

## Strengthening emergency obstetric and neonatal care in Liberia

The work of Maternal & Childhealth Advocacy International (MCAI), the Advanced Life Support Group (ALSG), Mothers of Africa, The Liberian Ministry of Health and WHO Liberia.



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The medical charities Maternal & Childhealth Advocacy International (MCAI) and the Advanced Life Support Group (ALSG) have been working together for many years in poorly-resourced countries, equipping local health professionals with the skills to provide emergency care to mothers and babies.

As documented in the RCOG International News of March 2009, the Emergency Maternal & Neonatal Health (EMNH) course (which was developed by MCAI/ALSG) is now well-established in Pakistan and The Gambia, with local instructors now undertaking the majority of the teaching.

Following on from this venture, which is already bearing fruit in terms of a significant reduction in maternal mortality in the Gambia, MCAI and ALSG have now branched out into another West African country, namely Liberia.

### Historical background

Founded by former slaves and freeborn people from America and the Caribbean, Liberia was the first ex-colony in Africa to gain independence, becoming a republic based on the United States model in 1847.

Liberia now has the first democratically-elected female president in Africa: Ellen Johnson Sirleaf, who came to power in 2005.

Ms Sirleaf was awarded the Nobel Peace Prize in 2011, and is one of 27 members of the UN System Task Team, which is to deliver its report later this year. This team was brought together to advise on the global development framework following the Millennium Development Goals target date of 2015.

The country has had a turbulent past, and is now only 10 years on from a brutal conflict which lasted for most of the time between 1989 and 2003. The role of diamonds in fuelling hostilities brought the situation in Liberia, Sierra Leone and Côte D'Ivoire to wider international attention. 250,000 people, one in fourteen of the entire population, were killed in the conflict. A third of the remaining population fled to neighbouring countries.

The conflict in Liberia brought the country to the verge of collapse; the economy was left in ruins, with non-existent basic infrastructure and services. Parts of the capital Monrovia are still without electricity. The most urgent priorities in Liberia are to improve its

health and education systems, as well as to confront the challenges of a post-conflict society, including the reintegration of thousands of ex-combatants back into society.

The needs of the population are massive, and the resources are severely constrained, despite major international development projects, including those funded by DFID/UKAID and USAID. As is always the case in such situations, maternal and child health are in extremely poor shape. The maternal mortality rate is 990/100,000; the neonatal mortality is 34/1,000. Large numbers of children are orphans and 40% of under-fives are malnourished.

The vast majority of the population in Liberia live below the international poverty line of US \$1.25 per day.



### Our project in Liberia

Understandably in a poorly-resourced post-conflict country, there is an extreme shortage of trained healthcare workers, especially in rural areas, as well as severely restricted access to continuing professional development.

Against this background, and in partnership with Mothers of Africa, the Ministry of Health of Liberia and the World Health Organization (WHO), we introduced a programme to strengthen the emergency obstetric and neonatal healthcare system through a combination of training, provision of essential equipment and hospital renovation. The programme also aims to train selected midwives to perform emergency obstetric surgery, a component of the programme that is particularly relevant to rural areas where there are few if any doctors.

The first set of courses took place in Phebe Hospital, Bong County, Liberia, from 19 - 27 November 2012 and the second from 18 - 23 February 2013. Four EESS-EMNH (Essential Emergency Surgical Skills-Emergency Maternal and Neonatal Healthcare) courses took place, followed by a Generic Instructors' Course (GIC), at which, selected successful candidates were taught the principles of medical education, as their first step towards becoming Instructors in their own right.

Funding for this venture has come through a grant awarded by DFID/UKAID via the Tropical Health Education Trust (THET) as a twinning arrangement between the Aneurin Bevan Health Board in South Wales and Bong County Regional Health Department in Liberia.



In total, 83 candidates (two doctors and 81 midwives and nurses) were taught during the four EESS-EMNH courses, which were each of three days' duration. They were all provided with a manual in advance of the course (see [www.mcai.org.uk](http://www.mcai.org.uk) to download the manual).

Three midwives have been identified as suitable for training as obstetric clinicians to undertake emergency obstetric surgery. The necessary trainers from both the UK and Liberia have been identified to undertake this training which is projected to start in July 2013.

Internationally accredited ALSG instructors from the UK and The Gambia, all experienced in teaching obstetric and/or neonatal emergency skills, were engaged in these courses, providing a ratio of around three candidates to each instructor.



The instructors brought with them the equipment for the courses: neonatal, adult and pelvic manikins, as well as the audio-visual aids and emergency supplies (such as bag valve masks) needed to undertake the skill stations, scenarios and workshops. This equipment has been left at Phebe Hospital for future courses, and some items are to be used by local staff for training in obstetric and neonatal emergencies. All 83 candidates passed the course, having received their training with enthusiasm and commitment.

The instructors selected seven candidates (two doctors and five midwives) to participate in the first GIC (Generic Instructor Course) which occurred on the 26 - 27 November 2012 and was conducted by three instructors including an ALSG Educator (Dr Barbara Phillips).



**Dr Barbara Phillips teaching neonatal resuscitation**

On completion of each course, a presentation ceremony took place, at which the candidates were given the following items: a bag and two masks for lung inflations, a pocketbook of the essential components of emergency care for pregnant women newborn infants and children (see [www.mcai.org.uk](http://www.mcai.org.uk) for download) and a CD ROM of EMNH, including around 120 videos of examples of emergency care for mothers and babies.

The candidates were also given a logbook, in which they are to enter details of every emergency intervention which they perform using skills learnt on the course.

These data will be used by WHO Liberia, who are providing the monitoring and evaluation for this project.

Of the seven candidates who attended the first GIC course, three (two doctors and one midwife) were successful in achieving Instructor Candidate status, and have started to teach on EMNH courses under the mentoring and support of international ALSG Instructors. The aim is for the course to become self-sustaining within Liberia, taught by Liberian instructors, and rolled out across the country.

MCAI/ALSG has provided so far US \$8,000 to renovate and equip the Emergency Room at Phebe Hospital and equipment for the neonatal wards at Phebe and CB Dunbar Hospitals has also been acquired. The first course training midwives and nurse anaesthetists to care for ill and low birth-weight newborn infants will be undertaken in June 2013.



**Reflections on the EMNH courses**

The faculty members were all impressed by the candidates' enthusiasm and willingness to engage with the training provided.

At the examination at the end of each course, all the candidates were found to be proficient in the vital skills required for maternal and neonatal emergency care. Other important skills, such as assisted vaginal delivery and venous cutdown, were assessed at the teaching stations during the courses.

In the light of observations and comments made by candidates and instructors, various modifications are being made, which will make the course applicable to local needs, such as incorporating a skill station on twin delivery.

It was noted that major trauma, which is highly prevalent in Liberia, largely from road traffic accidents, is too important a subject to be addressed in one lecture. Consequently, there is a plan to set up a separate 1-2 day course on major trauma in the future.



The introduction of the well-received Emergency Maternal and Neonatal Health course to Liberia is an important step towards improving healthcare provision to women and babies.

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