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Community Health Service Delivery and Infant Mortality in Wukari Local Government Area of Taraba State

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Abstract

Infant mortality remains a major public health concern in Nigeria despite community health services intended to improve maternal and child health outcomes. In Wukari Local Government Area of Taraba State, challenges in accessing and delivering these services underscore the need to examine their relationship with infant mortality. This study assessed the effectiveness of community health services in reducing infant mortality, examined access to maternal health services, and investigated barriers to effective service delivery. Guided by the Health Belief Model, the study employed a descriptive research design involving 200 respondents selected through simple random sampling. Data were collected using structured questionnaires and analyzed using descriptive statistics and chi-square tests. The findings indicated a statistically significant association between community health services and infant mortality in the study area. The study highlights the importance of effective community health service delivery in supporting infant survival and addressing infant mortality. Its practical implications emphasize increased investment by government and health agencies in community health programmes, improved healthcare infrastructure, adequate medical supplies, and regular training for healthcare workers to strengthen maternal and child healthcare delivery.

Keywords: Community Health Services; Infant Mortality; Maternal and Child Health; Healthcare Access; Health Belief Model

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INTRODUCTION

Infant mortality, remains a critical public health issue worldwide despite improvements in healthcare systems, maternal and child health interventions. However, disparities persist across different regions and countries. In this regards, World Health Organization (WHO, 2022), reported that the average infant mortality rate in Europe in 2021 was approximately 3.6 deaths per 1,000 live births. The organization further reported that countries like Iceland, Finland and Norway have some of the lowest infants' rates with approximately 2 to 3 deaths per 1,000 live births. In contrast, regions such as Sub-Saharan Africa and South Asia continue to experience relatively high infant mortality rates, with estimates reaching about 52 deaths per 1,000 live births in 2021.

Consequently, the United Nations Children's Fund (UNICEF, 2024), reported that Nigeria continues to bear a disproportionately high burden of infant and child mortality, ranking among the countries with the highest rates of child deaths. The organization further revealed that infant mortality rate remains considerably high at approximately 70 deaths per 1,000 live births. Interestingly, Nwanze, Siuliman, Ibrahim (2023) submits that despite the introduction of various government initiatives aimed at improving maternal and child health outcomes such as the Primary Health Care (PHC) revitalization programme, the Midwives Service Scheme (MSS), the National Health Insurance Scheme (NHIS), and expanded immunization programmes a significant number of infant deaths in Nigeria remain attributable to preventable causes, including infections, malnutrition, and birth-related complications. This situation highlights the need to examine the community health service delivery.

According to Dotimi, Wamanyi and Silas (2024), community health service delivery entails the provision of essential healthcare services at the grassroots level, aimed at improving the health status of individuals and communities, particularly in underserved and rural areas. The scholars further posit that it focuses on bringing healthcare closer to the people through primary healthcare centres, outreach programmes, and community-based interventions. These services typically include maternal and child healthcare, immunization, health education, disease prevention, and basic treatment of common illnesses. However, despite its crucial role, Ozor, Etiaba and Onwujekwe (2024) observe that in many developing countries, the effectiveness of community health service delivery is constrained by systemic

challenges such as inadequate funding, shortage of skilled health personnel, weak health infrastructure, and poor availability of essential drugs and equipment. Similarly, Nwire, Nwakamma, Nwigwe, Chukwuma, Nwaedu and Ogiji (2024) identified communication barriers, literacy level, poor enlightenment, and lack of capacity to participate in development initiatives as challenges affecting community health services in Nigeria

Empirical evidence further illustrates the magnitude of the health challenges in Nigeria. Obansa and Orimisan (2013) reported that Nigeria has the second-largest population of people living with HIV/AIDS globally, next only to South Africa, with an estimated 3 million to 3.5 million people living with the virus in 2008. Similarly, the country is ranked among the highest burdened nations for tuberculosis, with estimates indicating about 293 new cases per 100,000 population and a total prevalence of approximately 546 cases per 100,000 population as of 2004.

Focusing on Wukari Local Government Area of Taraba State, there is limited empirical research examining the relationship between community health service delivery and infant mortality. Health facilities in the area are often confronted with challenges such as inadequate infrastructure, shortage of skilled health personnel, irregular supply of essential drugs and medical equipment, and limited access to quality maternal and child health services (Ozor, Etiaba & Onwujekwe, 2024). Although scholars such as Nwanze, Siuliman and Ibrahim (2023), Dotimi, Wamanyi and Silas (2024), and Ozor, Etiaba and Onwujekwe (2024) have provided valuable insights into infant mortality patterns, global disparities, government interventions, and the challenges affecting community health service delivery, their studies have largely focused on other areas. While these contributions highlight the severity of infant mortality and the structural weaknesses within health systems, there remains a notable absence of empirical research specifically examining the community health service delivery and infant mortality in Wukari Local Government Area of Taraba State. This gap in geographical coverage underscores the need to assess the effectiveness of community health services towards reducing infant mortality rates in Wukari Local Government Area of Taraba State, evaluate the extent to which residents / infants have access to maternal health services in Wukari Local Government Area of Taraba State and identify the key challenges and barriers faced by community health services in reducing infant mortality rate in Wukari Local Government Area of Taraba State.

Statement of the Problem

Ideally, community health service delivery is expected to play a significant role in reducing infant mortality by ensuring access to quality maternal and child healthcare services such as immunization, antenatal and postnatal care, health education, and disease prevention programmes. In such a situation, improved access to these services should contribute to a steady decline in infant deaths and enhance overall child survival outcomes. However, study carried out by Arome, Ada and Edime (2024), revealed that Nigeria has experienced persistent cases of infant mortality over the years. This situation is also be reflected in Wukari Local Government Area, where infant mortality remains a critical challenge despite the existence of community health services such as primary healthcare centres and immunization programmes.

Furthermore, while existing studies on infant mortality and healthcare delivery in Nigeria, have been carried out by scholars such as Arome, et al. (2024), Dotimi, et al.,(2024), Nwanze, et al., (2023) amongst others. Limited empirical attention has been given to community health service delivery and infant mortality in Wukari Local Government Area of Taraba State. This geographical and contextual gap therefore necessitates an investigation into how community health services influence infant mortality in the study area.

Objectives of the Study

The general objective of the study is to examine community health services and infant mortality in Wukari Local Government Area (LGA). The specific objectives of the study are to**:**

i. assess the effectiveness of community health services towards reducing infant mortality rates in Wukari Local Government Area

ii. evaluate the extent to which residents / infants have access to maternal health services in Wukari Local Government Area

iii. identify the key challenges and barriers faced by community health services in reducing infant mortality rate in Wukari Local Government Area.

Research Hypotheses

Ho_1: There is no significant relationship between community health services and infant mortality in Wukari Local Government Area

Literature Review

Community Health Care Service

Community health care service refers to health services provided to individuals and families within their local communities, with a focus on promoting and maintaining health, preventing disease, and improving the overall well-being of populations (Vincent, Ada, & Yunusa, 2024). The scholars further averred that community health care services emphasizes on accessible, inclusive and culturally appropriate care that meets the needs of diverse community members. It often involves collaboration between public health organizations, healthcare providers, and community-based programs to deliver education, preventive services, and treatment in settings that are convenient and familiar to the population. Dotimi, et al (2024) opined that community health care is an approach to delivering health services that focuses on addressing the health needs of individuals and families within their local communities. The scholars further stated that community health care services prioritizes accessible, preventive, and holistic care. This concept emphasizes promoting health, preventing illness, and managing chronic conditions through a combination of health education, outreach, and direct medical services.

Infant Mortality

Child mortality, is the death of children under the age of five. This is a critical indicator of a country's health and development (Klos, 2024). The scholar further averred that high rates of child mortality often reflect underlying issues such as poor maternal health, inadequate healthcare services, and socio-economic disparities. Infant mortality which is defined as the death of an infant before his or her first birthday (Dotimi,et al, 2024). Alemu (2017), defined infant mortality as the death of infants before reaching their first birthday and is often measured by the infant mortality rate, which indicates the number of infant deaths per 1,000 live births within a specific period, typically one year. Shobande (2020) defined infant mortality as the number of deaths in children under 1 year of age.

Community Health Services and Infant Mortality Rates

The importance of effective community health care services cannot be overemphasized. According to the World Health Organization (WHO) (2020), revealed that effective community health care service playsa pivotal rolein reducing risks associated with pregnancy and childbirth. The organization further averred that effective community health care practices can aid reduce cases of infant health mortality in both developed and

developing countries. Consequently, Centers for Disease Control and Prevention [CDC] (2021) argued that immunization and preventive care provided by community healthcare services are critical to reducing the incidence of preventable diseases, a leading cause of infant mortality in both developed and developing countries.

In collaboration, Okwuwa and Adejo (2020) in their study asserted that effective community health care service aid at reducing neonatal/child mortality rates; promoting breastfeeding practices and increasing sulfadoxine-pyrimethamine (SP) for treatment of malaria in pregnancy (IPTp). They further averred that provision of effective health care services can aid in reducing workload of health professionals at peripheral health facilities. Furthermore, they asserted that effective community health care service has a large and positive impact on childhood vaccination rates, lowered rates of childhood diarrhoea, increased levels of child growth monitoring, and increased provision of iron tablets to pregnant women.

More so, Bhutta, Das, Bahl, Lawn, Salam, Paul and Walker (2013) conducted a comprehensive study aimed at evaluating the effectiveness of various healthcare interventions in reducing child mortality across low and middle-income countries. The findings from their study revealed that interventions such as breastfeeding promotion, immunizations, and management of infectious diseases like diarrhea and pneumonia were highly effective in reducing child mortality rates. The scholars argued that the effectiveness of specific healthcare interventions has the potential to reduce infant mortality. In addition, Black, Victora, Walker, Bhutta, Christian and Uauy (2013) undertook a comprehensive analysis to determine the effectiveness ofcommunity health care service in reducing under-five mortality rates in Brazil.The scholars found out that maternal and child health interventions by community health care has led to significant reductions in under-five mortality. Victora, Requejo, Barros, Berman, Bhutta, Boerma and Bryce (2016) evaluated the effectiveness of community-based healthcare interventions in reducing child mortality. The findings demonstrated that effective community health care services such as home visits, health education, and basic medical care significantly reduced child mortality rates in underserved communities.

Empirical Review

Vincent, Ada and Yunusa (2024) examined the relationship between access to primary healthcare and infant mortality in Dekina LGA, Kogi State. Using a survey design,

402 respondents were selected through multistage sampling, with 396 valid responses analyzed. Data reliability was tested using Cronbach's alpha, while Chi-square and regression were used for hypothesis testing. Findings showed a significant link between access to primary healthcare and infant mortality. However, services were generally poor due to inadequate facilities, shortage of health workers, distance, transport issues, poor staff attitude, and lack of drugs. The study recommended strengthening and expanding functional primary healthcare services in rural areas.

Nuamah et al. (2019) studied maternal healthcare access and utilization in a rural district in Ghana using a cross-sectional survey of 720 pregnant women. Results indicated moderate antenatal attendance and skilled delivery, but low postnatal care use and poor knowledge of pregnancy and newborn danger signs. Socio-economic status and healthcare accessibility significantly influenced service use, with wealthier women and those closer to health facilities more likely to utilize maternal health services. The study concluded that maternal healthcare utilization remains suboptimal and recommended targeted interventions to improve access and usage in rural communities.

Theoretical Framework

Health Belief Model (HBM

The study was anchored on Health Belief Model (HBM), developed in the 1950s by social psychologists Hochbaum, Rosenstock, and Kegels. The main theme of HBM is that individuals are more likely to take health-related action if they perceive themselves to be at risk for a condition, believe that the condition has serious consequences, believe that taking a specific action would reduce their susceptibility to or severity of the condition, and believe that the benefits of taking the action outweigh the barriers or costs). The Health Belief Model (HBM) is built on several key assumptions one of the assumptions of the theory is that individuals are more likely to take health-related action if they believe they are personally at risk of a certain illness or condition. The perception of susceptibility influences the perceived relevance of preventive measures.

The model assumes that individuals consider the seriousness of the potential health problem. If they perceive the consequences of a condition as severe (e.g., serious health implications, social consequences). The relevance of the Health Belief Model to this study lies in its ability to provide a framework for understanding how parents' and caregivers' beliefs and attitudes shape their health-seeking behaviors. The theory posits that individuals

are more likely to take nhealth-related actions when they perceive themselves or their loved ones to be at risk of illness or adverse health outcomes. This implies that in Wukari Local Government Area, parents/caregivers beliefs and attitudes shape their health-seeking behaviors. When parents and caregivers perceive a high risk of infant mortality due to preventable diseases, such as malaria, diarrhea, or pneumonia, they are more likely to seek interventions like antenatal care, immunizations, and postnatal services provided by health centers. However, if they downplay the risks or have misconceptions about the severity of these illnesses, they may delay or avoid seeking care, thereby increasing the likelihood of adverse outcomes.

METHODOLOGY

Research Design

This study adopted a descriptive research research design. This design is used because appropriate for in-depth study in community health services and infant mortality in Wukari Local Government Area (LGA). Sample Size and Sampling Technique

Sample Size and Sampling Technique

A total of two hundred (200) respondents were selected from four political wards in Wukari Local Government Area, namely Akwana, Jibu, Hospital and Puje Wards for this study. The simple random sampling method was used in the selection of the respondents to ensure that all the members of the population had a chance of being chosen for the study. Two hundred (200) respondents were selected (proportional representation) from the four wards, where the population of the wards were used to determine the number of respondents to be sampled in each ward.

Method of Data Collection

The researcher designed a structured questionnaire to get information from the respondents on impact of health services and infant mortality in Wukari Local Government Area (LGA).

Method of Analysis

Data for the study was analysed through the use of descriptive and inferential statistics. To analyse the respondents' responses, mean and standard was used to analyse their responses. The decision rule for the study was a bench mark of 3.00. In testing the

hypotheses for the study, Chi-square test was used to test the hypotheses at 5% level of significance. The acceptance/rejection decision was made using the chi-value.

RESULTS

Table 1: Effectiveness of Community Health Services towards reducing Infant Mortality Rates in Wukari Local Government Area

S/N	Statement	SA	A	UD	D	SD	Mean	SD
1	Community health services have effectively contributed to reducing infant mortality rates in Wukari LGA.	72 (47.1%)	55 (35.9%)	12 (7.8%)	9 (5.9%)	5 (3.3%)	4.18	1.03
2	Community health services have improved the survival of infants in Wukari Local Government Area.	68 (44.4%)	58 (37.9%)	14 (9.2%)	8 (5.2%)	5 (3.3%)	4.15	1.01
3	Health education provided by community health workers has improved infant care practices among mothers.	70 (45.8%)	57 (37.3%)	13 (8.5%)	8 (5.2%)	5 (3.3%)	4.17	1.01
4	Community health services in Wukari are well-coordinated and adequately address the health needs of mothers and infants.	60 (39.2%)	55 (35.9%)	18 (11.8%)	13 (8.5%)	7 (4.6%)	3.97	1.13
5	There is sufficient community engagement in health programs to reduce infant mortality rates in Wukari.	55 (35.9%)	53 (34.6%)	20 (13.1%)	16 (10.5%)	9 (5.9%)	3.84	1.19
Grand Mean							4.06	1.07

Source : Field Survey, 2026

Table 1 presents the respondents' views on the effectiveness of community health services towards reducing infant mortality rates in Wukari Local Government Area. On the contribution of community health services to infant child mortality rate in Wukari LGA, 72 (47.1%) strongly agreed, 55 (35.9%) agreed, 12 (7.8%) undecided, 9 (5.9%) disagreed and 5 (3.3%) strongly disagreed. The results recorded mean of 4.18 and standard deviation of 1.03, which shows that there is high level of agreement among the respondents that community health services have been effective in reducing infant mortality rate in the study area.

Similarly, the respondents strongly responded that the provision of the community health services has improved the survival of the infants in Wukari LGA. 68 respondents (44.4%) strongly agreed and 58 (37.9%) agreed, whereas 14 (9.2%) were undecided, 8 (5.2%) disagreed and 5 (3.3%) strongly disagreed. Mean of the statement was 4.15 while its standard deviation was 1.01, indicating that respondents viewed community health services as effective in improving infant survival.

The respondents also strongly agreed that health education given by community health workers has resulted in better infant care practices among mothers. Specifically, 70 respondents (45.8%) strongly agreed and 57 (37.3%) agreed, while 13 (8.5%) were undecided, 8 (5.2%) disagreed and 5 (3.3%) strongly disagreed. The mean for the statement was 4.17 with a standard deviation of 1.01, indicating that health education is seen as a significant role of the CHWs in promoting good infant care practices among mothers.

In addition, there was overall consensus that community health services are well coordinated and meet the health needs of mothers and infants in Wukari. 60 respondents (39.2%) strongly agreed and 55 (35.9%) agreed, while 18 (11.8%) were undecided, 13 (8.5%) disagreed and 7 (4.6%) strongly disagreed. The mean and standard deviation for the statement was 3.97 and 1.13 respectively, showing that the majority of the respondents were satisfied with the coordination of community health services.

Regarding the involvement of the community in health programmes to reduce infant mortality, 9 (5.9%) strongly disagreed, 16 (10.5%) disagreed, 20 (13.1%) were undecided, 53 (34.6%) agreed and 55 (35.9%) strongly agreed. This statement had the lowest mean-level (3.84) with a standard deviation of (1.19). While the outcome shows there is an agreement, it does show that community participation can be done less effectively than the other parts of community health services evaluated.

The grand mean of 4.06 represents that the respondents agreed on the effectiveness of community health services towards reduction of infant mortality rate in Wukari LGA. The findings in particular show that community health services have helped to increase infant survival, improve infant care practices in health education and reduce infant mortality. The lower mean value of 3.84 for community engagement however, implies the need to increase the participation of the community members in the health programmes aimed at reducing infant mortality in Wukari LGA.

Table 2: Extent to which residents / infants have access to maternal health services in Wukari Local Government Area

S/N	Statement	SA	A	UD	D	SD	Mean	SD
6	Most residents in Wukari have easy access to maternal health services.	70 (45.8%)	51 (33.3%)	12 (7.8%)	12 (7.8%)	8 (5.2%)	4.07	1.13
7	Maternal health services are accessible to pregnant women in both urban and rural areas of Wukari.	65 (42.5%)	55 (35.9%)	13 (8.5%)	12 (7.8%)	8 (5.2%)	4.03	1.11

S/N	Statement	SA	A	UD	D	SD	Mean	SD
8	The distance to the nearest healthcare facility is not a barrier to accessing maternal health services in Wukari.	60 (39.2%)	52 (34.0%)	15 (9.8%)	16 (10.5%)	10 (6.5%)	3.89	1.2
9	Community health services for maternal and child healthcare are available at all times in Wukari.	58 (37.9%)	54 (35.3%)	16 (10.5%)	15 (9.8%)	10 (6.5%)	3.88	1.19
10	There is a good network of healthcare facilities across Wukari for easy access to maternal health services.	63 (41.2%)	53 (34.6%)	14 (9.2%)	14 (9.2%)	9 (5.9%)	3.96	1.17
Grand Mean							3.97	1.16

Source : Field Survey, 2026

Table 2 shows the respondents' opinion of residents and infants' access to maternal health services in Wukari Local Government Area. Concerning the ease of access to maternal health services, 70 (45.8%) strongly agreed while 51 (33.3%) agreed that most residents are able to access maternal health services easily in Wukari. However, 12 (7.8%) were undecided, 12 (7.8%) disagreed and 8 (5.2%) strongly disagreed. The resulting mean was 4.07 and standard deviation 1.13, showing that the respondents' general consensus is that maternal health services are readily available to most residents.

Concerns about the availability of maternal health services for pregnant women in both urban and rural settings were also well received. Six hundred and fifty (65) respondents (42.5%) strongly agreed that maternal health services are available to pregnant women in Wukari whether in urban or rural areas while 55 respondents (35.9%) agreed. Meanwhile, 13 (8.5%) were undecided, 12 (7.8%) disagreed and 8 (5.2%) strongly disagreed. The mean score for the statement was 4.03 and standard deviation was 1.11, indicating that the respondents' perceptions of maternal health services as reasonably accessible were similar in both urban and rural settings.

On the distance to the nearest health care center, 60 participants (39.2%) strongly agreed that distance to the nearest health care facility is not a problem in accessing maternal health services in Wukari, while 52 participants (34.0%) agreed. In contrast, 15 (9.8%) were undecided, 16 (10.5%) disagreed and 10 (6.5%) strongly disagreed. The mean and standard deviation of the statement was 3.89 (with a standard deviation of 1.20), which showed that there was a general consensus, but there were some differences among the answers given to the question about impact of distance on access.

General consensus was also expressed on the community health services for maternal and child health. 58 respondents (37.9%) strongly agreed while 54 (35.3%) agreed that all the

time services are available, 16 (10.5%) were undecided, 15 (9.8%) disagreed, and 10 (6.5%) strongly disagreed that such services are available at all times in Wukari. The mean of the statement was 3.88 with SD of 1.19. This was the lowest mean, so while respondents felt services are available, there is a need for improvement to services that are always available. Regarding the network of healthcare facilities across Wukari, 63 respondents (41.2%) strongly agreed while 53 respondents (34.6%) agreed that there is good network of healthcare facilities for easy access to maternal health services.

On the other hand, 14 (9.2%) were undecided, 14 (9.2%) disagreed and 9 (5.9%) strongly disagreed. The mean was 3.96 with a standard deviation of 1.17, indicating that the general population had a mean rating of 3.96 and a standard deviation of 1.17 on the statement, which basically means that the distribution of health facilities in Wukari was adequate for access to maternal health services.

A grand mean of 3.97 shows respondents' consensus that the resident and infants have relatively high extent of access to maternal health services in Wukari LGA. The results indicate that the majority of residents' access to maternal health services is relatively simple, and pregnant women in both urban and rural areas can access these services. The distance to maternal health care facilities (3.89) and availability of services all the time (3.88) are however, lower when compared to the other indicators, suggesting opportunities for further strengthening access to maternal health care services.

Table 3: Challenges and barriers faced by community health services in reducing infant mortality rate in Wukari Local Government Area.

S/N	Statement	SA	A	UD	D	SD	Mean	Std. Dev.
11	Limited healthcare workers in Wukari are a major challenge in providing adequate maternal and child health services.	82 (53.6%)	45 (29.4%)	12 (7.8%)	9 (5.9%)	5 (3.3%)	4.24	1.05
12	Poor infrastructure in healthcare centres is a major barrier to delivering effective maternal and child health services.	78 (51.0%)	49 (32.0%)	13 (8.5%)	8 (5.2%)	5 (3.3%)	4.22	1.03
13	Cultural beliefs and practices hinder some residents from seeking maternal and child health services.	65 (42.5%)	51 (33.3%)	17 (11.1%)	13 (8.5%)	7 (4.6%)	4.01	1.14
14	Inadequate funding for health programs is a significant challenge to reducing infant mortality in Wukari.	85 (55.6%)	45 (29.4%)	10 (6.5%)	9 (5.9%)	4 (2.6%)	4.29	1.01
15	The lack of transportation and poor road networks are barriers to accessing	75 (49.0%)	48 (31.4%)	14 (9.2%)	11 (7.2%)	5 (3.3%)	4.16	1.07

S/N	Statement	SA	A	UD	D	SD	Mean	Std. Dev.
	maternal and child healthcare services in rural areas of Wukari.							
Grand Mean							4.18	1.06

Source : Field Survey, 2026

Table 3 shows the opinions of the respondents on challenges and barriers to maternal and child health service provision in Wukari LGA and the efforts to improve infant mortality rate in the area. In reference to the low number of healthcare workers, 82 respondents (53.6%) strongly agreed and 45 respondents (29.4%) agreed that the lack of healthcare workers in Wukari is a big challenge to providing maternal and child health services in the area. Meanwhile, 12 (7.8%) were undecided, 9 (5.9%) disagreed and 5 (3.3%) strongly disagreed.

The respondents also strongly agreed that the poor infrastructure of healthcare centres is one of the big challenges in the delivery of healthcare services regarding mothers and children. 78 respondents (51.0%) strongly agreed and 49 (32.0%) agreed, while 13 (8.5%) were undecided, 8 (5.2%) disagreed and 5 (3.3%) strongly disagreed. The mean of the statement was 4.22 with a standard deviation of 1.03, indicating that poor healthcare infrastructure is considered as a major problem in the study area.

65 (42.5%) strong agreed and 51 (33.3%) agreed that cultural beliefs and practices prevent some residents from accessing maternal and child health services. In contrast, 17 (11.1%) were undecided, 13 (8.5%) disagreed and 7 (4.6%) strongly disagreed. The mean of the statement was 4.01 with a standard deviation of 1.14. While this was the lowest mean of the statements, it does not mean that there was not a general sense of agreement that cultural beliefs and practices are a barrier to the utilisation of maternal and child health services.

In the case of inadequate funding for health programmes, 85 respondents (55.6%) strongly agreed and 45 (29.4%) agreed that inadequate funding is a big problem in reducing infant mortality in Wukari. Only 10 (6.5%) were undecided, while 9 (5.9%) disagreed and 4 (2.6%) strongly disagreed. The mean was highest (4.29) with a standard deviation of 1.01 for the statement on inadequate funding, suggesting inadequate funding is the greatest concern of the statements measured.

In addition, the respondents were unanimous that transportation and poor road network is a challenge for accessing maternal and child healthcare services, especially in rural communities of Wukari. 75 respondents (49.0%) strongly agreed and 48 (31.4%) agreed,

while 14 (9.2%) were undecided, 11 (7.2%) disagreed and 5 (3.3%) strongly disagreed. This statement had an average of 4.16 with a standard deviation of 1.07, showing a high level of agreement that transportation and poor road networks have an impact on access to healthcare services in rural areas. The overall grand mean is 4.18 which means that the respondents were in agreement that maternal and child health services provision and the efforts in reducing child mortality face significant problems and barriers in Wukari LGA.

Specifically, it is identified that insufficient funding (4.29), shortage of healthcare workers (4.24), poor healthcare infrastructure (4.22), and transportation and poor road networks (4.16) are major problems. The cultural beliefs and practices were also a challenge, but the lowest mean (4.01). The findings indicated that financial, human resource, infrastructural, transportation and sociocultural barriers are important factors to consider when making maternal and child healthcare services more efficient and in reducing infant mortality in Wukari LGA.

Test of Hypotheses

H_{01}: There is no significant relationship between community health services and infant mortality in Wukari Local Government Area

Table 4: Chi-Square Test Results

Test	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	279.626	16	.000
Likelihood Ratio	352.190	16	.000
Linear-by-Linear Association	120.579	1	.000
N of Valid Cases	153	—	—

Source: Field Survey, 2026

Note: $p < 0.05$ indicates statistical significance.

Based on the cross tabulation statistics of observed and expected frequencies in hypothesis one, Pearson Chi-Square computed value is 279.626a and likelihood ratio value is 352.190 with a degree of freedom (df) of 16. The Probability Value (P-Value) is at 0.000 which is less than the level of significance of 0.05. Base on this, we can reject the null hypotheses which states there is no significant relationship between community health services and infant mortality in Wukari Local Government Area and upheld the alternate hypothesis which states that there is significant relationship between community health service and infant mortality in Wukari Local Government Area of Taraba State.

DISCUSSION

Results of the study revealed that there is a significant relationship between community health services and infant mortality in Wukari Local Government Area. This implies that the availability and effectiveness of community health services are important factors in improving infant survival and reducing infant mortality in the study area. This result is in line with the study done by Vincent, Ada and Yunusa (2024) which concluded a significant relationship between access to primary healthcare and infant mortality. The study also highlighted that poor quality and use of PHC services was due to inadequate healthcare facilities, shortage of healthcare workers, distance to health facilities, transportation issues, poor attitude of health workers and lack of drugs among others. The result also corroborates with Nuamah et al. (2019) who studied the quality of maternal healthcare access and utilization in rural district in Ghana. They noted that access to health care services was important for use of maternal health services: women residing near health care facilities were more likely to access health services.

CONCLUSION

In conclusion, community health services have a significant relationship with infant mortality in Wukari Local Government Area. Important factors in the improvement of infant survival and infant mortality are the availability and effectiveness of community health services such as maternal and child health services, health education and access to health care facilities. But lack of financial resources, lack of healthcare workers, poor infrastructure, cultural practices and transport problems are obstacles to good service delivery.

Recommendation

Wukari Local Government Council and relevant health authorities must improve community health by making adequate funding available, increasing the number of health workers, and upgrading hospitals, as well as make essential maternal and child health services available to the community regularly, in particular in the rural areas.

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