Journal of Public Policy & Governance

Effects of Accessibility on Health Service Delivery in Public Hospitals in Kilifi County, Kenya

Charles Chesaro & Heather Kipchumba

ISSN: 2616-8413

Stratford Peer Reviewed Journals and Book Publishing
Journal of Public Policy & Governance
Volume 7||Issue 1||Page 99-113||May||2023|
Email: info@stratfordjournals.org ISSN: 2616-8413

Effects of Accessibility on Health Service Delivery in Public Hospitals in Kilifi County, Kenya

[*1]Charles Chesaro & [2]Heather Kipchumba

[1]Masters' student, public policy & administration, Kenyatta University, Kenya

[2]Lecturer & Supervisor, public policy, Administration & Management, Kenyatta University, Kenya

***Email of corresponding author: cchesaro78@gmail.com**

***How to cite this article*: Chesaro C. & Kipchumba H. (2023). Effects of Accessibility on Health Service Delivery in Public Hospitals in Kilifi County, Kenya. *Journal of Public Policy & Governance*, 7(1), 99 - 113.** https://doi.org/10.53819/81018102t3078

Abstract

Achieving UHC has remained a severe challenge globally, with countries experiencing severe gaps in the healthcare delivery system. Therefore, this research intends to bridge the gap by investigating UHC's effects on healthcare services in Kilifi County. The study aims to establish how accessibility affects health service delivery in public hospitals in Kilifi County. Institutional and new public management theories guided the study. The study adopted a descriptive research design and targeted a total of 2875 participants comprising both healthcare workers and patients attending the healthcare facilities and senior healthcare management team. The researcher adopted stratified random and convenience sampling to select 288 subjects for the study. A pilot study was undertaken to establish the validity and reliability of data collection instruments. The data were collected using a structured questionnaire for quantitative data and an interview guide for qualitative data, and the results were presented using percentages and frequency tables. Descriptive statistics and a regression model were used to analyze quantitative data, while qualitative data utilized thematic analysis. The results from the study showed that there was a significant association between accessibility factors for the patients where availability of services was associated with increased service delivery OR =1.25,95% CI=0.90-1.74, p=0.190) while staying further away from the facility is associated with decreased service delivery (OR) =0.76,95% CI=0.34-1.67, p=0.49). Similarly, easy accessibility was associated with improved service delivery on healthcare workers' factors OR =1.09,95% CI=0.21-5.68, p=0.9180). Thematic analysis revealed similar findings where increased accessibility was associated with increased service delivery. The results of the study were used to make recommendations for improving accessibility through integrating healthcare services within different departments and healthcare facilities using ICT. Finally, the study recommends further research on how technology in healthcare will increase accessibility.

Keywords: *Universal Health Coverage, Accessibility, Affordability, Quality, Service Delivery*

https://doi.org/10.53819/81018102t3078

Stratford Peer Reviewed Journals and Book Publishing
Journal of Public Policy & Governance
Volume 7||Issue 1||Page 99-113||May||2023|
Email: info@stratfordjournals.org ISSN: 2616-8413

1.0 Introduction

The 1978 Alma-Ata Declaration recognized "health for all" as a universal human right (Bloom et al., 2018; Hammonds & Ooms, 2014; WHO, 2019). The outcome of the Alma-Ata Declaration led to the creation of the Millennium Development Goals (MDGs) by the United Nations (UN). Building on the gains made by these two approaches, the Universal Health Coverage (UHC) program was established by the World Health Organization (WHO), the United Nations, and other partners around the world. UHC is enshrined in the Sustainable Development Goals (SDGs) and aims to ensure health security and free access to adequate, quality health services without undue financial burden. (WHO, 2020). According to WHO (2020), UHC consists of health promotion, disease prevention, treatment, rehabilitation of those affected, and palliative care. In addition, it is characterized by access to quality medical services without financial hardship. It includes a range of incentives essential to promoting public health, such as welfare systems and infrastructure. The UHC agenda was driven to accelerate the progress for sustainable development and global security (WHO, 2015). UHC, therefore, has been recognized as a priority objective of every healthcare system (Mills et al., 2012; Kutzin, 2013), and this vital role can be witnessed in the frequent WHO calls for their member states to implement affordable healthcare that is accessible to everyone without catastrophic expenditure. UHC has received tremendous support as an imperative health goal post the 2015 MDGs (Evans, Marten & Etienne, 2012; D'Ambruoso, 2013). Researchers have established that UHC advances the health of the poor and vulnerable populations (Moreno-Serra & Smith, 2012), has a significant influence on the financing of global health systems and is a catalyst for poverty reduction (Jamison et al., 2013) and as a pre-requisite for sustainable development (Evans, Marten & Etienne, 2012).

The African region has also made credible progress in UHC implementation. UHC has been implemented in South Africa (White & Rispel, 2021); Nigeria (Mohammed et al., 2018); Ghana, Ethiopia, and Rwanda (Wanga et al., 2017); Uganda (Odonkonyero et al., 2017) and Kenya (Wanjiru, 2014; Okech & Lelegwe, 2016). Despite the gains made by these African countries, several challenges still exist and need to be addressed to achieve UHC targets. UHC implementation in Africa has revealed several challenges which affect health service delivery. These range from inaccessibility of health services to unavailability (Mohammed et al., 2018; Wanga et al., 2017; Dalinjong et al., 2017). Regarding accessibility, people in need and the vulnerable population within rural areas have shallow access, while some do not have complete access to quality healthcare services (Dalinjong et al., 2017). These challenges indicate weak health systems, often marred with poor infrastructure, absenteeism of health workers, and frequent stock-outs of essential medical products and supplies (Dalinjong et al., 2017). These challenges ripple effects on UHC implementation, further affecting health service delivery. Kenya has made significant progress towards UHC implementation through policy framework and establishment of various initiatives since independence. This includes the adoption of PHC following the Alma-Ata declaration in 1978 (WHO, 2019; Rafkin, 2018), the decentralization of decision-making in 1983 to the district level through district focus on rural development), the abolition of user fees in 1990 (Barasa et al., 2017), implementation of MDG in 2000 (MOH, 2014), the vision 2030 and the 2010 constitution (GoK, 2010).

https://doi.org/10.53819/81018102t3078

In Kenya, UHC was implemented in two phases. The pilot programme implemented in 4 out of 47 counties was the first phase. This was announced by the president during the Jamhuri Day celebrations of December 2018, affirming the government's commitment to attaining UHC by 2022. (Mwangi, 2018; MOH, 2018b; MOH, 2020). The pilot programme not only aimed to provide free access to healthcare services within the healthcare facilities in the four counties, namely: Nyeri, Kisumu, Machakos and Isiolo but also meant to provide lessons learned for increased UHC uptake in the entire country (Nzwili, 2018). The second phase involves rolling out the UHC to the entire country by 2022, which is yet to be fully implemented (MOH, 2018b; MOH, 2020). Kahongeh, (2018). Kilifi County, the scope of the study, is considered a hardship county experiencing a range of challenges, including inaccessibility, poor healthcare, inefficient handling of patients by incompetent health workers, and inadequate sustainable health services (Muthui, 2018). Additionally, Kilifi has high illiteracy and high poverty levels, which have ripple effects on access. Despite the study done by Muthui (2018) on the accessibility of healthcare services within Kilifi County, no other research has been done to investigate the effects of UHC implementation on the delivery of healthcare services. This proposal, therefore, aims to determine the effects of accessibility on health service delivery in Kilifi County, Kenya.

The delivery of health service is considered an immediate output that depends on input comprising of the healthcare workforce, medical product vaccines and technologies, health infrastructure and equipment and healthcare financing. The entire service delivery system is represented by a system perspective with inputs, process outputs and outcomes related to the healthcare system's pillars (MOH, 2017). According to Carillo et al. (2011), better health outcomes often depend on the availability of healthcare outputs. The health service delivery system should cover the promotion, prevention, treatment, and rehabilitation services. These services should be easily accessible in terms of physical access to the service point of delivery and availability of healthcare services to the users. The services be accessible and require a functioning health services delivery that integrates all the services needed for the well-being of the population (MOH, 2014).

1.2 Statement of the problem

Kilifi County needs help to deliver effective service delivery with little progress in implementing UHC in line with the policies developed by the national government. The county has put policies in place to improve health infrastructural development projects, recruit community health workers, and improve the supply of medical products, vaccines and other health commodities. All these initiatives are aimed at increasing the accessibility of health service delivery (CIDP, 2020/2021). Despite the above policy initiatives, health service delivery exhibits low levels of accessibility of healthcare services and significant disparities in healthcare inequity. Additionally, the quality of health services has been hampered by human resource strain, limited financial protection, frequent strikes by health workers, breakdown of medical equipment and ambulances, stockouts of medical products and vaccines, and a high poverty rate of 78.6%. Therefore, to reduce the health disparities experienced, there is a need to mitigate the poverty barrier, promote UHC and develop consistent policies on health service delivery that is accessible. This study presents the conceptual gap to expound on UHC's effects on healthcare service delivery in Kilifi County public health facilities to determine whether UHC policies bridge the gap rather than widening the disparities within UHC and making essential health services accessible.

https://doi.org/10.53819/81018102t3078

1.3 Objectives of the Study

The objective of the study was to determine how accessibility affect health service delivery in public health facilities within Kilifi County, Kenya.

1.4 Research Question

What is the impact of accessibility on provision of health services in public health facilities in Kilifi County, Kenya?

2.0 Literature review

2.1 Theoretical literature

The study was anchored on institutional theory and new public management theory.

John Meyer and Brown are the proponents of institutional theory. It was introduced in late 1970 (Meyer & Rowan, 1977). The theory states that institutions form the rules of the game within society (North, 1991) to help institutions operate appropriately to reduce transaction cost, uncertainty, and risk and provide stability to the industry sector (Scott, 2013). This theory provides a framework to explain how healthcare organizations function in a complex environment involving various stakeholders, including government agencies, donors, civil society, and the general public. Therefore, applicable to this study. They are working together (Brinkerhoff & Brinkerhoff, 2011) to improve efficiency and effectiveness by providing the multi-stakeholder resources needed to address specific issues and make decisions that affect the delivery of healthcare services.

The NPM theory is traced to the leadership of Margaret Thatcher in late 1980 in reforming the management of the public sector to operate like the private sector in service delivery (Hood, 1995; Pollitt, 1993). The theory states that the public sector ought to borrow a model from the private sector to improve the efficiency of government services. These models are decentralized control of public resources; development of a quasi-market structure where private and public compete with each in service provision; financial control, audits for financial and professional level in a transparent means and benchmarking of public services; performance management; more excellent customer orientation and responsiveness; good governance informs of accountability, transparency, respect for the rule of law, equity, and equality. The theory was applicable in this study through the implementation of health reforms fostering good governance where there is prudent financial management by both national and county government levels, effectiveness, and efficiency in resource use, emphasizing performance management by the healthcare workforce and benchmarking of the advanced healthcare system to borrow new technologies and knowledge to deal with new and emerging healthcare challenges ln order improve health service delivery.

2.2 Empirical literature

2.2.1 Universal Health Coverage and Health Service Delivery

The study by Augustine Rina et al. (2019) in Indonesia and Ranabhat, Kim and Singh (2019) in Nepal analyzed the UHC concept, progress, and challenges in service delivery. These studies evaluated the use of personal health insurance to improve the accessibility and affordability of essential health care services. The results showed positive increases in life expectancy, the infant mortality rate (IMR) and the total fertility rate (TFR) in both countries (Rina et al., 2018). Even though these studies revealed an overall improvement in health, there needed to be more

information on the selected intervention of using single health insurance on health service delivery. The current study was conducted in Kilifi County, Kenya and aimed to determine the impact of UHC on service delivery. A study by Odokonyero et al. (2017) reviewed health infrastructure, healthcare coverage and inequity in Uganda by calculating the composite average index (CCI) and coverage gap score. The rollout of UHC by analyzing health coverage and financial risk or CCI, as posited by Odokonyero et al. (2017), shows increasing access to healthcare.

The study found marginal improvement in reproductive, maternal, newborn and child intervention, but the CCI remained low. Despite the study indicating that UHC rollout increases coverage through targeted interventions to address health equity to all, it revealed severe challenges of the misleading role of trade unions for marginalized communities, inadequately skilled health workforce, frequent stock-outs of medical products, dilapidated infrastructure, and spatial inequity. The study used questionnaires to collect information on the targeted interventions implemented in Kenya to determine how each affect UHC coverage and service delivery within Kilifi County. Simfukwe et al. (2021) found that UHC is achievable in countries adopting the Health Service Delivery Network (HSDNS) model to determine the role of health service delivery networks in achieving UHC in Africa. The HSDNS model improves healthcare affordability, accessibility, and quality. The research reviewed articles published in peer-reviewed journals. In contrast, this current study explored the impact UHC has on service delivery by attempting to understand whether service delivery improved when access and quality of service delivery improved when financial barriers were removed by using NHIF.

2.2.2 Accessibility and Health Service Delivery

A study performed by Sanogo et al. (2019) examined whether equitable access has ripple effects on UHC implementation in Africa. The study revealed that the uptake of essential healthcare services needed to be improved in Africa due to challenges of inaccessibility. The study obtained data through systematic reviews guided by the Cochrane Handbook and reported according to PRISMA. The data was analyzed by classifying different study types based on heterogeneity across outcomes and descriptively. The study showed that implementing UHC in Rwanda has significantly increased the utilization of health services. Rwanda achieved 96.15% of universal coverage and 1.07 health center visits per year compared with 1 WHO visit (Nyandekwe et al., 2014). Despite the gains, challenges of stock-out of medical supplies, inadequate staffing, and high illiteracy level resulted in poor decision-making on health-seeking behavior. It was also found that socio-cultural barriers deterred access to healthcare services. The current study examined whether UHC increased the utilization of health services.

Gimoi (2017) study evaluated how devolution influenced healthcare; a case study of public health facilities in Nairobi found that devolution resulted in improved health infrastructure, and the medical equipment was procured and functioning well in most facilities. The availability of this medical equipment increased access to the utilization of services. The study reports that although most public facilities were installed with new functioning equipment, some challenges included a lack of human resources skills in operating the machines and increased usage that did not serve the population coverage as intended. The study also found inadequate funding for medical supplies, equipment, and maintenance of buildings, shortages, and a poorly motivated healthcare workforce in public health facilities compromise healthcare delivery. The study concluded that there is a need to increase population coverage and funding for medicines and other medical

Stratford Peer Reviewed Journals and Book Publishing
Journal of Public Policy & Governance
Volume 7||Issue 1||Page 99-113||May||2023|
Email: info@stratfordjournals.org ISSN: 2616-8413

supplies to avoid stock-outs and address shortages in the healthcare workforce. This can be implemented through UHC by increasing healthcare funding, shifting to prepayment methods through an insurance scheme, and having the correct number of health workforce with the right mix of specialist and healthy facilities within reach of the population.

A study done in Meru by Njiru et al. (2019) found that for the impact of decentralized healthcare systems on service delivery, different components of the healthcare system had significant correlations with p-values < 0.05 in devolved healthcare financing, leadership, healthcare workforce, and supplies system of medical products affected health service delivery. This implied that increasing access in already overstretched health facilities with a lack of specialized equipment and maintenance of the same, inadequate funding, staff shortages and medical supply stock out, as posit by Gimoi (2017) and Njiru et al. (2019), will compromise health service delivery. This study was contacted in Kilifi County public health facility on the effect of UHC on health service delivery.

2.3 Conceptual Framework

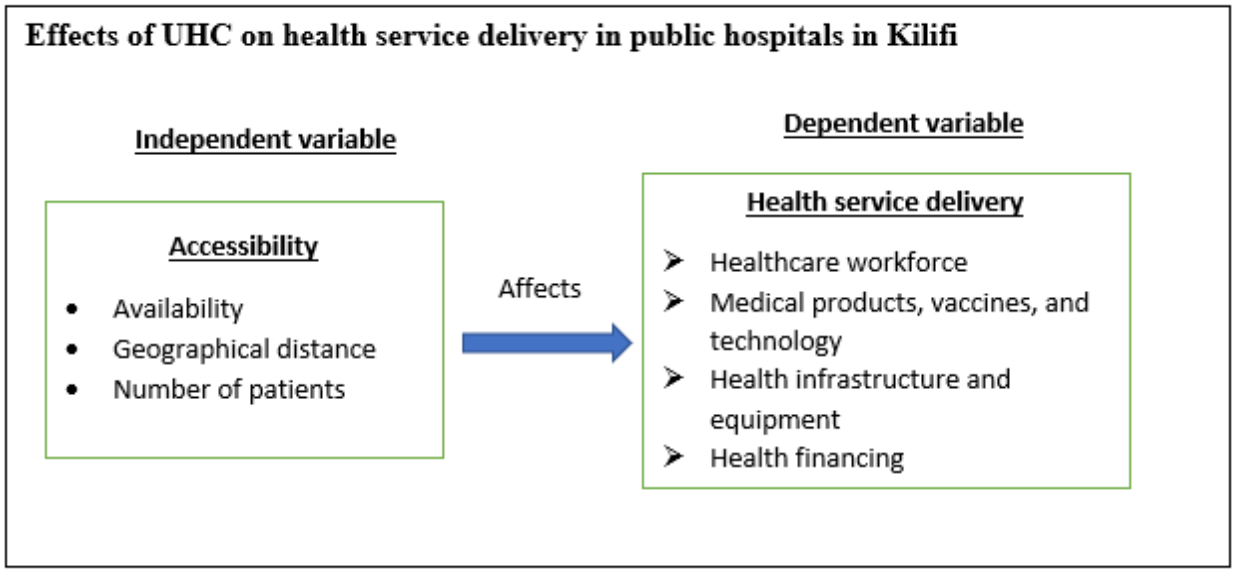

Figure 1: Conceptual Framework

3.0 Methodology

The study used a descriptive study design. The study target population was 2875, which consisted of health workers, patients, and senior health management staff. 1275 were healthcare workers distributed across levels 3 and 4 in Kilifi County (Kilifi annual performance review report, 2021), while 1500 were patients visiting healthcare facilities and 100 were senior health management staff at the Department of Health (KCIPD 2018-2022). Stratified random sampling was used to select the healthcare workforces, which categorized healthcare workers based on their specialties. In contrast, convenience sampling was used to select patients attending level 3 and 4 healthcare facilities across Kilifi County and senior managers of the county department of health. The study used Mugenda and Mugenda (2003) to calculate a sample size of 10%. Using this formula, a total

https://doi.org/10.53819/81018102t3078

Stratford Peer Reviewed Journals and Book Publishing
Journal of Public Policy & Governance
Volume 7||Issue 1||Page 99-113||May||2023|
Email: info@stratfordjournals.org ISSN: 2616-8413

of 128 healthcare workers, 150 patients and ten senior county management staff gave a sample size of 288 participants. The study used structured questionnaires to collect data from healthcare workers and patients, while the interview was done verbally using an interview guide questionnaire to measure the effects of UHC on health service delivery.

4.0 Finding and Discussions

The responds rate was at 286 (99.03%) which according to Kothari (2004) and Mugenda and Mugenda (2003), a response rate of at least 65% is reasonable and sufficient for analysis and reporting of research findings. healthcare workers and patient responded 100% while senior management team responds rate was at 80%.

4.2 Descriptive analyses

The finding of descriptive analysis for patient and healthcare workers are presented below.

Table 1: Patient's analysis

Variable	Count (percent)	Mean (±SD)	Rating
Staff available and ready to work		2.67(0.99)	Neutral
Facility has all needed services		2.82(1.06)	Neutral
Long waiting time		3.85(0.93)	Agree
Time to facility		64.33(122.93)	
Nearest health Facility			
<5 km	50(33.33)		
5-10 km	40(26.67)		
> 10 km	60(40.00)		
Means of transport to facility			
Vehicle	66(44.00)		
Riding	48(32.00)		
Walking	36(24.00)		

The results of patient data on the descriptive analysis used a Likert scale of 1 to 5, where patients were asked to rate different concepts of accessibility. Regarding staff availability and ready-to-work, a (mean=2.67, SD=±0.99) of the respondents were neutral. Similarly, another respondent was neutral on whether the facilities needed all services (mean=2.82, SD=±1.06). In comparison, others agreed there was a long waiting time to get services at facilities (mean=3.85, SD=±0.93. The median time to reach a health facility was 64.33 (122.93) minutes. These results indicate that patients have long waiting times to access medical services and are generally unsure if they can. Biya & Birhanu et al. (2022) supported this study's results, where the minimum waiting time to access outpatient services in public health facilities in Ethiopia ranged from 41 minutes to 185 minutes. As postulated by Camacho (2006), this negatively affects patients' willingness to return to the clinic, thus reducing their utilization of health services. With regards to the use of time in

https://doi.org/10.53819/81018102t3078

Stratford Peer Reviewed Journals and Book Publishing
Journal of Public Policy & Governance
Volume 7||Issue 1||Page 99-113||May||2023|
Email: info@stratfordjournals.org ISSN: 2616-8413

determining accessibility, research performed by Guagliardo (2004), Noor et al. (2006) and Wang (2012) showed that time more accurately describes access to health facilities than distance.

In terms of distance to the facility, 50 (33.33%) of the patients lived less than 5 km from the health facility, 40 (26.67%) lived between 5 and 10 km from the health facility, and 60 (40.00 %) lived more than 10 km away from a medical facility. Most of the patients were located more than 10 km away from the medical facility. For transport means, these results are consistent with a study conducted by Cheng et al. (2020), which showed that differences in accessibility to services were based on the geographical distribution of hospitals. Therefore, the farther away the facilities are, the lower the utilization of health services.

For the means of transport to the facility, the study found that vehicles were the primary means of transportation to health facilities reported by 66 (44 %) of the patients, and 48 (32 %) used (bicycles/motorbikes). In comparison, 36 (24 %) walked to the centres. This implies that vehicles the was most used means of transport to the hospital where fare as an indirect cost affects the accessibility of health services, thus reducing its utilization.

Table 2: Health Worker Analysis on Accessibility

Variable	Count(percent)	Mean (±SD)	Rating
Services easily accessible			
Yes	120(93.75)		
No	8(6.25)		
Services easily accessible (If yes)			
No improvement	8(6.25)		
Availability	3(2.34)		
Affordability	2(1.56)		
Both Availability and Affordability	115(89.84)		
Facility adequately staffed		1.99(0.82)	Disagree
Services easily available		3.57(0.94)	Agree
Services has improved		3.48(0.99)	Neutral

The results of the health workers' response rate showed that accessibility of the service was 93.75% and further confirmed that the services are available at an affordable rate of 89.84%. Further, the Likert scale finding showed that healthcare workers disagreed that the facility was adequately staffed (mean=1.99, SD=±0.82); however, some agreed that services were readily available (mean=3.57, SD=±0.94). In comparison, others were neutral regarding whether services had improved (mean=3.48, SD=±0.99). This indicated that health workers were uncertain about whether health services had improved.

4.3 Inferential statistics

The study employed logistic regression to evaluate the relationship between health service delivery and accessibility. Diagnostic test was done to ensure that the models met the assumption of logistic regression in both patients and health care workers' data. The finding from the tests done showed

https://doi.org/10.53819/81018102t3078

Stratford Peer Reviewed Journals and Book Publishing
Journal of Public Policy & Governance
Volume 7||Issue 1||Page 99-113||May||2023|
Email: info@stratfordjournals.org ISSN: 2616-8413

that there was no specification error, no multi-collinearity, and that linearity assumption were perfectly met. The results of patient and health worker's data on logistic regression were presented in Table 4.3 and 4.4 while thematic analysis results on the effect of accessibility on health service delivery were presented in table 4.5below.

Table 3: Patient Results on Accessibility

Variable being assessed	Odds ratio	95% CI	p-value	$\chi 2$
Staff available and ready to work	0.9	0.64-1.27	0.557	
Facility has all needed services	1.25	0.90-1.74	0.19	
Long waiting time	1.08	0.75-1.56	0.664	
Nearest health Facility				
<5 km	1			
5-10 km	1.24	0.50-3.09	0.644	1.33
>10 km	0.76	0.34-1.67	0.49	
Means of transport to facility				
Vehicle	1			
Riding (Bicycle / Motorbike)	0.78	0.35-1.69	0.528	0.57
Walking	1.06	0.44-2.55	0.896	

The finding from logistic regression on the effects of accessibility on patient data revealed no significant association between accessibility factors of patient data and service delivery. However, the availability of all services needed at the health facility was associated with increased service delivery (OR=1.25,95% CI=0.90-1.74, P=0.190). Staying far from a health facility was associated with decreased service delivery (OR=0.76,95% CI=0.34-1.67, p=0.49). The findings from this study concur with the findings from Mwaliko et al. (2014) study, where households living near a health facility (within 2 km) were more likely to have obstetric emergency delivery at the healthcare facility than those living beyond 2 km. Similarly, Guagliardo's (2004) research finding indicated that the distance from the health facility was a significant barrier to healthcare. Sun et al. (2017) also reported a negative correlation between the time to fill a prescription and patients' satisfaction with pharmacy services.

https://doi.org/10.53819/81018102t3078

Stratford Peer Reviewed Journals and Book Publishing
Journal of Public Policy & Governance
Volume 7||Issue 1||Page 99-113||May||2023|
Email: info@stratfordjournals.org ISSN: 2616-8413

Table 4: Healthcare workers results on accessibility

Variable	Odds ratio	95% CI	p-value	χ 2
Yes	1.09	0.21-5.68	0.918	
No	1			
Facility adequately staffed	0.79	0.48-1.31	0.361	
Services easily available	0.9	0.59-1.36	0.612	
Services has improved	0.84	0.57-1.25	0.394	

The health workers' data results showed that service accessibility was associated with a 9% increase in service delivery (OR=1.09,95% CI=0.21-5.68, p=0.918) when likened to non-accessibility. Availability of adequate staff was associated with a decline in service delivery (OR=0.79,95% CI=0.48-1.31, p=0.361). Also, when services were readily available, there was a decline in service delivery (OR=0.90,95% CI=0.0.59-1.36, p=0.612). The results suggest that when services are accessible, there is an increase in service delivery. The study also found that accessibility of services and staff availability were associated with a decline in service due to other confounding factors. This study's results are consistent with Bohren et al. (2014), who reported that lack of access to money was a barrier. Lim et al. (2017) posit that indirect cost discourages healthcare-seeking behaviour. Finally, according to, Geleto et al. (2017), negative experiences from the past and lack of confidence in the service by healthcare providers.

Table 5: Thematic Analysis Results on Accessibility

Textbox 1 Establishing the impact of accessibility of services on health service delivery		
Themes	**Sub-themes**	**Codes(words)**
Accessibility of services	Increase medical supply	• Increased medical supplies making it convenient to manage patients
	Transport	• Positive increase in provision of Ambulances and referral of services
	Increased number of health facilities	• Increase in access to health services because of increase in numbers of healthcare facilities across the county
	Increase range of health services	• Broadening the range of healthcare services due to introduction of specialized clinics

https://doi.org/10.53819/81018102t3078

The findings from the themes analysis show that senior management staff clearly defined accessibility as ability to access healthcare services or services are available without facing financial hardships. The increased access to services at healthcare facilities was because of increased medical supplies, availability of transport for referral by use of ambulances, wide range of healthcare services provided and increased numbers of health facilities across the county.

5.0 Conclusions

The study findings on accessibility conclude that healthcare services depict a mixed response where the response from patients shows that services are not easily accessible because health facilities lack adequate staff with the right mix of specialties, unavailability of all healthcare services, long waiting times and long distance to the healthcare facilities while the response from healthcare and management staff differs from patient finding where their response shows that services are easily accessible and available because of improvement in the availability of transports services, medical supplies, number of health facilities and ranges of services available.

5.1 Recommendations

Based on the study findings and results above, the researcher recommends improving the accessibility of healthcare services by the county governments. This can be achieved by enhancing healthcare infrastructural development by building additional healthcare facilities to address utilization barriers arising from long distances to healthcare facilities and indirect costs of transport to facilities. Additionally, the study recommends the integration of services within different departments and across county health facilities by embracing health-integrated technology, seamless referral through prompt communication and availability of ambulances to reduce long waiting times and employing additional health care workers to address shortages of staff.

REFERENCES

Barasa, E.W., Maina, T. & Ravishankar, N. (2017). Assessing impoverishing effects, and factors associated with incidence of catastrophic healthcare payment in Kenya. *Int J Equity* https://doi.org/10.1186/s12939-017-0526-x.

Biya, M., Gezahagn, M., Birhanu, B. *et al.* (2022). Waiting time and its associated factors in patients presenting to outpatient departments at Public Hospitals of Jimma Zone, Southwest Ethiopia. *BMC Health Serv Res* **22**, 107 (2022). https://doi.org/10.1186/s12913-022-07502-8.

Bloom, D. E., Khoury, A., & Subbaraman, R. (2018). The promise and peril of universal health care. *Science (New York, N.Y.)*, *361*(6404), eaat9644. https://doi.org/10.1126/science.aat9644. Bohren MA, Hunter EC, Munthe-Kaas HM, Souza JP, Vogel JP, Gulmezoglu AM. Facilitators and barriers to facility-based delivery in low- and middle-income countries: a qualitative evidence synthesis. Reprod Health. 2014; 11:7.

Brinkerhoff, D. & Brinkerhoff, J. (2011) 'Public-Private Partnerships; Perspectives on Purposes, Publicness and Good Governance', *Public Administration and Development* 31: 2–14.

Camacho FAR. (2006) The relationship between the patient's perceived waiting time and office-based practice satisfaction. *N C Med J*. 2006; 67:409–13.

Carillo, J. E., Carillo, V. A., Perez, H. R., Salas-Lopez, D., Natale-Pereira, A. & Byron, A. T. (2011). "Defining and targeting health care access barriers". *Journal of Health Care Poor Underserved, 22* (2), 562-575.

Carrillo JE (2005) An analytic framework defining barriers to health care access: healthcare access model.https://www.researchgate.net/publication/51107238_Defining_and_Targeting_Health_Care_Access_Barriers.

D'Ambruoso, L. (2013). Global health post-2015: the case for universal health equity. *Global Health Action,* 6:19661.

Dalinjong, P.A., Welaga, P., Akazili, J., Kwarteng, A., Bangha, M., & Oduro, A. (2017). The associated between health insurance status and utilization of health services in Northern Ghana; evidence from the introduction of the National Health Insurance Scheme. *J Health Population Nutr, 2*(14), 123-127.

Evans, D.B., Marten, R., & Etienne, C. (2012). Universal health coverage is a development issue. *Lancet*, 380:864–5. doi: 10.1016/S0140-6736(12)61483-4.

Geleto A, Chojenta C, Musa A, Loxton D. Barriers to access and utilization of emergency obstetric care at health facilities in sub-Saharan Africa: a systematic review of literature. Syst Rev. 2018; 7:183.

Gimoi, T.M. (2017). The impact of devolution on healthcare A research project report submitted to the Chandaria School of Business in partial fulfilment of the requirement for the degree of master's in business Administration (MBA).

Global health 2035: a world converging within a generation. *Lancet, 382*:1898–955.

Guagliardo, M. F. (2004). Spatial accessibility of primary care: concepts, methods and challenges. *International journal of health geographics*, *3*(1), 1-13.

Hammonds, R., & Ooms, G. (2014). The emergence of a global right to health norm - the unresolved case of universal access to quality emergency obstetric care. *BMC Int Health Hum Rights*, 14:4.

Hood C. (1995), *Contemporary public management: a new global paradigm*

Jamison, D.T., Summers, L.H., Alleyne, G., Arrow, K.J., Berkley, S. & Binagwaho A. (2013).

Jia, L., Meng, Q., Scott, A., Yuan, B., & Zhang, L. (2021). Payment methods for healthcare providers working in outpatient healthcare settings. *Cochrane Database of Systematic Reviews*(1).

Jin, T., Cheng, L., Wang, K., Cao, J., Huang, H., Witlox, F., 2022b. Examining equity in accessibility to multi-tier healthcare services across different income households using estimated travel time. Transport Policy 121, 1–13.

Kahongeh, J. (2018). Universal Health Coverage: What you need to know. Daily Nation, 4th December 2018,https://www.nation.co.ke/news/Universal-Health-Coverage-explained/1056-4895006-vclblfz/index.html [accessed 06.11.2021].

Kazungu, J.S., Barasa, E.W. (2017). Examining levels, distribution, and correlates of health insurance coverage in Kenya. *Trop Med Int Heal*,22(9). doi:10.1111/tmi.12912. KCIDP. Report on annual performance review 2018-2022

Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.

Kutzin, J. (2013). Health financing for universal coverage and health system performance: concepts and implications for policy. *Bull World Health Organ, 91*;602–11.

Lim JN, Ojo AA. Barriers to utilisation of cervical cancer screening in Sub Sahara Africa: a systematic review. Eur J Cancer Care (Engl). 2017;26: e12444.

Mbangua, R. K., Kawila, C., & Mwangi, M. (2021). Factors Influencing Delivery of Quality Health Care in Kasarani Sub County. *Journal of Medicine, Nursing & Public Health, 4*(2), 46-64. Retrieved from: https://stratfordjournals.org/journals/index.php/Journal-of-Medicine-Nursing-P/article/view/868.

Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology, 83*(2), 340–363.).

Mills, A., Ally, M., Goudge, J., Gyapong, J., & Mtei, G. (2012). Progress towards universal coverage: the health systems of Ghana, South Africa, and Tanzania. *Health Policy Plan, 27* suppl 1: i4–12.

Ministry of Health of Kenya, (2020), Refocusing on quality of care and increasing demand for services; Essential elements in attaining universal health coverage in Kenya.

Ministry of Health, (2014), Kenya Health Policy 2014-2030. Nairobi, Kenya.

Ministry of Health, (2016), Statistical review of progress towards the mid-term targets of the Kenya Health Sector Strategic Plan 2014–2018. http://www.who.int/healthinfo/ country_ monitoring evaluation/KHSSP_StatisticalReport_2016

Ministry of Health, (2017), Kenya: Kenya health policy 2014–2030. Accessed 1 Feb 2017.

Ministry of Health, (2018), "President Uhuru Launches Universal Health Coverage Pilot: Nairobi, Kenya.

Ministry of Health, (2018), Kenya harmonised health facility assessment: Nairobi, Kenya.

Ministry of Health, (2018b), "Roadmap towards Universal Health Coverage in Kenya 2018-2022." Nairobi, Kenya.

Mohammed, A., Agwu, P., & Okoye, U. (2018). When primary healthcare facilities are available, but mothers look the other way. *Social Work in Public Health*, 35(1-2), 11-20.

Moreno-Serra, R., & Smith, P.C. (2012). Does progress towards universal health coverage improve population health? *Lancet, 380:*917–23.

https://doi.org/10.53819/81018102t3078

Mugenda, O.M. and Mugenda, A.G. (2003) Research Methods, Quantitative and Qualitative Approaches. ACT, Nairobi

Muthui, R. (2018). Factors influencing the provision of quality services in health care facilities: A case of Kitui county referral hospital [Unpublished Master's Thesis] University of Nairobi.

Mwaliko, E., Downing, R., O'Meara, W. *et al.* "Not too far to walk": the influence of distance on place of delivery in a western Kenya health demographic surveillance system. *BMC Health Serv Res* **14**, 212 (2014). https://doi.org/10.1186/1472-6963-14-212

Mwangi, D. (2018). President Uhuru Launches Universal Health Coverage Programme Kenyans.co.ke, 14 December 2018. Retrieved from: https://www.kenyans.co.ke/news/45270-residents-dangerously-siphon-fuel-after-tanker-overturns-video [accessed 05.11.2021]

Njiru, L. W., Tenambergen, W. M. & Oluoch, M. (2019). Influence of devolved healthcare system on delivery of health services in Meru County, Kenya. *International Academic Journal of Health, Medicine and Nursing, 1*(2), 106-131).

Noor, A. M., Amin, A. A., Gething, P. W., Atkinson, P. M., Hay, S. I., & Snow, R. W. (2006). Modelling distances travelled to government health services in Kenya. *Tropical Medicine and International Health, 11*, 188–196.

North, D.C. (1991) Institutions. *The Journal of Economic Perspectives*, 5, 97-112. https://doi.org/10.1257/jep.5.1.97

Nyandekwe, M., Nzayirambaho, M., Baptiste, Kakoma, J. (2014). Universal health coverage in Rwanda: dream or reality. *Pan Afr Med J*, 17:232. doi: 10.11604/pamj.2014.17.232.3471

Nzwili, F. (2018). "Kenyan President Launches Benchmark Universal Health Coverage Pilot, To Become Nationwide in 18 Months". Health" Policy Watch (blog). 2018. Retrieved from: https://www.healthpolicywatch.org/kenyan-president-launchesbenchmark-universal-health-coverage-pilot to-become-nationwide-in-18-months.

Odokonyero, O., Francis, M., Annet, A. (2017). "UHC in Uganda: critical health care infrastructure, health care coverage and equity"

Okech, C.T., & Lilegwe, L.S., (2016) Devolution and Universal health coverage in Kenya: situational analysis of health financing, infrastructure & personnel. *International journal of Economics, Commerce and Management*, Vol. IV, Issue 5.

Pollitt, C. 1993. *Managerialism and the Public Services: Cuts or Cultural Change in the 1990s?* 2nd ed. Oxford: Blackwell. [Google Scholar]

Ranabhat, C.L., Kim, C.B., Singh, A., Acharya, D., Pathak, K., Sharma, B., Mishra, S.R. (2019). Challenges and opportunities towards the road of universal health coverage (UHC) in Nepal: a systematic review. *Arch Public Health*, 4;77:5. doi: 10.1186/s13690-019-0331-7.

Rifkin, S.B. (2018). Health for all and primary health care, 1978-2018: a historical perspective on policies and programs over 40 years. Available from: http://publichealth.oxfordre.com/view/10.1093/

Sanogo, N. A., Fantaye, A. W., & Yaya, S. (2019). Universal Health Coverage and Facilitation of Equitable Access to Care in Africa. *Frontiers in public health*, *7*, 102. https://doi.org/10.3389/fpubh.2019.00102 "Public Policy and Administration" Nr 10 (2), ss. 104-117.and challenges. *Lancet*. DOI http://dx.doi.org/10.1016/S0140-6736(18)31647-7. Augustina, R. et al. (2019). Universal health coverage in Indonesia: concept, progress.

Scott, W. (2013). Institutions and Organizations: Ideas, Interests, Identities. Sage, Thousand Oaks

Simfukwe, K., Adebisi, Y., Oladunni, A., Mohammed Eltahir S.E, Don Eliseo & Lucero-Prisno III DE (2021). The role of health service delivery networks in Achieving universal health coverage in Africa (review article), SEEJPH 2021

Sun, J., Lin, Q., Zhao, P., Zhang, Q., Xu, K., Chen, H., Hu, C. J., Stuntz, M., Li, H., & Liu, Y. (2017). Reducing waiting time and raising outpatient satisfaction in a Chinese public tertiary general hospital-an interrupted time series study. *BMC Public Health*, *17*(1), 1-11.

The Government of Kenya (2010), The Constitution, Government Printers, Nairobi.

Wang, F. (2012). Measurement, optimization, and impact of health care accessibility: A methodological review. *Annals of the American Association of Geographers, 102*, 1104–1112.

Wanga, W., Temsah, G., & Mallick, L. (2017). The impact of health insurance on mater nal health care utilization: Evidence from Ghana, Indonesia and Rwanda. *Health Policy and Planning*, *32*(3), 366–375.

Wanjiru, J. (2014). Challenges of provision of universal healthcare by the National hospital insurance firm. Unpublished thesis available at http://hdl.handle.net/11295/77862. Accessed on January 10, 2022.

World Health Organization (2019). Declaration of Alma Ata. Geneva: World Health Organization. Available: https://www.who.int/publications/almaata_declaration_en.pdf [Accessed: 16 January 2022]

World Health Organization. (2020), Health Systems: Universal Health Coverage.