Introduction
Nigeria has some of the highest rates of maternal, neonatal and child mortality in the world. Maternal mortality rates in the Northern States are estimated to be far above the current national figure of 545 per 100,000 live births (NDHS 2008). Similarly although the national IMR and U5MR are 75 and 157 per 1000 respectively, rates in the North-West geopolitical zone are estimated to be 91 per 1000 (IMR) and 217 per 1000 (U5MR) respectively.

In order to support Nigeria towards the achievement of the Millennium Development Goals (MDGs) 4 and 5, a 4 year Maternal Newborn and Child Health (MNCH) programme was linked to the existing Partnership for Reviving Routine Immunisation in Northern Nigeria (PRRINN). PRRINN-MNCH is a DFID and Norwegian Government funded programme.

Skilled Birth Attendance
Provision of Skilled Birth Attendance (SBA) and availability of Essential (or Emergency) Obstetric Care (EOC) coupled with Newborn Care (NC) are key strategies that if implemented will reduce maternal and neonatal mortality and morbidity. A Skilled Birth Attendant is defined as “an accredited health professional who has been educated and trained to proficiency in the skills needed to manage pregnancy, childbirth and the immediate postnatal period, and in the identification, management and referral of complications in women and newborns”.

Essential Obstetric Care
At least 80% of all maternal deaths result from five complications that are well understood and can be readily treated: haemorrhage, sepsis, eclampsia, obstructed labour and complications of abortion. We know how to prevent these deaths – there are existing effective medical and surgical interventions that are relatively inexpensive. Most obstetric complications cannot be predicted and occur suddenly and unexpectedly – prompt access to good quality Essential (or Emergency) Obstetric Care is essential. For an estimated 15% of all women, such a complication will be life threatening unless she has access to EOC. Having the skills to recognise and then respond effectively to such un-expected events is a key part of a skilled birth attendant’s role.

LSS-EOC&NC training package
The LSS-EOC&NC training package was designed and developed by the Liverpool School of Tropical Medicine (LSTM) and Royal College of Obstetricians and Gynaecologists (RCOG) in collaboration with the Department of Making Pregnancy Safer at WHO. The training package was piloted extensively in 2007 and is now used in a variety of settings in both Africa and Asia.
The course is designed to cover the five major causes of maternal death – haemorrhage, sepsis, eclampsia, obstructed labour and complications of abortion and the signal functions of CEOC and BEOC.

There are a number of core ‘modules’ which include the following:

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<th>Course contents</th>
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<td>Communication, triage and referral</td>
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<td>Resuscitation of mother and newborn</td>
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<td>Shock and the unconscious patient</td>
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<td>Severe pre-Eclampsia and Eclampsia</td>
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<td>Haemorrhage</td>
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<td>Obstructed labour</td>
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<td>Assisted Delivery</td>
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<td>Complications of Abortion</td>
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<td>Early Newborn Care</td>
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The training package includes a section on surgical skills and on normal delivery (Skilled Birth Attendance).

There are pre-designed materials for delivery of the training package which include a simple manual: Life Saving Skills – Essential Obstetric and Newborn Care (RCOG Press 2006 – revised 2008) and a Facilitators’ Guide (RCOG Press 2009).

Lectures and content of breakout sessions, discussions and demonstrations are standard and documented in the Facilitator Guide. This also contains practical details of the course infra-structure. Both the manual and course content were designed with an awareness of the very real barriers to accessing care that women in resource poor countries have, as well as with the realisation that many health care providers trying to provide Skilled Attendance at Birth and Essential (or Emergency) Obstetric Care for women with complications, work in difficult circumstances with limited resources. All case scenarios are based on actual every-day scenarios that would be encountered in a BEOC or CEOC facility in sub-Saharan Africa.

Fig 1. Design and Methods

- Interactive
- Short
  - 15-30 min Lectures
  - 20-30 min breakout sessions
- Meaningful and relevant
A multi-disciplinary approach has been seen by many as the basis for effective delivery of LSS-EOC&NC training: thus all cadres of staff involved in obstetric and newborn care are targeted and preferably trained as a team.

Introduction of LSS-EOC&NC training; the Northern Nigerian Experience, December 2009

The objectives of the training were to introduce the LSS-EOC&NC training package and discuss and adapt this competency based training package, where needed, to complement existing LSS training in Northern Nigeria.

The first course was conducted by a team of 8 facilitators (obstetricians, midwives) comprising 1 international consultant (LSTM), 3 international volunteer facilitators and 4 national consultants.

A total of 29 participants attended the 3 day training, (15 state LSS master trainers, 3 state reproductive health coordinators and 7 medical doctors and senior midwives in charge of maternity wards from target CEOC and BEOC health facilities of Katsina, Yobe and Zamfara states).
Participants evaluated the training using a questionnaire, while course facilitators assessed participant’s skills and knowledge before and after the training.

12 of the state master trainers who were preselected attended a 1 day Training of Trainers (TOT).

This was followed by a 1 day consensus building workshop with 36 stakeholders including representations from state MOH, state MOLG, PHCDA, Schools of Midwifery, LSS state and national trainers, WHO and state PRRINN offices and the TOT participants from the 3 programme states, to discuss and agree a the possibility of incorporating competency-based skills and drills LSS-EOC&NC training into existing LSS programme and other mechanisms for ensuring complementarity.

The delegates reached a consensus that the course would improve quality of midwifery education in the training schools as well as complement the traditional method of in-service LSS training in Nigeria. They highly appreciated the short duration of training, broad content, interactive adult education methods, sustainability, M&E component and a wide range of mannequins used.

The sequence of building capacity in country to ensure sustainability is outlined below.

![Process for building in-country capacity sustainability](image)

1. 24-30 participants, 5-6 external facilitators, full set of equipment, 3day LSS EOC & NC
   - 10 participants selected for 1 day TOT
2. TOTs co facilitate second training
   - 24-30 participants, 3 day LSS EOC & NC training
3. TOTs have 1 day Supportive Supervisory (SS) workshop
   - TOTs perform SS monthly
   - Equipment retained in state
4. Repeat LSS-EOC&NC training with shared facilities (external and in-country)
LSS EOC & NC participants and facilitators

A midwife practicing assisted vaginal delivery using a vacuum extractor
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