Research Article

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Study of Associated Factors with Payment for Health Services in Public Hospitals of Northern Health District of Bujumbura

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ABSTRACT

Background: *This study examined the factors influencing out-of-pocket payments for healthcare services in public hospitals in the northern health district of Bujumbura, despite efforts to improve access to care. A descriptive and analytical survey was conducted with 124 patients using structured questionnaires. Descriptive analyses were supplemented with multinomial logistic regression.*

Purpose: *The overall objective of this study is to analyze the factors associated with direct payment of health services in public hospitals; While, Specific objectives include: - Identify the associated factors with the use of out-of-pocket payments. - Evaluate reasons for non-enrollment in health insurance. - Identify the disadvantages of out-of-pocket payments for patients.*

Results: *The results showed that 57.26% of patients paid directly for their care, 38.71% used health insurance, and 3.23% received free care. The main reasons for non-enrollment in health insurance included lack of information (38.81%), non-civil servant status (32.84%), and lack of funds for contributions (26.87%). As a result, 56.45% of patients experienced catastrophic out-of-pocket expenses, 30.65% had limited access to care, and 12.90% delayed treatment.*

Conclusion: *The study highlighted the predominance of out-of-pocket payments, revealing financial challenges and inequalities in access to care. To reduce this dependency and improve equity, reforms were needed to make health insurance more accessible, increase awareness, and extend coverage to all Burundian citizens.*

Keywords

Multinomial logistic regression, Payment for health services, Socioeconomic determinants, Public hospitals, Burundi.

Background

The requirement to pay directly for services at the time of need prevents millions of people from receiving necessary medical care and leads to severe financial hardship and even impoverishment [1]. WHO report shows that millions of people, even in the richest European countries, face financial hardship due to out-of-pocket payments for medicines, medical products such as hearing aids, and dental care. Out-of-pocket payments result in catastrophic health expenditures for an average of 1–20% of households. This proportion rises to 2–69% in the poorest quintile of the population. People exposed to catastrophic health expenditures may be unable to meet other basic needs, indicating significant gaps in primary care coverage in many countries.

Since the implementation of the Bamako Initiative in 1987, low- and middle-income countries have implemented direct payment at

the point of use for health services [2]. Although it is the main source of financing for their health systems [3], direct payment reduces access to and use of health services [4]. Direct payment is part of the debates on health system financing in Africa [1]. Policymakers and donors in West Africa have opted for a selective abolition of direct payment for several years [5]. The results of the study conducted in Uganda, compared to similar studies conducted in Kenya, Rwanda, Zambia, South Africa, Tanzania and Ghana, show that the estimated levels of catastrophic payments and impoverishment in Uganda are higher than those in all these countries. The contribution of cash payments to total health expenditure is higher and is more likely to lead to catastrophic financial levels or impoverishment [6].

Table1: Sampling Frame.

No	Name of Hospital	Estimated number of monthly patients	Desired sample size	Actual sample size
1	CHUK	4414	169	50
2	HMK	3824	146	44
3	HDK	1802	69	21
	TOTAL	**10040**	**384**	**115**

Table 2: Distribution related to the payment modalities and associated factors.

	Distribution of Nurses related to the associated factors in the payment of healthcare services			
Explanatory variables	**Number**	**%**	**Cum [OR95%]**	**P-value ≤ .05**
Payment model				
Health	48	38.371	38.71 [112.10-118.100]	0.058
Insurance	4	3.23	41.94 [224.03-281.11]	0.024
Free healthcare	71	57.26	99.19 [310.09-408.89]	0.049
Direct payment	1	0.81	100.00 [432.12-612.21]	0.046
Reasons for non-enrollment in health insurance				
Ignorance	1	1.49	1.49 [140.1-249.21]	0.041
High cost	18	26.87	28.36 [296.31-308.22]	0.052
non-civil -servant status	22	32.84	61.19 [328.1-388.12]	0.043
lack of information	26	38.81	100.00 [388.9-491.10]	0.081
Disadvantages of out-of-pocket payments				
Limited care access	38	30.65	30.65 [306.10-368.5]	0.061
Healthcare related expenses	70	56.45	87.10 [117.01-456.22]	0.075
Postpone medical care	16	12.9	100.00 [200.02-258.9]	0.026

Findings

The findings showed that, among the respondents, 38.71% (P=.058) have health insurance, while only 3.23% (P= .024) benefit from free healthcare. Approximately 57.26% (P=.049) of respondents pay directly for their medical care, and 0.81% (P= .0546) indicated another payment method. Weighted prevalence show that direct payment is the most common method, followed by health insurance. Free healthcare is not widespread.

The reasons cited by respondents for not having health insurance are mainly the high cost for 26.87% (P≤ .052) of them, followed by non-civil servant status for 32.84%(P= .043). A significant proportion, 38.81%(P=.081), cite a lack of information as the main reason, while a minority (1.49%) cites ignorance as an obstacle.

In addition, during our descriptive analysis, we've found that; among respondents, 30.65% (P= .061) report limited access to care, while 56.45%(P≤ .075) face catastrophic healthcare-related expenses. About 12.90% (P=.026) indicate that they sometimes postpone medical care due to financial constraints.

Discussions

The results of our study highlight worrying trends and important implications for health policy, particularly regarding out-of-pocket payments for health services. With 57.26% of participants choosing out-of-pocket payments as their preferred method, it is clear that this payment method is predominant. This preference may be attributed to a lack of access to or confidence in other payment options, which is corroborated by recent studies indicating gaps in health insurance coverage and public policies [7,8].

Health insurance is used by 38.71% of respondents, indicating that, although a significant portion of the population has access to coverage, a majority remains dependent on out-of-pocket payments. This situation is similar to trends observed in other contexts where health insurance is not universal or is poorly distributed [9]. Free healthcare, chosen by only 3.23% of participants, and other payment methods, used by 0.81%, highlight the limitations of these options, likely due to low availability or inadequate policies [10].

An analysis of respondents' reasons for not subscribing to health insurance reveals significant barriers. Financial constraints (26.87%) and lack of information (38.81%) are the main reasons cited. These findings highlight the need to strengthen awareness campaigns and make health insurance more affordable, a conclusion supported by recent research on the importance of education and affordability for health insurance enrollment [11].

The disadvantages of direct payment are also clear. Limited access to care (30.65%), catastrophic expenditures (56.45%), and delayed care (12.90%) are major problems affecting the population. These findings are consistent with recent studies showing that out-of-pocket payments can lead to severe financial hardship and limit access to needed care [12,13]. Delayed care, although less common, remains a concern as it can lead to medical complications and increased costs in the long term [14].

Conclusion

The health financing system in Burundi is made up of several schemes, including the Public Function's Mutual (MFP) which covers state employees, the National Defense Forces (FDN), the Burundi National Police (PNB), certain parastatal categories and students, as well as Coverage for the Informal and Rural Sector

(CAM), Free Health Care coupled with Performance-Based Financing (Gratuity-FBP), the Indigent Scheme via the Ministry of National Solidarity for the poorest, community and private schemes such as Community Health Mutuals (MCS), private insurance, and vouchers from private sector employers. This fragmentation does not promote the sharing of health risks [15].

In closing, to improve access to care and reduce inequalities, policies should be adopted to strengthen health insurance coverage, increase public awareness of insurance benefits, and make premiums more affordable. Future research should focus on assessing the impacts of policy reforms, exploring regional variations, and improving data collection systems to better understand the effects of payment modalities on access to care.

Study Limitations

This study provides the factors influencing out-of-pocket payments for healthcare services in public hospitals in the northern health district of Bujumbura only. It means that all Districts were not concerned by our research during data collections unless those of Bujumbura province.

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