



# Birth kits - review of progress to date

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*On behalf of*  
*"Birth Kits Working Group"*

Meeting 2  
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**Special thanks to Dr Joy Lawn, Dr Hannah Blencowe,  
Dr Bilal Avan, Dr Vanora Hundley, Dr Claudia Morrissey, Dr Steve Wall,  
& participants at Clean Births Kits March 2010 workshop.**

**Maternal Health Taskforce and Norwegian Government**





# Outline

1. Purpose
2. Evidence overview  
(policy brief)
3. Meeting 1 objectives,  
products and progress



# 1. Purpose



# Global context

## Focus on care at birth

- Size of problem
- Slow progress

## Country demand

- Need for commodities
- Need to act for home births

## Global policy/donor interest

- What is “bed net equivalent” for care at birth?
- New interventions interest (eg chlorhexidine, misoprostil)

Commodities  
for care at  
birth

Facility birth  
(75 million)

Skilled attendant  
at home birth  
(10 million)

Home birth  
(50 million)



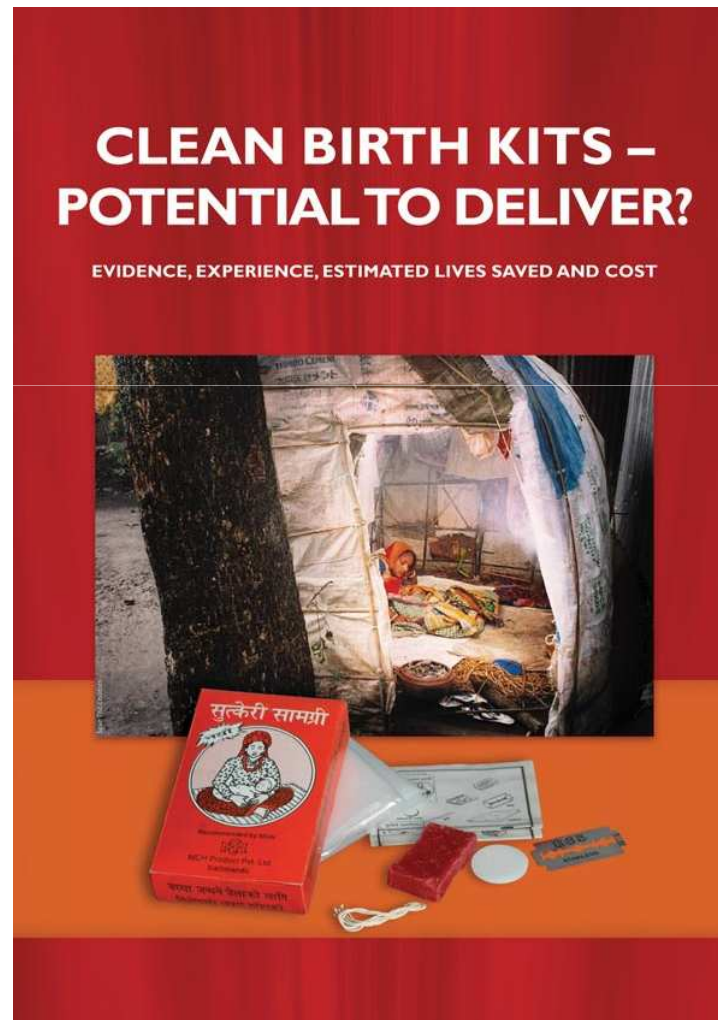
# **Overall objectives for 2010 series of meetings regarding birth kits**

1. Assess the evidence-base on clean birth kits (CBK) for mother & newborn
2. Review implementation experiences, including clean birth kit content and methods of distribution
3. Translate the evidence and experience into recommendations for policy, programs and advocacy, with links to the wider context of MNCH packages
4. Identify remaining priority gaps in the evidence-base & design options for addressing these
5. Create an effective technical network to strengthen the evidence-base

# Products & outcomes in 2010:

1. Evidence reviews (scientific papers) of effects of clean birth practices and kits on maternal and neonatal outcomes, and modelled lives saved and costs
2. Syntheses of implementation experiences with clean birth kits;
3. Technical briefs summarising the evidence and experience for policy, programmes and advocacy;
4. List of priority evidence gaps with phased work plan & designs to address these;
5. South-North community of practice/network.

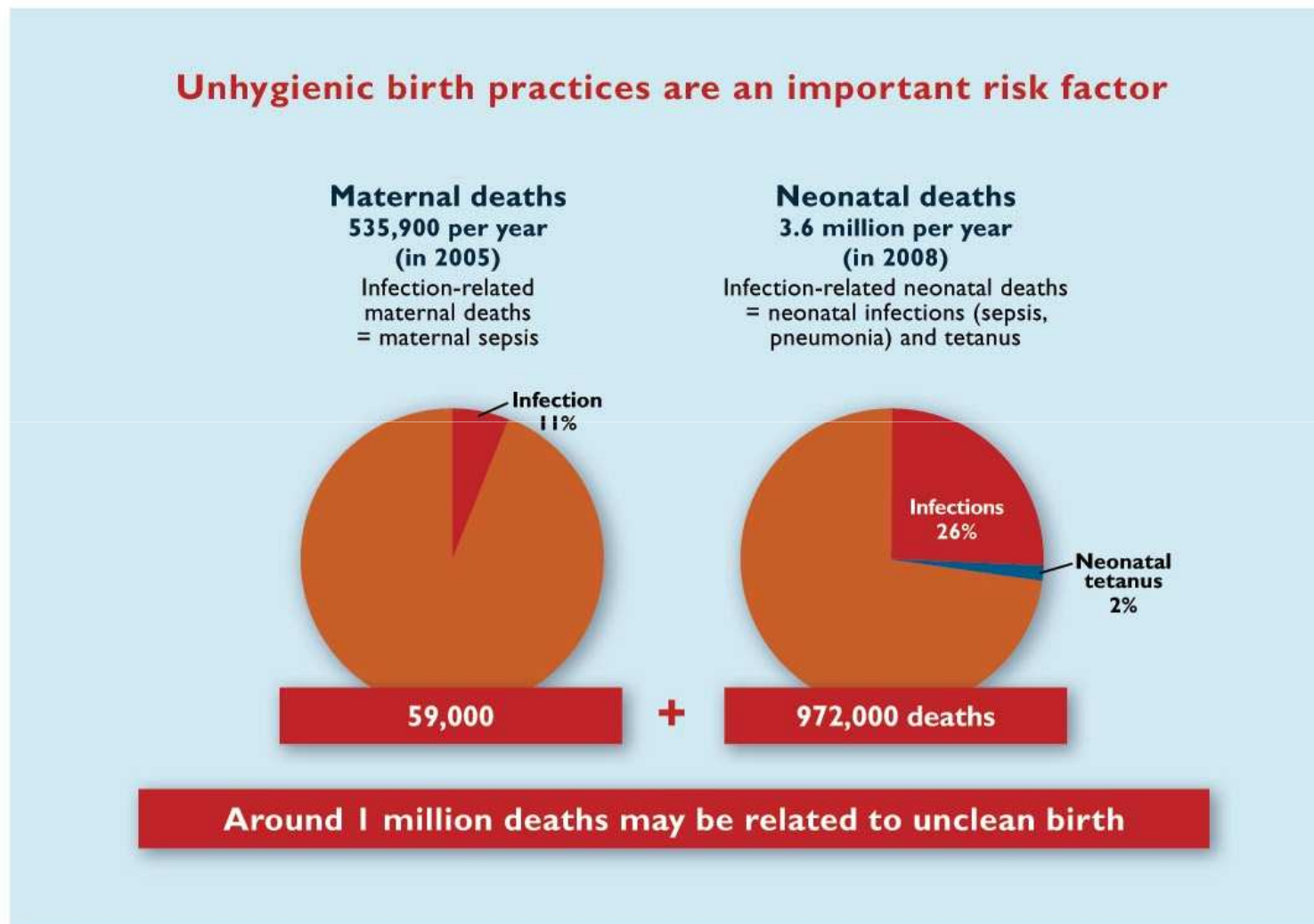
## 2. Evidence overview





# Situation

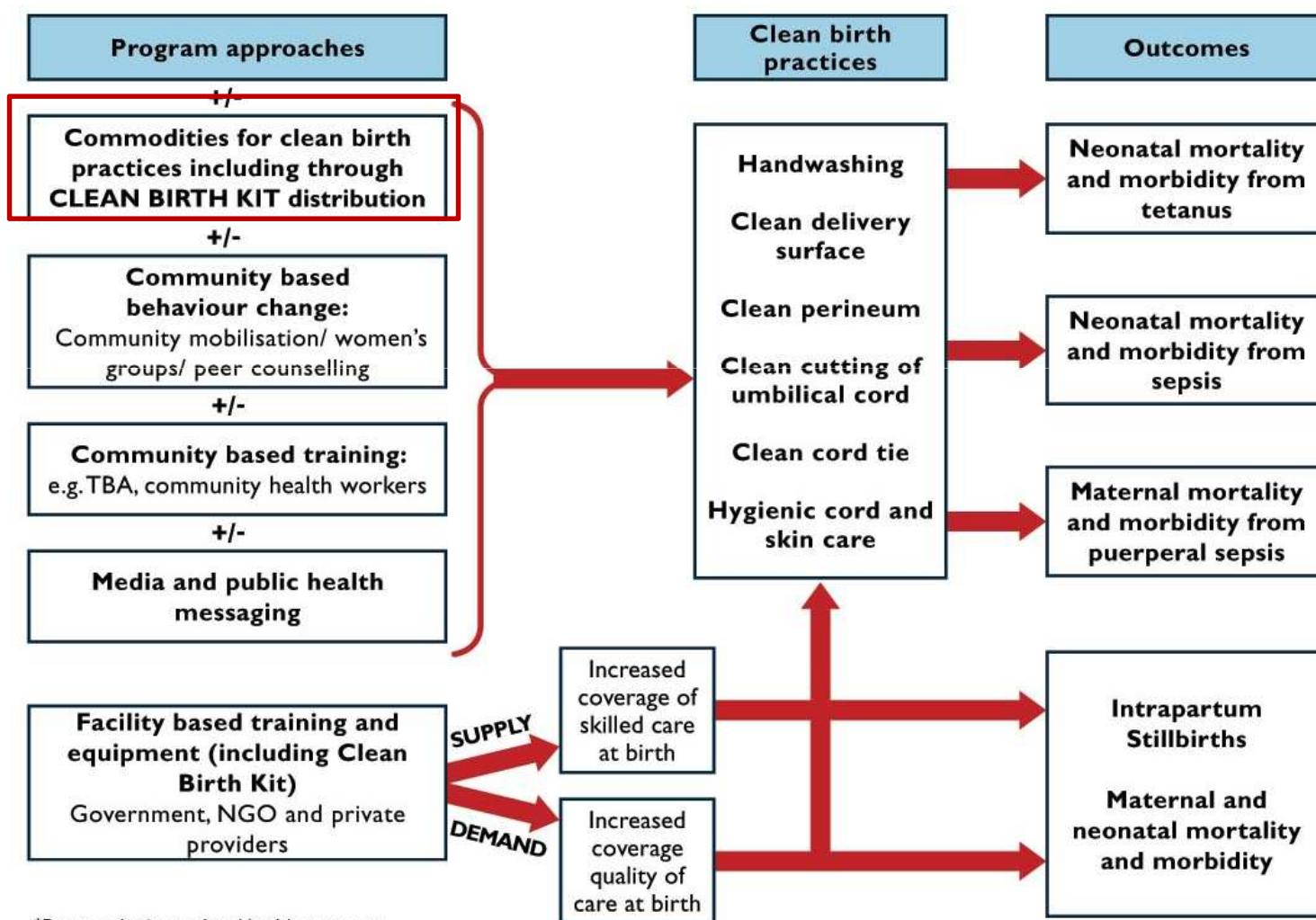
Figure I: Global maternal and neonatal deaths due to infections



Adapted from Lawn IJGO 2009 [14]. Data sources: Maternal deaths: WHO/UNICEF/UNFPA estimates, Hill K et al, 2007 [15]. Maternal cause of death Khan et al 2006. Neonatal deaths: WHO (UNICEF 2009. Infection neonatal deaths based on CHERG/WHO estimates updated for 2005 for Countdown 2008 based on methods from Lawn et al., 2006 [16].

**Data footnote** – The data and analysis input in this brief reflect the latest estimates as of March 2010 (London CBK workshop). Updated data on MMRs, and maternal and neonatal cause of death is expected in mid 2010 but was not available for this brief.

# Clean practices at birth and effects on neonatal and maternal outcomes – where do kits fit?



\*Focus on hygiene-related health outcomes.

Source: adapted from Blencowe et al[4]

Source: Blencowe et al 2010

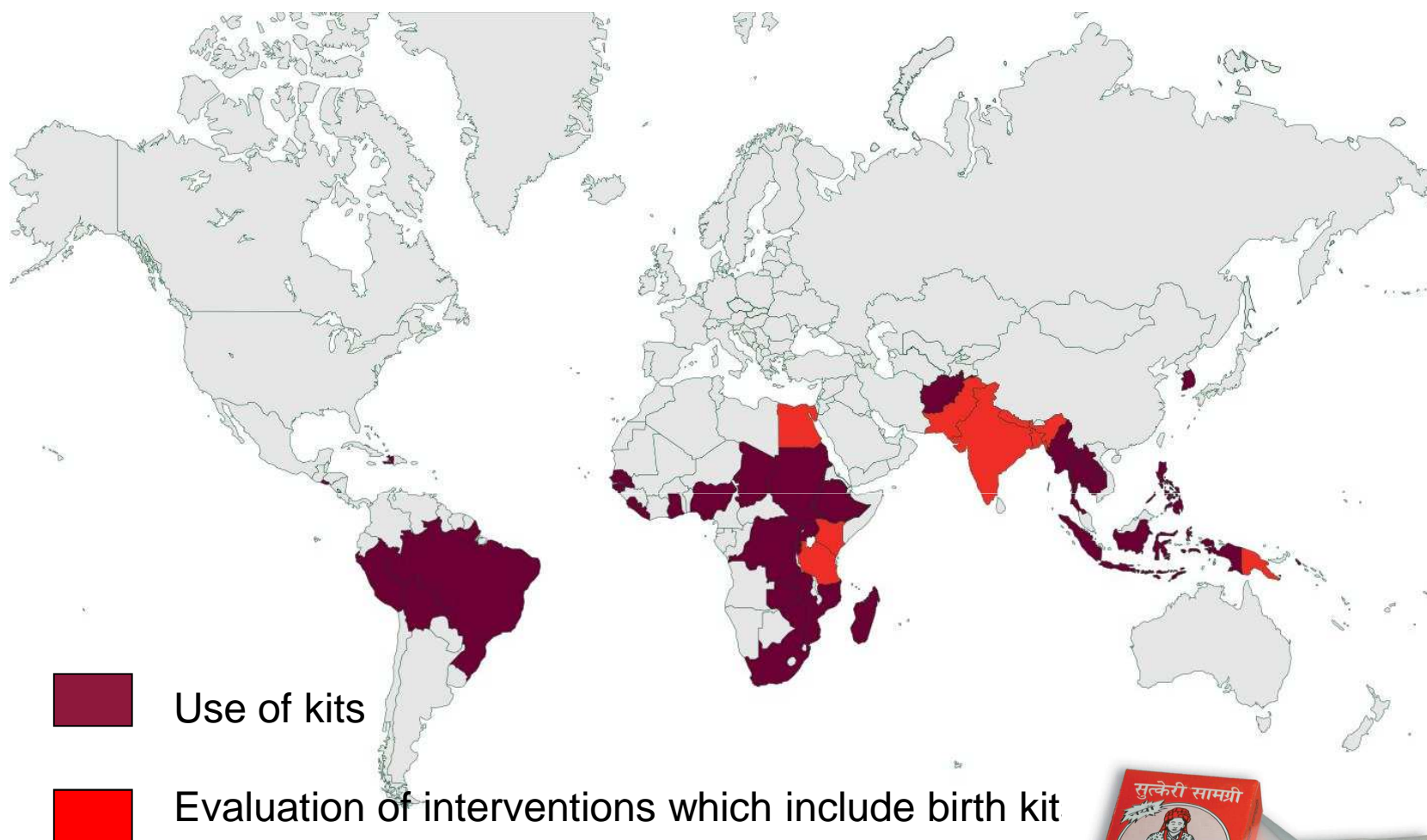
# What is a clean birth kit?

Source	Blade	Cord tie / clamp	Soap	Antiseptic	Plastic sheet	Instructions Material
Jokhio et al (2005)	✓	✓	✓	✓		
Meegan et al (2001)	✓	✓		✓		
Garner et al (1994)	✓	✓		✓		
Kapoor et al (1991)	✓	✓				
Mullany et al (2007/8)	✓	✓	✓	1	✓	✓
Darmstadt et al (2009)	✓	✓	2	✓	✓	✓
Balsara et al (2009)	✓	✓	2	✓	✓	✓
Winani et al (2007) & PATH (2005)	✓	✓	✓		✓	✓
Tsu (2000)	✓	✓	✓		✓	✓

[1] Although BK did not have an antiseptic, it was part of CRCT of topical chlorhexidine

Disposable kit with commodities for clean practices at birth.  
Usually mother held and either bought or provided through health system

# Clean birth kits are not new



51 countries report some use



# Evidence for clean birth practices and neonatal and maternal outcomes

- Low/very low level of evidence for effect of clean practices on:
  - neonatal outcomes (30 studies for various practices (eg handwashing) and various outcomes)
  - Maternal (3 studies)
- No available estimate of cause specific mortality effect of clean birth practices
- Evidence from 3 studies suggest CBKs may play a role in increasing clean practices – challenge of co interventions

Cannot do RCTs for clean birth practices so evidence level will never be considered high quality

**BUT based on GRADE methods the recommendation for clean practices at birth is STRONG...**

SO Delphi process (expert opinion) used to estimate the mortality effect size for LiST

# Can we estimate potential lives saved from clean birth practices & kits for home birthss?

- Expert opinion (Delphi Technique) for effect size
- Use of LiST = Lives Saved Tool

Estimation if 90% of all home births experience six cleans

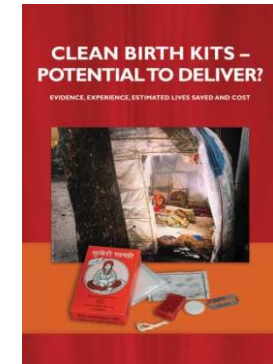
	Total numbers of deaths (~2005)	Effectiveness of clean birth practices	Lives saved number in one year
Maternal (maternal sepsis)	59,000	20%	6,300
Neonatal			
- Sepsis	991,000	15%	76,000
- Tetanus	160,000	30%	26,000
- Total	1,151,000		102,000

**Approx 108,300 lives saved per year**  
**Cost per life saved of \$215 to \$921**

# What are key remaining questions for kits as a strategy for promoting clean birth?

- Do CBKs act as a disincentive for facility birth? Or can they be an incentive? Is this predictable in different contexts?
- Are CBKs more effective with certain co-interventions? How to implement most effectively?
- Are there add-on commodities to consider adding based on level of evidence, expected effect, cost and feasibility?

# What can be concluded now?



Clean safe birth is a basic right for all mothers & newborns, alongside access to emergency obstetric & newborn care.

**There are 60 million home births a year:**

Clean birth kits are appropriate in emergency & humanitarian settings, and where there is low current coverage of facility births (*assuming they do not act as a disincentive for facility birth*).

If clean birth kits were to act as an incentive for seeking facility care, wider promotion would be justifiable.

**CONTEXT! CONTEXT! CONTEXT!**



# Objectives for meeting 1

Objective	Status
1. Assess the evidence-base on clean birth kits (CBK) for mother & newborn	√ Newborn √ Mother
2. Review implementation experiences, including clean birth kit content and methods of distribution	√ Implementation review (CBK content, cost, distribution)
3. Translate the evidence and experience into recommendations for policy, programs and advocacy, with links to the wider context of MNCH packages	√ LiST estimates √ Cost estimates √ Policy brief
4. Identify remaining priority gaps in the evidence-base & plan towards design options for addressing these	+/- Started review for possible add on commodities
5. Create an effective technical network to strengthen the evidence-base	In progress (we hope!)

Broad policy recommendation but lacking more context specific guidelines

# Products from meeting 1

Product	Lead	Status
Delphi consensus for clean practices effect on maternal sepsis and neonatal sepsis and tetanus [30 replies] LiST analysis redone and cost analysis checked	Hannah  Joy	Completed
Policy brief for Women Deliver [16 page glossy policy brief]	Joy and Hannah	Completed
Panel and debate at Women Deliver (more country voices, perspectives)	Wendy & Claudia	Completed
Program survey especially re incentive/disincentive	Steve and Homaira and Peter	Group 1 to review
Identify and analyse existing datasets especially re incentive/disincentive	Steve	-
Country case studies	Vanora	5 country profiles (Steve)
Advance the reviews for potential additional commodities	Bilal and Wendy	Group 2 to review

# Objectives for meeting 2

Group 1

1. Review implementation experiences across different field contexts, including clean birth kit content, methods of distribution, and incentive/disincentive issues

Group 2

2. Examine evidence from systematic review of potential add-on commodities/enhancements for CBKs

?

3. Translate the evidence and experience with CBKs, where appropriate, into recommendations for policy, programs and advocacy

Group 1

4. Identify remaining priority gaps in the evidence-base on implementation, and devise options for addressing these
5. Continue to forge an effective technical network to strengthen the evidence-base