

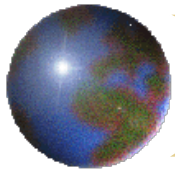
The Challenge of Reducing Global Neonatal Mortality



American Academy
of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN™

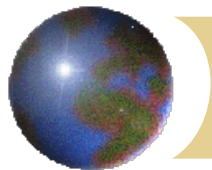


Helping Babies Breathe

Mission:

To develop and implement an evidence-based curriculum, adaptable to clinical and training use wherever babies are born

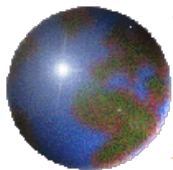




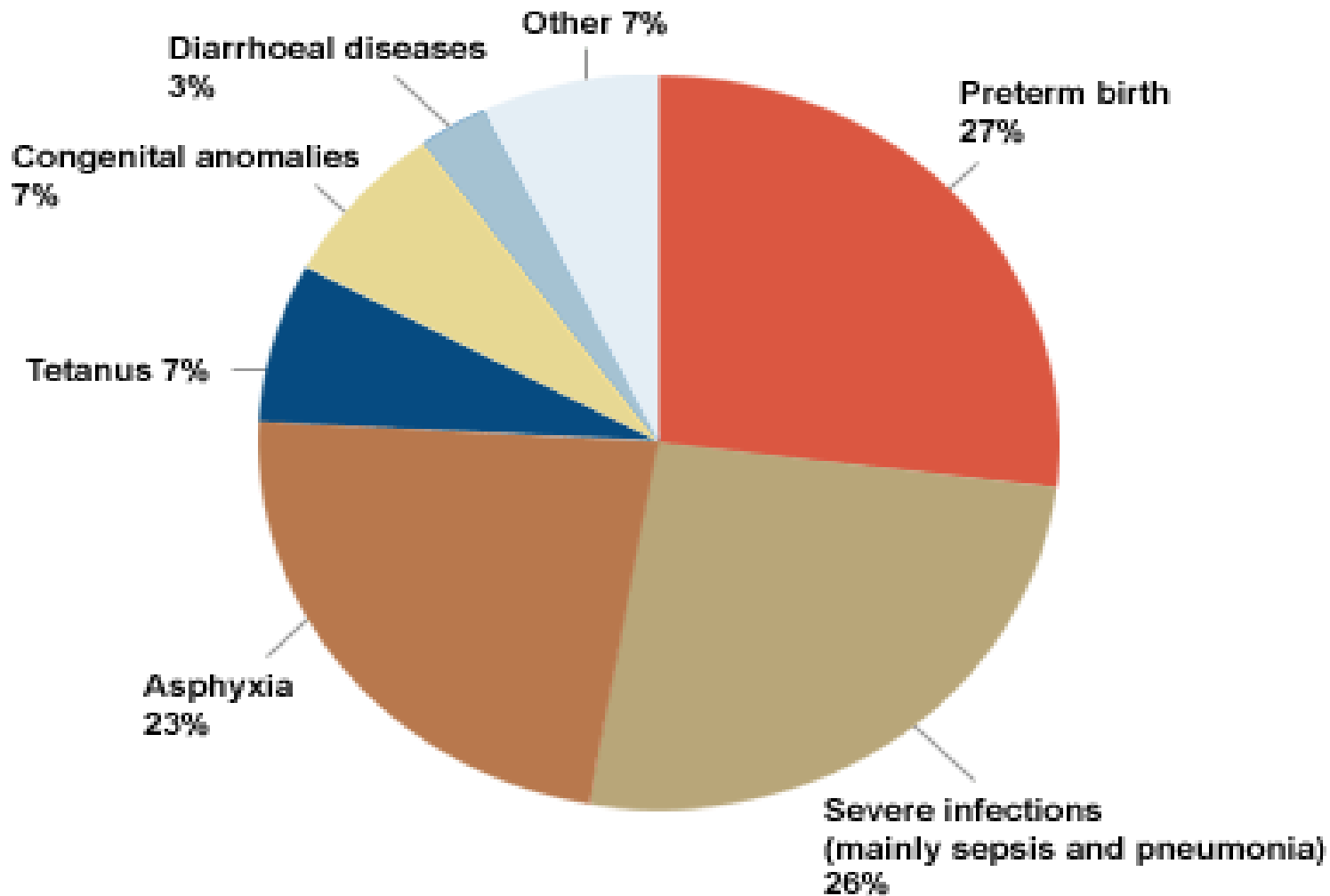
Helping Babies Breathe





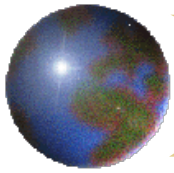


Global causes of neonatal death

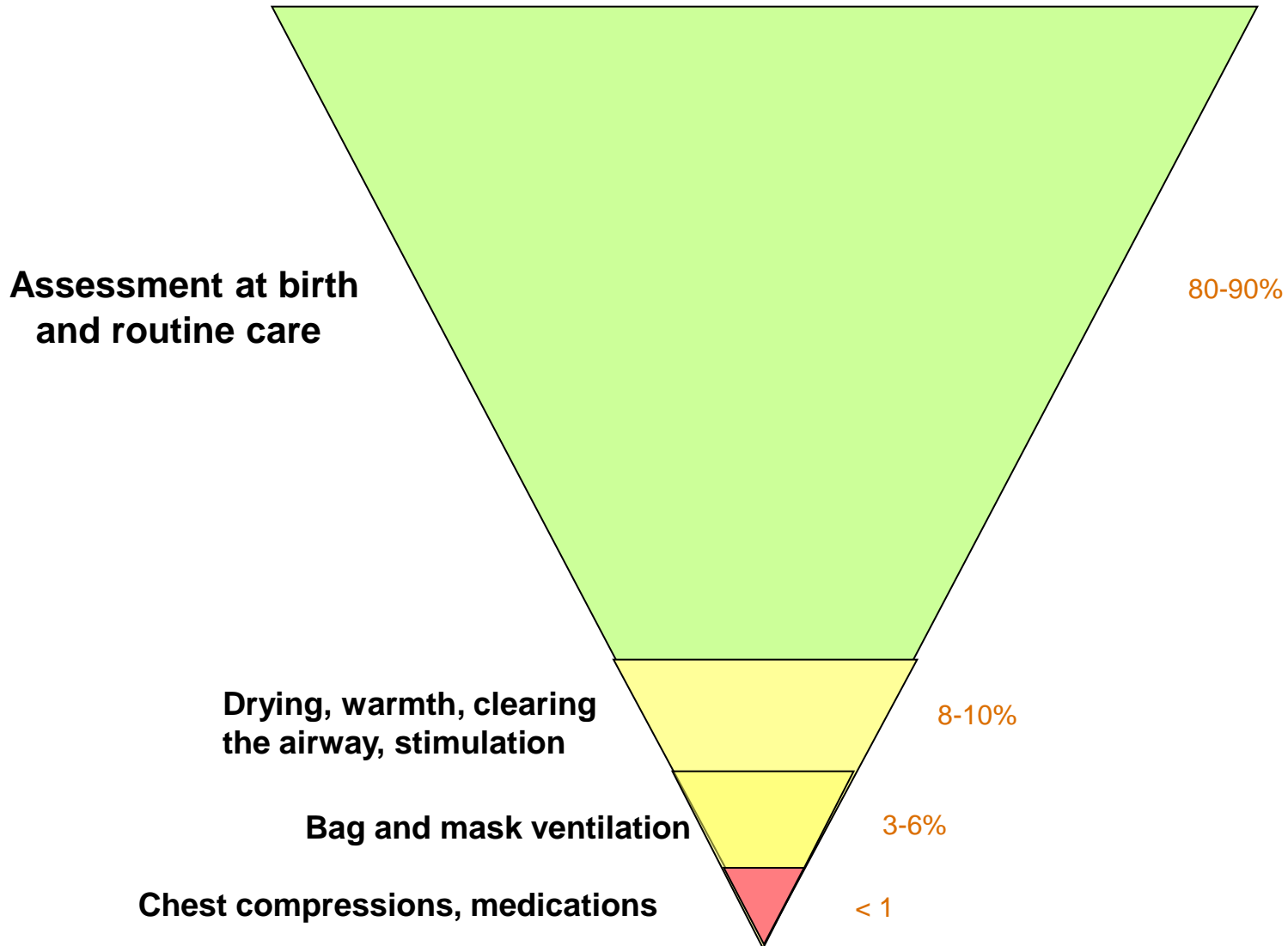


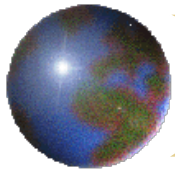
UNICEF 2007

Lee ACC, Wall SN, Cousens S et al. Int J Epidemiol.



Need for help to breathe at birth

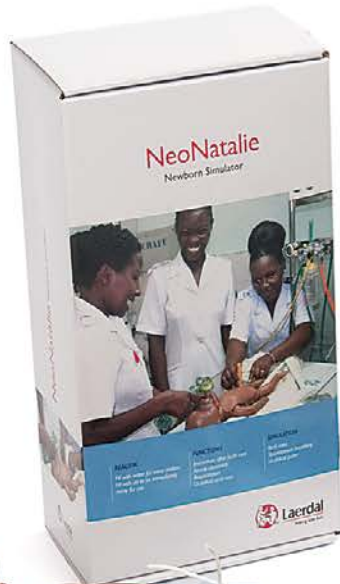




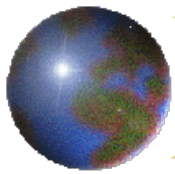
Helping Babies Breathe

Educational Toolkit

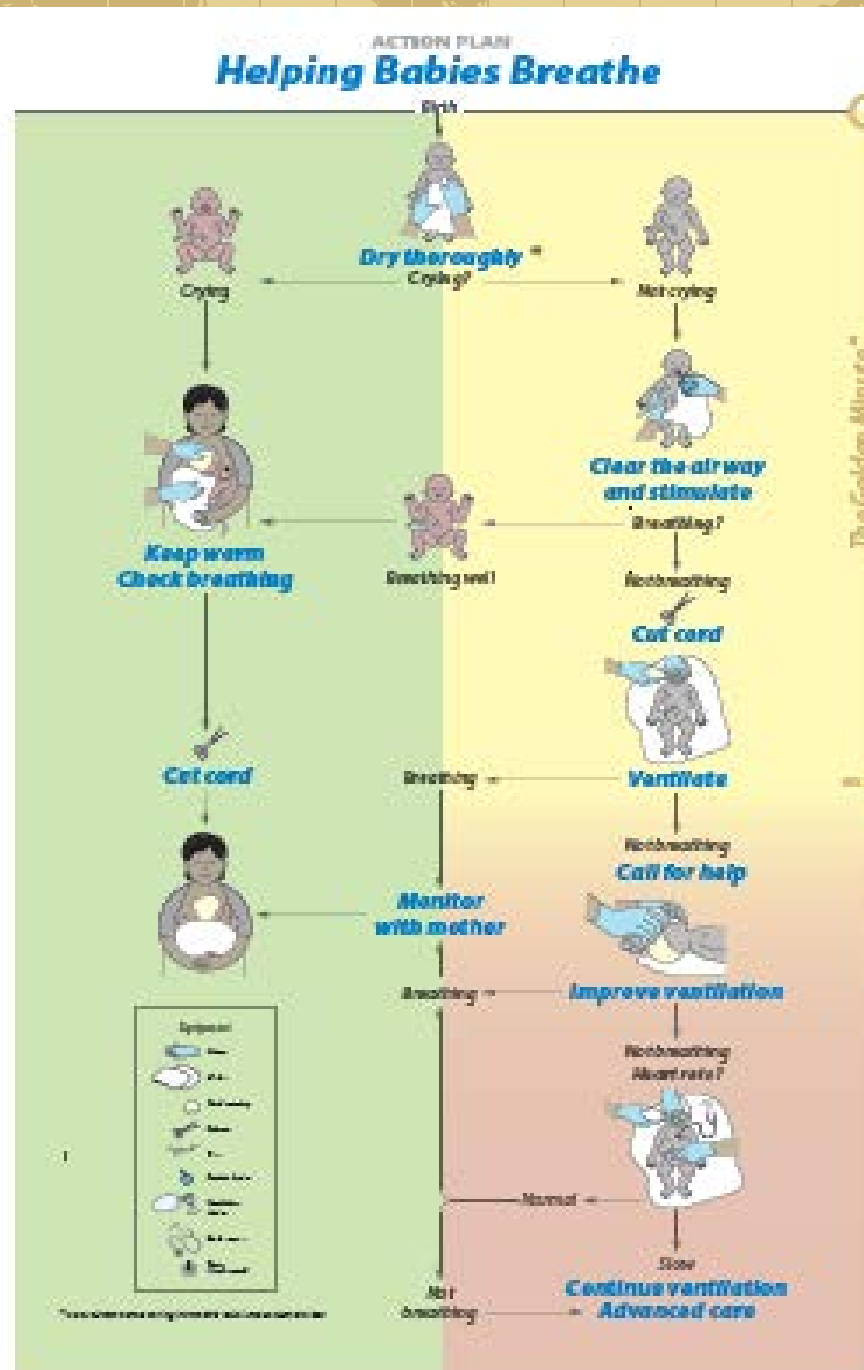
- ✦ Action plan
- ✦ Facilitator flipchart
- ✦ Exercises with neonatal simulator (low-cost mannequin)
- ✦ Learner workbook
- ✦ Performance evaluation (OSCE)
- ✦ Written/verbal evaluation
- ✦ Video (under development)

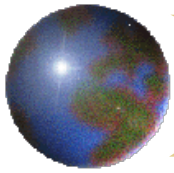






Action Plan



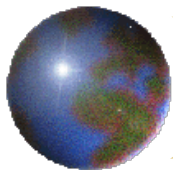


Facilitator flip chart

Helping babies breathe

Evaluation after drying
Is the baby crying?

3



Learner workbook

As a skilled birth attendant, you make the difference

Notes

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.....

Why is it important to have a skilled attendant at every birth?
As a birth attendant skilled in helping babies breathe, you can protect the health and save the lives of babies. You must be present at birth and prepared to take immediate action in order to achieve this goal.

How can a skilled birth attendant make a difference?
A skilled birth attendant can help make the delivery process clean, safe, and caring. Good hand washing is important to prevent infection. All equipment and supplies must be clean. Equipment to help a baby breathe should be available at every birth. The birth attendant can direct the birth companion or another helper how to assist with care of the baby.

Check yourself
Mark the box beside the best answer

When should a skilled person be present at a birth?

Only if problems occur

At every birth

A baby is not crying at birth. He is silent and shows no movement. What should you do?

Do nothing. The baby is dead.

Provide help to breathe.

Follow the Action Plan
Find the Action Plan, on page 30 of this workbook. Use the Action Plan to follow the steps in helping babies breathe.

Decision at birth
Is the baby crying?

Notes

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How do you evaluate the baby at birth?
About 1 in 10 babies needs help to breathe. Rapid assessment at the moment of birth is the best way to know if a baby needs help to breathe. Ask this question immediately after delivery: *Is the baby crying?*

How do you decide what care the baby needs?

The baby who is crying needs routine care.
Most babies cry at birth. Crying means a baby is breathing well. Crying is possible when large amounts of air move in and out of the lungs. The crying baby usually will be moving arms and legs and will have good muscle tone. After crying for some seconds, a baby may stop crying and begin to breathe quietly and regularly. A baby may also continue to cry for some time.

A baby who does not cry needs help to breathe.
A baby who is not crying may be limp and listless and the skin may be pale or bluish. A baby who is breathing shallowly, gasping, or not breathing at all needs the initial steps of help to breathe. Prompt attention will increase the chance of a good response. If no help is given to a baby who is not breathing, that baby may die or suffer serious injury.

Check yourself
Mark the box beside the best answer

A baby cries after birth and then breathes quietly and regularly. What should you do?

Give routine care.

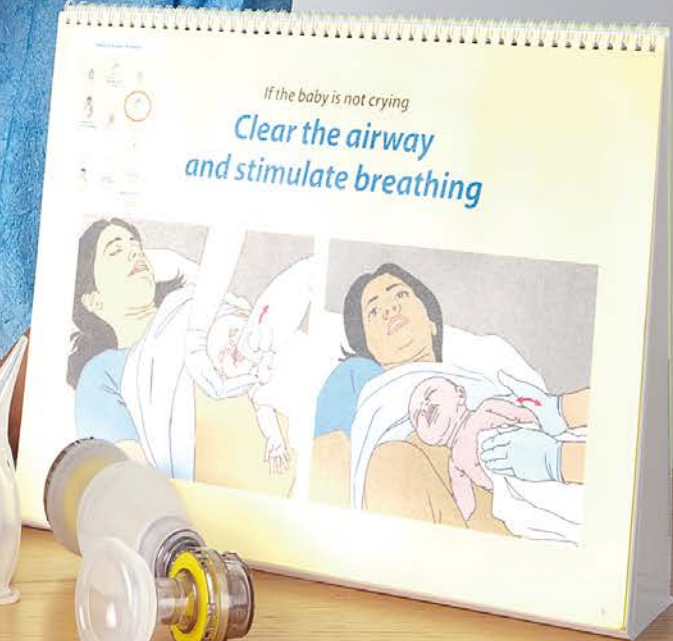
Provide the initial steps to stimulate breathing.

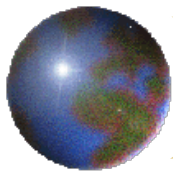
A baby is not crying at birth. He takes one breath. What should you do?

Give routine care.

Provide the initial steps to stimulate breathing.

Follow the Action Plan
The Action Plan acts as a guide to the questions you ask, the decisions you make, and the actions you take to help a baby breathe. Identify the baby who is crying and the baby who is not crying on the Action Plan.





Exercises – performance skills

Exercise 3: Ventilation with normal heart rate

Present the scenario:

"A baby is born.
She is not crying.
You stimulate breathing,
but the baby still does not
breathe. You begin ventilation
with bag and mask
What will you do next?"

Ask the birth attendant to demonstrate

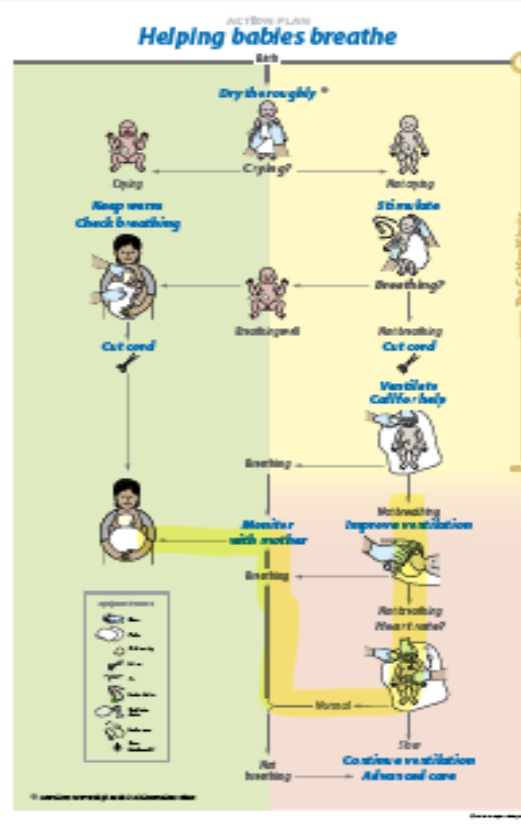
appropriate assessment, care and
treatment on the baby simulator.

Indicate the baby's condition

both at the outset and in response
to actions taken by the birth
attendant.

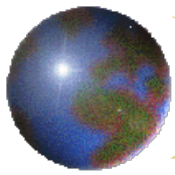
Check birth attendant's performance

by ticking boxes for taking relevant
action steps, adding brief com-
ments as necessary.

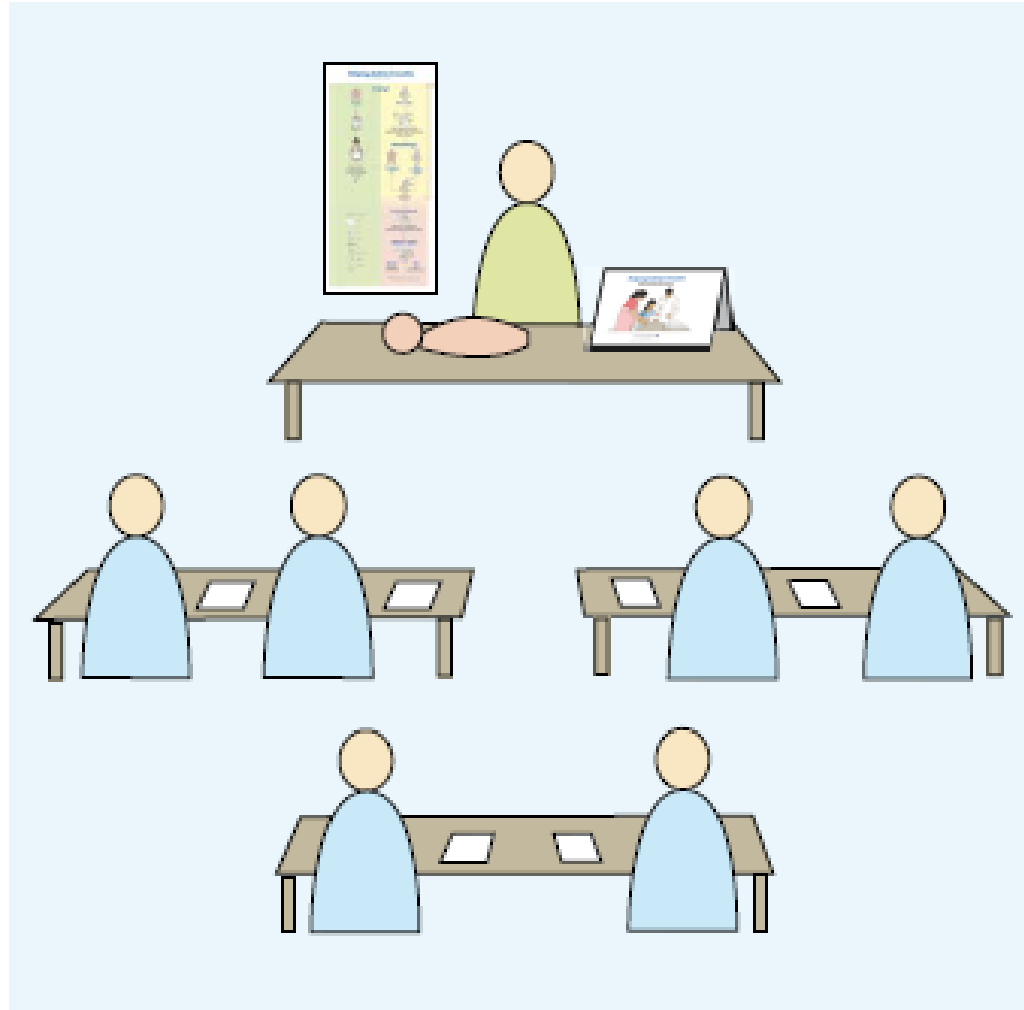


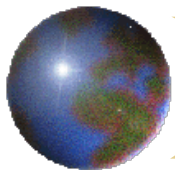
3. Ventilation with normal heart rate

- Recognized not breathing well.
.....
- Provided improved ventilation.
.....
- Recognized still not breathing well.
.....
- Checked heart rate.
.....
- Recognized normal heart rate.
.....
- Recognized breathing well now.
.....
- Positioned baby on mother's stomach for monitoring.
.....



Helping Babies Breathe Exercises

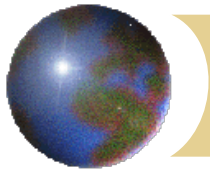




Helping Babies Breathe

Teaching and learning in pairs

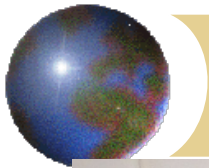




Helping Babies Breathe

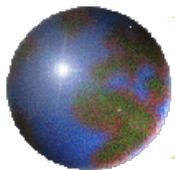
Emphasis on Adult Learning

- ✚ Variety of learning styles
 - ✚ Verbal, visual (pictorial), experiential
- ✚ Participatory, experience-based
 - ✚ Questions for Discussion
- ✚ Practice of psychomotor skills
 - ✚ Performance Exercises
- ✚ Case-based practice and evaluation
 - ✚ Objective Structured Clinical Evaluation (OSCE)

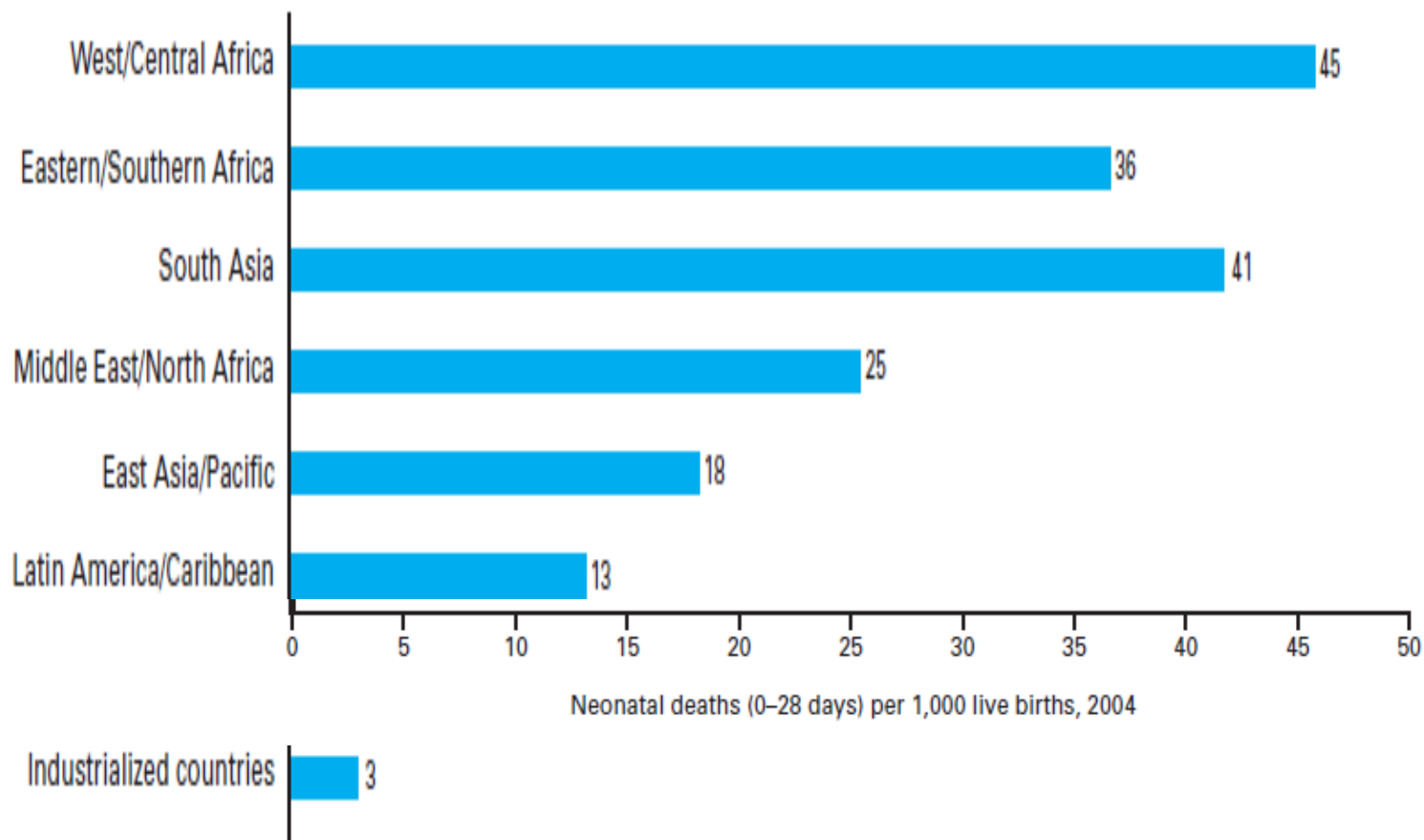


HBB Uganda class

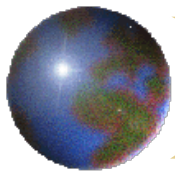




Regional neonatal mortality



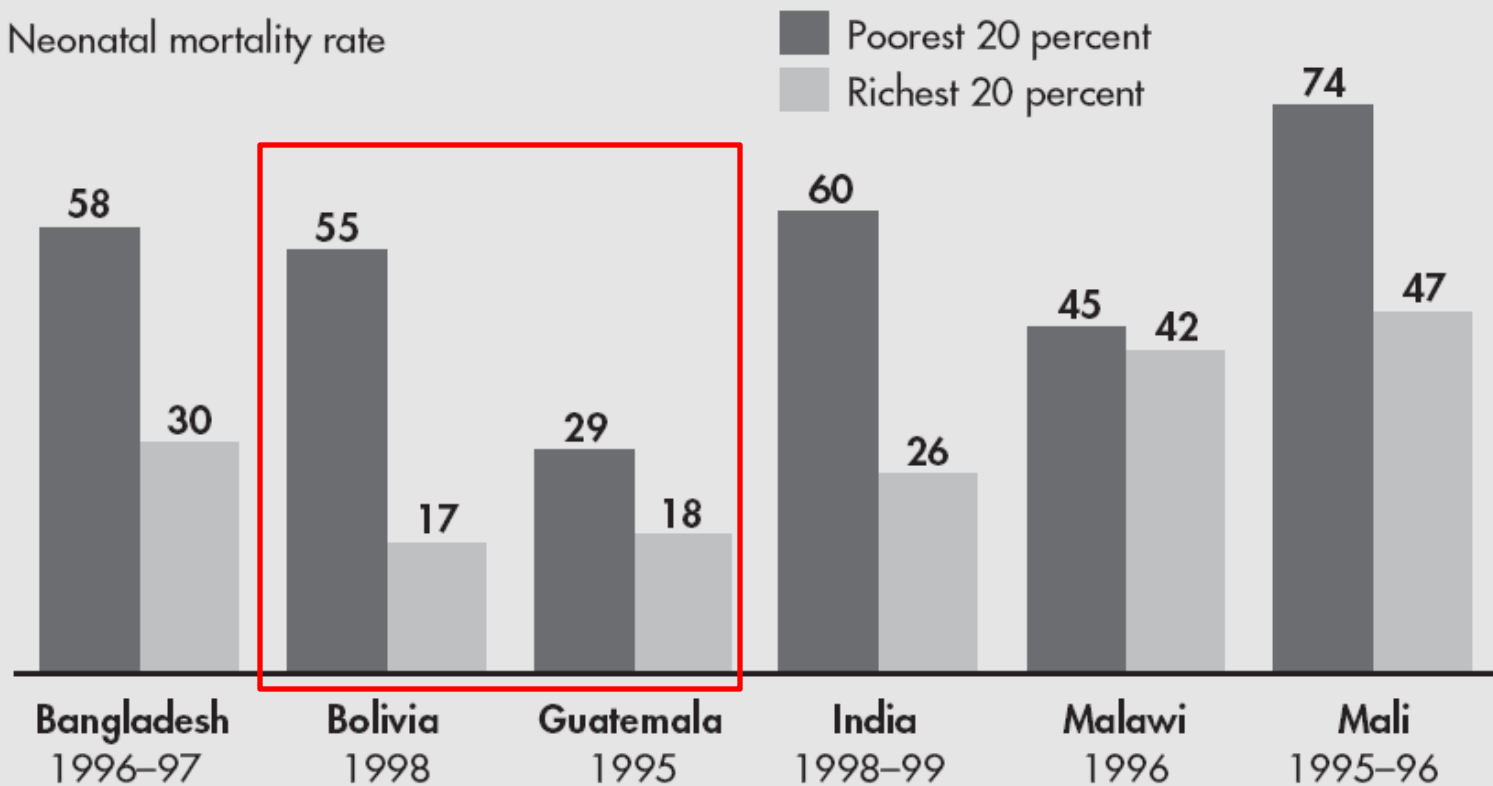
UNICEF, State of the World's Children 2009



Health disparities

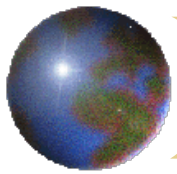
Neonatal Mortality Rates for Poorest and Richest Wealth Groups, Selected Countries

Neonatal mortality rate

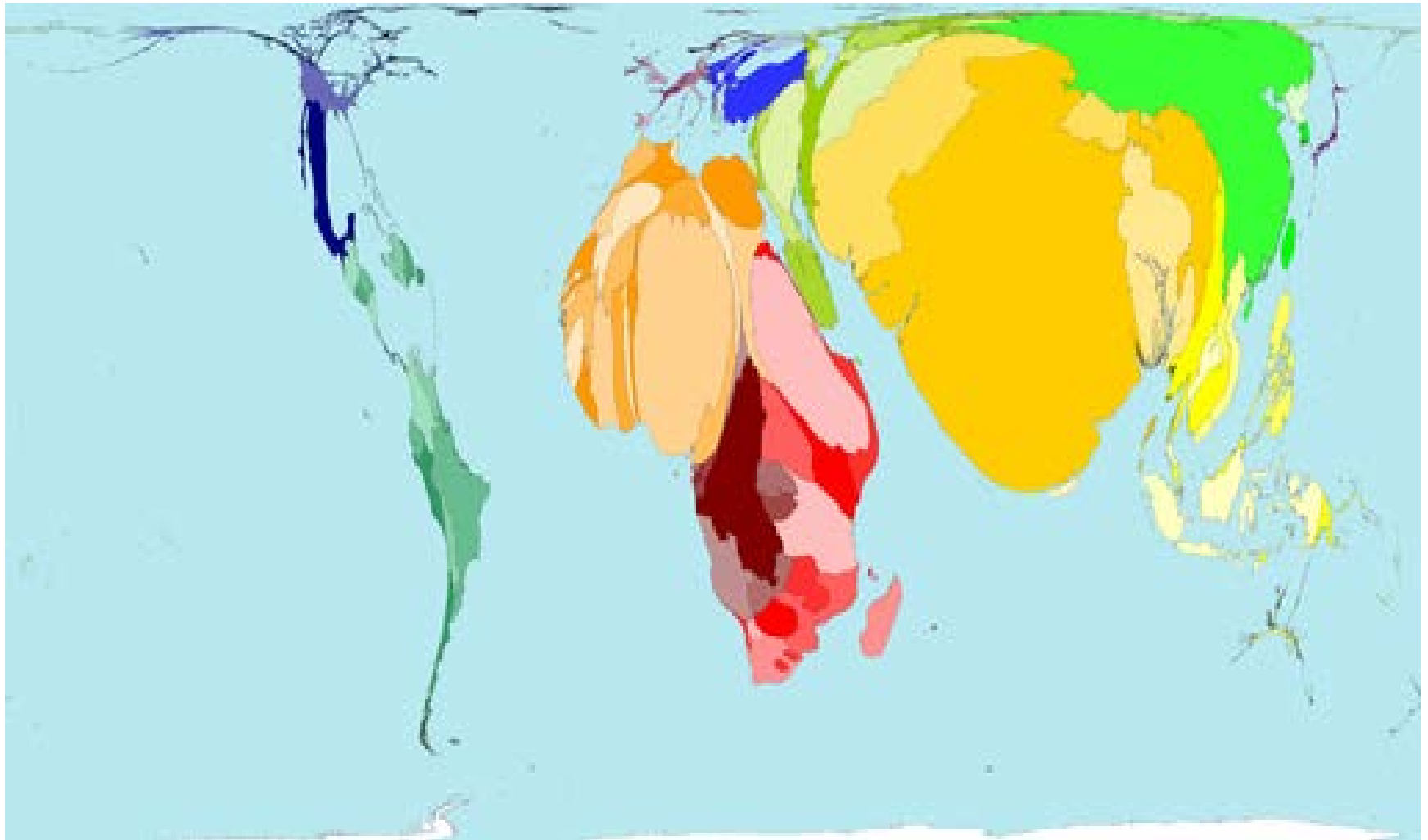


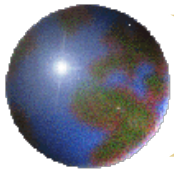
SOURCE: ORC Macro, *Demographic and Health Surveys*. Analysis by Shea Rutstein.





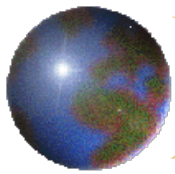
Early neonatal deaths





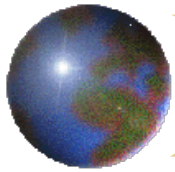
HBB Uganda class





HBB Tanzania class

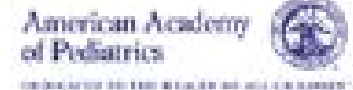


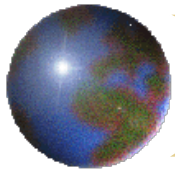


Global Development Alliance (GDA)

- ✦ American Academy of Pediatrics
- ✦ US Agency for International Development
- ✦ Saving Newborn Lives/Save the Children
- ✦ Eunice Kennedy Shriver National Institute of Child Health and Human Development
- ✦ Laerdal Global Health
- ✦ Johnson & Johnson
- ✦ Latter Day Saint Charities

A Global Public-Private Alliance





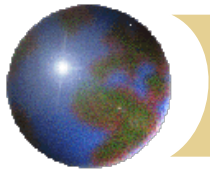
Global Development Alliance (GDA)

✦ **Overall Objective**

- ✦ Reduce newborn mortality due to birth asphyxia in UN Millennium Development Goal countries

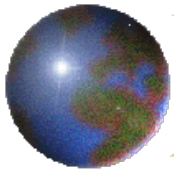
✦ **Guiding Principles**

- ✦ Inclusiveness and collaboration
- ✦ Country-owned and country-led
- ✦ Integration with maternal & essential newborn care
- ✦ Shared goal, results, and recognition
- ✦ Brand non-exclusivity



Implementation

- ✦ 34 countries; 24 with USAID support
- ✦ Arabic, Bangla, Cambodian, Dari, French, Mongolian, Pashto, Portuguese, Spanish, Swahili, and Thai translations
- ✦ Partnership Examples
 - ❑ Kenya – NICHD, AAP, J&J, Kenya Pediatric Society, Moi University, NICHD, MCHIP
 - ❑ Cambodia – USAID, RACHA, LDSC, URC



HBB Kenya Master Trainers





Evidence base and evaluation

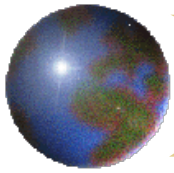
- ✦ **Scientific evidence base**
 - ▣ International consensus on science (ILCOR)
 - ▣ Revision every 5 years

- ✦ **Harmonization with international health policy**
 - ▣ WHO technical expert review

- ✦ **Formative evaluation of content/methodology**
 - ▣ Field testing – Kenya, Pakistan, Tanzania, India, Bangladesh

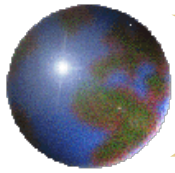






*Empowerment
of community
health
professionals
and families*



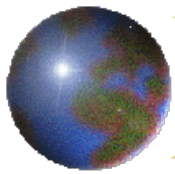


Community health workers

Training new cadres in the health system



Bang AT et al. J Perinatol 2005; 25:S72



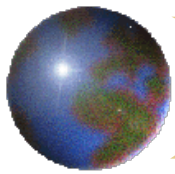
Traditional birth attendants

Linking to the health system



Carlo W. NEJM 2010

www.plenty.org



HBB Kenyan Master Trainers



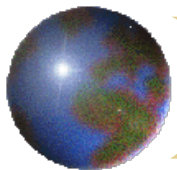


Clinical outcomes

- ✚ ↓ death at 24 hours among babies not breathing at birth (RR = 0.46) with no change in stillbirths - Tanzania
 - ▣ N=6928/7277 pre/post training

- ✚ ↓ stillbirths (RR = 0.73) with no change in neonatal deaths – India
 - ▣ N=4173/5427 pre/post training





www.helpingbabiesbreathe.org



**NBL
HNB
HOG**

