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DETERMINANTS OF CHOICE OF HEALTH FACILITIES IN RURAL KENYA

Ndemwa Phyllis
Department of Economics and Finance,
Jomo Kenyatta University of Agriculture and Technology, Kenya
kakenendemwa@gmail.com

Willy Muturi, PhD
Department of Economics and Finance,
Jomo Kenyatta University of Agriculture and Technology, Kenya
wmuturi@ihrd.jkuat.ac.ke

Abstract

Access to healthcare is a fundamental need in the life of any individual and a basic right to every citizen of a country. To have a choice of which health facility to visit means deliberately preferring the health facility where you will maximize utility and achieve the best health outcomes and hence healthcare development. This is goal can only be achieved by establishment of healthcare facilities. The purpose of this study was to establish the determinants of choice of health facilities in rural Kenya. The objectives of this study were; to determine the effect of household income on the of choice of health facility, to determine the effect of cost of care on the of choice of health facility and to determine the effect of distance to healthcare facilities on the of choice of health facility. The theoretical framework was based on the Mechanic's theory of help seeking behavior. The research design that was used for this study was descriptive research design. The target population consisted of 85 attendees of various health facilities in Gatundu North Subcounty. The study utilized primary data from 2023 which was analyzed using STATA, using cross sectional data analysis techniques using a multinomial logit model. The study concluded that as individuals get older, they opt for public healthcare as opposed to the younger population, that males are less inclined to choose public

health facilities as their preferred facility that individuals with higher levels of education are more inclined to seek professional healthcare services that people with a higher income are less likely to seek healthcare from public facilities, that as the cost of treatment increases, more household are likely to opt for public health care over church-based and private facilities, and church-based facilities over private facilities and as distance increases, there is a corresponding decrease in the likelihood of a household seeking care from a health facility with the impact being most felt in public facilities. The information and conclusions obtained from this study will benefit policymakers as it will inform policy on how to target healthcare outreach for different age groups, avail affordable healthcare options and structure healthcare support for larger households.

Keywords: Household income, Cost of care, Distance to health facilities, Kenya

INTRODUCTION

Access to healthcare is regarded as a fundamental human right for all people, and it can be attained in a number of ways, including by increasing the accessibility of primary healthcare services, expanding primary healthcare access, increasing the number of qualified healthcare providers, lowering healthcare costs, and improving the overall effectiveness of the healthcare system. To ensure that the population can easily access healthcare services, health facilities must be physically accessible and within a reasonable walking distance of people's homes (Noor, 2016).

Nevertheless, despite the significance of having access to healthcare, many people all over the world are forced into poverty each year as a result of the cost of paying for essential medical care. Households where members must pay for healthcare out of pocket are particularly affected by this burden. Surprisingly, 800 million people are required to devote at least 10% of their household budgets to healthcare costs, which can push close to 100 million people into extreme poverty as they struggle to make ends meet on less than $1.90 per day (WHO, 2017).

Africa's healthcare systems have long struggled with a wide range of problems, including those related to institutional, human resource, financial, technical, and political issues. In order to combat this, the WHO developed a framework in 2007 that breaks down healthcare systems into six main "building blocks" or components: service delivery, healthcare workforce, healthcare information systems, medicines and technologies, financing, and leadership/governance (WHO, 2019). However, due to poor governance and issues with human resources that prevent the integration of services in countries with limited resources, many African countries find it difficult to meet the fundamental requirements for efficient healthcare systems (Marais, 2015).

Due to the inadequacies of local healthcare facilities, medical tourism-a phenomenon brought on by the shortcomings in African healthcare systems-has become common. For instance, over 5,000 Nigerians leave the country each month to receive medical care abroad, costing country's economy about 1.2 billion US $ annually (Abubakar, 2018). Financial obstacles, high out-of-pocket costs, a lack of human resources, and frequent healthcare worker strikes that impede service delivery are some of the other healthcare challenges in Africa (Adeloye, 2017).

Nigeria, Ghana, Tanzania, Rwanda, and Ethiopia are among the nations that have social health insurance programs in place to address the lack of financial risk protection mechanisms in the continent. The fact that out-of-pocket payments are still necessary for medical care, even in emergency situations, means that many people in the area continue to face financial difficulties (Fenny et al., 2018). As a result, the poor are disproportionately burdened with high healthcare costs. Employee strikes are common in nations like Nigeria due to the non-implementation of pertinent policies and agreements between the government and healthcare workers, which has a negative impact on healthcare services (Oleribe, 2018).

Africa's urban and rural areas have very different approaches to spatial planning. In rural areas, limited development has led to a lack of health centers and referral facilities, and frequently, the difficult geographic terrain makes it difficult to provide timely ambulance services. Health centers may be within a 2-kilometer radius in urban areas, but accessibility problems still exist because of financial limitations, particularly high transportation costs (McLaren, 2014).

Due to a lack of affordable options, poor care coordination, a shortage of healthcare facilities, decentralized healthcare management, and an insufficient supply of qualified healthcare professionals, access to healthcare services is limited in many African countries (Atupamoi, 2017). Many rural communities in Kenya experience difficulties getting access to health care, which results in the limited availability of critical services. Inequalities in in-patient healthcare services continue despite an increase in the number of hospital beds and the healthcare workforce. Inequalities in access to healthcare services across the nation are suggested by important health indicators like maternal and under-five mortality rates (Kenya National Bureau of Statistics [KNBS], 2008).

Since gaining its independence, Kenya has worked to improve the health of its people by building more medical facilities. Since 1994, the Kenya Health Policy Frameworks (KHPF) have served as a guide for the Kenyan healthcare system. The implementation of the new system still faces difficulties despite the devolution of healthcare duties to county governments, which limits the impact of devolution on healthcare utilization. These difficulties include unequal distribution of healthcare facilities, a high prevalence of diseases, and insufficient responses to healthcare needs (KNBS, 2014).

In Kenya, where healthcare facilities and equipment are not evenly distributed, using health services is essential for improving health outcomes. Even though roughly 77% of sick Kenyans seek treatment from skilled medical professionals, a sizable portion of the population still does not seek care from qualified health providers, a significant portion of the population still does not seek medical care when ill. Understanding the factors that affect healthcare utilization is essential to improving health in Kenya (Mwami & Oleche, 2017).

Statement of the problem

The choice an individual makes when selecting a health facility is tied to how they perceive quality. Grönroos (1984), states that technical quality varies from patient to patient, although functional quality is often consistent. Patient satisfaction is frequently determined by functional quality. These include the caliber of the hospital, the income of the individual, the recommendations and advice of the physicians, the anticipated cost of care, the guidance of the medical insurance providers, the counsel of family and friends, and the physical infrastructure, which includes accessibility to hospitals. One would anticipate that making decisions is a logical process that entails sorting through the facts at hand and applying it to make an informed choice.

The two most significant barriers to entry in the Kenyan health system are the cost of care, and the availability of suitable care within a reasonable distance. Insufficient government funding, unequal distribution health workers between urban and rural areas and scanty distribution of medical equipment and drugs impede the process of providing accessible and quality healthcare. Funding by the national government to the health sector has been inadequate for minimizing out of pocket expenses on care. These barriers result to inefficiencies in service delivery which has proved insufficient in stimulating health seeking behavior particularly in impoverished communities. (Otieno, et.al, 2020)

Kenya's Vision 2030 development blueprint seeks to invest in people in order to improve the quality of life for all Kenyans by targeting a cross-section of human and social welfare projects and programs with health as a key sector. This means that all people and communities have a choice on the preventive, curative, rehabilitative and palliative health services they require, of sufficient quality to be effective, while also ensuring that these services do not expose them to financial hardship. One of the four goals outlined by the sitting government's Big 4 Agenda is the Universal Health Coverage (UHC) which seeks to ensure that everyone has access to quality and affordable medical coverage.

A key priority in this context is to address why individuals choose the health facilities that they choose because the primary consumer of healthcare is the patient. According to Chelongoi

(2020), lack of choice to access health facility reduces disposable incomes, particularly burdening the lower income households. These households cannot afford the care they need and are therefore forced to forego the care altogether. This study sought to establish the determinants of choice of health facility in rural Kenya.

Objectives of the Study

Main objective

- To identify the determinants of choice of health facility in rural Kenya.

Specific objectives

1. To determine the effect of demographic and social characteristics on the choice of health facility in rural Kenya
2. To determine the effect of household income on the choice of health facility in rural Kenya.
3. To determine the effect cost of care on the choice of health facility in rural Kenya.
4. To determine how distance to health facility affects the choice of health facility in rural Kenya.

Research questions

1. What are demographic and social characteristics of health facility attendees?
2. What is the effect of household income on the choice of health facility in rural Kenya?
3. What is the effect of cost of care on the choice of health facility in rural Kenya?
4. What is the effect of distance to health facility on the choice of health facility in rural Kenya?

Justification of the Study

To empower a population to the ability to make a proper choice on which health facility to attend requires a sober debate on proper policy formulation and healthcare workers' capacity building, and corruption eradication. The study findings will be useful to county health and sanitation services ministries, primary healthcare service providers, public healthcare workers, health facilities managers, and health stakeholders interested in refining the functionality and ease of access of health facilities. Furthermore, the study recommendations will be valuable in conceptualizing how to promote accessibility to healthcare service delivery and how to overcome barriers of choice of health facilities.

LITERATURE REVIEW

Theoretical review

The study was anchored on Mechanic's theory of help seeking behavior which defines illness behavior as the presence of a state of health that triggers concern of an individual to seek help for the symptoms exhibited. Mechanic (1995) asserted that different people respond differently to various bodily indications. This theory is therefore concerned with the way in which people monitor their body states, interpret symptoms and make decisions to utilize health care. The response given to certain signs and symptoms is determined by the contextualized definition of the present situation (Mechanic, 1978). Individuals who are close can also influence the decision taken by the sick person. The determinants of illness behavior include symptoms perception, nature, interpretation and their residual category (Mechanic, 1978). The perception is influenced by recognition and visibility of the symptoms, their perceived danger, cultural assumptions, knowledge level and the available information. The nature of the symptoms further influences decisions based on the extent to which they affect one's work, family and social networks. The persistence and frequency of the symptoms also affect the illness behavior as they act as the measure for the level of tolerance for the symptoms. One interprets the symptoms based on the availability of basic needs and other needs vis-à-vis illness response.

Conceptual framework

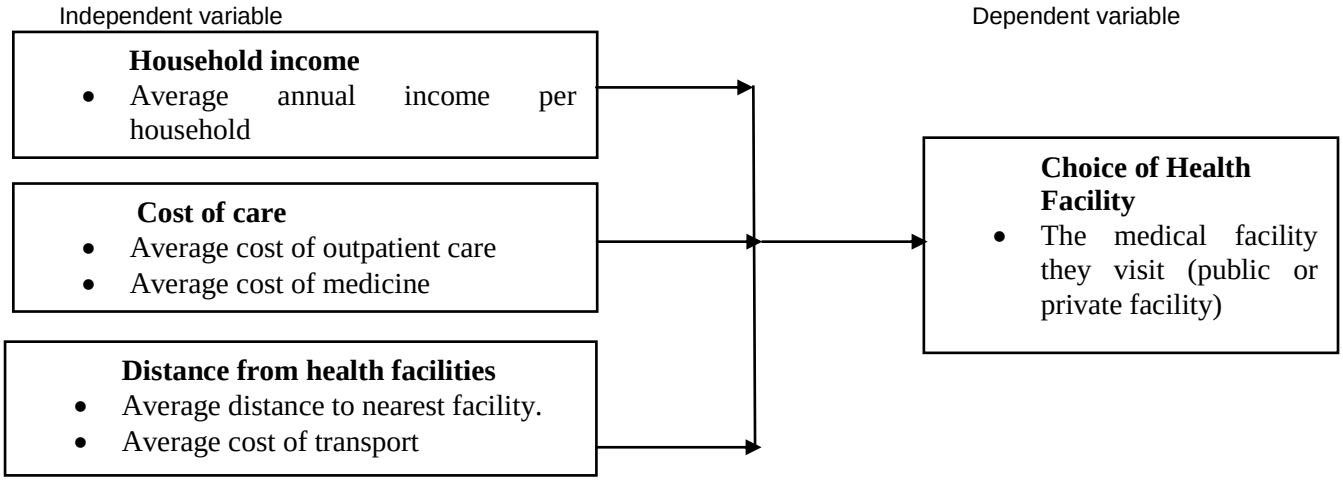

Figure 1: Conceptual framework

In order for the health sector to bring about broad improvements in health in Kenya, it is important to comprehend who is currently using the available health facilities, and identify the factors that prevent those who do not seek care from doing so. It is also vital to look at the choice of the medical facility that individuals visit; whether it's public facility or private facility.

This study will come in handy to provide essential information that will guide on the steps and policies being implemented to increase access to healthcare in occurrence of diseases.

Empirical framework

Musyoka (2019) carried out a study on the effect of poverty on healthcare utilization, choice of healthcare providers and health status in Kenya. The dataset was from the 2013 Kenya Household Expenditure and Utilization Survey (KHHEUS) it was collected from a total of 33,675 households drawn from 1,347 clusters divided into 814 (60%) rural and 533 (40%) urban clusters. The survey covered 44 counties. Garissa, Mandera, and Wajir counties were not covered by the survey. The conclusions of the study implied that reduction in poverty led to increase in health care utilization and that increase in wealth index increased the probability of visiting a private health facility. This is because increase in wealth leads to poverty reduction, hence increased the probability of individuals choosing private health facilities compared to government, mission and other health facilities *ceteris paribus*. The study did not however cover the aspect of household income.

Chelongoi, Jonyo & Amadi (2019) carried out a study on the influence of institutional factors in access to healthcare in Kenya: A case of Nairobi County. The study used data from a sample of 1066 households purposively selected from Nairobi County. All households were aged 15 years and above. The households were subjected to interviews that covered a wide range of topics. Descriptive design was chosen for the study. The study adopted multiple sampling methods for the study. The findings showed that access to healthcare is inadequate and unevenly distributed among the households in Nairobi County. The factors attributed to these inequalities were inadequate and poorly implemented health policies, inadequate health facilities, and inadequate health workers, shortage of essential drugs, low level funding and poorly managed health insurance. Nevertheless, the study did not highlight the cost of care as a factor influencing access to healthcare services and it was based in the urban area.

Njagi, Arsenijenic & Groot (2020) carried out a study on the cost-related need for healthcare services in Kenya using data from the 2013 Kenya household health expenditure and utilization (KHHEUS) cross sectional survey. Self-reported unmet need due to lack of money and high costs of care is used to compute the outcome of interest. A multilevel regression model is employed to assess the determinants of cost-related unmet need, confounding for the effect of variations at the regional level. They found out that cost-related barriers are the main cause of unmet need for outpatient and inpatient services, with wide variations across the counties. A positive association between county poverty rates and cost-related unmet was noted. While this study will borrow from this, it is with note that it is of urban setting.

Muriithi (2013) investigated on the determinants of health-seeking behavior in Nairobi slums. The data used for the study was collected in Kibera slum. He used the multinomial logit model in data analysis. He found out that distance has a significant negative effect on choice of health provider with increased distance increasing the likelihood of self-treatment; gender affects choice of health provider with the females having a higher likelihood of visiting a health provider than their male counterparts; and user fees decreases the likelihood of seeking health care from a formal health professional. The factors that had significant positive impact on seeking health care from a health provider include trust, wealth, size of household, education, quality of care, and increased information on health service quality. The current study borrows a lot from this study, but with changes in the factors considered. The most outstanding factor that will be considered in this study distance. The study did not however cover rural areas.

METHODOLOGY

Research design

The study adopted a descriptive research design. This design was used because it provided for observation of the variables in their natural / unchanged environment, it is effective in quantitative studies and are accurate with large amounts of data (Burns & Grove, 1993).

Target population

The study was conducted in Gatundu North Subcounty; one of the 12 sub-counties in Kiambu County. It has 11 public hospitals, 19 private hospitals and 2 church-based hospitals. The target population was the attendees / patients of the health facilities in the subcounty. The researcher administered 85 questionnaires to attendees of 10 health facilities distributed across the variety.

Sampling procedure and sampling size

The researcher used judgemental sampling method. The researcher visited each of the sampled health facilities and directly administered the questionnaires to the target number of respondents. The researcher then guided the respondents through the questionnaires. The researcher sampled 85 respondents from various health facilities.

Data collection and data analysis

Upon acquiring an introductory letter from the department, the researcher self-administered questionnaires to respondents to gather the required data. The study data from the questionnaires was analyzed using the descriptive statistics with the help of STATA, a data

analysis software which offers extensive data handling capabilities and numerous statistical analysis routines that can analyze small to very large data statistics (Muijis, 2004) and Microsoft Excel where necessary.

This study utilized a Multinomial Logit Model. This implies that the visit decision involved a comparison of the utility obtained from each option. A Multinomial Logit Model is specified as:

$(yi = j) = e\ \beta jvi / \sum j\ j = 1\ (e\ \beta jvi)$ $\quad j = 1...,j$

because $\sum^{J}_{Yj=1} = 1$ a restriction is needed to ensure model identification and the usual restriction is that $\beta_1 = 0$. In a multinomial logit model, deviations in coefficients are used to compute marginal benefits expected at alternative source of treatment. The facility with the highest benefit was chosen;

$V_{ij} = pr(V_{ij} > V_{ik})$ For all $j \neq k$

Where: V_{ij} is the probability of visit to facility j by individual i while

V_{ik} is the probability of visit to facility k by the same individual i,

V_{ij} are expected benefit of treatment that individual i expect at facility j.

FINDINGS

Table 1: Multinomial probit parameter estimates (t-statistics in Parentheses)

variable	Public hospital	Private hospital	Church-based hospital
	Coefficients	Coefficients	Coefficients
Gender	-1.011584	.0805103	.9310732
	(-1.54)	(0.18)	(1.40)
Age	-.05525571	.0377616	0.174955
	(-1.40)	(1.18)	(0.43)
Marital status	-.0628257	-.3950799	.4579056
	(-0.13)	(-1.11)	(0,99)
Education	-.6951877	.2445727	.4506149
	(-2.18)	(1.23)	(1.38)
Household income	.1591265	.7511028	-.9102294
	(0.33)	(2.22)	(-1.89)
Cost of medicine	-.1280343	.1444281	-.0163939
	(-0.25)	(0.46)	(-0.03)
Total cost of treatment	-.0844404	-.2738414	.3682818
	(-0.16)	(-0.74)	(0.66)
Distance to health facility	.1253725	-.1915783	.0662058
	(0.30)	(-0.69)	(0.16)
Cost of transport to health facility	-.6323924	.1448862	.4875063
	(-1.35)	(0.41)	(1.06)
Constant	8.841531	-3.034124	-5.807407
	(2.88)	(-1.74)	(-1.87)
Number of obs= 85	Log likelihood= -66.503202	Wald $chi^2(18)$= 27.27	Prob>chi^2 = 0.2347

Based on Multinomial Logit Model testing, the study found:

As individuals get older, they opt for public healthcare as opposed to the younger population.

Males are less inclined to choose public health facilities as their preferred health facility.

Individuals with higher levels of education are more inclined to seek professional healthcare services.

People with a higher income are less likely to seek healthcare from public facilities because they have the capacity to seek healthcare from relatively expensive facilities.

As the cost of treatment increases, more household are likely to opt for public health care over church-based and private facilities, and church-based facilities over private facilities.

As distance increases, there is a corresponding decrease in the likelihood of a household seeking care from a health facility with the impact being most felt in public facilities.

RECOMMENDATIONS

Based on the findings of this study, targeted outreach for different age groups should be carried out. Recognizing the influence of age, healthcare providers and policymakers should tailor outreach and awareness campaigns to address the changing healthcare needs of different age groups.

There should be alternative affordable healthcare options. To attract higher income households to public facilities, policymakers could consider implementing measures to make public healthcare more appealing and affordable for all income groups.

In addition, there should be support for larger households. Public health initiatives could consider providing support and services catering to the healthcare needs of larger households, recognizing their distinct challenges and requirements.

Efforts should be made to improve access to healthcare by minimizing travel barriers, especially for public facilities, which are more sensitive to distance-related issues. This might involve improving transportation options or establishing satellite clinics in underserved areas.

Finally, there should be a structure for appointment reminders. Given that a significant portion of missed appointments are due to distance, healthcare facilities could implement reminder systems to help patients plan and manage their travel arrangements effectively.

SCOPE FOR FURTHER RESEARCH

The study only focused on Gatundu subcounty. The study therefore recommends the further study to be extended to cover the rest of Kiambu county. The study also recommends that future studies should be conducted to examine the factors affecting access to healthcare services other counties in Kenya. The study also recommends that future studies should seek to establish utilization of inpatient care as well as utilization of medical insurance.

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