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Uganda Health System Pre-Assessment Report 2016

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Uganda Health System Pre-Assessment Report 2016

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Prepared for Phillip Greene
United States Agency for International Development/Uganda
C/O American Embassy
Plot 1577 Ggaba Road,
P.O. Box 7007, Kampala, Uganda

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ABBREVIATIONS AND ACRONYMS

AHSPR	Annual Health Sector Performance Report
ANC	Antenatal Care
ART	Anti-Retroviral Therapy
ARV	Anti-retroviral
BeMONC	Basic Obstetric and Newborn Care
CAP	Common African Position
CBHI	Community-Based Health Insurance
CCM	Country Coordinating Committee
CDC	Centers for Disease Control and Prevention
CeMONC	Comprehensive Obstetric and New-born Care
CHAI	Clinton Health Access Initiative
CHEW	Community Health Extension Worker
CPR	Contraceptive Prevalence Rate
CPT	Co-trimoxazole Preventive Therapy
CRD	Chronic Respiratory Disease
CSO	Civil Society Organization
CVD	Cardiovascular Disease
DHIS2	District Health Information System - 2
DHT	District Health Team
DHMT	District Health Management Team
DOTS	Directly Observed Treatment
EAC	East African Community
EDPR	Emergency and Disaster Preparedness and Response
EMHS	Essential Medicines and Health Supplies
EmONC	Emergency Obstetric and New-born Care
EMTCT	Eliminating Mother-to-Child Transmission
EOC	Emergency Operation Centre
GAVI	Global Alliance for Vaccines and Immunization
GBV	Gender Based Violence
GDP	Gross Domestic Product
GFTAM	Global Fund for TB, HIV/AIDs and Malaria
GGE	General Government Expenditure
GOU	Government of Uganda
HAART	Highly Active Antiretroviral Therapy
HC	Health Center
HCT	HIV Counselling and Testing
HDP	Health Development Partner
HMIS	Health Management Information System
HPAC	Health Policy Advisory Committee
HRH	Human Resource for Health
HSDP	Health Sector Development Plan
HSSIP	Health Sector Strategic and Investment Plan
HUMC	Health Unit Management Committee
ICT	Information Communication Technology
IDI	Infectious Diseases Institute
IDRC	International Development Research Centre
IDSR	Integrated Disease Surveillance and Response
IHP+	International Health Partnerships Plus
IPT	Intermittent Presumptive Treatment
IRS	Indoor Residual Spraying
ITN	Insecticide Treated Net
KCCA	Kampala Capital City Authority

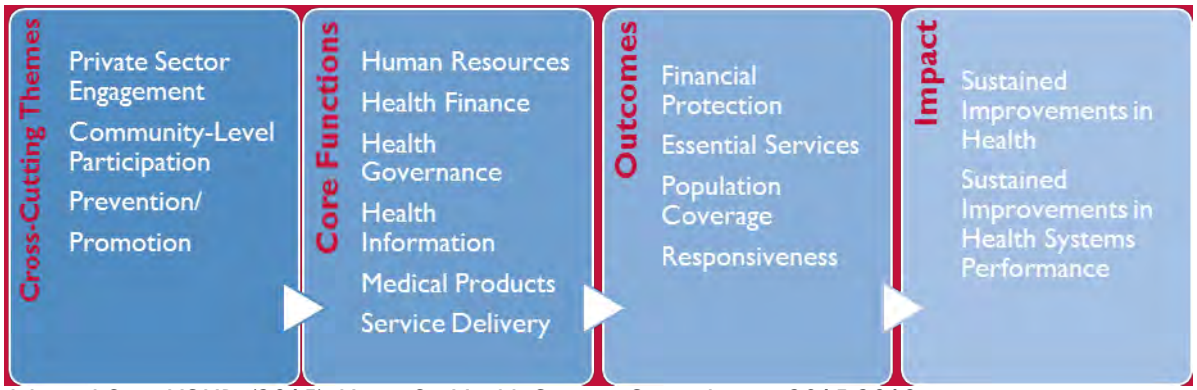
LLIN	Long Lasting Insecticide Net
LRI	Lower Respiratory Infection
MCH	Maternal and Child Health
MDA	Ministries, Departments, Agencies
MDG	Millennium Development Goals
MDR	Multi Drug Resistant
MMR	Maternal Mortality Ratio
MNCH	Maternal, Newborn, and Child Health
M&E	Monitoring and Evaluation
MOH	Ministry of Health
NCD	Non-Communicable Disease
NCRI	National Chemotherapeutic Research Institute
NDA	National Drug Authority
NDP II	Second National Development Plan
NHA	National Health Accounts
NHIS	National Health Insurance Scheme
NHP II	Second National Health Policy
NMS	National Medical Stores
NTD	Neglected Tropical Disease
OOP	Out of Pocket
OPD	Out-patient Department
OPM	Office of the Prime Minister
PAC	Public Accounts Committee
PCR	Polymerase Chain Reaction
PEM	Protein Energy Malnutrition
PHC	Primary Health Care
PMTCT	Prevention of Mother-To-Child Transmission
PNFP	Private-Not-For Profit
PPPH	Public Private Partnerships for Health
QI	Quality Improvement
RBF	Results-Based Financing
RC	Resource Centre
RDT	Rapid Diagnostic Test
RRH	Regional Referral Hospital
RTI/A	Road Traffic Injuries and Accidents
SDG	Sustainable Development Goals
STI	Sexually Transmitted Infection
SWAp	Sector Wide Approach
TASO	The AIDS Support Organization
TB	Tuberculosis
THE	Total Health Expenditure
TWG	Technical Working Group
UBOS	Uganda Bureau of Statistics
UBTS	Uganda Blood Transfusion Services
UDHS	Uganda Demographic Health Survey
UHC	Universal Health Coverage
UNAP	Uganda Nutrition Action Plan
UNMHCP	Uganda National Minimum Health Care Package
UNHRO	Uganda National Health Research Organization
UVRI	Uganda Virus Research Institute
VHT	Village Health Team

1. BACKGROUND AND RATIONALE

The 2011-2015 USAID/Uganda Country Development Cooperation Strategy (CDCS 1.0) hypothesized that a structurally sound, well-resourced, functioning health system, supporting access to quality service delivery is essential to ensuring effective utilization of health services and subsequently, to improving health outcomes in Uganda (USAID, 2010). Therefore, as USAID/Uganda approaches the end of implementation of CDCS 1.0 and in preparation for the next CDCS, it is important to understand the changes that have occurred in the elements of the system and elements that currently comprise Uganda's national health system, the relationships and interdependencies between these elements, and the fiscal, political, economic, social, and multi-sectoral factors and stakeholders that influence and impact the system's functionality.

The World Health Organization defines a health system as "all organizations, people and actions whose primary intent is to promote, restore or maintain health," the purpose of which is to improve access and coverage of responsive, efficient, effective, equitable, and quality-driven health services (WHO, 2000). To this end, a health system is supported by a set of basic building blocks - including human resources, financing, information systems, medical supply chains, governance mechanisms, and service delivery structures - linked to quality assurance mechanisms, all of which serve to uphold the health sector's responsibility and accountability to both patients and their communities (Figure 1). For diagrammatic purposes, health systems frameworks often present these building blocks as parallel, stand-alone pillars. In practice, however, elements of a health system are mutually derivative and reinforcing.

Figure 1: Core Functions of Health Systems



Adapted from USAID (2015), Vision for Health Systems Strengthening 2015-2019

An analysis that focuses on the six building blocks independently, then, is insufficient to understand the overlapping, multi-sectoral nature of health systems, and the influence of social, economic, and political actors and contexts upon them.

2. PURPOSE OF THE PRE-ASSESSMENT

This report is a pre-assessment of Uganda's national health system. The purpose of the assessment is to catalog, synthesize, and analyze current information and evidence to assist the USAID Health System Strengthening team as they embark on a further detailed understanding and description of the status of the health system in Uganda. To this end, the assessment also seeks to identify critical information gaps. The assessment will allow the Health Systems Strengthening Team to strategically identify areas of engagement that are within the manageable interests of USAID/Uganda so as to contribute towards improving and sustaining health outcomes in Uganda.

Key Assessment Questions:

- How well are the building blocks of Uganda's national health system functioning (i.e. governance, financing, service delivery, medical supply chain, information systems, community participation, and human resources)? For each of these building blocks:
    - What are the challenges and gaps faced, and how might they be overcome or plugged to increase effectiveness?
    - What specific resource issues do each of these building blocks face - such as personnel, budget allocations, polices/procedures and infrastructure - and how have these resource deficits affected quality and access to services?
    - What best practices, approaches and lessons learned have been adopted within and across each of the health system building blocks based on recent investments in the health sector?
    - To what extent have recommendations from past assessments been implemented?
- Within each building block, who are the major internal and external actors/stakeholders in health system? What is USAID's comparative advantage?
- How does/does not the health system interact with other sectors, and how do these relationship(s) contribute to the functionality of the system?
- How does Uganda's political economy influence the outcomes of its health system?
- What opportunities exist for USAID strategic intervention in the health system strengthening?
- What are the data and information gaps and recommended areas for further research?

As will become evident throughout this pre-assessment, there are major data gaps that prevent many of these questions from being answered sufficiently at this time.

3. METHODOLOGY OF PRE-ASSESSMENT

3.1 Pre-assessment Design

The pre-assessment was carried out utilizing a mixed methods approach, using both quantitative and qualitative data collection methods, guided by the "Getting to Know Answer Matrix" and structured thematically according to building blocks/core health systems functions established within the World Health Organization Health Systems Approach's Framework for Action (2007), an adapted version of which is also used by USAID for its Vision for Health Systems Strengthening (2015).

Box *1. The Six Building Blocks/Core Functions of a Health System*

Governance: Ensures that strategic policy frameworks exist and are combined with effective oversight, coalition-building, regulation, attention to system-design, and accountability.

Service Delivery: Prioritizes effective, safe, high quality health interventions delivered to those who need them, when and where they need them, with minimum waste of resources.

Human Resources: Promotes a health work force that operates in a responsive, fair, and efficient manner to achieve the best health outcomes possible, given the available resources and circumstances.

Financing Systems: Raises adequate funds for health, doing so equitably, with adequate protections in place to spare patients' financial catastrophe, and with adequate incentives for providers and users.

Medical Products and Supply Chain: Promises equitable access to evidence-based, essential, safe, effective, and cost-effective health technologies.

Information Systems: Produces, analyzes, disseminates, and triggers action on reliable and timely information regarding the determinants and status of a population's health, and the performance of its health system.

Adapted from WHO's Framework for Action (2007)

3.2 Data Collection

Data collection included a document review of key planning, implementation, performance, research and reporting documents, along with an analysis of relevant data sets, both at national and local government level. Documents included annual health sector performance reports, health sector investment plans, health budget framework papers, Uganda demographic health surveys, as well as other health system assessments and research conducted by the private sector, universities, civil society, government, and donor partners. Additionally, interviews were conducted with key informants at national level.

3.2.1 Sampling

Informants were identified using purposive sampling. These interviews were intended to fill in gaps identified during literature review and data analysis.

3.2.2 Data Management and Analysis

Quantitative data was cleaned and manually edited for any irregularities. Preliminary results of these analyses were presented to the QED and USAID Teams. Qualitative data was processed and analyzed thematically, focusing on major emerging themes and explanatory factors. The analysis of qualitative data was carried out concurrently with fieldwork in a reflexive and iterative process.

Data analysis was carried out using a number of different approaches. New or emerging components of the building blocks have been described in terms of their roles, positioning, and functionality. Analysis of existing sector performance monitoring data was undertaken using trend analysis to determine the performance of the health sector over time as well as its current state. Trend analysis

included budgetary information in terms of the Government of Uganda's financial and donor contributions to the health sector. Additionally, comparison between the current status of the health system building blocks and the status of the health system building blocks as per the last assessment of 2011 was also used, so as to understand implementation of the 2011 recommendations.

4. STRUCTURE OF THE PRE-ASSESSMENT REPORT

This pre-assessment report is structured according to each of the six health systems building blocks described by USAID as core health systems functions: Governance, Health Service Delivery, Health Human Resources, Health Financing, Health Information Systems, and Medical Products and Medical Supply Chain. For each of these building blocks, the report sketches the key stakeholders, resource availability, functionality, intra-sectoral interactions, challenges, and data and information gaps encountered with respect to Uganda's health sector according to the questions put forth in the Scope of Work.

5. UGANDA'S NATIONAL HEALTH SYSTEM

5.1 Introduction

In 2014, Uganda was ranked 164th out of 187 countries on the Human Development Index, and was categorized by the UNDP as having a low human development category (UNDP, 2013). Nevertheless, the country has made small, incremental improvements since 2005, both broadly in terms of its general human development indicators and, more specifically, in terms of its health status indicators, especially over the last five years (Table 2). These improvements can be attributed partly to the country's overall economic growth and to large-scale overseas development assistance (ODA) provided by Uganda's development partners, specifically to the country's health sector.

Table 1: Uganda Health Status Indicators

Selected Indicators	Uganda 2010*	Uganda 2013	Sub-Saharan Africa Average 2013	Data Source
Population, total (millions)	33.4	34.5	900	UBOS, World Population Bureau
Population growth (annual %)	3.2%	3.4%	2.7%	UNESCO 2013 (UBOS 2011, UBOS 2015), WB
Rural population (% of total population)	86.7%	85%	63.5%	Doing Business Report 2013. World Bank and IFC
Fertility rate, total (births per woman)	6.24	6.1	4.9	Doing Business Report 2013. World Bank and IFC. UBOS 2012.
Contraceptive prevalence (% of women ages 15–49 years)	23.7%	23.7%	22%	WDI
Life expectancy at birth, total (years)	53.0	54	56.9	WB

Selected Indicators	Uganda 2010*	Uganda 2013	Sub-Saharan Africa Average 2013	Data Source
Mortality rate, under-5 (per 1,000)	98.9	69.3	90	WDI
Maternal mortality ratio (per 100,000 live births)	430	360	250	WDI

HSA 2011

For example, while Uganda is classified by the World Bank as a low income country, Uganda's poverty head count decreased from 31.1 percent of the population in 2005, to 19.5 percent in 2012, while its Gross National Income (GNI) per capita increased from US $0.880 to $1.168 over the same period, with overall GNI more than tripling during this time (UNDP, 2013; World Bank, 2015). The country's Gross Domestic Product (GDP) Annual Growth Rate, although inconsistent, averaged 6.85 percent annually between 2006 and 2015, with both life expectancy and mean years of schooling also slowly improving (Trading Economics, 2013; UNDP, 2013). Simultaneously, Overseas Development Assistance (ODA) commitments increased from US $1.498 billion in 2005 to $2.084 billion in 2010 (WHO, 2011). Within this total, health commitments increased from $367.02 million to $498.67 million, with financing skewed toward Millennium Development Goal (MDG) 6 (HIV/AIDS, malaria, TB) disease-specific programs and with U.S. government assistance representing 59.6 percent of all ODA for health (WHO, 2011), The combination of these factors – i.e. Uganda's slow but steady economic growth, and the distortion of health sector ODA toward vertical disease/health condition programs – have had (and will continue to have) major implications for the structure and performance of Uganda's health sector and the functionality of the country's health system.

Presently, the World Health Organization has situated Uganda at the second lowest tier of the epidemiological transition away from conditions recognized by the MDGs as the main cause of mortality in resource-poor countries (i.e. those related to infectious disease and maternal, neonatal, and nutrition conditions) toward the sorts of non-communicable and chronic diseases characterizing middle- and upper-income countries. Between 60-70 percent of years of life lost (YLL) in Uganda can presently be attributed to what has been referred to as MDG-conditions (WHO, 2014). As with many countries in Africa, the burden of AIDS, TB, malaria, vaccine-preventable childhood disease, maternal and neonatal conditions, and complications related to poor nutrition, has necessarily directed the priorities of Uganda's health system toward evidence-based, targeted interventions that have, both in Uganda and elsewhere, led to progress in reducing national mortality and incidence rates. However, there is an increasing recognition by both government and its partners that Uganda will soon be facing the dual burden of both communicable and non-communicable disease, a situation which will require a radical rethinking as to how health systems are financed and organized, and how health services are staffed and delivered. Additionally, government and its partners are also coming to understand that the progress presently being made by targeted interventions will only be sustainable in the long-term if concomitant investments are made to Uganda's overall health system.

This section of the pre-assessment discusses each of the building blocks of Uganda's national health system in turn, in order to analyze the status of each block, and the elements that exist both within and between building blocks that may affect, as well as point the way toward, future strategic orientations and interventions.

5.2 Governance

Governance refers to the policies, strategies, plans, guidelines, and institutional structures that have been put in place to support partnership, coalition-building, planning and systems design, and regulation, oversight, and accountability (WHO, 2015). In Uganda, the primary mechanism underpinning these structures is the Sector Wide Approach (SWAp). Through the SWAp, government, partners, stakeholders and institutions - guided by the International Health Partnership Plus (IHP+) framework for health partnership – work to coordinate, plan, manage, and oversee all health-sector related resources, programs and activities.

Governance in the Uganda health sector is influenced by the decentralization policy and regulation by health professional councils. The health system in Uganda is decentralized, the districts are responsible for implementation of government policies, management of resources, service delivery and making by-laws. The Ministry of Health (MOH) is responsible for policy formulation, resource mobilization, setting standards and guidelines, and supportive supervision. The regulatory role of the Ministry of Health is through policy formulation, setting standards and guidelines, supportive supervision and health professional councils.

Budget ceilings (indicative planning figures) are provided by the central government during the budgeting stage; cash is released to districts and other self-accounting units on a quarterly basis any time in the quarter depending on revenue availability, but often very late. The Government of Uganda operates a cash budget. The cash released is subject to utilization of funds in the previous quarter (release). If in the previous quarter, a unit under-utilized funds, the next quarterly release will be less the under-utilized funds.

5.2.1 Decentralization

The governance of the country is devolved from the center to the Districts, Municipalities, Town Councils, and to sub-Counties in accordance to the 1995 Constitution and 1997 Local Government Act, both as amended. The number of districts in Uganda has increased rapidly over the past two decades, from 39 districts in 1995 to 115 in 2015. Municipalities have also increased from 10 in 1995 to 42 over the same periods respectively. Creation of local governments with no corresponding increment in sector funding will worsen service delivery because of severe capacity constraints (office accommodation, staff), limiting the effectiveness of decentralized service delivery.

5.2.2 The Health Professionals Councils

The sector has four health professional councils (Uganda Medical and Dental Practitioners, Allied Health, Nurses and Midwives, and Pharmacy) which are responsible for registration, licensing, standards of training and practice of health workers (UMDPC, 2015). Medical Private Practice is regulated by the health professional councils. All health workers are expected to prove that they have received continuous professional education before they are licensed.

5.2.3 Stakeholders

In Uganda, governance and leadership stakeholders exist at multiple levels of the health system and feed into decisions regarding policy-making, strategic planning, and the creation of oversight and accountability mechanisms. These include:

- Parliament and Parliamentary Committees (e.g. The Parliamentary Committee on Health, The Parliamentary Committee on HIV/AIDS and Related Matters.

- Relevant Cabinet Members (e.g. Minister of Health, Minster of State for Health, Minister of State for Primary Health Care), along with other members of the Top Management Committee.

- The Ministry of Health, its Senior Management Committee, and its:
    a. Departments (e.g. Clinical Services, Planning, Finance and Administration, Disease Control, Quality Assurance, Nursing, Community Health)
    b. Programs (e.g. AIDS Control, Malaria Control, TB/Leprosy Control, Expanded Program on Immunization, Sanitation Fund, Guinea Worm Eradication, Jiggers Eradication, Non-Communicable Diseases, Neglected Tropical Disease Control)
    c. Commissions (e.g. Health Services Commission, Uganda AIDS Commission)
    d. Affiliated Health Service Bodies (e.g. Uganda Blood Transfusion Service, National Medical Stores, Central Public Health Laboratories, National Drug Authority, Uganda National Health Research Organization)

- Ministry of Finance, Planning and Economic Development.

- Development partners (bi-lateral and multi-lateral donors).

- Technical partners (e.g. UN agencies such as WHO, UNICEF and UNAIDS, that provide technical support for policy, strategy, and guideline development, U.S. government implementing partners).

- Various high- and mid-level institutional forums for government-partner dialogue (e.g. the Inter-Agency Coordinating Committee, the Health Policy Advisory Committee, the Health Development Partner Group, the Joint Review Missions for the Health Sector, the National Health Assembly, the Health Sector Working Group and other technical working groups and sub-committees, Technical Review Meetings, and the Global Fund Country Coordinating Mechanism/CCM)

- Health professional councils (e.g. Uganda Medical and Dental Practitioners, Allied Health, Nurses and Midwives, and Pharmacy).

- Local government executive committees and councils (e.g. Regional Management Committees, District Health Management Teams, Health Unit Management Committees, Village Health Teams)

- Civil society and advocacy organizations

- Media

5.2.4 Resource Availability

Currently, the status of financial and other resources directed towards strengthening governance and leadership mechanisms in Uganda is not known. Often government, donor or technical support for policy, planning, coordination, or the establishment and maintenance of institutional mechanisms will be included under general budget lines for national or local government capacity building or dissemination. Similarly, for NGOs and civil society organizations, resources directed toward governance end up being included under advocacy or community mobilization. A framework for delineating resources currently available for health governance is urgently needed, as is a comprehensive costed needs assessment for the governance building block. It is important to note that governance is essential for the health system to be complete and functional. It is intertwined with and exists within each of the other building blocks of the health system.

5.2.5 Functionality

Policy Environment for Health Governance
The Ugandan health system is governed by a series of strong, consecutive policy frameworks and strategic plans. The country's first 10-year National Health Policy (2000/01-2009/10) was followed by the Second National Health Policy (2010/11-2019/20) that presently extends to the year 2020.

The second National Health Policy Highlights Four Key Priority Areas for the Health System:
i. Strengthening health system's governance especially via existing mechanisms of decentralization; there is a critical need for investment into the analysis of governance in the health sector in order to bridge the existing information gaps. ii. Reorganizing and improving supervision, monitoring and evidence-based decision-making; iii. Achieving functional integration both within the public sector, and between public and private sectors in health care delivery, training and research; iv. Addressing the human resources crisis.

These National Health Policies have been supported since 2000 by a number of consecutive 5-year strategic plans. These plans include Health Sector Strategic Plans (HSSPs), the most recent of which, the Health Sector Strategic and Investment Plan (2010/11-14/15) was supplanted by the first National Health Sector Strategic and Investment Plan (HSSIP) (2010/11-14/15) which now serves as a guide to planning and implementation for the health sector. Additionally, to fully integrate the Health Sector with the country's Second 5-year National Development Plan (2014/15-19/20), as well as Uganda's Vision 2040, the first long-term Health Sector Development Plan (HSDP) (2015/16-2019/20) has also been developed.

The National Health Policy, HSSIP, and HSDP were formulated by the Government of Uganda in partnership with various health sector development partners, civil society organizations, and private-for-profit (PFP) and private-not-for-profit (PFNP) health delivery stakeholders, in cognizance of national, regional, and international conventions like the 1995 National Constitution, the 1997 Local Government Act, the Abuja Declaration, and other international conventions, as well as the MDGs and Sustainable Development Goals (SDGs). Additionally, a compact for implementation of the HSSIP was made between government and health sector partners (including development, technical, private-not-for-profit, and civil society partners), which committed these partners to technical and financial

assistance for the HSSIP implementation. The performance of the compact is monitored annually (MOH, AHSPR 2014/15).

Uganda has respected health policies, guidelines, strategies, and implementation frameworks. The weaknesses are mainly in the areas of policy implementation and enforcement, e.g. there is a health referral system, but this is not functional because of multiple health system issues/weaknesses. Key gaps include a lack of referral policy, the Autonomous Act, a bill for national autonomous institutions[1], is yet to be tabled in Cabinet and Parliament, and the Public Health Act is poorly enforced due to lack of elaborate instruments.

Institutional Environment

Institutional mechanisms for health governance exist at multiple levels of the health system, as outlined in the stakeholder section. Since amendments to both the 1995 Constitution and 1997 Local Government Act, health governance takes place within the context of decentralization in which the governance of the country is devolved from the center to the districts, to municipalities, town councils and sub-counties. The number of districts in Uganda has increased rapidly. There are structures at sub-national level, including Regional Management Committees, District Health Management Teams, Health Unit Management Teams, and Village Health Teams, in place to – theoretically - support decentralized planning, budgeting, and service delivery.

Decentralization is meant to empower local government in strategic planning, partnership- and coalition-building, and accountability measures. In reality, however, the degree to which governance is strengthened under decentralized systems is often dependent on the initiative and force of personality of local government leaders. It also depends on whether or not devolution of power extends to major policy and strategy decisions, or just to budgets and service delivery. In Uganda, existing data on the effect of decentralization as it relates specifically to health systems governance is quite outdated, and much of the existing research focuses on the implications of decentralization for health systems financing at district level and for the management of human resources.

In terms of accountability and transparency; the Auditor General presents audited accounts at the Joint Review Mission/National Health Assembly and to the Parliament on annual basis. There is participation of key stakeholders at the National Health Assembly, Joint Review Missions and the Health Policy Advisory Committee (HPAC). The performance of the health sector compact is also evaluated annually. There are weak or nonexistent performance management systems at the local government (LG) levels (MOH(a), 2015).

Besides informal payments, other types of corruption, which clearly affect health outcomes, are bribes to avoid government regulation of drugs and medicines, which resulted in the dilution of

[1] National autonomous institutions, include some specialized clinical support functions (Uganda Blood Transfusion Service (UBTS), National Medical Stores and National Public Health Laboratories) and regulatory functions (the professional councils, the National Drug Authority and other regulatory bodies)

vaccines in Uganda and has contributed to the rising problem of counterfeit drugs. The local or district councils diverted large parts of the funds disbursed by central government to other uses as well as for private gains, with leakages affecting up to 41 percent of the allocated resources (U4 ISSUE 2008).

There are institutional mechanisms within the Ministry of Health, and between the Ministry of Health and its partners, to develop and operationalize policies and strategies, as well as to ensure accountability measures exist across all levels of the health system. These include the Top Management Committee, Senior Management Committee, and other committees and sub-committees within the Ministry of Health through which strategies, plans and policies are reviewed and approved. Such committees do meet regularly; however, it is worth understanding better other indicators of functionality, such as the pace at which policy or institutional change can be achieved, and the levels of bureaucracy through which proposed changes must pass.

Additionally, there are forums for partners (including the PNFP sector) and government to review strategy, engage in planning, target resources, and implement and improve accountability measures. These include the Inter-Agency Coordinating Committee, the Health Policy Advisory Committee, the Health Development Partner Group, the Joint Review Missions for the Health Sector, the National Health Assembly, the Health Sector Working Group and other technical working groups and sub-committees, Technical Review Meetings, and the Global Fund Country Coordinating Mechanism/CCM).

Some of these mechanisms function efficiently. The Auditor General, for example, will present a report to the Joint Review Mission, the National Health Assembly and the Parliament on annual basis. The Annual Health Sector Progress Report, however, judges a number of the existing structures for partnership engagement as moribund, and as failing to provide the needed forums for sector engagement. For example, the Health Policy Advisory Committee (HPAC) focuses primarily on statutory actions (e.g. endorsing proposals) as opposed to being a forum for dialogue. Some partners, therefore, sidestep these structures, and provide support that is neither coordinated nor harmonized (MOH, AHSPR 2015). There has not yet been an evidenced-based qualitative and quantitative assessment of the Annual Health Sector Performance Report's (AHSPR) findings on the mechanisms' perceived value, their achievements, and their impact on health governance.

The health professional councils and the National Drug Authority register license and regulate health practitioners in both the private and public sector using national guidelines. These councils are poorly staffed, underfunded and not effective in regulation. It is not clear how standards for training and practice are enforced given the weak performance management systems in the public sector, especially at local government level, and the lack of capacity to monitor private sector health service providers and health training facilities (MOH AHSPR, 2014/15). The informal sector, drug sellers in the markets, buses, and traditional healers, are not registered or regulated.

For example, a situation analysis of the supervision, monitoring and inspection (SMI) system in the health sector demonstrated inadequate leadership at all levels to demand and enforce regular SMI, and to ensure follow up of the recommended actions. While regional supervisory and monitoring teams exist with funding from the Global Fund to Fight Aids, Tuberculosis and Malaria (GFATM) to monitor GFATM activities, these teams have not yet been integrated to provide broader supervisory support.

> "*The health sector has not developed a framework on how these teams can also support other health sector activities. Preferably, these teams could be based in the Regional Referral Hospitals for sustainability purposes"* (KI Interview, GFATM Official, MOH).

District Health Management Teams (DHMT); moreover, do not have adequate resources and skills to visit health units, and at times health units can spend a year without support supervision.

Besides the Health Professional Authority Bill (currently still in draft form), there are several regional initiatives to remedy weak supervisory structures. For example, a Health Sector Support Supervision, Monitoring and Inspection Strategy has been finalized and shared within the Sector Monitoring and Evaluation Technical Working Group, to be rolled out in 2015/16.There is also pilot program supported by the Swedish Development Agency and Belgium Technical Cooperation (SIDA/BTC) to develop a planning structure on the regional level in Fort Portal and Arua that hopefully will be extended to more regions (Swadin, 2013).

The Medicines and Health Services Delivery Monitoring Unit at State House investigates instances of misconduct in the health sector. It directly reports to the President but also reports its findings to the Ministry of Health for action. The Unit supplements the Ministry of Health oversight function. However, the legal working relationship between the Ministry of Health and State House in this matter is not clear (MOH, AHSPR, 2014/15). District and hospital league tables also exist to serve as a performance management assessment tool.

Institutions that might support demand-side health governance and accountability mechanisms include media and civil society organizations (CSOs). Uganda has two active associations of health journalists – Uganda Health Journalists Alliance and Health Journalists Network of Uganda - who receive training from Makerere University College of Health Sciences on the use of research evidence in health reporting (Semakula and Nsangi, 2016). There is active reporting on health in both print and electronic media, as well as regular meetings for journalists on specific health topics, such as Science Cafés organized by the Global Advocacy for HIV Prevention AVAC to discuss recent advances in HIV/AIDS *(*KI Interview with Official, Health Journalists Network of Uganda). Media is to a large extent able to openly report on health issues.

While policy and institutional mechanisms for health governance in Uganda, theoretically, provide a framework for incentives to encourage civil society to participate in joint planning, management, and oversight alongside other partners, civil society and voluntary organizations nevertheless remain marginally involved in the making and implementation of public policy. While advocacy mechanisms are an important element of accountability within health governance, the degree to which investments in, and outreach to, both media and civil society impact both the overall health system, and health governance, in particular, has not been adequately measured. Communities play a role in health sector governance through their representation on facility-based health unit management committees and public dialogues – barazas – where government service sectors present funding and results and communities respond with questions and criticism. (Monitory Daily News Paper April 20, 2016)

5.2.6 Challenges

There are a number of challenges to health governance. While there are a strong set of policies, strategies and plans in place, too often stakeholders struggle to implement them. Moreover, while there has been a proliferation of institutional mechanisms – committees, working groups, etc. - for health governance, not all of these function as they are intended to function. There is limited data addressing why this is the case, and the impact of this situation on the health system and on health outcomes in Uganda.

There is poor generation and use of evidence in policy-making, and inadequate analysis of how to better package and disseminate data in a manner that is useful to policy makers. There is a weak overall legislative process. For example, five bills were brought before Parliament in 2011, and still none have been passed. This creates a backlog of legislation within which critical health legislation – such as the Health Professional Authority Bill - gets held up.

District and local health governance units – such as Health Unit Management Committees – are not fully functional. Moreover, there is no immediate means by which to measure functionality and impact of such units. Other challenges include: retention of power/authority at the centre, inadequate resources available to local governments, delayed releases from the central government thus constraining service delivery, shortage of qualified human resources, failure to prioritize health care service delivery, corruption and patronage, and limited commitment by all actors (Okecho, 2009; AHSPR, 2010/2011).

There is a public-private partnership policy in Uganda. Its implementation has faced several contextual and health system challenges. The public-private partnership policy and policy guidelines are not well understood by both actors in both private and public sub-sector. The regulation of the private sector is poor because the public-private partnership policy and guidelines are not enforced or adhered to by both the private and public sectors.

5.2.7 Extent of Implementation of Previous Assessment Recommendations

Four recommendations on governance geared to improving coordination, strengthening decentralized health systems performance and building capacity among PFP, PNFP, and civil society stakeholders were suggested in the 2011 Health System Assessment. The recommendations were not systematically implemented as indicated below.

Recommendation 1: Strengthen MoH capacity to coordinate all health sector stakeholders.

i. Strengthen the Health Policy Advisory Committee (HPAC) and Senior Management Committee.

   Extent of Implementation: Both committees are functional and meet regularly. However, the HPAC functionality is compromised, moribund, and not providing the needed forums for sector engagement. The current focus is primarily on statutory actions (e.g. endorsing proposals) as opposed to being forum for dialogue. Some partners are therefore side stepping these structures, and providing support that is not coordinated and harmonized (MOH(a), 2015).

> *"Some key Development Partners gave not attended HPAC meetings for over six months"* (KI Health Development Partner)

ii. Make the compact explicit to other stakeholders and honor their respective roles throughout the entire duration of the compact (for example PFP and PNFP sectors should have an opportunity to review the Compact and also come on board as signatories, and there should be greater representation of PFP and PNFP providers in the HPAC).

   Extent of Implementation**:** This recommendation has not been fully implemented. Out of 33 members of the HPAC, only 3 (10 percent) are from PNFP and PHP although the private sector provides greater than 40 percent of the health services in Uganda (MOH, AHSPR, 2015).

iii. Include private sector representation in all the working groups.

> *"The inclusion of private sector representation in all the working groups was passed by HPAC but has not been implemented. It needs revitalization by leaders of private sector."* (KI, Official, HPAC Secretariat)

Extent of Implementation: This recommendation has not been implemented.

iv. Support districts to improve coordination at the district level between government and development partners (e.g. to attend Quarterly Review meetings and District Health Management Team meetings).

Extent of Implementation: This recommendation has not been fully implemented. USAID launched the Strengthening Decentralization for Sustainability (SDS) activity in May 2010. It focused on 35 core districts (of which 12 are USAID Mission Focus Districts). SDS added 15 districts in the Northern region in April 2015. Through the District Management Committees, SDS has greatly enhanced coordination of various key implementers in the local governments (LGs), which has reduced duplication of activities, and built teamwork and synergies leading to improvement in allocation and deployment of the available scarce resources (MOH, AHSPR 2015).

Recommendation 2: Create management and administrative efficiencies within the decentralized system by aggregating districts into health regions

i. Create a Regional Administrative tier (with Regional Health Management Teams with MoH Regional Director) as an extension.

Extent of Implementation: This recommendation has not yet been fully implemented and exists only in pilot stages.

Recommendation 3: Create an enabling environment to strengthen district performance.

i. Invest in health infrastructure, particularly in newer districts that lack it (e.g. office accommodation and equipment, transport).

Extent of Implementation: Infrastructure is a huge impediment to the delivery of health services, especially in the north. There are plans to build houses for health workers. Hospitals have been built, and some are underway, and other medical infrastructure construction is anticipated to take place when development funds are available in the budget. The exact state of health infrastructure is unknown since existing information is not updated. There is no literature on health infrastructure. MOH plans to carry out a health infrastructure inventory to guide implementation.

ii. Institutionalize use of district league table indicators for performance at district and facility level.

Extent of Implementation: This has not yet been done at district level, only at national level and done only during the writing of the Annual Health Sector Performance Report.

Recommendation 4: Build PFP and PNFP capacity to represent their own constituencies and to actively participate in policy and planning; raise the consumer and civil society voice.

i. Strengthen Civil Society Organizations (CSOs) and Health Unit Management Committees (HUMCs) through additional financing, capacity building, information sharing, and community dialogue to strengthen community voice and oversight.

Extent of Implementation: Civil Society is active at the national level (e.g. CSOs attend the HPAC and engage in policy dialogue); however, there has been no earmarked financial support for training sub-national HUMCs and most have not yet been sufficiently strengthened. Community feedback mechanisms at local level are weak and depends largely on how proactive the community leadership is at any level.

ii. Support assistance to the media to improve the amount and quality of reporting on health issues.

Extent of Implementation: There is on-going training of media in health and research reporting, but no specific program support to improve media coordination and capacity to engage stakeholders (KI Interview, Official, Health Journalists Network of Uganda).

iii. Support MoH and private sector efforts to create an umbrella organization representing the entire private health sector.

Extent of Implementation: Uganda Health Care Federation is active, has a secretariat, and is part of the East African Healthcare Federation (Uganda Health Care Federation, 2015).

iv. Strengthen professional associations to represent both public and private perspectives in policy and planning processes.

Extent of Implementation: Strengthening health professional associations like the Uganda Medical Association, Uganda Nurses and Midwives Association would strengthen continuous professional development and quality of care. Professional associations require evidence of continuing professional education as a pre-condition to issuing a license to practice. They also do monitoring and supervision to enhance the quality of the professionals. Nonetheless, monitoring and supervision are compromised by lack of adequate resources to facilitate them. This recommendation has not been fully implemented; there are no budget and work plan available, but there are plans to accredit providers of CPD and create a work program (communication from the Registrar to Uganda Medical Association on 2 April 2016).

5.2.8 Intra-sectoral Interactions

Governance structures do not operate independently of other health systems building blocks. Governance structures require functional and substantive Health Information Systems upon which to base evidence-based policy and decision-making. Governance provides the frameworks upon which human resources, supply chain management, and service delivery systems rest, as well as serves to establish and coordinate mechanisms for health financing. Health governance is impacted by the nature of Uganda's development partnerships and the reliance by the Government of Uganda on external financing for its health system. Most importantly, governance structures require a sufficient, motivated health workforce - to manage and administrate, to generate data for decision-making, to implement and act on the policies, strategies, and guidelines being generated.

Accountability for resources is done at various levels of the health care system, in the Ministry of Health, and by the Auditor General at the national level. In some cases, accountability is done by source of funding, e.g. accountability to Development Partners and to the government or public. Accountability is greatly compromised by contextual factors, especially corruption.

5.2.9 Data and Information Gaps

While there exists an ample body of policy and strategy documents for Uganda, a number of information gaps exist with regard to governance. For example:

- There is little detailed examination– beyond the descriptive information contained within government documents such as the HSSIP and HSDP – as to the various spheres of health

governance in Uganda, nor is there analysis of how or why various national, regional, district, and local health governance structures, interact, intersect, or influence one another (or not). Similarly, there is no data available on existing resources for health governance, nor is there a costed needs assessment for the governance building-block.

- There is no readily-available detailed stakeholder analysis of actors, including community, involved in governance issues in Uganda, their current and historic role in contributing to the country's policy and institutional environment, or their relative power and position in determining policy process and/or content, and in creating and maintaining existing institutional mechanisms for governance.

- There is no in-depth qualitative research as to how good stakeholders from across the health sector view specific institutional mechanisms for health governance as working (for example, the HPAC, the Joint Review Missions, the Health Partner Development Group), nor has the institutional performance of these different mechanisms been empirically measured or assessed. Discussions of internal Ministry of Health mechanisms – such committees, sub-committees tend to be purely descriptive, and neither analytical nor measured against performance. Information is available as to what such mechanisms are supposed to do, where they sit in the overall structure of the Ministry of Health, who participates in them, and whether or not they take place, but less is known about how and whether they achieve, and/or are perceived to achieve, their goals and objectives.

- Accountability analysis is conducted at the different levels of the health system. Accountable workforce, budget accountability, commodity accountability, etc., exist. The Auditor General produces a comprehensive audit report annually which is presented to the Public Accountants Committee (PAC) of Parliament.

5.3 Health Service Delivery

Health service delivery refers to elements of a system that ensure coverage of and deliver effective, efficient, quality services and interventions to a population. Service delivery, thus, refers to the local, district and central government structures that plan, manage, and provide oversight of health facilities across all levels of the health system, the facility network itself, and the programs, projects and initiatives aimed at promotion, prevention, and palliative care that supplement facility-based treatment.

5.3.1 Stakeholders

In Uganda, health service delivery stakeholders are numerous and extend down to the bottom most rung of the primary care system.

- Sub-national and local government management units (e.g. Regional Management Committees, District Health Management Teams (DHMTs), Health Unit Management Committees, Village Health Teams (VHT))

- Public health facilities delivering care from tertiary down to community level, including Village Health Teams (HC I), Health Centers (HC) IIs, IIIs, IVs, General Hospitals, Regional Referral Hospitals (RRH), National Referral Hospitals

- PNFP clinics and hospitals, many of which are religiously affiliated and operate under the Uganda Protestant Medical Bureau, Uganda Catholic Medical Bureau, the Uganda Muslim Medical Bureau, and the Uganda Orthodox Medical Bureau, or programmatically, under the Inter-Religious Council of Uganda (an umbrella for faith-based providers). PNFP Medical Bureaus have internal

implementation structures, including zonal and programmatic coordination bodies within them. Other PFNPs include NGO-based PFNPs such as The AIDS Support Organization (TASO) network for AIDS/TB services, as well as research institutions such as International Development Research Centre (IDRC), Infectious Diseases Institute (IDI), and Makerere University Walter Reed Project, that provide health services to patients in the context of research.

- Traditional and complementary medicine practitioners and practitioner umbrellas, most notably THETA (Traditional and modern Health Practitioners Together against AIDS and other Diseases), which has partnered with biomedical researchers on evidence-based traditional medicine provision.

- The Ministry of Health, its Senior Management Committee, Health Services Commission and its AIDS Commission, along with affiliated Health Service Bodies (e.g. Uganda Blood Transfusion Service, National Medical Stores, Central Public Health Laboratories, National Drug Authority, Uganda National Health Research Organization).

- Departments (e.g. Clinical Services, Planning, Finance and Administration, Disease Control, Quality Assurance, Nursing, Community Health)

- Programs (e.g. AIDS Control, Malaria Control, TB Leprosy Control, Expanded Program on Immunization, Sanitation Fund, Guinea Worm Eradication, Jiggers Eradication, Non-Communicable Disease, Neglected Tropical Disease Control including Onchocerciasis Control)

- Development partners providing financing for implementation of services

- Technical partners that provide technical support for specific types of service provision (e.g. WHO, UNICEF, UNFPA, U.S. government implementing partners, Belgium Technical Cooperation)

- Regional implementing partners, overseeing USAID and Centers for Disease Control and Prevention (CDC) sub-contracted programs that provide support for AIDS and TB service provision and, increasingly, for integrated health services both at primary level and referral level.

- Various high- and mid-level institutional forums for government-partner coordination for planning and implementing health assistance (e.g. Health Sector Working Groups and other technical working groups and sub-committees, and Technical Review Meetings)

5.3.2 Resource Availability

Resource availability for service provision has been organized, in the past, either via the health basket into which development partners such as the UK Government, World Bank, European Commission and others contribute according to the principles of SWAp, or along vertical lines, with service provision for AIDS, TB and Malaria services being supported by, especially, US Government PEPFAR and PMI, as well as subsequent Global Fund rounds. Immunization services related to Expanded Program for Immunization receive resources from GAVI. GAVI is an international organization - a global Vaccine Alliance, was created in 2000 to improve access to new and underused vaccines for children living in the world's poorest countries. In GAVI's phase I (2000-2006) focus was on two primary areas; supply of new and underused vaccines, and strengthening vaccine delivery systems. Its support was focused on three underused vaccines: hepatitis B (hepB), Haemophilus influenzae type b (Hib) and yellow fever. GAVI enabled the supply of disposable auto-disable (AD) syringes for all vaccines. It provided incentives to immunize more children through performance-based funding. Phase II (2007-10), GAVI added two new vaccines to its portfolio: pneumococcal and rotavirus. Phase III

(2011-2015) set a roadmap for completing the introduction of pentavalent vaccines and accelerating the delivery of a new generation of life-saving vaccines, in particular rotavirus and pneumococcal. Increasingly, resources for other key health issues, such as Reproductive, Maternal and Newborn Health, have come available as new global policy windows and programs open up (e.g. Saving Newborn Lives, Saving Mothers Giving Life).

5.3.3 Functionality

Service Functionality

While coverage of health services is generally good, and many indicators have slowly been improving, the functionality of service provision is still an issue and varies greatly across categories of service provider, districts, and regions. On one hand, the performance of core output indicators in Uganda in 2014 was generally better than in 2010. For example, out-patient department (OPD) utilization is a proxy measure for access to services, and OPD utilization increased from 0.95 in 2010 to 1.2 in 2014. However, even where progress was made, most core service delivery outputs fell short of attaining the HSSIP targets. For example, although the proportion of pregnant women attending four anti-natal care (ANC) visits increased from 32 percent in 2010 to 36.6percent in 2014, it is still far short of the HSSIP target of 60 percent. Likewise, the proportion of health facility deliveries increased from 39 percent to 52.7 percent, far off the HSSIP target of 90 percent. The proportion of children vaccinated for measles by one year of age increased from 85 percent to 90 percent against an HSSIP target of 95 percent, while the proportion of pregnant women receiving Intermittent Presumptive Treatment (IPT2) increased from 34 percent to 53.4 percent against an HSSIP target of 70 percent (AHSPR 2014/15).

The inability to meet existing output targets has affected the country's progress toward health impact, as infant, under-5, and maternal mortality, while slowly decreasing, also all remain off HSSIP target, in particular the maternal mortality ratio (MMR) which at 360/100,000 is far from the target goal of 131/100,000. MMR is, in many ways, also a proxy measure of the soundness of a health system, as large gains in MMR reduction are often related not simply to one or two single high impact vertical interventions (like the gains in mortality reduction that might be achieved by a mass bed net distribution or vaccination campaign), but rather due to a range of initiatives working simultaneously to strengthen all the building blocks of a health system. The country has not met health targets because of multiple reasons that include: low budgetary allocations, weak enforcement of health and human resource policies, poor infrastructure, and poor service delivery, among others.

Table 2: Performance for health services core indicators

Indicator	Source	2010/2011	2014/2015	HSSIP target
% pregnant women with 4 ANC visits	HMIS	32%	36.60%	60%
% deliveries facility based	HMIS	39%	52.70%	90%
% children< 1 year - 3rd dose Pentavalent vaccine	HMIS	90%	102.40%	85%
%children 1-year w/ measles vaccination	HMIS	85%	90%	95%
% children of HIV+ mothers tested by 1 year	EID data base	30%	58%	75%
Children U5 receiving malaria treatment within 24 hours of fever	HMIS	–	–	85%

Indicator	Source	2010/2011	2014/2015	HSSIP target
ART coverage of those in need	ACP	53%	_	57%

Source: AHSPR, 2014/15

Services falling under the context of vertical programs have performed significantly better. Uganda's MOH implemented a comprehensive TB/HIV collaborative intervention package in 2005. Integrated TB/HIV care now follows the "One Stop Centre" model. As a result of improved integration and coordination by the HIV and TB programs, by 2013 the proportion of HIV-positive population on highly active antiretroviral therapy (HAART) had increased to 62 percent (UNDP 2013), with 81.7 percent HIV positive people screened for TB (Uganda AIDS Commission, 2012). The proportion of HIV-positive TB patients on co-trimoxazole preventive therapy (CPT) increased from 70.9 percent in 2008 to 94 percent in 2012 (Uganda AIDS Commission 2012; WHO 2013). Similarly, the number of children exposed to HIV by their mothers who received the first polymerase chain reaction (PCR) test increased from 22,705 in 2011 to 70,634 in 2014. This progress has largely been attributed to the sustained efforts at scaling up antiretroviral therapy (ART) and directly observed treatment (DOTS)/Community-Based service delivery, including the eliminating mother to child transmission (EMTCT) program which has had the active participation of the First Lady of Uganda (AHSPR 2014/15).

At the same time, systems weaknesses mean that even well-resourced vertical programs still struggle in a number of areas. For example, while Uganda implemented the expanded and enhanced DOTS intervention to all districts in 2010, TB case detection, adherence monitoring via DOTS/CB DOTS, and sample referral for drug sensitivity testing all suffer from health systems issues related to the human resources crisis, weak referral networks, poor commodity supply chain and poor information systems. Community mechanisms for TB contact tracing and patient support for CB DOTS adherence are functioning less than optimally due to lack of sustainable funding (WHO 2013; MOH 2011).

Additionally, the private sector contributes close to 50 percent of the services delivered in Uganda (MoH 2010). The private sector is composed of PNFP and PFP health providers. PNFPs include facility-based PNFPs which offer preventive and curative care, and non-facility-based PNFPs, which offer preventive, rehabilitative, and palliative care. These are largely faith-based health facilities and are located in both urban and rural hard-to-reach areas. Most of the PFP sector, by contrast, is located in urban areas where they can make significant profit from their services (GoU, 2010). Quality of care and regulation in public and private sectors is monitored by the Ministry of Health's Quality Assurance Division, health professional councils and National Drug Authority, but they lack adequate resources to perform their responsibilities effectively. The quality assurance is enforced more in the public system and not fully effective in the private sector except for the medical laboratory where there is uniform quality control in both public and private practices (MoH, 2010). The linkage between the private and public health care system is ambiguous. There is a public-private partnership policy although its implementation and enforcement has been faced with difficulties. There is a weak quality standards enforcement mechanism in the entire health sector. As such clients and patients have limited access to quality care.

Service Management and Oversight Functionality

Health services are managed at national level by the Health Services Commission and affiliated Health Service Bodies, and downstream by Regional Management Committees (focused on RRHs), District Health Management teams (focused on HC Is – IVs and General Hospitals), Health Unit Management Committees (facility based at HC IIs, IIIs, and IVs), and Village Health Teams (community-based at HCIs). Health services management is hampered, at all levels, by systems weaknesses across other health systems building blocks (human resources crisis, supply chain

bottlenecks, information system gaps and inefficiencies, financing and cost barriers to service, poor governance and accountability).

At lower levels of the health system, Health Unit Management Committees (HUMCs) and VHTs have struggled to perform. For example, whereas the HUMCs are supposed to be avenues through which the health facilities receive the views from the community, oftentimes communities are not consulted and HUMCs do not relay information from the health units to the community (Rutebemberwa et al. 2009). VHTs, comprised of volunteers from the community, have been instituted in the country to; (a) act as the first level of care (Health Centre I), (b) facilitate the process of community mobilization and empowerment for health actions, and (c) collect data (MOH and Macro International 2008). VHT activities and scale-up are constrained by lack or non-functional equipment, funding and poor participation due to lack of incentives (MoH, 2010). The MOH's proposal is to introduce a formal cadre of community health workers that will work with the VHTs. The MOH is working towards finalizing the Community Health Extension Workers (CHEWs) policy and strategy.

Vertical programs – especially those related to HIV, malaria and TB have, again, done slightly better. HIV care programs have expanded the participation of communities in service provision by way of treatment buddies and patient-peer networks. Many organizations for people living with HIV have been formed, especially at the national level, to advocate for access to HIV treatment and rights (Kamunvi, 2005; Bass, 2005). The World Bank program on HIV also introduced community health initiatives to increase the agency and innovativeness of communities in HIV prevention, care, and support (Kiirya, 2004). All these initiatives have expanded the participation of communities in HIV and broadly in health care. Community involvement has also been promoted in other interventions such as Integrated Management of Childhood Illnesses, management of pneumonia and malaria in children, TB-DOTs, and control of Onchorceciasis using Ivermectin. Community volunteers are usually used to identify the patients and to distribute drugs.

5.3.4 Challenges

- Equitable access to health services by the poor remains a challenge in spite of the government's free National Minimum Health Care Package (UNMHCP). Many poor patients pay considerable out-of-pocket expenses for transport, drugs, and informal payments to access health services in the public sector, particularly secondary and emergency care. Quality issues also drive many poor people to user-fee-based PFPs and PNFPs. Studies have been done on the out of pocket (OOP) and catastrophic health expenditure but not on the impact of the UNMHCP had on OOP. Studies show that inability of government to fund a full UNMHCP has caused shortage of services at public health facilities. This has forced household to pay unofficial fees at public health facilities or are coerced to shift their demand for health care to the private sector which is expensive and unaffordable to the poor. As a result, a large proportion. Direct Out-of-Pocket health expenditure increases household poverty by 5.8% or reduces welfare by the same percentage. (Kagarura, Yawe, and Ddumba-Ssentamu, 2014)

- The referral system is not effective, and can be costly for poor patients and their families who must meet both direct (services and medicines in the secondary tier of the health system) and indirect (transport, food, costs incurred by accompanying family members) costs of treatment seeking.

- Despite the government's efforts to improve quality of care in the public sector - and the existence of service guidelines - quality remains poor. As a result, some clients do not seek health care, resulting in poor health outcomes. Additionally, the government has insufficient funds to adequately monitor and enforce regulations related to service delivery at public facilities, let alone those facilities in the PFP and PNFP sectors.

- Government continues to rely heavily on donors to provide resources to deliver health services, thereby preventing self-reliance and sustainability in the health sector. Donor financing initiatives are relatively short-term, and frequently vertical in orientation, targeting specific diseases, interventions, and regions. Lack of harmonization and coordination leads to a lack of uniformity and disparity of service coverage.

5.3.5 Extent of Implementation of Previous Assessment Recommendations

Three recommendations were made during 2011 Health Systems Assessment with regard to service delivery. These recommendations focused on increasing access and improving equity, improving coordination and integration, and investing in policy and tools to strengthen quality service provision. Implementation of these recommendations has been mixed.

Recommendation 1. Focus on removing access barriers in severely undeserved districts thereby improving equity among undeserved and poor populations.

i. Promote equity by eliminating financial barriers to health care.

Extent of Implementation: Government policy promotes free health services at government health facilities, except at private wings, to all Ugandans. However, the government is in the process of introducing health insurance where the people entitled to free health care are expected to pay premiums. In addition, government is expected to use all tax payers' money to contribute to the subscribers who are largely civil servants and later those in formal private sector employment. The poor, whose tax contributions are also being used, are excluded from the national health insurance scheme for about 15 years. This raises equity concerns. There is a fundamental contradiction, as the government policy is intended to promote free health care. Health services at government health facilities are of poor quality, inadequate or lacking. This causes a high OOP cost, as patients are coerced to pay unofficial fees at public health facilities or to purchase expensive health services from the private sector. Already, a large proportion of the population is suffering catastrophic health expenditures.

Financial barriers for poor people, women, and children remain. Voucher schemes in some areas, which have already been piloted, include: Kabarole district, Kamwenge district, Kasese district, Kyegegwa district, and Kyenjojo district in Western Uganda, and several districts in Eastern Uganda. There is a new voucher program for the private sector that will be piloted in the public sector for safe delivery, new born, and post-partum family planning. These programs have largely focused on reproductive health (ante-natal care, safe delivery, newborn, and post-partum care, and family planning). They are funded by development partners and the sustainability of these voucher schemes is not yet known.

ii. Reduce quality barriers to access.

Extent of Implementation**:** MOH standards of accreditation – along with accreditation mechanisms for facilities that demonstrate these standards of care - are in the process of being developed. The MOH, in collaboration with development partners, is also upgrading emergency obstetric care through training human resources and equipping facilities to perform caesarean sections, in order to improve access to quality maternal health services.

iii. Reduce human resources barriers to access.

Extent of Implementation: In 2013, there was a government mass recruitment of health workers deployed in hard to reach areas, especially midwives. Doctors were give incentives to work at the health centre IV level. Development partners also supplemented government

efforts to recruit more health workers. Whether the recruited staff have been retained to date with appropriate incentives is not yet documented. Recruited staff were expected to receive supportive supervision for quality health care maintenance. Whether, and to what extent the supervision is happening has also not yet been documented.

Development partners (e.g. CDC and Baylor College of Medicine) have provided funding to recruitment bodies public service commissions (District Service Commissions and Health Services Commission). The existing gaps are the lack of information on the retention of staff recruited by development partners, and the sustainability of activities. Health workers are required to meet continuing education requirements to maintain licensure from their professional councils in Uganda. Every health worker has a booklet that is filled and certified by the body providing continuous professional education.

iv. Improve referral networks.

Extent of Implementation: The referral system is still ineffective to cater for the poor due to many reasons; lack of funds for movement of the patient to the higher care level, lack of transport facilities, lack of the necessary medicines, logistics and competent human resources at the reference health facility, and lack of upkeep costs expected to be met by patients.

The transportation cost is high for patients and this affects their movement in the referral system. Currently, patients meet transportation costs when referred for further management. Most Ugandans, especially those living in rural areas, are poor and cannot afford these costs. Government and/or health insurance schemes should meet at least the cost of transporting referred patients to reference health facilities.

Recommendation 2: Enhance integration and improve coordination within the public healthcare system and between health sectors.

i. Improve coordination for vertical projects.

Extent of Implementation**:** There is some coordination of vertical projects at the national level to enhance coverage and efficiency via the institutional mechanisms mentioned in the stakeholder section, but less and unevenly so at the district level. Better coordination would ensure that vertical projects reach intended target groups and help avoid uneven coverage of essential programs.

ii. Strengthen the role of the private sector.

Extent of Implementation: The role of the private sector in public health is still ad hoc. The public-private partnership policy does empower the private sector to participate in professional councils and associations, or in any policy and/or regulatory reforms that affect the services they deliver. Professional councils and the National Drug Authority, both of which are responsible for registering and inspecting elements of service provision in the private sector, need further strengthening to better regulate private sector health provision.

Recommendation 3: Invest in the policies, tools and systems to strengthen quality of services across all sectors.

Extent of Implementation**:** Districts are engaged in developing quality improvement teams at health facility level. Some districts conduct integrated supportive supervision where technocrats team up with district political leadership.

5.3.6 Intra-sectoral Interactions

Service delivery is hampered by concomitant weaknesses in the human resources and medicines and medical supply chain building blocks of the health system. Without adequate staffing and supplies, services cannot be delivered, and when services cannot be delivered, patients lose faith in the public health system and health workers become demotivated, leading patients and health workers to abandon the public system for the private (and, not infrequently, leading health workers to leave service delivery altogether). Weak information systems prevent efficient targeting of services, while under-staffing of data managers means that the burden of data collection – especially at the primary health care level –falls mostly onto clinical and nursing officers already coping with high patient volumes. Service delivery, moreover, without clear, harmonized, and coordinated governance mechanisms ends up inconsistently and unevenly implemented. Finally, the coverage and quality of service delivery is hampered by disconnected health financing systems in which services related to disease-specific programs are supported, while other elements of service delivery rely on inadequate levels of basket funding spread thinly across districts.

5.3.7 Data and Information Gaps

- The retention of health workers following mass recruitment in 2013 and effect of incentives has not yet been documented

- While there is data on the role and scope of the private sector in health service delivery, there has not been a comprehensive assessment of the private sector's participation in the various partnership and coordination mechanisms, nor qualitative or quantitative analyses of the benefits and costs of participation (or lack thereof) for both the health system as a whole, and private sector partners in particular.

- While there is data on monitoring, supervision, and other quality assurance structures, it is understood that these structures are inconsistently effective at various levels of the health system, and across regions and districts. Detailed district-by-district data on quality issues and health worker performance has yet to be mapped in a scaled and meaningful way so as understand the context and content of why certain districts are successful and others are not.

- There is still little empirical measurement as to the impact of vertical approaches to health financing, programming and partnership on a) on health service processes and outputs and b) on health *systems* (as opposed to disease or problem-specific) outputs and outcomes. As the two primary development partners in the health sector in Uganda – U.S. government and the Global Fund – employ predominantly vertical approaches, it would be worth understanding better the financial, organizational and health outcome costs and benefits of such approaches.

- Stakeholder analyses of health service delivery – and other health building blocks – are often simply descriptive, with analyses limited to an assessment of roles, contributions, strengths, weaknesses, challenges, and best practices. A true stakeholder analysis – examining power, interests and position – of stakeholders in health service provision would be worth conducting in order to understand how stakeholder groups or coalitions contribute to or impede intervention/engagement.

5.4 Human Resources for Health

Human resources for health refers to how national health systems ensure a sufficient, responsive, high quality, incentivized, equitably-distributed health workforce aimed at the achieving the best health outcomes possible (WHO, 2007).

5.4.1 Stakeholders

Human resources stakeholders are much the same as those in health services delivery. However, they extend across all levels of the health system, and include both health sector and non-health sector actors. Some stakeholders may support service delivery but also support improvements to human resources for health across the sector.

- Health care providers delivering care from tertiary down to community level, including the community health workers, nursing officers, clinical officers, midwives, medical officers, lab technicians, pharmacists, specialist physicians and other cadres working out of VHTs, health centres, general hospitals, regional referral hospitals, and national referral hospitals.

- Health care providers providing care at private-not-for-profits (PFNP) clinics and hospitals, many of which are church-affiliated, include the human resources managers at the Uganda Protestant Medical Bureau, Uganda Catholic Medical Bureau, the Uganda Muslim Medical Bureau, and the Uganda Orthodox Medical Bureau.

- Traditional and complementary medicine practitioners.

- The Ministry of Health's Health Services Commission (which oversees health workers via interfacing with decentralized District Service Commissions), as well as affiliated Health Service Bodies (e.g. Central Public Health Laboratories) and relevant departments (e.g. Clinical Services, Planning, Finance and Administration, Quality Assurance, Nursing, Community Health) which provide training, supervision and quality assurance.

- District Service Commissions which are charged, under decentralized, with recruiting, hiring and paying health professionals on behalf of district-level local government according to guidelines, job titles, and salary scales provided by central government.

- The Ministry of Education under which university-level medical education falls, along with Makerere University School of Medicine and Mbarara University of Science and Technology, the two primary public sector medical schools (there are three other public sector medical schools, and five private sector medical schools overseen by for-profit and faith-based universities).

- Health professional councils (e.g. Uganda Medical and Dental Practitioners, Allied Health, Nurses and Midwives, and Pharmacy) which license and register providers.

- Development partners (bi- and multi-lateral donors) providing financing for the training, support, mentorship, and incentivization of health care providers.

- Technical partners that provide support for trainings, mentoring, supervision, and quality systems (e.g. WHO, UNICEF, Clinton Health Access Initiative (CHAI)).

- Regional implementing partners overseeing USAID and CDC sub-contracted programs that often pay salaries toward parallel service providers (e.g. lab assistants and technicians, sample transport "riders", health care providers that simultaneously implement or conduct research on behalf of the IPs. These have included EGPAF, MJAP, Baylor, JSI, MSH, PLAN, and URC.

- Local government executive committees and councils that provide oversight and, theoretically, mediate relations between patients, communities and health workers.

5.4.2 Resource Availability

Resource availability to address the key elements of the human resources crisis is problematic. While external financing is available for training, mentoring, supervision, and quality assurance, true incentivization of the health workforce ultimately requires the payment of adequate wages and provision of housing. Following public outcry and advocacy by parliamentarians and civil society, the 2012/13 budget committed 49.5 billion shillings ($14.7 million – October 2016) to enable the mass recruitment of 6,321 additional primary health workers, and doubled the wages of doctors working at Health Centre (HC) IVs (although not at lower levels of clinics). Poor wages have been cited in the Budget Framework Paper for the Health Sector 2015/16 as the primary cause of the service delivery gap in Uganda, with the MOH estimating that 129 billion shillings ($38.3 million) is required for health worker salary enhancement annually (Parliament Watch, 2015) Adding to these pressures, are wage discrepancies that occur when donor-funded regional IPs second staff to health facilities whose wages greatly exceed that of the local government employees they work alongside.

5.4.3 Functionality

Uganda has been a key stakeholder in global health workforce initiatives, being the site of the first Global Forum on Human Resources for Health in Kampala in 2008, convened by the WHO-led Global Health Workforce Alliance. The Kampala Declaration called for immediate action to end the health workforce crisis. Uganda's health human resources situation has since been the focus of numerous studies, and the health workforce has been prioritized in numerous policy and planning documents. The crisis, however, continues.

Health Worker Performance

The Government of Uganda recognizes that the health workforce situation is one of the major roadblocks to improved functioning of the health system. The 42,530 health workers employed in the public sector include 40,938 already on payroll, 1,092 new recruits presently working but are not yet on payroll, and 500 health workers hired on contracts by various implementing partners. With funding from USAID/PEPFAR, the government of Uganda was able to recruit health workers and fill the approved vacant positions in public health facilities in 2013. This increased staffing levels from 56 percent in 2010 to 70 percent in 2014 which still remains below the HSSIP target of 75 percent. National staffing levels at both the Ministry of Health and at all public facilities, moreover, are below the approved positions at all levels. Indeed, overall staffing levels at central-level institutions declined slightly from 79 percent to 77 percent in 2014, and is below the staffing norms for each level of care (MOH and USAID/SHRH Project Reports, 2015).

Table 3: Performance of the Health Human Resources System

Indicator	Source	2010/2011	2014/2015	HSSIP target
% approved posts filled by health workers (public health facilities)	HRIS	56%	70%	75%
% annual reduction in absenteeism rate	Survey	No data	No data	20% reduction from previous year
% of villages / wards with trained VHTs	HMIS	72%	75%	100%

Source: Annual Health Sector Performance Report for Financial Year 2014/15

Incentives have been introduced to attract health workers to fifteen remote and hard to reach

districts, and development partners have implemented a number of activities to improve the quality of pre-service and in-service training, with subsequent increased enrollment in pre- service training.

Nevertheless, low wages due to a limited wage bill, lack of adequate numbers and mix of specialists, inadequate availability of pre-service health training, and poor training capacity and quality among health training institutions continue to remain barriers to strengthening both the health workforce, and the overall health system to the extent that it is presently difficult to implement the minimum health care package (MOH 2011; AHSPR, 2014/15). Ministry incentives and retention strategies are not consistently implemented, and remuneration and incentivization is neither tied to workload nor to performance. Performance appraisal is rarely implemented and performance data is not readily available to the public. Additionally, there is an absence of widely understood mechanisms for action on poor performance. While the human resources crisis in the public sector has meant that the private sector now employees 48 percent of health workers in the country, 12 percent at PNFPs and 36 percent at PFPs, professional councils/bodies are limited in their ability to rigorously enforce consistent standards, codes of conduct and ethics across all sectors (MOH and USAID/SHRH Project Reports, 2015).

The health human resources crisis also exists among community health workers. There has been no significant investment in capacity-building of VHTs. Currently, 75 percent of the villages in the country have trained VHTs. VHTs received initial training and equipment to use while serving the population. They have not received refresher courses nor have their supplies ever been replenished. The equipment is currently dysfunctional and need replacement, and they also need refresher courses so that they are able to respond to changing health practices. AHSPR, 2014/15). The MOH's proposal is to introduce a formal cadre of community health workers that will work with the VHTs.

The results of pilot studies shown that Results Based Financing (RBF)/Performance Based Financing (PBF) initiatives can provide opportunities for increasing Human Resources for Health (HRH) attraction, retention, motivation, productivity and reducing absenteeism if they are carefully implemented with appropriate designs and adequate resources and in a favorable environment.

Health Workforce Management
Uganda does have a Human Resources for Health (HRH) policy (2007) which gives guidance on the planning, development and management of human resources, as well as a strategy for retention and incentivization which specifies how health care personnel should be treated as they enter, work in, and leave employment. There is also functioning Human Resource Information System (HRIS) that provides statistics for planning, development and management of human resources in the health sector. Implementation of the policy and strategy, however, has been very slow due to multiple and significant changes within the MOH leadership responsible for HRH issues in the last few years, and the fact that the low wage bill has prevented recruitment of the required level of human resources (Ssengooba et al. 2005; Ssengooba et al. 2010).

5.4.4 Challenges

There are numerous serious challenges to health human resources in Uganda that have, collectively, led to a major crisis among Uganda's health workforce:

- The Ministry of Health is unable to attract and retain staff across the country, due to a) a limited wage bill that does not allow for adequate recruitment; b) weak human resource management systems that make recruitment and performance management challenging; c) fragmentation of workforce information across several agencies responsible for different functions that limits effective human resources planning; d) lack of incentives such as competitive remuneration that results in high attrition as health workers opt for better opportunities elsewhere.

- The salaries of all the cadres of health workers in Uganda are not commensurate to the

demands of the services they provide and related workload. This has resulted into high levels of late reporting for duty, absenteeism, dual employment, and health worker migration, both nationally and regionally, to both the private health and non-health sectors. Additionally, lack of integration of disease-based programs (HIV, TB) and the reliance of such programs on parallel human resources systems set up by government implementing partners exacerbates attrition of public health workers as a result of wage disparities.

- There is a skewed distribution of health workers between rural and urban settings and between districts far and near the capital city. This has resulted in some districts not filling the minimum approved staffing levels**.** Most notably, distribution of doctors and specialist health professionals is skewed toward hospitals and urban centers. Significant human resources for health gaps exist in the public sector across all health cadres, and vacancy rates are extremely high in rural districts, lower level health units, and hard-to-reach-areas. Task-shifting without policy guidance has impacted quality of care.

- There is a lack of an effective bonding system for health workers whose training was sponsored by government. Health workers whose training was funded by government are given academic certificates upon completion of studies without having served the public sector for a specified minimum period of time.

- There is weak enforcement of professional standards and ethics, as well as poor support and mentoring for health workers. This has led to de-motivation and reduced commitment to duty, with consequences such as late coming, absenteeism, and loss of confidence in health workers by the public. Also, pre-service training programs lack quality, and there is patchy enforcement of uniform standards across private and public sector training institutes.

- Career progression structures are unclear and poorly implemented with implications on promotions and new appointments of health staff.

Besides lack of financial incentives, health workers are given insufficient housing allowances that, after taxation, prevent them from finding affordable accommodation near health facilities. Many health workers travel long distances between their workplace and homes leading to late coming and absenteeism, especially during the rainy season or when there is a breakdown of the public transport system. This is worst felt during emergencies, when health workers are often unavailable because of lack of nearby staff accommodation and where available the accommodation is in a very poor and dilapidated. The list of problems facing the health care system is endless including gross under-staffing, inadequate pay, crumbling infrastructure, limited and poor-quality staff accommodation, shortages of medical supplies and equipment, and poor supervision (Mutambi). CSOs have revealed that majority of health workers still lack basic accommodation. This has also exacerbated the problem of absenteeism and vacancies in the health system, and led to an unequal distribution of health workers. There are reports of midwives being attacked by thugs on their way back home late in the night. Others have failed to show up for emergencies due to lack of transport and long distances between their homes and the health centre. A recent Ministry of Health Joint Review found that on average only 20-25 percent of health workers were accommodated at their work places. Civil society groups recommend that all health workers should be housed in the proximity of the respective health centres and hospitals in which they work, for efficiency and effectiveness. (Observer, Health workers)

5.4.5 Extent of Implementation of Previous Assessment Recommendations

There were eight recommendations in the previous assessment focused primarily on incentivization, performance, training and supervision, and contracting out to the private sector.

Recommendation 1: Implement budget-neutral incentives for rural and hard-to reach postings.

Extent of Implementation: Limited-time rural postings and preferential admittance to higher learning have not yet been implemented. Some preferential selection of next posting has occurred but shifting unneeded urban allowances to rural posts has not been attempted. Government, with support from development partners, has implemented the attraction and retention strategy but has not yet been successful.

Recommendation 2: Implement employee satisfaction surveys and interventions as part of human resource management (HRM) enhancements.

Extent of Implementation: The Capacity Program has implemented a health worker satisfaction survey and found that health workers view it acceptable to be posted anywhere in the country, provided they are facilitated to do their duties. Level of salary was found not to be a significant determinant of acceptance of where a health worker would be deployed.

Recommendation 3: Make compulsory the use of the existing performance appraisal system to set performance and development goals, and provide feedback on individual performance.

Extent of Implementation: Performance appraisal of human resources in the sector has been weak and irregular and usually targeting promotions or incentives in all districts. Absenteeism at health facilities has been high until recently when payment was tagged to attendance and approval by the in-charges and the District Chief Administrative Officer. Attendance in terms of reporting and signing in the attendance book has increased implying that absenteeism has reduced. This may not necessarily translate into providing quality services as medicines and logistics remain in short supply, and the motivation of health workers is poor.

> *"Some SDS supported districts have already shown a decrease in health worker absenteeism rate and easy access to payroll."* (KI MOH)

Recommendation 4; Provide recognition for good performance through the public posting of performance data.

Extent of Implementation: The Ministry of Health publishes a League Table that shows performance levels of the different districts in Uganda.

Recommendation 5: In the area of pre-service education, public and private sector coordination is required to ensure that the right mix of cadres is being produced across the whole health system.

Extent of Implementation: This is not yet fully possible as most trainees are self- sponsors and undertake courses of their own choice that at times do not tally with the needs of the health sector.

Recommendation 6: Accreditation should be strengthened so that health workers can be licensed to practice.

Extent of Implementation: Professional councils that license and regulate health professional still lack adequate resources to enable them perform their roles fully.

Recommendation 7: Explore contracting out to the private sector to fill acute vacancies in the public sector in undeserved areas.

> Extent of Implementation: The wage bill is still too small to allow local authorities to contract the private sector to fill vacant position.

Recommendation 8: Scale up HRM and leadership training as planning, developing, and supporting an effective health workforce requires specific skills and knowledge.

> Extent of Implementation: Ministry of Health in collaboration with the Capacity Program trained district health workers in planning and leadership.

5.4.6 Intra-sectoral Interactions

Uganda's health human resources crisis is perhaps the greatest impediment to a well-functioning health system. Without adequate coverage of, and support for, health workers, services cannot be delivered, data cannot be collected, medicines and medical supplies cannot be managed or deployed, and national guidelines and strategies cannot be implemented. Demotivated, poorly incentivized, and unskilled health workers cannot provide effective and responsive health services in a matter that is efficient and provides value for money, which undermines health financing reforms. When such health workers then eventually leave the system, the massive amount of resources invested in their pre- and in-service training are wasted. At the same time, demotivation is also driven by dysfunction across the other health systems building blocks. Uganda's health financing system has failed to find a way to adequately and sustainably pay and incentivize its health workforce. Medicine and medical supply chain bottlenecks mean that health workers lack the basic equipment to do their jobs. Uncoordinated, and sometimes excessive, data collection initiatives mean that the job of data collection often falls upon clinical and nursing officers who are then faced with an unbearable workload as they simultaneously are tasked with treating patients. Moreover, health governance structures without adequate feedback mechanisms mean that health workers rarely are able to have a voice in the plans and strategies that shape their daily lives.

5.4.7 Data and Information Gaps

There is a lot of data and information available on the health workforce in Uganda, but gaps exist:

- In spite of the overwhelming evidence base as to the causes, consequences of, and potential solutions to the present health workforce crisis in Uganda, there is little analysis of the contextual factors driving the implementation (or lack thereof) of solutions.

- A lot of data on health human resources is aggregated, focused on national level or district level statistics, and assumes drivers of poor recruitment, retention, motivation, and performance are commonly shared throughout Uganda. There is little understanding of how context varies district-by-district, even though recruitment, payment, and direct oversight of health workers is actually managed by local government and, thus, affected by local settings and conditions.

- Data on performance – of individual health workers, health facilities, and health management units – is primarily aggregated at district level and neither transparent, centralized, nor readily available. It is not clear either whether/how data available on performance triggers remedial action, other than serving as a strategy for targeting donor-funded pilot projects.

- Stakeholder analyses of the health human resources building block are – like with other health building blocks – often simply descriptive discussions of the composition of the health workforce, the challenges facing health workers, and the challenges faced by central government

in retaining health workers. A true stakeholder analysis – examining power, interests and position of stakeholders - would be worth conducting in order to understand how stakeholder groups or coalitions contribute to, or impede ending, the current crisis.

5.5 Health Financing

Health financing represents the processes, mechanisms, institutions and stakeholders within the health system charged with mobilizing and efficiently and equitably allocating, adequate funds for health, first, so that those who need to utilize services can do so without either financial barriers or risk of financial catastrophe and, second, so that providers and patients are guided toward efficient, non-wasteful provision and consumption of services (WHO, 2007).

5.5.1 Stakeholders

- The Office of the President
- Ministry of Finance, Planning and Economic Development
- Sector Budget Working Group within the Senior Management Committee
- Social Service Committee and Health Sub-Committee of Parliament
- Ministry of Health, and the committees, and sub-committees within that work on health financing issues (e.g. Health Policy Advisory Committee)
- Bi- and multi-lateral donors that provide programmatic health sector assistance (US Government, Global Fund, GAVI), budgetary support to the country via basket funding (UK Government, European Commission, World Bank, Belgium, Sweden), or specific project support to civil society organizations engaged in health projects (European Commission).
- Various high- and mid-level institutional forums for government-partner dialogue (e.g. the Inter-Agency Coordinating Committee, the Health Development Partner Group, the Joint Review Missions for the Health Sector, the National Health Assembly, the Health Sector Working Group and other technical working groups and sub-committees, the Global Fund Country Coordinating Mechanism.
- Uganda Bureau of Statistics which helps collate national financing statistics.
- Private- for-profit health insurance schemes.
- International and local non-governmental and civil society organizations – both in and outside of the health sector – that use vouchers, CCTs, community-based health insurance and other demand-side financing to generate uptake of service provision.

5.5.2 Resource Availability

As with resources available for strengthening governance, resources directed toward strengthening financial systems or health financing mechanisms are often buried under general budget lines for

national or local government "capacity building" or "transparency," while resources directed toward generating demand for services (e.g. vouchers, CCTs) are hidden within health program budgets. Similarly, community based insurance or conditional cash transfer initiatives may be part of non-health sector anti-poverty programs. A framework for delineating resources currently available for health financing would be useful, as well as a comprehensive costed needs assessment for the health financing building-block.

5.5.3 Functionality

Government Systems

The established government funding process starts when the Minister of Finance, Planning and Economic Development (MOFPED) issues a budget call circular and a budget conference in which the sector ceilings - set by the MOFPED in consultation with the President - are communicated. The budget proposed by the health sector is then discussed in further detail within the Sector Budget Working Group. The Sector Budget Working Group is a Technical Working Group of senior management working from a three-year rolling plan, a sector budget framework paper (including a statement of priorities and an assessment of previous budget performance), and a three-year medium term expenditure framework, following the decision-making process of the Ministry of Health. The Minister of Health then presents a Ministerial policy statement to the Health Sub-Committee of Parliament, along with the budget and expenditure frameworks and a report on performance of the health sector in relationship to the previous budget (MOH, Ministerial Policy Statement, 2015). This process is clearly established and works in a timely manner in order to ensure the budget is presented to Parliament when it meets in June, and there is a functional system for financial management (IFMS) in place.

Government health expenditure as a percentage of total Government expenditure has averaged around 8.4 percent annually for the last 5 years, although from FY 2010/11 to FY 2014/15 it decreased from 8.9 percent to 8.5 percent, and remains less than the Abuja target of allocating at least 15 percent of the government annual budget to improve the health sector. These fluctuations in government health expenditure should be placed in context however, as total government expenditure, total government expenditure on health, and total overall expenditure on health have all actually increased, thus the fluctuations more likely represent the fact that some sectors like energy and works have received a bigger proportion of government expenditure, while total health expenditure has seen large increases in project-based external financing AHSRP 2010/2011-2014/2015).

Table 4: Government allocation to the health sector 2010/11 to 2014/15

Year	GoU Funding (UGXbns)	Donor Projects and GHIs (UGXbns)	Total (UGXbns)	Per capita Public Health Expenditure (UGX)	Per capita Public Health Expenditure (US $)	GoU Health Expenditure as % of Total Government Expenditure
2010/ 2011	569.56	90.44	660	20,765	9.4	8.9
2014/ 2015	748.64	532.50	1,281.14	37,130	13.5	8.5

Source: AHSPR 2014/15

Perhaps a better measure of functionality of government health financing systems is per capita total expenditure on health and per capita government expenditure on Essential Medicines and Health Supplies (EMHS). Per capita total expenditure on health in 2013 was US $59, a 40 percent increase from 2005 ($36), but a decrease from $62/per capita in 2010. Meanwhile per capita government expenditure on Essential Medicines and Health Supplies (EMHS), was US $2.4 in FY 2014/15, well below the estimated requirement in the HSSIP of US $12, and with more than half of this going to HIV, TB and malaria commodities and only about US $1 going to basic essential medicines.

Decentralization empowers local government to plan, budget, and spend funds allocated to the district health sector. This is not happening partly because; (1) power and budget is centrally controlled, (2) the funds allocated for health are conditional grants with little space to re-allocate them, (3) and funds allocated to health are inadequate and released late to allow for implementation of the planned activities in scheduled time.

The number of districts is on the increase which implies an increase in the wage bill and less funds will be available for service delivery and facility-based capacity building. New districts require capacity for budgeting, planning, tracking funds, and other functions. Most new districts do not yet have the capacity for budgeting, planning, tracking funds, and other functions, although government has earmarked support to facilitate new district systems strengthening. Currently program based budgeting is limited to projects. There is no known published study on program based budgeting, budget release, execution and lack of finances at district level to operate lower health facilities. Funding to Health centres severely constrained. The power and control of the budget is effectively under central government. The districts and other self-accounting institutions are only left with implementation of the budget. The funds disbursed to these institutions for health activities are conditional grants with little space to re-allocate them.

> *" Health centre IV receive about US$200, health centre III about US$76 and Health centre II about US$30 per month for recurrent non-wage expenditures excluding drugs"* (Key Informant, District level).

External Financing

There is substantial dependence by the Government of Uganda on door funding for health. External sources contributing to the health sector are largely composed of multilateral, bilateral and philanthropic agencies, as well as banking institutions. Forms of donor assistance to Uganda takes place both on-budget and off-budget. Off-budget donor contributions alone account for around 40-50 percent of combined donor and government health sector funding.

Development partner assistance, however, is often targeted to specific vertical programs such as HIV/AIDS, malaria and tuberculosis, with government financing filling the gaps for essential health services. This has unintended effects on both other disease programs and on provision of basic health care. Donor dependence combined with a low government budgetary allocation to the health sector has led to increased risk of catastrophic health expenditures for poor and vulnerable groups attempting to access essential health care, as well as an insufficient availability of funding for neglected tropical disease and other health problems. Additionally, there is the long-term challenge of sustaining expensive health interventions financed by external parties, such as antiretroviral drugs (Global Fund, PEPFAR) and vaccines (GAVI), as well as running and maintaining the expanded health infrastructure that vertical, donor-funded programs have put in place to achieve program objectives and outcomes (Okwero et al. 2010).

Risk Pooling Mechanisms

Although user fees at public health facilities were eliminated in 2001 (except for hospital services for patients able to pay), household out-of-pocket expenditures – including those for drugs, supplies, and informal payments – are a major source of health financing in Uganda, estimated at 37 percent of total health expenditure, and 64 percent of private expenditures on health (AHSPR,2014/15, WHO, 2014). While the HSSIP target for proportion of households experiencing catastrophic payments is 13 percent, the current proportion is estimated at 49 percent, up from 37 percent in 2011 (AHSPR, 2014/15). Formal sector employers finance their employees through private health insurance but this covers only a small proportion (<1 percent) of the population in regular employment (MOH, 2010). High out-of-pocket expenditures places an unacceptable burden on the poor.

Pooling resources to cover health expenditures spreads the risk of incurring health costs across a group of people, and protects them from catastrophic health expenditures. Government health spending funded by taxes and on-budget donor support is the main pooling mechanism in Uganda. Private insurance and community health insurance schemes play a much smaller role and face a number of barriers including low coverage and the inability to raise adequate resources to meet members' cost of care. There is plan to introduce a three-part National Health Insurance Scheme (NHIS), made up of social health insurance for the public sector civil servants, community health insurance for the informal sector, and private commercial health insurance for the formal private sector (Kagumire 2009, UCBHA, 2014). The national health insurance scheme has not been implemented largely due to absence of a policy framework to guide the scheme's operations, lack of technical management capacity, and lack of a financial implementation clearance from the Ministry of Finance, Planning and Economic Development.

5.5.4 Challenges

- The health sector remains both underfinanced compared to need and dependent on external donors, thus cannot effectively and efficiently deliver UNMHCP and other essential services. Uganda's high disease burden and declining tax revenues make sustainability of progress a challenge. There is, moreover, a lack of an explicit link between financing and results.

- Economic growth and high population growth has led to an increasing non-communicable disease (NCD) burden that is starting – and will continue - to exert extreme stress on the limited budget allocations to the health sector. Uganda is reaching an epidemiological tipping point where the health sector will be required to simultaneously finance *both* the diseases and health problems typical of developing countries (HIV/AIDS, malaria, TB, maternal and neonatal complications, diarrhea, pneumonia, vaccine-preventable childhood illnesses), and those non-communicable diseases and health problems that typify middle income countries (diabetes, cancers, accident and injury). When this happens, the health financing structure is not designed to cope.

- Increased number of new districts means more expenditure on administration, and less on service delivery and capacity building. New districts have limited capacity for budgeting, planning, and tracking funds, and while earmarked support is available from government, there is no clear sense as to whether this support has had impact.

- Pooling resources to cover health expenditures faces several challenges in Uganda that include, in terms of national health insurance, a low tax base and lack of technical management capacity and policy frameworks to guide the operation of a national health insurance scheme and, in terms of private insurance, low coverage and the inability to adequately raise resources to meet members' cost of care.

Financing remains inefficient, with inequitable spending on inpatient-outpatient services, urban-rural health facilities, and curative-preventive services, with insufficient government funds to cover growing costs of medicines and increasing number of stock outs. There is insufficient fiscal space for operating services at the lower levels and supervision/monitoring/ regulation at the district level partly because; authority and funds are controlled centrally. Late and small releases of funds are quite common and a real problem in Uganda. Limited amount releases of same amount each quarter not taking into account the seasonality of some diseases like malaria or if there is an emergency or outbreak prevents bulk procured of commodities at reasonable rates.

The power and control of the budget is effectively under central government. The districts and other self-accounting institutions are only left with implementation of the budget. The funds disbursed to these institutions for health activities are conditional grants with little space to re-allocate them. Budget ceilings (indicative planning figures) are provided by the central government during the budgeting stage; cash is released to districts and other self-accounting units on quarterly basis any time in the quarter according to revenue collected and often very late.

5.5.5 Extent of Implementation of Previous Assessment Recommendations

Five recommendations were made during 2011 Health Systems Assessment with regard to financing. These recommendations focused on reducing out-of-pocket expenditures, increasing funds for pro-poor services, engaging the private sector, and improving coordination and harmonization of health financing. Implementation of these recommendations has been mixed.

Recommendation 1: Address high out-of-pocket expenditures through a variety of pro-poor financing mechanisms.

i. Support or invest in supply-side pro-poor financing mechanisms.

   Extent of Implementation**:** The process of introducing a national health insurance scheme could be in advanced stages but has not received financial implementation clearance from the Ministry of Finance. The proposed national health insurance scheme is designed to initially focus on the formal sector, then those in stable private sector employment, and later after many years to take in those in the informal sector that include the poor. Government is planning to use all tax payers (including the poor) money to contribute about 8 percent to the subscribed members; yet, the poor will join the scheme over 15 years down the road. This raises equity issues as it is not pro-poor who need more health care. Government needs to consider other schemes for the poor such as supporting community-based health insurance schemes, performance-based health financing, etc.

   The UNMHCP is currently undergoing reassessment to ensure it fits within the available US $10 per capita the government spends instead of the unfeasible US $40 per capita target. The MOH already works with development partner's districts agreed upon by either party. GOU has also created market incentives to encourage micro-finance institutions but they are not yet into creating health savings plans in rural areas.

ii. Support or invest in demand-side pro-poor financing mechanisms.

   Extent of Implementation: Vouchers for specific health services are being piloted and brought to scale in several districts and CBHI schemes are on the increase, but these are still weak limited in reach and are donor dependent.

Recommendation 2: Increase and focus scarce public funds on pro-poor services and delivery.

Extent of Implementation: There are efforts underway to increase the proportion of funding through the general national budget. Health as an economic and development priority is also appearing on the platforms of the presidential candidates. Increasing public funds for pro-poor services, however, will likely become more difficult as the population continues to grow and the establishment of new local governments exerts further strain on the existing public health sector.

Recommendation 3: Purchase health services and drugs for the poor.

Engage the private sector through various means.

Extent of Implementation: Attempts have been made by the MoH to subsidize private providers (especially PNFP providers) through budget contributions and tax exemptions to deliver the UNMHCP at affordable prices to the users. PNFPs have participated in voucher schemes and are engaged in delivering ART services for PLHIV. In addition, health insurance schemes have been initiated to reimburse private providers for the cost of delivering quality services, but this covers only a small proportion of employees in formal and long-term informal employment.

Recommendation 4: Improve coordination of all sources of financing of health.

Extent of Implementation: MOH has incomplete data on total donor funding dedicated to health and needs to work closely with the MOFPED and enhance tracking to systematically collect standard data on donor funding. The Ministry of Health institutionalized national health accounts although it is still not updated. The latest report is of FY2011/12 (MOH, 2013). There is also advanced plan to institutionalize National HIV/AIDS Spending Assessment (NASA).

> *"The plans for institutionalizing National AIDS Spending Assessment with support of the Makerere University School of Public Health are in advanced stages starting with training in May 2016"* (Key Informant, Uganda AIDS Commission and School of Public Health).

5.5.6 Intra-sectoral and Multi-Sectoral Interactions

Health financing in Uganda is impacted by a number of bottlenecks across other elements of the health system. For example, the medicines and medical supply chain still works with a push system due to poor supply and demand forecasting, creating unpredictability, inefficiency, and wastage. The health information system is not designed to facilitate evidence-based planning, budgeting and decision making. Human resources issues have not been solved, and the health financing system – both nationally and at district level - is not structured to address the crisis in a sustainable way. Districts lack the ability to raise independent financial resources for their health workforces, although they are charged with hiring and paying them. Lack of coordination, moreover, means that demand-side health financing mechanisms (vouchers, CCTs) may be buried in initiatives outside of the health sector, such as anti-poverty projects and not necessarily align to health sector objectives.

5.5.7 Data and Information Gaps

- As with the other building blocks, a contemporary stakeholder analysis of the actors involved in Uganda's financing system is urgently needed, including a substantive assessment of the power, positions, and interests of each stakeholder's ability to influence financing policy, levels, and

budgets and a contextual understanding of how and why they have such influence. In order to shift a prevalent perception in Uganda that health is not a productive sector but consumptive one (Zlatunich, 2012), there needs to be a stronger evidenced-based case made that health has been a central input into the economic development of Uganda and can be linked directly to Uganda's progress on poverty reduction (WHO, 2001), as well as research carried out as to how to best leverage findings from such a study to affect paradigm change.

- Comprehensive, reliable, centrally located information on health financing -particularly data on the contributions of various financing resources (public, private, households, and donors) and on amounts of expenditure on various health activities – is either unavailable or hard to access. There is also a lack of understanding of the financial resources available that specifically target health financing systems strengthening: who is/have been providing such funds, at what level, and with what impact? There are limited costing of services studies linking the outputs of UNMHC package and current level of financing. Also there are no modalities of linking program budgeting to health sector outputs.

- While there is data on proportion of out-of-pocket expenditure, there is still little known as to where, how, and in what contexts these monies are spent, nor has there been a good qualitative and quantitative assessment of the consequences of high out-of-pocket expenditure for both households, and for the Ugandan health system as a whole.

- There is no readily available district-by-district assessment of individual district capacity for budgeting, planning, and tracking funds, nor is there systematically collected information as to the factors and contexts that determine why some districts are more/less successful at financial management than others.

- Data is needed to fully understand how Uganda might attain the Abuja target of spending 15% of overall government expenditure on health, and the potential costs, benefits, and implications both within the health sector, and to other sectors, of doing so. There are no elaborate costing studies on care of various conditions including; HIV/AIDS, tuberculosis, malaria, and deliveries. There is an on-going attempt by USAID/UPHS by to provide guidelines for professional fees for medical and dental doctors and thereafter procedures[2]. Indeed there is also lack of capacity in the Ministry of Health headquarters to carry out health economic analysis like costing, cost effectiveness, developing an investment case. A case ought to be made to the MOFPED to increase resources in health or fun a particular initiative etc.

5.6 Health Information Systems

The health information system (HIS) refers to the generation, compilation, analysis, synthesis, dissemination and utilization of reliable and timely information on health determinants, health systems performance and health status. It includes not only health sector generated Health Management Information systems (HMIS), Integrated Disease Surveillance and Response (IDSR) systems, National Health Accounts (NHA), and facility or community health surveys, but also population wide socio-economic censuses, surveys, and vital registration systems carried out by non-health sectors.

5.6.1 Stakeholders

- Ministry of Health Resource Center oversees information policy, as well as the routine collection of data through the HMIS and the Integrated Disease Surveillance and Response

[2]Personal Communication from the Consultant of USAID/UPHS

(IDSR) framework, as well as the relevant committees (HPAC) and working groups tasked with utilizing health information for evidence-based decision making.

- Formerly, the Uganda Registration Service Bureau (URSB) was tasked with carrying out vital registration of birth and death, and sat under the Ministry of Justice and Constitutional Affairs. The Registration of Persons Act (2015), however, has led to the transfer of vital statistics to the National Identification Registration Authority (NIRA) in January 2016.

- Uganda Bureau of Statistics is the main generator of social and economic population data in the form of, for example, the national census, the Uganda Demographic and Health Survey, and the Uganda National Household Survey.

- National Technology Authority coordinates and regulates information technology services in Uganda including data security.

- Other non-health sector line ministries (e.g. Ministry of Local Government, Ministry of Education and Sport, Ministry of Water and Environment, Ministry of Gender, Labor and Social Development) that collect information of relevance to health sector planning.

- Bi-lateral and multi-lateral donors provide funding and support information systems policy formulation (GAVI, Global Fund, US Government).

- Technical partners (e.g. WHO, UNICEF, UNFPA UNAIDS, Program for Appropriate Technology in Health, CHAI, PLAN) provide technical assistance, support, and implementation research on behalf of health information system hardware and software, as well as vital registration.

- Academic researchers

- PNFP faith-based religious bureaus and service provider NGOs (e.g. TASO, Mildmay) collect and contribute data through national and district health information systems.

- Various high- and mid-level institutional forums are tasked with utilizing health information for planning, decision-making, budgeting and implementation (e.g. the Inter-Agency Coordinating Committee, the Health Development Partner Group, the Joint Review Missions for the Health Sector, the National Health Assembly, the Health Sector Working Group and other technical working groups and sub-committees, the Global Fund Country Coordinating Mechanism/CCM).

- Local Councils, DHMTs, District Population Offices, Health Unit Management Committees, hospitals and health facilities, and VHTs, plan, collect, compile, analyze, and send for aggregation district-level data to the overall HIS, manage the DHMIS and community-based health management.

5.6.2 Resource Availability

Resource availability for health information systems depends on which elements of the systems were targeted for strengthening by vertical programs. HIV/AIDS, TB, malaria information systems have been strengthened because of reporting requirements by both the Global Fund and the US Government, and because of specific issues related to the management of patients and medicines of these particular diseases. Resource availability for routine data collection, however, is less well-

established. UBOS, for example, does not have a dedicated funding source for its activities, and must go to development partners every time a routine survey or census comes up. Human resources for data management are weak especially in districts and health facilities, and HMIS and IDSR strengthening rely on external initiatives.

5.6.3 Functionality

Uganda's national health information system (NHIS) is overseen by multi-sectoral infrastructure involving, at national level, the MoH's Resource Centre and IDSR Division, the Uganda Bureau of Statistics (UBOS), the Ministry of Justice's Uganda Registration Services Bureau (URSB), and various technical partners research institutions and, at district level, Local Councils, DHMTs and other relevant local government offices.

The country's Health Management Information System involves both aggregated data and disaggregated data via DHIS2 (District Health Information System 2), an electronic web-based reporting mechanism that helps create disaggregated information). It also involves the Integrated Disease Surveillance and Response (IDSR) system (tracking epidemic-prone diseases, diseases targeted for eradication/elimination, and selected diseases of public health importance), community-based health management information system data, and disease specific or health problem specific surveys (e.g. Uganda AIDS Sero Survey 2011, the Uganda Malaria Indicator Survey 2015, the Non-Communicable Diseases Survey 2015). The country has an E-health Technology Framework and Draft E-health Strategy.

Additionally, vital statistics formerly collected by the Uganda Registration Services Bureau (URSB) were transferred to National Identification Registration Authority (NIRA) in January 2016 following passage of the Registration of Persons Act (2015). Uganda has extremely low (30%) birth registration for under-fives, although prior to the transfer of functions to the NIRA, URSB began deployment of a Mobile Vital Records System (MVRS), becoming the first African country to embrace technology in the issuance of birth registration certificates. URSB also developed statutory instruments to designate Health Centre IVs as birth and death registration districts (URSB, 2015).

Surveys and Census are handled by the Uganda Bureau of Statistics (UBOS) (MOH HSDP, 2015; New Vision 2016). UBOS carries out the population and housing census, household surveys, the demographic health surveys (UDHS), and any other health related survey. The household surveys have been carried out every 2-3 years since 1999, with the 2013 Uganda National Household Survey (UNHS) the fifth in the series. UBOS collects socioeconomic data measuring human development goals with a particular focus on Millennium Development Goals (MDGs) and National Development Plan (NDP) indicators (UBOS, 2015). UBOS also conducted the 10th National Population and Housing Census in August 2014, the purpose of which has been to provide benchmark demographic and socio-economic data for use in planning, policy formulation and program evaluation.

District health office is staffed with District Biostatisticians, District Population Officers, and District HMIS Focal Points, along with Health Unit Records Officers based out of facilities to feed district data into the Ministry of Health's Health Management Information System. Data are used for Ministry of Health and district planning in terms of planning, commodities, financing and budgeting, human resources, infrastructure, management, developing regular district and hospital league tables, and monitoring progress against the HSSIP. Enormous investment has been made in support of DHIS2 to capture data missing in the HMIS that was used over time.

In spite of these systems, the HIS remains understaffed and underfunded. For example, the scheduled National Population and Housing Census was pushed from 2012 to 2014 because the government could not raise funds (UBOS, 2015 and Observer and New Vision). Many districts and facilities do not have information and data positions fully staffed due to lack of funds or problems with recruitment. Information does not necessarily feed into evidence-based planning, budgeting or

decision making. There is inadequate and irregular feedback on data collected, inadequate support for decision-makers attempting to make sense of it, and few mechanisms in place for information to trigger feedback and action. There is also limited availability of infrastructure, including electricity, reliable mobile phone network connections, and internet penetration (UBOS Statistical Abstract 2014).

> *"We report on Infrastructure on an annual basis. The information on financing is one of the areas that are usually not completely filled by health facility managers. The HMIS does not capture HRH data but we use another data base of HRIS and the two systems do not communicate with each other (DHIS2 &HRIS). In regard to commodities, the HMIS only captures the tracer medicines. Data use for decision making is extremely low both at district and lower level"* (Key Informant, District level).

5.6.4 Challenges

- There is limited capacity at the MoH's Resource Centre, and at lower level health management units and health facilities to handle HIS. The majority of the HCIIs don't have the HIS personnel, even though HCIIs represent the primary contact between the formal health sector and the community (Yourchuck, et al., 2014).

- There are many gaps in the current HIS. Its current focus is on routine data and disease surveillance systems (MOH HSDP 2015). There is limited capacity at the MoH's Resource Centre, and at lower level health management units and health facilities to handle HIS. Majority of the HCIIIs and all HCIIs do not have the Health Information System (HIS) personnel; yet, these are primary contact points between the formal health sector and the community (Yourchuck, et al., 2014).

- UBOS does not have consistent designated sources of funding census, UDHS and other vital surveys.
- There is still no comprehensive approach to birth and death registration (AHSPR, 2014/2015).

- Most private health facilities are still lacking the required human resources, equipment and infrastructure to effectively report. This is largely due to lack of HIS tools, capacity gaps in utilization of HIS tools, and lack of feedback on reported data,

5.6.5 Extent of Implementation of Previous Assessment Recommendations

The previous assessment makes three recommendations relating to improving data utilization for decision making, improving data collection and quality, and improving support and supervision of data managers.

Recommendation 1: Improve data utilization by using HIS data for decision making, like for budget allocation and staffing.

> Extent of Implementation: There is limited use of data in decision making especially in determining staff requirements and budget since most the budget is allocated based on incremental budget. Health financing data are not collected in the routine HMIS. It is very scanty at the district levels but can be obtained from the Ministry of Health and Ministry of Finance, Planning and Economic Development. Funds from the Development Partners are usually not captured by the HMIS.

Recommendation 2: Improve data collection and data quality.

i. PFPs and CBOs should regularly submit data through the HIS.

   Extent of Implementation: There is an inability to generate comprehensive reports from (and about) the private sector, as well as a lack of a mechanism to provide feedback to the private sector. PFP facilities are still lacking the required human resources, equipment and infrastructure to effectively report.

ii. Strengthen and enforce supportive supervision of HIS at all levels.

   Extent of Implementation: HIS strengthening and supportive supervision is ongoing with assistance from GAVI and GFTAM.

iii. Train VHTs in appropriate data management for the HIS at the district level.

   Extent of Implementation: Community-HIS training materials have been developed.

iv. Recruit for vacant Biostatistician and Health Information Assistant posts and improve advocacy for recruitment for available posts at the local government

   Extent of Implementation: Implementation has been limited by budget allocation for salaries.

v. Promote IT and e-health.

   Extent of Implementation: There is a framework (strategy) and draft e-health policy.

Recommendation 3: Significantly increase financing for supportive supervision, to ensure steady availability of forms and registries, and the recruitment and training of qualified data staff for the HIS.

Extent of Implementation: Implementation has been constrained by the limited budget allocation to the MoH's Resource Centre and by limited PHC funding to districts.

5.6.6 Intra-sectoral Interactions

Health information is critical if all the other health system blocks; governance, human resources, service delivery, health financing and medicines and technologies are to function efficiently and effectively. The six building blocks of a health system are intertwined or interconnected such that each of them is a component of each of the other blocks. For example, health financing is one of the six building blocks of a health system. It is an element in each of the other blocks. On the other hand, health financing itself has elements of governance, human resources and health information for its operability.

Uganda's Health Information System faces bottlenecks related to the lack of dedicated financing sources for data collection and the decentralization of health systems financing, making it difficult to recruit and pay data managers. Service delivery, likewise, impacts and is impacted by health information systems because, in the absence of facility-based data managers, nursing and clinical officers must also be tasked with collecting data. Health information systems, moreover, only really work if they feed into health governance mechanisms and evidence-based decision making. In Uganda, this is presently not happening in an optimal way. Dysfunctional health information systems,

moreover, make supply and demand forecasting of medical supplies, as well as stock and human resources management, difficult and inefficient.

5.6.7 Data and Information Gaps

- While it is widely assumed in Uganda that the data being collected is not tied to planning, budgeting, decision-making, or corrective action, there is no assessment measuring or analyzing to what extent this is true, or the implications/costs/wastage to the health sector for data mismanagement or underutilization.

- There is no good district-by-district analysis of performance on information system issues in either the HMIS or the overall HIS, and no clear sense of which districts are performing well in terms of data collection, which are not, which are under-resourced (both in terms of budget and human resources), and what sort of factors and contexts feed into (under)-performance at district level.

- HIS activities – whether health or non-health sector – are regularly challenged with finding dedicated sources of funding. A scoping activity to understand better how to create consistent funds for routine data collection would be useful.

- While descriptive analyses of stakeholders in the HIS are readily available, there is a lack of comprehensive assessment as to the degree of harmonization of Uganda's data management stakeholders, and the costs and/or benefits brought about by harmonization (or lack thereof).

- There has not been either a qualitative or quantitative assessment as to the role of feedback in health service management and delivery in terms of when, where, and how it has been working (or not), and for whom. Project success stories are often highlighted, but an at scale mapping of how feedback should work, how it does actually work, and the contexts and factors that feed into the receipt, perceptions of, and utilization of feedback either by local governments or by health facilities is not readily available.

5.7 Medicines and Supply Chain (Medical Products, Vaccines and Technologies)

The Medicines and Medical Supply Chain building block refers to the institutions, stakeholders and processes via which essential medical products are selected, procured, regulated, quality assured, and delivered so as to ensure equity, safety, efficacy, cost effectiveness, and appropriate use.

5.7.1 Stakeholders

- Ministry of Health Divisions and Departments, including the Department of Clinical Services' Pharmacy Division, the Quality Assurance Department, the Central Public Health Laboratory.

- The MoH-affiliated Pharmacy Council ensures that national and international pharmacy practice standards and codes of ethics are adhered to in the public and private sectors, and controls the registration of pharmacists.

- The Uganda Medicines and Therapeutic Advisory Committee (UMTAC) develop the essential medicines list and promote the availability and appropriate use of medicine and health supplies in the private and public sectors. The National Health Laboratory Technical Advisory Committee serves to coordinate the same sorts of issues in the laboratory sector. Both these and other coordinating mechanisms have a number of sub-committees operating underneath them that handle issues such as quantification, quality assurance, and new drug or diagnostic approval.

- Pharmaceutical Society of Uganda is mandated by the Constitution to regulate pharmaceutical practice, approve training and courses of study, and license and register the country's pharmacists.

- The National TB and Leprosy Program and National TB Reference Lab, which run a parallel system for TB supplies and diagnostics.

- Technical partners contribute to the development of the essential medicines list, and provide guidance on selection and quantification of medicines and medical supplies (e.g. WHO, CHAI).

- Bi- and multi-lateral donors provide financing for procurement of medicines and medical supplies or, alternately, financing for medical supply systems (Global Fund, US Government, World Bank).

- Private-for-Profit Sector (Pharmacies, Manufacturing Plants).

- PFNP Medical Stores such as Joint Medical Stores (for faith-based PFNP facilities), Medical Access Uganda Limited (for HIV medicines), Uganda Health Marketing Group (for family planning logistics).

- Pharmacists and pharmacy technicians, along with drug shop operators.

5.7.2 Resource Availability

Resource availability for medicines and medical supply chain strengthening often is determined by whether or not those medicines and supplies fall under disease-specific programs (for which there is funding from, for example, Global Fund, U.S. Government and bi- and multi-lateral donors for procurement and drug management information systems strengthening). In general, financial and human resource availability for procurement and systems strengthening activities that are not attached to programs (for example, essential medicines and labs) often depends on donor funded initiatives (e.g. the East African Public Health Laboratory Networking Project, WHO's provision of technical guidance for both the selection and regulation of medicines and medical supplies and the development of the Essential Medicines List). Regular and consistent funding for central-level institutions and processes supporting medicine and medical supply assessment, selection, regulation,

procurement, and storage depends on national budget allocations, which prioritize, under decentralization, financing districts.

5.7.3 Functionality

There is an existing institutional framework for developing and implementing medicine and medical supply sub-sector policies, plans and reporting, via the National Medicines Policy, National Medicines Strategic Plan and National Medicines Annual Performance Report. There is also a National Medicines Procurement Plan in place and MOH redistribution guidelines to avoid expiry and stock-out. However, within the MOH leadership structure, Pharmacy falls under a division within clinical services, rather than its own department, while diagnostics and other medical supplies are quantified and organized by parallel structures. Weak legislative processes have affected three key legislations related to medicines – the Pharmacy Profession and Practice Bill, the Uganda Medicines Control Authority Bill, and the Traditional and Complementary Medicines Regulatory Bill – and there is a lack of pricing policies or price regulatory mechanisms for cost containment of medical supplies. The country has guidelines for medical therapeutic committees. These are in place but non-functional at all levels.

The National Drug Authority (NDA) is charged with ensuring the safety of pharmaceuticals, medical supplies and equipment, the licensing of premises, drug information, pharmacovigilance, import permissions and disposal of expired medicines. The NDA, however, has a limited capacity for supervision, monitoring and enforcement, insufficient outreach, and is overwhelmed by inadequate human, logistical, and financial resources (Ssengooba 2010). The National Medical Stores (NMS), meanwhile, handles the procurement, inventory, storage, delivery and information system for all *public sector* drugs and diagnostic equipment, with the exception of TB supplies, from both their central office in Entebbe and from regional customer care offices. NMS serves all public sector facilities, including army, police and prison facilities, and specialized institutes (Cancer Institute, Heart Institute, Uganda Blood Transfusion Services). Medical products are inventoried and purchased via decentralized budgets, and delivered directly to District Health Offices, with "last mile" delivery handled by sub-contracted private transporters. The NMS has struggled with loss of funding since financing was decentralized to the districts, slow procurement processes, theft of medical supplies, and lack of storage space.

The MOH monitors five tracer medicines for health facilities to ensure that the public health facilities have drugs for common illnesses. Accountability mechanisms put in place by the NMS has led to the medicines situation in the public sector improving significantly in the last five years. The number of facilities reporting no stock outs of *any* tracer medicines in the previous six months grew from 43 percent in 2010, to 57 percent in 2013, to 64 percent in 2014. Additionally, last mile delivery has improved by contracting private, district-based transportation companies to carry out district-to-facility delivery. Nevertheless, many facilities experience stock-outs of certain medicines and medical supplies, and inconsistent stock management between districts and facilities. Additionally, HC IIs and IIIs receive medicines and supplies through a push system that is not based on an accurate reflection of demand but rather on population catchment. Drug stock-outs in the public sector compel patients to either purchase their drugs from the private sector, or to bypass public sector services entirely.

The medical supply chain is complicated by the involvement of PNFP Medical Stores in procurement and distribution of medicine, in particular Joint Medical Stores (for faith-based PNFP facilities), Medical Access Uganda Limited (for HIV medicines), Uganda Health Marketing Group (for family planning logistics), which have, in the past, served as a means by which PFNPs and certain bi- and multi-lateral organizations procured medicines and medical supplies for programs, thereby bypassing the inefficiencies of the NMS. No incentives exist for PNFP and PNP facilities to harmonize with the MOH and offer the same range of products at standardized prices to make medicines more accessible.

There is also weak, un-harmonized, and unenforced legislation, policies, and guidelines on traditional and complementary medicines, and limited public awareness on the safety and efficacy of such medicines.

5.7.4 Challenges

- There are insufficient government funds to cover the growing costs of medicines resulting in increasing number of stock outs while, at the same time, there exists an over-reliance on donor funding to cover the procurement of key disease-specific medicines and medical supplies leading to questions of sustainability.

- Many laws related to medicines are outdated, with key directives scattered throughout various statutes. Legislation is not enforced, and there are laws that contradict current practices and policies within the sector. The National Drug Policy and Authority Statute of 1993 remains the main law governing the medicines and medical supply sector despite its wide limitations.

- Staffing and funding of key national level medicines and medical supply institutions remains poor. The National Drug Authority is underfunded with no adequate office accommodation. The Pharmacy Council is understaffed with only one staff member: A Registrar (MMP strategic plan, 2015). The Pharmacy Division is still under staffed and the Ministry of Public Service has been petitioned by the MOH to elevate it to the level of Department as a step towards increased authority, staffing, and resources needed to effectively fulfill its mandate.

- Bureaucratic Public Procurement and Disposal Act (PPDA) procedures delay the procurement of medicines, thus contributing to stock-outs.

- There is poor monitoring and supervision of medicines management at both public and private facilities.

5.7.5 Extent of Implementation of Previous Assessment Recommendations

The recommendations were to address drug stock-outs in public and PNFP facilities through several mechanisms, including strengthening the regulatory framework for the pharmaceutical sector, providing training in supply chain management, and increasing public sector funding for medical products.

Recommendation 1: Address drug stock-outs in public and PNFP facilities through several mechanisms

i. Harmonization of efforts in procurement and distribution.

   Extent of Implementation: This has been attained.

ii. The MOH and NMS should prioritize improving procurement and supply of medicines, coordination of development partners and GOU procurements.

   Extent of Implementation: This is being done through a coordinated GOU medicines procurement plan.

iii. Contracting-out of more administrative functions to the private sector.

   Extent of Implementation**:** This is functional.

iv. Target GOU funds to purchase drugs and medical products needed for the poor and indigent population

Extent of Implementation: Such medicines that are those that are purchased on the EMSLU.

v. Target the underserved areas.

Extent of Implementation: This recommendation has not been implemented.

vi. Create incentives and coordination mechanisms that encourage more private facilities and providers, including pharmacists, to locate to severely underserved districts.

Extent of Implementation: There is presently still no incentive mechanism in place.

Recommendation 2: Strengthen the regulatory framework for the pharmaceutical sector.

i. Elevate the Pharmacy Division to a full department.

Extent of Implementation**:** The MOH has not submitted the request to the Public Service Ministry, as they are awaiting completion of MOH restructuring report (KI Interview, Principal Personnel Officer, MOH)

ii. GOU should pass the (1) Pharmacy Profession and Practice Bill; (2) the Uganda Medicines Control Authority Bill; and (3) the Traditional and Complementary Medicines Regulatory Bill.

Extent of Implementation**:** These have not yet been passed by the Parliament

iii. Reform the NDA to (i) not depend on revenues generated from agencies it regulates; (ii) remove regulated agencies from the Board so as to minimize conflict of interest.

Extent of Implementation: This recommendation has not yet been done because of frequent change of leadership in NDA (KI Interview, Pharmacist, MoH).

iv. Strengthen sharing and use of information between the NDA, service providers, and suppliers.

Extent of Implementation: This recommendation is not yet done because of weak management in the NDA.

Recommendation 3: Strengthen training in supply chain management.

i. Train pharmacy staff and nurses in supply chain management, forecasting and quantification, security, and storage of drugs and health commodities.

Extent of Implementation: This activity is on-going but at a slow rate.

Recommendation 4: Increase public sector funding for medical products.

i. Increase public sector funding to meet the need for medical products in the country.

Extent of Implementation: This recommendation is not yet done because of the limited health sector budget.

ii. Funding should be targeted at increasing uptake and output of pharmacy professionals and technicians by pre-service training institutions.

Extent of Implementation: This is also decreasing.

5.7.6 Intra-sectoral and Multi-Sectoral Interactions

Inadequate or non-existent medical supplies prevent service delivery to patients, thus driving them toward the private sector and potentially catastrophic health expenditures. Routine stock out also renders health workers redundant and de-motivated and, thus, promotes absenteeism. Poorly managed supply chains and procurement, storage, delivery and inventory systems creates huge amounts of waste and, thus, impacts the government's ability to plan and effectively and efficiently budget for the health sector. Unpredictable medical supply chains also serve to skew health performance information.

5.7.7 Data and Information Gaps

- The health sector lacks information on national data on medicines and medical products sold and consumed in the country that might serve as a basis for planning. There is also insufficient, publicly-available documentation of medicines management on a district-by-district, and facility-by-facility basis. National data on EMHS sold and consumed is both lacking and unanalyzed, as is documentation of the effectiveness of medicines management in Uganda.

- Operational research is needed on why Medicines Therapeutic Committees are non-functional so as to understand how to better strengthen MTCs at all levels and to improve community awareness on appropriate medicine use.
- Better data on legislation enforcement mechanisms is required, as well as an analysis of how harmonized these are, and the role of stakeholders and non-health sector institutions in their functionality.

- There is a lack of information on the development and enforcement of regulations governing prescription-only medicines, TCM products, veterinary medicines, medicine handling, and VHTs/community drug distributors.

- Data needs to be collected on how to strengthen the current ineffective post-marketing surveillance and pharmacovigilance systems, as well as to better assess how authorization and licensure of drug and medical supply handlers takes place

- Qualitative and quantitative research as to the capacity of private retail pharmacies to supply medicines on essential drug list at reduced prices to target population groups during stock-outs, and the feasibility of private sector stop gapping, could also be useful.

- There is also need for an analysis of the systems Uganda uses to coordinate pharmaceutical research, the strengths and weaknesses of such systems, and the impact of their varying degrees of functionality on the medicines and medical supply chain system specifically, and on the health system as a whole.

- A sustainability assessment of Uganda's reliance on donor funds for medicines is urgently needed.

6. AREAS FOR STRATEGIC INTERVENTION IN THE UGANDAN HEALTH SYSTEM

- *Strategic Area 1: Support the Government of Uganda in creating consistent, centralized, adequately analyzed and synthesized data systems to support a true systems analysis of the Uganda health sector from national level down to communities.*

This assessment has made clear, first, that comprehensive and adequately packaged information on Uganda's health system across all of the sector's building blocks is not available in a form that is either current, consistent, easy-to-use, or centrally accessible. The most immediate consequence of this problem is that existing information systems – while creating an over-proliferation of data – do not analyze, package, and disseminate this data in ways that are policy-relevant and easily leveraged for evidence-based decision making both downstream by facilities and local government, as well as upstream by central government and partner coordination structures.

The data problem also makes it difficult for partners themselves to clearly identify important strategic areas of engagement, as data is necessarily skewed toward technical intervention-based solutions, and not contextual, systemic, "big picture" issues that ultimately facilitate or undermine the sustainability of health sector gains.

Without true stakeholder analyses (analyzing power, position, interests), resource mapping (collated across programs, projects and partners, as well as disaggregated from budget lines), and cross-stakeholder participatory compilation of best practices (beyond "success story" text boxes), the ability of USAID to leverage data for transformative, sustained and, eventually, country-led change will remain weak. USAID can, therefore, support the Government of Uganda and its other partners in creating "information systems" that serve as more than just warehouses for data, but actually support both government and partners to draw and act on conclusions.

- *Strategic Issue 2: Support the Government of Uganda in strengthening integrated monitoring, supervision, and quality assurance mechanisms within the public system, and in addressing the disconnect between health systems building blocks, service levels (primary, secondary, tertiary), levels of government (community, district, national), levels of health sector (public, private-for-profit, private-not-for profit), and public sector health and non-health line ministries, as well as in ensuring monitoring and supervision systems trigger action.*

Presently, monitoring and supervision structures are not harmonized or coordinated across the health sector, between the public, PFNP, and PFP health sectors, and between the health and non-health sectors. The Ministry of Health cannot effectively track either health problems or patients across different categories of institutions, nor can it implement quality assurance, collect data, and enforce guidelines, regulations, and policies across different categories of institutions. Districts and facilities especially lack quality improvement teams at all levels of care, and unevenly implement supervision, monitoring, and performance assessment. Standards of accreditation and mechanisms for qualifying private sector facilities are weak. Referral systems are non-functioning and lead to bottlenecks of care across all levels of health services, while patients and their records are lost between facilities and departments, sometimes even within the same hospital. Patients, moreover, do not fully understand the referral system, and bypass lower levels of care. Feedback of information back down the system, or across elements of the system, is virtually non-existent.

USAID can support the Government of Uganda in planning, budgeting and implementing integrated monitoring, supervising, and quality assurance activities to inform programming direction, document outcomes relevant to both the health system and the public system as a whole, and develop functional referral and feedback systems. USAID could focus on financial management strengthening at the district level to improve the quality of District Councils audits so that they result in increased central level funding allocations to the councils and, ideally, translate into greater council spending on health. USAID could also build capacity for professional councils so they might better license, regulate, and supervise both public and private health professionals, and provide outreach beyond the health sector so that standards and quality of healthcare and health information are improved and sustained.

- *Strategic Issue 3: Support the Government of Uganda in overcoming the human resources crisis by facilitating public sector capacity building of the institutions, processes, and mechanisms that create a strong, sustainable, motivated health workforce in which people – not program outcomes - come first. Prioritize interventions that improve leadership, management, administration, oversight and incentivization.*

Health systems in Uganda remain weak because of an under-investment in health human resource capital, and a lack of dialogue and engagement between the health workforce stakeholders. Districts lack human resources capacity to manage the decentralized health system, and the PFNP and PFP sectors have not been effectively integrated or engaged.

USAID can support the Government of Uganda by investing in the health workforce, including in interventions that support their pre- and in-service training, deployment and retention, as well as their incentivization to work in hard-to-reach areas. USAID can partner with districts to build human resource capacity for budgeting, planning, tracking funds, managing the health workforce, and other functions to assist the decentralization process and help create competent human capital – in both the health and non-health sectors - for new districts to effectively function. It can also support the Government of Uganda by strategically investing in rural infrastructure that would support the attraction and retention of health workers to remote rural facilities.

- *Strategic Issue 4: Support sustainable, nationally led, pro-poor health financing - both from the supply and demand side - that focuses on systems, not projects or disease-specific programs.*

In spite of the elimination of user fees, out-of-pocket expenditures in Uganda remain high, and poor people face catastrophic health expenditures. The present structure of health financing in Uganda undermines the health system by over-developing vertical programs at the expense of basic service provision, and creates an unsustainable dependency by the health sector on external aid.

USAID can provide financial and technical support to the Government of Uganda in strengthening sustainable domestic financing mechanisms, implementing Community-Based Health Insurance and the National Health Insurance Scheme initiatives, and strengthening the coverage and regulation of the health insurance industry. USAID can partner with government to help create market incentives for micro-finance institutions to create health savings plans for the poor in rural areas.

- *Strategic Issue 5: Plan, budget, and locate resources for the health system crisis which will soon occur when Uganda reaches a critical epidemiological tipping point and must bear the joint burden of both infectious/communicable/poverty-associated disease and health problems (AIDS, TB, malaria, vaccine preventable childhood illnesses, maternal and neo-natal complications) and non-communicable/chronic" middle class" health problems (cancer, CVD, CRD, diabetes, accident and injury).*

The coming epidemiological crisis – both in Uganda, and elsewhere - has long been predicted. Population growth, increased industrialization, proliferating automobile ownership and tobacco and alcohol consumption, the steady growth of the Ugandan middle class, rapidly changing nutritional habits of both middle class and poor Ugandans, and the fact that people are now able to live with HIV/AIDS as a chronic illness: these and other socio-economic transformations are pushing Uganda toward a tipping point in which cancers, diabetes, cardiovascular diseases, chronic respiratory diseases, and environmental health problems will become as prevalent as infectious disease and poverty-related health conditions. Uganda's health system, at present, is in no way prepared, being as it is entirely oriented toward maternal, newborn, and child health and former MDG-6 vertical programs. The social, economic, and health systems consequences for the country's lack of readiness will be enormous.

USAID can support the Government of Uganda in preparing for this crisis, and supporting institutional, technical, financial, and programmatic shifts toward preventive health and health promotion (including budgeting, sourcing financing, and developing processes for negotiating drug prices related to the long-term management of more expensive chronic conditions).

7. CONCLUSION

This pre-assessment has attempted to direct future assessments toward the prioritization of long-term sustainable systems strengthening interventions, and away from stop-gap "support" measures. While gap-filling produces short-term outcomes, it does so at the expense of a functioning national health system. Similarly, fragmented approaches to health systems strengthening guided by the mandates of individual streams of earmarked programs (e.g., PEPFAR) also fail to build healthy, sustainable, equitable systems that support the health and well-being of the entire population. U.S. government assistance going forward should support a more strategic and purposeful health systems strengthening portfolio that helps to address the major weaknesses in Uganda's health system. It should also recognize the multi-sectoral nature of health and leverage, partner, and liaise with a variety of stakeholders, including those whose primary mandate is not health (such as the Ministry of Finance, the President's Office- Public Service Management and others). Lastly, policy initiatives or reforms and regulations to increase funding for health from domestic public and private sources, and to redirect or redistribute public resources in an equitable manner, is urgently needed.

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