https://dx.doi.org/10.4314.thrb.v24i2.5

Health Care Delivery System in Uganda: A review

Turyamureba Medard[1*], Bruno L. Yawe[2] and Oryema John Bosco[3]

[1] Assistant Director, Administration and Transport Logistics, Parliament of Uganda, P.O Box 7178 Kampala and School of Economics, College of Business and Management Sciences, Makerere University

[2]Associate Professor, School of Economics, College of Business and Management Sciences, Makerere University

[3]Senior Lecturer, School of Economics, College of Business and Management Sciences, Makerere University

Abstract

Background: Uganda's health care system consists of both public and private healthcare providers. Uganda has around 6,940 health facilities, of which 45% are government-owned, 15% are private not-for-profit, and 40% are private for profit. In 2019, the health worker population ratio was 1.87 per 1,000 population, which is still lower than the WHO ratio of 2.5 per 1,000 population.

Objective: This paper provides insights into Uganda's health care delivery system and highlights its strengths, weaknesses, opportunities, and threats.

Results: The total health expenditure was UGX 5,309 billion, equivalent to US$ 1.8 billion. Public spending remains very low accounting for only 15% of total health expenditure. In the 2020/21 budget, the health sector was allocated UGX 2.7 trillion, equivalent to 6% of the total government budget. The total per capita health expenditure was estimated at US$ 51 for the financial year 2015/16, which is still low compared to the WHO recommended minimum level of US$84.

The SWOT analysis shows that Uganda's health delivery system boasts of having clear policies and plans, provision of free health care in public facilities and the existence of active international health agencies and Non-governmental organisations. However, the system is still fragmented with a very poor referral system, high out-of-pocket expenditure, low public spending, and inequitable distribution of health facilities across the country.

Conclusion: Although considerable progress has been made in achieving health-related targets, several issues still require attention. There is need for a comprehensive redefinition of the health service delivery system, enhanced investment in health infrastructure with a focus on reducing inequalities; and establishment of a national health insurance scheme.

Keywords: Health care system, SWOT Analysis, Uganda

Background

Uganda has a decentralised system of governance, and most functions have been devolved to the local governments. Uganda is divided into four regions, namely Central, Eastern, Northern, and Western, further subdivided into 15 sub-regions. Uganda has 135 districts and 11 cities, including Kampala, divided into 353 constituencies. A district has at least one constituency. These are further divided into 1,460 sub-counties and 7,467 villages (Republic of Uganda, 2018a, 2020a).

In 2021, Uganda's population was estimated at 42.88 million people, with an annual population growth of 3.0% (Republic of Uganda, 2019b, 2020a). The high population growth is partly attributed to the high fertility rate and declining child mortality levels estimated at six children per woman and 64 per 100,000 live births respectively (Republic of Uganda, 2017, 2019a, 2020c). The majority of the population (51%) is female, and 49% is male (Republic of Uganda, 2019b).

* **Corresponding author:** email: mdturyamureba@yahoo.com

Nearly 55% of the people are children (aged less than 18 years), and 22% are youth (aged 18 to 30 years), making Uganda one of the nations with the youngest population globally. Important to note is that the working-age population (aged 18 to 60 years) is estimated at only 41%. This means that financing health care in Uganda is difficult due to the high dependency burden and low revenues the government can correct from its citizens.

Structure of the health care delivery system

Health care in Uganda is delivered through a decentralised framework with the district responsible for all structures within the district except referral hospitals where they exist. Health care services are provided by both the public and private sectors, with each sector covering about 50% of the standard units of output (Republic of Uganda, 2010). Both sectors play an essential role in supporting communities to improve their health. The Uganda National Minimum Health Care Package was developed for all system levels for the public sector, and services are provided based on this package.

The national health system consists of National Referral Hospitals, Regional Referral Hospitals, and the district health system (Republic of Uganda, 2010, 2018b). The district health system is further divided into health sub-districts. It includes District General Hospitals, Health Centres IV, III, and II, and Village Health Teams. The Ministry of Local Government manages district health services. The ministry of health remained with the mandate of policy review and development, supervision of health sector activities, strategic planning, resource mobilisation, quality assurance, and ensuring quality, health equity, and fairness in contribution towards the cost of health care. The significant causes of death include malaria, HIV/AIDs, neonatal and maternal-related deaths, stroke, tuberculosis, road injuries, and respiratory infections.

The government and the private sector undertake the financing and delivery of health care services in Uganda. In 2018, Uganda had a total of 6,937 health facilities, of which 3,134 (45%) were government-owned, 1,009 (15%) were private and not-for-profit, while 2,795 (40%) were private for-profit (Republic of Uganda, 2018b). The health worker population ratio was estimated at 1.87 per 1,000 population in 2019, which is still lower than the WHO ratio of 2.5 per 1,000 population (Republic of Uganda, 2019a).

Public sector healthcare providers

The government health care system, also known as the public health system, consists of the district health system, Regional Referral Hospitals, and National Referral Hospitals, which are self-accounting and autonomous institutions(Republic of Uganda, 2010, 2018b). The district health system is further divided into health sub-districts and includes District General Hospitals, Village Health Teams, Health Centres II, III, and IV. The staffing level in public health facilities was 72% in 2016 (Republic of Uganda, 2018a), and the government health expenditure as a percentage of the total government expenditure was 7% in 2019/20 (Republic of Uganda, 2019a).

Hospitals

Government hospitals are divided into three categories: national referral, regional referral, and district general hospitals. District general hospitals are staffed with general doctors. Regional referral hospitals are teaching hospitals and have specialists in specific fields. Finally, there are five national referral hospitals: Mulago Specialised Hospital, Butabika Hospital, Kawempe, Kirudu, and Naguru, located in Kampala district. These are also research or teaching hospitals which provide comprehensive specialist services.

Health Centres

The health centres throughout the country are graded as Health Centre (HC) II, Health Centre III, and Health Centre IV. The grading depends on the administrative zone served by the facility, with

HCII serving a parish or ward, HC III serving a sub-county or division, and HC IV serving a county or municipality. Providers are expected to serve a certain number of people at each level and provide specific services. A Health Centre II serves a population of approximately 5,000 people. It offers outpatient care, antenatal care, immunization, and outreach. It is supposed to be staffed by one enrolled nurse, one enrolled midwife, and two nursing assistants. According to the HSSP, all HC IIs provide community-based preventive and promotive health services.

Health Centre III serves a population of approximately 20,000 people. According to the HSSP, an HC III provides the services offered in a HC II plus maternity services, inpatient health services, and laboratory services. It is usually staffed by one clinical officer, one enrolled nurse, two enrolled midwives and one nursing assistant, one health assistant, one laboratory assistant, and a records officer.

Health Centre IV serves a population of approximately 100,000 people. The HSSP requires HC IVs to provide emergency surgery and blood transfusion services and the services offered at HC IIIs. The Ministry of Health prescribes a staff mix of at least one medical officer, two clinical officers, one registered midwife, one enrolled nurse, one enrolled midwife, one registered comprehensive nurse, two nursing assistants, one laboratory technician, one laboratory assistant, one health inspector, one dispenser, among others for each HC IV.

Private sector health care providers

The private sector comprises private, not-for-profit organizations, private health practitioners, and traditional and complementary medicine practitioners. They are organized, structured, and better collaborate with the Ministry of Health. Even though the private sector provides a significant proportion of health services, it is not properly integrated with the public sector to fully take advantage of each other.

Private Not for Profit health care providers are motivated by concern for the welfare of the population and not profit maximisation. They comprise established health facilities and those that work with communities and other counterparts to provide non-facility-based health services. They tend to focus on areas where they have the expertise, such as special disease programs, technical assistance, training, emergency and relief services, and mainstream service delivery.

The private for-profit health care practitioners are motivated by profit and comprise established health facilities and individual health professionals. They mainly provide primary services and limited secondary services. It is only in hospitals (primarily located in urban areas) that offer tertiary and specialised care.

Traditional and complementary medicine practitioners are an integral part of the local culture and Uganda's health care system. They are a sustainable source of health care and knowledge on illness and specific health conditions. Traditional healers include herbalists, spiritual healers, borne setters, traditional birth attendants, hydro therapists, and traditional dentists.

Methods

The review used current and recognised articles and reports related to Uganda's health care delivery system. Relevant databases, namely PubMed, google and google scholar, PLOSE one, and African Journals Online, were searched between October 2020 and September 2021. The relevant keywords used in the search consisted of terms the authors considered to describe the target information about the health care system. The search query was tailored to the specific requirements of each database. Search words used included health care system, health care system in Uganda, health financing in Uganda, and health sector reforms in Uganda.

Ethical issues

The study used data and information from secondary sources. It was cleared the school research board in the College of Business and Management Sciences at Makerere University. The researchers remained neutral with no bias at all towards the nature of literature reviewed.

Results

Distribution of health facilities

Table 1 presents the distribution of health facilities by level and region in Uganda. Uganda has a total of 6,937 health facilities(Republic of Uganda, 2018b). There are five national referral hospitals (NRH), 13 Regional referral hospitals (RRH), and 168 general or district hospitals. Concerning the sub-district health system, there are 222 HC IVs, 1,570 HC IIIs, 3,364 HC IIs, and 1,611 Clinics. The distribution is highly inequitable; the Central region has the highest number of 3,133 (45.2%) health facilities; Eastern has 1,334 health facilities (19.2%); Northern has 1,061 health facilities (15.3%), and the Western region has 1,410 health facilities (20.3%).

Table 1: Distribution of health facilities by level and region in Uganda

Region	Clinic	HC II	HC III	HC IV	Hospital	RRH	NRH	Total
Central	1,175	1,323	498	68	62	2	5	3,133
Eastern	1,168	694	380	52	37	3		1,334
Northern	121	554	320	33	29	4		1,061
Western	137	793	372	69	35	4		1,410
Total	**1,611**	**3,364**	**1,570**	**222**	**168**	**13**	**5**	**6,937**

Health financing

In the financial year 2015/16, Uganda's total health expenditure was UGX 5,309 Billion, equivalent to US$ 1.8 Billion (Republic of Uganda, 2018d). Four sources finance health services in Uganda: public (government allocations), private (mainly household out of pocket spending), development partner support, and voluntary health insurance. Health expenditure has grown over time from UGX 4.88 trillion in 2012/23 to UGX 5.31 trillion in 2015/16.

Although expenditure in Uganda has increased over the years, the pattern of contribution to total expenditure has relatively remained the same (see table 3). Public spending remains very low, particularly with the largest share from private out-of-pocket expenditure and development partners, as indicated in Figure 1. In the 2020/21 budget, the health sector was allocated UGX 2.7 trillion, equivalent to 6% of the total government expenditure. This proportion of the budget allocated to the health sector has declined since 2010/11 when 8.9% of the government budget was allocated.

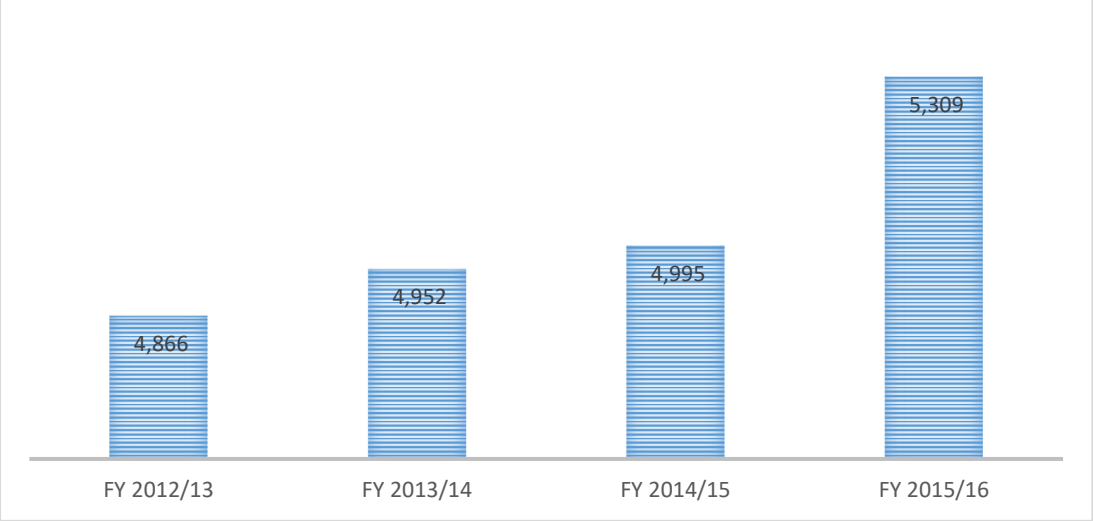

Figure 1: Current Health Expenditure (UGX billions) from FY 2012/13 – FY 2015/16

According to the National Health Accounts (2018), in the 2015/16 financial year, the government of Uganda contributed 15.1% of the total health expenditure, voluntary health insurance contributed 2.3%, out of pocket expenditure (households) contributed 41%, and Development partners support

contributed 41.7% of the total health expenditure as indicated in table 2 (Republic of Uganda, 2018d).

Table 2: Percentage of current health expenditure by financing scheme

Financing Scheme	2015/16	2014/15	2013/14	2012/12
Government financing	15.1	14.6	17.7	16.8
Voluntary health insurance	2.3	2.4	1.9	1.6
Out of pocket (OOP) expenditure	41	39.6	39.2	42.7
Development partners support	41.7	43.4	41.2	38.9

The total per capita health expenditure was estimated at US$ 51 for FY2015/16, which is low compared to the WHO recommended minimum level of US$84. The per capita public expenditure was only US$ 9 (Republic of Uganda, 2018d). This implies a heavy reliance on direct out-of-pocket expenditure and external sources to finance health in Uganda. The government needs to expand its current financing strategy further to include risk pooling, such as health insurance schemes.
In 2001, user fees were abolished in all government health facilities except at the hospital level, where a dual system exists. There is a general wing for clients who can't pay and a private wing for those who can afford it (Nabyonga Orem et al., 2011). The private sector charges user fees. The identification of the institution that manages and distributes funds (financing scheme) in addition to the actual source and how revenue was raised and collected by the responsible agencies (revenue source) was a significant change in the tracking of the flow of funds towards health in the System of Health Accounts 2011.
Currently, government resources are allocated to decentralised units (hospitals and districts) based on a resource allocation formula. The formula incorporates variables like population, health need, district topography, and poverty index for the districts, while bed capacity is used in the case of hospitals. Local governments (districts and municipalities) are autonomous entities that collect revenue that can be used to provide health services, although recently, all collections have been received by Uganda Revenue Authority. However, this remains very low.

SWOT Analysis

This section presents the Strengths, Weaknesses, Opportunities, and Threats of Uganda's health care delivery system. A SWOT analysis examines an institution's internal strengths and weaknesses, its opportunities for growth and improvement, and the threats in the external environment to its survival. SWOT analysis is a standard tool used for strategic planning, situation analysis, and finding solutions in the health sector.

Table 3: SWOT Analysis of the health care delivery system in Uganda

Strengths	Weaknesses
• Adequate and skilled number of health workers. • Existence of 5-year Sector Development Plan 2020/21-2024/25, the Programme Implementation plan for the Human Capital Development Programme, and the National Health Policy (Republic of Uganda, 2010, 2019a, 2020c). • Availability of policies, plans, and strategies • Provision of free primary health care and emergency services to all citizens • Existence of a minimum package of health services	▪ Fragmented health information system. There is poor data quality, utilisation, and dissemination of information in all health system components (Republic of Uganda, 2020b). ▪ Weak human resource function at the decentralised levels and inequitable distribution with a bias towards urban areas. ▪ Poor referral system due to very poor health care records management. ▪ High out-of-pocket expenditure has affected access and utilisation of health services (Republic of Uganda, 2016, 2018d).

• Existence of teaching and public health facilities • Active international health agencies and non-governmental organisations (Republic of Uganda, 2019a)	▪ Inequitable distribution of health facilities across the four regions of the country (Republic of Uganda, 2018b). ▪ Poor logistic supply (for equipment, disposables, and drugs) resulting in stock-outs of critical commodities at the facility level (Republic of Uganda, 2019a, 2020b). ▪ Low public spending on health and inefficiencies in utilisation of available resources (Republic of Uganda, 2018d, 2021b). ▪ Weak mechanism for implementing, monitoring, and evaluating health care policies, programs, and plans. ▪ Poor citizen perception of services, especially in public health facilities. ▪ Inadequate human resources at both local and central government health facilities (Republic of Uganda, 2020b).
Opportunities	**Threats**
• Existence of the National Development Plan with the Programme on Human Capital Development (Republic of Uganda, 2020c). • Political commitments (Republic of Uganda, 2018c, 2020c) • Existence of funding opportunities from development partners such as WHO, GAVI, and JICA (Republic of Uganda, 2019a, 2020b). • Decentralisation results in quicker decision making, especially for national referral hospitals. • Partnerships with universities and other teaching and research institutions. • Health system reform initiatives, e.g., Public-Private Partnerships.	• Huge disease burden arising from COVID-19 pandemic and growing number of communicable diseases. • High attrition rate of well-trained medical officers and specialists to other countries for a better quality of life and job satisfaction. • Old legislations on health that require amendments to support the new reforms. • Increasing levels of poverty (Republic of Uganda, 2018e, 2021a) • Inadequate funding of the health sector, especially primary health care services, and preventive interventions at the community level (Republic of Uganda, 2016, 2018d). This has resulted in high out-of-pocket and dependency on donor support to finance the health sector.

Discussion and Conclusion

Improved health outcomes are a prerequisite for developing countries to break the poverty cycle. Whereas Uganda has made considerable progress in achieving its health-related targets, several issues still require attention. Based on the reviewed literature, there is need for a comprehensive redefinition of the health service delivery system from the community to the national level, including structures, roles/responsibilities, functions, and operating procedures to operationalise functions at each level of care.

The out-of-pocket health expenditure remains very high at 41% compared to government health spending and voluntary health insurance, estimated at 15% and 2.3% of total health expenditure, respectively (Republic of Uganda, 2018d). This poses a big challenge for households to access and utilise health care services. The situation is likely to worsen with the increased occurrence of non-communicable diseases such as cancer, diabetes, and hypertension. There is need to enhance investment in health infrastructure with a focus on reducing inequalities and equipping the existing facilities, and align skills with needs and improve retention/motivation of health workers.

Additionally, poverty is generally considered an economic concept that measures income or lack of it. Poverty typically relates to the quality of life and it is hard to generate economic growth without solving health problems in developing countries. Unhealthy people are poor and the high population growth tends to overburden the development process. The government should establish a national health insurance scheme to enhance access and utilisation of health services and strengthen partnerships and coordination mechanisms with the different stakeholders, especially development partners, to ensure better harmonisation and alignment of health financing.

Author's contribution: T.M contributed to conceptualization, methodology, conducting literature review, and manuscript writing. B L.Y and JB.O Contributed to conceptualization, supervision, and proofreading.

Conflict of interest: The authors have no conflict of interest to declare.

Received 13rd September 2022
Revised 27th February 2023
Accepted 27th February 2023

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