Strengthening Emergency Obstetric and Newborn Care and Family Planning Services in Northwest Nigeria

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Why ACCESS/MCHIP Chose to Work in Northwest Nigeria.

Table 1.1: Key Indicators for North West Zone and all of Nigeria (DHS 2008)

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<thead>
<tr>
<th>Indicator</th>
<th>Northwest Region</th>
<th>National average</th>
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<tbody>
<tr>
<td>Maternal mortality ratio (per 100,000 live births)</td>
<td>1025</td>
<td>545</td>
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<tr>
<td>Neonatal mortality rate (10 year period)</td>
<td>47</td>
<td>46</td>
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<tr>
<td>Skilled attendance at birth</td>
<td>9.8%</td>
<td>38.9%</td>
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<tr>
<td>Modern contraceptive prevalence rate</td>
<td>2.5%</td>
<td>9.7%</td>
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<tr>
<td>Total fertility rate</td>
<td>7.3</td>
<td>5.7</td>
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<tr>
<td>ANC attendance with trained provider</td>
<td>39%</td>
<td>60%</td>
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- The Northwest region of Nigeria has some of the worst socio-demographic statistics in the country illustrated by a lower utilization of health facilities for antenatal and delivery care and lower utilization of family planning methods leading to very high total fertility rates (TFR), higher maternal mortality ratios and marginally higher neonatal mortality rate.
Conceptual framework for the ACCESS/MCHIP Program.

The ACCESS/MCHIP program used the Household to Hospital Continuum of Care (HHCC) framework for its program design. The **Intermediate Results** for the program were:

1. Improved enabling environment and scale-up of best practices for Emergency Obstetric and Newborn Care (EmONC) at National and State levels
2. Increased availability and distribution of EmONC trained health care workers in selected LGAs
3. Improved quality of EmONC services in selected LGAs
4. Improved quality of family planning services in selected LGAs
5. Increased demand for maternal and newborn services in selected LGAs
6. Improved management of maternal and newborn services in selected LGAs
Addressing the “3 Delays” of Safe Motherhood

Community interventions addressed Delays 1 and 2

Facility interventions addressed Delay 3

1\textsuperscript{st} Delay: Delay in deciding to seek care

2\textsuperscript{nd} Delay: Delay in reaching care site

3\textsuperscript{rd} Delay: Delay in receiving care after arrival at health facility
Successful Community Interventions

1. Establishment of Community Mobilization Teams (CMTs) and Community Core Groups (CCGs) to lead the community engagement efforts
2. Use of Male Birth Spacing Motivators (MBSMs) to increase male involvement in family planning
3. Use of Household Counselors to educate pregnant women and their families on danger signs in pregnancy, during and after childbirth and in their newborns
4. Establishment of Mothers’ Savings and Loans Clubs to provide alternative funding for maternal and newborn health care
5. Establishment of an Emergency Transport System (ETS)
Establishment of community engagement groups to champion advocacy for improved health seeking behavior for maternal and newborn care services

ACCESS and MCHIP programs established 19 Community Mobilization Teams (CMT) in the 3 project States and 52 Community Core Groups (CCG) around project supported health facilities. CMT and CCG members applied participatory techniques through the identification of maternal and newborn health (MNH) problems in their communities, identified root causes of high maternal and newborn mortality and morbidity (as experienced in their communities) using questionnaire-based/exploratory interviews and focus group discussions (FGDs). CMTs and CCGs successfully leveraged material and financial support from individuals and organizations in their communities to address gaps identified. Examples of success include:

- Donation of ambulances to PHCs
- Construction of new wards or renovation of buildings
- Donation of essential obstetric drugs, insecticide treated bed nets, medical equipment and consumable supplies
- Provision of water tanks, patients’ benches etc.
- Provision of accommodation for health care workers posted to health facilities
Donation of water tank in Babawa LGA

New theatre constructed by a local philanthropist in Tsafe LGA

Long-lasting insecticide treated bed nets procured by a local government chairman after visit by CMT in Gusau
ACCESS/MCHIP identified and trained 449 male birth spacing motivators to educate fellow men about the benefits of healthy timing and spacing of births and the use of modern contraceptive methods. These MBSMs counseled and referred 11,371 men, 5534 of whom gave feedback on their visit to the family planning clinic. Of these:

- 3216 (28.3% of those counseled) accepted an FP method for themselves or their spouses
- 1789 accepted the injectable
- 730 accepted oral pills
- 450 accepted to use condoms
- 253 accepted an IUD
Using Household Counselors to Educate Women and Families on danger Signs Associated with Pregnancy and Childbirth

ACCESS/MCHIP identified and trained 477 volunteer household counselors to educate pregnant women and their families about the danger signs in pregnancy, during and after delivery and in their newborns. These women reached 7302 women and referred 5179 for a variety of services including:

- 1487 for focused antenatal care (FANC)
- 628 for institutional delivery
- 279 for recognized danger signs in their newborns
- 394 for injectable contraception
- 114 for IUD insertion
- 611 for oral contraceptive pills
Establishment of Mothers’ Savings and Loans Clubs to provide alternative financing mechanisms for maternal and newborn care.

ACCESS/MCHIP established 109 Mothers’ Savings and Loans Clubs (called *Talaffin Mata Masu Dabara* in Hausa language) where women contribute money weekly to be used to seek medical care in case of pregnancy-related complications or to establish small scale businesses for financial empowerment. Each club had about 20-25 members and contributed small amounts of money, approximately N50 to N100 ($0.3 to $0.6) weekly. Members who took loans to meet business needs paid an average interest of 10% while those who took loans for health reasons did not have to pay any interest.

As at 30th September 2011, the 2919 members in 109 TMMD clubs had collected over N24m (approximately $155,000) out of which only about 5% was used to access emergency obstetric or newborn health care. Most loans were taken to establish small scale businesses for members. This program has been widely embraced by the members’ spouses and traditional leaders. Interestingly, a village head had observed that the program had resulted in a sharp decline in divorce cases in his domain.
Establishment of an Emergency Transport System (ETS)

Delay in reaching a health facility after taking a decision to do so has been recognized as one of the major factors responsible for the high maternal and newborn mortality in many developing countries. In the MCHIP program, community engagement groups educated women on the importance of transportation for accessing health care. Furthermore, implementers partnered with TransAID, a sister NGO with previous experience in establishing such transport systems to respond to this challenge. Drivers under the umbrella of the National Road Transport Union of Nigeria were trained on why and how pregnant women in labor or those experiencing life threatening complications can be assisted to reach a health facility as quickly as possible. Under the scheme, a total 141 women were transported to the nearest health facility when needed.
Members of different Mothers’ Savings and Loans Clubs in their group hijabs (A), a TMMD meeting in progress (B) and TMMD trainer receiving ACCESS/MCHIP Recognition plaque (C).
Successful Facility Interventions

1. Capacity building of birth attendants for emergency obstetric and newborn care
2. Introduction of Standards-Based Management and Recognition (SBM-R) approach to quality improvement in emergency obstetric and newborn care and family planning
3. Capacity building in anesthesia for emergency obstetric and newborn care
4. Kangaroo Mother Care (KMC) for the management of low birth weight babies
5. Capacity building for the management of neonatal sepsis
6. Helping Babies Breathe (HBB) in the context of Essential Newborn Care (ENC)
7. Increasing access to long-term contraception through family planning outreaches
Capacity Building for Emergency Obstetric and Newborn Care

The ACCESS/MCHIP Program trained 2,678 people on health-related subjects during the life of the project, including 608 nurse/midwives and 59 community health extension workers (CHEWs). In order to provide a conducive environment for them to function, ACCESS/MCHIP renovated 18 facilities and donated basic obstetric equipment and anatomic models. The skilled birth attendants from 57 USG-supported health facilities subsequently:

- Supervised 879,385 antenatal visits
- Supervised 183,355 institutional deliveries
- Provided active management of third stage of labor (AMTSL) to 156,498 women (94.9% of all normal vaginal deliveries)
- Used the partograph for 81,437 deliveries (44.4% of total deliveries)
- Provided essential newborn care to 175,906 newborns seen within 3 days of birth
Use of Standards-Based Management and Recognition (SBM-R) approach to Quality Improvement

The ACCESS/MCHIP Program introduced Jhpiego’s Standards-Based Management and Recognition approach to quality improvement for emergency obstetric and newborn care (EmONC) and family planning. Illustrative results included:

- An increased compliance with set EmONC standards in initial hospitals from a mean of 11.8% to 83.9% after 2 follow-up assessments
- An increased compliance with set EmONC standards in initial PHCs from a mean of 1% at baseline to 61.9%
- An increased compliance with set FP standards at MMSH from 63.2% to 82.5%

At the ACCESS/MCHIP training center, the Murtala Mohammed Specialist Hospital, while the mean SBM-R score for EmONC increased from 25.1% at baseline to 91% after 2 follow-up assessments, the maternal mortality ratio (MMR) in the hospital fell from 2678 to 836 per 100,000 live births
Training in Anesthesia for Emergency Obstetric and Newborn Care

Given the fact that two key interventions, blood transfusion and Caesarean section are key functions in comprehensive emergency obstetric and newborn care, ACCESS/MCHIP embarked on capacity building for safe and effective anesthesia. During the life of the project ACCESS/MCHIP adapted the Anaesthesia for Emergency and Neonatal care (AEmONC) Learning Resource Package for use in Nigeria. The objective was to implement a three weeks training program to upgrade the knowledge and skills of practicing nurse anaesthetists from three Northern States of Nigeria – Kano, Katsina and Zamfara. Skills development under the program was limited to two anesthetic procedures, namely use of ketamine anesthesia and spinal anesthesia.

Appropriate anatomic models were used to teach various skills including airway maintenance, endotracheal intubation, insertion of laryngeal mask airway, cardiac massage and lumbar interspace identification. Patients were subsequently assigned to participants for comprehensive anaesthetic management including preoperative assessment with clinical examination, decision about choice of technique, resuscitation before anaesthesia, intraoperative management including patient monitoring (clinical signs, pulse, blood pressure, oxygen saturation), record keeping and postoperative management up to 24 hours following surgery.
Introduction of Kangaroo Mother care (KMC) for management of low birth weight babies

ACCESS/MCHIP introduced the Kangaroo Mother Care approach (KMC) to the management of low birth weight babies. In collaboration with the Federal Ministry of Health a KMC training manual developed in Malawi was adapted for Nigeria. Thereafter a total of 77 health care providers were trained on the process and 3 KMC centers were set up, one in Zamfara and 2 in Kano State. The program also donated KMC related supplies to these centers so as to make them functional. During the early period of implementation, a total of 68 low birth weight babies were admitted into these centers. While the mean weight of the LBW babies at admission was 1.6 kg, this rose to 2.16 kg at discharge and 2.91 kg after 3 subsequent follow-up visits. However a good number were lost to follow up as the mothers did not bring them back for review.

The KMC training manual has also been used by other implementing partners (e.g. PRRINN-MNCH) and the FMOH to train other health care providers.

Teenage mothers with their low birth weight babies in Kangaroo Mother Care position.
Capacity building for the management of neonatal sepsis in MCHIP-supported facilities

The fact that neonatal sepsis (NNS) is the third leading cause of newborn deaths in Nigeria accounting for 22% of all causes necessitated an intervention by MCHIP. MCHIP therefore introduced a program for the management of neonatal sepsis by different cadres of health care providers in 15 of its project-supported facilities. This was complemented by the referral linkage between PHCs and General Hospitals under the Midwives Service Scheme (MSS). In a three month implementation period, the following were achieved:

- 208 health care providers were trained to strengthen the identification, treatment and referral of sick newborns with neonatal sepsis at the PHCs using a newly adapted IMCI module
- Development of job aids on the assessment, classification and treatment protocol of sick newborns
- Adaptation of the treatment protocol to cater for all cases, including those who refuse referral
- Conduct of supportive supervision in the 3 States to review progress and to provide further technical guidance on the neonatal sepsis management activity
- 195 Sick newborns seen managed. Of these 45 were classified as Possible Severe Bacterial Infection, 123 were classified as Local Bacterial Infection, 26 were classified as Infection unlikely, 22 were referred for specialist assessment while 3 refused referral.

With the close-out of MCHIP in December 2011, there are plans to hand over these facilities to a sister Implementing Partner, PRRINN/MNCH in 2 of the 3 States.

Trainees practicing the management of neonatal sepsis on an anatomic model (top) and on a neonate (bottom).
Implementing a Helping Babies Breathe (HBB) Program

Because birth asphyxia accounts for 27% of neonatal deaths in Nigeria, MCHIP adapted the Helping Babies Breathe intervention into its program in its final year. This was done in the context of essential newborn care (ENC). HBB is a Global Movement to build capacity of health care workers to perform neonatal resuscitation to babies in need within the first “golden minute” of life. In all, MCHIP trained 352 health care workers consisting of 47 doctors, 178 nurse-midwives, 12 nurses, 19 midwives and 87 community health extension workers (CHEWs). 9 others (pharmacy technicians and clinical assistants) were also trained. MCHIP also donated 60 NeoNatalie anatomic models to supported facilities and schools of midwifery for sustainability of the program.

However, record-keeping for newborn resuscitation in the facilities has been poor since this was not one of the indicators in the original program’s Performance Monitoring Program (PMP).
Increasing access to long-acting contraception through family planning outreaches.

As part of its effort to address the unmet need for family planning in Northwest Nigeria, the MCHIP organized family planning outreaches which aimed to scale up the use of long-acting family planning methods through the expansion of the method mix for contraception. Activities conducted included community mobilization and group education and counseling sessions to inform and empower couples to take decisions on healthy timing and spacing of pregnancies and use of modern contraception. During 4 of such outreaches, the following services were provided to 466 women:

- 282 women had Jadelle insertions
- 139 women had injectable contraception
- 27 women had IUD insertions
- 17 women accepted oral contraceptive pills
- 1 couple chose to use condoms

10 other women received no method while 5 were diagnosed to be pregnant.
Improving the record-keeping and reporting systems in program supported health facilities.

The baseline facility audits revealed very weak record-keeping systems in many of the health facilities in the 3 project-supported states. ACCESS/MCHIP thereafter worked with the State Government and the FMOH to modify the National Health Information Management System tools to accommodate data items not previously collected such as:

- Tetanus toxoid immunization (T1 and T2)
- Birth planning and complication readiness counseling
- Active management of third stage of labor (AMTSL)
- Essential newborn care (ENC)
- Use of the partograph
- Counseling for family planning

ACCESS/MCHIP also developed maternal and newborn record booklets and supported monthly data collection meetings during which data were reviewed, analyzed and used for program implementation. In 2011 MCHIP worked collaboratively with other implementing partners and the HMIS units of Zamfara and Katsina States Ministry of Health to harmonize all MNCH/FP registers for data collection in the States. These registers have since been printed and distributed to health facilities in the States.
The endline evaluation showed increased knowledge of major danger signs during pregnancy. Similar observations were found in respect of danger signs during and after childbirth and in the newborn.

Similarly, more women made birth preparedness arrangements at endline than at baseline.
Trends of 3 United Nations EmONC Indicators in Program Supported Sites

Over the life of the ACCESS and MCHIP programs, an increasing proportion of births occurred in program supported sites while Met Need for emergency obstetric and newborn care (EmONC) progressively increased. There was also a marginal increase in the proportion of women delivered by Caesarean sections though the figure still remained below the UN recommended 5-15%.
FP Counseling and CYP indicator targets and achievements

The initial challenge of meeting set CYP targets was as a result of frequent stockouts of FP commodities and slow response to program efforts aimed at changing health seeking behaviors in a very conservative part of Nigeria, the Northwest.

Key:
- CYP=Couple Years of Protection
- FP=Family planning
Maternal Mortality Ratios in Selected ACCESS/MCHIP Supported Hospitals

Over the life of the project, there was a general reduction in the trend of maternal mortality ratios (MMRs) in many of the program supported health facilities.
Conclusion, Challenges and Opportunities

• The ACCESS/MCHIP programs have demonstrated that the implementation of a household-to-hospital continuum of care program consisting of a package of community and facility interventions can lead to increased knowledge of communities about maternal and newborn health issues and increased utilization of health facilities for maternal, newborn and family planning services. However, these efforts need to be sustained and scaled-up nationally for the full impact of the interventions to lead to a significant improvement of the country’s socio-demographic statistics.

• Challenges of the program included poor infrastructure at the health facilities, shortage of skilled birth attendants and frequent transfer of project-trained staff out of project areas, frequent stockouts of family planning commodities, widespread ignorance and poverty in the region. Other challenges included fluctuating levels of motivation among volunteers trained for community mobilization and inadequate commitment of government at State and LGA levels.

• Opportunities for project scale-up include the Midwifery Service Scheme (MSS) managed by the National Primary Health Care Development Agency that has established 1000 hospital-PHC clusters nationwide for skilled birth attendance. The program has so far recruited and deployed over 4000 midwives to 1000 PHCs. Other opportunities include the provision of free family planning commodities and the inclusion of a budget line item for procurement of FP commodities through the UNFPA system.
Clients waiting for family planning services during FP outreach in Kano State

Mother and Child at an FP outreach activity in Kano State

Clients waiting in an antenatal clinic of an MCHIP-supported health facility