Abstract

Equity in access to maternal health care services is one of the global development agenda and an integral part of the Sustainable Development Goals (SDG 3). This study determined the prevalence of out-of-pocket medical health expenditures, examined the association between socio-demographic characteristics and out-of-pocket medical expenditures, and assessed the influence of barriers and facilitators of community-based health insurance schemes on payment of catastrophic health expenditures. This was with a view to providing information on health financing outside of the formal sector and tease out evidence on socio-economic and health inequalities. The study adopted a cross-sectional research design, using primary data collection method and quantitative methodology. The study conducted hospital-based research and used an interviewer-administered questionnaire through a purposive sampling technique which involved stratification of health facilities in urban rural areas of the study area. The study area was selected purposively based on familiarity, closeness and preponderance of aging population in Osun State. Two local government areas, including Ife East and Ife central were purposively selected for the selection of health facilities. Subscribers of community-based health insurance schemes were approached in the national health insurance office and within the health facility for interviewing. Data were analysed using frequency distribution and percentage, Chi-square statistical test, and binary logistic regression model. The level of significant was fixed at 0.05. Results showed 21.4% reduction in health expenditure, 12.0% believed CBHIS did not reduce financial risks and 78.3% reported CBHIS did not cover the cost of medications. The study also revealed that religion, household size, mass media, number of children, distance to health facility were significantly associated with out-of-pocket medical spending. This study concluded that CBHIS did not reduce out-of-pocket expenditures and that socio-economic, demographic and health facility-related barriers influenced medical health. Policy makers and programmers should design and implement interventions which encourage equitable health, especially for the socio-economically disadvantaged populations.

Context

Out of pocket payment for healthcare remains a barrier to accessing health care services in sub-Saharan Africa (SSA). Many low-income and middle-income countries (LMICs) grapple with the challenge of raising sufficient funds to finance health services in an equitable way (World Bank, 2015). Although, it is expected that governments should play a leading role in this regard, most governments in these countries are constrained by the high proportion of informal workers. Also, many other socio-economic challenges, such as high public debt, dismal health system and rapid population growth rate have made it difficult to increase government spending on health (World Health Organisation, 2019). As a consequence, only a small fraction of government revenue is allocated to providing healthcare services for the population and this makes the burden of diseases higher than that of the developed countries (UNICEF, 2019). In response to adverse effects of direct out-of-pocket payments, the World Health Organisation (WHO) is encouraging countries to move towards universal health coverage (UHC).

What is more, the socio-economically disadvantaged are shortchanged, widening the hitherto inequality gap (Anjorin et al., 2021; Onwujekwe et al., 2019). On the other hand, household with improved socio-economic status also incur much out-of-pocket expenditure because of the structural challenges in the health system which make them approve of private health facilities. However, private health facilities plunge rich household, urban resident more into poverty and

catastrophic health expenditures. This paper argues that poor access to health care services stems not only from the demand-side factors but from health system structural challenges. The paper is explained by the thesis of Andersen Health Belief Model.

Theoretical framework

Andersen behavioural health utilisation model

The Andersen model of health care utilisation, was developed by Andersen in 1968. This is a conceptual model with the aim of identifying the factors encouraging individuals to use health services, and likewise an appraisal of the level of individual access to healthcare services. Based on this model, health services utilisation is a function of three factors namely: predisposing factors, enabling factors and needs factors (Andersen, 1968), which has been adopted in explaining the reasons for individual health behaviour. For a better scope, this model was revisited in 1995 as an augmentation of Anderson and Newman, with the aim of improving the novelty of the model, which led to the inclusion of race and ethnicity (Andersen & Newman, 1995).

1. **The predisposing factors**: This factor explains the socio-demographic characteristics of individuals that exist before their need to seek for healthcare service, (such as age, gender, attitude, social structure). According to Andersen, these factors look uncontrollable by the individuals, yet they influence their choice of healthcare use (Andersen, 1995). This could be explained in this study as the tendency for mothers to decide (their use of the healthcare facility or not), which can be predetermined by the level of socio-demographic factors such as age, level of education, ethnicity and employment status.
2. **The Enabling factors:** This explains the health seeking behaviour of people from the aspect of existing logistics and availability of resources that enhance easy accessibility of healthcare services. services due to inequality in wealth/income distribution, thereby revealing its effect on healthcare services use by mothers in the urban slum (Ayele *et al*., 2014).
3. **The needs factors:** This factor helps to relate with the perceived and the actual need for healthcare services. In line with this study, this factor will help to understand mothers' disposition to seeking health care services, especially in a situation where they might feel more exposed to harm rather than help. When a woman perceives that visiting the health facility might not benefit her, there is tendency that she would not visit the hospital.

Multivariable analysis of socio-demographic health-related factors and out-of-pocket medical expenditures

Out-of-pocket medical expenditures	**OR Model 1**	**CI**	**OR Model 2**	**CI**	**OR Model 3**	**CI**
Age						
18 – 34	RC				RC	

35 – 59	0.64	0.23 – 1.8			0.54	010 – 2.89
60+	1.23	0.25 – 6.08			6.97	0.41 – 11.74
Sex						
Female	RC				RC	
Male	1.25	0.68-2.28			0.45	0.15 – 1.32
Education						
No education	RC				RC	
Primary	2.07	0.94 – 4.55			3.23	0.83 – 12.48
Secondary	2.14	0.84 – 5.42			1.87	0.1 – 8.40
Tertiary	1.22	0.56 – 2.65			1.94	0.55 – 6.86
Employment						
Self employed	RC					
Unemployed	1.03					
Retired	0.57					
Religion						
Christianity	RC				RC	
Islam	7.20	3.18 – 16.33			177.61	15.13 – 398.10

Traditional	2.70	0.32 – 22.33			79.69	5.83	142.67
House lists size							
Small							
Large	RC				RC		
	0.54	0.21 – 1.32			0.22	003-	1.42
Residence							
Rural	RC				RC		
Urban	0.50	0.19 + 31			22.83	1.60	-3240.35
Marital status							
Never married	RC				RC		
Married	10.44	2.41 – 45.19			11.46	0.15	841.44
Separated	7.55	5.77 – 74.08			0.06	0.001	20.86
Partners education							
None	RC				RC		
Secondary	0.19	0.04 – 0.76			0.24	0.01	5.23
Tertiary	1.3	0.48 – 3.68			69.96	5.68	860.80
Number of children							
1 – 2	RC				RC		
3+	0.14	0.04 – 0.48			0.009	0.002	-0.31
Distance							
A big problem			RC		RC		
Not a problem			0.54	0.21 – 1.35	0.06[xxx]	0.04	-0.89
Cover medical Costs							
Yes			RC		RC		
No			0.13[xxx]	0.04 – 0.39	0.04[xxx]	0.005	-0.41

Source of information							
CBHIS							
Newspaper			RC		RC		
Radio			17.11	0.91-55.13	7.11	0.91	-55.13
Television			112.88	12.07-105.17	12.88[xxx]	12.07	-1055.17
Health provider			4.22	0.34-58.60	4.52	0.34	0.34-56.62
Others			915.857	34.99-300.91	915.85[xxx]	34.99-	2396.23