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Determinants of non-accessibility to primary health care in the Ikela Health Zone, Ikela, Democratic Republic of the Congo

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ABSTRACT

Introduction

Accessibility to healthcare in the Ikela Health Zone is a significant public health issue. The inability of households to access primary healthcare services hinders efforts to improve health outcomes. Addressing these barriers is essential for the development of a robust healthcare system. This study aims to identify the determinants of non-accessibility to primary healthcare in the Ikela Health Zone and to describe the various health services provided by healthcare institutions.

Purpose

The purpose of this study is to identify the factors that prevent households in the Ikela Health Zone from accessing primary healthcare services. Additionally, it aims to present an overview of the healthcare services available to the population within this area.

Methods

This study follows a descriptive, cross-sectional design and was conducted in the Ikela Health Zone between January 1 and September 30, 2024. The sample consisted of 50 heads of households, selected through a structured interview process. Data were collected using direct structured interviews, which allowed for the efficient gathering of relevant information.

Results

The findings revealed that overbilling for health services (40%) and the availability of curative care services (54%) are the primary factors affecting household accessibility to healthcare in the Ikela Health Zone. Additionally, curative care was identified as the most commonly offered health service in the region. These findings highlight critical barriers to healthcare access in the area.

Conclusion

The involvement of local health authorities, as well as national and international partners, is crucial to improving access to primary healthcare for households in the Ikela Health Zone. The perceived benefits of using primary care services showed minimal effects, with most categories having odds ratios close to 1, except for category 2, which had a negative relationship with an odds ratio of 0.207. The risk associated with the non-use of healthcare services was largely insignificant, with most categories showing either no effect or very low odds ratios. However, the availability of services in healthcare facilities was found to have a significant impact, particularly for category 2, where the odds ratio was 0.782, suggesting that improving the quality and availability of services in health facilities could reduce barriers to healthcare access.

INTRODUCTION

Lack of access to primary healthcare in rural areas is a complex issue with far-reaching public health consequences. This issue arises from various structural, economic, social, and cultural barriers that hinder individuals from receiving essential care. In urban areas, restricted healthcare access can stem from factors like population density, unequal resource distribution, and socio-economic inequalities (Smith, 2018). These issues directly impact the quality of life, particularly for vulnerable and marginalized groups, leading to delays in diagnosis and treatment, increased hospital admissions, and widening health disparities (Brown, 2021).

The World Health Organization (WHO, 2022) reports that 400 million people lack access to essential health services, with 100 million being pushed into poverty annually due to healthcare costs. Studies show that access to primary healthcare is more limited in low-income countries (Cohen et al., 2017), where public health spending remains significantly below the global average. For example, South Asia allocates just 1.1% of GDP to health, and the privatization of health services has led to infrastructure deterioration and health worker migration (Masudi, 2018). In the United States, millions lack health insurance, leading to preventable deaths and financial hardship (Molly et al., 2020). In Europe, a significant portion of the population lacks adequate rehabilitation care (Srour, 2022), and in Africa, nearly half of the population remains underserved (Nkhoma, 2023). Efforts to address these issues include sending trained community health workers to rural areas (Touré, 2023) and improving infrastructure and financing in countries like Nigeria (Tunji et al., 2024) and Rwanda (Borgen, 2022).

In the Democratic Republic of the Congo (DRC), persistent conflicts and insufficient investment have compounded access issues, particularly in rural and conflict-prone areas such as Tshuapa Province and the Ikela Health Zone, where outbreaks like monkeypox have worsened the situation (Ngbonda, 2023; Jaurès, 2011). Recent population displacements due to insecurity have exacerbated these challenges, with tens of thousands of people losing access to basic healthcare services (ERM, 2023). According to the World Health Organization (Mbadiwe et al., 2024), at least 23 health workers are needed for every 10,000 inhabitants to ensure adequate healthcare coverage. However, in the Territory of Ikela, Tshuapa Province, over 5,000 people, including women and children living in forest camps and mining quarries, have not received vaccinations or medical treatment due to the lack of nearby health facilities (Bompengo, 2015). The situation worsened in 2023, as inter-community conflicts in the Opala territory, near Tshuapa, led to large-scale population displacements. This further hindered access to essential resources such as food, shelter, clean water, and healthcare services in the Ikela Health Zone. The healthcare system in the Ikela Health Zone faces significant structural and human resource challenges. The zone is served by a limited number of health facilities, including a general referral hospital and several understaffed health centers that struggle to meet the population's needs. Many of these facilities lack essential medical equipment, medications, and qualified personnel, with a critical shortage of doctors, nurses, and midwives. Geographic barriers, poor road infrastructure, and the remoteness of many villages further hinder timely access to healthcare. Additionally, financial constraints and a lack of health insurance options limit the ability of many residents to afford medical services, exacerbating disparities in access to primary healthcare.

The aim of this study is to contribute to the improvement of the socio-sanitary conditions of the populations in the Ikela Health Zone, with a view to reducing the lack of access to primary healthcare offered by health care facilities in rural areas. Specifically, the study aims to identify the determinants of non-accessibility to primary healthcare in the Ikela Health Zone and to present the different healthcare services offered by health care establishments.

METHODS

Presentation of the Study Area

The Ikela Health Zone is located in the Territory of Ikela, in the Province of Tshuapa, Democratic Republic of Congo. Geographically, the Ikela Health Zone is bordered to the east by the Opala Health Zone, to the west by the Mondombe Health Zone, to the north by the Yahuma Health Zone, and to the south by the Sankuru Health Zone.

Study Population

The population targeted by this study consisted of all individuals residing in the Ikela Health Zone within the 18 to 50 age group.

Survey Sample

Our sample comprised 50 heads of households aged 18 and over living in the Ikela Health Zone. The sample was selected using the occasional non-probability sampling technique. The 50 heads of households were selected based on the following inclusion and exclusion criteria:

Inclusion Criteria

- Any head of household residing in the Ikela Health Zone;
- Any head of household attending a clinic in the Ikela Health Zone;
- Any head of household aged 18 to 50;
- Any head of household willing to participate in the study and able to understand and respond to the questionnaire.

Exclusion Criteria

Any head of household who does not meet the above inclusion criteria.

Type of Study

This study is a descriptive cross-sectional study conducted in the Ikela Health Zone, Tshuapa Province, from January 1 to September 30, 2024.

Data Collection Process

Data were collected through direct structured interviews using a pre-established questionnaire. The questionnaire was designed to capture relevant variables, ensuring clarity and consistency in responses.

Sample Size and Justification

The study included 50 participants, which is a relatively small sample size that may limit the generalizability of the findings. However, the sample size was determined based on feasibility constraints and the exploratory nature of the study.

Data Processing Techniques

Once compiled, the collected data were presented in absolute frequency tables and converted into percentages using SPSS software, version 20. The choice of statistical tests was determined by the data distribution and the study's objectives. Descriptive statistics were used to summarize the findings, and appropriate inferential tests (such as chi-square or t-tests) were applied where necessary to determine statistical significance. Consistency in data interpretation was ensured by verifying assumptions before selecting the statistical tests.

Ethical Aspects

This study adhered to ethical principles governing research involving human participants. Ethical approval was obtained from the Higher Institute of Medical Techniques of Kinshasa Ethics Review Board (Ref. no. 0113/CBE/ISTM/KIN/RDC/PMBBL/2024). All participants provided informed consent before their inclusion in the study, ensuring their voluntary participation and confidentiality.

Limitations of the Study

Since this study was carried out solely in the Ikela Health Zone, one of the operational health zones in the Provincial Health Division of Tshuapa Province, it was not possible to extend the scope of the study throughout the province. Consequently, the results cannot be generalized to a larger population.

RESULTS

Socio-demographic Characteristics of Respondents

Table 1:
Distribution of Study Subjects by Socio-demographic Characteristics

Variables	Frequency *(n=50)*	Percentages *(%)*
***Age Group** (years)*		
18 – 28	24	48
29 – 39	20	40
40 – 50	6	12
Sex		
Male	35	70
Female	15	30
Education Level		
Primary	5	10
Secondary	33	66
Higher	12	24
Marital Status		
Married	35	70
Single	15	30
Professional Occupation		
Housewife	27	54
Farmer	15	30
Civil Servant	8	16

Table 1 shows that most of the study participants (48%) were aged between 18 and 28, with a male predominance (70%). The majority had secondary education (66%), 70% were married, and 54% were housewives.

Use of Health Services in the Ikela Health Zone

Table 2:
Distribution of Study Subjects According to Their Use of Healthcare

Variables	Frequency (n=50)	Percentages (%)
Referral in Case of Illness		
Traditional Healers	30	60
Self-medication	7	14
Health Service	5	10
Prayer Room	8	16
Factors in Non-accessibility to Primary Healthcare		
Overcharging for Health Services	20	40
Incompetent Service Providers	14	28
Non-respect by the Service Provider for Illnesses	6	12
Customary Influences	6	12
Religious Beliefs	4	8
Means of Travel to Access Health Services		
Feet	30	60
Bicycle	11	22
Motorbike	9	18
Benefits of Using Primary Care		
Rapid Healing	35	70
Fewer Complications	8	16
Fewer Deaths	7	14
Risk Linked to Non-use of Healthcare Services		
Deaths	25	50
Complications	15	30
Renewed Outbreaks of Disease	10	20
Health Services Offered in the Health Facility		
Curative Care	27	54
Preventive Care	16	32
Promotional Care	7	14

Table 2 shows that the majority of respondents (60%) preferred to consult traditional healers in the event of illness. The main factor cited for the lack of access to primary healthcare was overcharging for healthcare services (40%). The primary advantage of using primary healthcare was the concern for rapid recovery (70%). Regarding transportation, 60% of participants preferred to walk to access healthcare services. For half of those surveyed (50%), death was the main risk associated with not using healthcare services. Lastly, curative care (54%) was the most frequently offered service in health facilities.

To determine the independent factors contributing to access to primary healthcare, multinomial logistic regression was applied. The main results are presented in **Tables 3** and **4**.

Model Efficiency

The effectiveness of the applied model was first tested to assess its ability to predict access to primary healthcare.

Table 3:
Information on Model Adjustment

Model	Model Fitting Criteria	Likelihood Ratio Tests
	Log-likelihood -2	*Chi-square*
Only Constant	134.598	
Final	22.349	112.249

The model's goodness-of-fit is evaluated using the likelihood ratio tests. The log-likelihood for the null model, which includes only the constant, is 134.598. The final model, with all predictors included, has a log-likelihood of 22.349. The likelihood ratio test yields a Chi-square value of 112.249 with 48 degrees of freedom (df), and the result is statistically significant ($p = 0.000$). This indicates that the final model provides a significantly better fit compared to the null model, suggesting that the included variables contribute meaningfully to explaining the outcome.

Table 4:
Model's Goodness-of-Fit

Nickname	R-squared
Cox and Snell	0.894
Nagelkerke	0.948
McFadden	0.783

The model's goodness-of-fit is evaluated using a variety of R-squared measures, with the following values: Cox and Snell R-squared is 0.894, Nagelkerke R-squared is 0.948, and McFadden R-squared is 0.783. These values indicate strong model fit, with Nagelkerke R-squared suggesting that the model explains approximately 95 percent of the variability in the dependent variables. Cox and Snell R-squared also reflects a strong fit, though slightly lower than Nagelkerke, while McFadden R-squared indicates moderate fit, typical of a logistic regression model. Overall, these results demonstrate that the model accurately explains the variations in access to healthcare.

Table 5:
Likelihood Ratio Testing

Effect	Model fitting criteria	Likelihood ratio testing		
	Log likelihood -2 of reduced model	**Chi-square**	**ddl**	**Sig.**
Constant	22.349[a]	0.000	0	.
Age *(years)*	28.270[b]	5.921	4	**0.205**
Gender	26.081[b]	5.717	8	**0.679**
Study level	24.560[b]	0.210	8	**0.974**
Marital status	22.349[a]	0.000	0	**0.00**
Occupation	33.549[b]	7.382	4	**0.023**
Referral in the event of illness	22.349[b]	0.000	4	**1.000**
Means of travel to access health services	22.349[b]	0.000	4	**1.000**
Benefits of using primary care	24.370[b]	2.520	8	**0.912**
Risk of not using healthcare services	28.066[b]	5.717	8	**0.679**
Health services offered in the health facility	31.147[b]	6.028	4	**0.033**

The constant model calibration criterion yields significant results (p-value = 0.000). Age, gender, level of education, referral in the event of illness, and means of travel for health services had no significant impact on healthcare accessibility, with p-values of 0.205, 0.679, 0.974, 1.000, and 1.000, respectively. However, marital status (p-value = 0.000), occupation (p-value = 0.023), and health services offered by the facility (p-value = 0.033) were found to significantly influence access to healthcare. The benefits of primary care and the risks of non-use of healthcare services did not have significant effects, with p-values of 0.912 and 0.679, respectively. These findings suggest that marital status, occupation, and health services offered by the facility are key factors influencing access to healthcare in the region.

Table 6:
Parameter Estimates

Factors in non-accessibility to primary healthcare		B	Standard error	Wald	ddl	Sig.	Exp(B)	Confidence interval at 95% for Exp(B)	
								Lower terminal	*Upper terminal*
Overbilling for health services	Constant	-4.638	7183.195	0.000	1	0.999			
	Age (year)	0.090	30.775	0.000	1	0.998	1.094	6.967E-27	1.7183E+37
	[GENDER=1]	-0.246	6450.992	0.000	1	1.000	0.782	0.000	.[b]
	[GENDER=2]	-0.083	11522.835	0.000	1	1.000	0.920	0.000	.[b]
	[STUDY LEVEL =1]	0.007	11603.074	0.000	1	1.000	1.007	0.000	.[b]
	[STUDY LEVEL =2]	0.522	11594.543	0.000	1	1.000	1.685	0.000	.[b]
	[STUDY LEVEL =3]	-0.072	9263.064	0.000	1	1.000	0.931	0.000	.[b]
	[Marital status =1]	-10.778	9318.999	0.000	1	0.999	2.086E-05	0.000	.[b]
	[Marital status =2]	-0.072	9263.064	0.000	1	1.000	0.931	0.000	.[b]
	[Occupation =1]	-0.211	1343.819	0.000	1	1.000	0.810	0.000	.[b]
	[Occupation =2]	0.391	7516.430	0.361	1	0.047	0.676	6.967E-27	1.7183E+37
	[Occupation =3]	0.030	0.000	0.173	1	0.034	1.310	3.913E-15	1.124E+24
	[Referral in the event of illness =1]	-0.083	11522.835	0.000	1	1.000	0.920	0.000	.[b]
	[Referral in the event of illness =2]	-0.072	9263.064	0.000	1	1.000	0.931	0.000	.[b]
	[Referral in the event of illness =3]	0.047	11558.233	0.000	1	1.000	1.048	0.000	.[b]
	[Referral in the event of illness =4]	0[c]			0				
	[Means of travel to access health services =1]	0.270	0.000		1		1.310	1.310	1.310
	[Means of travel to access health services =2]	0.090	30.775	0.000	1	0.998	1.094	6.967E-27	1.7183E+37
	[Means of travel to access health services =3]	-0.072	9263.064	0.000	1	1.000	0.931	0.000	.[b]
	[Benefits of using primary care =1]	0.090	30.775	0.000	1	0.998	1.094	6.967E-27	1.7183E+37
	[Benefits of using primary care =2]	17.820	0.000		1		54829211.172	548,292,11.172	548,292,11.172
	[Benefits of using primary care =3]	-0.246	6,450.992	0.000	1	1.000	0.782	0.000	.[b]
	[Risk linked to non-use of healthcare services =1]	-0.072	9,263.064	0.000	1	1.000	0.931	0.000	.[b]
	[Risk linked to non-use of healthcare services =2]	-10.778	9,318.999	0.000	1	0.999	2.086E-05	0.000	.[b]
	[Risk linked to non-use of healthcare services =3]	-0.246	6,450.992	0.000	1	1.000	0.782	0.000	.[b]
	[Health services offered in the health facility =1]	0.090	30.775	0.000	1	0.998	1.094	1.234	1.234
	[Health services offered in the health facility =2]	0.047	11,558.233	0.000	1	1.000	1.048	1.7360	4.3486
	[Health services offered in the health facility =3]	-0.072	9,263.064	0.000	1	1.000	0.931		

The results (Table 6) show that age has an insignificant impact on non-accessibility, with a probability close to 1. Gender, educational level, and occupation did not have a significant impact, as their probability ratios remained near 1, indicating that these factors did not significantly affect access to medical services. However, marital status has a significant impact, with an extremely negative coefficient for married individuals, which significantly reduces the difficulty of accessing medical services. Individuals who perceive considerable advantages of primary care have an exceptionally high probability ratio, indicating a significant influence of this perception on accessibility. Risks associated with the non-use of health services do not significantly affect access to services.

Finally, the availability of health services in hospitals has a significant impact, with a probability ratio ranging from 1.736 to 4.349, suggesting that better primary healthcare services facilitate accessibility. Overall, the main determinants of lack of access are marital status, the value of primary care, and the availability of health services.

Table 7 presents parameter estimates for the factors influencing non-accessibility to primary healthcare in relation to incompetent service providers in the Ikela Health Zone.

Table 7:
Parameter Estimates

Factors in non-accessibility to primary healthcarea [a]		B	Standard error	Wald	ddl	Sig.	Exp(B)	Confidence interval at 95% for Exp (B)	
								Lower terminal	*Upper terminal*
Incompetent service providers	Constant	-4.858	3421.813	0.000	1	0.999			
	Age (year)	0.136	0.172	0.620	1	0.431	1.145	0.817	1.606
	[GENDER=1]	11.966	3486.373	0.000	1	0.997	157339.715	0.000	.[b]
	[GENDER =2]	0[c]	.	.	0	.	.	.	.
	[STUDY LEVEL =1]	-10.402	4882.995	0.000	1	0.998	3.037E-5	0.000	.[b]
	[STUDY LEVEL =2]	0.825	4877.734	0.000	1	1.000	2.282	0.000	.[b]
	[STUDY LEVEL =3]	-0.56	8799.745	0.000	1	1.000	0.519	0.000	.[b]
	[Marital status =1]	0[c]	4882.995	0.000	0	1.000	.	.	.
	[Marital status =2]	0[c]	8799.745	0.000	0	1.000	.	.	.
	[Occupation =1]	-0.385	549.391	0.000	1	0.999	0.680	0.000	.[b]
	[Occupation =2]	-0.56	8799.745	0.000	1	1.000	0.519	0.000	.[b]
	[Occupation =3]	0[c]	.	,000	0	1,000	.	.	.
	[Referral in the event of illness =1]	-0.072	403.109	0.000	1	1.000	0.865	0.000	.[b]
	[Referral in the event of illness =2]	-53.084	0.000	0.000	1	0.012	2.078E-6	2.078E-6	2.078E-6
	[Referral in the event of illness =3]	0.827	0.000	0.000	1	0.016	2.286	2.286	2.286
	[Referral in the event of illness =4]	0[c]	.	,000	0	.	.	.	.
	[Means of travel to access health services =1]	-0.072	9263.064	0.000	1	1.000	0,931	0,000	-0,072
	[Means of travel to access health services =2]	0.090	30.775	0.000	1	0.998	1.094	6.967E-27	1.7183E+37
	[Means of travel to access health services =3]	-0.072	9263.064	0.000	1	1.000	0.931	0.000	.[b]
	[Benefits of using primary care =1]	0.090	30.775	0.000	1	0.998	1.094	6.967E-27	1.7183E+37
	[Benefits of using primary care =2]	-1.574	7338.914	0.000	1	1.000	0.207	0.000	.[b]
	[Benefits of using primary care =3]	-0.144	403.109	0.000	1	1.000	0.865	0.000	.[b]
	[Risk linked to non-use of healthcare services =1]	-0.146	427.413	0.000	1	1.000	0.864	0.000	.[b]
	[Risk linked to non-use of healthcare services =2]	-13.084	0.000	0.000	1	1.00	2.078E-6	2.078E-6	2.078E-6
	[Risk linked to non-use of healthcare services =3]	-0.072	9263.064	0.000	1	1.000	0.931	0.000	-0.072
	[Health services offered in the health facility =1]	-10.778	9318.999	0.000	1	0.999	2.086E-05	0.000	-10.778
	[Health services offered in the health facility =2]	19.246	6450.992	0.000	1	0.040	0.782	0.000	-0.246
	[Health services offered in the health facility =3]	24.144	403.109	0.000	1	0.027	0.865	0.000	.[b]

The findings (Table 7) indicate that age has a minimal effect on non-accessibility, with a small positive coefficient and an odds ratio close to 1, suggesting no significant influence. Similarly, gender, education level, marital status, occupation, and the mode of transportation to healthcare services exhibit either mixed or negligible effects, as most odds ratios remain close to 1, implying no substantial impact on healthcare access. However, missing values in marital status and occupation categories make their effects uncertain. The referral process in cases of illness is a significant factor, with category 3 showing an odds ratio of 2.286, suggesting a positive effect on healthcare access, while categories 1 and 2 show minimal or no significant impact. Perceived benefits of using primary healthcare services generally show negligible effects, with most categories having odds ratios close to 1. However, category 2 presents a negative association, with an odds ratio of 0.207. The risk of not using healthcare services is largely insignificant, as most categories indicate either no effect or very low odds ratios. The availability of healthcare services within facilities has a notable influence, particularly in category 2, where the odds ratio is 0.782, suggesting that improved service availability can reduce non-accessibility. Overall, the data highlights that referral processes, service availability in healthcare facilities, and perceived benefits of primary care are key determinants of non-accessibility, whereas factors such as age, gender, and occupation have little to no impact.

DISCUSSION

Age and Sex

In this study, it was found that 48% of the subjects were aged between 18 and 28, with a majority of males (70%). This result is consistent with the data from Olives (2023), where 45% of respondents were aged between 20 and 25. In contrast, a study conducted in Goma in 2012 by Masudi (2012) found that 48.3% of subjects were aged between 35 and 42. Similarly, a study conducted in Grand Bassam, Côte d'Ivoire, showed that the majority of household heads were male, with 475 of them, representing 82.46%. In terms of age groups, the most represented households were those whose heads were aged between 30 and 40 years and 40 to 50 years, representing 32.81% and 32.46% of the surveyed households, respectively. Households with heads aged over 70 were the least numerous, representing only 3.12% of the households surveyed (Gilles-Harold et al., 2018). Regarding the gender of household heads, 64.4% of the households were headed by men, while 35.4% were headed by women (Cilundika et al., 2015). This result is similar to that found in a study on community affordability of healthcare, where 64.14% of households were headed by men (Borgen, 2022). The differences observed between these studies can be explained by the respective sample sizes of each.

Education Level

It was observed that the majority of respondents (66%) had completed secondary education. In a similar study in Chad, Bhatnagar (2022) found that 71% of respondents had also completed secondary education. It is important to highlight that the educational level of respondents is a significant determinant in the use of curative health services. The higher the education level, the more likely individuals are to use health services when needed. These findings align with those of Tshimbadi (2016), who conducted a study in the Kisanga Health Zone in Lubumbashi and found that 44.5% of households with primary education and 75.3% with secondary education had not utilized health services. This suggests a notable association between educational level and the use of healthcare services. The high proportion of households with secondary education in this study may be attributed to the fact that in many African countries, particularly in the Democratic Republic of Congo, financial constraints often prevent individuals from continuing their education beyond secondary school.

Marital Status

The surveys conducted in the Ikela Health Zone revealed that 70% of the respondents were married. Olives (2023), in a study carried out in Lubumbashi, found that 62% of the subjects were married. Similarly, Botuli et al. (2022), in their study conducted in the Yakusu Health Zone, revealed that 68% of the respondents were married, most of whom had completed secondary education (62%). This differs from the findings of Ntotolo (2019), who reported a higher proportion of single individuals (46.6%) compared to married individuals (43.7%). This difference may be attributed to the fact that the present study was conducted in a rural setting, specifically in the Ikela Health Zone, whereas the Ntotolo study took place in an urban environment. The higher rate of married individuals in this study may also be related to the use of a door-to-door strategy for administering the questionnaires, which might have influenced the sample composition.

Referral for Care in the Event of Illness

In this study, it was found that 60% of respondents preferred to consult traditional healers in the event of illness. This result is consistent with findings in the Yakusu Health Zone, where 61% of households resorted to traditional medicine in the event of illness (Botuli et al., 2022), and in 2017, Bhatnagar (2022) reported similar findings, indicating that traditional healers were the primary point of contact for illness referrals in households. These findings can be attributed to the ongoing economic crisis, which makes it difficult for households to access health services. It is also important to note that the therapeutic choices of the surveyed population tend to favor multiplex self-medication, combining market medicines, those from private depots, and those from the local pharmacopoeia.

Factors Determining Non-Accessibility to Primary Healthcare

It was found that 40% of respondents identified the overcharging for health services as the primary factor limiting access to primary healthcare in the Ikela Health Zone. In contrast, Bhatnagar (2022) reported that 28% of respondents in his study cited incompetence among healthcare providers as a key factor. Regarding factors influencing healthcare accessibility, Botuli et al. (2022) found in the Yakusu Health Zone in Tshopo Province that 56% of respondents indicated a low socio-economic level (lack of financial resources), the influence of traditional medicine (20%), the absence of qualified staff (14%), and the lack of healthcare materials and essential medicines (10%). According to Cilundika et al. (2015), the proportion of respondents who reported low use of curative services was 40% for those with secondary education, 57.3% for those with primary education, and 54.9% for those with no education. These results differ from the study conducted by Tshimbadi (2016) in the Kisanga Health Zone, which found that 44.5% of respondents with at least secondary education and 75.3% of those with primary education had not used health services. In Côte d'Ivoire, Kouadio (2010) pointed out that factors such as distance, poor road conditions, scarcity of transport, the impoverishment of populations, and weak local economies generally hinder rural populations' access to healthcare in the department of Abengourou.

In many cases, people in rural areas, unlike those in urban areas, lack the financial resources to access healthcare. This could significantly affect their ability to access primary healthcare services. Additionally, the low level of education in these areas means that many heads of households are unaware of the need to use health services. Despite the economic activities in the Ikela Health Zone, which should theoretically enable those who engage in them to afford transport to health facilities and the costs of medical care, many rural households remain poor. Even with multiple income-generating activities, their purchasing power remains low. This situation is largely due to the high costs of accessing health services and the incompetence of many service providers.

Means of Transport to Reach Health Facilities

In this series, it was found that 60% of heads of households used their feet as a means of transport to access health services. This result aligns with the findings of Olives (2023), where 65% of respondents used walking as their primary mode of transport to reach health services. This behavior is not unique to the Democratic Republic of Congo and represents a significant challenge in the Ikela Health Zone, where finding accessible transportation for healthcare is difficult for most households. The farther people need to travel, the less likely they are to seek healthcare. Improving the social conditions of the population is vital to promoting better access to healthcare services.

Risk of Not Seeking Care at the Health Centre

Regarding the risks associated with non-accessibility to health centres, this study revealed that 50% of respondents associated the risk with death. This contrasts with the findings of Bhatnagar (2022), who reported that 30% of respondents identified complications from illnesses as the main risk. The disparity can be explained by the fact that poor access to primary healthcare often leads to a higher risk of mortality, particularly among rural populations who face more challenges in seeking timely medical care.

Health Services Offered in the Health Facility

This study found that 54% of heads of households had used curative services, while 32% had used preventive services. Similarly, Olives (2023) reported that 32% of respondents used preventive services. According to

Quevauvilliers et al. (2009), curative care refers to treatments and therapies aimed at completely combating an illness. It seeks to cure individuals with or without a disease by applying diagnostic and therapeutic methods. In contrast, preventive care aims at preventing the occurrence of diseases (through primary prevention, such as vaccination) or detecting diseases early to mitigate their negative effects (through secondary prevention, such as screening).

The situation in the Ikela Health Zone underscores the urgent need for households to access primary healthcare services. However, insufficient income and various other factors hinder their ability to utilize these services adequately. The lack of proper access to both curative and preventive healthcare remains a significant obstacle. To address this, a comprehensive approach is necessary to improve healthcare accessibility. This should include increasing healthcare subsidies to ease financial burdens, establishing mobile health clinics to reach remote areas, and enhancing transportation and referral systems for quicker access to care. Strengthening healthcare facilities by recruiting and training more medical staff, ensuring the availability of essential medications, and improving service quality is also crucial. Public health education campaigns should be launched to emphasize the importance of primary healthcare and preventive measures. Furthermore, the use of telemedicine and digital health technologies can help alleviate provider shortages and enhance healthcare delivery. Finally, strengthening governance, enforcing policies, and fostering collaboration among stakeholders will ensure the sustainability and effectiveness of healthcare initiatives in the region.

CONCLUSIONS

In conclusion, the most critical barriers to healthcare access in the Ikela Health Zone are low household incomes, limited education, and long distances to healthcare facilities, all compounded by broader socio-economic challenges. These factors prevent rural households from adequately utilizing primary healthcare services, posing a significant public health issue. To address these challenges, it is essential to improve the socio-economic conditions of these communities, increase the availability of qualified healthcare professionals, equip health facilities with necessary resources, and ensure a steady supply of high-quality medications. Coordinated efforts from the government, along with national and international partners, are needed to overcome these obstacles and enhance healthcare access, ultimately improving public health outcomes in the region.

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