



LSTM

CENTRE FOR MATERNAL
AND NEWBORN HEALTH

Centre for Maternal & Newborn Health Annual Review 2015





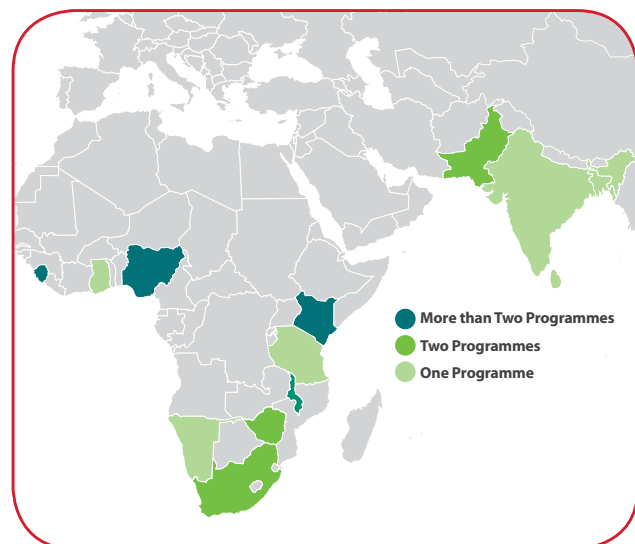
Maternal & Newborn Health

Progress has been made with regard to increasing the coverage of maternal and newborn health interventions over the past two decades. There is increasing recognition that further improvement in maternal and newborn health outcomes will depend on the ability to address inequity in availability of care as well as to improve the quality of that care. Improving the quality of facility-based healthcare services and making quality an integral component of scaling-up of interventions that are known to be effective will require a renewed global focus.

LSTM's Centre for Maternal and Newborn Health (CMNH), led by Professor Nynke van den Broek, has established itself as an internationally recognized Centre of Excellence. In creating effective links with international partners, CMNH aims to promote the health of women and newborns in low-income countries through high quality research, teaching and technical assistance.

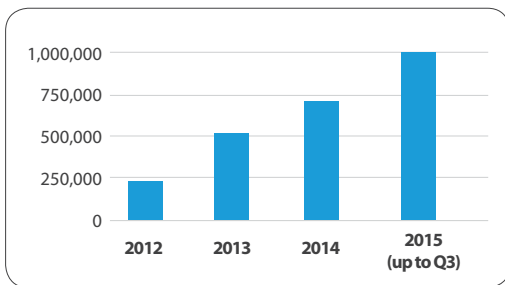
The CMNH currently counts on a multidisciplinary team of more than 100 staff and supports research programmes in 13 countries in Asia and Africa with a portfolio of £32million.

- **CMNH is a WHO Collaborating Centre for Research and Training on Maternal and Newborn Health and in May 2015**
- **CMNH was declared the winner in the Women's Health Category of the 2015 prestigious British Medical Journal (BMJ) awards, for its work on Emergency Obstetric Care in Africa and Asia.**



The centre has designed, developed and implemented a variety of innovative maternal and newborn health interventions and programmes that 'catalyse' increased availability and improved quality of care available at health facility level in middle and low-income settings. It uses a rigorous evaluation methodology to document effectiveness of complex interventions and programmes, facilitating the translation of evidence into practice.

Improved availability and quality of healthcare for 1 million mothers by 2017



Availability of Care

The majority of maternal deaths and deaths of babies within 24 hours of birth can be avoided if women and newborns receive the appropriate interventions from a skilled health worker, and with adequate equipment, drugs and medicines. However, globally an estimated 45 million women give birth each year without skilled care. To address this gap, countries need to increase the number of skilled birth attendants and should also build the capacity of existing health workers so that they perform better.

The Making it Happen Programme (MiH)

A comprehensive innovative 5-level M&E framework to evaluate the effectiveness of training in Emergency Obstetric and early Newborn Care (EmONC) was developed by CMNH. This is used to evaluate the impact of the MiH interventions in 11 African and Asian countries (Sierra Leone, Ghana, Nigeria, Malawi, Tanzania, Kenya, the Republic of South Africa, Bangladesh, India, Pakistan). Data was collected at baseline and then at 3-monthly intervals, up to 12 months post intervention. Results from health care facilities where 80% or more of maternity care providers have been trained were included in the analysis.



MiH staff at a data workshop in Kenya

The results at 6 months post intervention were

- a decrease in Still Birth Rate and direct obstetric case fatality rate of 4.9% and 27.6% respectively.
- a 67% reduction in postpartum haemorrhage and 36.6% reduction in admissions to NCBU for birth asphyxia.
- 54.5% and 35.5% more health care facilities could provide all the basic emergency obstetric care (BEmOC) and comprehensive EmOC signal functions respectively.

For the second year running, the DFID Annual Review 2014 scored the overall MiH programme as: A+, meaning its outputs exceeded expectations.

“ The MiH interventions contributed to improved availability of emergency obstetric and newborn care at facilities, a reduction in the number of women with obstetric complications, maternal case fatality rate, stillbirth rate and admissions for birth asphyxia. ”



- Professor Nynke van den Broek, Head of CMNH

Impact of Ebola on maternal & newborn health in Sierra Leone

Research carried out by CMNH found that despite adequate numbers of maternal health workers showing up to work, it was the patients who stayed away at their own peril for fear of catching Ebola. The study, commissioned by international development charity VSO, has shown the devastating impact of Ebola on Sierra Leone's pregnant women and newborn children.

Data was collected from 81 key informants and 76 health care facilities across the country which provide emergency obstetric and newborn care.

Key findings from the research showed:

- 30% increase in maternal deaths.
- 24% increase in newborn deaths.

Quality of Care

CMNH is providing a new focus on quality of Skilled Birth Attendance, Emergency Obstetric and Newborn Care using a health systems approach and ensuring that care packages are of good quality, delivered along the continuum of care at facility level as well as between different levels of the health system, meet the health needs of women and babies and are 'women and baby-friendly'. Robust research methodology and systematic evaluation is used to generate new evidence for what works where and how. Lessons learnt are disseminated widely and effective dialogue and clear messages facilitate the translation of these into policy.



To support sustainable improvements in selected target countries, CMNH is

- Identifying the 'bottle necks' to providing Quality of Care
- Reviewing national guidelines and protocols
- Introducing a Quality Improvement process at health facility level
- Taking a health systems approach
- Evaluation and Operations Research to assess 'what works where and how'

Assessment of quality of care indicators on maternal and newborn care at facility level

In order to ensure care offered to mothers and babies across the globe is of sufficiently high quality, developing and maintaining quality standards is necessary. These standards need to be measurable and therefore indicators to assess the quality of care play a critical role in the process. After consultation with a wide range of international stakeholders and experts in quality improvement and measurement of quality of care, a core set of indicators was proposed at global level to improve measurement of quality of care at facility level.

CMNH was tasked by WHO with assessing the applicability of the indicators proposed to measure quality in maternal and newborn care and to provide data for the 2015 global Countdown report. Data for the analysis was collected through facility assessment surveys across nine African and Asian countries and an additional evaluations in Sierra Leone (altogether 1,039 facilities). CMNH was tasked to suggest additional information required to measure the indicators in real-life settings and to develop methodological recommendations for testing application of the proposed indicators.

CMNH and the Countdown to 2015 report

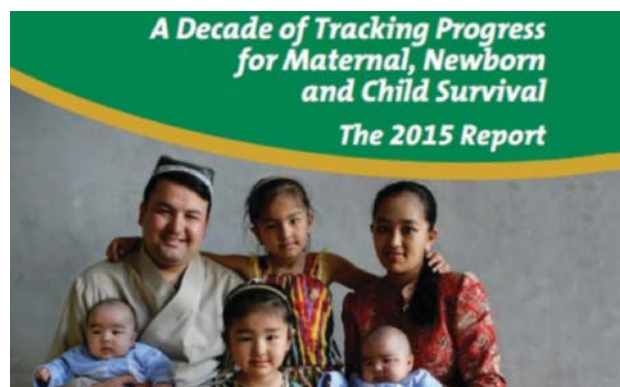
Countdown to 2015, a global movement of 43 multi-stakeholders, with The Lancet as a key partner, has tracked progress on reproductive, maternal, newborn and child health indicators over the last 10 years in 75 priority countries to stimulate and support progress towards health-related Millennium Development Goals 4 and 5 (Reduce Child Mortality & Improve Maternal Health)

The final report was released in 2015 and shows that, although some health issues and some countries have seen considerable progress, important gaps remain that must not be forgotten in the transition from the Millennium Development Goals to the Sustainable Development Goals. The report provides a comprehensive overview of the countries involved and examines trends in mortality and nutrition; intervention coverage (including inequality); financial flows to reproductive, maternal, newborn and child health; and supportive policy and systems measures. The report then assesses changes in data availability and their implications for program managers and decision makers.

It concludes by turning a critical lens on the Sustainable Development Goals framework and future accountability efforts, drawing from Countdown's 10 years of monitoring experience.

CMNH contributed to the final report by focusing on how the quality of care delivered to women and children could be measured. The assessment of quality of care is essential to strengthen service delivery further. CMNH focused on health facilities in selected countries in Sub-Saharan Africa and South Asia over a two year period (2012 – 2014). 'The results were sobering', said Luigi D'Aquino, Senior Technical Officer of CMNH, 'In order to generate data on service quality, routine sources are not enough and additional standalone tools will be required', he continued.

The report states that as a result of this outcome, as shown by CMNH, strong leadership and a focused development programme will be needed to generate technical consensus on a limited number of quality indicators across the continuum of care that are feasible for measurement in low- and middle-income countries and to generate timely information useful for both programme monitoring and global reporting.



Neonatal Health

An estimated 2.9 million neonatal deaths occur each year. The majority of these happen in developing countries. Three main causes account for the majority of deaths: prematurity (34%), intra-partum related conditions (25%) and infections (including pneumonia and sepsis, 22%). Respiratory Distress Syndrome (RDS) is common to the main causes of neonatal mortality. Respiratory support to manage RDS is provided by Continuous Positive Airway Pressure (CPAP) or mechanical ventilation and is needed to decrease the newborn mortality and morbidity rates.

CMNH is conducting research to:

- Assess the use of CPAP in health care facilities
- Estimate the number of newborns admitted with severe respiratory distress who would benefit from CPAP and measure the RDS case fatality rate.
- Examine practicalities of using CPAP in terms of diagnostic capacity, quality of its use (compliance with standards for CPAP use) and the views of the parents and healthcare professionals.

Maternal Morbidity

CMNH advocates that the identification and measurement of maternal morbidity in a standardised, comparable and robust method will ultimately help to contribute to reducing maternal deaths. A better understanding of the burden of ill health during and after pregnancy will further help to inform and refine care packages to improve maternal health outcomes in low resource settings. CMNH has been working on the development of a standardised definition, the construction of identification criteria for maternal morbidity, the design of a comprehensive assessment tool, and piloting and data collection using this tool in four countries (India, Kenya, Malawi and Pakistan) in order to obtain estimates of maternal morbidity in these settings.

CMNH has developed and used this new tool to develop a maternal morbidity 'score' as a key maternal health indicator that can be used as a new composite outcome measure that can be of use to evaluate maternal health programmes in low and middle income countries. A multi-country study was completed in October 2015 to assess Maternal Morbidity of over 11,000 women during and after pregnancy and findings will be used to develop this Maternal Morbidity Score.

Students & Publications

CMNH currently hosts 10 PhD students researching a wide variety of topics such as using patient reported outcome measures to assess quality of care; effectiveness of emergency obstetric training; the role of Community Health Workers in maternal and newborn health and a social return on investment study on EmONC training.

The centre published a total of 15 peer reviewed papers in the last year.

Evaluation of Programmes

Evaluation of the Maternal , Neonatal and Child Health Week (MNCHW) in Nigeria

The purpose of this mixed-methods independent evaluation is to assess to what extent the maternal, neonatal and child health week (MNCHW) has contributed to improved maternal, newborn and child health outcomes in Nigeria, and to explain how change was achieved. The evidence provided through the evaluation will inform decisions on how to improve and sustain MNCHW across Nigeria post 2015. The evaluation will provide an independent assessment of the MNCHWs against the following criteria: relevance, impact, effectiveness, efficiency and sustainability (including partnership). A theory based approach, specifically a contribution analysis using the Theory of Change approach will be performed. The evaluation will cover the period 2010-2014.

Evaluation of 'Improving Maternal & newborn health in Nkhotakota district, Malawi' project

The evaluation provides an in-depth understanding of the differences that the project has made in care seeking behaviours and in the quality and availability of maternal and newborn health (MNH) services. At inception, CMNH provided technical assistance and quality assurance in the design of the project monitoring systems and tools, and in the collection and analysis of project monitoring data. CMNH assessed both the implementation process (analysing the project), the key measurable outputs of the activities and the plausible effect of the project activities on key maternal and newborn outcomes.

Evaluation of the Health Transition Fund (HTF) in Zimbabwe

Designed in line with the evaluation criteria endorsed by the OECD-Development Assistance Committee, our mixed methods evaluation utilizes both quantitative and qualitative data. The analysis of existing reports and secondary data available through HMIS and national surveys is complemented by the design and implementation of regular, comprehensive health facility assessments. Health facility assessments, representative at national level, are scheduled to be conducted for three consecutive years, and form part of the evaluation to track progress in availability and quality of MNH interventions in the country. Key informant interviews are also administered at various levels of the health system, to obtain the views of key actors and to explore the main barriers and facilitators to change.





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