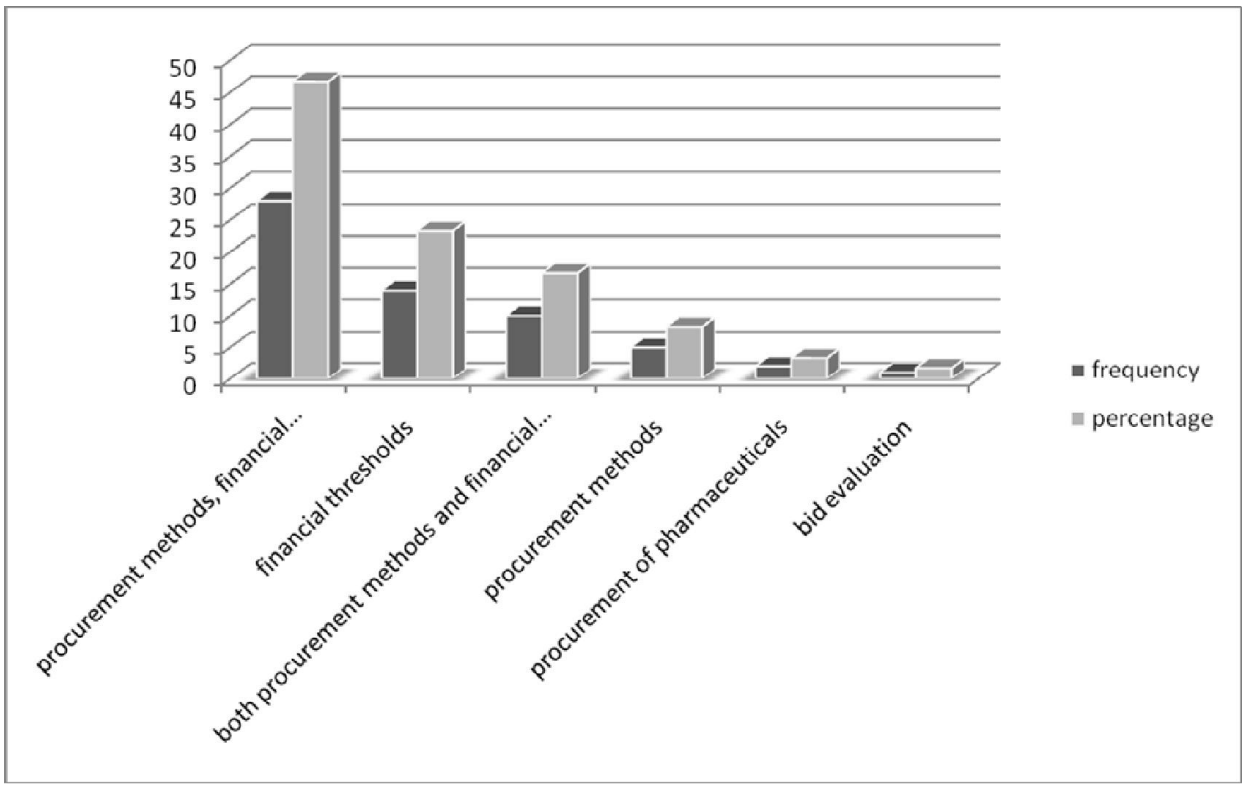

Figure 5: Changes to see in the PPA's regulations regarding public pharmaceuticals procurement at PPA and PFSA, March 2015

Reasons for the changes in the public procurement regulations needed, 10 (16.7%) the financial thresholds for pharmaceuticals are too low, 27 (45%) pharmaceuticals are costly/expensive, 14 (23.3%) pharmaceuticals have specialized nature, 1 (1.7%) the process of procuring pharmaceuticals took long time and 9 (15%) PPA guidelines lack consideration and inclusiveness for pharmaceuticals procurement.

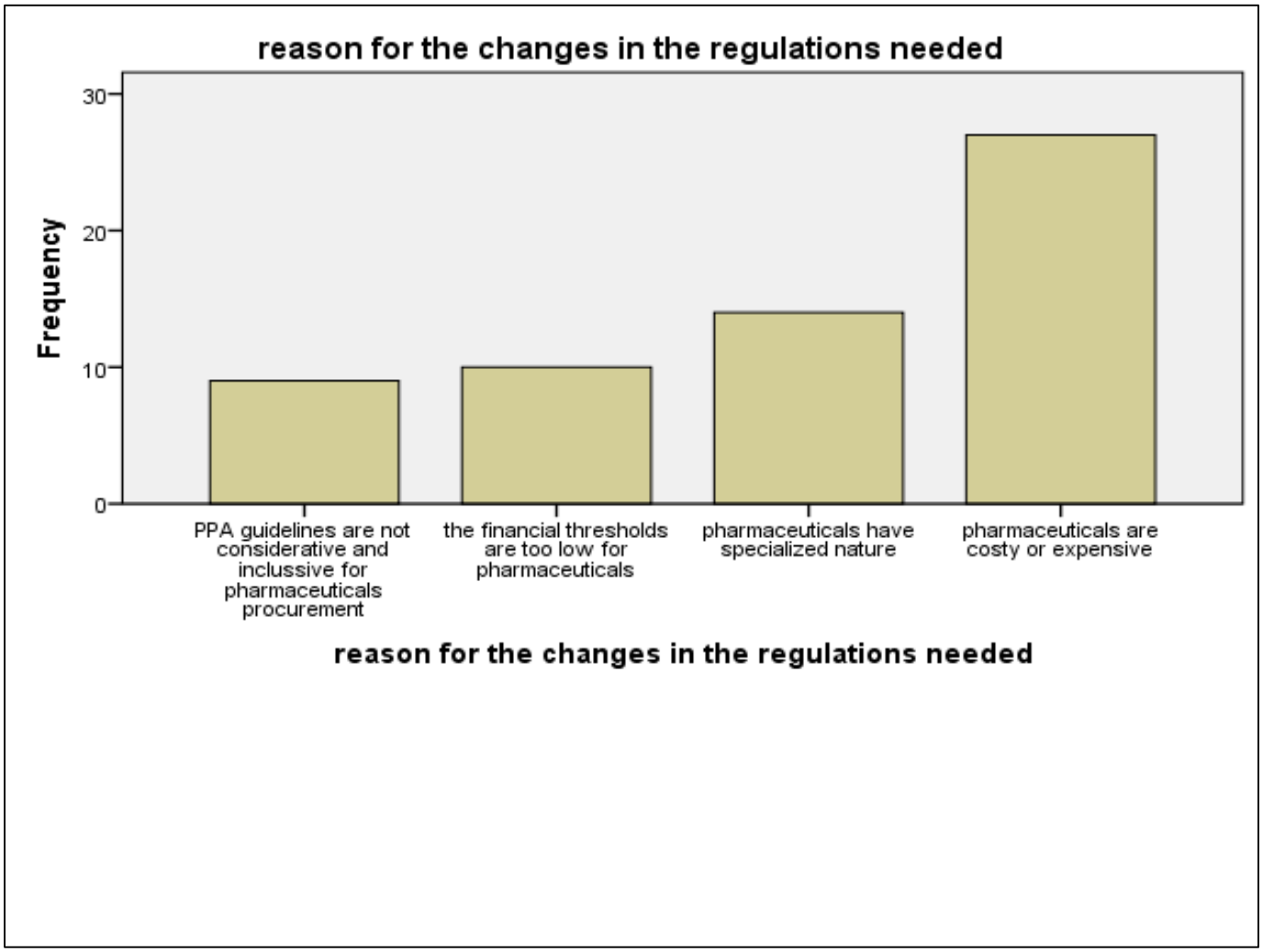

Figure 6: Reasons for the change in the PPA regulations needed at PFSA and PPA, March 2015

Study participants comment on the application of public procurement regulation on public pharmaceuticals procurement is presented as follows. Nearly half 27(45%) reported that the financial thresholds for different procurement methods should consider cost of pharmaceuticals, 19 (31.7%) there should be separate regulation for pharmaceuticals procurement, 7 (11.7%) the PPA shall have regular follow up of medicines procurement, 4 (6.7%) public procurement rules and regulations should be revised and 3 (5%) training should be given for public procurement professionals.

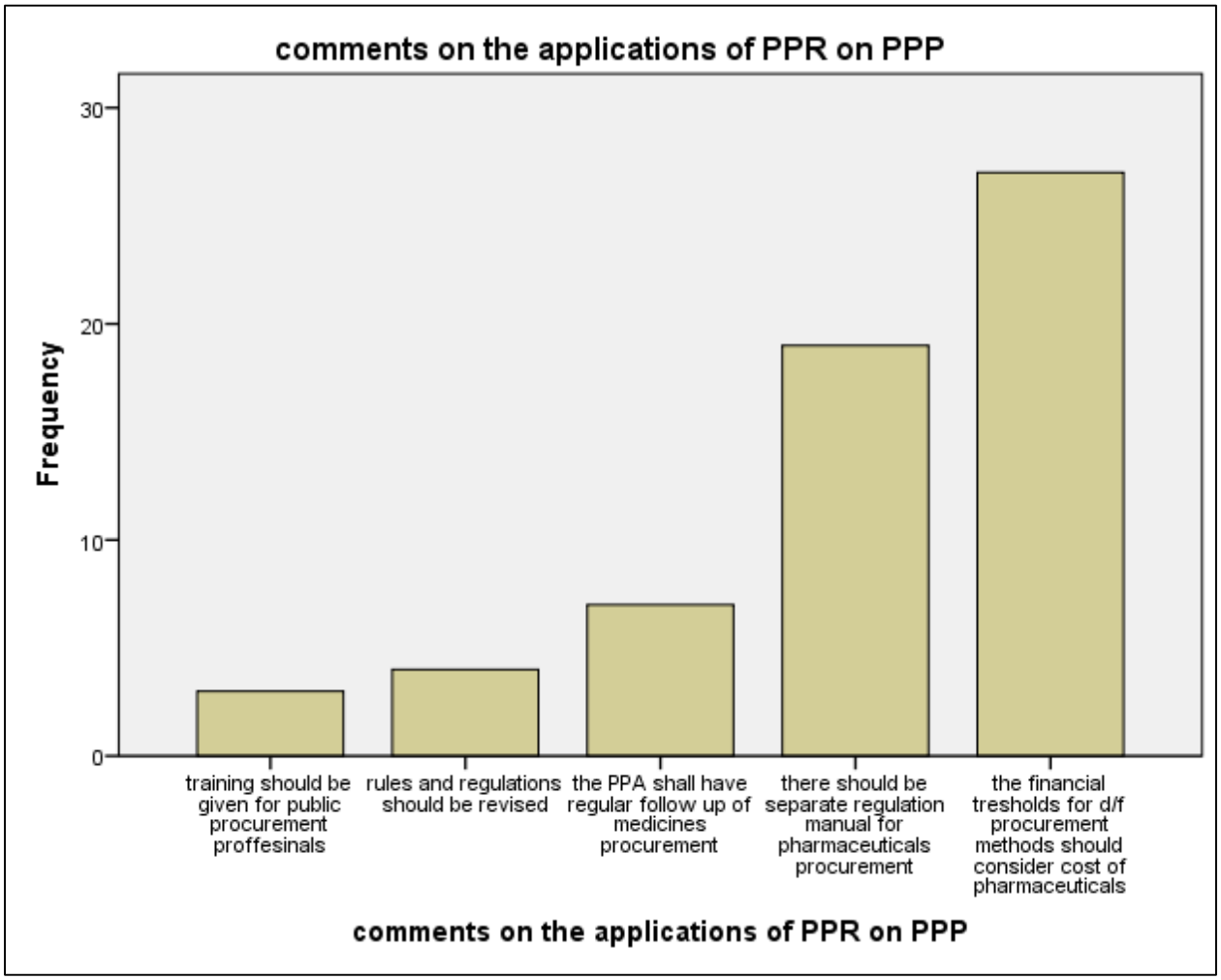

Figure 7: General Comments on the application of PPR on PPP at PFSA and PPA, March 2015

5.2 Qualitative Study

The in-depth interview was conducted with eight key informants (top and mid level managers), four individuals from each agency. Three of them were top level mangers and the rest were mid level mangers. Regarding their educational qualifications three were post graduates and five of the participants were first degree holders. The participants have work experiences range from 3 to 10 years. The interview took on average 15 minutes and the major themes identified from the in-depth interviews were the financial thresholds, nature of pharmaceuticals and procurement methods in the guidelines.

The financial thresholds in the regulation

As stated by majority of key informants, the approved financial thresholds in the PPA regulations were low for pharmaceuticals procurement to operate efficiently. What A 32 years old mid level manager from one of the agencies stated confirms this:

'...Financial thresholds for different goods should not be equal. Practically, Even for pharmaceuticals majority are out of thresholds and few are within the threshold. Another scenario is some products are urgently needed, but its total price goes ICB thresholds. At this time the procurement personnel will suffer a dilemma of ignoring the rule or urgency. This all comes due to low financial thresholds and absence of a procurement regulation with the size that fits to pharmaceuticals or "the regulations one size fits all thinking". (A 32 years old mid level manager from one of the agencies)

'…there are challenges towards the pharmaceuticals procurement associated with the working procurement regulation like lack of proper specifications, lack of specifications of minimum requirements, lack of clear evaluation criteria, problem of preparing standard procurement documents professionally and financial thresholds. If the federal procuring entities find difficulty of going with the regulation thresholds, they can ask 'waiver' to PPA. Waiver means asking to procure outside of public procurement regulation by putting the rational, reliable reasons and careful examinations of the attached documents. Finally it will be allowed by PPA if it benefits the nation and if the procurement has effect on the organizations existence, based on proclamation no. 649/2009, article 16/5. But this room may not be allowed for all organization

who asked, depending on the scenario it will or will not be.' (A 47 years old, top level manager from one of the agencies)

"…PFSA is mandated to support local pharmaceuticals manufacturers in the Growth and Transformation Plan of the country but the financial thresholds for different procurement methods are not high enough to support as needed…"(A 37 years old mid level manager from one of the agencies)

Nature of pharmaceuticals and procurement regulation

The special natures of pharmaceuticals significantly affect the procurement efficiency which is confirmed by a top level manger and a mid level manager from one of the agencies.

'... PPA regulations are not inclusive, lack understanding of unique behavior of pharmaceuticals, "matter of life and death", mostly focused to commodities other than pharmaceuticals like office stationeries and other consumables with common name of "goods" which ignore special concerns of medicines. Medicines by nature are limited, means they are produced by limited manufacturers, in our case many pharmaceuticals are not supplied by many manufacturers as we wish and think…'(A 37 years old mid level manager from one of the agencies)

'...Pharmaceuticals are not ordinary items. Since they have great impact in an individual's health status, especial care should be given when they are selected, procured, stored and distributed. If attention is not given at policy level, it is hard to meet our mission of serving customers according their needs and expectation …' (A 42 years top level manager from one of the agencies)

Procurement methods and pharmaceuticals procurement

"…since registration of products or pharmaceuticals is mandatory by FMHACA or other international organizations like WHO, making open tender is time taking and should be restricted tender. This is due to if unregistered companies or products participate in the tender process they fail at the preliminary evaluation stage…" (A 36 years old mid level manager from one of the agencies)

6. Discussion

The major factors affecting public pharmaceuticals procurement efficiency that were identified by the respondents include: approved low financial thresholds and not considering nature of pharmaceuticals, poor technical expertise of procurement personnel, poor knowledge on procurement regulations, delay in passing the pharmaceuticals budget and unsuitable procurement methods.

In this study, regarding extent of applying public procurement regulations by PFSA, majority of study participants 47 (78.3%) reported major provisions of the regulation and 7 (11.7%) some provisions of the regulations. For the majority of respondents 42 (72.4%) the reasons for not applying all provisions of the procurement regulations by PFSA was difficulties of applying the provisions for pharmaceuticals.

About half of the respondents indicated that operating procedures of PPA affect procurement process at PFSA at moderate extent, a result consistent with assessment done on Kenya Medical Supply Agency (KEMSA) procurement review and a study done at Devolved County Governments in Kenya in which operating procedures affects the procurement process of devolved county governments in Kenya significantly (43,44). Another study conducted in Kenya showed that procurement process affects the efficiency of supply chain of drugs in the health facility through lateness of supplies, lengthening of the whole procurement process and with the tedious process (45).

About 30 (50%) of the respondents confirmed that there are loopholes in the public procurement regulations of PPA that were bottleneck for efficient pharmaceuticals procurement of PFSA. Study in Kenya also showed that the existing legislation and regulatory framework affected procurement function at Supplies Branch. The loopholes in legislation hindered efficiency in public procurement (32).

Majority of the study participants 34 (56.7%) established that the public procurement regulation has reduced the speed with which pharmaceuticals are procured and the finding was consistent with study done in Kenya at Machakos County Government. The public procurement regulation law has reduced the speed with which goods and services were procured and the study

finalized that procurement law has a great impact on the procurement performance (effectiveness and efficiency) at the Machakos County (46). Another study in Ghana on the impact of the Implementation of Public Procurement Act 2003 (Act 663), on the timely delivery of goods and services at Ghana Water Company Limited showed that implementation of the regulation impedes the timely acquisition of goods and services at the company (47). The study done in Kenya water sector is also consist with this study, which come up with finding that the procedures stipulated in the Act and Regulations are time consuming and prone to misuse and which was strongly supported by 57.2 percent of the respondents (48).

In this study 42 (70%) of respondents also reported that the public procurement laws and regulations of PPA in the provisions of public health commodities were not efficient. The result was consistent with the study done in Ethiopia by involving PPA officials and federal procuring entities, suggested that the level of efficiency, accountability and transparency observed in public procurement was low (49). It was also consistent with study done in Kenya, on factors affecting consistency in supply of pharmaceutical products in government hospitals which confirmed that the legal requirements were bureaucratic and lengthened the procurement process leading to inconsistency in obtaining supplies (50).

Similar to the researches done in Ghana and Sweden, this study found that high approved financial thresholds for health products showed 16.9 times more likely to result efficient pharmaceutical procurement practices than low financial thresholds (AOR=16.9, CI=3.3, 86.8) (51,52). The reasons might be the centralized nature of procurement and decision-making at PFSA and the decentralized principles of PPA regulations originated from its precursor the UNCITRAL Model Law, non availability of pharmaceuticals in the domestic market as needed and their high value nature. Above all it also might be due to fragmented international and national orders of small quantities of high value pharmaceuticals as a result of low financial thresholds which lead to loss of basic principle of public procurement i.e. economy of scale which is typical manifestation of efficiency. It might be also due to lack of regular updating the financial thresholds by considering the international market of goods in general and pharmaceuticals in particular by public procurement regulators. For instance the current working thresholds were set in the public procurement directive and manual of 2011.

Considering nature of pharmaceuticals in the public procurement regulations showed 6 times more likely to bring efficient pharmaceutical procurement practices as compared with not considering their nature (AOR=6, CI=1.2, 31). This result was consistent with study done in Canada which elaborated that most procurement models developed didn't account for several crucial characteristics of healthcare services and goods. The study justified that health care services and goods differ from other goods and services as the purchaser does not dictate the quantity for health goods due to the unpredictability of the incidence of illness and information is asymmetric in the sense that sellers (that is, health care professionals) have better information than the purchaser does about the value of health care services and goods. The study also clarified that unlike other goods and services in case of health care services and goods, the characteristics of the product are difficult to specify in advance and, can vary substantially from one patient to the next (53). This might be due to unavailability of separate public procurement manual for pharmaceuticals by PPA.

Approved procurement methods didn't have significant association with procurement efficiency. This might be due to applicability of most methods for pharmaceuticals according to the value of the contract and on the type of medicines to be procured. It might also be due to small size of the sample involved in the study.

Poor technical expertise and knowledge of procurement personnel also has no significant association with procurement efficiency, the result which is not consistent with the study done in Amhara regional bureaus and other government institutions found in Bahir Dar town and study done in Kenya Nairobi on factors influencing efficiency in procurement systems among public institutions (54,55), this might be due to the various training given to procurement personnel's in this study area, difference in the level of organizations and mandatory professionals involvement in the procurement practice in the study area.

6.1 Limitation of the Study

- The major limitation of the study is that the data was collected from a small sample of staff at PFSA and PPA.
- This study didn't measure procurement efficiency from the cost perspective.
- Non inclusion of unfinished procurement documents for confidential issue of the companies.

7. Conclusion

This study concludes that the public procurement guidelines affect the efficient public pharmaceuticals procurement practices at PFSA. The study also concludes that the law has reduced the speed with which pharmaceuticals are procured, which in turn affects timely availability of products to the end users.

In this study approved low financial thresholds of the PPA guidelines and lack of consideration to nature of pharmaceuticals in the public procurement guidelines affect public pharmaceutical procurement efficiency.

Low financial thresholds, absence of special concern for pharmaceuticals considering their cost and complex nature in the public procurement guidelines were among the bottlenecks for efficient pharmaceuticals procurement practice at PFSA. This in turn hinders significantly, the constant availability of pharmaceuticals in general and essential medicines in particular, which were important items in health service delivery.

The qualitative study also indicated that the financial thresholds of the public procurement guidelines are too low for pharmaceuticals and was major source of inefficiency in the public pharmaceutical procurement practices.

8. Recommendation

Achieving efficiency in public procurement requires a lot of dedication, being focused and ready to face challenges. However, with collaborative efforts from all stakeholders and availability of necessary skills, a number of measures can be undertaken which can lead to the attainment of efficiency in public procurement. Accordingly this study recommends as follows.

For PPA and MoFED;

- ☞ Should introduce a comprehensive and sector-specific procurement manual for pharmaceuticals, with accompanying standard bid documents, user-friendly formats. A concise set of clear rules and guidelines regarding pharmaceuticals considering their special and complex nature.
- ☞ Should also perform threshold matrix for different procuring entities separately based on the type and cost of products they procure, core missions, values or existence of organizations & the annual procurement expenditure of procuring entities and PFSA should be treated accordingly.
- ☞ Should revise the financial thresholds for different procurement methods regularly based on national and international market conditions of pharmaceuticals and international best practices.

For PFSA, FMoH and PFSA Board of Directors;

- ☞ Should influence and convince the PPA and other stakeholders to consider the special concern of pharmaceuticals in the actual procurement practice.
- ☞ Should publish and disclose the latest market values of drugs on a regular basis and inform policy makers in public procurement.
- ☞ Should encourage further studies to be conducted in the area.

For Stakeholders;

Especially World Bank Ethiopia country office should consider pharmaceuticals in their public procurement reform program.

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10. Annexes

10.1 Instrument

Jimma University College of Public Health and Medical Sciences, Department of Pharmacy, Pharmaceuticals Supply Chain Management

Questionnaire

Questionnaire to assess public pharmaceuticals procurement practice in Ethiopia in accordance with the federal public procurement guidelines and its impact in the pharmaceuticals supply chain of the country, self administered questionnaire to be filled by public procurement professionals and managers, 2015.

Researchers' Name: Haymero N. (B.pharm), Seid M., (MSc, ASS. Professor), Mukemil A. (B.Sc, B.pharm, BA, MPH)

Dear Sir/ madam;

My name is Haymero Nigussie and I am Master's Degree student in Jimma University in the field of Pharmaceuticals Supply Chain Management. As part of our academic requirements, we are expected to conduct assessment of public pharmaceuticals procurement practice in Ethiopia in accordance with the federal public procurement guidelines and its impact in the pharmaceuticals supply chain of the country. The purpose of this survey is to assess the procurement practices of PFSA and associated public procurement legal factors on the pharmaceuticals supply chain of the country.

The information that we will be obtained from you is very useful for the PFSA, policy makers in the area of public pharmaceuticals procurement. I assure you that the information that you gave us will be kept confidentially. There is no any harm to you by giving this information except the time you will spend for the response of the question. This will take about 20 minutes and you have full right to participate or to refuse or to withdraw in the meantime.

Are you willing to participate to fill this questionnaire?

Yes_____ signature (continue) _____ no_____ (stop)

Thank you for your cooperation!!!

I. GENERAL INFORMATION

1. Gender
   A. Male B. female
2. Age, Years _____months _____
3. Educational qualifications
   A. Certificate
   B. Diploma
   C. Degree
   D. Post Graduate
   E. Others
4. What is your job role/title position?
   A. junior officer
   B. senior officer
   C. mid level manger
   D. high level manger
   E. other
5. How long have you worked in your current position? Years _____months _____
6. The organization you work
   A. PFSA
   B. PPA

II. PUBLIC PROCUREMENT LEGAL FRAMEWORK

1. Do you have the following documents (please complete the table)

	Document	Source of Document				
		From PPA's website (1)	From open market (2)	From PFSA (3)	Don't know or can't remember (4)	Don't have it (5)
A	Ethiopian Public Procurement proclamation, 649/2009					
B	Ethiopian Public procurement directive 2010					
C	Ethiopian Public procurement manual 2011					
D	Standard bidding document					
E	Others specify					

2. Have you attended/organize any training on the public Procurement proclamation 649/2009 in the last 1 year? Please complete table below

Dates of Training	Title of Training

3. Which of the following adversely affect the procurement process of PFSA

a. Poor knowledge of the procurement regulations and procurement procedures

1. Yes 2. No

b. Poor technical expertise of procurement personnel

1. Yes 2. No

c. Resistance to change by procurement personnel

1. Yes 2. No

d. Interference by elected or appointed political office holders

1. Yes 2. No

e. Interference by contractors and bidders

1. Yes 2. No

f. Delays in passing the budget

1. Yes 2. No

g. Delays in securing _'No objection' from the PPA

1. Yes 2. No

h. approved procurement methods of PPA for health products

1. Yes 2. No

i. Approved financial thresholds of PPA for health products

1. Low 2. High

j. lack of consideration for Nature of pharmaceuticals in the regulation

1. Yes 2. No

k. reduced the speed with which pharmaceuticals are procured

1. Yes 2. No

l. Others (please, specify)

4. To what extent has PFSA been applying the Procurement regulations provisions?

a. Most provisions of the regulations

b. Major provisions of the regulations

c. Some provisions of the regulations

d. We do not yet apply the provisions of the regulations

5. If PFSA does not apply all sections of the regulations, what is the reason for that?

a. The provisions are cumbersome and difficult

b. Lack of personnel and capacity

c. Lack of time (it takes too much time)

d. Difficulties with receiving support from the PPA

e. Difficulties of applying the provisions for pharmaceuticals

f. Other reasons (please specify) _____

6. Does PFSA have a procurement planning department/unit

a. Yes b. No

If yes who heads the department/unit _____

7. Does PFSA have fully dedicated staff in the procurement planning unit/department?

a. Yes b. No

If yes how many _____

8. Does PFSA have a procurement planning committee (PPC)?

a. Yes b. No c. Don‘t know

9. Does PFSA advertise contracts in the PPA‘s procurement journal?

a. Yes b. No c. Don‘t know

If No, Why? (Please specify) _____

10. Has the PPA ever reversed any aspect of PFSA contracting or procurement process following a complaints or review process?

a. Yes b. No c. Don‘t know

11. If the answer to the question above is yes, how many times has that happened?

a. Only once b. Twice c. Thrice d. More than three times e. Can‘t recall

12. Has PFSA ever used any of direct or emergency procurement methods?

a. Yes b. No c. Don‘t know

13. Did PFSA obtain prior ‘no objection’ from the PPA before using either emergency or direct procurement method?

a. Yes b. No c. Don‘t Know

14. Did PFSA use the PPA‘s website?

a. Yes b. No if No, Why? _____

16. The extent to which operating procedures of PPA affects procurement process of PFSA

a. very great extent b. great extent c. moderate extent d. little extent e. no effect

17. What kind of support, if any, have PFSA been receiving from the PPA? (Please tick as many as apply)

a. Training

b. Prompt attention to/guidance on specific procurement issues

c. Prompt issuance of No objection certificates

d. Others (please specify) _____

_____

e. No support

18. Where would you like to see changes in the Public Procurement regulations regarding pharmaceuticals procurement? (Please complete table)

	Item	Why	What change would you like to see?
A	Procurement Methods		
B	Financial thresholds		
C	Advertisement media		
D	Procurement planning		
E	Bid evaluation		
F	Bidding documents		
G	Procurement of goods		
H	Others (please specify)		

19. Please comment freely on any aspect of the public Procurement regulations and its applications in the public pharmaceuticals procurement (Write on the back or separate sheet, if necessary)

III. PROCUREMENT PROCEDURE

1. A) Did the procurement plan of PFSA for the financial year 2006-2007 EC exist?

   1. Yes 2.No

   B) If the answer to A) is yes, was the procurement plan published on PFSA's website?

   1. Yes 2. No

   C) If the answer to A) is yes, did the procurement plan conform to the format provided by PPA?

   1. Yes 2. No

2. Which Committees are available in the agency (PFSA)?
   - 2.1 Tender committee Yes/ No
   - 2.2 Procurement committee Yes/ No
   - 2.3 Tender opening committee Yes/ No
   - 2.4 Tender Evaluation committee Yes/ No
   - 2.5 Tender endorsing committee Yes/ No
   - 2.6 Inspection and acceptance committee Yes/ No
   - 2.7 Disposal committee Yes/ No
3. Does the PFSA which purchase medications have written procedures SOPs for procurement of pharmaceuticals?

   A. Yes B. No
4. If yes does it comply with PPA's regulation?

   A. Yes B. No
5. Are tenders for medications publicized in newspapers, or other similar means?

   A. Yes B. No

6. Is there conflict between the PPA regulatory function and the Procurement function of the PFSA in the country?

   A. Very high B. High C. Do not know D. low E. very low

8. If yes, mention the areas of conflict,

If any? _____

9. If no, mention the area which hinder in the provision of health services?

_____

10. There are loopholes in public procurement regulations of PPA that hinder efficiency in pharmaceuticals procurement?

A. Strongly Agree B. Agree C. Undecided D. Disagree E. Strongly Disagree

IV. PUBLIC PHARMACEUTICALS PROCUREMENT EFFICIENCY

Procurement efficiency	1	2	3	4	5
1. There is Delivery precision of pharmaceuticals by PFSA in terms of quality and quantity					
2. Public pharmaceuticals procurement system is Flexibility to meet any emergency situations in the health sector					
3. The average lead time for pharmaceuticals at PFSA is Less than 120 days?					

1=strongly disagree, 2=disagree, 3=undecided, 4=agree, 5=strongly agree

THANK YOU FOR YOUR TIME!!

Observational check lists

Sr.No	Items	Yes	No	Partially available
1	The annual procurement plan exists for the financial year 2006/07 EFY			
2	Conformity of this procurement plan with the format provided for by PPA			
3	Tenders completed within the periods provided for in the annual procurement plan			
4	Total number of RDF pharmaceuticals procurements preformed in 2006/07 EFY?			
5	Total numbers of RDF pharmaceuticals procurements by open tender in 2006/07 EFY?			
6	Total numbers of procurements by restricted tenders in 2006/07 EFY			
7	Total numbers of procurements by request for quotation in 2006/07 EFY			
8	Total numbers of procurements by request for proposal in 2006/07 EFY			
9	Total numbers of procurements by international and national shopping in the year 2006/07 EFY			

Guide for In-depth Interview

In-depth interview

Dear respondent

My name is_____I am working for research undertaking by Jimma University on assessment of pharmaceuticals procurement practice of PFSA in accordance with public procurement regulations. Today, I would like to ask you few questions about public pharmaceuticals procurement practices and its associated public procurement legal factors, like preferred procurement methods and financial thresholds. I would like to tape record our discussion with you this will ensure that we correctly represent your views. May I have your permission to do this? What you say here today is confidential and will be used only for research purpose and help us to incorporate with our findings.

1. Do the national policies, laws and regulations regarding public procurement apply to PFSA? Describe.
2. Are the regulations clear, comprehensive and consistent? Do they cover the relevant components of procurement for health sector goods (e.g., product selection, registration and quality control, importation versus local manufacture, etc.) with no unduly complicated, unnecessary, conflicting or outdated regulations? Do they conflict with policies and regulations in support of national health sector development goals and PFSA's mandate of procuring pharmaceuticals in bulk and availing to the community?
3. Does the system allow/facilitate the introduction of new and innovative techniques and contracting practices for health sector goods, such as e-procurement, without compromising basic principles?
4. What do you suggestions to the improvement of the procurement procedures and regulations in public pharmaceuticals procurement in the PFSA**?**
5. In your opinion, what do you think are the real problems at the current proclamation and the directive regarding pharmaceuticals procurement? Is there the problem during actual practice in PFSA procurement? What do you think the reason behind occurrence of such problems during practices?

6. what are the existing public procurement laws, and regulations relating to and affecting the procurement and purchasing of pharmaceuticals, medical supplies and devices in the agency?
7. Describe a recent tender process for drugs, and medical supplies, or for both, including how practice may differ from policy:

   • Was a single tender issued for a large number of products with diverse requirements, or were tenders for fewer items grouped according to common product or drug classifications?

   • Were there any delays?

   • If so, what were causes of protests or delays?
8. What challenges does the PFSA face as a result of the procurement policy and practices?
9. What provisions of the regulations does PFSA find difficult to apply currently? (Please list fully)
10. What opportunities exist for improving the procurement process for pharmaceuticals? Would those improvements result in cost savings, reduced lead times, and so forth?
11. If you were in a position of highest authority, what would be the first action that you would take to improve the systems and processes of pharmaceuticals procurement?
12. Is there anything else that you would like to add? Or, do you think that there are other issues/points that I may have missed?

ጤና ይስጥልኝ

ስሜ ሀይምሮ ንጉሴ እባላለሁ፡፡ የጅማ ዩንቨርሲቲ የፋርማሲቲካል ሳፕላይ ቸይን ማኔጅመንት የድህረ ምረቃ ተማሪ ስሆን የመመረቂያ ጥናታዊ ፅሁፍ የመንግስት ግዥና ንብረት አስተዳድር የግዥ መመሪያዎች በመንግስት የመድሃኒት ፣የላብራቶሪ ሪጀንትና የህክምና መገልገያ መሳሪያዎች የግዥ ሂደት ላይ ያላቸውን ተፅዕኖ በማጥናት ላይ እገኛለሁ፡፡ በዚህ ዙሪያ ከእርስዎ ጋር አጭር ቃለ መጠየቅ ለማድረግ ፈቃደኝነትዎን በማግኘቴ እና ለውድ ጊዜዎት በቅድሚያ እጅግ አመሰግናለሁ፡፡ ከእርስዎ ጋር የማደርገው ቃለ መጠይቅ ለጥናታዊ ፁሁፍ አገልግሎት ብቻ የሚውል ሲሆን ሚስጥራዊነቱ የተጠበቀ ነው፡፡ ሃሳብዎትን በትክክል ለማስቀመጥ ይረዳኝ ዘንድ ቴፕ ሪከርድ እንዳደርግ ይፈቅዱልኝ ዘንድ በትህትና እጠይቃለሁ፡፡ ከተስማሙ በቴፕ ንግግርዎን እቀርፃለሁ፡፡ ካልተስማሙ የሚነግሩኝን ወረቀት ላይ በእስክብሪቶ ቶሎ ቶሎ ለማስፈር እሞክራለሁ፡፡አመሰግናለሁ

1. የመንግስት ግዢ ህጎች ፣ደንቦችና መመሪያዎች በመንግስት የመድሃኒት ግዥ ላይ ተግባራዊ ይደረጋሉ?
2. የመድሃኒት ግዥን በተመለከተ እነዚህ ህጎች ደንቦችና መመሪያዎች ግልጽ ሁሉን አቀፍና ሙሉ ናቸው ብለው ያስባሉ? እነዚህ መመሪያች መሰረታዊ የመድሃኒት ባህሪያቶችን ያካተቱ ናቸው ብለው ያስባሉ? ለምሳሌ፡- አብዛኛዎቹ መድሃኒቶች ከውጭ ሃገር የሚገቡ ከመሆናቸው አንፃር የግዥ የገንዘብ ጣሪያዎችን እንዴት ያዩአቸዋል? እነዚህ ህጎች ከመድሃኒት ፈንድና አቅርቦት ኤጀንሲ ከተቋቋመበት አላማ አንፃር ማለትም መድሃኒቶችን በጅምላ በመግዛት ለተጠቃሚው ህ/ሰብ ከማድረስ የግዥ ጣሪያችና ዘዴዎችን እንዴት ያዩታል?
3. በስራ ላይ ያለው የመንግስት ግዥ አዋጅ ደንብና መመሪያ ከመድሃኒት ግዥ ጋር በተገናኘ ችግሮች አሉበት ብለው ያስባሉ? ካሉ የችግሩ ምንጭ ምን ይመስልወታል?
4. ከመድሃኒት ህክምና መገልግያዎችና የላብራቶሪ ሪጀንቶች ግዥ ጋር በተገናኘ የመንግስት ግዥ ኤጀንሲ ወይም የመድሃኒት ፈንድና አቅርቦት ኤጀንሲ የግዥ አዋጁን ደንቡንና መመሪያውን ለመፈፀምና ለማስፈፀም በስራ ላይ ያጋጠሟቸው ችግሮች ካሉ?
5. ከመድሃኒት ህክምና መገልግያዎችና የላብራቶሪ ሪጀንቶች ግዥ ላይ አሉታዊ ተፅዕኖ ያላቸው የመንግስት ግዥ መመሪያዎች የትኞቹ ናቸው?
6. የመንግስት የመድሃኒት ግዥ ቀልጣፋና የተሻለ ለማድረግ ከግዥ ህጎች ጋር በተያያዘ ምን አይነት መልካም አጋጣሚዎች አሉ?
7. ከመድሃኒት ግዥ ጋር በተያያዘ የግዥ ሂደቶችንና ህጎችን ከማሻሻል አኳያ የእርስዎ አስተያይት ምን ይመስላል?
8. በመጨረሻም እኔ የረሳኋቸውና መጨመር ወይም መካተት አለባቸው ብለው የሚያስቧቸው ነጥቦች ካሉ?

ውድ ጊዜዎትን ሰውተው ሀሳብዎትንና ልምድዎን ስላካፈሉን እጅግ አመሰግናለሁ

ASSURANCE OF PRINCIPAL INVESTIGATOR

The undersigned declare that this paper is my original work and agrees to accept responsibility for the scientific ethical and technical conduct of the research project and for provision of required progress reports as per terms and conditions of the college of health sciences in effect at the time of grant is forwarded as the result of this application.

Name of the student: Haymero Nigussie

Date._____ Signature _____

Approval of the first advisor:

Name of the first advisor: Mr. Seid Mussa (B.pharm, MSc/Assistant professor)

Date._____ Signature _____