



Review Article

**Effective Utilisation of National Standing Orders by Community Health Practitioners as a Tool to Reduce Maternal and Child Mortality in Nigeria: A Critical Review**

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**Abstract**

*This study aims to look at the effective utilisation of National Standing Orders (NSO) and the roles of community health practitioners in reducing maternal and child mortality in Nigeria. The information used for the study was elicited from secondary sources such as government publications, textbooks, and internet materials while relying on a Program Theory and Logic model as a theoretical fulcrum. The importance of NSO and the responsibilities of community health workers in curtailing the spiral increase of maternal and child mortality (MCM) in Nigeria were highlighted. It was discovered that community health workers poorly adhered to the implementation of National standing orders in many health facilities particularly in rural areas. The study also posited that the Nigeria's persistent maternal and child mortality crisis is among the worst globally. The study therefore, recommended smart, sociable and decentralised interventions and policy-driven strategies to checkmate the preventable deaths of mothers and children during childbirths and post-partum periods.*

**Keywords:** Interventions, Mortality, National, Standing Orders, Practitioners, Program Theory.

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## Introduction

The intersection between policy frameworks and grassroots health interventions is critical to addressing Nigeria's long-standing public health crises, most especially maternal and child mortality. Despite the availability of life-saving interventions, thousands of Nigerian women and children die every year from preventable causes. Nigeria's maternal mortality ratio (MMR) stands at 512 per 100,000 live births and under-five mortality at 117 per 1,000 live births (Tukur, Lavin and Adanikin, 2022) and in 2019, the MMR was estimated to be over 800 maternal deaths per 100,000 live births with a neonatal mortality rate at 33 per 1000 live births (Nasir, Aderoba and Ariana, 2022). These figures are among the worst globally.

Rural communities in Nigeria accounts for high maternal and child mortality rate in the country (Abdulraheem, Oladipupo and Amodu, 2012). Hence, there is a need to strengthen the community health practices within the Nigerian primary healthcare system in order to increase the availability of skilled care during pregnancy, at birth and within postpartum periods in the health systems of developing countries.

At primary healthcare (PHC) level in Nigeria, community health workers who are in paid employment comprise mainly community health officers (CHO), community health extension workers (CHEWS) and Junior community health workers (JCHEWs). According to the National Guidelines for the development of primary healthcare systems in Nigeria, the JCHEWs are expected to provide basic and essential community services with guidance from standing orders as well as spend about 90% of their time working within the community. The community health officers has more administrative roles within the health facility but in addition has similar community and maternal child healthcare responsibility as JCHEWs and CHEWs (Okereke, Ishaku, Unumeri, Mohammed and Ahonsi, 2019).

According to Adaeze (2023), there is evidence that community health workers contribute towards the delivery of maternal, newborn and child health (MNCH) services such as childhood immunisation, antenatal care, and facility-based delivery within variety of settings which include primary healthcare centres, hospitals, and community outreach programmes. They are often the first point of contact for individuals seeking healthcare services.

They help identify health risks and provide guidance on preventive measures such as proper hygiene practices, immunisations and nutrition. They also educate communities

on health issues, such as the importance of family planning, HIV/ AIDS prevention and malaria control.

In this context, the National Standing Orders (NSO) represent an under-leveraged yet powerful tool in the Nation's Healthcare architecture. By empowering Community Health Practitioners (CHPs) to deliver structured and standardized care, the effective use of NSOs can bridge the systemic gaps that drive preventable deaths. This study will critically explore the role of CHPs and the untapped potential of NSOs in reducing maternal and child mortality across Nigeria.

## **Literature Review**

### **Theoretical Framework**

According to Wilder Research (2009), all human service programmes are designed to make a difference in the lives of the people or to improve our society. This study relies on program theory and logic model as a theoretical fulcrum. Program theory explains why a programme is expected to work and logic model illustrates the theory.

Funnel and Rogers (2011) defined a program theory as “an explicit theory or model of how an intervention, such as a project, a program, a strategy, an initiative, or a policy contributes to a chain of intermediate results and finally to the intended or observed outcomes”.

A logic model commonly includes contextual factors that may positively or negatively influence a program's implementation and the attainment of results. Logic model can guide program design, implementation, monitoring, operational research and evaluation (Wholey, Hatry and Newcomer, 2010). This model offers the project managers, policy makers, programme planners and other analysts clarity on how to achieve improved performances of workers and interventions. The sample outline for a program theory indicates that with a certain set of resources, skills, equipment, staff, knowledge, attitudes behaviours and practices, the results will have broader impacts on the society. This invariably translates to the fact that the availability of community health workers and the effective utilisation of National Standing Orders within the various health facilities will reduce the maternal and child mortality rate drastically.

### **Understanding National Standing Orders (NSO)**

National Standing Orders is a comprehensive set of standard operational guidelines meticulously crafted through the collaborative efforts of the reputable regulatory establishments, principally supported by Banyan Global – Nigeria Health Workforce Management, a USAID-funded program, the Federal Ministry of Health, the National

Primary Health Development Agency [NPHCDA], and other Pertinent MDAs. The significance of the National Standing Orders cannot be overstated. As a guiding framework that links Communities and the national health system, it serves as a cornerstone in ensuring consistency and excellence in healthcare practices across the nation (Ibrahim, 2016). By providing clear protocols and procedural guidelines, it empowers Community Health Practitioners to deliver services of the highest standard, thereby enhancing positive Community health outcomes. Accordingly, the National Standing Orders foster a culture of accountability and professionalism within the Community Health Profession. By adhering to established guidelines, Community Health Practitioners uphold ethical standards and demonstrate their commitment to providing safe and effective care to all individuals, regardless of their socio-economic status or geographic location. Furthermore, the NSO has been painstakingly compiled to serve as a tool for capacity building and continuous improvement. Through regular updates and revisions, it reflects the latest advancements in healthcare and best practices, equipping healthcare providers with the knowledge and skills necessary to adapt to evolving healthcare needs and challenges (Bashir, 2024).

The “National Standing Orders for Community Health Practitioners” is an essential guide designed to support the effective delivery of healthcare services by Community Health Practitioners across Nigeria. Developed by the Community Health Practitioners’ Registration Board of Nigeria in collaboration with the National Primary Health Care Development Agency (NPHCDA) with support from the USAID Health Workforce Management Activity. This comprehensive manual provides standardized procedures and protocols for managing a wide range of health conditions and scenarios encountered in primary healthcare settings. This guide is organized into eight sections, covering critical areas such as newborn care, early childhood, middle childhood, adolescent health, adult health, maternal health, elderly health, and health facility management. (Bashir, 2024)

In primary healthcare, national standing orders for community health practitioners are an effective instrument. It is a fundamental instrument that enables physicians to extend. They enumerate common symptoms that patients may exhibit and how they might be treated. It was created with Nigerian medical issues in mind. The book served as a foundational resource for community health practitioners' education and the services they later offer to the public. The goal of creating national standing orders for community health practitioners is to give medical professionals a tool that will enable them to treat ten to twenty times as many patients.

Each section includes detailed sub-sections that address specific health conditions, diagnostic criteria, and treatment protocols. This structured approach ensures that Community Health Practitioners have easy access to the information they need to provide timely and effective care. A unique feature of this job aid is its illustrated format, designed to serve as a companion to the text-only version. The inclusion of illustrations enhances the learning experience by providing visual representations of procedures, anatomical details, and clinical signs. This visual approach not only aids in comprehension but also improves retention and application of the information in real-world settings. (Bashir, 2024).

Adepoju and Afe (2022) assessed utilization of standing orders in the management of patients by Community Health Extension Workers in Ekiti State, Nigeria. The study reported that regular utilization of standing order is low, and there is a need to educate the community extension workers on the importance of standing order at the primary health care level.

### **Maternal and Child Mortality in Nigeria: The Reality**

Maternal and newborn mortality rates are higher in lower- and middle-income countries and Nigeria is one of the countries in this category with the highest maternal mortality rates globally. In 2018 the maternal mortality ratio (MMR) in Nigeria was estimated to be 512 deaths per 100,000 live births (Tukur, Lavin and Adanikin, 2022) and in 2019, the MMR was estimated to be over 800 maternal deaths per 100,000 live births with a neonatal mortality rate at 33 per 1000 live births. (Nasir, Aderoba and Ariana, 2022). In contrast, high-income countries like the UK and the US had much lower MMRs of 10-18 deaths per 100,000 live births and neonatal mortality rates of less than four deaths per 1000 live births (Okereke, Ishaku, Unumeri, Mohammed and Ahonsi, 2019).

According to the Sustainable Development Goals (SDGs), the global target for maternal mortality is 70 deaths per 100,000 live births. (WHO, 2015). Recent data from a World Health Organization (WHO) factsheet released in March 2023 presents a bleak picture of maternal health outcomes in Nigeria. In 2017, the maternal mortality rate in Nigeria was 917 deaths per 100,000 live births. In just three years, this rate has risen by approximately 14%, reaching 1047 deaths per 100,000 live births in 2020 (Adaeze, 2023). These results highlight a significant and worrying mismatch between Nigeria's maternal health outcomes and the lofty SDGs targets. The maternal mortality rate in Nigeria is more than ten times greater than the SDGs' target. The large disparity between the worldwide aim and the country's reality highlights major difficulties within Nigeria's healthcare system as well as the urgent need for comprehensive maternal health measures (Alobo, Mgone, Lawn, Adhiambo, Wazny and Ezeaka, 2021)

Maternal mortality is a major public health concern in Nigeria, with a significant percentage of deaths resulting from preventable obstetric causes. Recent research has shed light on the seriousness of this problem. According to this study (Lim, Dandona, Hojsington, James, Hogan and Gakidou 2010) the top causes of maternal mortality include hypertension (27%), sepsis (20.6%), haemorrhage (17%), anaemia (3.2%), HIV (3.2%), and sickle cell disease (2.4%). These troubling figures highlight the crucial need for comprehensive healthcare reform, better access to high-quality maternal healthcare services, and expanded public awareness efforts to address these preventable medical issues. Another study (Alenoghena, Aigiremolen, Abejagha and Eboreime 2014) emphasizes the need of resolving delays in maternal healthcare-seeking behaviour. Delays in seeking maternal health care, reaching a healthcare institution, and receiving expert pregnancy care were found as key factors contributing to maternal mortality. These delays are frequently caused by systemic difficulties, such as limited access to healthcare facilities, inadequate transportation infrastructure, and a lack of awareness about the significance of prompt and expert maternity care. While preterm birth complications, intrapartum events, and infections account for over 80% of newborn deaths and stillbirths. (Suzuki, Kouame and Mills, 2023). Challenges impeding the improvement of maternal and newborn health are primarily attributed to inadequate access to quality healthcare services, poor health infrastructure, and a shortage of skilled health workers (Suzuki, Kouame and Mills, 2023). The burden of maternal and child mortality in Nigeria is rooted in a convergence of socio-economic, structural, and health system-related factors:

Maternal mortality is primarily driven by hemorrhage, eclampsia, sepsis, obstructed labor, and unsafe abortion. Child mortality stems from pneumonia, malaria, diarrhea, prematurity, and malnutrition. Underlying these clinical causes are deeper challenges such as: Poor access to skilled birth attendants, cultural beliefs that delay or discourage facility-based delivery, inadequate emergency transport and referral systems and Fragmented health financing and weak PHC infrastructure. (WHO, 2015).

In rural areas where over 50% of Nigeria's population resides, access to medical doctors is limited. In many such communities, CHPs are the only available healthcare providers. Thus, improving the quality and consistency of care delivered by CHPs through the use of NSO is not just practical, it is imperative.

### **Methodology**

This is basically a position paper where several works of scholars who had previously worked in the similar fields were examined to gain an insight into the phenomenon under investigation in order to project into the future. A systematic search was conducted

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through all identified data bases, search engines and other relevant publish articles. Twenty-nine (29) papers from government publications, medical journals, textbooks and the internet that assessed the roles of community health workers and the usefulness of National Standing Orders were adopted but twenty-two (22) of them were eventually selected to generate information for this study.

### **Discussion of results**

The review revealed that Community Health Workers CHWs play prominent roles in the provision of cost-effective ways to deliver basic health services especially in underserved area where resources are limited and the communities with higher concentration of CHWs experience lower rates of maternal and child mortality rates (Alemogbena, Aigiremolen, Abejagha and Eboreine, 2014).

It was also shown that standardization reduces variation of cases and improves the likelihood of positive outcomes for both mothers and children (Bashir, 2024; Ibrahim, 2016). On the strength of this, effective integration of National Standing Orders (NSO) and investment in the capacity of CHWs will lead to significant reduction in child and maternal health and overall improvement of health and wellbeing of the population (Nasir, Aderoba and Ariama 2020)

### **Roles of Community Health Practitioners in Reducing Maternal and Child Mortality**

Community health practitioners play a crucial role in providing primary healthcare services, including antenatal and postnatal care, delivery, and skilled birth attendance, which are essential in reducing maternal and child mortality globally (Alenoghena, Aigiremolen, Abejagha and Eboreime, 2014). The high maternal morbidity in rural communities of South-South Nigeria calls for international intervention. The knowledge and practice of safe and normal delivery among these healthcare workers significantly impact the quality of maternal care. The puerperal period is also critical in reducing maternal mortality (Okpani and Abimbola, 2016).

Maternal deaths result from both biomedical and socio-economic factors. In 2017, approximately 295,000 women died due to pregnancy and childbirth complications, with most deaths occurring in low- and middle-income countries (WHO, 2015). Each year, of over 130 million births, an estimated 303,000 result in maternal deaths, 2.6 million in stillbirths, and 2.7 million in neonatal deaths within the first 28 days (Alobo, Mgone, Lawn, Adhiambo, Wazny and Ezeaka, 2021). Ensuring access to quality maternity care, including safe and normal delivery, is crucial to reducing maternal mortality. In 2020, nearly 800 women died daily from preventable pregnancy-related causes, with a

maternal death occurring every two minutes. Between 2000 and 2020, the global maternal mortality ratio declined by about 34%, but 95% of maternal deaths still occurred in low-income countries (Adepoju and Afe, 2022). Skilled healthcare during pregnancy, childbirth, and postpartum can save lives (Ibrahim, 2016).

Community health practitioners, are the first point of contact for pregnant women seeking care. They provide antenatal services, monitor pregnancies, manage complications, and facilitate safe deliveries (Adaeze, 2023). In developing countries, primary healthcare clinics form the backbone of healthcare, especially in rural areas. However, these practitioners often work with limited resources, which may compromise their ability to provide safe delivery services.

Proper training and supportive supervision can bridge this gap and improve maternal outcomes. The availability of skilled birth attendants is critical in reducing maternal and neonatal mortality (Naimdi, Frymns, Wuliji, Franco and Newsome, 2014). Community health workers, despite challenges, contribute significantly to maternal healthcare. In 2020, they handled several thousand deliveries in rural communities under the task-shifting policy (Suzuki, Kouame and Mills, 2023). Given the annual occurrence of 2.6 million stillbirths, assessing and improving the knowledge and practice of community health practitioners is essential to ensuring better maternal and child health outcomes.

### **National Standing Orders- A Tool for Empowering Community Health Practitioners in Reducing Maternal and Child Mortality in Nigeria.**

The 2024 edition of the National Standing Orders is organized into eight sections, covering critical areas such as newborn care, early childhood, middle childhood, adolescent health, adult health, maternal health, elderly health, and health facility management (for the Community Health Officer Cadre). Each section includes detailed sub-sections that address specific health conditions, diagnostic criteria, and treatment protocols. This structured approach ensures that Community Health Practitioners have easy access to the information they need to provide timely and effective care. A unique feature of this job aid is its illustrated format, designed to serve as a companion to the text-only version. The inclusion of illustrations enhances the learning experience by providing visual representations of procedures, anatomical details, and clinical signs. This visual approach not only aids in comprehension but also improves retention and application of the information in real-world settings.

### **Benefits of illustrations in the guide**

Some of the benefits of illustrations in the guide according to illustrated 2024 edition of National Standing Orders include:

**Enhanced Understanding:** Illustrations provide clear and concise visual explanations of complex medical procedures and conditions, making it easier for health practitioners to grasp and remember key concepts.

**Improved Retention:** Visual aids have shown to improve memory retention. The combination of text and images reinforces learning and recall of important information.

**Practical Application:** Illustrations can depict step-by-step procedures, helping practitioners to visualize the correct techniques and methods, which is crucial during emergency situations or routine care.

**Accessibility:** Visual content transcends language barriers and can be especially helpful in diverse regions where practitioners may speak different languages or dialects.

**Engagement:** Illustrated guides are more engaging and can maintain the interest of practitioners, encouraging them to refer to the guide more frequently and thoroughly. All cadres of community health have been trained on how to effectively use the National Standing Orders to manage these conditions.

The integration of the National Standing Orders at the Lagos University Teaching Hospital (LUTH) Model Primary Health Care Centre, Pakoto and other Primary Health Care Centers has yielded measurable improvements in patient outcomes. Community health practitioners, equipped with these protocols, can promptly address common health issues, reducing the need for referrals to tertiary hospitals. This approach not only alleviates the burden on higher-level healthcare facilities but also ensures that patients receive immediate attention within their communities. (Naimdi, Frymus, Wuliji, Franco and Newsome, 2014). The success at Pakoto aligns with broader national efforts to standardize community health practices. Also worthy of note is that the Curriculum for training Community Health Practitioners contains Child Health 3 Credit unit, Modified Essential Newborn Care 3Credit unit, Reproductive Health 2 Credit unit, Community Based Newborn Care 3 Credit unit and Maternal Health 4 Credit unit. Hence, qualifying CHPS as Skilled Birth Attendants. (CHPs curriculum 2022)

### **Challenges in the Implementation of NSOs**

Despite their potential, several systemic and operational factors and conditions hinder the full utilization of NSO. These include:

**Poor Supervision and Oversight:** Absence of structured supervisory mechanisms leads to low compliance and occasional misuse of the standing orders.

**Logistical Constraints:** Frequent drug stockouts, lack of medical supplies, and absence of emergency transport compromise the effective implementation of NSOs.

**Legal and Regulatory Ambiguity:** Some CHPs operate in gray zones, unsure of the extent of their legal authority under the NSO, leading to caution or underperformance.

**Low Morale and Inadequate Remuneration:** Many CHPs work under difficult conditions with poor incentives, affecting motivation and productivity.

### **Conclusion**

In conclusion, the review highlights the importance of effective utilization of National Standing Orders by the community health workers to address the rising rates of maternal and child mortality in Nigeria. It was also concluded that prevention of these avoidable deaths needs smart and decentralized intervention to address the identified inadequate training of community health workers, poor implementation and adherence to National Standing Orders in rural health facilities and other logistical interventions. The following recommendations are hereby proffered

### **Recommendations**

To harness the full potential of NSOs by the CHWs a multi-layered, policy-driven strategy is required to reduce maternal and child mortality.

**Institutionalize Continuous Professional Development (CPD):** Periodic re-training, simulations, and supportive supervision must be made mandatory across states.

**Digital Integration:** Develop mobile-app-based NSO platforms for real-time access and decision-support tools.

**Supply Chain Strengthening:** Establish transparent drug forecasting and procurement systems, especially for maternal and child health commodities.

**Robust Referral Networks:** Build effective referral systems between CHPs and higher-

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level facilities, including feedback mechanisms.

Legal and Policy Backing: Harmonize the NSO with legal frameworks to expand CHPs' clinical boundaries within safe limits.

Community Engagement: Sensitize community leaders and women's groups about the capacity of CHWs under NSO to improve service uptake.

Monitoring and Evaluation: Implement performance-based metrics for NSO usage, tied to incentives or career progression.

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