



Smiles for
Mothers



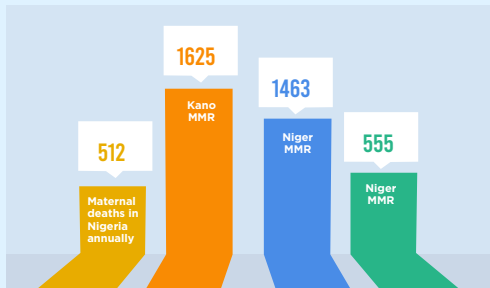
AN OPPORTUNITY TO REDUCE MATERNAL MORTALITY IN NIGERIA

Supported by funding from:



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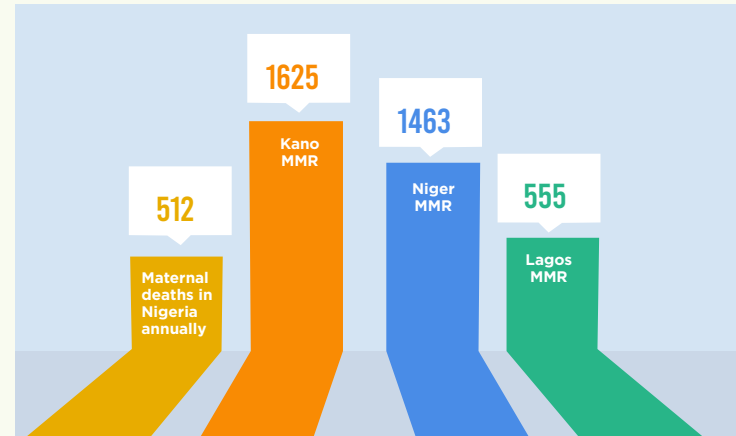
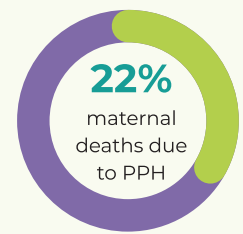
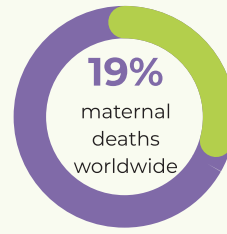
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Photo reel from Year 1 of the Smiles for Mothers program

STATE OF MATERNAL HEALTH SERVICES IN NIGERIA

Nigeria is Africa's most populous country with about 200 million people¹, and has the highest number of maternal deaths worldwide with 19% (58,000) of global maternal deaths occurring in the country every year, with 512 maternal deaths for every 100,000 live births². Within the country, regional disparities exist and reveal high maternal mortality ratios (MMRs) of up to 1,625 and 1,463 deaths per 100,000 live births³ in northern states such as Kano and Niger, respectively; and an MMR of 555 in southern states such as Lagos.

In 2017, the Minister of Health inaugurated a 34-person task force on "Accelerated reduction on maternal mortality in Nigeria⁴," which acknowledged that postpartum hemorrhage (PPH) is the leading cause of maternal mortality, accounting for 22% of maternal deaths in Nigeria. Some of the challenges highlighted that drive PPH-related mortality in Nigeria⁵ include: lack of knowledge among women, their families and communities on the importance of antenatal care (ANC), institutional delivery and family planning; poor patronage of healthcare services because the health staff are thought to be rude and uncaring to women; lack of skills, equipment, tools and drugs among health staff, among others. Another one is the persistent supply chain-related challenges that affect the availability and quality of Oxytocin in health facilities in Nigeria. For instance: inaccurate forecasting and supply planning, weak tendering and procurement processes, and inconsistent last-mile distribution in the states. COVID-19 also exacerbated these challenges because it affected women's access to healthcare with a significant drop in attendance of antenatal care and institutional deliveries. This has necessitated the importance of focusing on Primary Health Care centers to address this challenge. More efforts are required to address key drivers of mortality due to PPH if Nigeria intends to contribute to the global SDG 3.1 to reduce the maternal mortality ratio to less than 70 deaths per 100,000 live births by 2030. This is why Smiles for Mothers is working with the Federal Government, Kano, Lagos, and Niger states to reduce PPH in Nigeria.



MMRs are constant on a ratio to 100,000 live births.

OUR INTERVENTION

Smiles for Mothers program aims to reduce maternal mortality due to postpartum hemorrhage (PPH) in Kano, Lagos, and Niger States. The program supports the program states to implement costed roadmaps for the adoption and roll-out of medicines aligned with WHO's recommendations: uterotonics for the prevention of postpartum haemorrhage. We also support the three states to apply HCD principles to develop costed roadmaps for up to two additional innovations to improve access to optimal uterotonics and PPH management. We work with each state to apply the principles of HCD to define specific problem statements, identify root causes, co-design solutions for the implementation of additional innovations, and support the testing of prototypes as well as scale-up planning for effective innovations. The program is committed to improving the quality of care for the prevention of PPH in public health facilities and reducing mortality due to PPH using a systems strengthening approach that covers patient literacy and community awareness, supply chain management, and service delivery.



PROJECT ACHIEVEMENTS

The Smiles for Mothers program has recorded some achievements towards creating an enabling environment for adopting and implementing the 2018 WHO recommendations on the use of uterotonics to prevent postpartum hemorrhage, including introducing a new uterotonic, heat-stable Carbetocin.

REVISION OF RELEVANT POLICY DOCUMENTS ON THE USE OF UTEROTONICS FOR THE PREVENTION OF PPH

In December 2020, the Federal Ministry of Health (FMOH), with support from partners like World Health Organisation (WHO), The Pharmaceutical Society of Nigeria for Advocacy in Child and Family Health at Scale (PSN-PAS), John Snow, Inc. (JSI), Clinton Health Access Initiative (CHAI), Pathfinder International, Marie Stopes International, United States Agency for International Development (USAID), United Nations Population Fund (UNFPA), Management Sciences for Health (MSH) and Smiles for Mothers, updated its Essential Medicines List to include heat-stable Carbetocin (HSC) in line with the



updated WHO essential medicine list (EML). This paved the way for the state governments to update their essential medicines list accordingly. Lagos State adopted the national EML and has approved HSC for use only in tertiary and secondary health facilities. Kano and Niger states have updated their State EMLs, approving HSC for use in all health facilities, including primary healthcare centers.

The FMOH also led the process of updating the Life-Saving Skills (LSS) Training Manuals, with support from SFM and other partners like the Integrated Health Program (IHP). The LSS Manuals are designed and structured to help healthcare workers deliver basic and



comprehensive emergency obstetric care. Some key aspects of the review included updates to the modules on antenatal care to match the 2017 World Health Organization (WHO) Antenatal Care (ANC) model; inclusion of HSC as a recommended uterotonic for the prevention of PPH after delivery, following its inclusion in the essential medicines list in December 2020; and inclusion of a new module on rational use of antibiotics.

APPLYING HCD TO DEVELOP SOLUTION FOR IMPROVING PPH PREVENTION AND TREATMENTS

Human-centered design (HCD) is a creative and iterative approach to participatory problem-solving. The HCD approach ensures all major stakeholders play a role in developing the potential solutions, leading to a higher likelihood of finding the right solution for a long-lasting impact. The Smiles for Mothers program trained key stakeholders (referred to as Champions) in Kano, Lagos, and Niger States on how to use HCD, through its different phases, to create solutions that will help reduce maternal deaths in their states. This should ultimately help them build the necessary skills to use the HCD approach for subsequent public health interventions in each State. The human-centered design process comprises of three phases, namely, Co-research, Co-design, and Co-refinement phases.



The program states reviewed the Essential Medicines List using a 5-step approach

THE HUMAN CENTERED DESIGN PROCESS COMPRISES THREE PHASES, NAMELY, CO-RESEARCH, CO-DESIGN, AND CO-REFINEMENT PHASES.

Co-research phase



Understand all perspectives on a problem through research and create a clear understanding of the challenge to be addressed

Activities/achievements

- 58 Champions trained
- 33 health facilities visited
- 25 key government officials interviewed
- 98 healthcare workers interviewed
- 98 pregnant women interviewed

Co-design phase




Brainstorm ideas with all stakeholders and develop context-based solutions through rapid prototyping

Activities/achievements

- 9 working sessions held across the states and the champions co-created solutions for the challenge areas identified
- A mix of 100 - 150 separated ideas submitted by champions to answer the challenge statement Identified
- 12 promising solutions were developed for testing en interviewed

Co-refinement phase



Refine solutions based on the understanding of the context and feedback from stakeholders; and create an action plan to implement the solution on a larger scale

Activities/achievements

- Two (2) Virtual Workshops training sessions held in Niger and Kano State so far
- 12 prototypes to be tested and refined across the three states
- Costed Road Map for innovation 2 to be developed

RAISING COMMUNITY AWARENESS AND GENERATING DEMAND FOR UTEROTONICS THROUGH PATIENT LITERACY MATERIALS

The Smiles for Mothers team developed the patient literacy materials through a consultative process with community members across the program states. We consulted them to identify gaps, developed the documents, and then consulted them for feedback (the testing) to understand if the

materials were applicable to the local context. The materials, pamphlets and posters, have messages that run through the different phases of the reproductive process, from pre-conception to antenatal, labour, delivery, until the postpartum phase. The patient literacy materials will primarily be used within the communities to address women who may not ordinarily attend health facilities as a community engagement tool to generate demand for facility-based antenatal services and delivery.



Caption: It is good to discuss your reproductive life plan with your spouse. Make a joint decision with your partner before pregnancy.



After deciding with your spouse to have a baby, it is also important to visit a health care facility for additional information you might need before pregnancy



The healthcare worker will also provide guidance on healthy timing and spacing of pregnancy.



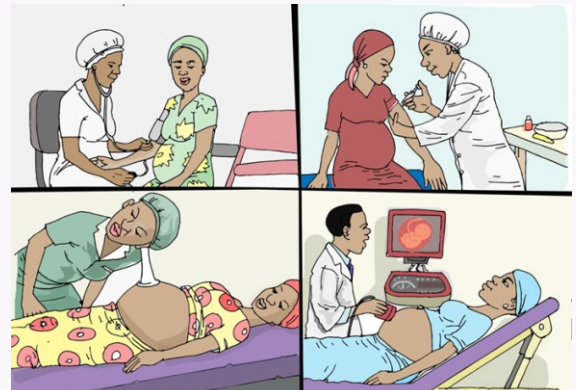
You should ensure to keep fit and active before pregnancy so that you can remain healthy. You can speak to a healthcare worker for guidance on exercise.



You could be at risk of PPH if you have low blood levels in pregnancy (anemia), many previous births, hypertension, pre-eclampsia in pregnancy or a family history of PPH, etc. Register in a facility near you and complete 8 antenatal visits.



During antenatal sessions, you will receive information about what to expect throughout pregnancy, during labor and after delivery, and how to have a safe pregnancy and delivery.



The health care worker will examine you during the antenatal sessions to ensure that you remain healthy, identify if you are at risk of serious illness and help you to prevent complications.



SYSTEM STRENGTHENING OPPORTUNITIES TO REDUCE PPH

We have identified two areas of opportunity which can further help to reduce maternal mortality from PPH in Nigeria. They are: Sustainable financing for procurement of uterotonics and leveraging the vaccine cold chain for co-storage of heat sensitive uterotonics.

SUSTAINABLE FINANCING FOR PROCUREMENT OF MATERNAL HEALTH COMMODITIES

Poor health financing in lower income countries create barriers for households and individuals to access to essential health⁶, and such access barriers contribute to high burdens of preventable deaths and inadequate financial protection. In Nigeria's health sector, there is an estimated annual deficit of \$10 billion and citizens

are faced with the burden of paying for health out of pocket more than most countries in the world⁷. Low socio-economic status among the population also complicates access to essential medical services and drugs which worsens health outcomes. There is an opportunity for the government to increase efficiency of health service financing, and consider other sustainable sources of funding to increase access to essential medicines, and health services for the citizens.

Sustainable financing is required to increase population access to essential medicines⁸ and health services. In Nigeria, only 46% of life-saving commodities are regularly available⁹ in public health facilities. As countries continue to understand the requirements to providing access to medicines and quality health services, stakeholders must make provisions for sustainable financing for these requirements.



“ Beyond ensuring sufficient resources to support the full functioning of the health system, sustainable health financing also refers to the efficacy of such funding in protecting the population from financial risks in accessing the health services they require” - UNDP ¹⁰

Some of the benefits of sustainable health financing¹¹ are



More Money for Health - Leverage more resources for procurement of appropriate quantities of health commodities



More Health for Money - Improved use of existing finances for efficient, effective and equitable health service



Improved Health Outcomes - Sustainable financing provides a path to meeting third sustainable development goal

A health financing source is sustainable if it meets these four criteria:



Resilience¹²:

Capacity to handle change and unexpected disturbances without compromising its ultimate objectives of providing funding for procurement of life-saving commodities; and long-term dynamic capabilities to adapt to future trends like change in technology government/policies.



Predictable and Consistent¹³:

Sufficient and sustained source that is self-replenishing and also effective for the needs of future generations. Delivery schedule should adhere to by time interval and quantity of funds. An example is state government's monthly allocation to health.



Community-owned¹⁴:

Participation and responsibility taken by the stakeholders in community towards financing health care running in given community. Such are programs that transitioned fully to being implemented and financed by community.



Adequate¹⁵:

Sufficient to meet the health commodity needs of the population in short, medium, and long term. This is seen when financing scheme meet health services and goods requirements of the population.

The Smiles for Mothers team is supporting stakeholders in program states to prioritize and optimize available funding sources for procurement of maternal health commodities, including uterotonics based on the above criteria on availability and sustainability. We organized a learning exchange workshop for our program. The Smiles for Mothers team is supporting stakeholders in program states to prioritize and optimize available funding sources for procurement of maternal health commodities,

including uterotonics based on the above criteria on availability and sustainability. We organized a learning exchange workshop for our program states, Kano, Niger and Lagos to support them in identifying opportunities to optimize the current funding sources for maternal health commodities in their states and other innovative options they can leverage to ensure the availability of maternal health commodities at service delivery points. Some of the organisations present like Yobe Drugs Management Agency (DMA), United Nations Population Fund (UNFPA), Africa Resource Centre for Excellent Supply Chain Management (ARC-ESM)¹⁶ and Sosocare Digital Solutions¹⁷, discussed innovative ways they are using to ensure the availability of maternal health commodities.

The Yobe DMA and ARC representatives shared about the successful public-private collaboration with pharmaceutical companies in Yobe state to ensure steady supply of commodities to their health. Similarly, the UNFPA representative discussed their pooled procurement approach for family planning commodities funded by a national basket fund owned by the Government with contributions from donors such as FCDO. Lastly, Sosocare shared their innovation on collecting waste/trash like plastic, glass, etc. in exchange for access to health care. The workshop participants shared feedback that the session was very informative and they plan to engage further with some of the organisations to learn possibilities of collaboration and incorporating similar processes into their funding mechanisms.

The stakeholders are currently being supported to develop roadmaps for optimization of prioritized fund sources by cross referencing the fund sources against sustainability features and outlining the challenges with each funding source to prioritize a suite of solutions. There is an opportunity here for every state in Nigeria to ensure the sustainability of funding sources for maternal health commodities to achieve our overall goal of reducing postpartum hemorrhage in Nigeria.



LEVERAGING THE VACCINE COLD CHAIN FOR CO-STORAGE OF HEAT SENSITIVE UTEROTONICS

In Nigeria, there are challenges with maintaining heat-sensitive uterotonics at the specified cold temperature along the supply chain. These challenges include inadequate and poorly maintained cold chain equipment and frequently interrupted power supply, especially at the primary health facilities.^{18,19} To ensure the availability of high-quality temperature-sensitive uterotonics such as Oxytocin at service delivery points, WHO recommends that a cold chain temperature range of 2°C - 8°C be maintained at every point in the supply chain, from the manufacturer to the end-user in the health facility.²⁰

In 2015, WHO and UNICEF released a joint statement²¹ calling on countries and partners to integrate temperature-sensitive pharmaceutical products into the vaccine cold chain, where safe and feasible.

Our research found that the Smiles for Mothers program states, Niger, Kano and Lagos, have a functional cold chain system for vaccines from the state level to service delivery points, which can be

leveraged to maintain the cold chain for heat-sensitive uterotonics. However, the states have varying challenges with operating a functional cold chain for storage and distribution of heat-sensitive uterotonics, especially at health facilities.

The Smiles for Mothers team continues to explore the feasibility and possible approaches for leveraging the existing vaccine cold chain infrastructure for the storage and distribution of heat-sensitive uterotonics at service delivery points in Kano, Lagos and Niger states. In Kano State, for instance, UNICEF is advocating for the state to adopt the WHO/UNICEF recommendation for the co-storage of Oxytocin with other heat sensitive commodities. However, there is an unofficial agreement between the Drugs and Medical Consumables Supply Agency (DMCSA) and the State Primary Health Care Management Board (SPHCMB) that enables the storage of a portion of supplied Oxytocin at the state vaccine cold store. The existence of this unofficial agreement would ease the implementation of a national policy at the state level. There is an opportunity here to scale up the work UNICEF has started in Kano state to other states to allow the co-storage of heat-sensitive commodities in the vaccine cold chain.

DISSEMINATION OF PROGRAM LEARNINGS TO STAKEHOLDERS

We have successfully disseminated information about the program since its inception through different channels and platforms. So far, the program has disseminated four newsletters²² since May 2021 and have presented at three webinars²³, including one that we hosted in partnership with Nigeria Health Watch, between January and July.

We also organized a successful learning exchange workshop with stakeholders across

our program states: Kano, Niger and Lagos on sustainable financing for maternal health commodities, including uterotonics. The overall objectives and outcomes of the meeting were achieved as state representatives recognized the need to optimize their current funding sources, identified opportunities for optimization, developed state-specific roadmaps and explored other opportunities to ensure availability of maternal health commodities at service delivery points.

ABOUT US

The Smiles for Mothers program, through a consortium made up of Solina Center for International Development and Research (SCIDaR), Clinton Health Access Initiative (CHAI), and Co-Creation Hub (CCHUB) supports the Federal Ministry of Health and the state governments of Kano, Niger and Lagos to reduce maternal mortality due to postpartum hemorrhage (PPH).

This program is supported by funding from MSD, through MSD for Mothers, the company's \$500 million global initiative to help create a world where no woman has to die while giving life. MSD for Mothers is an initiative of Merck & Co., Inc., Kenilworth, NJ, U.S.A



PHOTO REEL



Participants at the validation meeting of the Essential Medicines List in Kano state in Aug. 2021



Cross-section of participants at the Kano state Essential Medicines List review workshop in May 2021



Field visit by Niger state HCD champions to Jumai Babangida Aliyu Maternal and Neonatal Hospital, Minna in April 2021.



Dr. Uche Igbokwe (4th left) visiting some Lagos state stakeholders during a road show in June 2021.



Dr. Uche Igbokwe (2nd left) visiting some Niger state stakeholders during a road show in June 2021.



Lagos state HCD champions interviewing a pregnant woman during the co-research phase



Participants from Niger state at the learning exchange workshop in October 2021.



Review of LSS manuals led by the Director of Reproductive Health, Federal Ministry of Health in July 2021.

