Ensuring Better Care for Nigerian Pregnant Women and New Mothers and their Babies

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Background and Objectives

Despite high levels of skilled birth attendants in Ebonyi State (60%) and Kogi State (78%), maternal mortality rates remained high at 576 per 100,000 live births in both states in 2013.[1] In response, the Maternal and Child Survival Program (MCSP) aimed to improve maternal, newborn, and child health outcomes by ensuring that every woman and her newborn receives appropriate and safe care at the right time. From 2015 to 2018, MCSP reached 240 primary, secondary, and referral-level facilities across Kogi and Ebonyi states with maternal and newborn services.

Midwife Mary Rose Ogoh helps a new mother breastfeed her newborn twins. The midwife is among thousands of health care workers empowered by MCSP to deliver quality obstetric and newborn services in Ebonyi and Kogi states. Photo: Karen Kasmauski/MCSP

In 2016, MCSP conducted a baseline assessment of quality of care,[2] which revealed gaps in the quality of antenatal, intrapartum, and immediate postnatal care. The assessment revealed:

- Limited availability of essential drugs and equipment
- Poor client counseling and communication
- Poor provision of quality routine maternal and newborn health (MNH) care and management of obstetric complications, including postpartum hemorrhage (PPH) prevention, pre-eclampsia/eclampsia (PE/E), and hand hygiene
- Limited comprehensive emergency obstetric and newborn care (CEmONC) services at secondary and mission hospitals

MCSP used these findings to design interventions to improve health outcomes, including building sustainable capacity and leadership for essential maternal health services at national, sub-national, and facility levels to strengthen the provision of antenatal care (ANC), obstetric care, and postnatal care (PNC) for women and newborns. The newborn health portfolio also included systematic scale-up of chlorhexidine for umbilical cord care; maternal and perinatal death surveillance response; introduction of bubble continuous positive airway pressure for treatment of newborns with infant respiratory distress syndrome; integrated supportive supervision; and quality improvement (QI).

[1] National Population Commission (NPC) [Nigeria] and ICF International. 2014. Nigeria Demographic and Health Survey 2013. Abuja, Nigeria, and Rockville, Maryland, USA: NPC and ICF International.

[2] Maternal and Child Survival Program in Ebonyi and Kogi Quality of Care Assessment Baseline Report, October 2017

Program Approaches and Results

MCSP focused on increasing the competence of health workers through training, updating national policies, and strengthening institution; ensuring facility readiness by improving referral systems and the availability of essential equipment, commodities, and supplies; and helping communities provide assistance to women through emergency transport and loans for emergency health expenses. MCSP's approaches included:

Participants in the CEmONC training in Ebonyi State conduct a cesarean section under supervision during a practicum. Before MCSP's support, lack of skills, lack of assistant or supportive staff, and lack of adequately equipped theaters were among the reasons the health careworkers were not able to offer quality CEmONC services. Photo: Gladys Olisaaeke/MCSP

- **Capacity building of health care workers:** Basic and comprehensive emergency obstetric and newborn care are proven training packages to reduce the main causes of maternal and new born mortality. From November to December 2015, MCSP trained 40 state-level trainers on basic emergency obstetric and newborn care (BEmONC) and service delivery. MCSP provided technical and financial support to cascade the training to over 1,500 health care workers from 240 public and private health facilities from 2016 to 2018. MCSP also introduced quality of care teams and QI processes and data measures to 91 facilities in Ebonyi and Kogi states. Capacity building focused on two key areas, BEmONC and CEmONC, which are described as follows:

  - **BEmONC services at primary and secondary health facilities:** To improve the quality of maternal health care at primary and secondary health facilities, MCSP invested in capacity building for frontline health workers (nurses, midwives, and community health extension workers [CHEWs]) from 240 primary health care, secondary, mission, and tertiary health facilities in both states. Capacity building focused on routine intrapartum care and management of basic obstetric and newborn emergencies. MCSP's approach to capacity building included intensive competency-based BEmONC trainings followed by on-site, on-the-job refresher training and ongoing mentorship to promote retention of clinical skills.

    Guided by the findings of the program's baseline quality of care assessment, clinical capacity building focused on prevention and management of PPH; detection and management of PE/E, focusing on a loading dose of magnesium sulfate (MgS04); management of obstructed labor and assisted vaginal delivery; newborn resuscitation; and the use of the maternity health records booklet to record essential patient history and data. In addition to clinical skills, MCSP's capacity building approaches also included QI skills, support for the establishment of QI teams, and ongoing measurement of indicators to inform QI efforts.

  - **CEmONC services at referral-level facilities:** MCSP supported 28 secondary and mission hospitals to improve the quality of CEmONC services, addressing quality gaps identified during the program's baseline quality of care study, which included limited availability of quality anesthesia, surgical, and blood transfusion services. Capacity building included clinical training (through skill drills using anatomical models in addition to on-site clinical practicum experience), ongoing mentorship and supportive supervision, and support to QI teams at both the facility and state level to strengthen CEmONC services. To standardize and guide surgical safety efforts, MCSP introduced an adapted surgical safety checklist and perioperative tools (e.g., pre-operative evaluation checklist, operative note template, post-operative orders template)

- **Implementation of Nigeria's maternal and perinatal death surveillance and response (MPDSR) system:** The MPDSR process is aimed at sustained documentation, tracking, review, and analysis of every maternal and perinatal death with a view of instituting appropriate and effective preventive actions against its reoccurrence. In collaboration with the state ministry of health (SMOH) in both states, the Society of Gynaecology and Obstetrics of Nigeria (SOGON), and the Paediatric Association of Nigeria/Nigerian Society of Neonatal Medicine (PAN/NISONM), the program strengthened the implementation of Nigeria's MPDSR system and worked to align MPDSR efforts with ongoing QI processes and committee structures.

  The program sensitized and oriented key stakeholders, supported the establishment of MPDSR committees (at state, local government area [LGA], and facility levels), printed MPDSR tools and guidelines, and provided training and ongoing support to MPDSR committees through supervision visits. The SMOH leadership, with support of SOGON and PAN/NISOM, are now managing the MPDSR committees and process.

Case Story : My Unforgettable Ride

I was in church when labor started. One of the ETS drivers was called and he quickly came and rushed me to Agbeji primary health care center where I delivered a baby boy safely…. I was surprised he did not collect any money from me…. He said it is his duty to help pregnant women where there is no transport. I thank those that brought this program to our community. Before, I would have waited to get a vehicle and also paid plenty money for them to take me to the hospital.

Grace Joseph
Agbeji Community, Kogi State

- **Referral systems and emergency transportation for women and newborns with complications:** MCSP supported the development of referral protocols and standardized referral/counter-referral forms for use at secondary and referral-level facilities, and supported facilities to address gaps in timely referrals and counter referrals for obstetric complications.

  To address gaps in transport for obstetric emergencies, the program collaborated with SMOH, LGA, and the National Union of Road Transport Workers (NURTWs) to introduce an emergency transport scheme (ETS), which mobilized volunteer NURTWs drivers to provide transportation to health centers and hospitals so that women could receive care for obstetric emergencies. More than 110 drivers volunteered for the ETS and were trained in emergency first aid and handling children and pregnant women. A total of 854 women and children received emergency transportation to health facilities in the first year of operation. The SMOH now have desk officers coordinating the ETS.

- **Mothers' savings and loan clubs**: Lack of funds for transport to health facilities is a common barrier for women to access care during medical emergencies. To address this, MCSP supported the two states to establish mothers' savings and loan clubs (MSLC) in selected communities. Over 2,095 women in these communities joined more than 60 MSLCs. These MSLCs are led by MCSP-trained community facilitators and promote financial empowerment through small business loans as well as funds to pay for emergency health expenses including obstetric emergency care. MSLCs were linked to MCSP-supported facilities, which provided health education at MSLC meetings and encouraged facility attendance among MSLC members. The clubs collected 5 million Naira ($14,000 USD) and disbursed interest free loans for medical emergencies to club members. The State Ministry of Women Affairs and Social Development are now overseeing the MSLCs.

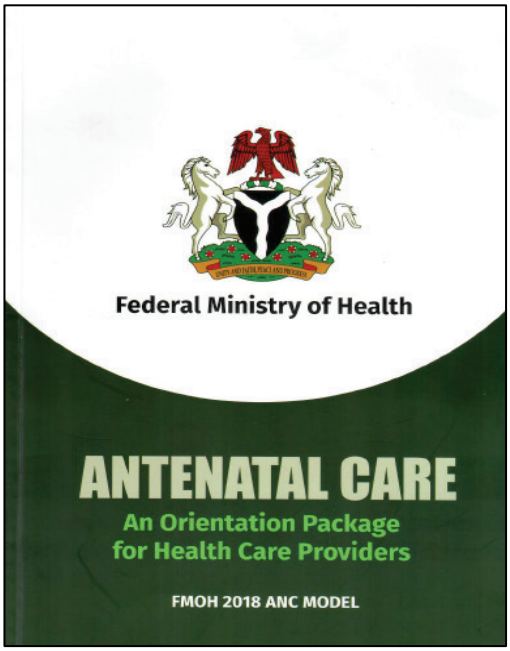
Case Story : Timely Delivery

Jumeyetu Akor, a petty trader in Aiyede Community, Dekina LGA of Kogi State in north-central Nigeria, had only 5,000 Naira when she was due to give birth. Yet, she needed three times this amount to be delivered at the nearest hospital.

However, because she was a member of Club 16, a mothers' savings and loan club, Jumeyetu received an interest free loan of 10,000 Naira. This additional money allowed her to deliver her baby safely at the hospital instead of the riskier options of delivering at home or with a traditional birth attendant.

Photo by Salamatu Bako, MCSP

- **Updates to national policies and guidelines for maternal health:** With technical and financial support from MCSP, the Federal Ministry of Health (FMOH) updated Nigeria's national ANC guidelines to reflect the 2016 World Health Organization (WHO) Recommendations for a Positive Pregnancy Experience. Nigeria's updated ANC guidelines now include a schedule of eight contacts, which can include contacts with health volunteers or workers at the community level. MCSP also provided technical support to the FMOH-led process of updating the national life saving skills (LSS) curriculum and job aids related to management of obstetric complications. The LSS curriculum and job aids now include priority updates from the WHO Managing Complications in Pregnancy and Childbirth manual (2nd edition, 2017). MCSP successfully advocated for the PPH management protocols to include the use of uterine balloon tamponades for PPH management of PPH due to uterine atony—an innovative approach.
- **Maternal health information, education and communication (IEC) materials and maternity record booklet:** MCSP supported the Ebonyi and Kogi SMOHs to develop, print, and distribute a range of new and updated IEC materials, job aids, and tools covering essential maternal health topics. The program updated and distributed safe motherhood posters for client education (focusing on the importance of ANC attendance, danger signs in pregnancy, malaria prevention) along with birth preparedness and complication readiness cards for use in ANC counseling. Pre-discharge PNC posters and checklists were also introduced to MCSP-supported facilities, helping providers ensure that essential PNC services were provided for women and newborns prior to discharge. With the support of the Kogi and Ebonyi SMOHs, MCSP also introduced a standardized client-level medical record for ANC, intrapartum care, and immediate PNC. The maternity record booklet served as an important job aid for providers and a vital source of data to inform facility-level QI efforts.
- **Essential MNH supplies and commodities:** The baseline assessment conducted by MCSP found that the majority of MCSP-supported facilities were missing essential medical equipment, supplies, and commodities, which limited their ability to provide basic MNH services. To address this critical quality gap, the program provided a range of essential supplies and equipment to supported facilities, improving facility readiness to provide quality MNH services. Supplies included emergency trolleys, delivery beds, stethoscopes, adult Ambu bags, thermometers, gloves, episiotomy scissors, sutures, and other essential items.



New guidelines were designed to improve provision of quality ANC services in Nigeria.

- **Respectful maternity care:** MCSP undertook a formative assessment to identify barriers to respectful care and to better understand provider and client experiences of respectful care at MCSP-supported facilities in Kogi and Ebonyi states.[3] The SMOHs, LGAs, health facility staff, other implementing partners, and community representatives reviewed key findings of the assessment and prioritized interventions to address disrespectful and abusive care and to promote respectful care in their settings.
- **Strengthening pre-service institutions and clinical skills labs:** MCSP worked with 14 pre-service institutions (nine in Ebonyi State and five in Kogi State) to strengthen pre-service education for frontline MNH providers including midwives, nurses, and CHEWs. Leaders at each of the MCSP-supported institutions established education development committees to oversee management of skills labs, where pre-service students are guided through practice of clinical skills on anatomical models and simulators before providing care to patients in hospitals and clinics. MCSP invested in the infrastructure improvements and supplies necessary for operation of skills laboratories, including improved electrical supply and availability of anatomical models and essential equipment such as blood pressure monitors, resuscitation equipment, and other items.

  The faculty of these pre-service institutions also played a key role in ongoing mentorship and in-service capacity building at MCSP-supported hospitals, where pre-service students are placed for practicum assignments. Pre-service students at MCSP-supported facilities were also introduced to QI efforts, and oriented on data use skills for QI. The education development committees at pre-service institutions are managing operations and maintenance of the skills labs.

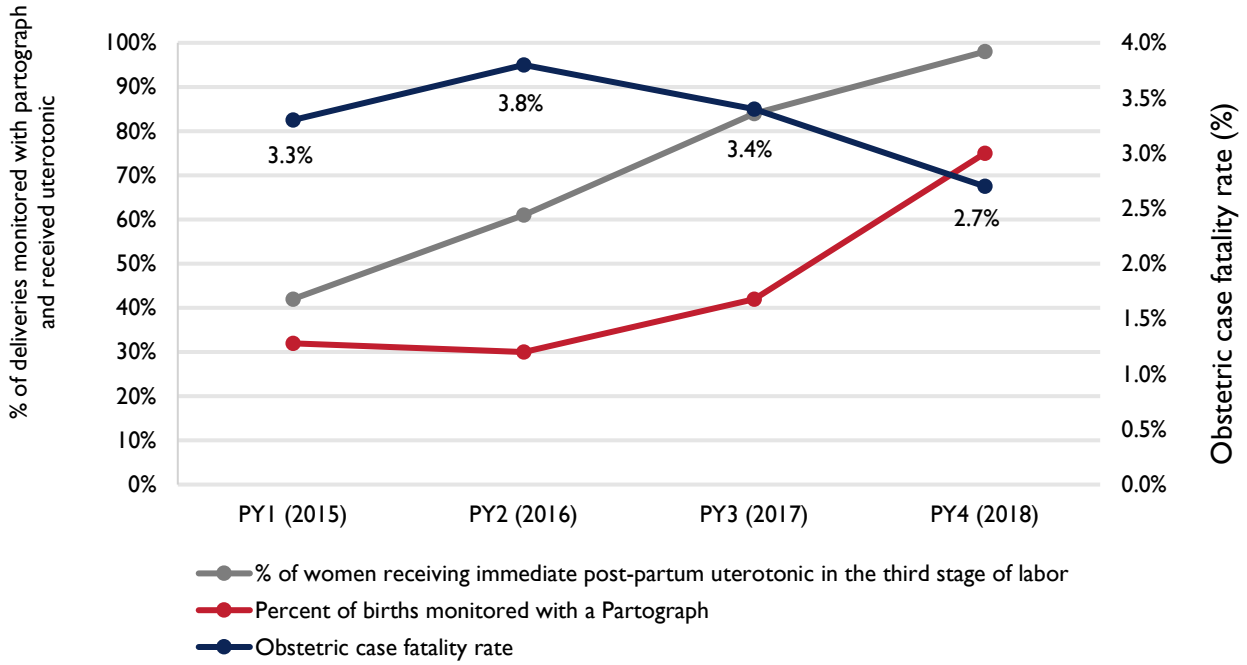
Key Results

The major contributors to maternal death in Nigeria include PPH, PE/E, and obstructive labor. Figure 1 shows the improvements made in proper active management of the third stage of labor and using the appropriate uterotonic. Monitoring of labor using a partograph to increase early detection, referral, or proper management of pregnancy complications and avoiding obstructed labor increase from 30% in Program Year (PY) 1 to 78% in PY4. Use of the appropriate uterotonic increased from 41% in PY1 to 99% in PY4.

[3] Evaluation of the promotion of respectful maternity care (RMC) in MCSP Nigeria's MNCH Program, 2018.

Figure 1. Use of uterotonic and partograph and obstetrics case fatality rates in MCSP-supported facilities

This chart shows a corresponding decline in direct obstetric deaths with an increase is use of a uterotonic and partograph during the same period in MCSP-supported facilities in Ebonyi and Kogi states.

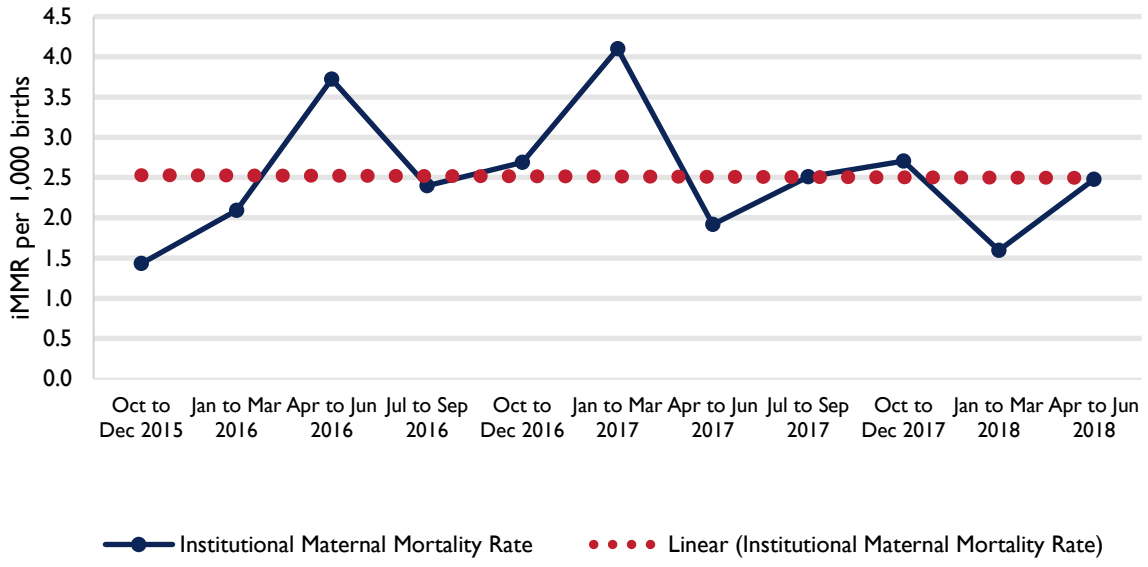


Data Source: MCSP DHIS2; PY = program year; N = all 321 MCSP facilities (~200 facilities added in PY3)

The downward trend in the obstetric case fatality rate suggests that improvements were made in early detection of complications and quality of care for women with obstetric complications. The initial measured increase in the obstetric case facility rate in 2016, after initiation of the QI maternal health interventions in late 2015, may have been due, in part, to the improved capture and documentation of maternal deaths and obstetric complications as part of the QI intervention.

Figure 2. Trend Line: Maternal mortality rate in MCSP Phase 1 facilities

The chart shows the trend line for the maternal mortality rate in the 120 MCSP-supported Phase 1 facilities from 2016 to 2018 (N = 120 Phase 1 facilities).



iMMR = Institutional maternal mortality rate; Data source: MCSP DHIS2 ; Phase 1 Facilities (N = 120 health facilities)

Recommendations and Conclusion

Availability of competent providers—especially in the labor, delivery, and postpartum units—and essential equipment, commodity, and supplies and post-training follow-up, regular on-site supervision, and mentorship of health providers are key to ensuring facility readiness and skilled provision of high-quality care. Based on the results of the program in Kogi and Ebonyi states, MCSP recommends:

- **Improving maternal health requires a local health system strengthening approach**: Future programs should address crosscutting local health system needs to improve overall quality of care. As demonstrated by MCSP's baseline assessments and progress made on the maternal health indicators, improvements to the quality of maternity services requires investments across the local health system. These include improving clinical knowledge and skills of health workers, improving referral mechanisms, and using data to inform QI efforts, including availability of key supplies and commodities.
- **Availability of meaningful maternal health data is essential to improving quality of care**: Future programs should continue to invest in strengthening the availability, regular measurement, and use of maternal health data to inform improvements in quality of care. MCSP, in collaboration with the states, invested in a standardized maternity record booklet, enabling facilities to capture essential data and to use that data in QI and MPDSR efforts. MCSP supported the formation of joint MPDSR and QI committees, which enabled follow-up of MPDSR recommendations and action plans and enabled the consideration of trends in key MNH QI indicators to inform MPDSR proceedings. The national health management information system will be updated to include additional data elements relevant for understanding trends in key maternal health indicators. Future programs should continue to invest in orienting SMOH, LGA, and facility-level providers to the updated indicators and their critical importance in improving the quality of maternal health care.

- **Partnerships are key for ensuring sustainability:** To foster ownership and sustainability within the local health system, MCSP Nigeria's maternal health program approaches were co-designed with the FMOH, SMOH, LGA, and facility leadership. The Kogi and Ebonyi SMOH, Ministry of Women Affairs and Social Development, LGAs, professional associations (SOGON, NANM) are now committed to own and lead many MCSP-supported interventions and approaches to ensure continuity after the program.

In conclusion, MCSP's support of high-quality impact interventions has contributed to saving the lives of mothers and newborns in both Kogi and Ebonyi states. This is consistent with the initial goal to support states to reduce the burden of maternal mortality. The government and stakeholders are committed to sustaining these actions through the systems and processes they have put in place.

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