

Rural Women's Access to Essential Drugs: An Evaluation of PHC Service Provision in Southeast Nigeria

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Abstract

This study assessed rural women's access to the provision of essential drugs by Primary Health Care in South-East Nigeria. The study adopted a descriptive survey research design. A sample of 395 respondents drawn from a population of 34, 859 rural women in the South-East was used for the study. The instrument for data collection was a 14-item questionnaire validated by two experts. Cronbach Alpha statistic was used to determine the internal consistency of the instrument which yielded 0.87 coefficients. Four briefed research assistants helped in the administration and collection of the instrument. Mean, standard Deviation and Simple percentages were used to answer the research questions while t-test statistics was used to test the null hypothesis at 0.05 level of significance. The findings showed that rural women in the South-East have limited access to the provision of essential drugs by Primary Health Care due to high cost and unavailability of drugs. There was no significant difference between the mean ratings of young and middle-aged rural women on the challenges they face in accessing essential drugs from PHC facilities. The study therefore recommended among others the subsidization of drugs and stocking of PHC facilities with essential drugs to enable them live healthier lifestyles.

Keywords: Rural Women, Essential Drugs, Primary Health Care, PHC Services Provision, Southeast Nigeria.

Introduction

The pursuit of healthy living is paramount in all human endeavours, indicating that an individual's work efficacy is contingent upon his/her health status. To facilitate this, successive governments devise health policies aimed at enhancing the well-being of the populace for improved living conditions. In Nigeria, the Federal Government, via the Federal Ministry of Health, primarily oversees healthcare provision. In this regard, the National Primary Health Care Development Agency (NPHCDA), as an agency of the Federal Ministry of Health (FMH), is responsible for Primary Health Care (PHC) services. PHC denotes the initial point of contact within the health system, offering preventive, curative, promotive, and rehabilitative services (Olise, 2007). It aims to ensure health care access for all, especially vulnerable groups such as rural women. According to the World Health Organization (WHO, 2018; WHO, 2023), PHC services include health education, maternal and child health care, nutrition, safe water and sanitation, immunization, control of endemic diseases, treatment of common illnesses, and provision of essential drugs.

The provision of essential drugs is one of the components of PHC designed to ensure the promotion and sustenance of the health of the citizenry. It is a crucial aspect of PHC service delivery with the National Primary Health Care Development Agency (NPHCDA) responsible for ensuring the availability and accessibility of these drugs (NPHCDA, 2020). It entails making available drugs that address important health needs of community members. Some health challenges can be addressed through physiotherapy while others might require the administration of appropriate drugs. Unattended health needs more often than not lead to chronic health conditions, hence the need for the provision of essential drugs to address such health needs.

Essential Medicines and Health Equity

The WHO (2023) defines essential medications as those that fulfil the primary healthcare requirements of people and must be consistently available in sufficient quantities and suitable dosage forms. A community's healthcare needs will largely depend on the type of diseases prevalent in such a community in line with the most common health challenges of the members. Accordingly, Kalle (2017) asserted that essential medicines are selected based on the prevalence of the disease being treated, the evidence of efficacy, the severity of side effects, and the cost relative to alternative options. Likewise, WHO (2019) indicated that these medications are chosen based on their public health significance, demonstrated clinical efficacy and safety, as well as comparable pricing and cost-effectiveness. In other words, such drugs will not only be efficacious but should be affordable, available and accessible at all times.

It is imperative to note that inaccessibility of required medicines not only endangers lives of the citizenry but jeopardizes the credibility of the public health system. Individuals may lack the confidence in the utilization of public health systems when basic resources/facilities are inaccessible or unaffordable. Zacher and Keefe (2008) maintained that access to essential medicines could save ten million people a year. This is because it allows people to obtain treatment for health conditions, both immediate and chronic thereby improving quality of life. This underpins the imperativeness of the provision of essential drugs, making it affordable and available to all people especially to the rural communities to save the lives of thousands of rural poor dying of preventable and curable diseases. Accessibility to medicines can be facilitated by improving communication strategies and transport logistics. In addition, strong infrastructures like outreach clinics, accessible road networks and reliable vehicles will in no small measure ensure that health services reach poor rural communities.

The World Health Organisation has produced a model list of essential medications, updated biennially since 1977. The most recent edition, the 20th, was released in 2017. Each country formulates its own list based on this model, aligning it with its specific goals. This implies that there may be variations across countries as regards what constitutes essential drugs as it is the responsibility of each country to determine which medicines to be regarded as 'essential'. Kar, Pradhan and Mohanta, (2010) noted that careful selection of a limited range

of essential medicines results in a higher quality of care, better management of medicines (including improved quality of prescribed medicines), and a more cost-effective use of available health resources. The list of essential drugs enables health authorities to optimize pharmaceutical resources.

The Federal Ministry of Health (2023) noted that an all-inclusive structure for guaranteeing pharmaceutical access established by Nigeria's National Drug Policy (NDP) last revised in 2021 unambiguously prioritizes essential medicines for vulnerable populations, including rural women. The availability of essential drugs in Primary Health Care centers in rural communities will enable the health workers to address the numerous challenges posed by common diseases in rural communities. Wood (2003:140-141) identified common diseases to be treated at the Primary Health Care facilities as; Malaria, Diarrhoea diseases – gastro-enteritis, dysentery, cholera, typhoid, Respiratory diseases – cold, tonsillitis, bronchitis, pneumonia, whooping cough, asthma, tuberculosis, Measles, Skin diseases – scabies, impetigo, ringworm, abscess, yaws, jiggers and other diseases which affect the skin, Anaemia, Mental diseases – mental abnormality, mental subnormality, neurosis, Sexually transmitted diseases – gonorrhea, syphilis, AIDS, Intestinal worms, Guinea worm diseases, Eye diseases – foreign bodies, conjunctivitis, trachoma, dry eye disease (xerophthalmia), injury to the eye, Diseases of the teeth and gums – tooth decay, tooth or gum abscess, gum infection. The provision of essential drugs through PHC offers social protection with regards to health care needs especially to the poor and vulnerable members of the communities including rural women.

Rural Women Vulnerabilities and Health Access

Rural women denote those residing in rural regions. This study defines rural women as comprising young rural women aged 18 to 30 years and middle-aged rural women aged 31 to 45 years. This demographic of the rural populace is pertinent to the study, as they are of childbearing age and are more likely to require primary healthcare services in rural regions. A rural area is countryside outside of the towns and cities. Mondal (2018) enumerates several attributes of rural areas, including individuals subsisting on less than one dollar per day, inadequate road conditions, unemployment, low per capita income, underdevelopment, deficient infrastructure, and insufficient water supply, absence of modern technology, sluggish communication methods, rural-urban migration, elevated poverty levels, illiteracy, and poor health status. These characteristics have significantly contributed to the vulnerability and marginalisation of the rural population. It is essential to acknowledge that the majority of impoverished, neglected, vulnerable, and marginalised individuals reside in rural areas, with rural women undoubtedly comprising a significant proportion of this demographic (Ngwu, 2006).

Most rural women are subsistence farmers and illiterate housewives lacking a viable source of income; some have been deserted by their spouses who live in urban areas and visit infrequently, while others are impoverished widows engaged in small-scale trading to sustain themselves. Houdegbe (2018) asserts that women are perpetually preoccupied with

fulfilling familial obligations and meeting various needs, resulting in a lack of rest during the day and just 5-6 hours of sleep at night. It is important to recognise that women may be generally concerned about their health; nonetheless, their cultural home responsibilities may hinder their ability to sustain optimal health. Lowe, Chen, and Huang (2016) asserted that these women perceived the right to good health as dependent on their obligation to care for and satisfy the needs of "others" (such as husbands), often to the detriment of their own physical health and well-being. This illustrates a lamentable condition of rural women attributable to conservatism and ignorance. Their lifestyles are marked by severe toil, rendering them susceptible to various health issues. Moreover, the majority of rural women overexert themselves by transitioning rapidly between domestic tasks, leaving them little time for personal care, which leads to stress, premature ageing, and untimely mortality. This highlights the necessity of providing essential drugs via primary health care for enhancing women's health status and facilitating their optimal contribution to sustained community and national development.

Essential Drugs Provision in Rural PHCs

It is pertinent to note that several interventions have been made in respect of the provision of essential drugs by the Nigerian government via National Primary Health Care Development Agency (NPHCDA) including the Basic Health Care Provision Fund established under the National Health Act of 2014 (Adeloye et al., 2024). However, these interventions seem to be undermined by implementation gaps, to the detriment of rural women. . Studies show that only 43.8% of rural PHC facilities in Southeast Nigeria consistently stock WHO-recommended medicines for women's reproductive health (Okonkwo et al., 2024). Similarly, Ezeonwu, (2023) and Abiola et al. (2024) observed that in spite of Nigeria's declaration to comprehensive health coverage and essential medicines policies, there still exist substantial discrepancies in rural women's access to basic pharmaceutical products. In affirmation, Nnamuchi and Ortuanya, (2024) noted that the Southeast region, have exceptional issues attributed to topographical seclusion, infrastructure deficits, and sociocultural elements that unduly affect women's health outcomes.

Barriers to Accessing Essential Drugs

Research by Iliyasu et al. (2016) and Ibeneme et al. (2023) categorizes several barriers including distance to health facilities, transport unavailability, drug costs, and sociocultural norms that deprioritize women's health needs. Patriarchal structures more often than not allot health resources favorably to male family members, intensifying gender disparities (Ibeneme et al., 2023).

This study is anchored on the Health Access Equity Framework and Systems Theory. The Health Access Equity Framework (Peters et al., 2008) emphasizes the relationship between availability, accessibility, affordability, acceptability, and quality of health services. On the other hand, Systems Theory (von Bertalanffy, 1968) views health care as an interrelated

system where non-functionality in one component, such as medicine availability, impacts the whole system's effectiveness. These frameworks emphasize the need for holistic strategies to ensure equitable access to essential health services for rural women.

Whereas studies address general healthcare accessibility and essential medicine availability, none comprehensively explore rural women's simultaneous access challenges and strategy development within the Southeast Nigerian context, hence the need for this study. The findings of the study will acquaint legislators, healthcare managers, and development partners with appropriate data to fortify medical supply links, improve gender-friendly healthcare distribution, and eventually advance health status of rural women. Besides, this study will add to the body of existing literature on gender equity in healthcare access within sub-Saharan Africa.

Statement of the Problem

Rural women represent a significant portion of the rural populace and possess amazing qualities that can lift communal and national development. Nevertheless, most of them lack sufficient healthcare. Besides, the ignorance of most rural women in the South East zone makes it harder for them to care about their poor health. They stay disadvantaged and sick because they work in home duties, agriculture, and small business, which yield little.

This condition queries the benefits of PHC programmes, particularly essential drug provision. Most of the Primary Health Care activities have their focus on rural women among other sets, but their results seem quite unsatisfactory. It is important to acknowledge that by 1977, the WHO planned to achieve a standard of health that would enable all people to lead socially and economically active lives by the year 2000. It is worrisome that 25 years post-target year, many people, particularly in rural areas, still struggle with preventable and treatable health issues. The WHO (2017) assessment of Nigeria's health profile indicates that the country ranks fourth from the lowest in global health systems, with a lack of primary healthcare services and increasing maternal and child mortality.

PHC provision of essential drugs is meant for the attainment of a healthy life. If rural women persist in their current condition, they may remain powerless and disadvantaged, contributing minimally to their personal, community, and national advancement. Despite governmental and non-governmental organisations' public health interventions, significant progress is needed. Besides, the high rate of preventable and treatable health issues amongst rural women accounts a great deal to their impoverishment. The problem of this study is to evaluate the provision of essential drugs for rural women through PHC services in Southeast Nigeria.

Objectives of the Study

The specific objectives of the study were to:

1. Evaluate the accessibility to essential drugs by rural women in South-East Nigeria

2. Identify the challenges faced by rural women in accessing essential drugs from PHC facilities
3. Find out strategies for improving rural women's access to essential drugs from PHC facilities

Research Questions

The following research questions guided the study:

1. To what extent are essential drugs accessible to rural women in South-East Nigeria
2. What are the challenges faced by rural women in accessing essential drugs from PHC facilities
3. What are the strategies for improving rural women's access to essential drugs from PHC facilities

Hypothesis

Ho: ₁. There is no significant difference between the mean ratings of younger rural women (18-30 years) and middle aged rural women (31-45 years) on the challenges faced by rural women in South East Nigeria in accessing essential drugs from PHC facilities

Methodology

The study adopted a descriptive survey design. The design was appropriate for the study because of its capability of collecting wide-ranging quantitative data from a representative sample as well as its aptness for assessing participants' trends overtime. It was used to elicit responses from rural women in Southeast Nigeria on their access to essential drugs of PHC. The study population comprised 34,859 rural women who have utilised Primary Health Care facilities and services within their political wards across all 95 Local Government Areas in the five states of the South East Geo-political zone.

The study sample consisted of 395 respondents, including 226 young and 169 middle-aged rural women, selected using a multi-staged sampling technique from a population of 34,859 rural women in South East Nigeria. Three states (Abia, Anambra, and Imo) were purposefully selected among the five states of the South East Geo-political zone. Subsequently, one Local Government Area was chosen from each of the three states using simple random sampling through balloting. Finally, two communities were purposely chosen from each of the three LGAs, resulting in a total of six communities comprising women who had utilised PHC facilities and services within their political wards for the study. The sample size was calculated using the Taro Yamane formula, $n = \frac{N}{1 + N(e)^2}$. Let n represent the necessary sample size from the population being examined, N denote the total population under investigation, and e signify the precision or sampling error, typically set at 0.10, 0.05, or 0.1. The formula was employed to enhance the accuracy in identifying the population sample size within an acceptable margin of error. The Rural Women Access to Essential Drugs Questionnaire (RWAEDQ) with a reliability coefficient of 0.87 was administered to 395 rural women. A 95% (376) return rate of the instrument was used for

the study. The acquired data were analysed using mean and standard deviation for the research questions and a t-test for the hypotheses at a significance level of 0.05. The decision rule stipulates that the null hypothesis is accepted when the calculated t-value is less than the tabulated t-value and rejected when the calculated t-value is equal to or greater than the tabulated t-value.

This study adhered strictly to ethical principles guiding research. Ethical approval was sought and obtained from the relevant Institutional Review Board (IRB) prior to the initiation of the study. All participants were duly informed of the purpose of the study which is basically academic and assured that their participation is voluntary and responses confidential. The researchers secured participants' consent before carrying out the study.

Results and Discussion of Findings

Data were analysed in accordance to the stated research questions as follows:

Research Question 1:

To what extent are essential drugs accessible to rural women in South-East Nigeria?

Table 1: Mean Analysis of Young and Middle-aged Rural Women on the Extent Essential drugs are accessible to rural women in South East(N =376)

			Young		Middle-aged			
Cluster	Access to PHC provision of Essential Drugs	X ₁	SD ₁	X ₂	SD ₂	GX	Remark	
1	I am able to treat Malaria with drugs from PHC	3.13	0.97	3.22	0.93	3.18	Agreed	
2	Respiratory disease (Pneumonia, cough, catarrh) were taken care of with drugs provided by PHC	2.41	0.86	2.45	0.89	2.43	Disagreed	
3	Drugs from PHC are being used for Diarrhea diseases	2.79	0.87	2.85	0.82	2.82	Agreed	
4	Intestinal worms are treated with drugs form PHC	2.08	0.82	2.15	0.91	2.12	Disagreed	
5	PHC provide drugs for treating sexually transmitted infections	2.41	0.84	2.47	0.80	2.44	Disagreed	
6	Skin diseases are being treated with drugs from PHC	2.38	0.66	2.42	0.73	2.40	Disagreed	
7	PHC provide drugs for treating Eye disease	2.32	0.54	2.39	0.78	2.36	Disagreed	
8	Diseases of the teeth and gum are being treated with drugs from PHC	2.29	0.61	2.45	0.89	2.37	Disagreed	
9	PHC provide drugs used to treat Aneamia	2.24	0.59	2.38	0.81	2.31	Disagreed	
	Cluster Mean	2.61	0.75	2.53	0.84	2.49	Disagreed	

X_1 =Mean Young, SD_1 =standard deviation Young, X_2 =Mean Middle-aged, SD_2 =standard deviation Middle-aged, GX =Grand mean

Cluster Mean: 2.61 (Young), 2.53 (Middle-aged), Grand Mean = 2.49 (Disagreed)

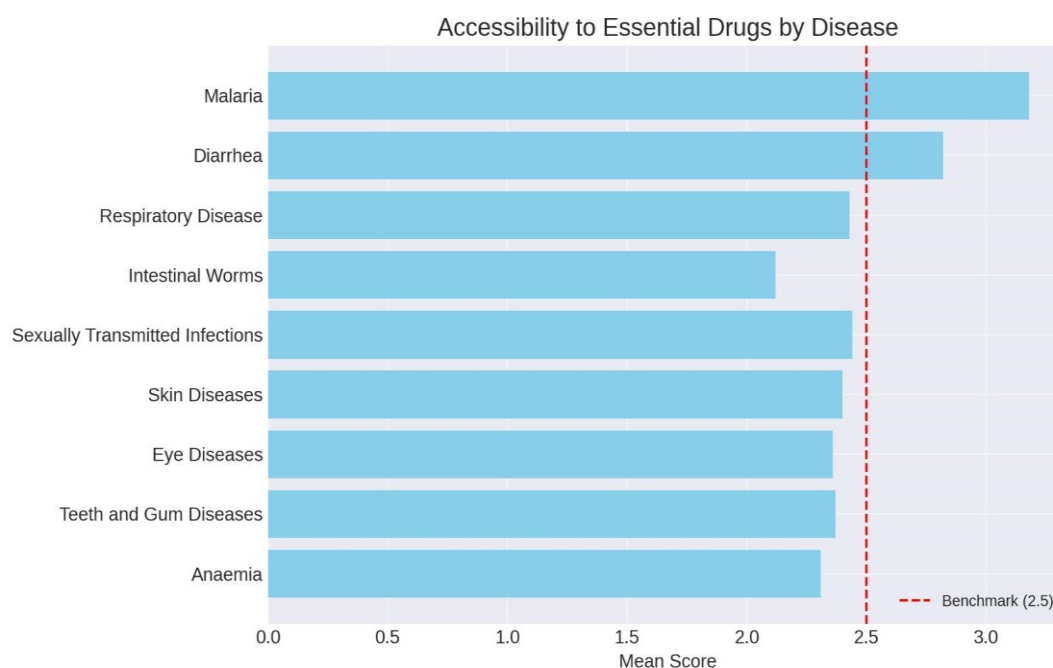


Figure 1: Accessibility to Essential Drugs

As shown in Table 1 and Figure 1, the rural women generally disagreed regarding the accessibility of essential drugs for most diseases, except for malaria and diarrhea treatment, where accessibility was agreed upon. This suggests a significant gap in the provision of a wide range of essential medications in PHC facilities.

Research Question 2

What are the challenges faced by rural women in accessing essential drugs from PHC facilities?

Table 2: Challenges Faced by Rural Women in Accessing Essential Drugs from PHC Facilities

Challenge	Frequency (%)
Medication unavailability	85.6
High costs of drugs	100.0
Distance to pharmacies	47.8
Lack of transportation	47.8

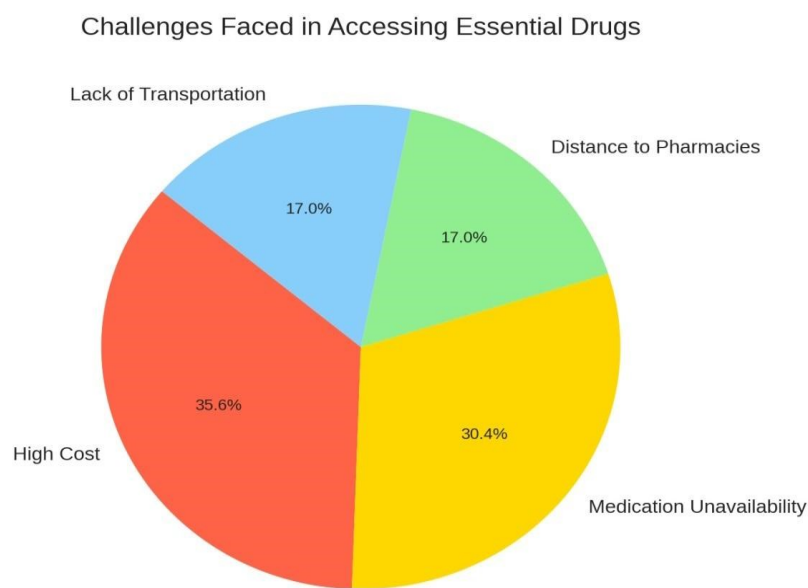


Figure 2: Challenges Faced in Accessing Essential Drugs

Table 2 and Figure 2 show that unavailability of medication and high drug costs were identified as the most critical challenges, each affecting a majority of the respondents. Transportation and distance issues also presented moderate barriers to access, confirming infrastructural limitations in rural settings.

Table 3: Coping Mechanisms Adopted When Medicines Are Unavailable

Coping Strategy	Frequency (%)
Skipping treatment	58.5
Delaying treatment	62.3
Seeking alternative remedies	54.2

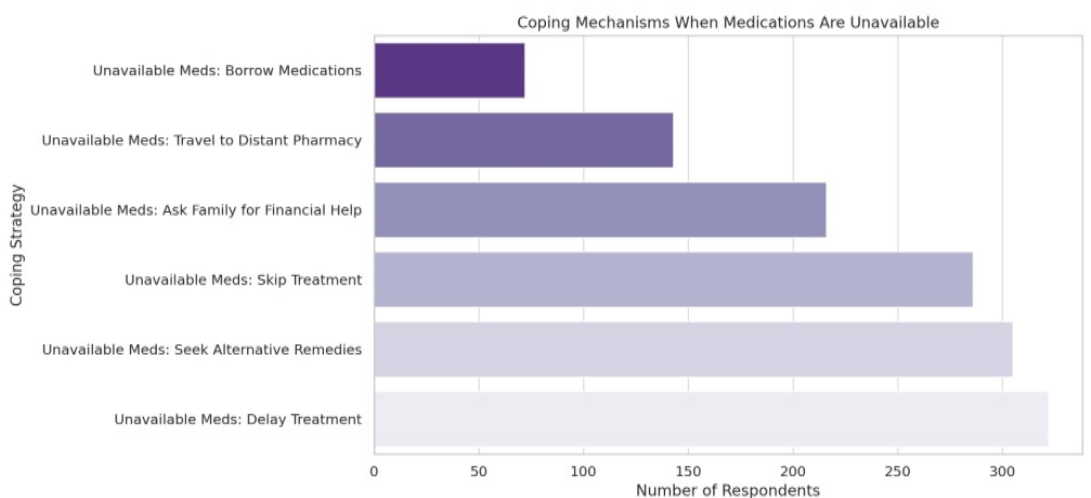


Figure 3: Coping Strategies When Medicine is Unavailable

The data suggest that rural women often resort to skipping or delaying treatment when medicines are unavailable, which may exacerbate health risks and outcomes. Resorting to alternative remedies also reflects a reliance on traditional medicine due to healthcare gaps.

Research Question 3

What are the strategies for improving rural women's access to essential drugs from PHC facilities?

Table 4: Suggested Strategies for Improving Access to Essential Drugs

Strategy	Frequency (%)
Lowering medication costs	100.0
Establishing more local health facilities	61.7
Providing transportation support	52.1
Introducing mobile pharmacy services	10.0

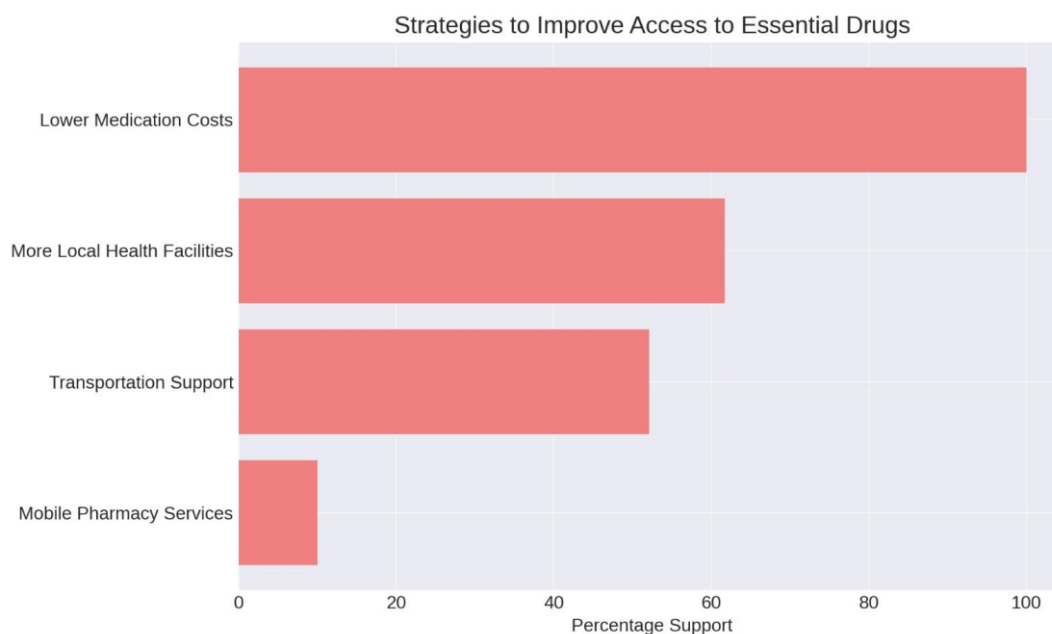


Figure 4: Strategies for improving accessibility to Essential Drugs

Table 4 and Figure 4 indicates an overwhelming consensus for reducing medication costs as a key strategy. Expanding health infrastructure and enhancing transportation options were also strongly endorsed, indicating the need for multi-pronged policy interventions.

Hypothesis

There is no significant difference between the mean ratings of young and middle-aged rural women on the challenges faced by rural women in South East Nigeria in accessing essential drugs PHC facilities.

Table 5: t-test analyses of Mean Ratings of Young and Middle-aged rural Women in South East Nigeria on the challenges of accessing Essential Drugs from PHC facilities

Women	N	X	Sd	Df	t-cal	P-value	Remark
Young	215	2.61	0.75	374	0.96	2.15	NS
Middle-aged	161	2.53	0.84				

The data in Table 5 show a P-value of 2.15 at the degree of freedom (df) of 374. Since the P-value is greater than the alpha value of 0.05, the null hypothesis was not rejected. Therefore, there is no significant difference between the mean ratings of young and middle-aged rural women on the challenges faced by rural women in South East Nigeria in accessing essential drugs from PHC facilities.

Discussion

It was found from the study that the most common distance to healthcare facilities is less than 1km (214 respondents) and that walking was the primary mode of transportation (233 respondents) while decision making on healthcare is independent (214 respondents). This implies that PHC facilities are close to most rural women; however closeness to the facility does not guarantee accessibility as affirmed by Iliyasu et al (2016) who observed that only 35.4% of women had access to essential drugs and Ibeneme et al (2023) who affirmed that women in rural southeast experience limited access to healthcare. This still pose a worrisome scenario in relation to the functionality of the PHC facilities located in rural areas, in the sense that several interventions made in respect of the provision of essential drugs by the Nigerian government via National Primary Health Care Development Agency (NPHCDA) seem to be undermined by implementation gaps, to the detriment of rural women.

It was further shown in the study that major challenges faced by rural women in accessing essential drugs from PHC facilities were medication unavailability (85.6%), and high costs (100%) as the top challenges. This result aligns with Okonkwo et al., (2024) who noted that only 43.8% of rural PHC facilities in Southeast Nigeria consistently stock WHO-recommended essential medicines for women's reproductive health. In other words essential drugs were significantly unavailable in PHC facilities hence a top barrier to accessibility. The finding also agrees with Iliyasu et al., (2016) who observed that high cost of drugs constitutes a barrier to the accessibility of essential drugs.

It was also indicated in the study that when drugs are not accessed due to non-availability the women skip treatment, delay treatment or seek alternative remedies particularly traditional solutions as coping strategies. This highlights the lacuna in health policy implementation as the identified coping strategies are not healthy. It may also explain why the majority of rural women are vulnerable to premature ageing, and untimely mortality. They overexert themselves transiting between domestic tasks, leaving them little time for

personal care, yet after all the stress they resort to unhealthy coping strategies resulting in demeaning health status.

The study further showed that strategies for improving rural women's access to essential drugs are; lowering medication costs (100%), more local health facilities (61.7%) and transportation support (52.1%) as key recommendations. Mobile pharmacy services had lower support (10%). The findings of this study agree with WHO (2019) that these drugs are selected based on the public health relevance, evidence of clinical efficacy and safety and comparative costs and cost effectiveness. In other words, such drugs will not only be efficacious but should be affordable, available and accessible at all times. Zacher and Keefe (2008), maintained that access to essential medicines could save ten million people a year. Well stocked health facilities made accessible at a subsidized rate enable people to obtain treatment for health conditions, both immediate and chronic thereby improving quality of life.

Conclusion

Essential drug accessibility for rural women in Southeast Nigeria is significantly limited, indicating a serious gap in the efficiency of primary health care delivery. The high cost and insistent unavailability of essential medicines not only hamper suitable treatment but also aggravate prevailing health discrepancies between rural and urban populaces. Common coping strategies used by rural women when drugs are not available including skipping or delaying treatment and seeking alternative remedies pose severe dangers to health outcomes and can contribute to the progression of preventable diseases. These challenges underline a systemic flaw in the rural health infrastructure that, if left unattended, will continue to weaken maternal and child health, diminish labor force efficiency, and shrink local development.

Strategies for improving accessibility to essential drugs such as lowering medication cost, increasing local health facilities and improving the supply chain of essential drugs are of paramount importance. They are not only health necessities but also basic to attaining wider goals of rural development, gender equity, and sustainable national health outcomes. The findings align with regional and global reports on the unequal delivery of essential medicines and serve as a call to action for policymakers, donors, and health system stakeholders to prioritize drug accessibility as bedrock of rural health reform.

Recommendations

Based on the findings and conclusions of the study, the following recommendations were made.

1. The government should increase awareness and education among rural women about the importance of essential drugs and how to access them. This can be achieved by financing community education initiatives, incorporating such information into community education curricula, and assuring the efficacy of these communal programmes.

2. The government should ensure sufficient availability of essential drugs in primary health care centers; this will go a long way to facilitating accessibility of these drugs by rural women.
3. Focused insurance subsidies should be established for rural women, especially those in lower wealth regions, with streamlined enrolment procedures that consider inadequate literacy.
4. Community transport programmes should be established to mitigate geographic obstacles, including coordinated shared transport networks aligned with primary healthcare clinic timings.
5. Community education programmes addressing misconceptions about medication use, should be put in place focusing specifically on diseases where cultural beliefs inhibit pharmaceutical intervention.

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