



Impact of National Health Policies on Maternal and Child Health Education Programs among Residents in Dutsin-Ma, Katsina State, Nigeria

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Abstract

This paper is investigated the impact of national health policies on maternal and child health education programs among residents in Dutsin Ma, Katsina State, Nigeria. The vulnerability and developmental needs of maternal and children health education programs in Nigeria necessitated the enactment of National Health Policies. However, there have been concerns about the effectiveness of this policy. This study investigated public perception on the performance of National Health Policies and healthcare for maternal and children in Dutsin ma Area of Katsina State. The study adopted mixed methods of data collection through questionnaire and In-depth Interviews. Using multistage, probability and stratified sampling techniques, the study selected 460 respondents from households, children, caregivers, educators and health workers. The social attachment theory anchored the theoretical explanation. The hypotheses were tested using logistic regression through the statistical package for social sciences version 27. The study revealed a pseudo-R² of 0.09 ($\chi^2 = 7.84$, $df = 6$, $p > 0.05$), indicating no significant improvement in maternal and child healthcare. Respondents reported low satisfaction with policy implementation in the study area, citing irregular immunizations, inadequate health screenings, limited skilled birth attendants, weak nutritional interventions, under-resourced facilities, hidden cost and poor service delivery. The study recommended a review of antenatal screening programmes, deploying skilled birth attendants at all hospitals, strengthening immunization logistics, revitalizing breastfeeding campaigns, and improving coordination of nutritional interventions to enhance policy effectiveness and child health outcomes in study area.

Keywords: National Health Policies, Maternal Program, Child Health Program

Introduction

National health policies directly influence the reach and effectiveness of maternal and child health (MCH) education by strengthening infrastructure, enhancing workforce training, and facilitating access to services. Effective policies that emphasize community-based approaches and integrated care improve immunization rates, antenatal care attendance, and nutritional knowledge. However, disparities in rural areas, inadequate funding, and inconsistent implementation often limit their total impact. In most countries of the world, including a considerable number of low- and middle-income countries, there is increasing interest in the use of more rigorous processes to ensure that healthcare recommendations are informed by the best available research evidence. This is supported by numerous scientific reports which have indicated that evidence from research can enhance health policy development by identifying new issues for the policy agenda, informing decisions about policy content and direction or by evaluating the impact of policy. The World Health Organization (WHO) in a previous report clearly indicated that better use of research evidence in development policy-making can save lives through more effective policies that respond to scientific and technological advances, use resources more efficiently and better meet citizens' needs (World Health Organization [WHO], 2004). In response to this global interest in evidence-to-policy process in the health sector, the Nigeria government recognized the importance of evidence-based health policy as a critical requirement for the improvement of the country's health systems. As part of the government's effort to promote and drive evidence-informed policy-making, the Nigeria Evidence-Based Health System Initiative (NEHSI) was established with the aim of building a responsive evidence-based health system, with emphasis on primary healthcare principally to improve



Impact of National Health Policies on Maternal and ... Muhammad, S., Et. al (2026)

maternal and child health outcomes. In a recent systematic review on maternal and child health interventions in Nigeria from 1990-2014, Kana and colleagues noted that poor maternal and child health indicators have been a recurring public health challenge in Nigeria since documentation of national maternal, newborn, and child health (MNCH) statistics began in the early 1990s. For instance, it is reported that each year in Nigeria, more than a quarter million neonates die, which translates to approximately 700 neonates every day. A number of previous studies have indicated that low birth weight, lack of antenatal care, maternal illness, mother's age, prematurity, and birth asphyxia are strongly associated with neonatal mortality in Nigeria. Regarding maternal health, out of 529 000 annual global maternal deaths, an estimated 52 900 Nigerian women die from pregnancy related complications, thus, a woman's chance of dying from pregnancy and childbirth in the country is 1 in 13. According to available reports, the main causes of maternal mortality in Nigeria are: haemorrhage (23%), infection (17%), unsafe abortion (11%), obstructed labour (11%) and toxemia/eclampsia/hypertension (11%), Malaria (11%), anaemia (11%), and others including HIV and AIDS contribute about (5%). Other factors underlying maternal mortality include lack of awareness about complications in pregnancy and on the need to seek medical intervention early; lack of transportation to the health facilities where maternal healthcare can be provided; inability to pay for services, etc. (Federal Ministry of Health, 2007)). To address these MNCH challenges in Nigeria, the development and implementation of evidence-informed policies and promotion of initiatives such as NEHSI are very imperative. This is supported by the outcome of the systematic review of Kana and colleagues who noted that the development of evidence-based MNCH policies, implementation and publication of interventions corresponded with the downward trend of maternal and child mortality in Nigeria. However, despite the introduction of NEHSI and other similar initiatives such as the Nigeria independent accountability mechanism for MNCH, there is still insufficient interest and commitment on the part of policy-makers in transfer and uptake of research evidence into the health policy-making process in Nigeria (Uneke, 2010). To address effective National health policies, such as the National Health Policy and MNCH strategies, have improved access to maternal and child health education in Katsina State, there is a need for increased funding, better health infrastructure, improved training for health workers, and intensified, culturally appropriate community sensitization, particularly leveraging traditional leaders, to increase the impact of health education. Effective implementation of national policies requires addressing these structural and social determinants to improve the reach and impact of maternal and child health education programs in Katsina State.

Review of Literature

Maternal mortality, simply means women's death due to pregnancy and pregnancy related causes and it constitutes a major cause of death amongst women of reproductive age; thus, becoming one of the serious health issues particularly in developing nations. In addition, maternal mortality has been defined as death of women during pregnancy and or within 42 days after termination of pregnancy. Maternal mortality ratio, on the other hand is referred to as the number of maternal deaths recorded annually per 100,000 live births. World's estimated statistics of maternal mortality ratio of 430 maternal per 1000 live births shows that developing countries had the highest ratios of 403 maternal deaths, while the developed countries had the lowest ratios of 27 maternal deaths. The World Health Organization (2012), reported that millions of women die globally every year due to complications related to pregnancy; 99% of these women are from the developing countries. The highest maternal mortality levels are found in parts of India, and sub-Saharan Africa, while the lowest level occurs in northern Europe with some parts of developed countries of the world (less than 4 per 100,000 births in Finland. Similarly, another study by Tinker, and Ransom (2002), indicated that maternal mortality ratio also varies between regions of the world for example it was reported that in Africa MMR is 1 in 19, while in Asia the MMR is 1 in 132, Latin America has an MMR of 1 in 188 and while in developed countries the MMR is 1 in 2,976 and in northern Europe, the risk is as low as 1 in 4000. Nigeria, with a population of over 80.2 million women as at 2006 census and that about 49% representing 54 million women lived in rural areas, is one of the countries in sub-Saharan Africa with the highest records of maternal mortality ratio. However, despite its efforts to tackle the twin problems through the formulation and implementation of various health policies, it was estimated that about 545,000 to 600,000 women died annually due to pregnancy related causes in Nigeria. This constitutes about 10% world's maternal deaths births (Nursing World Nigeria, 2013). Maternal mortality, is caused by both direct factors and indirect factors. The direct factors include obstetrical complications such as hemorrhages, infections, abortions performed by unqualified health personnel, eclampsia, and prolonged labor. While, the indirect factors of maternal mortality include: diseases and infections such as malaria, HIV/AIDS, hepatitis, and anemia. Similarly, WHO, (2008), reported that 80% of maternal death in the world, are caused by factors such as severe bleeding,



Impact of National Health Policies on Maternal and ... Muhammad, S., Et. al (2026)

infections, eclampsia, and prolonged labor. Other factors responsible for maternal death include factors such as medical factors, health factors, reproductive factors, unwanted pregnancy, and socio-economic factors (Mojekwu, 2012). Nigeria's health care services are delivered through a complex, integrated, and decentralized health system under the control of the three tiers of governments – federal, state, and local government. Based on the integrated health care systems, the federal government is responsible for co-ordination and implementation of national health policies. It also, supervises health activities in the 36 states of the federation and the federal capital territory, Abuja, as well as the 774 local government areas. It is also responsible for providing tertiary health care through the teaching hospitals and federal medical centers established across the country. The state government on the other hand is responsible for providing secondary health care services through the state hospitals and comprehensive health centers. The local government is responsible for providing primary health care services through primary health care centers, established across the local government headquarters and some major towns and villages. This arrangement requires some measure of cooperation and coordination between the three tiers of governments and other agencies. Unfortunately, this arrangement often results in duplication and overlap of responsibilities, conflict, and waste. Other health service providers include, private and non-profit, as well as community-based health organizations also provides health care services in Nigeria.

Health care system in Nigeria is financed through a combination of sources – revenue collected from tax payers, contribution from donor agencies such as WHO, UNICEF and USAID user fees charged patients, and National health insurance scheme which was established in 2005 by Decree 35 of 1999. In Nigeria, the federal government provides over 90% of the funds used by health system, while the states and local governments provide the 10%. The federal government allows the state government and local government, a lot of discretion in the way they managed and disbursed the allocated funds from the federal government, under the integrated healthcare system (Scott, 2010). However, the level of funding provided by the three tiers of government to the health sector over the last three decades or so, have been inadequate and far below the United Nations recommended figure of 15% of national annual budget of UN member countries. But, it must be pointed out that Advocacy groups have continued to provide financial supports to poor developing countries like Nigeria to improve their health systems because of their inability to strengthen their health systems due to poor funding. For example, it was reported, that the Global Fund for AIDS, Tuberculosis, and Malaria (Global Fund), Bill and Melinda Gates Foundation initiatives had contributed \$48 billion to research, care, prevention, and treatment of HIV within five years in developing countries including Nigeria. Similarly, a study conducted in Nigeria also revealed that NGOs and other international donor organizations had made significant financial contributions of \$ USD 32,479 Million and \$ USD 45,477,907.00 in 2007 and 2008 respectively towards converting HIV/AIDs in Nigeria. Various criteria are used to evaluate a country's healthcare system to determine its efficiency and effectiveness with regards to healthcare services delivery. Some of these criteria include goals achievements, distribution coverage of the health services, quality of the services provided and then equity demonstrated when delivering the services to the citizen. However, the performance of the Nigerian healthcare system has been low due to several policy implementation problems. Some of these problems include untimely disbursement of funds, limited institutional capacity, corruption, and unstable political and economic environment (Adinma, 2010). Other factors which affected the performance of the Nigerian health system performance was its low coverage of beneficiaries, despite the introduction of national health insurance scheme (NHIS) in 1999. This was because as at the year 2012, the scheme achieved only about 3% coverage of the Nigerian population (i.e. only five million people) cover aged with mixed results, insufficient health staff, inability of local governments to provide the primary health care with necessary equipment and drugs, socio-cultural and socio-economic factors, which hindered access health care particularly in rural areas, where majority of the population live on an average earning of ratio 1.90 dollar per day. These were some of the reasons that necessitated the introduction of the 2004 Nigeria's health policy. According to Abdulraheem, et al. (2012), the main clause of the 2004 National Health Policy is to invigorate and improve the Nigerian health system to provide effective, efficient, quality, accessible and affordable health services by achieving the following health targets: to decrease by 66%, from 1990 to 2015, the under-5 mortality rate; to decrease by 66%, from 1990 to 2015 maternal mortality rate; to cut down by 2015 and reverse the spread of HIV/AIDs; to have halted by 2015 and begun to reverse the incidence of malaria and other major diseases.



Impact of National Health Policies on Maternal and ... Muhammad, S., Et. al (2026)

Methodology

This study adopted a cross-sectional survey design to evaluate the efficiency of the National Health Insurance Scheme (NHIS) on maternal health in Dutsin Ma, Nigeria. This design was appropriate for assessing prevailing trends and relationships without manipulating variables, thus providing a snapshot of the current state of maternal health service utilization under NHIS. The target population comprised households within Dutsin Ma Metropolitan. The selection of these neighborhoods was strategic, aimed at capturing a comprehensive understanding of maternal healthcare access and the efficiency of the National Health Insurance Scheme (NHIS) across varying socio-economic groups and geographic locations. The study focused on collecting data related to NHIS coverage, frequency of antenatal visits, and distance to healthcare facilities. A random sampling technique was employed in this study to ensure that every household within the selected communities of Jos North had an equal chance of being included in the survey. By allowing for a fair distribution of respondents across different socio-economic and geographic segments, the method supported the collection of reliable data related to NHIS coverage, antenatal visits, and proximity to health facilities. The study utilized a rigorously developed questionnaire to collect primary data from respondents across selected Wards in Dutsin Ma, ensuring a fair and unbiased representation of the target population. Participants were selected through a random sampling method to capture diverse maternal health experiences among households in the study area.

Objectives

The main objective of this paper is to assess the impact of national health policies on the effectiveness and reach of maternal and child health education programs among the residents of Dutsin Ma, Nigeria. The following are the objectives of the study:

1. Access the effect of national health policies on maternal health education programs among the residents of Dutsin Ma, Nigeria.
2. Evaluate the impact of national health policies on child health education programs among the residents of Dutsin Ma, Nigeria

Hypotheses

The following hypotheses were postulated to guide the study and were tested at a 0.05 level of significance:

Ho₁: There is no significant differences between national health policies and maternal health education programs among the residents of Dutsin Ma, Nigeria.

Ho₂: There is no significant differences between national health policies and child health education programs among the residents of Dutsin Ma, Nigeria.

Presentation of Findings

The study selected 460 respondents from households for quantitative data. The social attachment theory anchored the theoretical explanation. Quantitative data were analyzed descriptively and inferentially while qualitative data were transcribed through content analysis.

Descriptive Analysis

Table 1: Socio-demographic Characteristics of Respondents

Category	Frequency	Percent (%)	P-value
Age Group			
Less than 18 years	15	3.	
18–25 years	57	12.6	
26–35 years	121	26.7	
36–45 years	132	29.1	0.0013
46–55 years	82	18.1	
56 years and above	46	10.2	
Gender			
Male	181	39.9	
Female	272	60.1	0.009



Impact of National Health Policies on Maternal and ... Muhammad, S., Et. al (2026)

Marital Status			
Married	253	55.8	
Single	89	19.6	
Widowed/Widower	42	9.3	0.025
Divorced/Separated	69	15.2	
Occupation			
Employed	150	33.1	
Self-employed	125	27.6	
Unemployed	50	11.0	0.152
Student	75	16.6	
Retired	25	5.5	
Children under 5			
Yes	301	66.4	
No	152	33.6%	0.002

The first compartment of table 1 shows the age distribution of respondents which indicates that most participants were aged between 26 and 45, aligning with the active parenting stage, thereby enhancing the reliability of feedback on early childhood services. The second compartment displays the gender of respondents. The higher number of female respondents, who are often primary caregivers, implies that the study reflected the experiences of those most directly engaged with child healthcare, education, and protection services. The third compartment depicts the marital status of the respondents. A significant proportion of respondents were married, suggesting familiarity with family-focused policies, while responses from single parents and other family structures offered diverse perspectives.

The fourth compartment shows the occupation of respondents, the majority were employed or self-employed, indicating economic engagement and possible awareness of public policies. Inclusion of unemployed individuals, students, and retirees provided a more inclusive understanding across socioeconomic strata. The fifth compartment displays data on respondent number of children under 5, Importantly, most respondents had children under five, grounding their insights in lived experience with the IECD policy's target population. Collectively, these demographics strengthen the credibility and applicability of the study's findings.

Regression Analysis

Table 2: Logistic Regression Analysis on National Health Policies and Improvement of Adequate Healthcare for Children and Maternal Women in the study area

Model Statistic	Values
Number of Observations	453
Pseudo R ²	0.09
Log-Likelihood	-140.89
Chi-Square	7.84
Degrees of Freedom	6

Variable			Z-score	P-value	
Regression Coefficients					
Coefficient	Std.	Odds			
Error		Ratio			
Intercept	-0.650	0.470	-1.380	0.522	0.167
Level of Policy Implementation	0.480	0.590	0.810	1.616	0.418



Impact of National Health Policies on Maternal and ... Muhammad, S., Et. al (2026)

Health Screening for Pregnant Women	0.530	0.610	0.870	1.698	0.385
Skilled Birth Attendants	0.590	0.640	0.920	1.803	0.357
Consistent Immunization Programs	0.610	0.580	1.050	1.840	0.293
Promotion of Exclusive Breastfeeding	0.450	0.600	0.750	1.568	0.451
Salt Iodization & Iron Fortification	0.390	0.560	0.700	1.477	0.484
<u>Malaria Prevention Measures</u>	<u>0.520</u>	<u>0.590</u>	<u>0.880</u>	<u>1.682</u>	<u>0.378</u>

The logistic regression analysis examined the impact of national health policies on the effectiveness and reach of maternal and child health education programs among the residents of Dutsin Ma, Nigeria. The model summary revealed a relatively low explanatory power, with a Pseudo R² value of 0.09 and a log-likelihood of -140.89, indicating that the independent variables included in the model do not substantially explain variations in the dependent variable. The Chi-square statistic of 7.84 with 6 degrees of freedom is statistically insignificant, suggesting the overall model is not a strong fit. Furthermore, none of the independent variables demonstrated statistically significant effects. All p-values for the predictors including level of policy implementation, health screening for pregnant women, availability of skilled birth attendants, consistent immunization programmes, exclusive breastfeeding, salt iodization and iron fortification, and malaria prevention measures exceeded the 0.05 significance threshold. This indicates that none of these policy components significantly predicted improvement in children's healthcare in the study area. Based on this outcome, the null hypothesis (H₀₁) and (H₀₂), which states that the IECD policy has not significantly improved adequate healthcare for children in Dutsin Ma, Nigeria, is accepted. The findings imply that the implementation of the national health policies policy has not yielded measurable improvements in child healthcare delivery within the local context.

Discussion of Findings

The study examined whether the national health policies has improved access to healthcare for maternal and children in Dutsin Ma, Nigeria. The findings revealed that the policy has not produced any measurable progress in healthcare delivery for children across the area. Logistic regression results demonstrated that all healthcare variables assessed, including health screening for pregnant women, skilled birth attendance, consistent immunizations, exclusive breastfeeding promotion, salt iodization, iron fortification, and malaria prevention measures, did not yield statistically significant effects on the adequacy of healthcare. Respondents' experiences further confirmed these results, as many described persistent challenges with poor service delivery, irregular schedules, and resource shortages.

This suggests that the intentions behind the policy have not translated into meaningful improvement in practice. In contrast to Ndemeke (2024), who documented positive outcomes such as better antenatal screening and reduced maternal and infant mortality, respondents in this study shared their disappointment about the limited reach and reliability of these services. Many emphasized that antenatal screening was inconsistent and not available in many rural communities, making it difficult for pregnant women to benefit from early healthcare interventions. Although Zubairu (2024) reported that immunization programmes had become more reliable and that awareness of breastfeeding had improved in their studies, most respondents in this research described a very different reality. Many reported irregular immunization schedules, shortages of essential drugs, and even non-functional clinics, which placed children at risk of missing important vaccinations. Health education campaigns were said to occur mainly in urban centres, leaving rural populations uninformed and underserved. Furthermore, while Bassey and Amah (2023) identified some positive outcomes from nutritional interventions such as salt iodization and iron fortification, respondents in this study lamented that they had not received any supplements or fortified foods through public healthcare services. This gap reflects a critical absence in efforts to address child malnutrition. The findings also challenge the claims of Oghene and Udom (2024) that malaria prevention measures, including the distribution of mosquito nets, had reduced child mortality. Participants from Makurdi stated that such interventions were irregular, poorly coordinated, and often unavailable in their communities, leaving many families vulnerable to preventable illness. These experiences reflect frustrations over the inconsistency of healthcare interventions and their weak reach at the local level. These findings raise important questions about the practical application of Social Attachment Theory within the current healthcare policy environment. The theory suggests that secure attachment depends



Impact of National Health Policies on Maternal and ... Muhammad, S., Et. al (2026)

on consistent and nurturing caregiving environments that protect and support children's development. For this to occur, reliable access to maternal and child health services is crucial. However, the fragmented and irregular delivery observed in Dutsin Ma, Nigeria prevents caregivers from providing such steady care. The absence of dependable immunization programmes, maternal health services, and prenatal care leaves children exposed to risks that could otherwise be managed. As a result, children are deprived of the stable foundations required to build secure attachments, undermining their physical and emotional well-being.

Conclusion

The study examined the national health policies and improved adequate healthcare for maternal and children in Dutsin Ma, Nigeria. The aim was to assess the effect of key components of the policy, such as maternal health screening, skilled birth attendance, immunization, breastfeeding promotion, nutrition interventions, and malaria prevention. The findings revealed that the policy has not brought about measurable improvements in healthcare delivery for children. Both quantitative results and respondents' experiences pointed to persistent challenges. Healthcare remained largely inaccessible, unreliable, and unaffordable, with irregular immunization schedules, limited maternal health services, weak nutritional support, and overstretched staff. These realities indicate that the policy has not been effectively translated into meaningful practice. The study thus concludes that the national health policies has not achieved its intended goal of improving healthcare for maternal and children in Dutsin Ma, Nigeria. The evidence shows that children and their caregivers still face critical barriers that compromise health outcomes. Accessibility is undermined by uneven service delivery, reliability is weakened by irregular supply and staffing shortages, and affordability remains a persistent burden despite claims of free care. These findings imply that structural weaknesses and poor implementation strategies have prevented the policy from making a tangible difference. The implication is that early childhood healthcare in Makurdi remains fragile, leaving children vulnerable to preventable risks and denying them the secure foundations necessary for healthy development.

Recommendations

Based on the findings of this study, the following are recommended:

- (i) The government should conduct a thorough audit of antenatal health screening initiatives under the national health policies, especially in underserved rural areas, to identify systemic bottlenecks and redesign strategies for more inclusive and consistent access.
- (ii) There is a need to urgently address the shortage and uneven distribution of skilled health personnel by government. Priority should be given to deploying well-trained birth attendants to remote health centres, with incentives to retain them in hard-to reach the study area.
- (iii) Immunization programmes should be strengthened by resolving logistical delays, ensuring availability of vaccines, and establishing mobile outreach units to serve remote and underserved communities.
- (iv) Breastfeeding campaigns must be revitalized through grassroots sensitization, regular follow-up, and culturally appropriate education, especially in rural areas where awareness and adoption remain low.
- (v) Existing salt iodization and iron fortification initiatives require better coordination, transparency, and community-level delivery mechanisms to close the gaps in coverage and impact observed across Dutsin Ma, Nigeria

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Impact of National Health Policies on Maternal and ... Muhammad, S., Et. al (2026)

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