Helping Babies Breathe Global Development Alliance

Annual Status Report November 2013

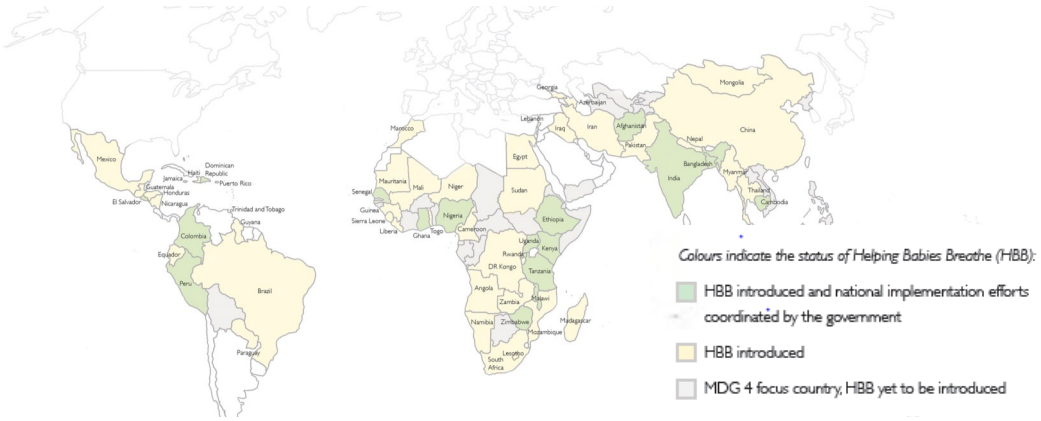
This issue

Through our strong and vibrant Helping Babies Breathe (HBB) Global Development Alliance, the following achievements have been possible :

- HBB has been introduced in 60 countries, of which 18 have national plans coordinated by governments
- Increased global demand for newborn resuscitation by training and equipping over 130,000 health workers
- 120,000 bag-mask resuscitators, 150,000 penguin suction devices, and 50,000 NeoNatalie simulators have been supplied on a not-for-profit basis, and another 4,500 HBB training kits have been donated
- Study in Tanzania shows 47% reduction in early neonatal mortality and a 24% reduction in rates of fresh still-birth after HBB was implemented
- HBB have been listed in the WHO document "Essential Interventions, Commodities, and Guidelines", in the UN Commission on Life-Saving Commodities reports, and also as one of 10 breakthrough innovations in a report published at the UN General Assembly in September 2013.

Helping Babies Breathe®

A Global Public-Private Alliance



Global Advocacy and Policy

Progress on the UN Commission on Life-Saving Commodities for Women and Children: Resuscitation Devices

Following the launch of the UN Commission on Life-Saving Commodities for Women and Children in September 2012, a technical working group (TWG) for resuscitation commodities was established, where many of the HBB partners are members. The group has prioritized the following activities to facilitate increased access to resuscitation devices:

1. Assessment of country situation
2. Creation and dissemination of guidelines, standards and tools to optimize country supply utilization
3. Development and dissemination of an estimation model and quantification tool to estimate market size and adequacy of supply
4. Development of a regulatory process
5. Evaluation of innovative products and approaches
6. Establishment of technical standards for resuscitation devices in collaboration with WHO
7. Assistance of the finalization of work plans to address newborn resuscitation gaps for 8 focus countries: Nigeria, DR Congo, Senegal, Sierra Leone, Ethiopia, Tanzania, Rwanda and Uganda

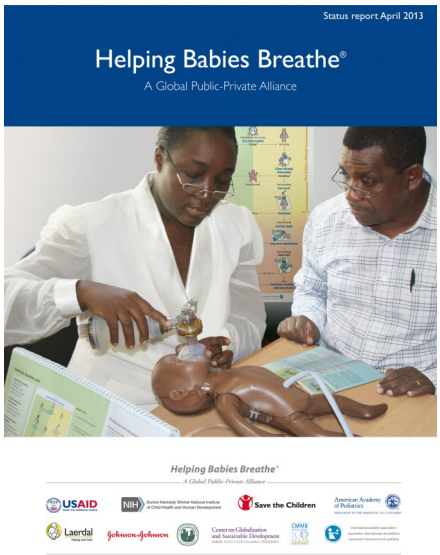
Every Newborn Action Plan: bottleneck analysis of newborn resuscitation

UNICEF and WHO, supported by other development partners are working with countries to develop a global newborn action plan. The process includes a systematic analysis of health systems bottlenecks that impede the scale up of key tracer interventions, including newborn resuscitation. Multiple countries across Asia and Africa have completed their bottleneck analysis, which will inform national plans to address the bottlenecks. Key health systems bottlenecks for scaling up newborn resuscitation include the following: low use of skilled birth attendants in many countries and inadequate number of health providers who are trained to perform newborn resuscitation, unregulated private sector in terms of compliance with national standards and protocols for resuscitation, lack of planning and resources for training, procurement and replacement of resuscitation devices, poor supervision and monitoring, lack of appropriate indicators in the Health Management Information System, lack of attention to newborn complications, poor institutional readiness for newborn resuscitation, and no uniform policy on newborn resuscitation.

HBB introduced in 60 countries

*Afghanistan
*Bangladesh
China
*Cambodia
East Timor
*India
Iran
Iraq
Lebanon
Mongolia
Myanmar
Nepal
Pakistan
Thailand
Angola
Cameroon
DR Congo
Egypt
*Ethiopia
*Ghana
*Kenya
Lesotho
Liberia
Mali
*Malawi
Mozambique
Morocco
Namibia
*Nigeria
*Rwanda,
*Senegal
Sierra Leone
Somalia
South Africa
*Tanzania
*Uganda
Zambia
*Zimbabwe
Albania
Azerbaijan
Georgia
Brazil
*Colombia
*Dominican Republic
Ecuador,
*El Salvador
Guatemala
Guyana
Haiti
Honduras
Jamaica
Mexico
Nicaragua
Paraguay
*Peru
Trinidad and-Tobago

*Countries that have national plans coordinated by the Ministry of Health



HBB at Global Newborn Health Forums

Global Newborn Health Conference,
Johannesburg, South Africa, Apr 2013
The conference brought together more than 450 delegates from over 50 countries. The participants, including 70 officials representing health ministries from low-income countries around the world, agreed to support the development of a new global action plan and to implement solutions to tackle the major killers of newborns. HBB was presented as one of the best solutions available for newborn resuscitation. Both Tanzania and Bangladesh shared their experiences on how HBB can be done as national program. The conference also showed how HBB is spreading fast; almost all country presentations and posters mentioned HBB. HBB, together with Helping Mothers Survive, won the innovation and impact conference award for reducing maternal and newborn deaths. See the "*Helping Babies Breathe Status Report April 2013*" video for more info.

3rd International Confederation of Midwifes Africa Regional Meeting
Nairobi, Kenya Jul 2013
At a conference with 300 representatives from 20 African countries, half a day was devoted to HBB orientation. Although HBB has been rolled out in many African countries, a large number of the participating midwives had not yet been trained on HBB. International Confederation of Midwifes has proposed to take some immediate steps to support HBB roll-out in combination with Helping Mothers Survive to their members.

Regional Maternal and Newborn Care Forum Arusha,
Tanzania August 2013
USAID East Africa, East Central and South Africa Health Community (ECSA) and Regional Centre for Quality of Healthcare (RCQHC) together with the Survive and Thrive Global Development Alliance (S&T GDA) met in Arusha. 130 participants representing nursing, midwifery and medical professional associations and ministries of health came from 20 countries. Topics included organizational capacity of professional associations, quality improvement processes, quality and respectful care, and integration of Helping Mothers survive/AMSTL and HBB. The participants were trained on HBB and Helping Mothers Survive. As a follow up to the meeting, ECSA and RCQHC will work with the S&T GDA to strengthen professional associations and support countries to roll out selected maternal and newborn health interventions.

Triannual International Pediatric Association (IPA) conference
Melbourne, Australia August 2013
A HBB master instructor training was held at conference. The training was very popular and booked out months before the meeting started. 46 master instructors from 11 countries were trained. During the session on the Global Newborn Action Plan, Professor Bill Keenan presented the success story of Helping Babies Breathe and inspired other organizations to join the GDA.

HBB presented to UN General Assembly

On September 23, 2013, the UN General Secretary presented a publication on ten breakthrough health innovations that can save women and children now. The publication, called "**Driving progress toward 2015**", highlights products and systems approaches, that are ready to be used in developing countries to drive down maternal, newborn, and child deaths. Paired with existing tools and others still in development, these low-cost innovations have the potential to save millions of lives. HBB is listed as one of these innovations.

Forty-seven percent reduction in early neonatal mortality in Tanzania with HBB

In 2009, Tanzania started the HBB pre and post study in 8 hospitals. After a 2 year period, with over 88,000 observed births, the astonishing results were available.

The study* showed that implementation of HBB was associated with a 47 % reduction in early neonatal mortality. In addition, the number of fresh stillbirths was reduced from 19 per 1000 birth to 14.4 per 1000 births; this is a 24% reduction after 2 years.

HBB includes using simple techniques like keeping the baby warm, rubbing the baby dry, suctioning the baby's mouth, and if necessary, correct application of a resuscitator for face mask ventilation.

The study showed that after HBB was implemented, both stimulation and suctioning increased from 47% to 88% and from 15% to 22% respectively. There was a sharp decrease in face-mask ventilation from 8.2% to 5.2%.

Read the study here

*Newborn Mortality and Fresh Stillbirth Rates in Tanzania After Helping Babies Breathe Training, G Msemo, A Massawe, et al, *Pediatrics*; online January 21, 2013;

Systems Strengthening

Roll-out: Between June 2010 and July 2013, the HBB GDA trained about 130,000 health providers in over 60 countries. The HBB training materials have been translated into 21 languages. 120,000 bag-mask resuscitators, 150,000 penguin suction bulbs, and 50,000 NeoNatalie simulators have been supplied on a not-for-profit basis; and 4,500 NeoNatalie simulators been donated.

Quality improvement: The GDA has a strong focus on the importance of systems strengthening for impact and sustainability. As the program matures, initial focus on training has shifted towards greater attention to quality improvement approaches. These include mentoring, supportive supervision, and data-based monitoring.

Supplies: The GDA has facilitated the procurement of resuscitation equipment through various channels: Laerdal Global Health (LGH), UNICEF and UNFPA, or using locally available brands. LGH has established a distribution center in Johannesburg for African countries, and is in the process of establishing another distribution center in the USA to support distribution and logistics to Latin American countries.

Translation: AAP has processed translation agreements for 21 languages: Albanian, Arabic, Bangla, Burmese, Cambodian, Dari, French, Kannada, Karen, Laos/Laotiab, Mandarin, Marathi, Mongolian, Nepalese, Pashto, Portugese, Russian, Spanish, Swahili, Thai, and Tibetan.

HBB implementation study in Nepal

In Nepal, a comprehensive pre- and post-intervention study was carried out to evaluate changes in intrapartum-related mortality and knowledge, attitudes, and practices of health providers in the Paropakar Maternity and Women's Hospital.

The clinical newborn cases were traced and recorded from the admission journals, and supported by semi-structured interviews on the day of discharge. In addition, the management of non-breathing babies was measured through a 24 hours video recording at each neonatal resuscitation corner. The information on KAP of health workers was collected through questionnaires, observational checklist and in-depth interviews.

During the baseline data collection period, 9,630 deliveries were recorded and showed that 41% of the breathing babies received some form of resuscitation (stimulation, suction, oxygen). However, none of the non-breathing babies received bag and mask within 1 minute. In the first two months of intervention, 33% of infants requiring bag and mask received it within one minute.

HBB Case Studies

Bangladesh: HBB scale-up

Three areas have been critical for the national HBB scale-up process:

Capacity building: By July 2013, HBB has been rolled out in 70% of the districts in the country, with 17,000 birth attendants trained and 1,700 facilities equipped with bag-mask resuscitator and a suction bulb. **Quality assurance**: Supervision/monitoring are integrated at almost all trainings. The HBB evaluation will be completed by the end of 2013 and management information system has been strengthened. Newborn care surveillance has started, and 1-2 key indicators for birth asphyxia will be incorporated in the national health management information system. **Sustainability:** HBB has been incorporated in the National Health Sector Program and in all applicable in-service and pre-service training curricula. Routine refresher training was found to be the single most important factor for maintenance of competence and skills over time.

Latin America: HBB regional neonatal alliance

HBB is implemented in Latin American and the Caribbean countries through the Latin American and Caribbean Neonatal Alliance Neonatal Alliance. This strong coalition includes partners such as regional professional associations, UN agencies, USAID, NGOs and Minsters of Health. With AAP and Laerdal Global Health, the alliance has translated the HBB educational material to Spanish and adopted the pictures to be more suitable for the LAC region. The Alliance has also facilitated regional HBB trainings, advocating for HBB in the region and sharing best practices among partners. This has led to HBB now being implemented in many of the Central and South American countries and the Caribbean.

Successful national HBB implementation : Lessons learned from Tanzania

Implementation body: political/recourses

* Ministry of Health and Social Welfare committed to prevention of birth asphyxia and reduction of neonatal mortality. Appointing a paediatrician within the Ministry to oversee the implementation.
* Steady supply of basic equipment

Educational environment: Community/practitioner

* HBB training in the facilities targeted at the midwife, most likely single provider to stabilize and/or resuscitate. Use the cascade model to continually train new providers and re-train all providers

Clinical practice environment; social/cultural/team

* HBB materials, resuscitators and bulb suction left behind for ongoing practice and placement of the simulator in the labour room where every provider had to document practice of basic skills including bag mask ventilation regularly. Selection of dedicated HBB midwives given the responsibility of short regular refresher trainings to ensure quality of care and local mentoring

Monitoring and quality improvement

* Ongoing data collection and reporting of outcome variable and biannual data overview meetings with midwives from all sites to discuss the process and specific needs

Adopted from "Resuscitation in resource-limited setting" in the Seminars in Fetal & Neonatal Medicine (2013) 1-6, H.L. Ersdal and N. Singhal

Towards 2015

At the September 2013 HBB GDA annual meeting, there was unanimous endorsement to continue the HBB GDA through 2015. All partners expressed their appreciation for working together towards the unified mission of reducing newborn mortality due to asphyxia. Below are words of support expressed by some partners:

"The job's not done yet… There is so much strength in togetherness... to stop now is inconceivable to me. When will newborn mortality go down? Coverage will move the needle. We must make newborn resuscitation the right of every baby. "

"This has been a transformative program. We must move forward – we must think of what lies ahead. This group has moved towards integration; resuscitation has opened the door to integration. Ensuring sustainability is critical. The momentum we have gained needs to be institutionalized. This means quality, health systems for impact."

"The GDA has given us an impetus to move forward. It has enabled us to get materials at cost; it has made possible engaging with AAP for quality improvement. "

"The partnership has been a remarkable shaking of the deck; it has fostered lumping rather than splitting… such remarkable inclusivity and lumping. We should pause and reflect why this has happened. This is relaxed inclusivity."

"We have achieved 10-20% penetration in "successful" countries... We need to do more. Innovation is not just about a product; it is about impact."

"A number of years ago, we were alone. This networking never existed before. Let's capitalize on each other's strengths."

"We should get more input from the Ministries of Health to take over more and more so that the program is sustainable and owned by the countries."

"The alliance is a three-legged stool; we need all three legs to keep the stool standing – the innovative equipment, the educational program, and the wobbly but extremely important program implementation... Going forward, we will need to focus on working with governments to integrate HBB in national plans, budgets, HMIS, and supply system, and working with providers for quality improvement.

HBB Training tools Wins Innovation Award

Laerdal Global Health (LGH) received the 2013 internationally prestigious Index Award for Design for Improved Life for the Natalie Collection; encompassing NeoNatalie Newborn Simulator, NeoNatalie Penguin Suction, and MamaNatalie Birthing Simulator. The jury focused on the impact already made by the Natalie Collection through the HBB and Helping Mothers Survive (HMS) programs.

Lifesaving Services at Birth in Uganda

With the Saving Lives at Birth grant, Jhpiego, AAP, LGH and a Ugandan NGO will increase the knowledge and skills of health workers in rural Uganda to tackle the two leading killers on the day of birth ; postpartum haemorrhage and birth asphyxia. These complications must be prevented and managed simultaneously and swiftly. Therefore, providers will be trained on both HBB and HMS followed by on-site low-dose high-frequency routine practice. Supervision via phone and SMS will further reinforce the intervention.


Essential care for every newborn facilitators in Kenya, July 2013

Essential Care for Every Newborn

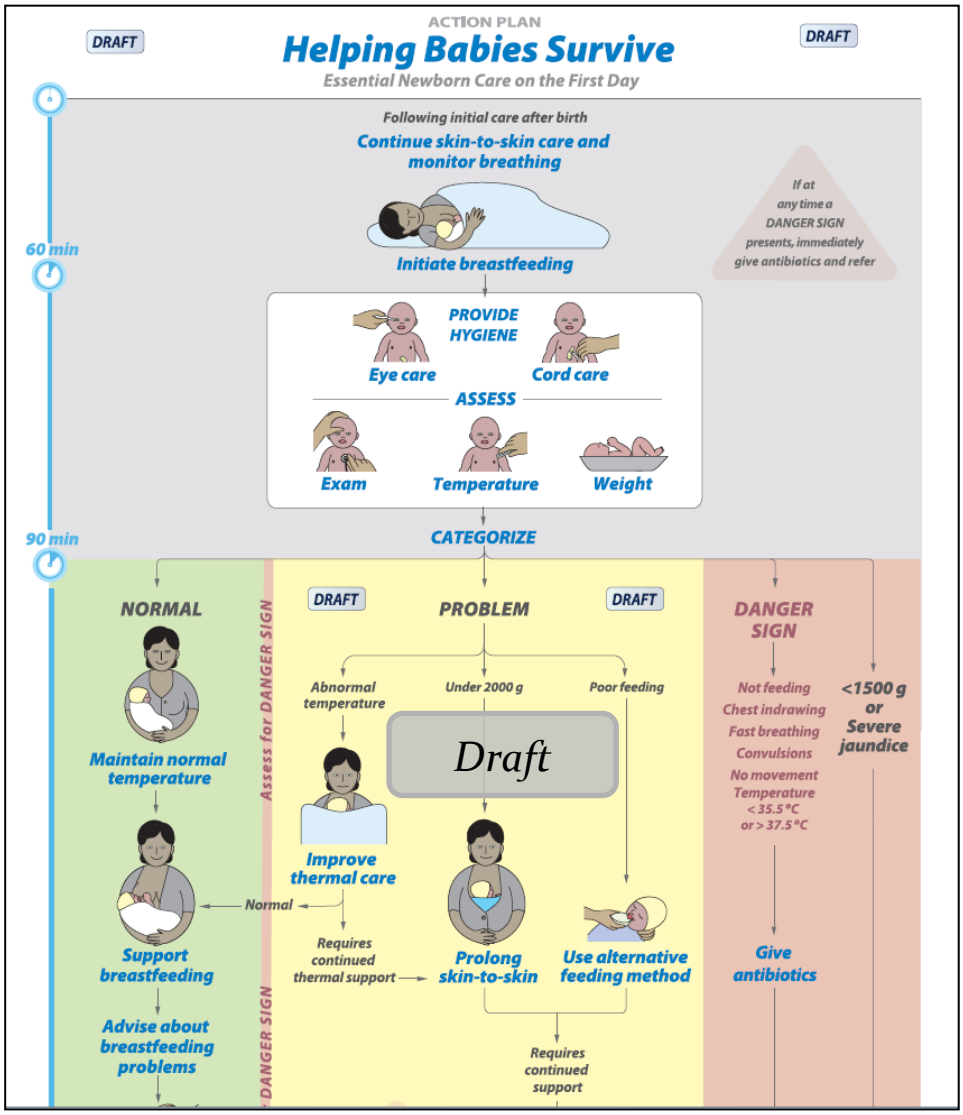
Worldwide, over 2.2 million newborns die annually in the first 7 days of their life. By introducing a comprehensive package that includes neonatal resuscitation and other essential elements of basic newborn care, it has been estimated it might be possible to decrease neonatal deaths by 50% or more. Consequently, AAP, in collaboration with international experts, has developed a simplified low fidelity educational program designed to prepare providers to deliver essential newborn care.

The content of this program is based on WHO guidelines for newborn care. The curriculum begins after immediate care at birth (e.g. resuscitation) and includes care that is typically delivered during the first day following birth or until the time of discharge from the birth facility. It assumes that resuscitation is taught using another program. The educational model and methodology is nearly identical to the HBB curriculum program. Therefore, it is best suited to be used as a companion with HBB.

The program was recently field tested in Kenya and India. The authors are working closely with the WHO to ensure that the content is consistent with their recommendations and that further testing and implementation is coordinated with their efforts. The final version of the Essential Care for Every Newborn is expected to be completed by end of 2013.

The program includes an Action Plan, Facilitator's Flip Chart, simulated skills practices, a Provider Guide, a Parent Guide, objective structured clinical evaluations (OSCEs) and a multiple choice question exam.

In addition, a similar educational program is under development to tackle preterm birth. The intention is to integrate this with the Essential Care for Every Newborn materials.



HBB HEROES!

Bangladesh: Fatema Quick to Act, Saves Baby Girl

"Before, I had to refer babies who did not breathe to higher facilities. Most of them likely did not survive. Now I can help them." – Nurse Fatema"

Fatema with Ruby and her baby girl at the UHC after 2 weeks.
Photo Credit: Mamun-Ur-Rashid

Ruby was pregnant with her second child. She planned to deliver the baby at home like the first baby. However, as she went into labour, she developed severe pain in her lower abdomen, and her mother took her to the Pachbibi Upazila Health Complex (UHC). There nurse received Fatema her. Fatema immediately sensed that the baby was in distress as she spotted meconium stains. As soon as the baby was born, Fatema noticed that the little girl was not breathing at all. Being trained on HBB just two days before, nurse Fatema dried and stimulated the baby. No response, the baby was still not breathing. She suctioned and started bag-mask ventilation. The first golden minute passed but still there was no response. The baby seemed lifeless. However, Fatema kept going for another 2-3 minutes and finally, the beautiful sound of a baby's cry was heard!

Fatema has conducted close to 2,000 deliveries in the last 10 years. Before being trained on HBB, she used to do mouth to mouth resuscitation which often failed, and she had no choice but to refer the cases to higher facilities. Fatema thinks that most of the cases she referred possibly did not survive the ordeal. After the HBB training, Fatema can identify the danger and act quickly, and turn the situation around to save lives of newborns.

Malawi: Helping Babies Breathe at the Mulanje District Hospital

"I'm proud to be a midwife and HBB provider" says midwife Agnes Namangale

November 29, 2012, during a busy overnight shift at the district hospital, midwife Agnes, district-based trainer in HBB and mentor for fellow midwives, was called to assist the two midwives on duty. Upon arriving in the labor ward, she found Doreen Mwale, 21, in labor. After three and half hours of labor, Doreen delivered a baby boy. But the baby was not crying nor breathing at birth. Agnes dried the baby thoroughly and wrapped him in a dry wrapper – but he still was not crying. . She stimulated the baby and using the penguin suction, she cleared the airway to remove secretions to prevent the baby from aspiration. The baby was breathing very irregularly. Agnes explained to the mother that the baby's condition needed further management. She began to ventilate the baby and he began to breathe normally and regularly. "I am proud to be a midwife. Agnes said. "Though the baby was not breathing I had confidence that I can resuscitate this baby. I did it and the baby is breathing and breast feeding well now. Helping Babies Breathe has made resuscitation of the newborn much easier than before."

Agnes Namangale, right, with Doreen and her newborn

The next day the baby and mother were discharged from the labor ward to the postnatal ward. Both mother and baby were doing fine.