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Analysis of the Health Financing Structure of Botswana

Olusola Olabisi Ogunseye*

Department of Environmental Health Sciences, Faculty of Public Health, College of Medicine, University of Ibadan, Ibadan, Oyo State, Nigeria

***Corresponding author:** Olusola Olabisi Ogunseye, Department of Environmental Health Sciences, Faculty of Public Health, College of Medicine, University of Ibadan, Ibadan, Oyo State, Nigeria, Tel: +234 8059399377; E-mail:sholybliss4eva@yahoo.com

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Abstract

Health financing remains a topical issue among policymakers and continues to lead in public discourse as countries design and implement policies, strategies, and approaches to achieve equity in health and universal health coverage. Through a review of literature, this paper analyses the health financing structure of Botswana vis-a-vis the health financing sub-function framework with a particular focus on the strengths and weaknesses of this health financing arrangement. Evidence shows that the government of Botswana is committed to health financing through huge public spending on health and the country boasts of increasing contribution to health financing by the private sector. However, this health financing model is bedeviled by inequity, inefficiency, fragmentation, and uncertainty in the sustainability of government funding. These challenges cast doubts on the nation's capacity to achieve its health system vision and some health financing objectives. Adoption of strategies that worked in other countries such as mandatory national health insurance scheme and results-based financing may facilitate the process of ensuring that financing provided to Botswana's health system efficiently translates to equity in health and assures progress towards achieving universal health coverage.

Keywords: Botswana; Equity in health; Health financing;Health insurance; Health systems; Results-Based Financing; Universal health coverage

Introduction

Botswana is an upper-middle-income southern African country with a population of about 2.2 million [1,2]. Botswana attained impressive economic growth largely driven by the mineral sector (diamond mining), sound economic policies and strong political will[2,3]. According to [2], the top five causes of mortality in Botswana are HIV/AIDS (35%), cancer (6%), stroke (5%), tuberculosis (5%) and ischaemic heart disease (5%). Life expectancy is about 55 years as at 2013 [2,4]. Botswana has a good healthcare coverage with majority of the population having access to basic healthcare services [25], however, there exists low doctor to patient and nurses to patient ratios[2,4]. Botswana has the world's second highest adult HIV/AIDS prevalence [1,3].The aim of this paper is to analyze the health financing structure of Botswana using the health financing sub-function framework with focus on the strengths and weaknesses of this health financing arrangement.

Research Methodology

This article adopted a methodology based on review of peer-reviewed articles and grey literature. Data was collected via extensive review of policy documents, research articles, project manuals, published reports and impact evaluation on health financing in Botswana and other sub-Saharan African countries. Online literature search was initiated on databases such as Google scholar, PubMed and Elsevier using key words and phrases such as health financing, results based financing, health systems, universal health coverage, health insurance schemes etc. These key words and phrases weresearched in combination with countries and region of interest including Botswana and sub-Saharan Africa, to retrieve relevant materials for the purpose of this paper.

Results and Discussion

Vision of Botswana integrated health service plan

To provide an enabling environment whereby all people living in Botswana have the opportunity to achieve and maintain the highest level of health and well-being.

Botswana health financing goal

To raise sufficient resources to ensure that all citizens have access to arrange of cost effective interventions at an affordable price.

To ensure financial incentives and systems are in place to deliver services efficientlyand with a particular focus on the needs of the vulnerable groups.

To enterinto strategic partnerships to support the financing and delivery of health services.

Health financing strategic objectives

To raise additional resources for health

To ensure resources address priority areas

To improve accountability and transparency of health expenditure

To develop a health financing structure capable of addressing the challengesof the future.

To ensure key development programmes are adequately funded [5,6].

Health financing sub-functions

Revenue generation: As shown in Figure 1, funds for health financing are generated majorly by government (57%), about 39% is raised by the private sector while donor funding accounts for 7% [1,3,7,8]. As part of funds generated by government for health financing is alcohol levy or sin tax for funding prevention initiatives of the AIDS programme [9,10]. Figure 2 highlights Botswana's health financing sources in 2010. In 2010, revenue generation for health from public sector, private sector and donors were 68.1%, 24% and 7.9% respectively [2,8]. Even though majority of Botswana's health financing comes from the public sector, it has been observed to be decreasing. There has been a reduction in government spending on health from 68.1% in 2010 to 60.8% in 2011 [2] and 57% reported by [1]. Italso shows an increase in private sector funding of 24% in 2010 [2] and 39% reported by [1]. Botswana has a low out-of-pocket spending on healthcare as percentage of total health expenditure (OOP%THE) of 5.4% [1,2,25].Health financing by private sector comprises of persons enrolled in insurance schemes or out-of-pocket payments [2].

Table 1: Botswana's Key Health Financing Indicators [1].

Key Indicators	
Population (2014)	2.2 million
GDP per captia (2014, current USD)	7.123 USD
Income classification	Upper-middle
Health Financing (2013)	
THE per capita (USD)	397
THE as % of GDP	5.49%
GHE as % of THE	57.10%
GHE as % of GGE	8.80%
OOP as % of THE	5.40%
DAH as % of THE	7.40%
Pooled private as % of THE	39%
HIV financing	
Adult HIV/AIDS prevalence (2014)	25.20%
DAH for HIV as % of TAE (FY 2006/07)	32%
TAE per PLHIV (current USD, 2007)	118 USD
GAE as % of GGE (FY 2006/07)	1.20%
GAE as % of TAE(FY 2006/07)	66%

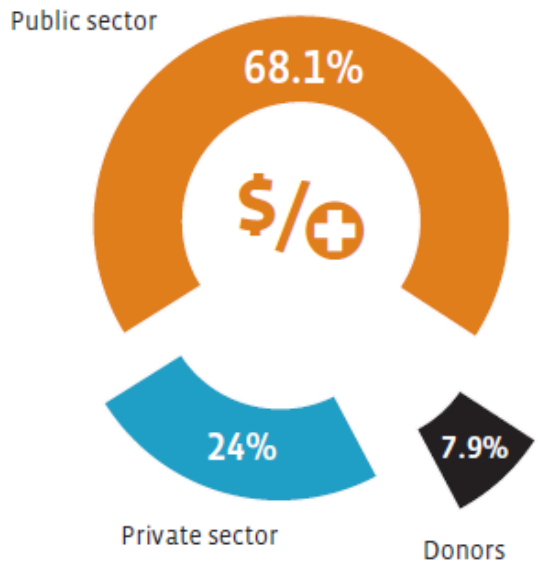

Figure 1: Botswana's Health Financing Sources in 2010[2].

Pooling: Funds for health are pooled by both public and private sectors. Pooling by public sector is achieved at national and district levels [8]. Botswana operates both public and private health insurance schemes which are non-mandatory [25,26]. Pooling by private sector via private insurance agencies amounts to about 39% of Botswana's total health expenditure covering 17% of the population. This is not enough to spread risk across the poor and vulnerable populations [1,4]. Even though poverty rate in Botswana reduced from 30.6% in 2002/2003 to 19.3% in 2009/2010 and further reduced to 16.3% in 2015/2016 [23,24], poor households are not covered by health insurance or medical aid schemes, hence they are vulnerable to impoverishing health spending. There exists high level of inequality and this raises the issue of inequity in Botswana's health financing structure [3].

Purchasing: Both government and private sectors purchase healthcare services. While government purchases healthcare services via line item budgets, private sector through insurance schemes buys services for their clients using fee-for-service mechanism [1,8]. Due to the burden of HIV/AIDS, anti-retroviral treatment is free for all Batswana [1]. Botswana National AIDS Coordinating Agency (NACA) is responsible for administering funds for the provision of HIV/AIDS treatment

and services [7]. Information on modalities of purchasing, contracting and payment mechanisms is unavailable [8].

Assessment of Botswana's Health Financing Structure

Strengths of Botswana health financing structure: The government of Botswana is committed to health financing evident in huge public spending on health [1,3,7,8] and one of the few countries to meet Abuja target of 15% of total government expenditure on health [7,25]. Owing to strong political will and sound policies, Botswana has proved that sufficient revenue can be generated for the health system[11].Botswana has a low out-of-pocket expenditure and a growing private sector involvement in health financing [1,2], however, a 2011 household survey in Botswana by [3] is noteworthy. The study showed that the proportion of households facing catastrophic health expenditure at the 20% and 40% thresholds are 11% and 7% respectively. This indicates that poor and vulnerable households are at risk of impoverishing health spending [25].

Weaknesses of Botswana health financing structure: Despite huge government spending and evidence of economic growth, Botswana still has high levels of poverty and inequity, inefficiency in the health system and low human development indicators [3,25,26]. As a measure of a country's efficiency in harnessing resources into prosperity of its people, the GDP per capita rank minus Human Development Index (HDI)of Botswana was-70.This implies gross inefficiency in the system [3]. There exists poor health and socio-economic indicators despite huge government spending [26]. Table 2 shows that adult mortality rate per 100, 000 population in Botswana (514) was higher than averages for sub-Saharan Africa (401) and upper middle income countries (208). This is not consistent with higher total health expenditures in Botswana compared to sub-Saharan Africa and upper middle income countries [3,26].

Table 2: Botswana's Health Financing and Selected Indicators [3].

Indicator	Year	Botswana	SSA	Upper Middle Income Countries
HIV Prevalence (per 10,000 population)	2007	22,757	4,735	1,482
Adult mortality rate (per 10,000 population)	2007	514	401	208
Total health Expenditure (as a % of GDP)	2006	7.1	5.5	6.3
Total health Expenditure (as a % of total public spending)	2006	17.8	8.7	9.8
Total health Expenditure (as a % of total health expenditure)	2006	76.5	47.1	55.1
per capita health expenditure (at average exchange rate USD)	2006	379	58	412
Per capita Govt health expenditure (at average exchange rate USD)	2006	290	27	225

Furthermore, it has been reported that the health system provides services majorly for individuals in the formal sector. This also raises the issue of inequity in Botswana health system [3].The public sector spending on health is largely driven by general tax from the mineral sector; thus, it is susceptible to fluctuations in exchange rate, international trade and macroeconomics [8,26]. Table 3 shows the SWOT analysis of Botswana's health system.

Table 3: SWOT Analysis of Botswana's Health System [4].

Strengths	Weaknesses
Continued government commitment to health	concerns about long-term financial sustainability
Strong fiscal position	Reliance on donors
Low and declining OOP expenditure	Lack of diversified economy
Opportunities	Low capacity for implementation
Regional medical hub	Financial pressures on MAS
Contracting with private sector	Short-term economic prospects
Reallocation of budget within growing resource envelope	Reliance on migrant labor
	Threats
	lack of competition among providers
Developing lower cost prepayment schemes	Increasing HIV/AIDS costs

	Increasing health costs could hamper competitiveness

Assessment of strengths and weaknesses of the Botswana's health financing system in relation to the stated health system objectives: In relation to Botswana's health system vision of providing an enabling environment whereby all people living in Botswana have the opportunity to achieve and maintain the highest level of health and well-being, government's commitment to health financing is a major drive for achieving this vision, however, gross inequity, inefficiency in service delivery, uncertainty in the sustainability of government funding and fragmentation of the health system along public and private sector lines portend substantial impediment to achieving health and well-being for all Batswana.

On the 5 health financing objectives, it can be inferred from available information that Botswana may be on the path to achieving objectives 1, 2 and 5 except for evidence of inequity, inefficiency and fragmentation. Due to established evidence on inequity and inefficiency in the system and over-reliance on tax-based, mineral sector-driven government health funding, achieving objectives 3 and 4 may be unlikely.

Assessment of strengths and weaknesses of the Botswana's health financing system in relation to path towards universal health coverage: In spite of evidence on inequity, fragmentation and inefficiency in Botswana health system, robust and sustained government support to health financing through high government expenditure on health has shown that Botswana is on the path to achieving UHC and closer to achieving it than other African countries [12,25].

Lessons from other countries

Gabon's National Health Insurance Scheme: Gabon's national health insurance programmers a compulsory health insurance scheme that covers both formal and informal sectors aimed at risk pooling, risk sharing, cross subsidization and equity in health [8,13]. It is implemented in such a way that poor Gabonese can access healthcare even without having to pay [14,15]. Funds are pooled from several sources including civil servants, private sector, beneficiaries and funds dedicated to the poor. The programme has yielded positive results in that OOP%THE reduced substantially [14]. With a compulsory health insurance programme, there is a possibility of a single purchaser. A situation whereby there is only a single purchaser reduces inefficiency in health; thereby ensuring health system delivers on its mandate [8]. This approach, if adopted by Botswana will reduce inequity and fragmentation in the health system thereby advancing objectives 3 and 4 that border on improved accountability and transparency; and to develop a health financing structure capable of addressing future challenges. Botswana operates optional public and private health insurance schemes, hence, calls by relevant stakeholders and partners for Botswana to consider health insurance reform and adopt mandatory health insurance policy [25,26].

Rwanda's results-based financing: Results-Based Financing (RBF) has been suggested to be more effective than other funding schemes [16,17]. RBF proffers innovative approaches to enhance coverage and access to quality healthcare services so that government and partners can track funding to measurable outputs and results [16,18].Results from countries such as Rwanda, Afghanistan, India, Haiti, Nigeria etc. are evidences of the potentials of RBF to yield significant positive outputs [16,19,20]. As part of the Rwanda success story, reports show that RBF improved healthcare in terms of outputs and quality of service with overall increase in coverage of basic health services [21,22].In terms of access, results from initial RBF schemes in Rwanda showed that RBF increased curative care visits per person per year from 0.2 to 0.5, institutional deliveries, measles coverage and family planning acceptors recorded percentage point increases of 11, 11 and 2.8 respectively while quality of care in provinces implementing RBF recorded a quality score of 74% compared to 47% in non-implementing provinces [27]. Impact evaluation of Rwanda's RBF project also indicated improvements in institutional deliveries (23%), preventive care visits by children aged ≤ 23 months (56%) and those within age 24-59 months (132%) [28]. According to [29], RBF reduced inefficiency by as much as 20%. In Botswana health system, the gap between high government spending (financing), poor health indicators and realization of health systems objective (results) may be bridged by results-based financing as it a health sector reform with capacity to strengthen accountability, efficiency and equity [21].

Conclusion and Recommendations

Botswana's health financing analysis shows that government is committed to healthcare and there is growing contribution from the private sector, however, it has also been bedeviled by gross inequity, inefficiency and fragmentation. While Botswana may be on the path to achieving a number of its health system objectives, others appear difficult to attain considering available evidence. Adoption and implementation of innovative health financing reforms such as mandatory nationwide health insurance scheme and/or results-based financing may be helpful in bridging the gap between huge government and private sector spending and the attainment of health systems objectives, which may set Botswana on course to attaining universal health coverage.

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