IDEAS

# The Pathway to Improved Maternal and Newborn Health Outcomes

## Use of data for maternal and newborn health in Gombe State, Nigeria

February 2016

LONDON SCHOOL of HYGIENE &TROPICAL MEDICINE

© Pieter ten Hoopen/London School of Hygiene and Tropical Medicine/Nigeria/2016

This leaflet describes the process of mapping innovations of projects funded by the Bill & Melinda Gates Foundation, which contribute to Gombe State maternal and newborn health provision. The process was discussed and agreed at a meeting in Abuja in January 2016 and this leaflet represents their work at that time. Participants at the meeting were from the **Gombe State Primary Health Care Development Agency**, **Bill & Melinda Gates Foundation** grantees operating in the State: the **Society for Family Health**, **Pact's SAQIP** project, **Champions for Change**, **MamaYe** and **IDEAS**.

## Gombe State – use of data for maternal and newborn health

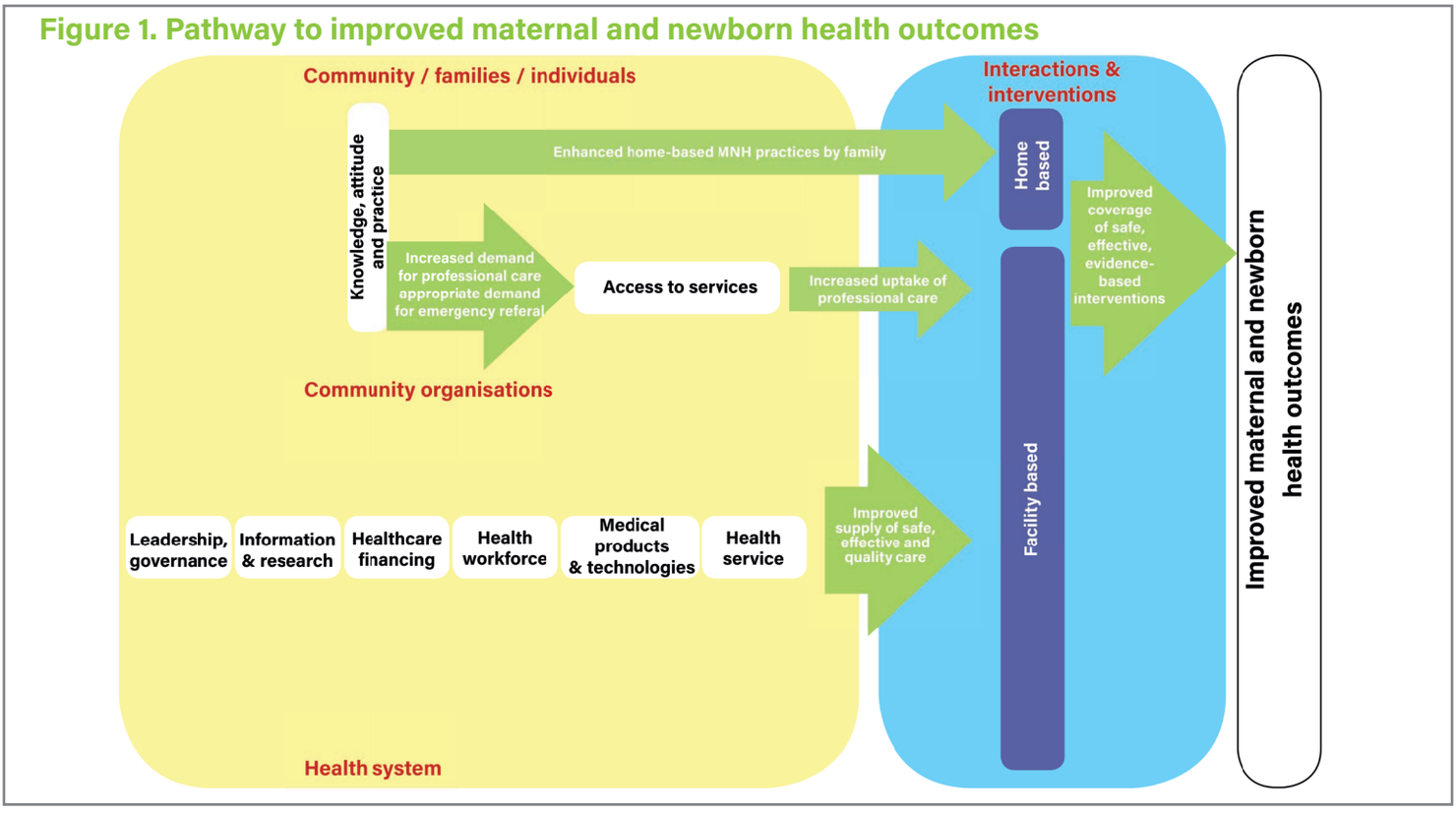
The Gombe State Primary Health Care Development Agency (PHCDA), implementation grantees of the Bill & Melinda Gates Foundation and IDEAS from the London School of Hygiene & Tropical Medicine are working together to enhance understanding, evidence-informed planning and decision-making based on effective use of data relating to maternal and newborn health (MNH) care.

The first step in this process has been to describe what is happening in the field. We did this by developing a pathway to maternal and newborn health.

## The pathway to improved maternal and newborn health

To ensure that participants share a common understanding of the work in Gombe State, a pathway from inputs to enhanced maternal and newborn health was agreed. This is represented in **Figure 1**.

### Figure 1. Pathway to improved maternal and newborn health outcomes




- The yellow area describes the opportunities to enhance uptake and provision of life-saving interventions at three interacting levels
    - Community / families / individuals
    - Community organisations
    - Health system, represented here by the World Health Organisation health system building blocks
- The blue area describes health-enhancing practices. These are safe, high-quality evidence-based life-saving interventions in the home or in facilities
- The white boxes identify the components on the pathway to improved maternal and newborn health which can be affected by the work of the Primary Health Care Development Agency and foundation grantees
- The green arrows describe the anticipated improvements in maternal and newborn health related practices and provision which result from enhancements in the components on the pathway

There are three routes from the yellow (opportunities for change) to the blue areas (uptake of effective and safe maternal and newborn health related practices).

1. Through enhanced home-based practices by the family
2. Through increased uptake of routine and emergency professional care. This is a product of:
    a. increased demand for rountine professional care
    b. appropriate demand for emergency referral and
    c. better access to care
3. Through the provision of safe, effective and high quality care

## Grantees and initiatives

Three foundation grantees are working in Gombe State to complement State maternal and newborn healthcare provision. These are the **Society for Family Health (SFH)**, **Pact's SAQIP project** and **Champions for Change**. They work on a range of initiatives to enhance maternal and newborn health by strengthening Pathway components. A short description of these initiatives is given in **Table 1**.

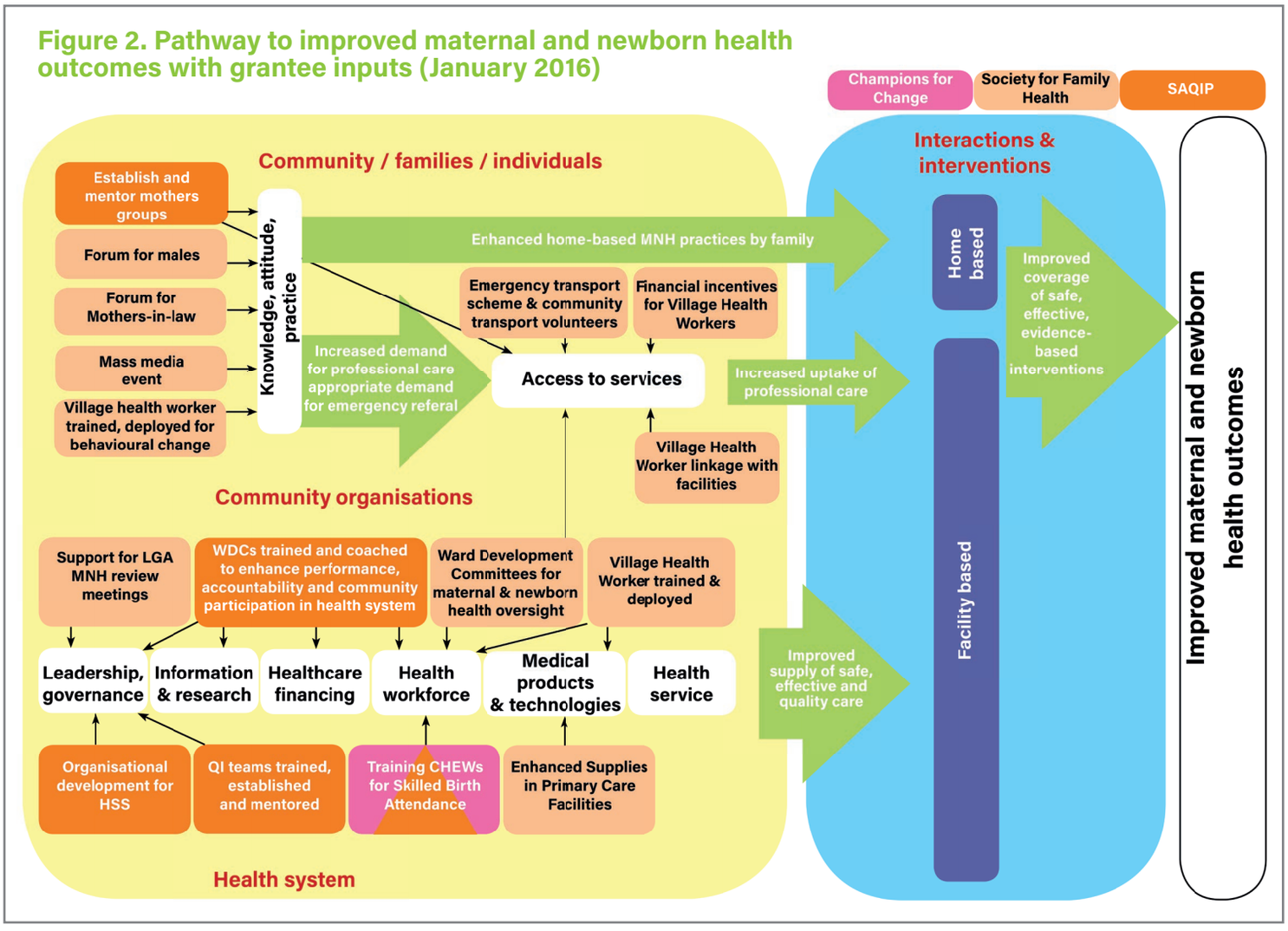
**Figure 2** represents how the actors operate and interact with one another by mapping their maternal and newborn health initiatives onto the pathway. The initiatives are colour coded, to show which grantee seeks to enhance which component of the pathway. A full set of project initiatives is presented in **Table 1**.

**Example 1 at the community level**

There are two components which can be enhanced by initiatives at community level - *Knowledge Attitude and Practice* and *Access to Services*. SFH is working on four initiatives to enhance *Knowledge, Attitude and Practice* and SAQIP has one initiative based on their work with *Mothers' Groups*. The Pathway suggests that better *Knowledge Attitude and Practice* will lead to enhanced home-based practices in the family and to increased demand for professional care (green arrows).

Increased demand can result in higher uptake of professional care if there is better access. SAQIP anticipates that access will be enhanced through the efforts of the *Mothers' Groups*, and this is complemented by SFH's work on access through emergency transport and *Financial Incentives for Village Health Workers*. Access is also enhanced by SFH's work at *Community Organisations* level, through *Ward Development Committees* and by training and deploying *Village Health Workers*.

**Figure 2. Pathway to improved maternal and newborn health outcomes with grantee inputs (January 2016)**




**Example 2 at the health system level**

The health system is represented here by the WHO health system building blocks, which together supply safe, effective and high-quality care. All three grantees work at this level. SAQIP and SFH seek to enhance leadership and governance, SAQIP through its work on organisational development, quality improvement and through *Ward Development Committees* (WDCs), complemented by SFH's work on *Local Government Area* (LGA) maternal and newborn health review meetings.

SAQIP's work with *Ward Development Committees* also seeks to strengthen *Information and Research*, *Healthcare Financing* and the *Health Workforce*. All grantees work on strengthening the workforce through a range of initiatives. Finally, SFH works to enhance the supply and availability of *Medical Products and Technologies*.

The pathway, populated with grantee inputs, also enables us to make general observations about the work of the three grantees to support state provision.

- SAQIP and SFH are the actors in Gombe State which support the government in the widest range of ways, while Champions for Change focus on enhancing the *Health Workforce* through their efforts "Training Community Health Extension Workers (CHEWs) for skilled birth attendance"
- SFH operates principally at community level, while SAQIP and Champions for Change emphasise the organisational levels
- At the health system level, attention is paid to *Leadership and Governance* and *Health Workforce*, necessitating collaboration among grantees

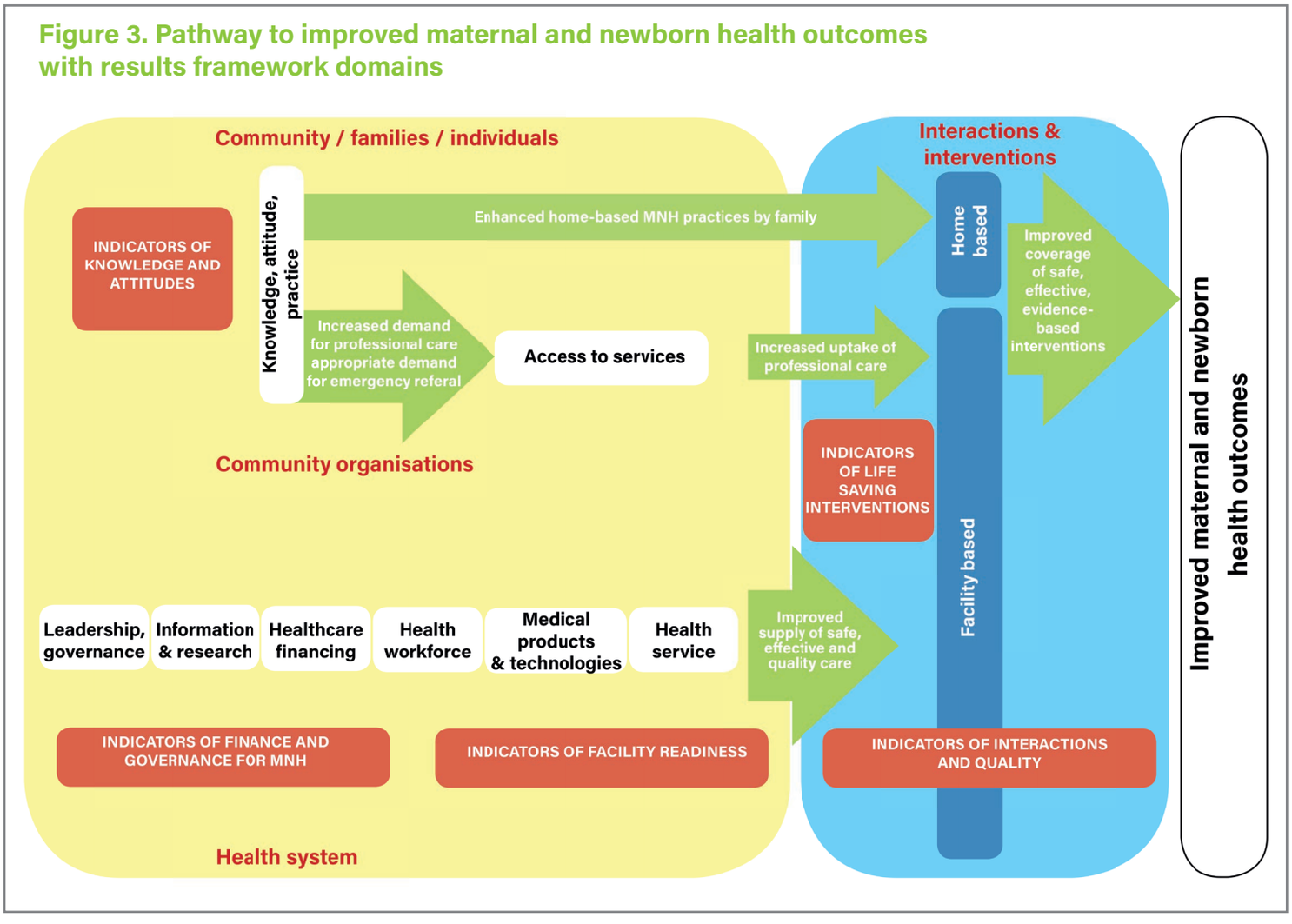
## Data for enhanced maternal and newborn health

In Gombe State, data comes from three sources:
- The state routine health management information system
- Foundation grantees' routine monitoring and evaluation, including special studies
- IDEAS - annual household surveys, six-monthly facility surveys, observations of care-giving, six-monthly frontline worker interviews

Data from these three sources are brought together in a results framework – a document which comprises indicators identified by the Bill & Melinda Gates Foundation and implementation grantees to represent the work in support of the state Primary Health Care Development Agency in maternal and newborn care. The results framework is updated regularly using data from the state, from grantees and from IDEAS studies, in preparation for each data-driven learning workshop. They span domains covering:
- Life-saving interventions
- Facility readiness for life-saving interventions
- Interactions between service providers and service users
- Quality of care
- Governance
- Knowledge, attitudes and practice
- Financing for maternal and newborn health

These domains have been mapped onto the Pathway to Improved Maternal and Newborn Health as shown in **Figure 3**. A full set of indicators in the Results Framework is presented in **Table 2**.

**Figure 3. Pathway to improved maternal and newborn health outcomes with results framework domains**



| Table 1. Foundation grantee project initiatives (January 2016) | |
|---|---|
| **Society for Family Health (SFH works in 50% of wards in each Local Government Authority, these are focal wards)** | |
| **Activity** | **Description** |
| Village Health Worker training and deployment | Cadre of rural worker to visit pregnant and postpartum women in the home, facilitate and promote facility-based routine care, identify danger signs and refer for professional care, deliver maternal and newborn health messages, supply pregnancy- and delivery-related drugs |
| Financial incentives for Village Health Worker | Performance-based financing. A system of financial incentives / rewards for Voluntary Health Workerss who complete the continuum of care in the facility. May include effective referral |
| Emergency Transport to facilities | Drivers of the Emergency Transport and Community Transport schemes are contacted by families and Village Health Workers for transport to a facility for delivery, or in an emergency |
| Enhance supplies in primary care facilities | Ensure reliable provision of essential maternal and newborn health commodities in primary care facilities to enhance quality of care. Includes bag and mask, low-cost clean delivery kits, antibiotics |
| Forum of Mothers-in-Law | A forum to enhance the role of mothers-in-law as influencers and decision-makers to promote key maternal and newborn health messages and health-related behaviour and to enhance interactions between mothers-in-law and pregnant/recently-delivered women |
| Forum of male community members and community and religious leaders | A forum of males, including husbands and community and religious leaders as influencers and decision-makers, to promote maternal and newborn health messages and enhance interactions between husbands and their wives; and husbands and their mothers |
| Mass media event | Radio spots and leaflets to promote maternal and newborn health concepts including facility delivery |
| Ward Development Committee | Ward Development Committees undertake community mobilisation and sensitisation for maternal and newborn health, support Village Health Workers and Community Transport Volunteers, can address community maternal and newborn health challenges (e.g. refusal to attend antenatal care) and liaise between the community and the health facility |
| Local Government Area data driven and learning meeting | A regular meeting of religious and community leaders, local government and ward development committee representatives to enhance the maternal and newborn health profile by addressing maternal and newborn health issues such as non-performing facilities or damaging cultural practices |
| Village Health Worker linkage with facilities | Fortnightly meeting of Village Health Workers and Community Health Extension Workers – the first line of supervision – in the community, to enhance the community-facility relationship, strengthen the capacity of Village Health Workers and enhance Community Health Extension Workers' understanding of maternal and newborn health related issues in the community |
| **SAQIP (Saqip works in 50% of wards in each LGA, these are focal wards)** | |
| Organisational development for health system strengthening | Training and mentoring to enhance organisational capacity, transparency and decision-making in the State Primary Health Care Development Agency, Local Government Authority health teams and primary care facilities |
| Quality improvement | Train, establish and mentor quality improvement teams in primary care facilities to adopt quality improvement measures and improve governance, capacity and performance of the health system |
| Enhanced Ward Development Committees | Train and coach Ward Development Committees to enhance performance, accountability and community participation in health systems, using community scorecards, financial management, gender audits, proposal development, maternal and newborn child health quality services etc to increase representation of women's voices and interests including access to micro-grants |
| Mother's Groups | Establish and mentor Mothers' Groups to increase in uptake of maternal and newborn child health services, improve knowledge and attitudes towards primary health care maternal and newborn child health services and enhance capacity to make household decisions, including on savings and access to loans through the maternal and newborn child health Social Fund |
| Training Community Health Extension Workers for skilled birth attendance (jointly with Champions for Change) | Training in all aspects of skilled birth attendance, basic emergency obstetric care and other essential healthcare services |
| **Champions for Change (State-wide)** | |
| State approval of the national task-shifting policy | Lobbying for State Governor approval and implementation of the Federal Ministry of Health Task Shifting Policy for Essential Health Care Services in Nigeria (August 2014) |

| Table 2. Gombe State Results Framework Indicators (January 2016) | |
|---|---|
| **Categories** | **Indicator** |
| **LIFE-SAVING INTERVENTIONS AND FACILITY READINESS FOR LIFE-SAVING INTERVENTIONS** | |
| Magnesium sulfate MgS04 | % of facilities with MgS04 available |
| | % of women with pre-eclampsia who are treated with IV/IM MgS04 |
| Newborn resuscitation | % of facilities with a bag and mask for resuscitation |
| | % of newborns delivered in a facility with breathing problems who are resuscitated with bag and mask |
| Uterotonics | % of facilities with uterotonics available |
| | % of women who received prophylactic uterotonics at their last delivery |
| Premature Rupture of Membranes (pPRoM) | % of facilities with oral or injectable antibiotic |
| | % of pregnant women with pPRoM, not in labor, given oral erythromycin |
| | % of facilities with erythromycin in stock for pPRoM |
| Thermal care | % of newborns receiving skin-to-skin contact within 30 minutes of birth |
| | % newborns with delayed bathing for the first 24 hours of life |
| | % of newborns dried within 1 minute of birth (immediately) |
| Chlorhexidine (CHX) | % of facilities with CHX available |
| | % of newborns receiving clean cord care |
| | % of newborns having CHX 7.1% w/v (of an appropriate formulation) applied to the cord stump within the first 24 hours of life |
| Immediate/exclusive breastfeeding | % of newborns breastfeeding within 1 hour of delivery |
| | % infants receiving exclusive breastfeeding through first six months |
| | % newborns exclusively breastfed for first 28 days of life |
| | % newborns exclusively breastfed for first 3 days of life |
| Infection prevention | % women who received a test result for syphilis during their last pregnancy |
| | % women tested for syphilis during last pregnancy and given treatment if needed |
| | % facilities with amoxicillin and gentamicin available |
| | % newborns with suspected sepsis treated with antibiotics |
| | % women who received a full course of IPTp per national guidelines during their most recent pregnancy |
| | % facilities with benzathine penicillin in stock |
| | % birth attendants who had all items of clean delivery kit available at last birth attended |
| | % women with a live birth in the last 12 months who delivered in a facility and used a CDK at the last delivery |
| | % facilities with soap and running water or alcohol based hand rub |
| | % deliveries where delivery attendant washed hands with soap |
| Kangaroo Mother Care (KMC) | % of facilities where space is identified for KMC and at least one staff member has received training |
| | % preterm or low birth weight infants put on KMC in facilities |
| **INTERACTIONS AND QUALITY OF CARE** | |
| Antenatal care (four visits) | % women who were attended at least four times during their last pregnancy by any provider for reasons related to the pregnancy |
| Quality antenatal care | % women who received a urine test during their last pregnancy |
| | % women who received a blood test during their last pregnancy |
| | % women who had their BP measured during their last pregnancy |
| Skilled Attendant at Birth | % of live births with a skilled attendant (doctor, nurse midwife, and auxiliary nurse/ midwife) |
| | % facilities with a trained midwife (i.e. newborn resuscitation, etc [see Jhpeigo curriculum)) available 24/7. |
| | % of deliveries assisted by a skilled provider (doctor, nurse midwife, and auxiliary nurse/ midwife) |
| Maternal postnatal care | % of newborns who had a postnatal check-up within 2 days for last live birth in a facility |
| Newborn postnatal care | % of live births in facilities (public & private) |
| Institutional delivery | % members of mothers' group with a live birth in the last 12 months who delivered in health facility |
| Basic Emergency Obstetric and Newborn Care (BEmONC) | % of health facilities providing all BEmONC signal functions (ready for use) |
| Comprehensive Emergency Obstetric and Newborn Care (CEmONC) | % of district hospitals providing all CEmONC signal functions (ready for use) |
| Health Care Worker (HCW) capability | % of HCW able to correctly manage following complications as assessed by simulation or clinical vignette: pre-eclampsia, neo-natal resuscitation, pPRoM, neonatal sepsis, Primary Postpartum Haemorrhage (PPH) [to be finalised] |
| | % of HCW trained in newborn resuscitation |

| Table 2. Gombe State Results Framework Indicators (January 2016 ) [Continued] | |
|---|---|
| | % CHEWs trained under the State Task Shifting policy |
| Mothers' Group membership | % women aged 15-49 participating in Mothers' Groups (registered and attending at least 80% of health education sessions in last 3 months) |
| Home visit by FLW | % of women reached by Village Health Workers volunteers during their last pregnancy |
| | % women who delivered in the last 12 months who were visited by a Village Health Worker at least four times during pregnancy and at least twice during the first week after delivery |
| ETS and CTV | % women who reported using Emergency Transport Scheme or Community Transport Volunteers for their last delivery |
| Respectful care | % facilities with a written policy available on respectful maternity care |
| | % of clients / patients satisfied with the quality of intrapartum care in PHCs |
| | % facilities with a labour ward providing private space for the women and her companion of choice at time of birth |
| [Indicators on hold] Quality improvement through Maternal Death Reviews | % secondary facilities with HCW trained in MDR |
| | % secondary facilities holding MDR committee meetings as recommended in the national MDR guidelines |
| | % facilities holding MDR committee meetings with action plans developed every 6 months |
| | % MDR action plan items implemented within the stated timeframe (start 09/16) |
| SFH specific | % women with a live birth who registered for maternal care at a facility as a result of contact with a village health worker |
| | % neonates delivered in the last 12 months referred to a facility by a village health worker for newborn complications |
| | % facilities with at least one health care provider trained in essential newborn care (ENC), kangaroo mother care (KMC), newborn resuscitation and active management of the third stage of labour (AMSTL) and Misoprostol use, available 24/7 |
| **KNOWLEDGE AND ATTITUDES** | |
| Mothers' groups | % mothers' group members who intend to deliver in a health facility for their next pregnancy |
| | % of mothers' group members with knowledge of at least two danger signs relating to pregnancy, labour and delivery and the postnatal period (Use IDEAS standard tools in measuring) |
| | % members of mothers groups who participate in household decision-making |
| ETS | % women aged 15-49 with a live birth in the last 12 months who reported that they had heard of Emergency Transport Scheme |
| Knowledge of women | % women with a delivery in the last 12 months with knowledge of at least two danger signs relating to pregnancy, labour and delivery and the postnatal period (Use IDEAS standard tools in measuring) |
| **FINANCE FOR MNH** | |
| [Indicators on hold] Budgeting | % cost of original annual maternal and newborn health plan that is in the annual budget |
| | % annual budget allocated to State Primary Health Care Development Agency (SPHCDA) and State Ministry of Health (SMoH) for maternal and newborn health released to SPHCDA and SMoH |
| | % annual MNH budget released to SPHCDA and SMoH that is spent according to plan |
| | % of the eight annual budget releases made within the first two months of each quarter (four budget releases to SPHCDA, four budget releases to SMoH) |
| Mothers' groups finances | % members of Mothers' Groups that have benefited from the group's savings to start up or expand a small business |
| | % members of Mothers' Groups who participate in household decision-making |
| | Mean willingness to pay (amount) for maternal health services among members of Mothers' Groups |
| | Average size of Mothers' Group maternal and newborn child health social fund |
| **GOVERNANCE** | |
| Data Management | % of facilities providing complete reports on time |
| Supervision | % of health facilities receiving at least one supportive supervision visit in last 6 months (or other indicator to capture clinical training and supervision in health facilities) |
| SAQIP-specific | % Scores on the organisational performance index of State Primary Health Care Development Agency and LGA health teams |
| | % maternal and newborn child health front line organisers that achieve at least a level 3 in 70% of the thematic components of the organisational capacity assessment |
| [Indicator on hold] MamaYe specific | % advocacy actions targeted at policy makers which result in a commitment to take action for maternal and newborn health |
| Champions for Change specific | Commitment made by state government to implement Task Shifting policy |
| | Commitment made by state government to train 50% Community Health Extension Workers (CHEWs) by end 2016 |

## Acknowledgments

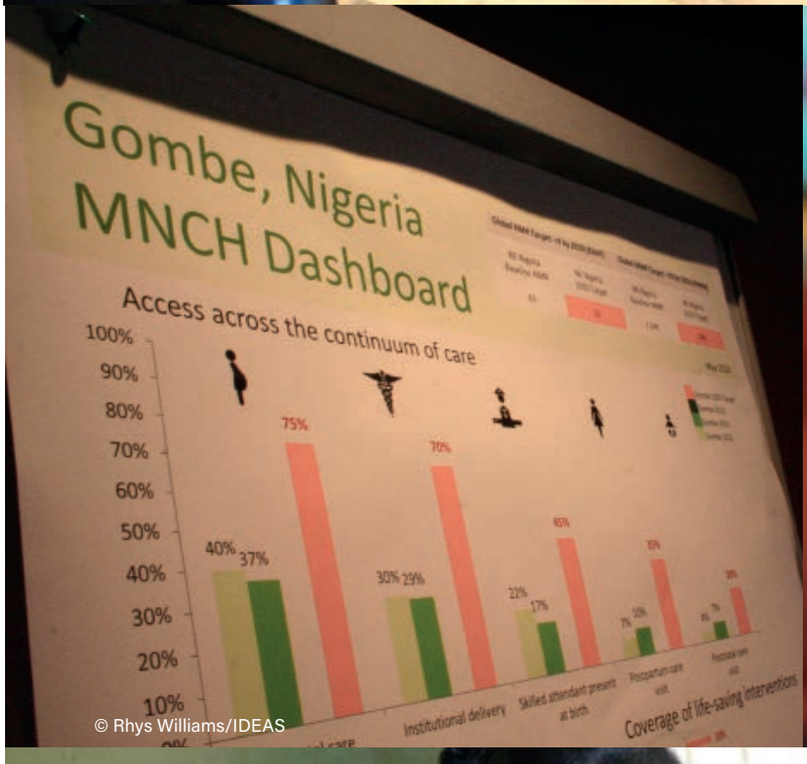
Author: Krystyna Makowiecka
Reviewed by: Dr Tanya Marchant
Design and production coordination by: Rhys Williams

ISBN: 978-0-9576834-4-0

**Find out more about IDEAS at ideas.lshtm.ac.uk or follow IDEAS on Twitter @LSHTM_IDEAS**

IDEAS (Informed Decisions for Maternal and Newborn Health) aims to improve the health and survival of mothers and babies through generating evidence to inform policy and practice. Working in Ethiopia, northeastern Nigeria and India. IDEAS uses measurement, learning and evaluation to find out what works, why and how in maternal and newborn health programmes. It is funded by the Bill & Melinda Gates Foundation and is based at the London School of Hygiene & Tropical Medicine.

© Rhys Williams/IDEAS




© Rhys Williams/IDEAS

© USAID

© Bilal Avan/IDEAS