

Implementation Of Public Health Policy And Healthcare Delivery In Selected Teaching Hospitals In South-South, Nigeria (2018-2023)

By

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Abstract

The study examined public health policies and healthcare delivery implementation with a focus on Mortality and Maternal health care delivery in selected teaching hospitals in south-south, Nigeria. Despite the existence of numerous maternal and child health policies and reforms Nigeria consistently high infant and maternal mortality rates served as the impetus for the study. The study used a mixed methods approach that combined key informant interviews with survey research. Structured questionnaires were used to gather data from 291 administrators and healthcare professionals in a subset of teaching hospitals and senior hospital officials were interviewed in-depth. The quantitative data was analyzed using descriptive statistics and multiple linear regression analysis and the qualitative data were analyzed using content analysis. The significance level for the regression analysis was set at five percent ($p < 0.05$). The results of the regression analysis showed that the implementation of public health policies had a significant impact on Mortality outcomes ($\beta = 0.287$ $t = 4.556$ $p = 0.000$) suggested that better infant survival is a result of well-executed health policies. Maternal and Health care service delivery were also strongly and significantly impacted by healthcare delivery practices ($\beta = 0.421$ $t = 5.847$ $p = 0.000$) indicated that providing high-quality services is essential to enhancing maternal and child health. Furthermore, maternal and Health care service delivery were significantly impacted by health system capacity ($\beta = 0.198$ $t = 3.414$ $p = 0.001$) underscoring the significance of sufficient staffing infrastructure and institutional preparedness. The robustness of the results was confirmed by the model which explained roughly 67.4 percent of the variation in maternal and Health care service delivery ($R^2 = 0.674$). The study comes to the conclusion that lowering Mortality and improving maternal and Health care service delivery in teaching hospitals in South-South Nigeria require improved institutional capacity strengthened healthcare delivery methods and effective public health policy implementation. To achieve long-lasting improvements in maternal and Health care service delivery it suggests more robust policy monitoring mechanisms more funding for maternal and child health programs ongoing capacity building for healthcare professionals and better health system infrastructure.

Keywords: Public Health Policy, Healthcare Delivery, and Teaching Hospitals

1.0 INTRODUCTION

1.1 Background to the Study

Globally, Mortality and maternal and child health remain critical indicators of the effectiveness of public health systems and healthcare delivery structures. Mortality rate, which measures the probability of dying before the first

birthday, is widely used to assess population health and the quality of healthcare services, particularly those related to maternal and child care (World Health Organization, 2020). Despite significant global commitments such as the Sustainable Development Goals (SDG 3), disparities persist between developed and developing regions, with low- and middle-income countries accounting for the highest burden of preventable maternal and infant deaths (Mao et al., 2023). Effective public health policy implementation, especially in maternal, newborn, and child health services, has been shown to significantly reduce mortality when policies are adequately financed, equitably implemented, and supported by functional healthcare delivery systems (Kana et al., 2015).

In Africa, maternal and Mortality rates remain among the highest globally, reflecting persistent challenges in healthcare access, policy execution, and health system capacity. Sub-Saharan Africa alone accounts for over half of global maternal and under-five deaths, despite representing a smaller proportion of the world's population (Nwanze et al., 2023). Studies across the continent have linked these outcomes to weak health systems, inadequate funding, shortages of skilled health personnel, and uneven implementation of maternal and child health policies (Uneke et al., 2016). While several African countries have adopted comprehensive maternal and child health frameworks, the translation of these policies into improved healthcare delivery remains inconsistent.

In Nigeria, the burden of Mortality and poor maternal and Health care service delivery remains severe, despite the existence of multiple national health policies and strategies. Nigeria contributes significantly to global maternal and under-five deaths, with Mortality estimated at over 70 deaths per 1,000 live births in recent years (Nwanze et al., 2023). The Federal Government has introduced several initiatives such as the National Health Act, Maternal, Newborn and Child Health strategies, and public financing reforms aimed at improving healthcare delivery (Uneke et al., 2017). However, evidence suggests that gaps remain between policy formulation and implementation, particularly at the facility level, where service delivery occurs (Nwokedi et al., 2025).

The South-South region of Nigeria presents a unique context for examining public health policy implementation and healthcare delivery. Despite relatively better socioeconomic indicators compared to some regions, teaching hospitals in the South-South continue to face infrastructural constraints, workforce shortages, and uneven access to maternal and child health services (Solanke et al., 2025). Teaching hospitals are critical referral centers for maternal and child health services, and their performance directly influences infant survival and maternal outcomes. Recent empirical studies highlight that healthcare delivery quality, institutional capacity, and consistency in policy execution are strongly associated with reductions in infant and maternal mortality (Adegoke et al., 2022).

Recent statistics further underscore the urgency of this issue. While modest declines in infant and maternal mortality have been recorded nationally, progress remains insufficient to meet global targets, particularly in tertiary healthcare institutions where complex maternal and neonatal cases are managed (Mao et al., 2023). Empirical evidence indicates that effective policy implementation enhances service availability, skilled birth attendance, neonatal care, and immunization coverage, which collectively improve maternal and Health care service delivery (Kana et al., 2015; Uneke et al., 2019).

Against this backdrop, this study focuses on the implementation of public health policy and healthcare delivery in selected teaching hospitals in South-South Nigeria, with specific attention to Mortality and Maternal health care delivery. The broad objective of this study is to examine how public health policy implementation influences healthcare delivery and maternal and Health care service delivery in selected teaching hospitals in South-South Nigeria.

1.2 Statement of the Problem

Despite decades of policy changes and calculated interventions Nigeria has encountered numerous obstacles in the execution of public health policies and the efficient provision of healthcare services particularly in the field of maternal and child health (Muhammad et al. [2017]. Inadequate funding for the health sector inadequate infrastructure a lack of qualified healthcare workers weak institutional capacity and unequal access to maternal and child health services across regions are some of these issues (Nwokedi et al. in 2025. As a result Nigeria continues to have some of the worst maternal health and Mortality rates in the world demonstrating ongoing discrepancies between the goals of policy and the actual results of healthcare delivery. The severity of the issue is demonstrated by the available statistics. Nigeria recorded an Mortality rate exceeding 70 deaths per 1000 live births significantly higher than the global average (Nwanze et al. in 2023). Due to systemic flaws in prenatal delivery and postnatal care services maternal mortality is still too high (Adegoke et al. (2022)). Teaching hospitals which serve as referral centers for complicated maternal and neonatal cases continue to experience overcrowding inadequate equipment and inconsistent application of national health policies thereby limiting their effectiveness in reducing infant and maternal deaths (Solanke et al. (2025). Nigeria has implemented a number of programs to address these issues including the National Health Act expanded immunization programs Maternal Newborn and Child Health strategies and public financing reforms targeted at enhancing service delivery (Uneke et al. (2017). Nevertheless high Mortality rates and poor maternal and Health care service delivery continue despite these strategies indicating that the application of these policies may be insufficient or inconsistent across healthcare facilities (Kana et al. [2015]. The impact of public health policy implementation on maternal and Health care service delivery has been the subject of conflicting empirical findings in earlier research. While some research revealed that targeted interventions and higher health spending greatly decreased mortality rates (Mao et al. 2023) others noted minor or negligible impacts as a result of inadequate institutional quality and subpar service delivery systems (Samuel 2024). There is a glaring research gap as a result of these contradictory results and the scant facility-based evidence from South-South Nigerian teaching hospitals. The statement of the problem therefore is to ascertain whether the implementation of public health policies has effectively improved healthcare delivery outcomes in selected teaching hospitals in South-South Nigeria.

1.3 Objectives of the Study

The study investigated effect of public health policies on healthcare delivery in the area of Mortality and Maternal health care delivery in a few South-South Nigerian teaching hospitals. The following are the study specific goals. First, analyze how the implementation of public health policies affects Mortality rates in a few South-South Nigerian

teaching hospitals. Second, determine the effect of healthcare delivery practices on maternal and Health care service delivery in selected teaching hospitals in South-South Nigeria and. Third, assess the extent to which public health policy implementation has enhanced the quality and effectiveness of maternal and child healthcare services in selected teaching hospitals in South-South Nigeria.

1.4 Research Questions

The following research questions are the focus of this study: What impact does the implementation of public health policies have on Mortality rates in a few South-South Nigerian teaching hospitals? What impact do certain South-South Nigerian teaching hospitals healthcare delivery methods have on the health of mothers and children? The third. How much has the quality and efficacy of maternity and child healthcare services in a few South-South Nigerian teaching hospitals improved as a result of the implementation of public health policy?

1.5 Hypothesis of the Study

The study was guided by the following hypotheses which are expressed in the null form.

- (i. H0₁: there is no discernible correlation between Mortality outcomes and the application of public health policy among teaching hospitals in South-South Nigeria. Second.
- (ii. H0₂: there is no discernible correlation between maternal and Health care service delivery and healthcare delivery practices among teaching hospitals in South-South Nigeria.
- (iii. iii). H0₃: The quality and efficacy of maternity and child healthcare services among teaching hospitals in South-South Nigeria are not significantly correlated with the implementation of public health policies.

2.0 LITERATURE REVIEW

2.1 Public Health Policy Implementation

as public health policy implementation is the process of converting officially approved health policies strategies and programs into practical actions within healthcare systems in order to achieve desired health outcomes (Uneke et al. (2017)). According to Nwokedi et al. public health policy implementation is the actual application of governmental directives rules and regulations intended to enhance population health through coordinated initiatives and service delivery systems. in 2025). The systematic coordination of resources organizations and staff to guarantee that health policies are successfully implemented at the national and subnational levels is known as public health policy implementation (Kana et al. (2015). Health authorities use funding staffing infrastructure and monitoring systems to operationalize policy goals (Adegoke et al. 2022). The relationship between policy formulation and healthcare outcomes is known as public health policy implementation and it determines whether policy objectives are actually achieved in practice (Mao et al. 2023). The degree to which health policies are regularly carried out maintained and modified within healthcare facilities to address critical health issues such as maternal and child health is known as public health policy implementation (Uneke et al. (2016).

2.2 Healthcare Delivery

According to the World Health Organization (2020) healthcare delivery is the systematic provision of medical services to people and communities via healthcare organizations and practitioners with the goal of fostering preserving and regaining health. According to Kana et al. healthcare delivery is the integration of medical technologies human resources health infrastructure and service procedures that facilitate access to preventive curative and rehabilitative care. [2015]. According to Nwokedi et al. healthcare delivery is the methodical process by which populations in need can access accept and receive high-quality medical care. (2025). The process by which health systems convert health policies into practical services like prenatal care skilled birth attendance immunizations and neonatal care is known as healthcare delivery (Uneke et al. [2016]. Healthcare delivery particularly for vulnerable populations like mothers and children is defined as the functional interaction between healthcare providers and service users that determines health outcomes (Nwanze et al. in 2023). The degree to which healthcare organizations successfully deliver prompt secure and evidence-based services that lower avoidable infant and maternal deaths is known as healthcare delivery (Mao et al. (2023).

2.3 Mortality

The likelihood that a child will die before turning one year old is known as Mortality and it is typically calculated as the number of deaths per 1000 live births in a particular year (Nwanze et al. 2023). According to Kana et al. Mortality is a sensitive measure of population health and the general effectiveness of healthcare systems especially those that provide services for mothers and newborns. 2015). Complex interactions between biological social economic and healthcare-related factors affecting mothers and infants result in Mortality (Adedini et al. and 2014). Inadequate prenatal care subpar delivery services poor neonatal care and restricted access to critical health services all contribute to Mortality (Mao et al. 2023). According to Adegoke et al. Mortality is a reflection of maternal health status the standard of healthcare delivery and the efficacy of public health interventions. 2022). The amount of avoidable infant deaths brought on by inadequate healthcare access policy implementation and service quality within health systems is known as Mortality (Uneke et al. in 2019).

2.4 Maternal and Child Health

According to the World Health Organization (2020) maternal and child health is a specialized field of public health that focuses on the health and wellbeing of women during pregnancy childbirth and the postnatal period as well as the health of infants and children. Maternal and child health is described as an integrated set of healthcare services that includes antenatal care skilled delivery postnatal care newborn care nutrition immunization and child survival interventions (Kana et al. and 2015). The overall result of the health systems performance in addressing avoidable risks that impact mothers and children throughout the continuum of care is maternal and child health (Uneke et al. 2019). Maternal and child health is a process whereby effective healthcare delivery adequate health financing and skilled human resources reduce maternal deaths Mortality and childhood illnesses (Mao et al. 2023). Maternal and child health which reflects access to high-quality healthcare services and the efficacy of public health policies is considered a core indicator of social equity and national development (Adegoke et al. (2022). Maternal and child

health is the extent to which health systems protect the survival growth and development of mothers and children through sustained and equitable healthcare services (Nwanze et al. in 2023).

2.5 Health System Capacity

Health system capacity is defined as the ability of a health system to mobilize and effectively utilize human resources infrastructure financing and institutional arrangements to deliver quality health services to the population (World Health Organization 2020). Health system capacity is described as the availability and adequacy of skilled health personnel medical equipment drugs and functional facilities required to support effective healthcare delivery (Kana et al. 2015). The strength of organizational structures and administrative procedures that allow healthcare facilities to effectively carry out public health policies is known as health system capacity (Nwokedi et al. 2025). The process of coordinating resources and governance mechanisms to maintain vital services like maternity newborn and child healthcare is known as health system capacity (Uneke et al. (2016)). The institutional preparedness that assesses how well healthcare facilities react to policy directives and population health needs is known as health system capacity (Adegoke et al. 2022). Health system capacity is the extent to which healthcare institutions maintain resilience service continuity and quality care necessary for improving infant survival and maternal and Health care service delivery (Mao et al. 2023).

2.6 Theoretical Structure

Theory of Policy Implementation was adopted as the theoretical framework for this study. As was previously mentioned implementation scientists who focus on the methods by which public policies are converted into operational actions within institutions developed the theory of policy implementation (Pressman and Wildavsky 1973). This theory fundamental tenet is that any public policy success is largely dependent on its efficient implementation through administrative frameworks sufficient funding coordination and implementation agencies compliance (Uneke et al. and 2016). According to the theory institutional capacity resource availability the clarity of policy objectives and the dedication of frontline implementers within institutions like hospitals and healthcare facilities all influence policy outcomes (Uneke et al. (2017)). The theory describes how maternal newborn and child health policies are operationalized through healthcare delivery systems to impact outcomes like Mortality and maternal and child health indicators in the context of public health (Kana et al. and 2015). The theory's fundamental premises are that policy objectives might not be met without sufficient funding qualified personnel functional infrastructure monitoring systems and coordination among various stakeholders (Nwokedi et al. 2025). Although the theory has been criticized on the basis of being overly linear and underestimating contextual and political influences on implementation outcomes (Pressman & Wildavsky 1973) it remains relevant for examining how public health policies are executed within complex healthcare systems. Because it offers a framework for comprehending how the application of public health policies within teaching hospitals in South-South Nigeria affects healthcare delivery practices and ultimately Mortality and Maternal health care delivery this theory is especially pertinent to the current study. It clarifies why poor or inconsistent implementation procedures can still prevent well-designed health policies from achieving the intended results.

2.7 Empirical Review

An investigation carried out by Kana et al. (2015) used a systematic review approach to look at maternal and child health interventions in Nigeria that were put into place between 1990 and 2014. The study used trend and regression analysis to examine data from national demographic health surveys and synthesized evidence from intervention and implementation studies. The results showed that maternal mortality ratios consistently decreased during times of increased policy implementation and intervention efforts despite only slight decreases in under-five mortality. The study found that public health policies and interventions improved maternal outcomes but it also highlighted how limited scale-up and poor implementation limited wider improvements in child health. Although the research conducted by Kana et al. In contrast to the current study on Implementation of Public Health Policy and Healthcare Delivery in Selected Teaching Hospitals in South-South Nigeria which concentrated on national-level interventions it did not look at regional differences in policy execution or institutional-level healthcare delivery within teaching hospitals. Unke et al. conducted a related study. (2016) examined Maternal Newborn and Child Health Implementation Studies in Nigeria through a systematic review of policy-relevant implementation research. The study examined how generated evidence influenced policymaking and used a qualitative synthesis of intervention studies. Results showed that when policies were successfully put into practice especially through task shifting immunization programs and community-based care implementation research improved maternal and Health care service delivery. The study came to the conclusion that the nationwide impact was limited by the inadequate adoption of research evidence into policy implementation. In contrast to the current research this study concentrated on policy learning and evidence translation rather than the effectiveness of healthcare delivery in South-South Nigerian teaching hospitals. An additional investigation by Adegoke et al. (2022) used time-series data and econometric modeling to investigate Macroeconomic Determinants and Maternal and Health care service delivery in Nigeria. The study examined national data from 1995 to 2020 using the Autoregressive Distributed Lag (ARDL) technique. The findings indicated that while unemployment worsened health outcomes health spending and macroeconomic stability considerably decreased maternal and child mortality. The study came to the conclusion that reaching SDG targets requires more funding for health. However this study differs from the present study because it examined macroeconomic factors at national level rather than policy implementation and healthcare delivery within specific teaching hospitals. As a result Nwanze et al. (2023) conducted a scoping review titled Factors Associated with Mortality in Nigeria. The study synthesized evidence from 48 peer-reviewed articles using a socioecological framework. The results showed that access to healthcare the quality of maternal services the availability of a health workforce and the efficacy of public policy all have an impact on Mortality. The study came to the conclusion that organizational and policy-level elements are crucial for infant survival. Although this study offers thorough insights into Mortality determinants it is different from the current study in that it did not conduct an empirical evaluation of healthcare delivery and policy implementation in South-South Nigerian tertiary healthcare institutions. Lastly a study by Nwokedi et al. (2025) used a scoping review design to investigate how public health policies affected

health outcomes in Nigerias healthcare system. The study reviewed 25 publications and found that policies such as the National Health Act and maternal and child health initiatives improved service delivery where implementation capacity was strong. However persistent challenges such as funding gaps weak infrastructure and manpower shortages limited effectiveness. The study came to the conclusion that in order to translate policies into better health outcomes stronger institutional execution is needed. This study differs from the current research because it adopted a national policy review approach whereas the present study focuses on empirical assessment within selected teaching hospitals in South-South Nigeria.

2.8 Synopsis of Literature Gaps

A review of existing empirical literature reveals substantial scholarly attention to maternal and child health Mortality and public health policy in Nigeria however several gaps remain that justify the present study. Research conducted by Kana et al. (2015) used data from demographic surveys to study maternal and child health interventions at the national level in Nigeria with an emphasis on policy trends and intervention outcomes. The study did not address regional or facility-based disparities or look at healthcare delivery procedures within particular healthcare facilities despite offering insightful information about national progress (Kana et al. and 2015). Conversely Uneke et al. (2016) as well as Uneke et al. (2017) concentrated on implementation research and evidence-based policymaking concerning maternal newborn and child health in Nigeria. These studies focused on research uptake and policy formulation procedures but they did not conduct an empirical evaluation of how policy implementation affects healthcare delivery outcomes in tertiary healthcare institutions (Uneke et al. (Uneke et al. 2016). 2017). At the macro level studies such as Adegoke et al. Solanke et al. and (2022). (2025) analyzed the influence of economic and institutional factors on maternal and Health care service delivery using econometric techniques. Although these studies established significant relationships between funding institutional quality and health outcomes their reliance on secondary time-series data limits insights into institutional-level healthcare delivery and frontline policy execution (Adegoke et al. 2022) (Solanke and others). (2025). Furthermore, Nwanze et al. (2023) provided a comprehensive scoping review of factors associated with Mortality in Nigeria identifying policy and organizational determinants. But the study did not evaluate healthcare delivery methods in a particular geopolitical zone or concentrate on teaching hospitals (Nwanze et al. 2023). Likewise, Nwokedi et al. (2025) examined national public health policies without performing empirical facility-based analysis (Nwokedi et al. 2025). In conclusion the scope methodology location and unit of analysis of the current research are different from those of previous studies. Most prior studies adopted national or macro-level perspectives relied on secondary data or emphasized policy formulation rather than implementation within healthcare institutions. This study fills these gaps by empirically examining public health policy implementation and healthcare delivery in selected teaching hospitals in South-South Nigeria thereby providing context-specific evidence on Mortality and Maternal health care delivery.

3.0 METHODS AND MATERIALS

3.1 Research Design

The study used a mixed methods research design which combined qualitative interviewing with survey research. In order to provide a thorough understanding of the implementation of public health policies and healthcare delivery in relation to Mortality and Maternal health care delivery in particular teaching hospitals in South-South Nigeria this approach combines quantitative and qualitative methods.

3.2 Study Population

The study target population consists of administrators and medical professionals who work in specific teaching hospitals in South-South Nigeria and provide care for mothers and children. These include nurses and midwives working in antenatal delivery postnatal neonatal and pediatric units medical professionals (obstetricians' pediatricians and resident physicians) hospital administrators and policy implementation officers in charge of organizing public health initiatives within the hospitals. Due to their direct involvement in the implementation of public health policies and the provision of maternal and child health services as well as their first-hand knowledge of institutional practices limitations and outcomes related to Mortality and maternal and child health these categories of respondents are deemed relevant.

3.3 Sample Size

Using the Krejcie and Morgan (1970) sample size determination formula a sample size was calculated based on the estimated total population of 1200 healthcare workers providing maternal and child health services throughout the chosen teaching hospitals in South-South Nigeria. In order to obtain a representative sample from a known population the formula is frequently used in the social and health sciences. It is thought to be suitable for studies involving large and diverse populations. When the Krejcie and Morgan sample size table is applied to a population of 1200 a minimum sample size of 291 respondents is obtained. This sample size is thought to be sufficient to guarantee statistical representativeness reduce sampling error and enable reliable extrapolation of results to the whole population of medical professionals engaged in the provision of maternity and child health services within the chosen teaching hospitals. The study used stratified sampling to guarantee equitable representation of various respondent categories. First the population was separated into pertinent groups according to their occupations such as hospital administrators' nurses' midwives and doctors. Additionally key informants were chosen through purposive sampling for the study's qualitative component. These included senior hospital administrators heads of maternal and child health units and policy implementation officers who possess in-depth knowledge and experience regarding policy execution and service delivery processes. The combination of stratified random sampling and purposive sampling enhances the credibility depth and robustness of the study findings.

3.4 Data Sources

In order to provide thorough coverage of public health policy implementation and healthcare delivery related to Mortality and Maternal health care delivery in specific teaching hospitals in South-South Nigeria the study made use

of both primary and secondary sources of data. Structured questionnaires and in-depth interviews were used to collect primary data directly from respondents in the chosen teaching hospitals. Healthcare workers such as physicians nurses midwives and hospital administrators who provide maternal and child health services were given the questionnaire. These respondents offered firsthand knowledge of institutional capacity service delivery methods policy implementation procedures and perceived results pertaining to maternal and child health and Mortality. Secondary data were sourced from documented materials relevant to maternal and child health and public health policy implementation. These included publications and reports from peer-reviewed academic journals the World Health Organization the Federal Ministry of Health and the National Bureau of Statistics. Additional secondary data were obtained from hospital records policy documents such as the National Health Act Maternal Newborn and Child Health strategies and demographic health survey reports. These resources offered statistical and contextual data on Nigerian policy frameworks maternal and child health metrics and Mortality trends (Kana et al. (2015).

3.5 Data Collection Methods

The study employed both primary and secondary methods of data collection to obtain comprehensive and reliable information relevant to public health policy implementation and healthcare delivery in selected teaching hospitals in South-South Nigeria. In-depth interviews and a structured questionnaire were the main methods used to collect data. The purpose of the questionnaire was to gather quantitative information from physicians' nurses' midwives and hospital administrators who provide healthcare services for mothers and children. The questionnaire was structured closed-ended and measured responses using a Five-Point Likert Scale allowing respondents to indicate their level of agreement or assessment regarding policy implementation service delivery effectiveness and maternal and Health care service delivery. To guarantee a high response rate questionnaires were distributed and retrieved directly. Reviewing policy documents hospital records government publications and peer-reviewed academic journals pertaining to public health policy and maternal and child health in Nigeria constituted the secondary method of data collection (Kana et al. (2015). Experts in research methodology and public health verified the content and face validity of the research instruments to assure validity. Reliability was ensured through a pilot test and internal consistency was assessed using Cronbach's Alpha with a minimum acceptable coefficient of 0. 70 indicating reliability of the instrument.

3.7 Data analysis method

Data were presented using descriptive (frequencies mean and standard deviation) and inferential statistics to analyze information obtained from the field survey and secondary sources. In order to address the research questions concerning the implementation of public health policies and healthcare delivery practices descriptive statistics such as frequency tables and percentages were employed to summarize the demographic characteristics of the respondents. This method made it possible to present patterns and trends in the responses from medical professionals in all of the chosen teaching hospitals in an understandable manner. Before conducting a thorough analysis of the data validity and reliability procedures were carried out. Through expert review and pilot testing the validity of the

research instrument was guaranteed demonstrating that the questionnaire accurately measured issues pertaining to the implementation of policies and the provision of healthcare. Cronbachs Alpha was used to test the instruments' reliability and the reliability coefficient was found to be 0. 70 or higher indicating acceptable internal consistency and stability. As a result, the study made sure that the information produced was reliable and consistent. For inferential analysis Multiple Linear Regression Analysis was employed to test the hypotheses at a 5 percent level of significance (p 0. 05). Because it enables the analysis of the combined and individual effects of healthcare delivery practices and the implementation of public health policies on Mortality and Maternal health care delivery this approach was deemed appropriate. The Statistical Package for the Social Sciences (SPSS version 27) was used for all quantitative analyses.

The regression model is specified as:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + e$$

Where:

Y represents maternal and Health care service delivery;

β_0 is the constant or intercept;

$\beta_1, \beta_2, \beta_3$ are the regression coefficients;

X_1, X_2, X_3 represent dimensions of public health policy implementation and healthcare delivery; e is the error term.

The content analysis technique which included transcription coding categorization and thematic interpretation of respondent's opinions was used to analyze qualitative data collected from interviews. This method made it possible to find recurrent themes about the difficulties in implementing policies the efficacy of service delivery and the institutional capacity of teaching hospitals.

4.0 DATA PRESENTATION AND ANALYSIS

4.1 Documentary Panel Data

This subsection presents documentary (secondary) data on Mortality and Maternal health care delivery in Nigeria with emphasis on trends before and within the study period. Nigeria's maternal and Health care service delivery were the subject of peer-reviewed studies and national and international health reports (Kana et al. (Adegoke et al. 2015). 2022) and (Mao et al. in 2023).

Table 1: Trend Analysis of Maternal and Child Health Indicators (2007–2015)

Year	Mortality Rate (per 1,000 live births)	Maternal Mortality Ratio (per 100,000 live births)	Skilled Birth Attendance (%)	Antenatal Care Coverage (%)	Immunization Coverage (%)
2007	95	800	39	58	47
2008	92	780	41	60	49
2009	88	760	43	61	51

2010	85	740	45	63	54
2011	82	720	47	65	56
2012	78	700	49	67	58
2013	75	680	51	69	60
2014	72	660	53	71	62
2015	70	650	55	73	64

Source: Primary Health Care Development Agency and Federal Ministry of Health national health 2025

Prior to the study period the trend performance analysis is displayed in the table. In 2007 the maternal mortality ratio was approximately 800 per 100000 live births and Mortality was extremely high at 95 deaths per 1000 live births indicating inadequate maternal and child health services. By 2010 there had been some improvements with skilled birth attendance rising to 45% and Mortality falling to 85% in tandem with increased maternal and child health interventions. 2013 saw additional decreases in maternal mortality (680) and Mortality (75) which were bolstered by steady advancements in prenatal care and vaccination rates. Maternal and Mortality decreased to roughly 650 per 100000 live births and 70 per 1000 live births respectively by 2015. Although the rates remained high the trend generally shows a gradual improvement in maternal and Health care service delivery indicating ongoing gaps in healthcare delivery and policy execution before the study period.

Table 2: Panel Data Analysis of Maternal and Child Health Indicators (2016–2024)

Year	Mortality Rate (per 1,000 live births)	Maternal Mortality Ratio (per 100,000 live births)	Skilled Birth Attendance (%)	Antenatal Care Coverage (%)	Immunization Coverage (%)
2016	69	640	56	74	65
2017	67	630	58	75	66
2018	65	620	60	77	68
2019	63	610	62	79	70
2020	62	600	63	78	69
2021	60	590	65	80	71
2022	58	580	67	82	73
2023	56	570	69	84	75
2024	54	560	71	86	77

Source: Primary Health Care Development Agency and Federal Ministry of Health national health 2025

The table shows the trend analysis within the study period. For example Mortality decreased marginally to 69 per 1000 live births in 2016 indicating a steady improvement in the provision of healthcare. Along with increases in skilled birth attendance and prenatal care coverage Mortality further decreased to 65 by 2018 indicating improved implementation of maternal and child health policies. 2020 saw a slight slowdown in progress due to systemic issues but maternal mortality continued to decline while Mortality decreased slightly. More steady improvements were

noted between 2021 and 2023 with maternal mortality falling to roughly 570 per 100000 live births and Mortality falling to 56. These improvements were bolstered by higher rates of skilled delivery and vaccination. Maternal mortality fell to roughly 560 and Mortality to 54 by 2024. Overall the panel data indicate that improvements in healthcare delivery and policy execution during the study period contributed to better maternal and Health care service delivery though the persistence of relatively high mortality rates underscores the need for stronger and more consistent implementation of public health policies particularly at tertiary healthcare institutions such as teaching hospitals.

4.2 Data Analysis (Regression Analysis)

Model Summary

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.821	0.674	0.669	0.412	1.984

a. Predictors: (Constant), Public Health Policy Implementation, Healthcare Delivery Practices, Health System Capacity

The model shows a strong correlation ($R = 0.821$) between the predictors and maternal and Health care service delivery. About 67.4% of the variation in maternal and Health care service delivery is explained by the model (R Square = 0.674). The adjusted R^2 value of 0.669 confirms a good model fit after adjusting for the number of predictors. The Durbin-Watson statistic of 1.984 suggests the absence of autocorrelation in the residuals, indicating that the regression assumptions were met.

ANOVA Result

Table 4: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	48.326	3	16.109	94.712	0.000
Residual	23.396	287	0.082		
Total	71.722	290			

a. Dependent Variable: Maternal and Health care service delivery

b. Predictors: (Constant), Public Health Policy Implementation, Healthcare Delivery Practices, Health System Capacity

The overall ANOVA model is statistically significant with an F-value of 94.712 and a Sig. value of 0.000, which is less than 0.05. This indicates that the regression model is valid and that the predictors jointly have a significant effect on maternal and Health care service delivery in the selected teaching hospitals.

Coefficients Result

Table 5: Coefficients

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
(Constant)	0.382	0.145	–	2.634	0.009
Public Health Policy Implementation	0.287	0.063	0.314	4.556	0.000
Healthcare Delivery Practices	0.421	0.072	0.402	5.847	0.000
Health System Capacity	0.198	0.058	0.215	3.414	0.001

a. Dependent Variable: Maternal and Health care service delivery

The first hypothesis result indicates that the unstandardized coefficient for implementing public health policies is 0.287 with a standard error of 0.063. The t-value is 4.556 the standardized beta coefficient is 0.314 and the statistically significant p-value is 0.000. Because the computed p-value is less than 0.05 the null hypothesis is thus rejected. The outcome showed that the implementation of public health policies and Mortality outcomes are significantly correlated. It is concluded that in certain teaching hospitals infant survival outcomes are greatly improved by the efficient application of public health policies. The unstandardized coefficient for healthcare delivery practices is 0.421 with a standard error of 0.072 according to the results of hypothesis two. With a t-value of 5.847 and a statistically significant p-value of 0.000 the standardized beta coefficient is 0.402. Since the computed p-value is less than 0.05 the null hypothesis is rejected. The findings showed that maternal and Health care service delivery are significantly correlated with healthcare delivery practices. It is concluded that improved healthcare delivery practices significantly enhance maternal and Health care service delivery in the selected teaching hospitals. The third hypothesis result indicates that the health systems capacity has an unstandardized coefficient of 0.198 with a standard error of 0.058. The statistically significant p-value is 0.001 the t-value is 3.414 and the standardized beta coefficient is 0.215. Since the computed p-value is less than 0.05 the null hypothesis is rejected. The outcome showed that maternal and Health care service delivery and health system capacity are significantly correlated. It is concluded that adequate health system capacity significantly contributes to improved maternal and Health care service delivery in selected teaching hospitals in South-South Nigeria.

4.3 Discussion

According to the hypothesis the estimated threshold of 0.05 is exceeded by the t-value (4.556) and p-value (0.000). The outcome demonstrates that in a few South-South Nigerian teaching hospitals the successful application of public health policy has had a major impact on Mortality outcomes. This implies that when health policies related to maternal newborn and child health are properly executed through adequate funding availability of guidelines and institutional compliance there is a measurable improvement in infant survival. This conclusion is consistent with research done by Kana et al. between 2015 and 2024. (2015) and Mao and associates. (2023) which demonstrated that lower Mortality in Nigeria was a result of improved policy implementation and public funding of crucial

maternal and child health interventions. The results also corroborate the policy implementation theory (Pressman and Wildavsky 1973) which holds that the effectiveness of policies operational execution has a significant impact on their outcomes. The results of hypothesis two showed that the p-value (0.000) and t-value (5.847) were below the estimated threshold of 0.05. The findings indicate that maternal and Health care service delivery in the chosen teaching hospitals have been greatly impacted by healthcare delivery practices. This implies that enhancing maternal and child health is largely dependent on improvements in service delivery such as the availability of qualified healthcare professionals high-quality prenatal and postnatal care emergency obstetric services and neonatal care. This result is in line with research done by Uneke et al. between 2015 and 2024. (2016) and Nwanze et al. (2023) which found that maternal and Health care service delivery in Nigeria were greatly enhanced by having access to high-quality healthcare services and efficient service delivery systems. The result also supports the policy implementation theory which highlights the importance of frontline service delivery in attaining desired health outcomes. Finding of hypothesis three indicated that the t-value (3.414) and p-value (0.001) are lower than the estimated threshold of 0.05. The outcome demonstrates the substantial impact of health system capacity on maternal and Health care service delivery. This indicates that adequate infrastructure availability of medical equipment sufficient human resources and institutional readiness are essential for effective healthcare delivery in teaching hospitals. This finding aligns with the study conducted by Adegoke et al. (2022) which found that institutional and systemic capacity significantly influenced maternal and Health care service delivery in Nigeria. It also supports the policy implementation theory which contends that in the absence of adequate organizational capacity and resources policies cannot produce the intended results. Overall, the findings demonstrate that public health policy implementation healthcare delivery practices and health system capacity collectively play significant roles in improving Mortality and Maternal health care delivery in selected teaching hospitals in South-South Nigeria. These results reinforce the argument that strengthening institutional implementation mechanisms is critical for achieving sustainable improvements in maternal and child health.

5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

This study examined the implementation of public health policy and healthcare delivery in relation to Mortality and Maternal health care delivery in selected teaching hospitals in South-South Nigeria. Maternal and Health care service delivery are significantly influenced by the implementation of public health policies healthcare delivery methods and the capacity of the health system according to evidence from primary and documentary data. The findings showed that effective execution of maternal and child health policies enhances service availability improves quality of care and contributes to reductions in Mortality within teaching hospitals. The regression results further demonstrated that healthcare delivery practices have the greatest impact on maternal and Health care service delivery with public health policy implementation and health system capacity coming in second and third respectively. This suggests that without effective service delivery mechanisms and sufficient institutional capacity policy frameworks by themselves are insufficient. The study also showed that while maternal and infant health

indicators have improved over time the rates are still comparatively high pointing to ongoing systemic issues with healthcare delivery. The study's overall conclusion is that in order to achieve sustainable reductions in Mortality and improve maternal and Health care service delivery in South-South Nigeria it is imperative to strengthen policy implementation processes improve healthcare delivery standards and enhance institutional capacity within teaching hospitals.

5.2 Recommendations

The study conclusions lead to the following suggestions.

1. **Enhancing Policy Implementation Mechanisms:** To guarantee that maternal and child health policies are consistently implemented within teaching hospitals the government and health authorities should enhance monitoring and evaluation frameworks. To close the gap between policy formulation and practice explicit operational guidelines and accountability procedures should be implemented.
2. **Enhancing Healthcare Delivery Practices:** Teaching hospitals should place a high priority on the ongoing education and retraining of medical staff who provide maternity and child health services. To improve quality and patient outcomes focus should be on enhancing prenatal delivery postnatal and neonatal care services.
3. **Increasing Health System Capacity:** Teaching hospitals must invest more in medical equipment human resources and healthcare infrastructure. Modern medical technology and sufficient staffing levels are necessary to support the efficient provision of maternity and child healthcare.

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APPENDIX I: Research Questionnaire

Public Health Policy Implementation

Using the scale below, please indicate your level of agreement:

Scale:

Strongly Agree | 4 – Agree | 3 – Undecided | 2 – Disagree | 1 – Strongly Disagree

6. Public health policies related to maternal and child health are clearly communicated within my hospital.

5 4 3 2 1

7. There are adequate guidelines to support the implementation of maternal and child health policies.

5 4 3 2 1

8. Monitoring and supervision mechanisms exist to ensure compliance with public health policies.

5 4 3 2 1

9. Funding for maternal and child health programs is released timely.

5 4 3 2 1

Section C: Healthcare Delivery Practices

10. Skilled health personnel are adequately available for maternal and child healthcare services.

5 4 3 2 1

11. Antenatal and postnatal care services are efficiently delivered in this hospital.

5 4 3 2 1

12. Emergency obstetric and neonatal care services are readily available.

5 4 3 2 1

13. Quality of care provided to mothers and children meets acceptable standards.

5 4 3 2 1

Section D: Mortality and Maternal & Health care service delivery

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14. Mortality cases have reduced in this hospital in recent years.

5 4 3 2 1

15. Maternal health outcomes have improved due to better healthcare services.

5 4 3 2 1

16. Child health services such as immunization and nutrition have improved.

5 4 3 2 1

APPENDIX IV: Summary of Variables and Measurement

Concept Area	Measurement Indicators
Public Health Policy Implementation	Policy awareness, funding availability, monitoring mechanisms
Healthcare Delivery Practices	Skilled personnel, quality of care, service availability
Health System Capacity	Infrastructure adequacy, equipment availability, staffing
Mortality	Reported reduction in infant deaths
Maternal and Child Health	Improved maternal outcomes, child survival services