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Health budget shortfalls and inefficient communication systems as a setback to efficient management/control of infectious diseases in Bushenyi district, Uganda

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Abstract

Background: Optimal health services delivery in Uganda continues to face serious challenges especially as it concerns effective management and control of communicable disease because of factors that may be attributed to the budget deficit and poor funding. **Objective:** To review the role of health budget deficit and poor communication system in fostering inefficient management and control of communicable disease in Bushenyi district Uganda. **Material and Methods.** A review of the effect of underfunding in the prevention and control of communicable disease in the study area was conducted using a key informant interview guide and hospital records. Data generated were analyzed using standard methods. **Result:** There was a 27.7% mean PHC recurrent fund deficit and 15. 1% means PHC development fund deficit in the evaluated period of 2011 and 2014. There was a poor communication system with the mobile phone being the most common followed by few internet systems. **Conclusion.** Budget deficit and poor funding undermine effective management and control of communicable disease in the Bushenyi district of Uganda.

Introduction

Like other developing countries Uganda's health sector remains severely underfunded with budget shortfalls significantly hindering optimal service delivery (1). The public health system in Uganda mainly depends on central government grants in form of primary health care. To date, the 8.0% total government spending on health is not any near the Abuja target of 15% that all African governments were committed to (2). A

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resolution of the 58th World Assembly needed member states to ensure equitably

health financing to have financial protection for those who are unable to pay for health services so that no one in need of health service is denied access.

There are limited cross-subsidization and high fragmentation of the financing mechanisms in the health system. No user fees are allowed in public facilities which limiting the support from out-of-packet payments and prepayment mechanisms that would have given a hand to the constrain budget (2). There is no compulsory health insurance in the country and yet private health insurance coverage is still very low. There is therefore an obvious need for re-arrangement and re-integration of existing financing mechanisms to make them more equitable and efficient.

The level of health care financing and resource availability in the health system is an incentive and motivator for the health system and its leadership (3). Health care financing and resource availability is the main determinant factor when evaluating the health system performance at both local and national level. However, the current health budget in Uganda can only account for 1/3 of the needs to deliver the minimum health care package.

Due to the limited in-flow of funds to the health sector, most people who need care such as HIV/AIDS treatment TB, and malaria control programs cannot access them (4). For example, of the estimated 1.1 million people living with HIV/AIDs in Uganda, about 200,000 need ART (5-6). However, only about 67,000 people are accessing Anti-retroviral therapy (ART) at the time of this review. The mosquito net distribution to the needy population in Uganda stands at about 16% of the total population and yet malaria remains the highest cause of morbidity and mortality in the country (7-8). The maternal mortality rate is still very high with 16 mothers dying daily, that a maternal mortality rate of 435 per 100,000 live births which translates to 6000 deaths annually. The child mortality rate stands at 137 death per 1000 live births (9-11).

The stock out of essential medicines and health supplies is still high in most public health facilities across the country. Of the 940 billion Uganda shillings required to cover the national need for medicines and supply annually, only 65.5% is realized at the end of the financial year.

Human resource

The government has purposed a total investment cost of 52% of the health budget to cater to the salaries needs of Human resources for health in 2014. However, the current staffing lever stands at 58.5 of the required, and yet it's not uncommon for health workers to miss their salaries due to budget shortfalls. Generally, the remuneration of the health workers in Uganda is the poorest in the region (3). This explains the massive exodus of health workers seeking better working conditions elsewhere. Every week 6 doctors seek the certificate of good standing with intentions of leaving the country for greener pastures abroad.

Health Infrastructure

Infrastructure development is slow at the district level. Most health facilities lack the minimum infrastructure needed for their basic function. It is common to find facilities where male and female patients are mixed up in some wards which are socially acceptable in the community. Such circumstances limit the uptake of health services in the communities.

Communication and Information Technology

There is no doubt about the potential of information technology and communication

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to make a major impact in improving the health system in developing communities (12). It has become clear that communities living in the poorest part of the world can work their way out of poverty and undesirable health situations once they have access to better information technology systems (9-11). A range of information technologies (ICTs) from radio and television to telephone, computers, and the internet is associated with better livelihood in the communities that have access to them.

Internet access in Uganda is largely modulated by the expansion and intensity of the telecommunication sector in the communities. One in one hundred persons in the country has access to an internet connection (2). The disparity in the growth of the communication sector, therefore, makes it difficult for internet use for health communication purposes. The disparities are worse off in rural districts where access is also hampered by a lack of electric power supply. Information flow between the health facilities and the center (2) is demeaned by inaccessibility to the internet and other forms of reliable communication (13). It has been noted that a poor communication system is a leading factor in the attrition of health workers who seek greener pastures in the developed world (14).

Problem statement and justification for this study

Most Africa countries depend on tax revenues to finance their health systems supported by donor funds (11). There is little pooling of risk and risk-sharing mechanisms. The hopes of raising additional resources through other mechanisms like user fees are constrained by policy and low-income levels of the people. The communities are resource-constrained such that imposing such fees would limit the health service-seeking behaviors of the residents.

The Uganda districts solely depend on central government transfers in form of primary health care (PHC) to finance the health sector with no other significant source of funds. However, the PHC funds can only cater to 50-60% of the health care needs of the district. To make the matters worse the PHC funds are not released on time to enable effective and timely implementations of the proposed projects and activities.

Being a rural district the health communication system is still poor. None of the health facilities has access to internet connectivity which is a major limiting factor in the communication system of the district. Other forms of communication are partially developed only reaching a few places in the district.

It is not clear how the health leaders in the district cope with these bottlenecks to provide reasonably satisfactory health services to the communities in this rural district. This study is aimed at analyzing the health financing constraints and communication gaps in the Bushenyi district and it also outlined the coping mechanisms of the health leadership in the district with the ultimate goal of outlining the significance and policy implications.

Study objectives

To assess the budgetary constraints of the health sector in Bushenyi district, appraise the health communication system in the district, establish the coping mechanisms the health leaders used to perform their duties amidst the budgetary and communication constraints.

METHODOLOGY

The study was conducted in Bushenyi districts in South Western Uganda. The population of the Bushenyi district is 299,200 (20). The district is typically rural, located 360km by road from Kampala the capital city of Uganda. The district has 3 health sub-

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districts (HSD), 2 hospitals, and 24 levels II and III health centers. Sub-counties from the local administrative centers. Each sub-county has an HC III and several HC IIs. Most of the Health Centres are located in places that are hard to reach because of the poor condition of access roads and the mountainous terrain. Access to the telephone network is limited making communication difficult. A few places around the towns have access to electricity. Most of the places have access to radio signals especially the local FM radios but TV signals are accessible to the people around the small towns and those with DSTVs. The study was a cross-sectional study employing both quantitative and qualitative methods of data collection.

This was a multifaceted cross-sectional study made of both prospective and retrospective assessment of factors that may explain the effect of the poor funding is hindering effective management of communicable diseases in the Bushenyi district of Uganda. The prospective study consisted of interviews of 38 participants made of all the in-charges of health facilities in the district (26 in number) and the district management team members (12 in number). However, any eligible in the categories above who will not consent for the interview was excluded from the study. All the 26 health facility in-charges and the 12 members of the district health management team were being recruited for the study

Qualitative data were collected using Key informant interview guide. The Principle Investigator carried out interviews himself and therefore there was no need to train research assistants for this study. The selected participants participated in the key informant's interviews while they also guided the review of records to provide further information on the budgets and financing of the health care system in the district. A record review tool was designed and used for reviewing the budget performance. The retrospective study involved the use of information available at the hospital records to have a glimpse of the past to have a better understanding of the current situation. The health workers were interviewed in privacy and the information was being recorded in a notebook and a tape recorder was used to capture the proceedings of the interviews.

The data from the review of records was entered and analyzed using SPSS software version 17 for statistical analysis and was presented in tables. The interview data was transcribed from the tapes and coded. Themes and sub-themes were created and the data was organized and categorized according to the themes for interpretation

Informed consent was obtained from each participant before enrolment into the study. The purpose of the study and how the information gathered will be used were explained to each participant before obtaining their consent. Each of the study participants and health facility was assigned a code for reference purposes to maintain confidentiality. The interviews were carried out in privacy to ensure confidentiality. The tapes and notes of the in-depth interviews were kept in a secure place and were only accessible to the Principal Investigator. Permission was obtained from the district authorities (DHO and CAO), and health facilities administrations before the study are carried out.

RESULTS

As seen in Table 1 below, a review of the budget performance shows that the district has suffered severe budget shortfalls in the last three financial years.

Table 1. Budget constraints for Bushenyi district 2011-2014

F/Y	Budget items	Required budget x1,0	Realized budget x1,0	Budget shortfall x1,0	% shortfall

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2011/12	PHC Recurrent	794	570	254	31.9 %
	PHC Development	194	170	24	12.4 %
2012/13	PHC Recurrent	841	679	162	19.3 %
	PHC Development	225	178	47	20.1 %
2013/14	PHC Recurrent	964	885	79	8.2 %
	PHC Development	261	211	50	19.1 %

In 2011/12 there was a budget shortfall of 31.9% in the Primary Health Care Recurrent fund and 12.4 % in the primary Health Care Development fund.

In 2012/13 there was a budget shortfall of 19.3% in the primary health care recurrent fund and 20.4 % in the Primary Health Care Development fund.

In 2013/14 there was a budget shortfall of 31.9% in the Primary Health Care Recurrent Fund and 12.4 % in the primary health care development fund. Thus there was a 27.7% PHC recurrent fund deficit and 15. 1% PHC development fund

Table II. Communication systems available in Bushenyi district

Communication means	**Available**	**Not available**
Land line (telephone)	4(8%)	46(92%)
Mobile phone	48(96%)	0 (4%)
Walk-talkies	3 (6%)	47(94%)
Internet access	2 (4%)	48(96%)
Fax machine	0(0%)	50 (100%)
Mobile van	0 (0%)	50 (100%)
Reliable network	**Available**	**Not available**
Telephone network	18(36%)	32 (64%)
FM Radio network	46(92%)	4(8%)
Internet network	12(24%)	38(76%)

The communication system available in the Bushenyi district was reviewed. As seen in Table II above, the most prevalent form of communication was mobile phones (96%). This seemed to be the only reliable means of communication because all others were very scarce in the district e.g. Internet access was available in only 4% of the health facilities and fixed telephones were available in only 8% of the health facilities.

Table III: Coping Mechanisms of the health leadership

Coping Mechanisms	No. of respondents	percentage
Prioritize activities	27	54
Lobby for more funds	9	18
Outsource other funders	8	16
Do nothing	1	2

Most of the district health leaders reported that the coping mechanism they have is prioritization (54%). Others reported lobbying and outsourcing as the main coping mechanism.

DISCUSSION

Health Budget Shortfalls

The health sector in the district has severe budget shortfalls as seen in the results of this study for all the years from 2011-2014. The sector receives mainly two grants from the

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central government mainstream ministry of health (5). These include PHC capital development and PHC recurrent fund. As seen through the years both funds provided, fall well below the requirements of the district health sector (9). This is not surprising because the health sector at the national level is marginalized receiving only 8.6 percent of the national budget in the 2013/2014 financial year and only 0.3 percent higher than the previous financial year 2012/2013.

The health budget nationally still falls well below the Abuja Declaration in which Uganda is a signatory which requires governments to commit 15% of the national budgets to the health sector (10). The emphasis is said to be aimed at control of Malaria, HIV, and renovation of major district facilities in terms of capital projects (5).

However, with such deficits in the health sector budget, the objectives of control of infectious diseases in the communities may not be very feasible. It's well known that the disease burden in the communities hampers the economic and social workforce. The strategies for effective control and the prevention of malaria and HIV/AIDS are insufficient and inefficient because of limitations in funds. There is an insufficient provision of essential medicines and supplies in the district including ARVs, Tuberculosis medicine, and reproductive health supplies (11-12).

These ultimately demotivate the health professionals who work in difficult situations where they have virtually no means of assisting their patients dying in their hands. Lack of funds for outreach services lowers the immunization coverage in the districts (15). No wonder we have an upsurge of previously controlled diseases like measles in the hard-to-reach remote area.

The district still suffers from neglected tropical diseases which cannot effectively be contained simply because of poor facilities for its prevention, management, and control (15). Without funds to do health education in the communities and funds to provide medicines and supplies, disease control becomes a nightmare.

The remuneration of health professionals is still very poor due to the limited budget, capacity building, and promotion of professional development is low. The consequence is the low morale and poor motivation of health workers leading to poor performance on the job and lack of job satisfaction. The results are the overwhelming exodus of professionals looking for better working conditions in the developed countries, absenteeism, and attrition to non-professional jobs.

Communication systems in the district

Although poverty is thought to be decreasing in Bushenyi districts like most parts of Uganda, the health care delivery system still has challenges like most other parts of sub-Saharan Africa (15). Access to proven and powerful information and communication system is still a dream for the distant future (16). However, the result of this study shows that there is some improvement in the use of ICTs in the last 5 years with significant growth in internet access in semi-urban Health facilities. Health workers in these facilities use it to obtain vital health information and interact with district and ministry of health officials.

One of the most important and interesting pieces of information obtained from this study is the fact that the distribution of ICTs is dependent on the infrastructural development of the area. Thus to harness the use of ICTS to the benefit of the health system in the district access to electric power and telecom network should be enhanced (15).

Retention of health professions in the rural health facilities in Uganda is undoubting vital in the fight against the deadly epidemics

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which include HIV/AIDS, malaria, and the resurgence of Tuberculosis (17). Improvement in the use of ICTs is a proven factor to control the exodus of health professionals to developed and wealthy countries.

Poverty and weak health system coupled with lack of communication systems lead to loss of health professionals through brain drain to the developed world which has further constrained the health care delivery system (18). There has already been intensive international discussion about the importance of ICTS in impacting the improvement of health and well being of poor and marginalized communities like those in Uganda reducing poverty and enhancing sustainable development in the communities can only be achieved with better communication within and within the outside world (15).

The world health organization (WHO) emphasizes the use of ITC as a means to reach a series of developmental health outcomes across the entire health system (19). As seen in the results of this study only 4% of the health facilities in the district have access to internet connectivity. However, the reliability of this connectivity in these facilities also leaves a lot to be desired. The disparity in the level of telecommunication in this district could be the factor influencing this connectivity (20).

Great strides are seen in the improvement in telecommunication in the communities in the last decade. It is expected that internet connectivity will soon take in the same direction which will reduce social and professional isolation through email communication is expected to have a strong positive effect on morale and performance of the staff working in the district (21). The internet should provide a cheaper mode of communication with time.

Telemedicine

In Uganda, the hopes of remote diagnosis and treatment embedded in telemedicine are a new hope for very few urban health centers (21). Where particularly this technology is needed due to the disease burden and lower cadre health workers working attending to patients in these areas, the technology has not yet been embraced (22). The persistent poverty, lack of infrastructure, poor investment, and lack of political support hamper its growth.

In conclusion; budget shortfalls in the district are very high and hamper effective and efficient health service delivery to the communities in the district. The government seems not to give the health sector priority during budget allocation. The communication system in the district is still underdeveloped with low use of modern technology in ICTs.

RECOMMENDATIONS

The budget shortfalls need to be reduced to give effective and efficient health service delivery to the communities in the district. The government needs to give the health sector the priority it deserves during budget allocation and adhere to the Abuja declaration.

The communication system in the district needs to be improved by investing more capital to modernize it.

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