

Helping Babies Breathe



Lessons learnt from introducing a newborn resuscitation program in LMIC

Utstein/GRA Meeting, Singapore Aug 1-2 2017 - Tore Laerdal, Laerdal Foundation



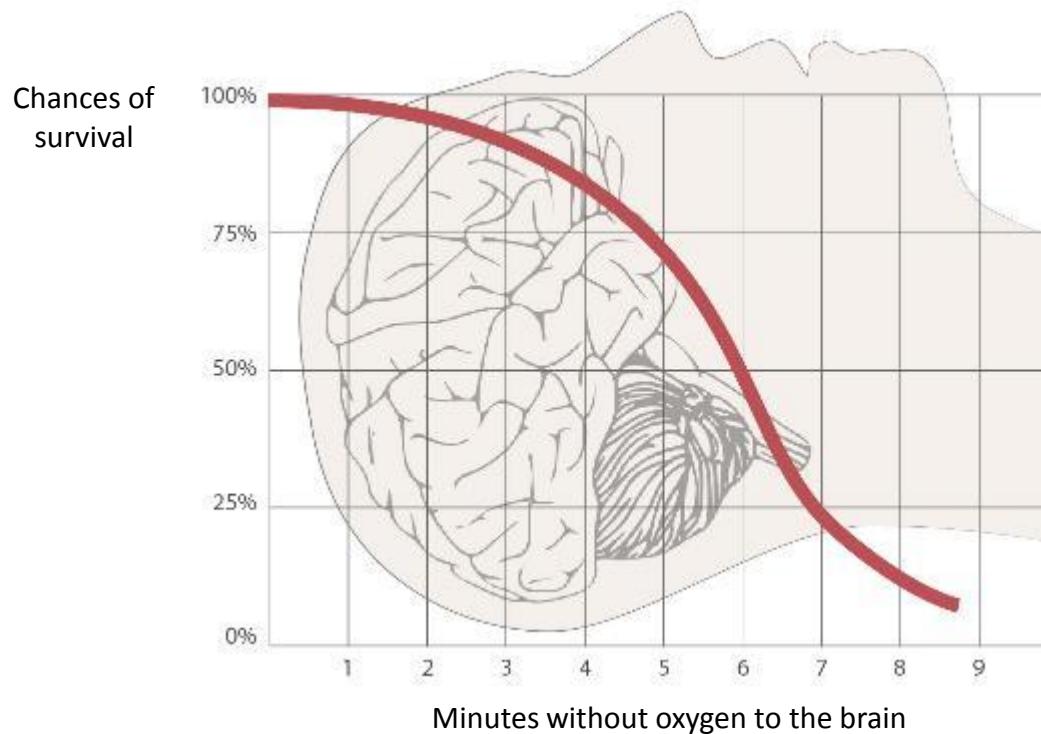
Video presenting Helping Babies Breathe



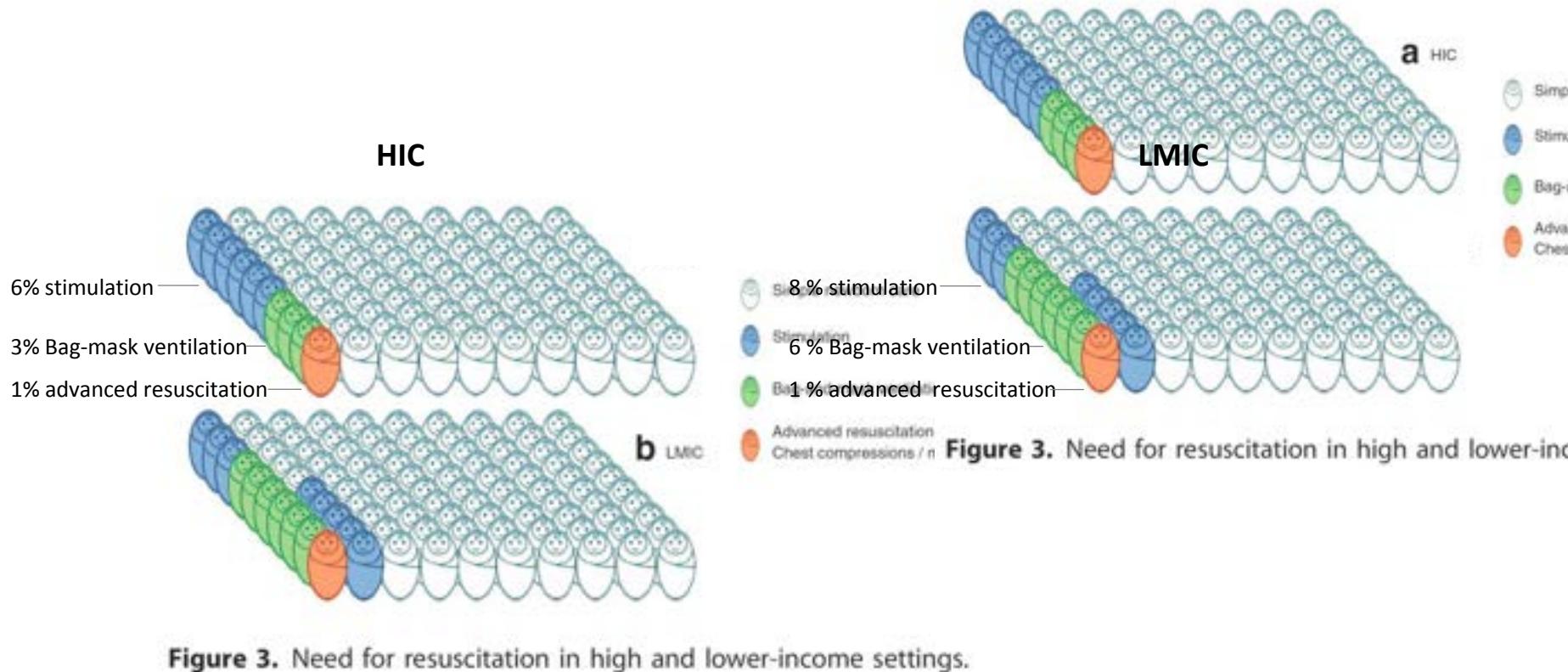
<https://www.youtube.com/watch?v=yi1ufccpVXU>

Restoring oxygen supply to the brain

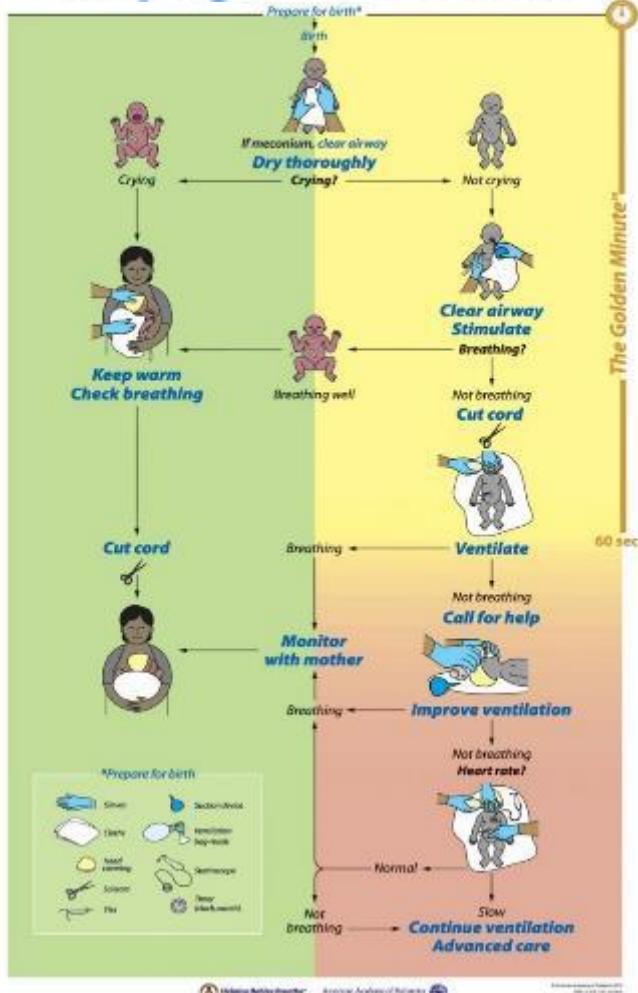
Same need for asphyxiated babies and OHCA victims



What helps asphyxiated babies breathe ?



Helping Babies Breathe





potential of
50% reduced early
mortality¹⁾

1) Based on four studies from Tanzania, Nepal, Uganda and Ghana;
<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.1017807>

The Chain of Survival

"It takes a system to save a life."



Local Solutions for Local Problems

Low income Rural Settings



Haydom, Tanzania

Medium income Urban Settings



Malawi



China, Shanghai



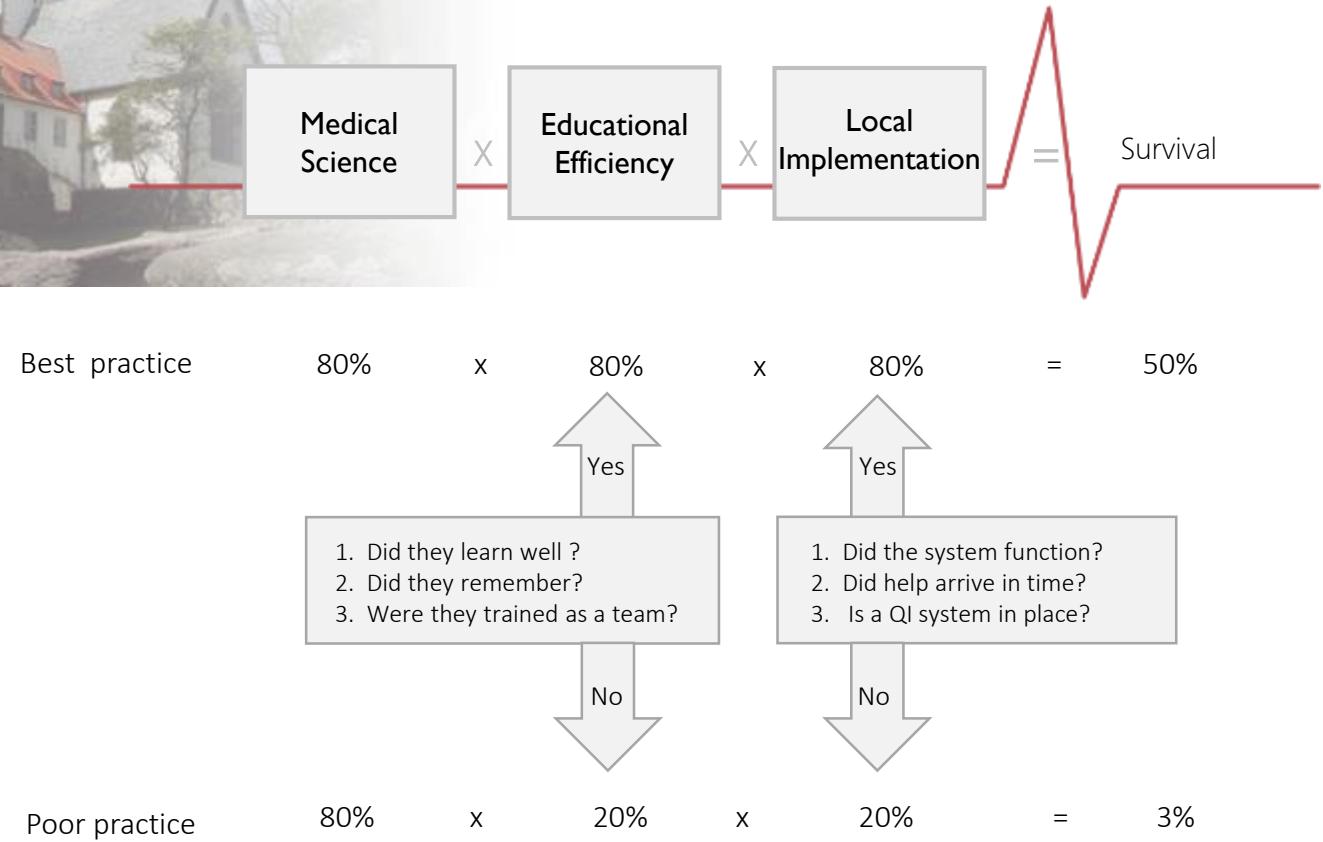
Uganda



India, EMRI - GVK



The Utstein Formula of Survival



Improving Survival from Out-of-Hospital Cardiac Arrest:



A Call to Establish a Global Resuscitation Alliance



Global
Resuscitation
Alliance

Best Practice

10 Steps to Increase Survival from OHCA in HIC

1. Cardiac arrest registry
2. Telephone CPR for more and better CPR
3. High performance EMS CPR
4. Rapid dispatch
5. CPR performance data
6. First responder AED programs
7. Smart technologies to expand CPR and PAD
8. CPR/AED training in schools and the community
9. Accountability
10. Work towards a culture of excellence

<https://foundation915.files.wordpress.com/2016/07/a-call-to-establish-a-global-resuscitation-alliance-2016.pdf>

RESEARCH ARTICLE

Successful implementation of Helping Babies Survive and Helping Mothers Survive programs—An Utstein formula for newborn and maternal survival

Hugo L. Erstad^{1*}, Nalinie Singhal², Georgina Blasberg³, Joseph KOT⁴, Benedicto Soe⁵, Nandan T. Mayya⁶, Charlene L. Evans⁷, Jeffrey Smith⁸, Jeffrey M. Perlman⁹, Susan Nsimwemayi¹⁰, on behalf of the participants in the Utstein consensus process: How to implement successful Helping Babies Survive and Helping Mothers Survive programs

¹ Department of Anesthesiology and Intensive Care, Haukeland University Hospital, Bergen, Norway, ² Division of Neonatology, University of Oregon, Eugene, Oregon, ³ Paediatric and Neonatal Health Services, Ministry of Health and Social Services, Cayo de Agua, Tumaco, ⁴ Department of Women's and Children's Health, Lahey Hospital and Medical Center, Burlington, Massachusetts, ⁵ Institute of Gastroenterology, Hepatology, and Endocrinology, Universitas Indonesia, Depok, Indonesia, ⁶ Institute SPRINT, Ulsan, South Korea, ⁷ International Conference of Institutes, Havana, Cuba, ⁸ George Washington University, Washington, D.C., United States, ⁹ International Conference of Institutes, Havana, Cuba, ¹⁰ Department of Pediatrics, University of Colorado School of Medicine, Colorado, Aurora, Colorado, United States of America

* hugo.erstad@helsebr.no

Abstract

Globally, the burden of deaths and illness is still unacceptably high at the day of birth. Annually, approximately 300,000 newborns die related to birth complications, 2.7 million babies die within their first month of life, and 2.8 million babies are stillborn. Many of these fatalities could be avoided by better, but prompt care. If birth complications around the world had the necessary skills and comprehensiveness to manage life threatening complications around the time of birth, thus, the innovative Helping Babies Survive (HBS) and Helping Mothers Survive (HMS) programs emerged to meet the need for more practical, low-cost, and low-tech simulation-based training. This paper presents lessons of HBS and HMS programs—a 10-point list of key implementation steps to create sustainable impact, leading to increased survival of newborns and babies. The list evolved through an Utstein consensus process, involving a broad spectrum of international experts within the field, and can be used as a guide to plan processes in low-resource countries. Successful implementation of HBS and HMS training programs require country-led commitment, readiness, and follow-up to create local accessibility and ownership. Each country has to identify its own gaps and define realistic service delivery standards and patient outcome goals depending on available financial resources for dissemination and sustainment.



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Babes University Hospital, Bergen Hospital, University Hospital, Norway

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Best Practice

10 steps for Helping Babies Breathe in LMIC

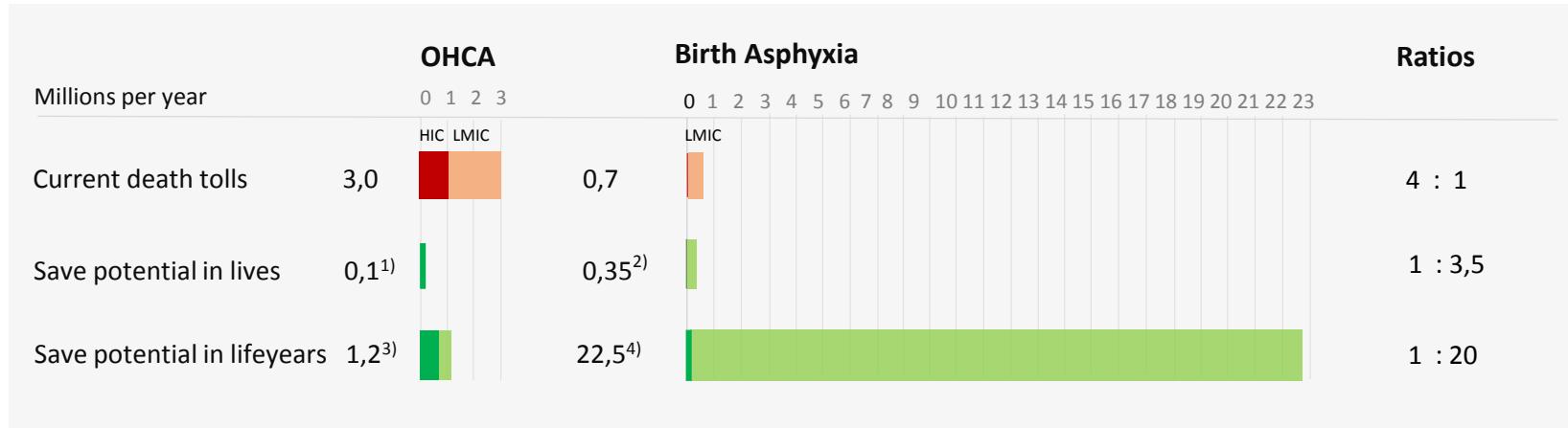
1. Secure Ministry of Health buy-in
2. Form a working group for planning, training and monitoring
3. Develop national roll-out plan, for pre-service and in-service training, in both public and private sector
4. Provide learning materials & equipment at time of training
5. Identify and support local leaders and champions
6. Establish Low Dose High Frequency refresher training
7. Establish facility level QI teams
8. Monitor performance
9. Establish a system for reporting and feedback
10. Engage HCPs, families and the broader community

A photograph showing the back view of a woman wearing a red short-sleeved shirt and a patterned green and red wrap around her waist. She is carrying a young child on her back, who is wearing a white shirt. The woman has a white cloth wrapped around her head. The background is a plain, light-colored wall.

In Summary

1. *Helping Babies Breathe* is a culturally adapted newborn resuscitation program that has been successfully introduced in 80 LMIC.
2. Studies in four countries show that when well implemented the program can reduce early newborn mortality by 50 %.
3. Lessons learnt have been summarized in an Utstein paper that also has established a 10 step Best practice for implementation of the program

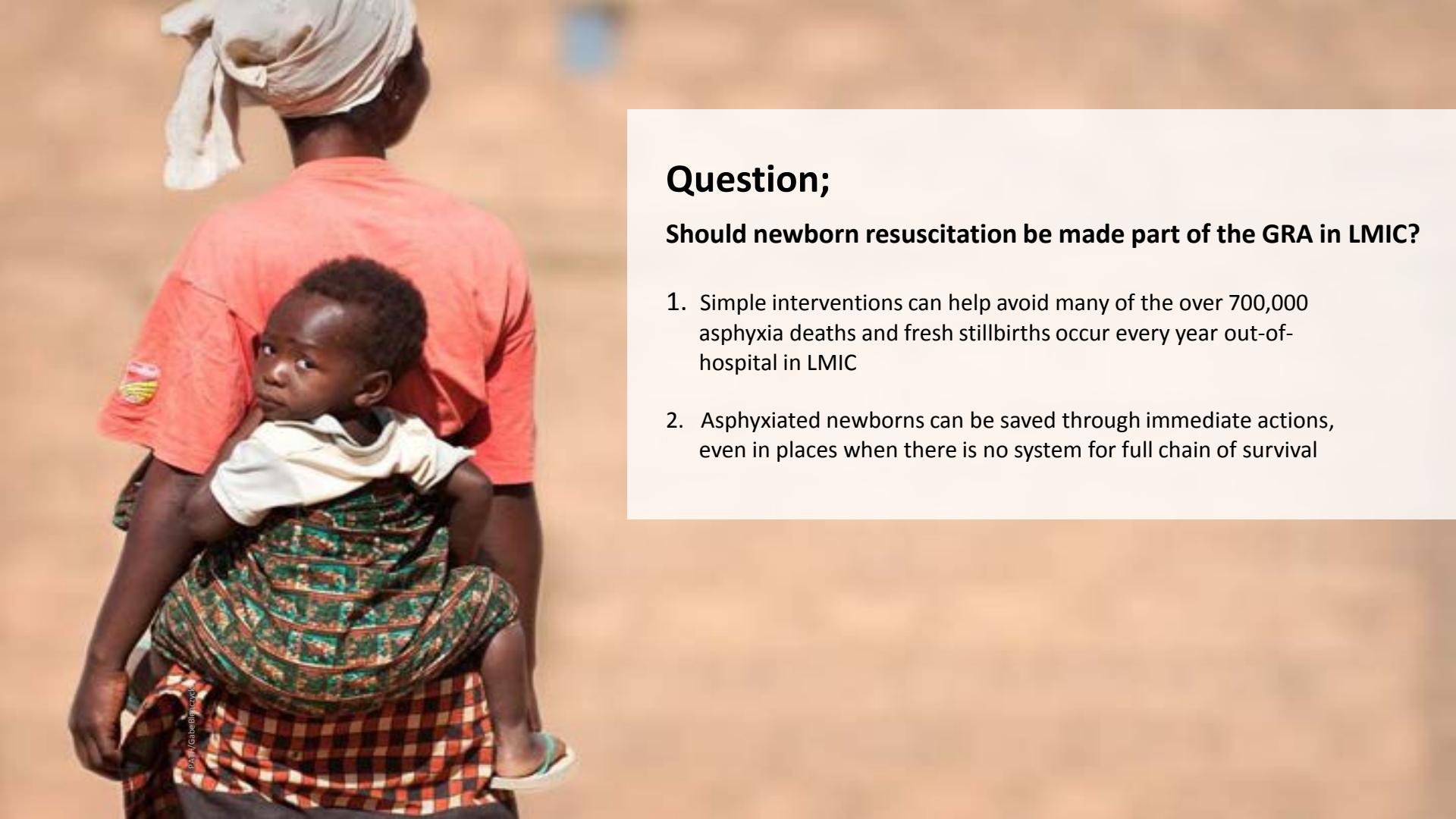
Save Potential from Birth Asphyxias vs. OHCA



Assumptions:

- 1) Increasing current survival in HIC from 10 to 15% , per goal of GRA, and assuming increase in survival from 1 to 3,5% in LMIC
- 2) Reducing early mortality rate by 50% with quality implementation of HBB, per published studies in Tanzania, Nepal, Uganda and Ghana
- 3) 12 extra lifeyears saved per patient
- 4) 70 extra lifeyears per patient

Note: The Lancet Stillborn Series (Jan2016) reports that half of the 2,6 mill stillborn have a cardiac activity during labor, and possibly would have been more correctly classified as birth asphyxia. If we assume that 25% of these “fresh stillborn” (= birth asphyxia) could be saved per the studies in Tanzania, Nepal, Uganda and Nepal, the ratios for save potential would approx. have doubled in favour of birth asphyxia, to 1 : 7 and 1 : 40

A photograph showing the back of a woman wearing a white headwrap and a red t-shirt. She is carrying a young child on her back in a traditional cloth wrap. The child is looking over their shoulder. They are walking through a dry, sandy landscape. A small logo is visible on the sleeve of the woman's t-shirt.

Question;

Should newborn resuscitation be made part of the GRA in LMIC?

1. Simple interventions can help avoid many of the over 700,000 asphyxia deaths and fresh stillbirths occur every year out-of-hospital in LMIC
2. Asphyxiated newborns can be saved through immediate actions, even in places when there is no system for full chain of survival