Xth International Conference on Kangaroo Mother Care

17-19 November, 2014 Serena Hotels Kigali-Rwanda

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17-19 November, 2014 Kigali-Rwanda

http://www.kmcrwanda2014.org/

IMPACT OF KMC ON GLOBAL MORTALITY RATE

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Cape Town, RSA

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www.kangaroomothercare.com

Kangaroo mother care to reduce morbidity and mortality in low birthweight infants (Review)

Conde-Agudelo A, Díaz-Rossello JL

THE COCHRANE COLLABORATION®

Kangaroo mother care

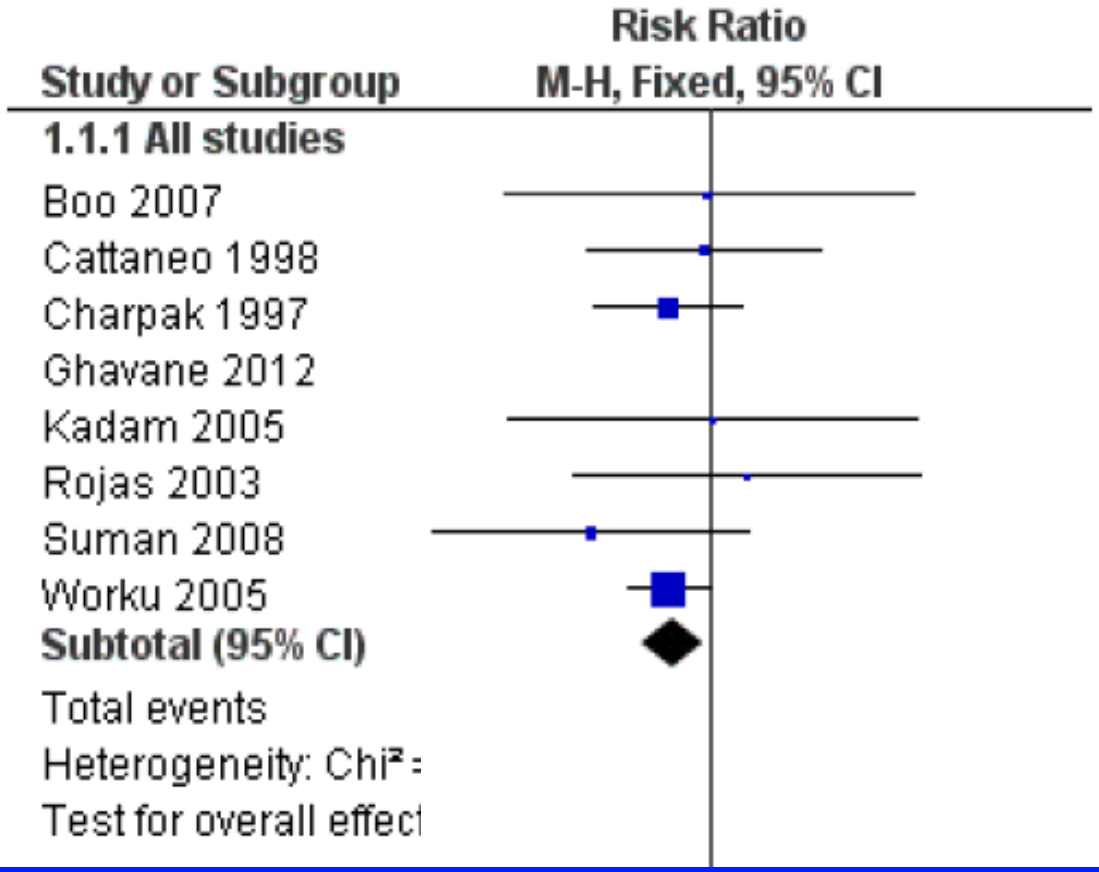


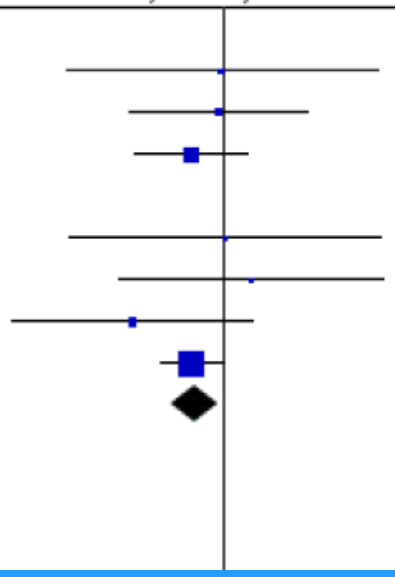
Figure 3. Forest plot of comparison: 1 Kangaroo mother care versus conventional neonatal care, outcome: 1.1 Mortality at discharge or 40-41 weeks' postmenstrual age.

Study or Subgroup	KMC Events	KMC Total	Control Events	Control Total	Weight	Risk Ratio M-H, Fixed, 95% CI
1.1.1 All studies						
Boo 2007	1	65	1	63	2.2%	0.97 [0.06, 15.16]
Cattaneo 1998	3	149	3	136	6.9%	0.91 [0.19, 4.45]
Charpak 1997	6	364	10	345	22.5%	0.57 [0.21, 1.55]
Ghavane 2012	0	68	0	68		Not estimable
Kadam 2005	1	44	1	45	2.2%	1.02 [0.07, 15.85]
Rojas 2003	2	33	1	27	2.4%	1.64 [0.16, 17.09]
Suman 2008	1	103	5	103	10.9%	0.20 [0.02, 1.68]
Worku 2005	14	62	24	61	52.9%	0.57 [0.33, 1.00]
Subtotal (95% CI)		**888**		**848**	**100.0%**	**0.60 [0.39, 0.92]**
Total events	28		45			

Heterogeneity: $Chi^2 = 2.29$, $df = 6$ ($P = 0.89$); $I^2 = 0\%$

Test for overall effect: $Z = 2.32$ ($P = 0.02$)

Risk Ratio M-H, Fixed, 95% CI



Only 3 studies show mortality difference

Note trend in favour of CONTINUOUS

1.1.4 Duration of KMC <2 hours/day						
Boo 2007	1	65	1	63	48.0%	0.97 [0.06, 15.16]
Rojas 2003	2	33	1	27	52.0%	1.64 [0.16, 17.09]
Subtotal (95% CI)		**98**		**90**	**100.0%**	**1.32 [0.22, 7.73]**
Total events	3		2			
Heterogeneity: Chi² = 0.08, df = 1 (P = 0.78); I² = 0%						
Test for overall effect: Z = 0.30 (P = 0.76)						
1.1.5 Duration of KMC between 8 and 15 hours/day						
Ghavane 2012	0	68	0	68		Not estimable
Kadam 2005	1	44	1	45	16.5%	1.02 [0.07, 15.85]
Suman 2008	1	103	5	103	83.5%	0.20 [0.02, 1.68]
Subtotal (95% CI)		**215**		**216**	**100.0%**	**0.34 [0.07, 1.64]**
Total events	2		6			
Heterogeneity: Chi² = 0.86, df = 1 (P = 0.35); I² = 0%						
Test for overall effect: Z = 1.35 (P = 0.18)						
1.1.6 Duration of KMC ≥20 hours/day						
Cattaneo 1998	3	149	3	136	8.3%	0.91 [0.19, 4.45]
Charpak 1997	6	364	10	345	27.3%	0.57 [0.21, 1.55]
Worku 2005	14	62	24	61	64.3%	0.57 [0.33, 1.00]
Subtotal (95% CI)		**575**		**542**	**100.0%**	**0.60 [0.38, 0.96]**
Total events	23		37			
Heterogeneity: Chi² = 0.31, df = 2 (P = 0.86); I² = 0%						
Test for overall effect: Z = 2.13 (P = 0.03)						

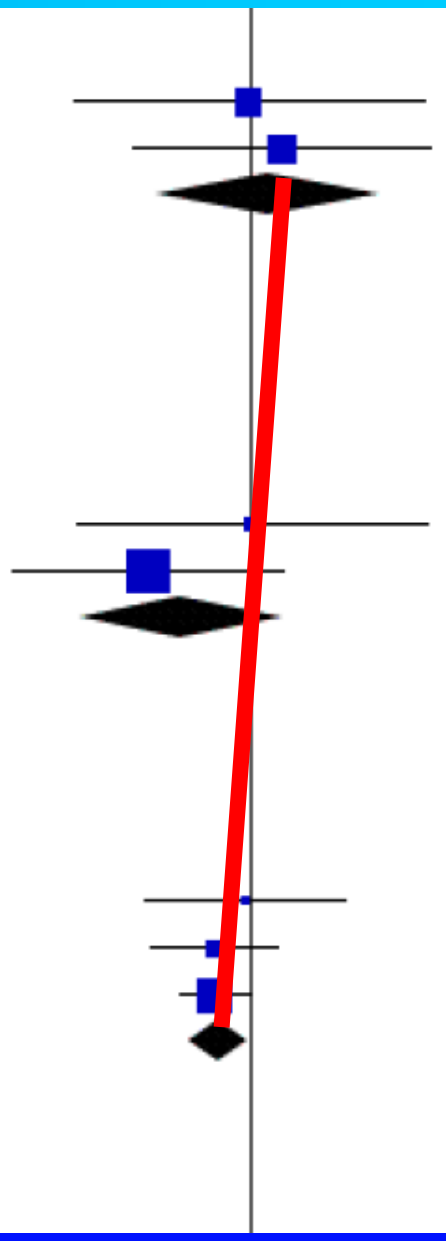
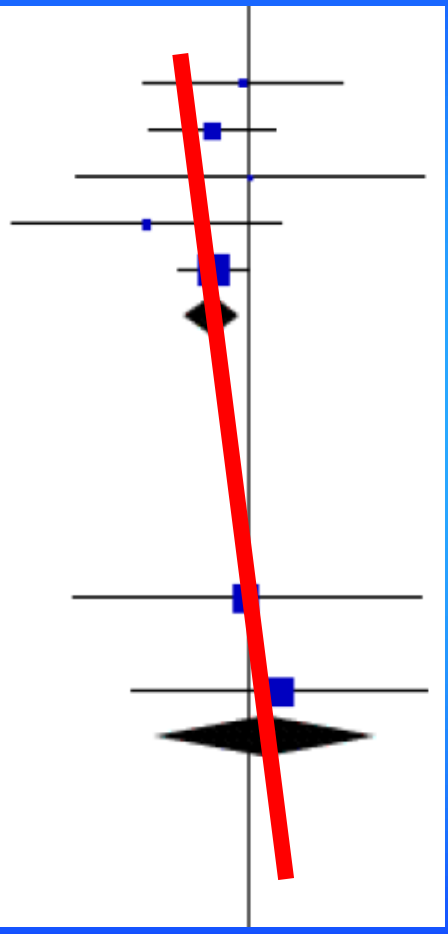


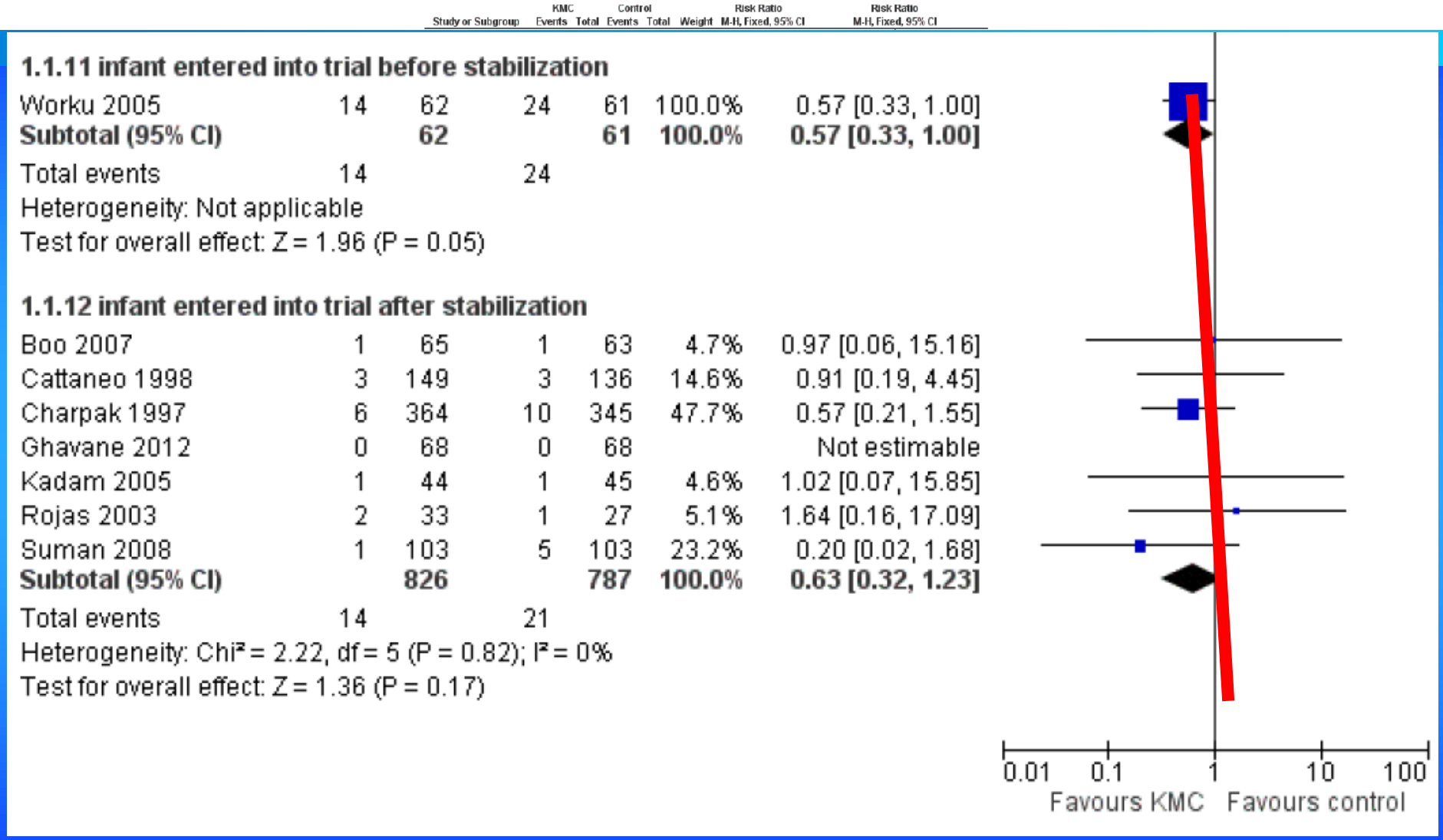
Figure 3. Forest plot of comparison: 1 Kangaroo mother care versus conventional neonatal care, outcome: 1.1 Mortality at discharge or 40-41 weeks' postmenstrual age.

Study or Subgroup	KMC Events	KMC Total	Control Events	Control Total	Weight	Risk Ratio M-H, Fixed, 95% CI	Risk Ratio M-H, Fixed, 95% CI
1.1.7 Infant age ≤10 days at initiation of KMC							
Cattaneo 1998	3	149	3	136	7.2%	0.91 [0.19, 4.45]	
Charpak 1997	6	364	10	345	23.6%	0.57 [0.21, 1.55]	
Kadam 2005	1	44	1	45	2.3%	1.02 [0.07, 15.85]	
Suman 2008	1	103	5	103	11.5%	0.20 [0.02, 1.68]	
Worku 2005	14	62	24	61	55.5%	0.57 [0.33, 1.00]	
Subtotal (95% CI)		**722**		**690**	**100.0%**	**0.56 [0.36, 0.88]**	
Total events	25		43				
Heterogeneity: Chi² = 1.45, df = 4 (P = 0.84); I² = 0%							
Test for overall effect: Z = 2.49 (P = 0.01)							
1.1.8 Infant age >10 days at initiation of KMC							
Boo 2007	1	65	1	63	48.0%	0.97 [0.06, 15.16]	
Ghavane 2012	0	68	0	68		Not estimable	
Rojas 2003	2	33	1	27	52.0%	1.64 [0.16, 17.09]	
Subtotal (95% CI)		**166**		**158**	**100.0%**	**1.32 [0.22, 7.73]**	
Total events	3		2				
Heterogeneity: Chi² = 0.08, df = 1 (P = 0.78); I² = 0%							
Test for overall effect: Z = 0.30 (P = 0.76)							



Note trend in favour of EARLIER start

Figure 3. Forest plot of comparison: 1 Kangaroo mother care versus conventional neonatal care, outcome: 1.1 Mortality at discharge or 40-41 weeks' postmenstrual age.



Note trend in favour of UNSTABLE

To date, early onset continuous KMC in unstabilized or relatively stabilized LBW infants cannot be recommended based on the evidence provided by two small trials.

Implications for research

There are several areas which require further study in the light of the results of this review.

- Methodologically rigorous trials are needed to further explore the effectiveness of early onset continuous KMC in unstabilized or relatively stabilized LBW infants in low-income settings. Studies should provide detailed information on inclusion and exclusion criteria, methods used to generate and conceal the allocation sequence, measures used to blind outcome assessors to allocation of participants, completeness of outcome data for each main outcome (attritions and exclusions), definition of infant stabilization, infant age at initiation of KMC, frequency, daily duration and total duration of the intervention, and to report adequately all pre-specified outcomes in the study protocol.

CONTINUOUS
EARLIER
UNSTABLE

… explore early continuous KMC is unstabilized …LBW infants

Neonatal Survival 1

4 million neonatal deaths: When? Where? Why?

*Joy E Lawn, Simon Cousens, Jelka Zupan, for the Lancet Neonatal Survival Steering Team**

MDGs and newborn babies

The Millennium Development Goals (MDGs) represent the widest commitment in history to addressing global poverty and ill health.[5] The fourth goal (MDG-4) commits the international community to reducing mortality in children aged younger than 5 years by two-thirds between 1990 and 2015. Between 1960 and 1990, the risk of dying

Neonatal Survival 1

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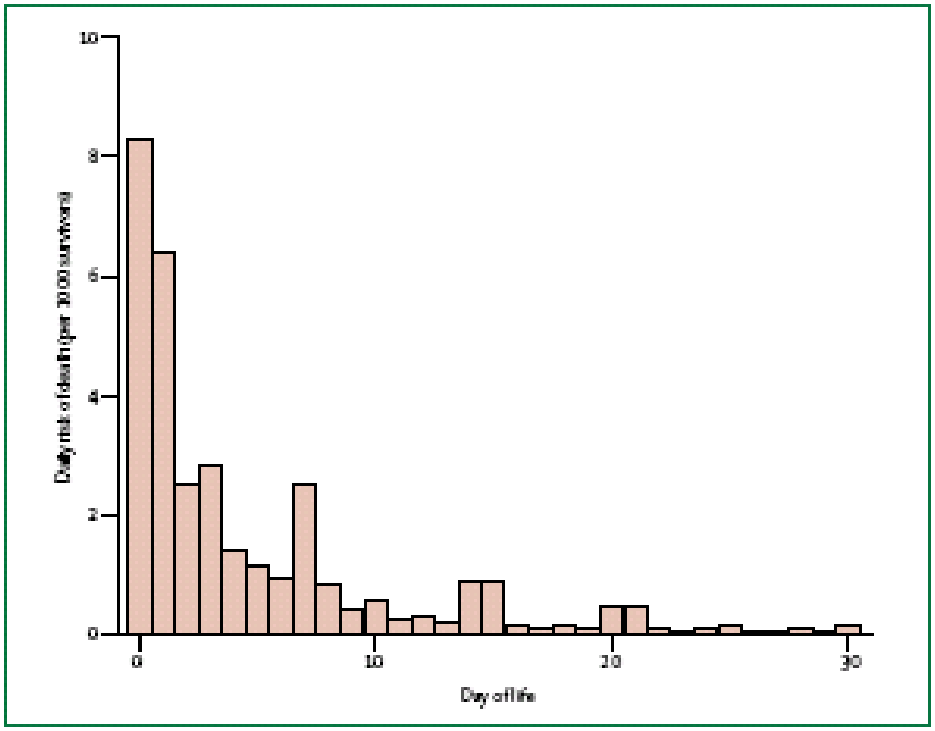

Figure 3: Daily risk of death during first month of life based on analysis of 47 DHS datasets (1995–2003) with 10 048 neonatal deaths

Deaths in first 24 h recorded as occurring on day 0, or possibly day 1, depending on interpretation of question and coding of response. Preference for reporting certain days (7, 14, 21, and 30) is apparent.

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To meet MDG-4, a substantial reduction in NMRs in high-mortality countries is needed, and reducing deaths in the first week of life will be essential to progress.

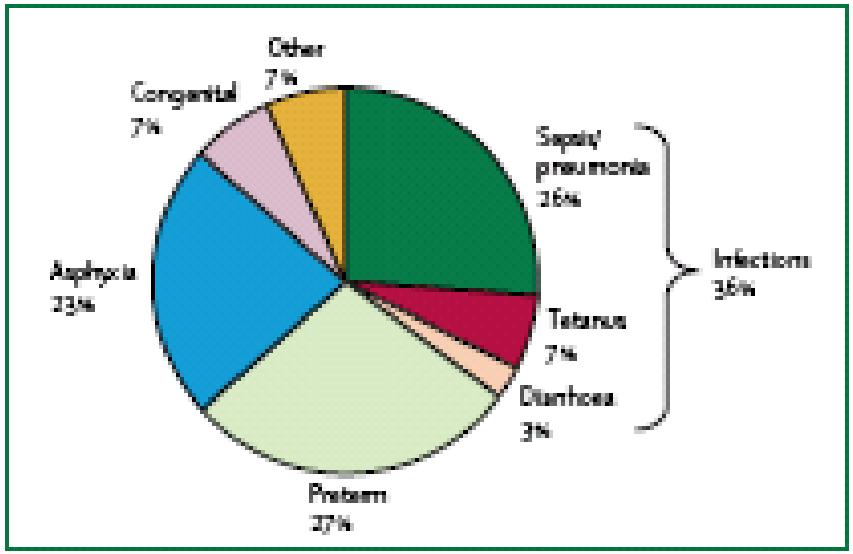
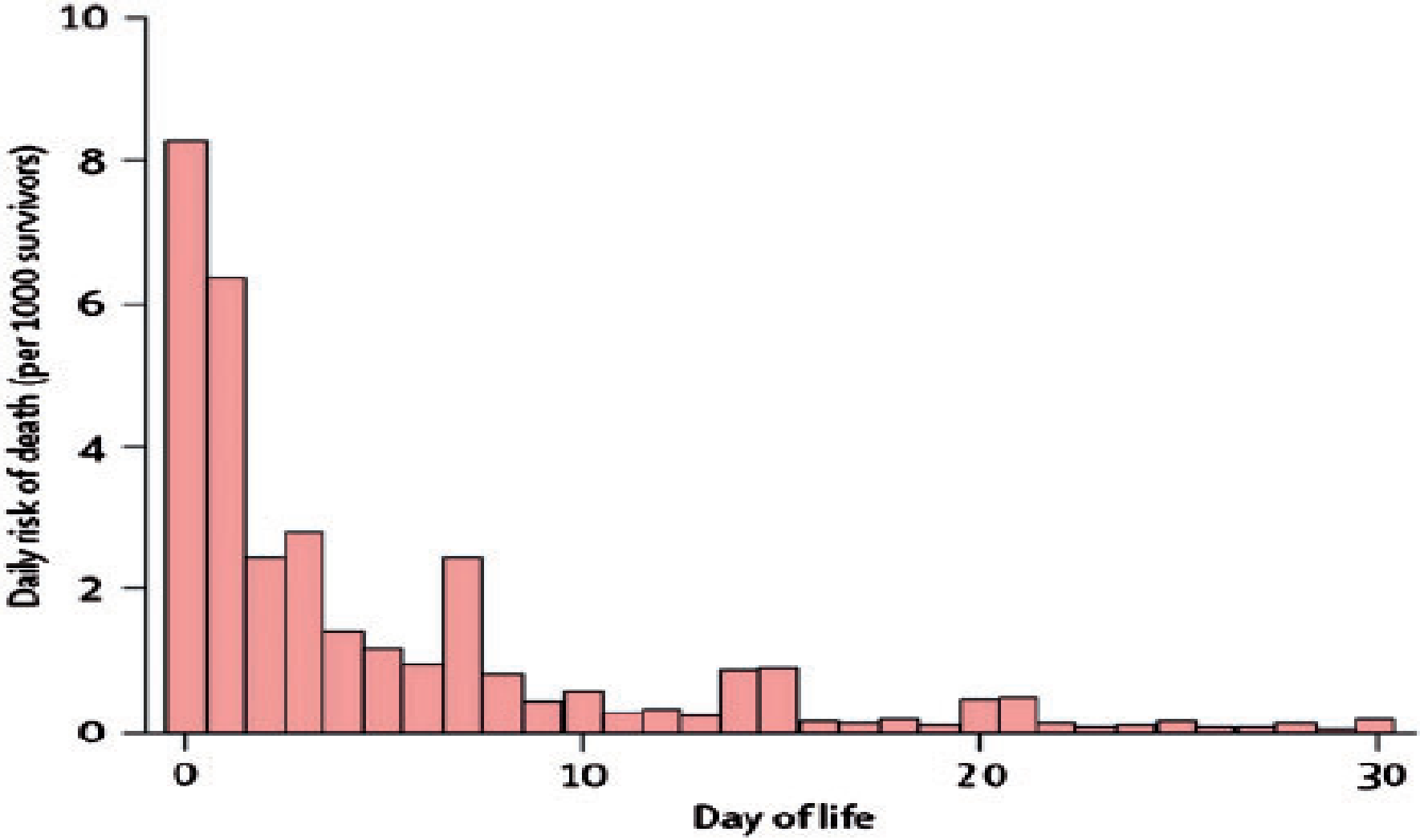


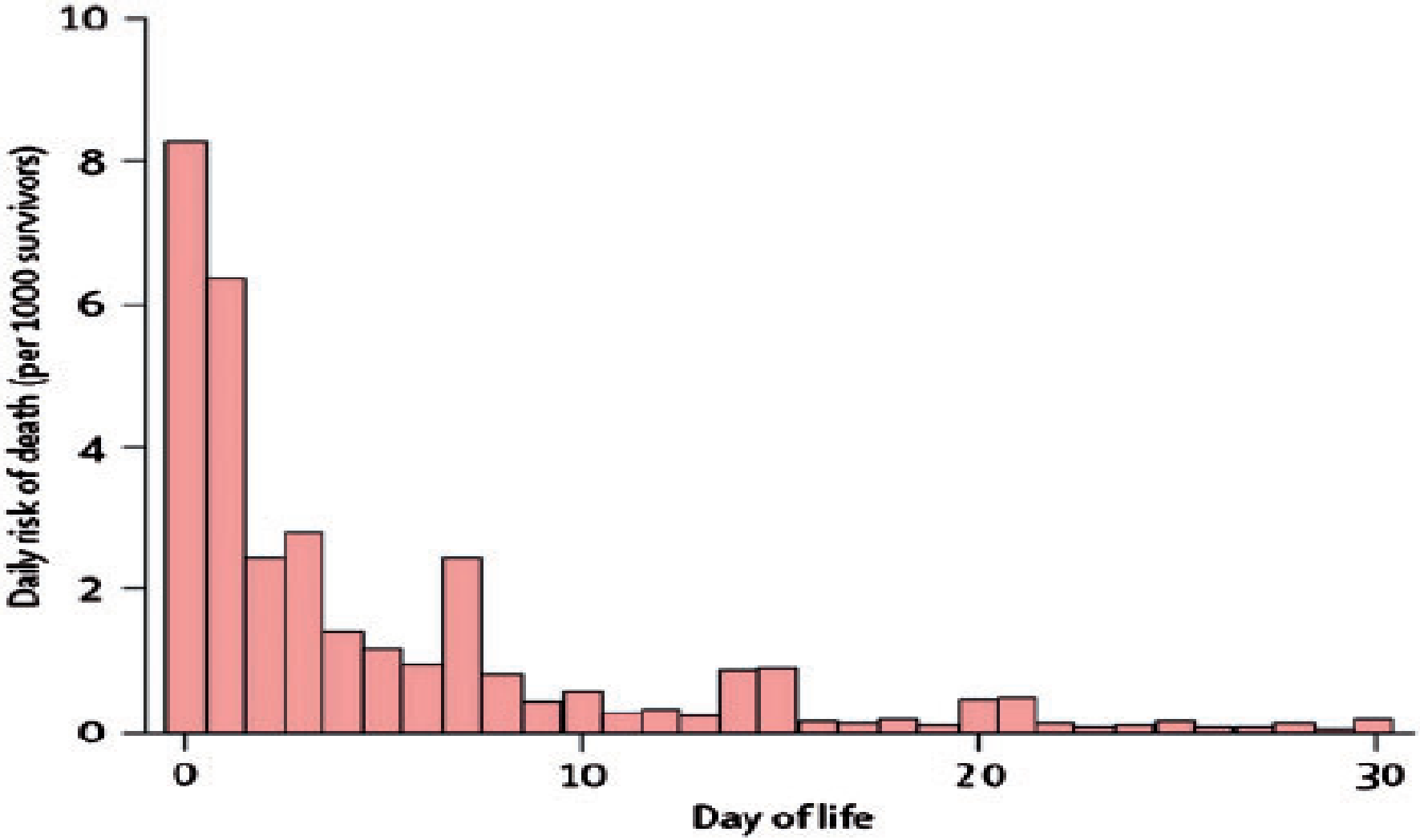
Figure 4: Estimated distribution of direct causes of 4 million neonatal deaths for the year 2000

Based on vital registration data for 45 countries and modelled estimates for 147 countries.


Daily risk of death (per 1000 survivors)
0
2
4
6
8
10
0
10
20
30
Day of life

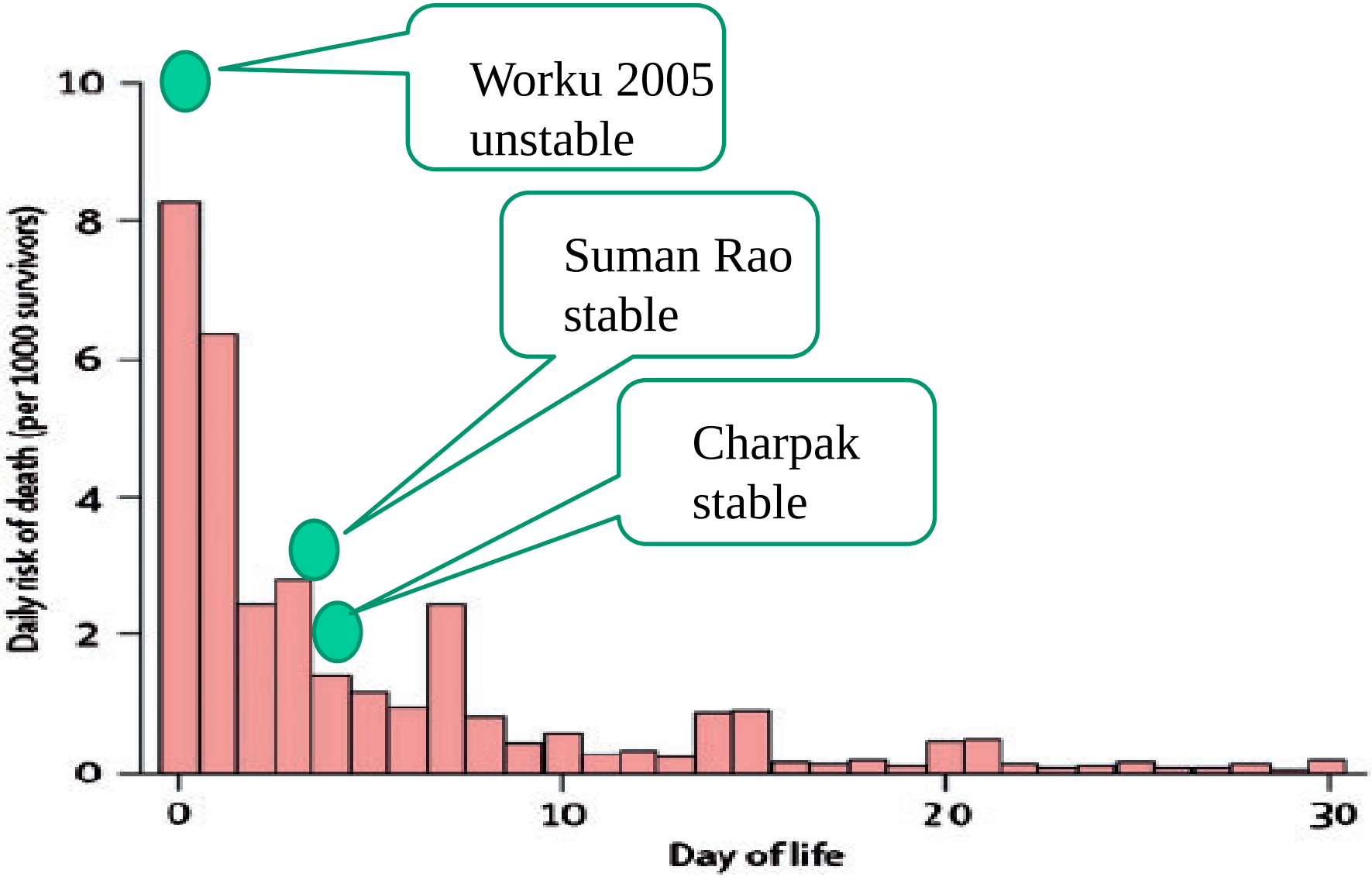
Impact of SSC on Neonatal mortality by initiation day

Lawn 2010 reviews



Impact of SSC on Neonatal mortality by initiation day

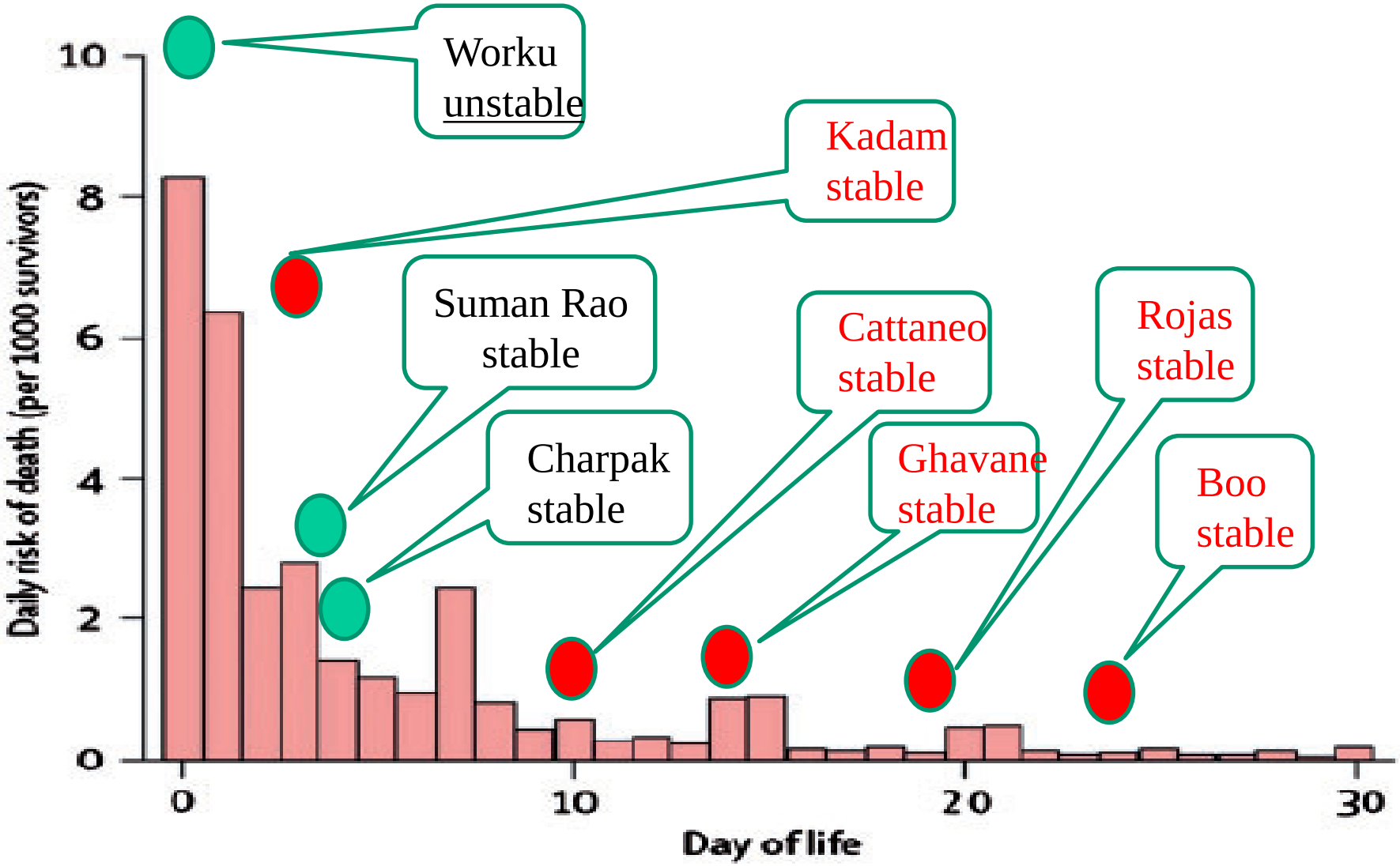
Lawn 2010 reviews



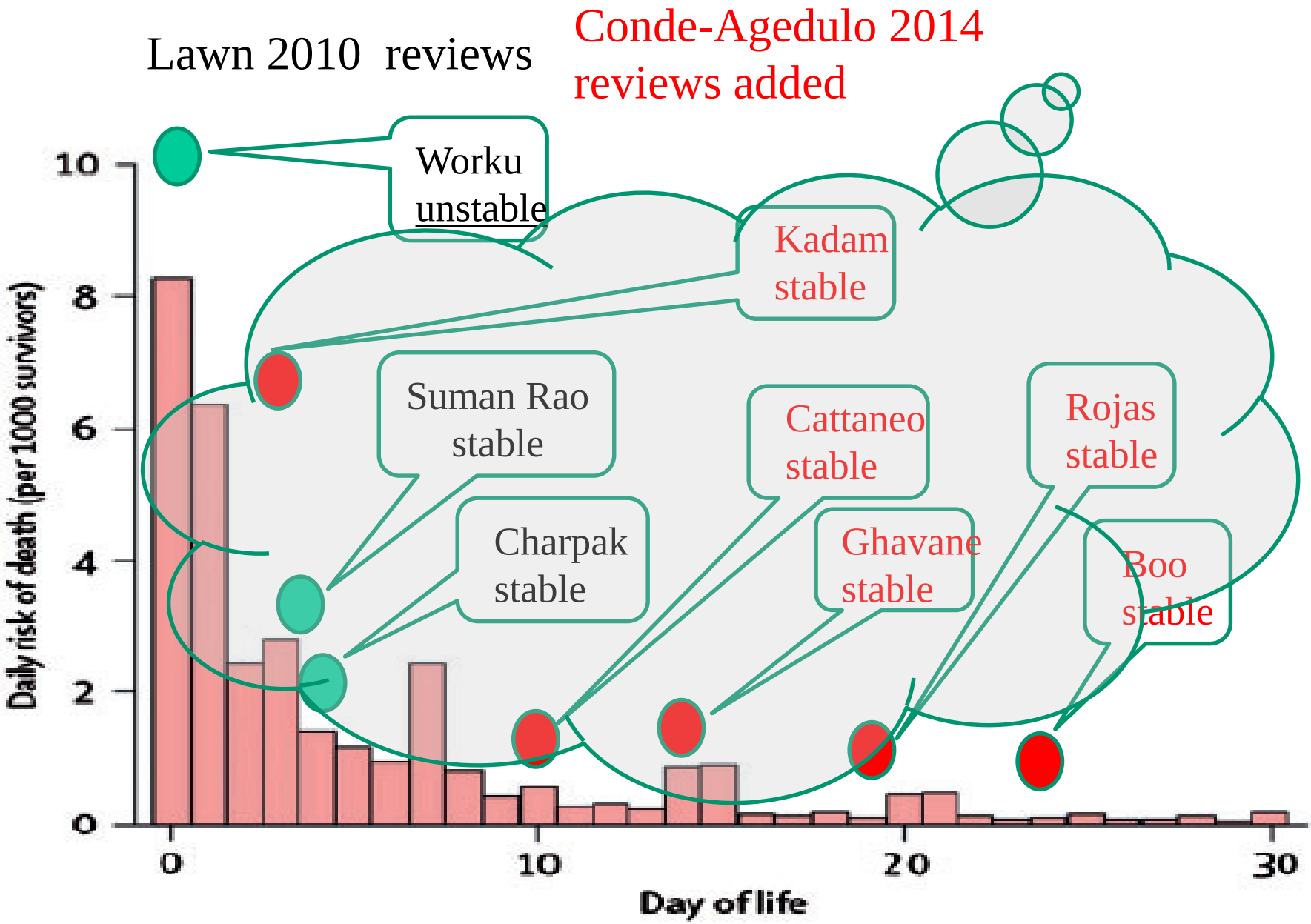
Impact of SSC on Neonatal mortality by initiation day

Lawn 2010 reviews

Conde-Agedulo 2014 reviews added



Impact of SSC on Neonatal mortality by initiation day

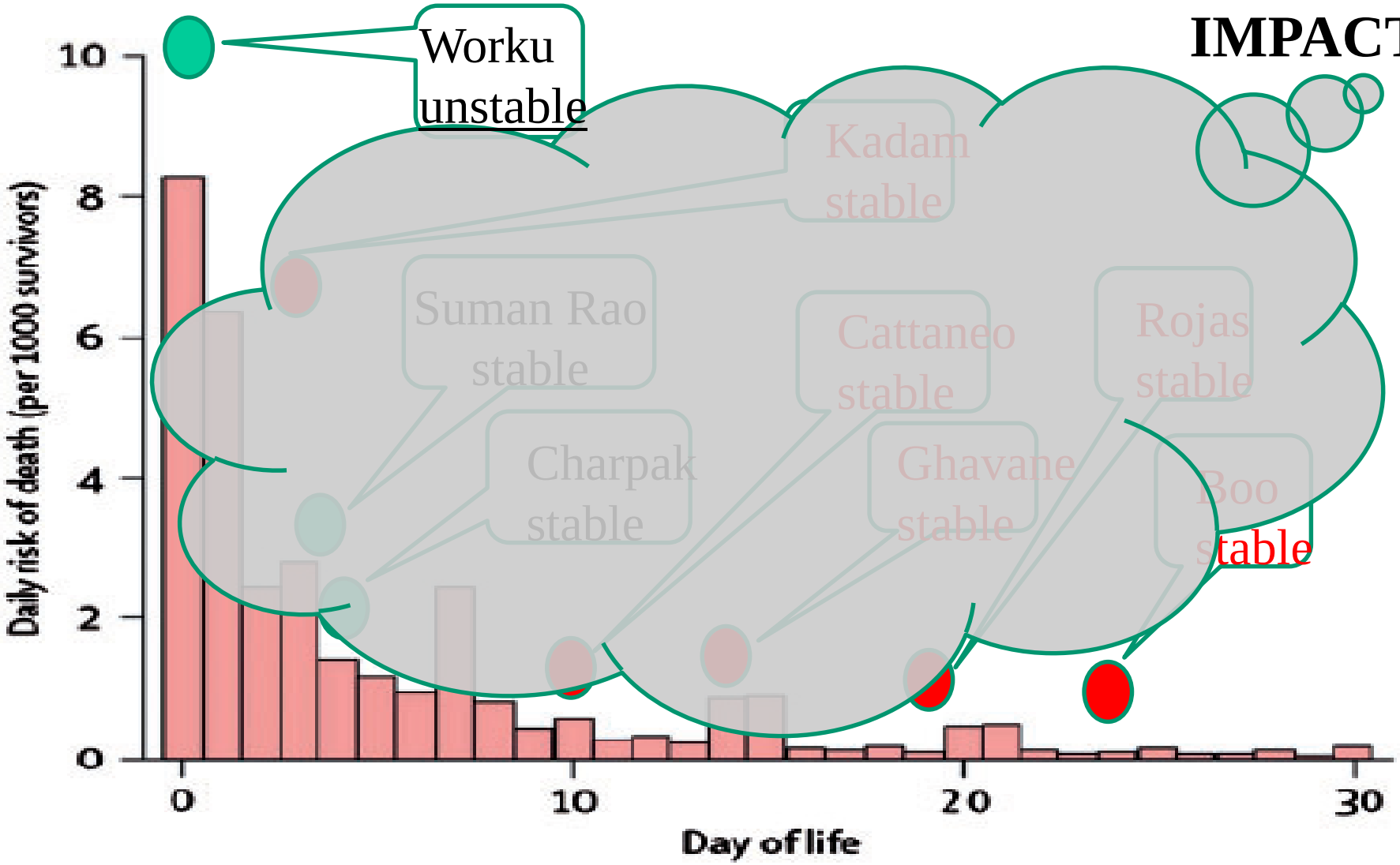


Impact of SSC on Neonatal mortality by initiation day

Lawn 2010 reviews

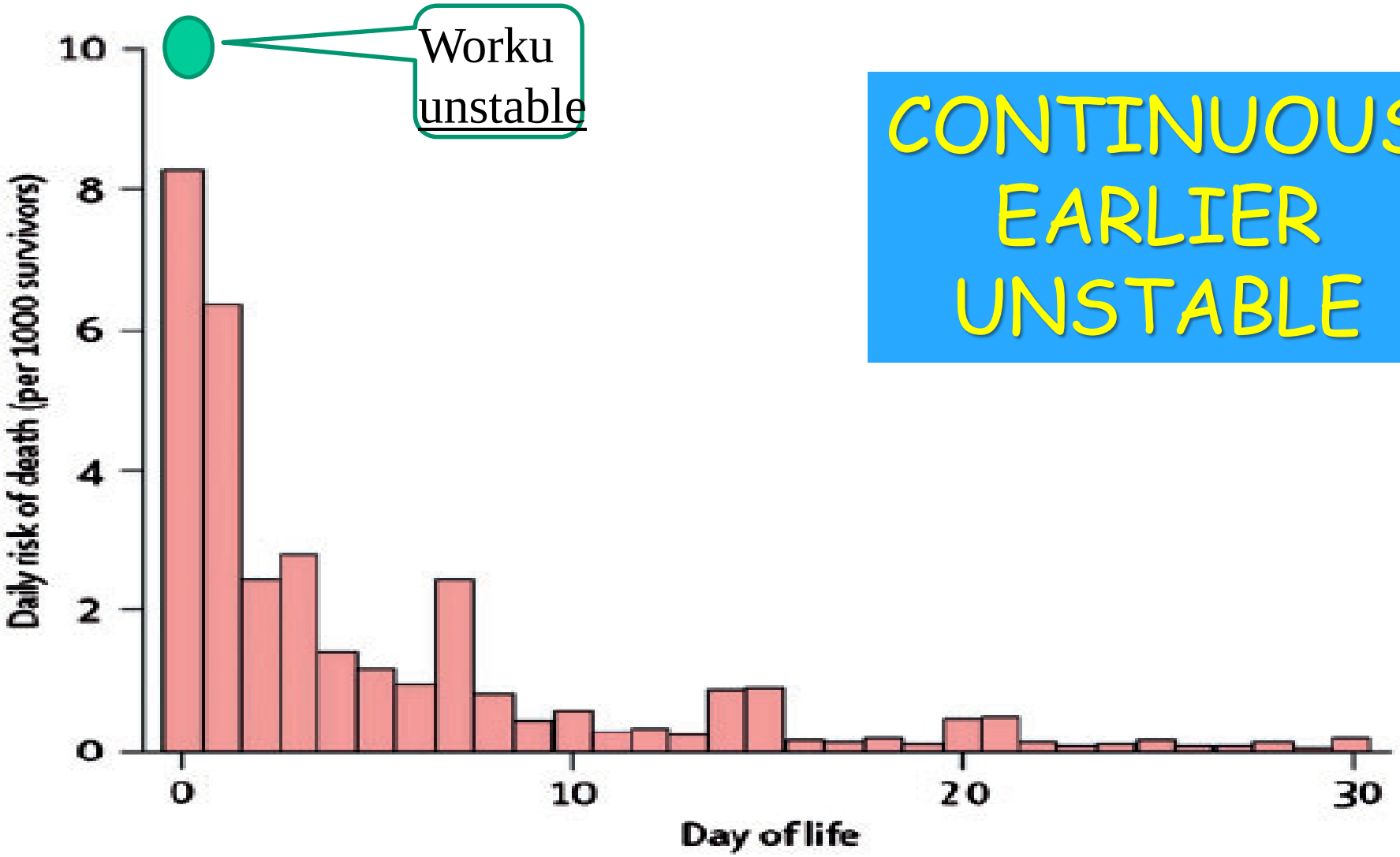
Conde-Agedulo 2014 reviews added

STABLE = NEGLIGIBLE IMPACT



Impact of SSC on Neonatal mortality by initiation day

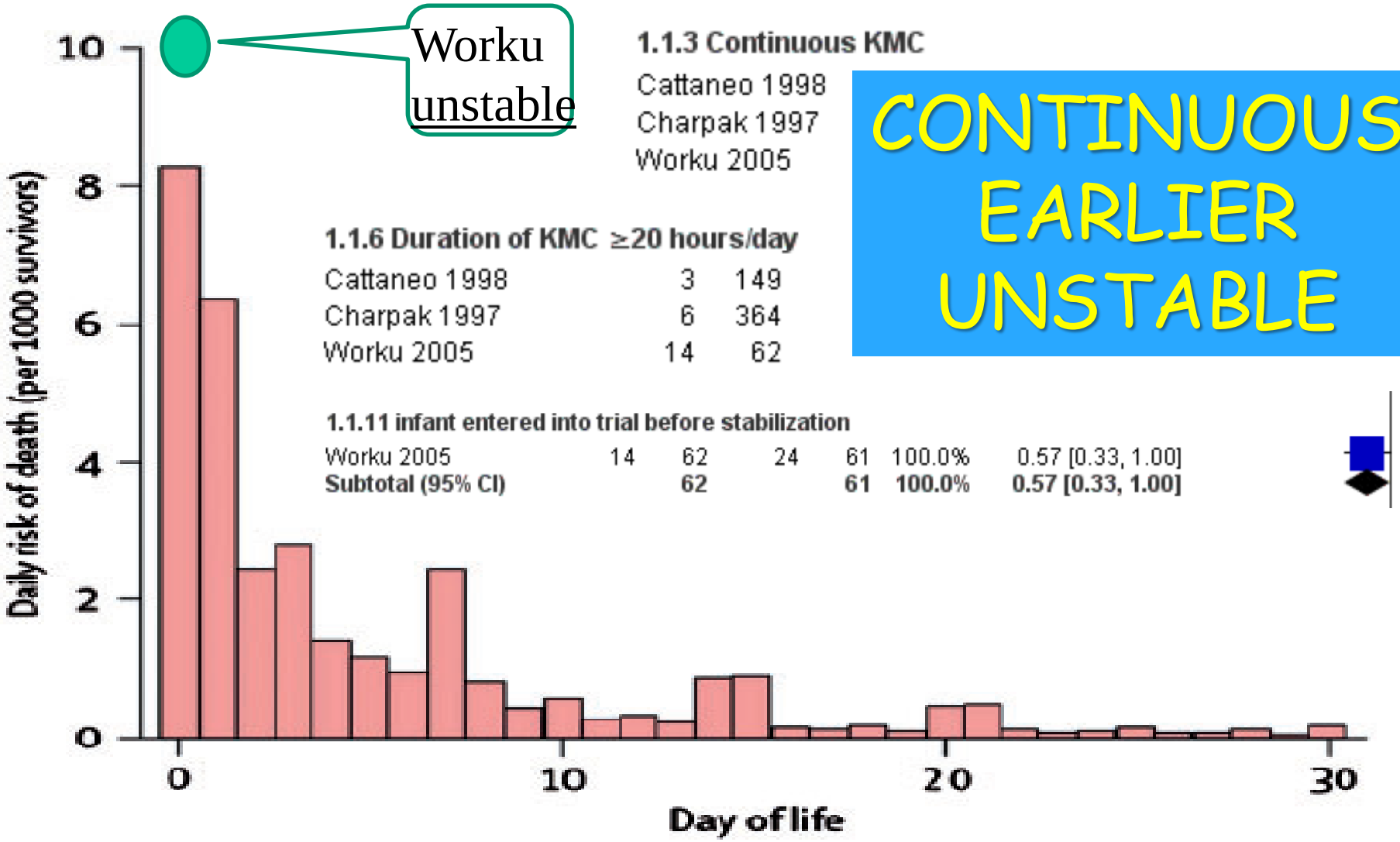
Descriptive studies on **UNSTABLE NEONATES (NBn)**



CONTINUOUS
EARLIER
UNSTABLE

Impact of SSC on Neonatal mortality by initiation day

Descriptive studies on **UNSTABLE NEONATES (NBn)**



… CURRENT DEFINITION IS ONLY FOR STABLE

kangaroo mother care

A practical guide

Department of Reproductive Health and Research
World Health Organization
Geneva

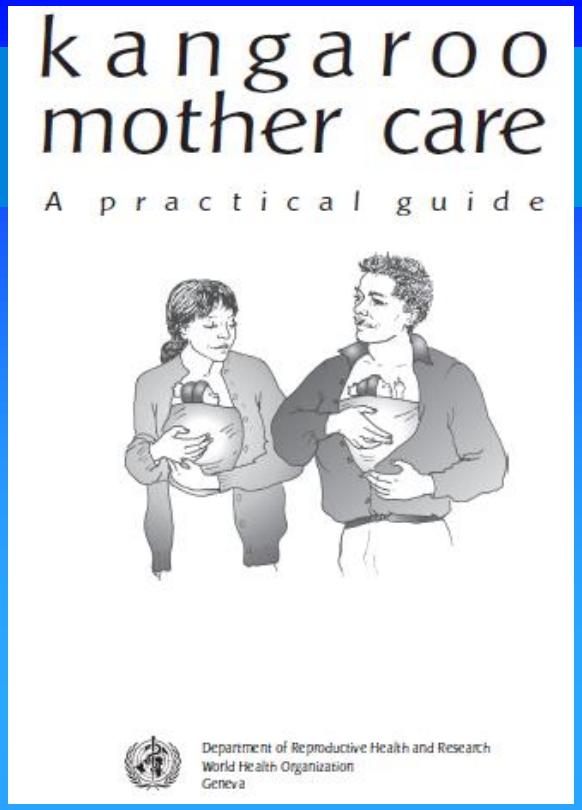
Stable preterm or low-birth-weight infant: a newborn infant whose vital functions (breathing and circulation) do not require continuous medical support and monitoring, and are not subject to rapid and unexpected deterioration, regardless of intercurrent disease.

1.3 What is this document about?

This document describes the KMC method for care of stable preterm/LBW infants (i.e. those who can breath air and have no major health problems) who need thermal protection, adequate feeding, frequent observation, and protection from infection.

Baby

Almost every small baby can be cared for with KMC. Babies with severe illness or requiring special treatment may wait until recovery before full-time KMC begins. During that period babies are treated according to national clinical guidelines.[56] Short KMC sessions can begin during recovery when baby still requires medical treatment (IV fluids, low concentration of additional oxygen). For continuous KMC, however, baby's condition must be stable; the baby must be breathing spontaneously without additional oxygen. The ability to feed (to suck and swallow) is not an essential requirement. KMC can begin during tube-feeding. Once the baby begins recovering, discuss KMC with the mother.

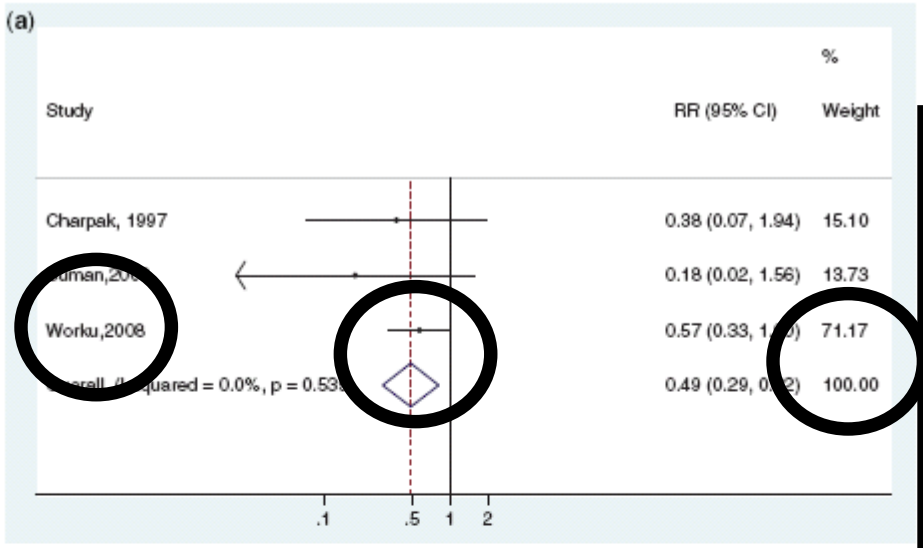


… CURRENT DEFINITION IS ONLY FOR STABLE

… Worku 2005 Works because UNSTABLE

According to definition - WORKU 2005 is NOT KMC!

… EXCLUDE THIS STUDY … THERE IS NO CASE AT ALL FOR KMC MORTALITY REDUCTION!



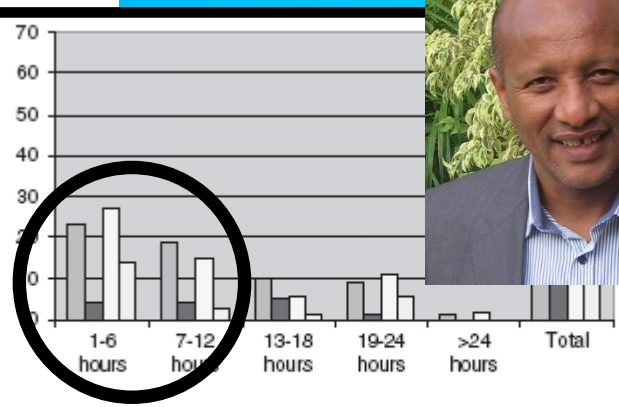


FIG. 2. Death distribution of CMC and KMC cases with respect to birthweight in Addis Ababa (November 2001–November 2002).

Kangaroo Mother Care: A Randomized Controlled Trial on Effectiveness of Early Kangaroo Mother Care for the Low Birthweight Infants in Addis Ababa, Ethiopia

by Bogale Worku *and* Assaye Kassie

Department of Pediatrics and Child Health, Faculty of Medicine, Addis Ababa University, Addis Ababa, Ethiopia

where KMC was started after the first week of life. (b) A meta-analysis of five RCTs comparing KMC with standard care showing effect on severe morbidity (severe pneumonia, sepsis, jaundice and other severe illness) for babies of birthweight <2000 g and excluding studies where KMC was started after the first week of life. Unpublished neonatal specific data courtesy of authors, Charpak and Suman

52% excluded

Impact of SSC on Neonatal mortality by initiation day

Descriptive studies on **UNSTABLE NEONATES (NBn)**

10h

Worku unstable

24 → 14
40% reduction

Historical control

Tropical Doctor, April 1994

The 'kangaroo-method' for treating low birth weight babies in a developing country

N J Bergman MB DTM
L A Jürisoo DTM
Manama Mission Hospital, PB GA 5845, Gwanda, Zimbabwe

TROPICAL DOCTOR, 1994, **24**, 57–60

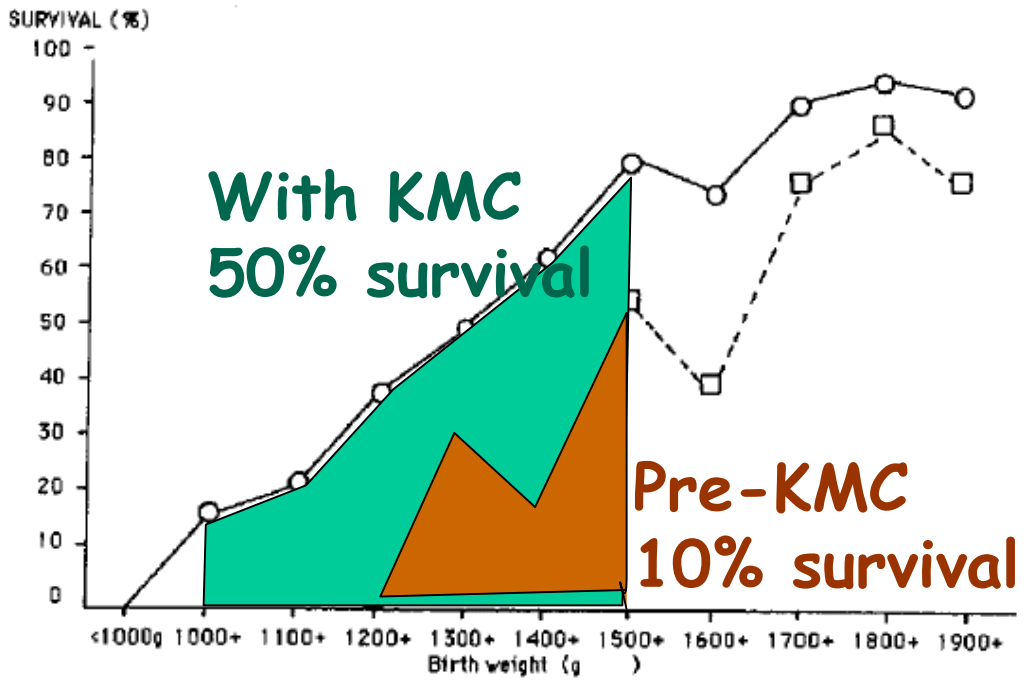


Figure 2. 'Kangaroo' survival (according to birth weight). ○, All kangaroo babies (n = 126); □, pre-Kangaroo babies (1983–1987)

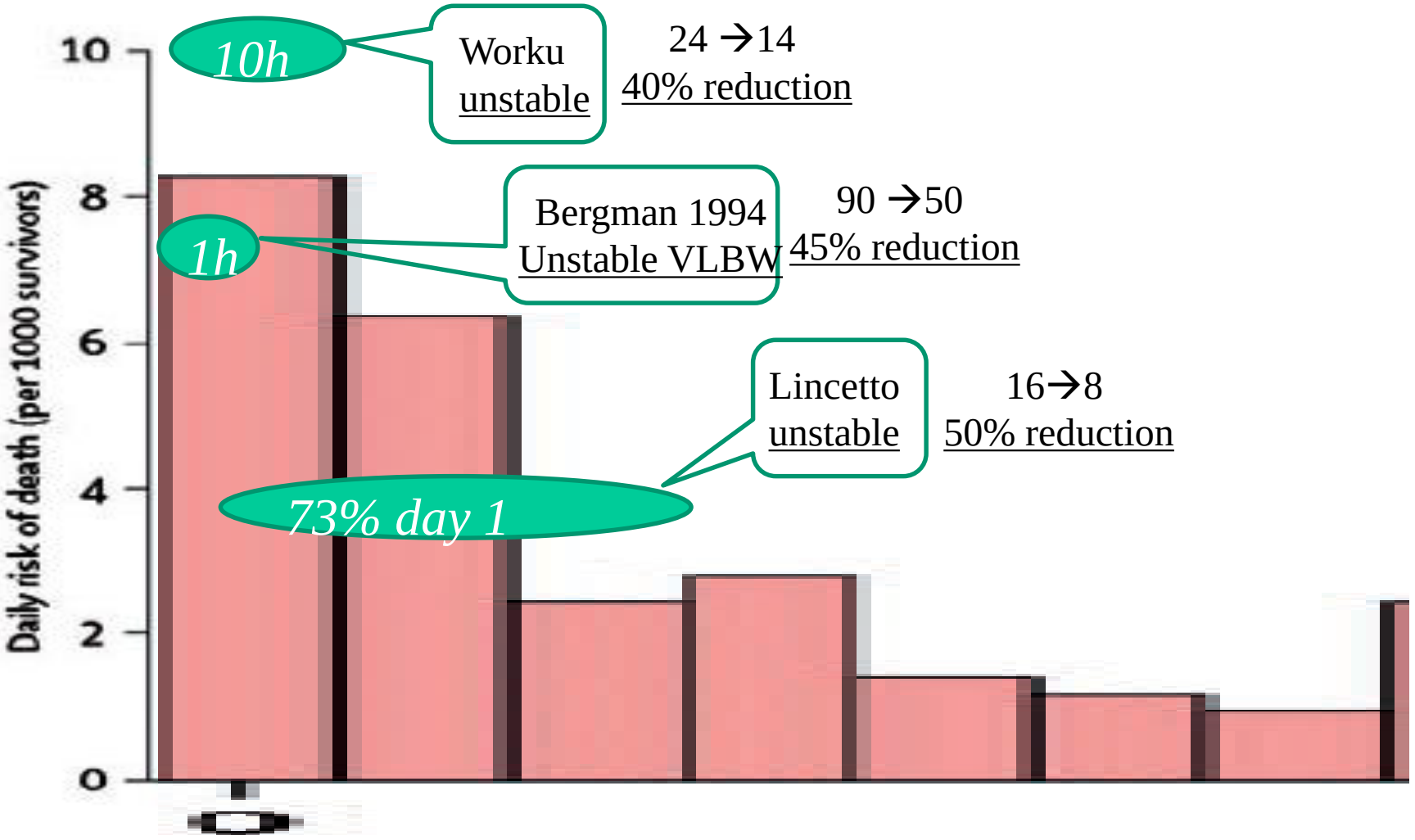
Mortality 1000g-1500g pre KMC 90%
with KMC 50%

KMC = 50 % reduction in mortality

0 % excluded

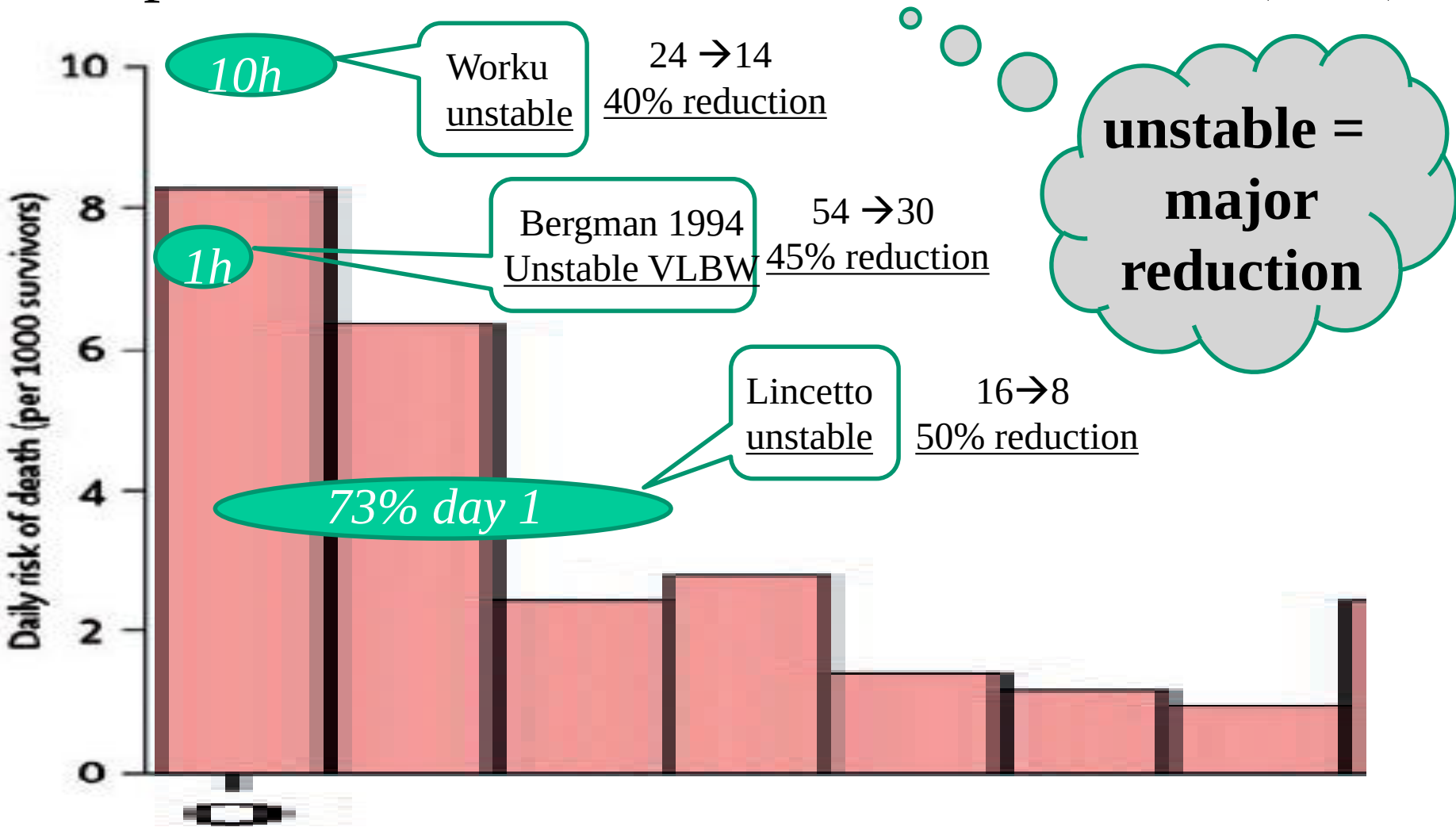
Impact of SSC on Neonatal mortality by initiation day

Descriptive studies on **UNSTABLE NEONATES (NBn)**



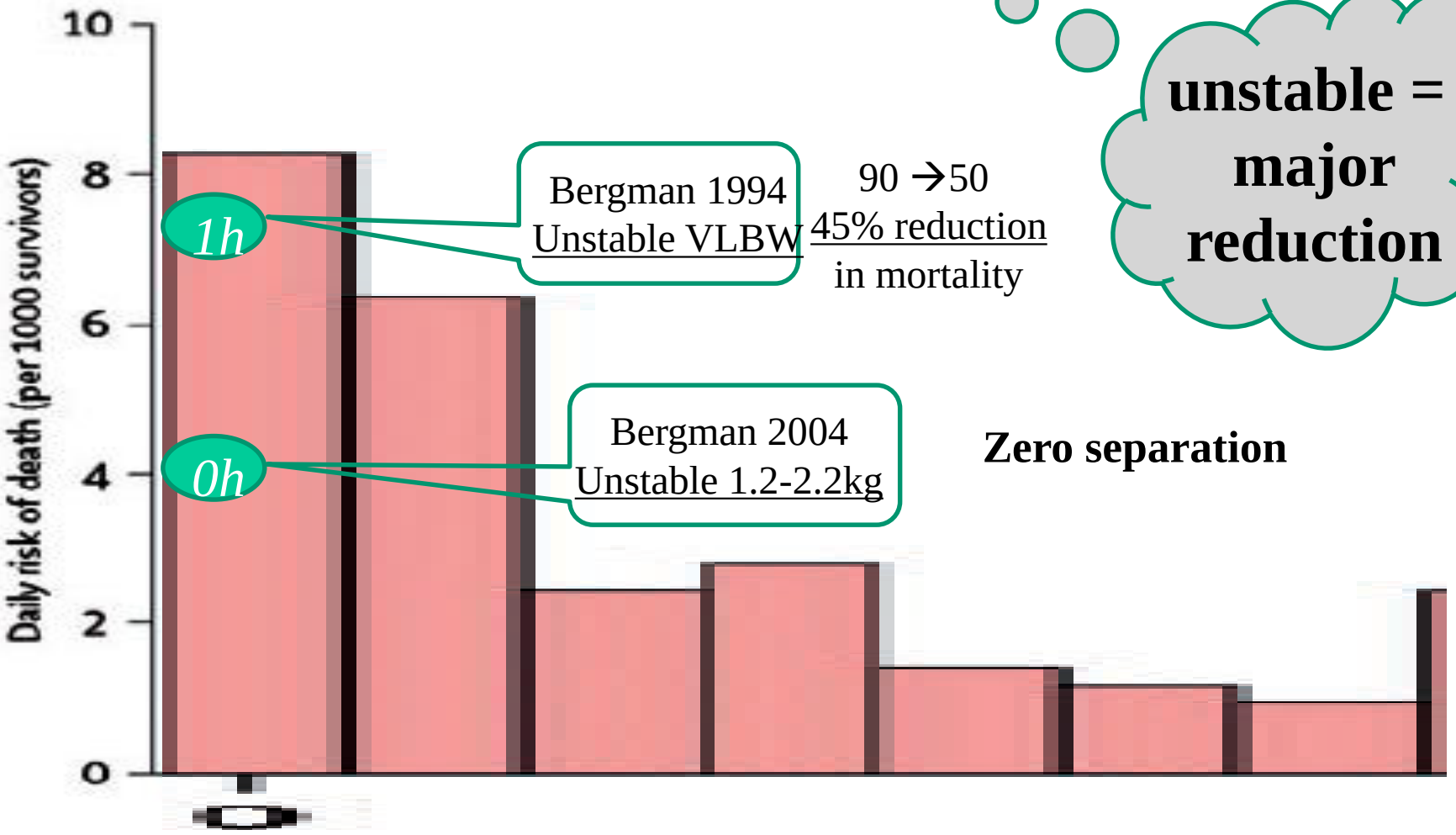
Impact of SSC on Neonatal mortality by initiation day

Descriptive studies on **UNSTABLE NEONATES (NBn)**



Impact of SSC on **EARLY STABILISATION**

Descriptive studies on **UNSTABLE NEONATES (NBn)**



Impact of SSC on **EARLY STABILISATION**

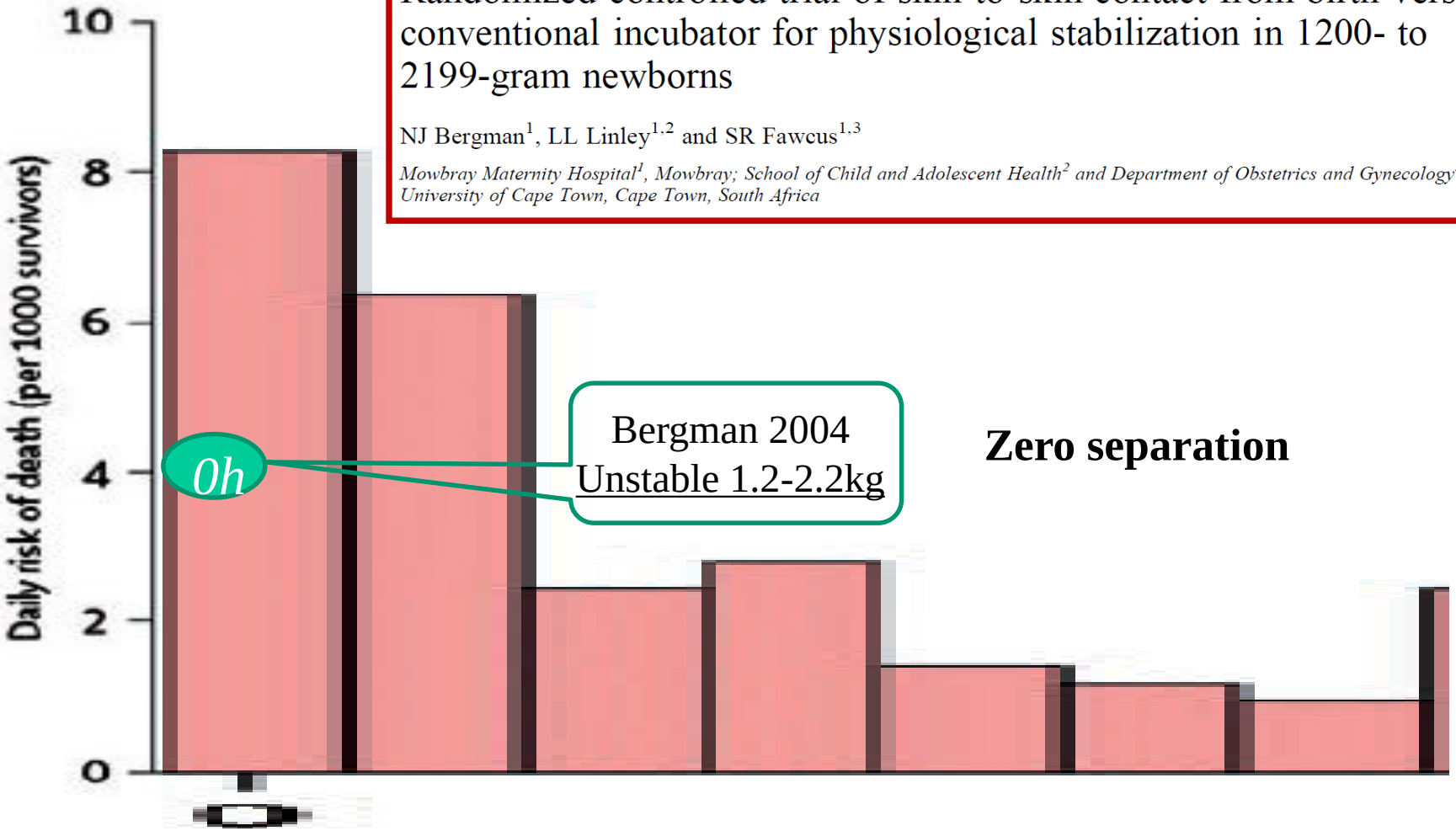
Acta Pædiatr 93: 779–785. 2004

Taylor & Francis healthsciences

Randomized controlled trial of skin-to-skin contact from birth versus conventional incubator for physiological stabilization in 1200- to 2199-gram newborns

NJ Bergman[1], LL Linley[1,2] and SR Fawcus[1,3]

Mowbray Maternity Hospital[1], Mowbray; School of Child and Adolescent Health[2] and Department of Obstetrics and Gynecology[3], University of Cape Town, Cape Town, South Africa



Zero separation

Acta Pædiatr 93: 779–785. 2004

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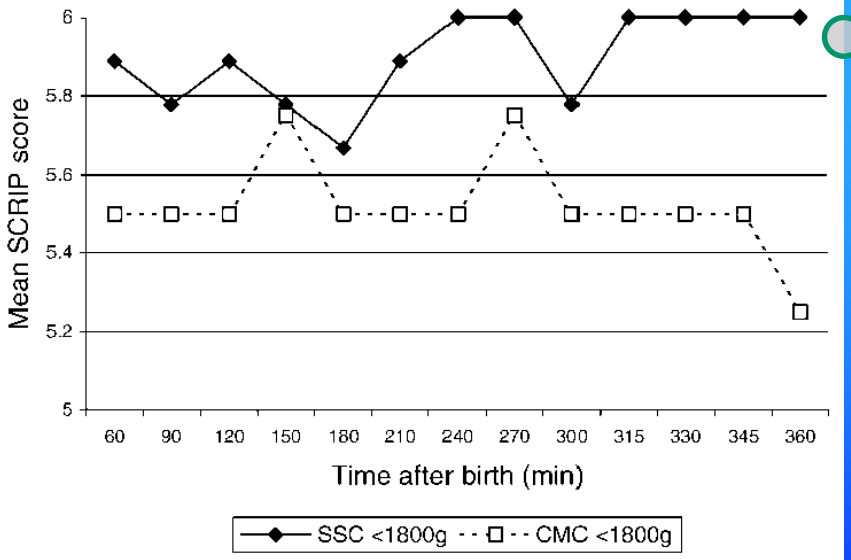
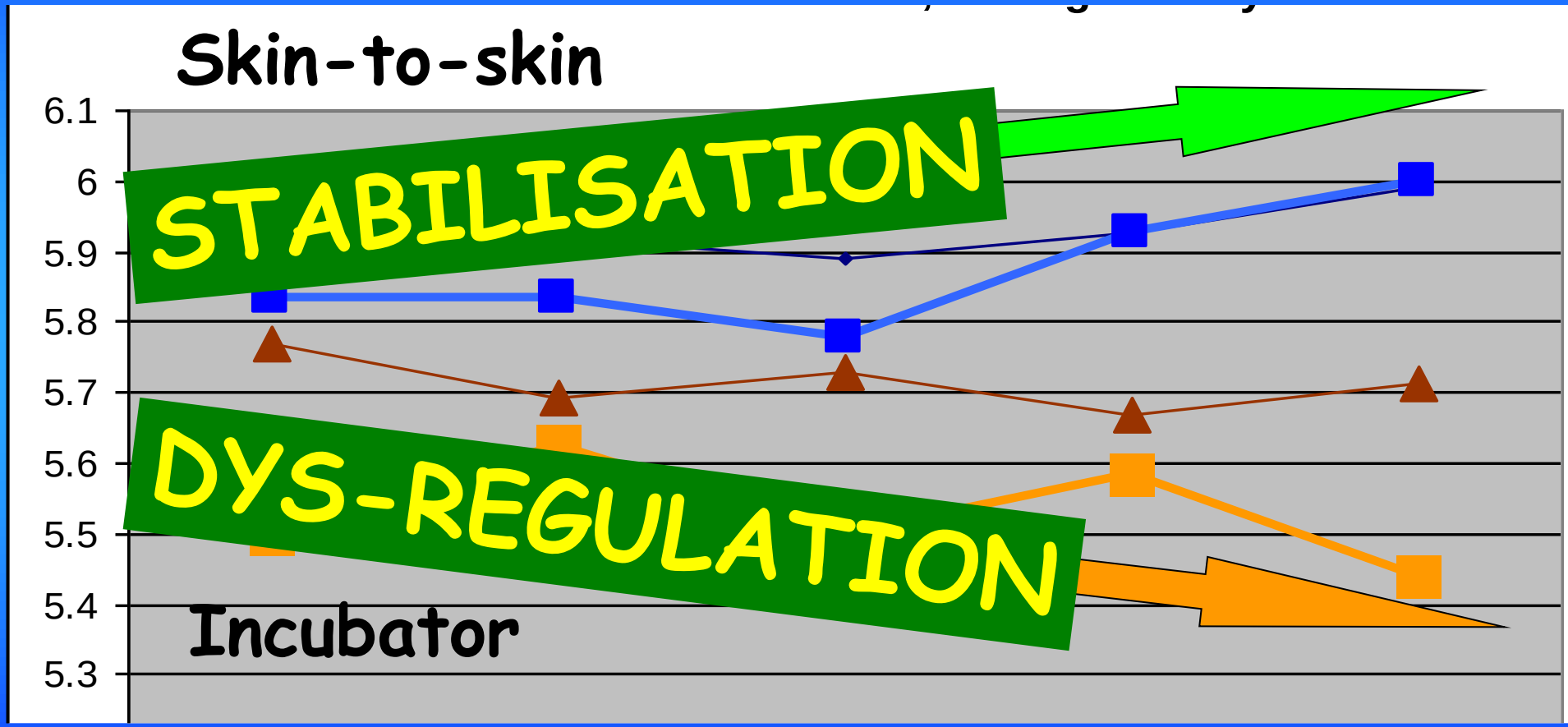


Fig. 4. Average SCRIP scores, sub-analysis of infants below 1800 g birthweight.

Skin-to-skin
STABILIZES
&
PREVENTS
INSTABILITY

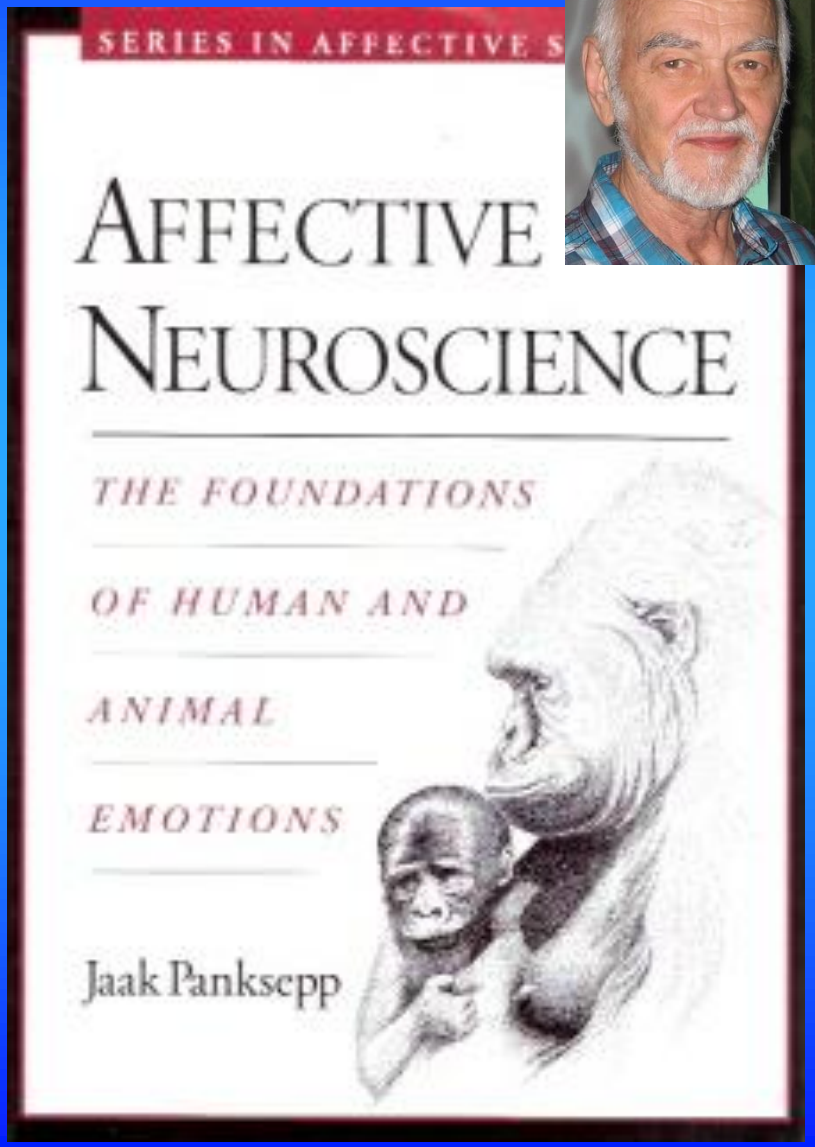
Stabilization 1200g - 1800g



Hourly average of SCRIP score, 2nd to 6th hour

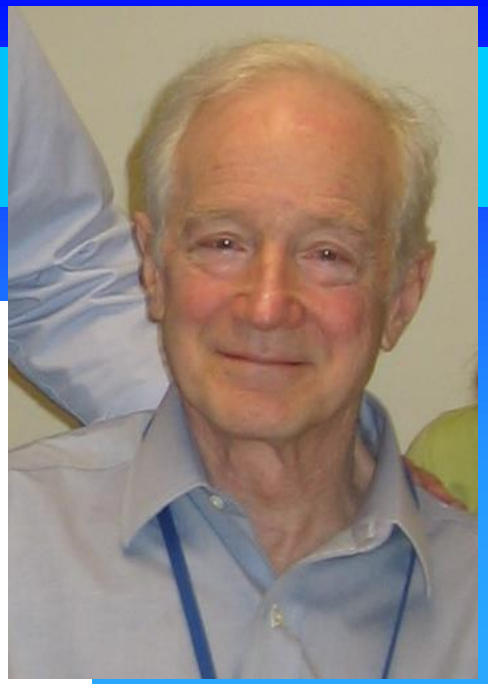
Scientific basis for SSC

http://gorillaaccess.com/gorilla-safari-rwanda-4-days/



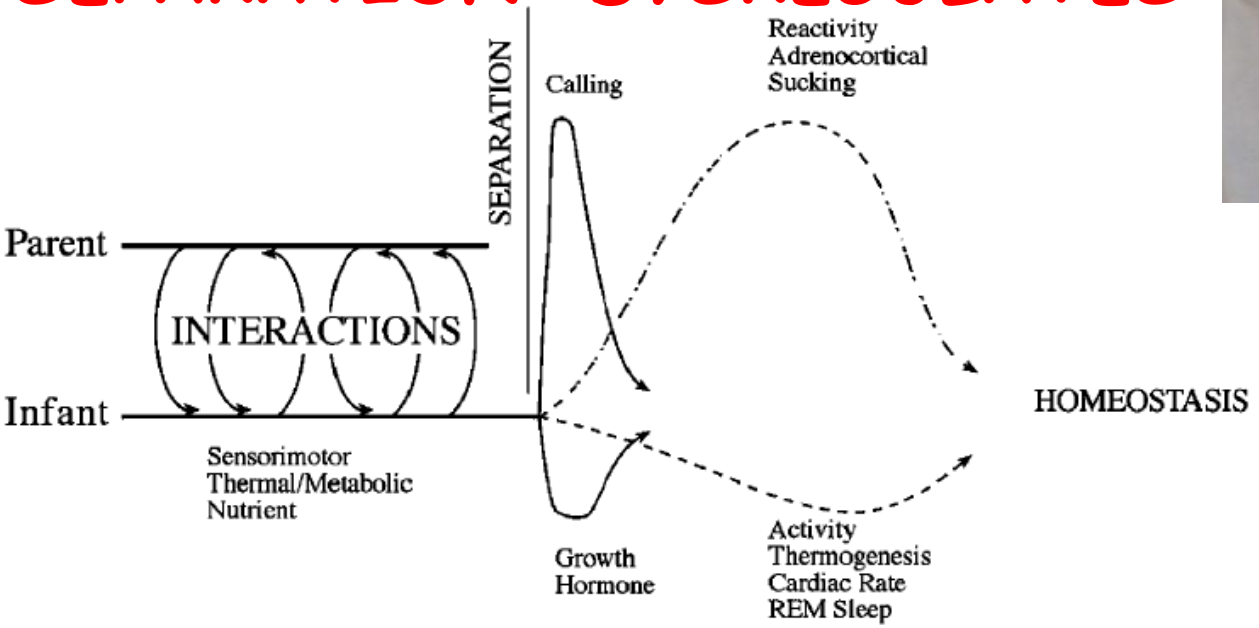
Psychobiological Roots of Early Attachment

Myron A. Hofer



WHY IS EARLY MATERNAL SEPARATION STRESSFUL?

SEPARATION DYSREGULATES



SEPARATION CAUSES INSTABILITY

Impact of SSC on EARLY STABILISATION

Acta Pædiatr 93: 779–785. 2004

Taylor & Francis healthsciences

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Skin-to-skin
STABILIZES
&
PREVENTS
INSTABILITY

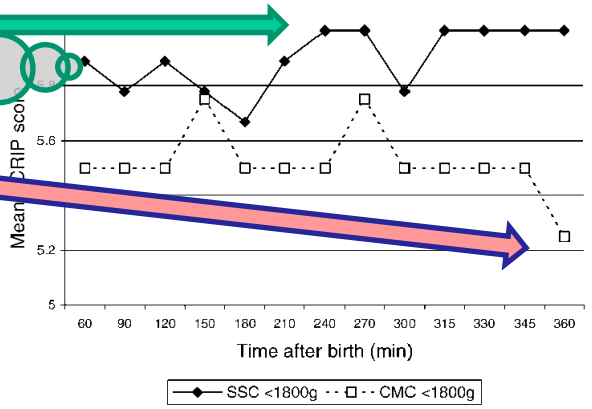

Fig. 4. Average SCRIP scores, sub-analysis of infants below 1800 g birthweight.

MAMMALIAN RESEARCH
Myron Hofer →

REGULATION
Maternal separation
dys-regulates

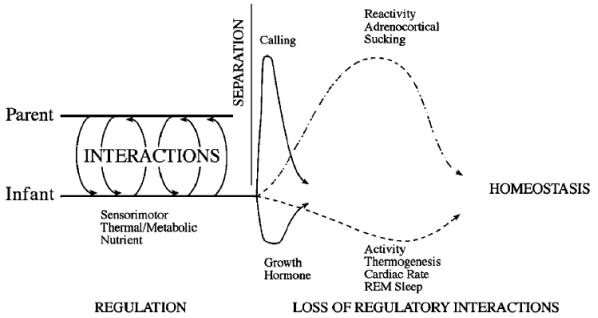

Fig. 2. Schematic representation of the dynamics of early-separation responses resulting from the loss of regulatory interactions within the mother–infant relationship.

WHY IS EARLY MATERNAL SEPARATION STRESSFUL?

Impact of SSC on EARLY STABILISATION

Acta Pædiatr 93: 779–785. 2004

Taylor & Francis healthsciences

Randomized controlled trial of skin-to-skin contact from birth versus conventional incubator for physiological stabilization in 1200- to 2199-gram newborns

NJ Bergman[1], LL Linley[1,2] and SR Fawcus[1,3]

Mowbray Maternity Hospital[1], Mowbray; School of Child and Adolescent Health[2] and Department of Obstetrics and Gynecology[3], University of Cape Town, Cape Town, South Africa

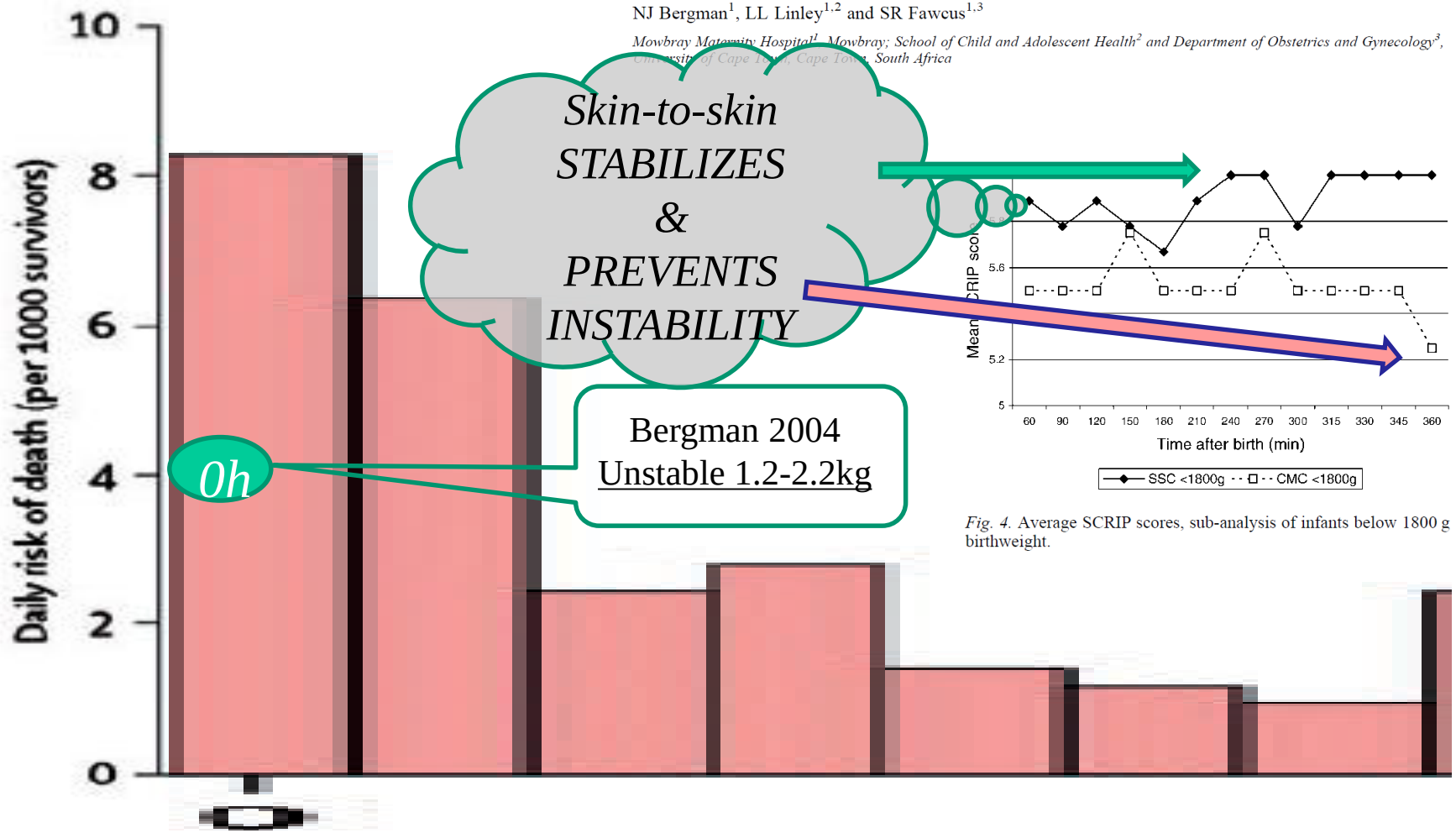

Fig. 4. Average SCRIP scores, sub-analysis of infants below 1800 g birthweight.

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Skin-to-skin
STABILIZES
&
PREVENTS
INSTABILITY

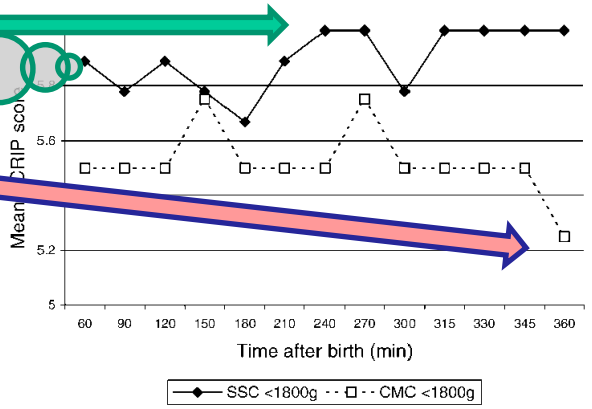


Fig. 4. Average SCRIP scores, sub-analysis of infants below 1800 g birthweight.

MAMMALIAN RESEARCH
Myron Hofer →

REGULATION
Maternal separation
dys-regulates

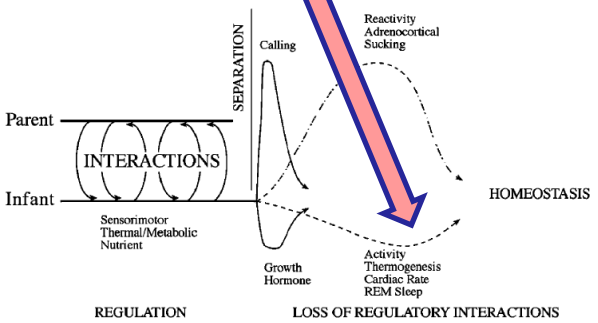
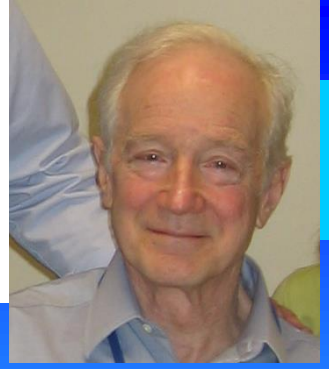


Fig. 2. Schematic representation of the dynamics of early-separation responses resulting from the loss of regulatory interactions within the mother–infant relationship.

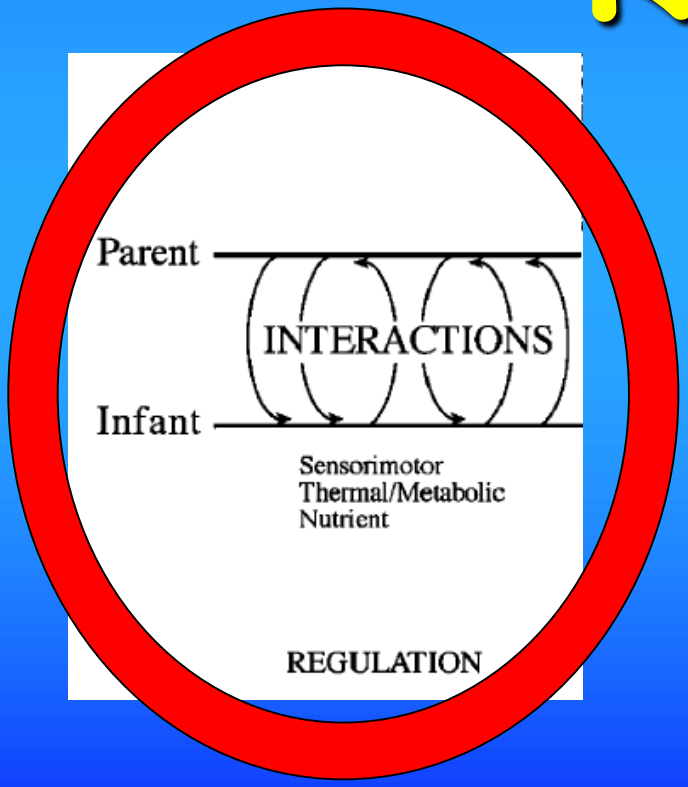
WHY IS EARLY MATERNAL SEPARATION STRESSFUL?

Psychobiological Roots of Early Attachment

Myron A. Hofer



REGULATION



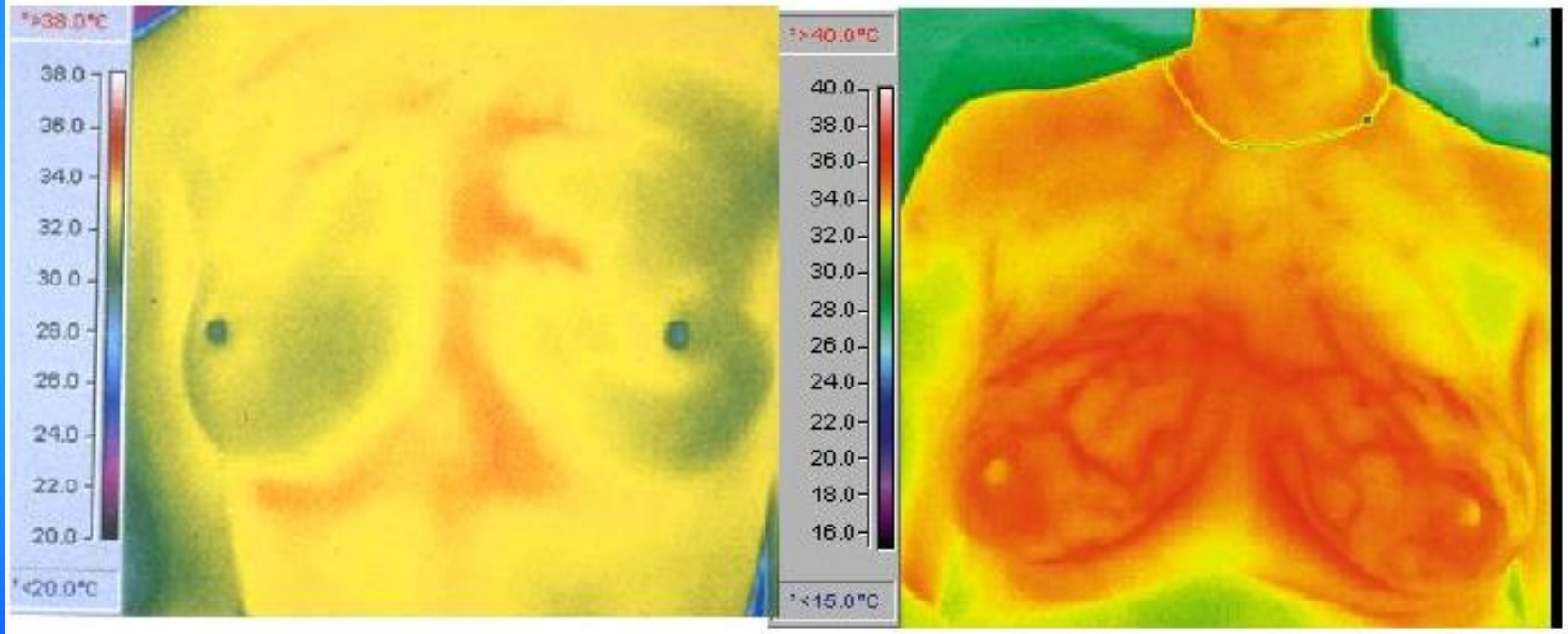
The BOND
is made up of the
sensory inputs
from the parent
to the infant

Bowlby 1969, 1973, 1980

Thermal Images

Non-lactating Breasts

Lactating Breasts



Images courtesy of Prof Peter Hartmann, UWA

Warming, feeding and protection **behaviours** are intricately, inseparably linked to the right place.

(Alberts 1994)

"... creates
a kind of
invisible hothouse
in which the infant's
development can unfold."

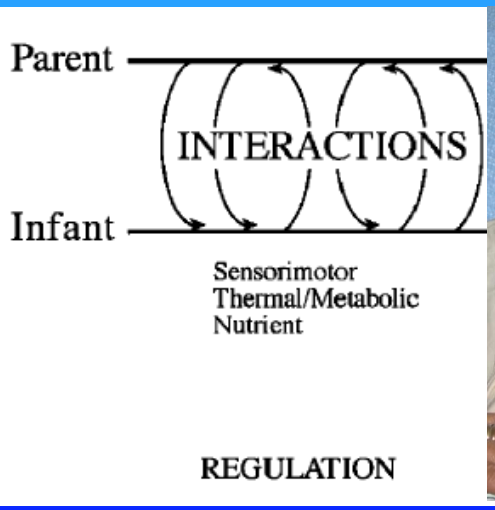
(Hofer in Gallagher 1992) a

PRETERM BIRTH

TRANSITION

REGULATION

invisible hothouse



PRETERM BIRTH

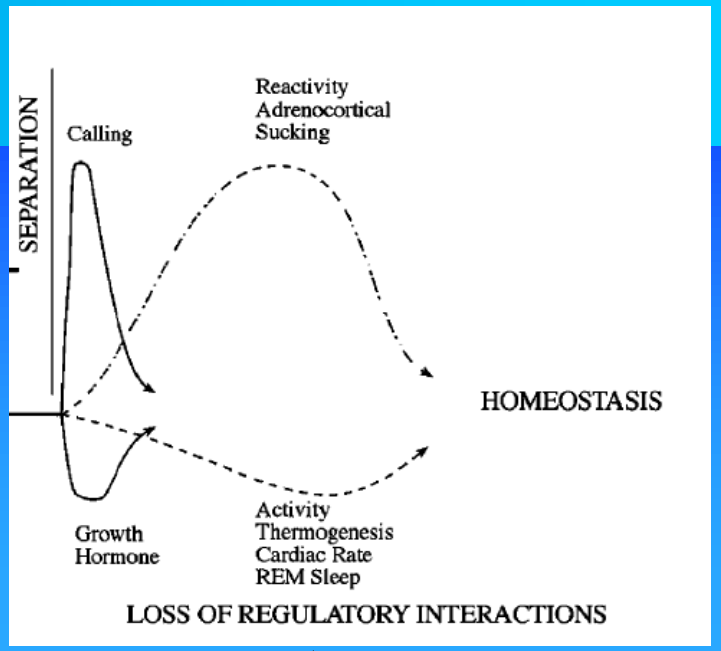
TRANSITION

SEPARATION

FAILS

CASCADE OF DYSREGULATION

INSTABILITY



PRETERM BIRTH

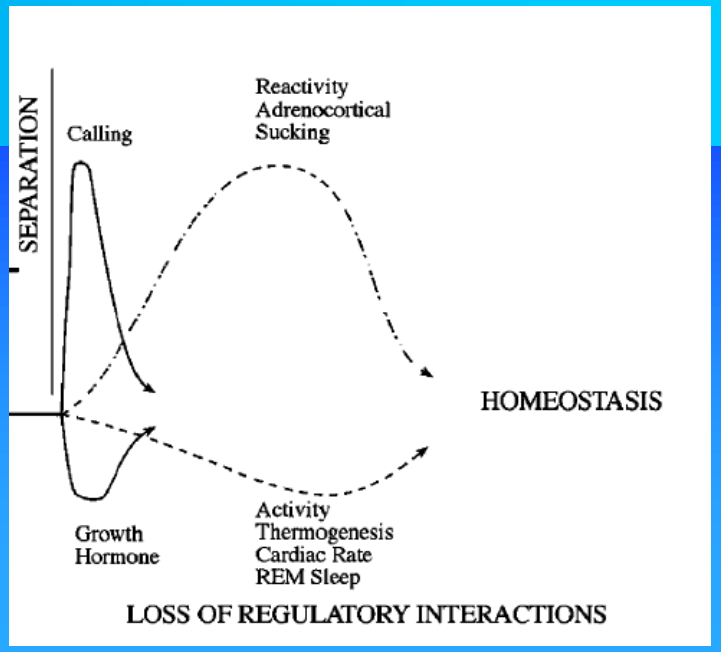
TRANSITION

SEPARATION

FAILS

CASCADE OF DYSREGULATION

INSTABILITY



Hypoxia

Hypothermia

Bradycardia

Infection

Hypoglycemia

PRETERM BIRTH

TRANSITION

SEPARATION

FAILS

INSTABILITY

Excluded from KMC studies

MORTALITY

PRETERM BIRTH

TRANSITION

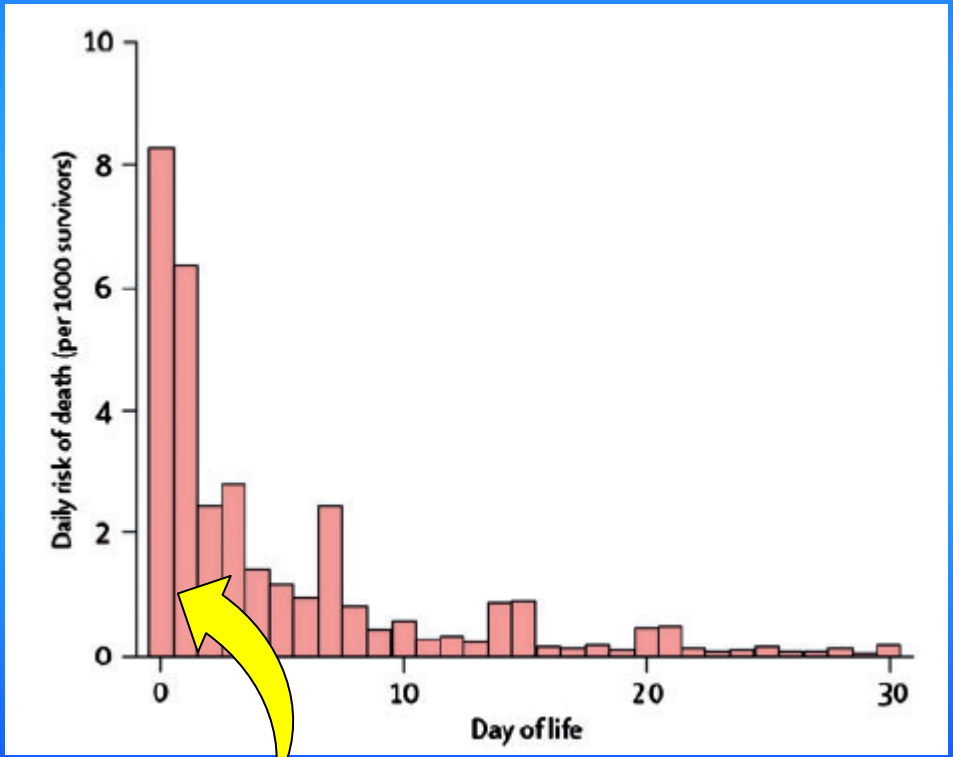
SEPARATION

FAILS

INSTABILITY

Excluded from KMC studies

MORTALITY



PRETERM BIRTH

TRANSITION

SEPARATION

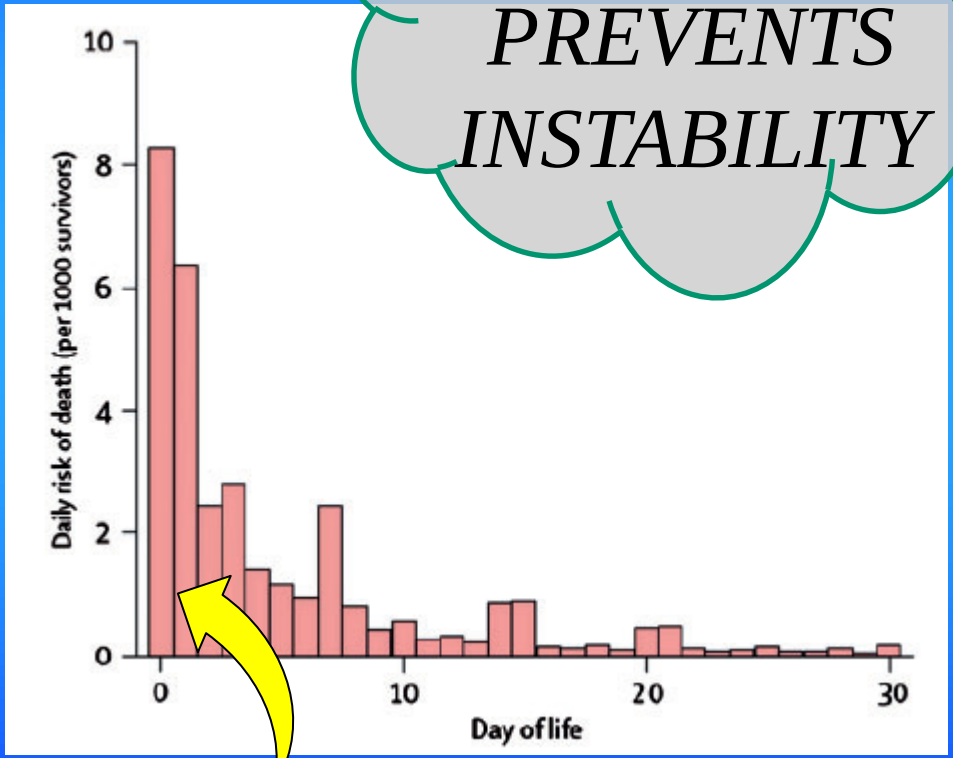
FAILS

INSTABILITY

Excluded from KMC studies

MORTALITY

Skin-to-skin
STABILIZES
&
PREVENTS
INSTABILITY



PRETERM BIRTH

TRANSITION

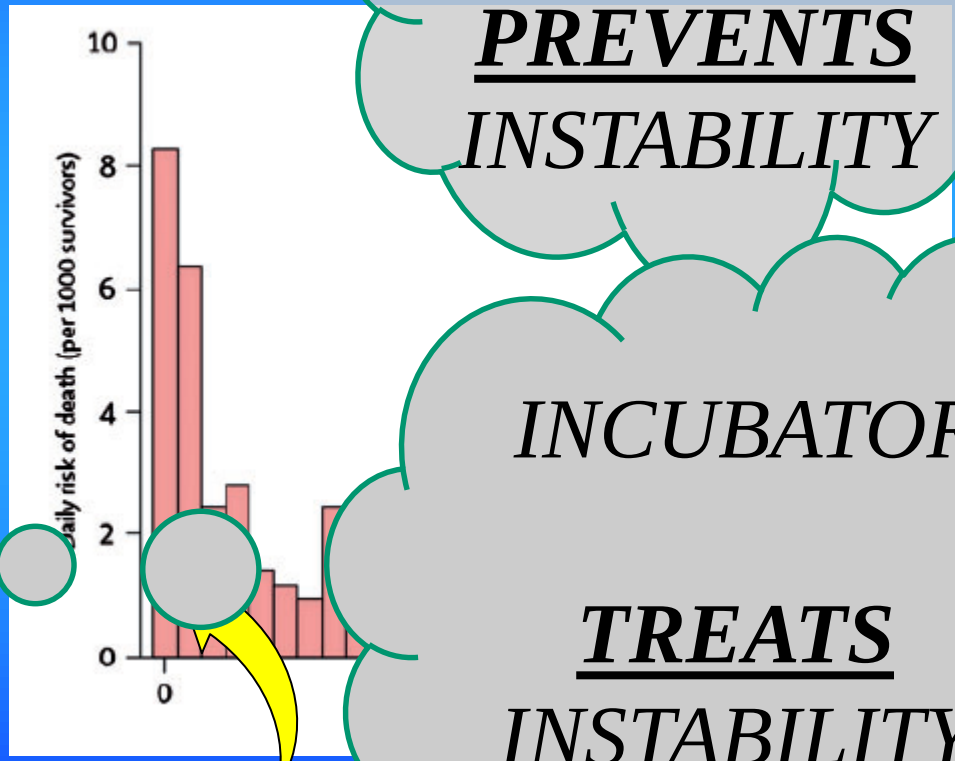
SEPARATION

FAILS

INSTABILITY

Excluded from KMC studies

MORTALITY



Skin-to-skin
STABILIZES
&
PREVENTS
INSTABILITY

INCUBATOR

TREATS
INSTABILITY

'Kangaroo mother care' to prevent neonatal deaths due to preterm birth complications

Joy E Lawn,[1,2*] Judith Mwansa-Kambafwile,[1,3] Bernardo L Horta,[4] Fernando C Barros[4] and Simon Cousens[5]

[1]Saving Newborn Lives/Save the Children-USA, Cape Town, South Africa, [2]Health Systems Strengthening Unit, Medical Research Council, Cape Town, South Africa, [3]Department of Public Health, Faculty of Health Sciences, University of Cape Town, Cape Town, South Africa, [4]Postgraduate Programme in Epidemiology, Universidade Federal de Pelotas, Pelotas, Brazil and [5]Infectious Diseases Epidemiology Unit, London School of Hygiene and Tropical Medicine, Keppel Street, London, UK.

Conclusion This is the first published meta-analysis showing that KMC substantially reduces neonatal mortality amongst preterm babies (birth weight <2000 g) in hospital, and is highly effective in reducing severe morbidity, particularly from infection. However, KMC remains unavailable at-scale in most low-income countries.

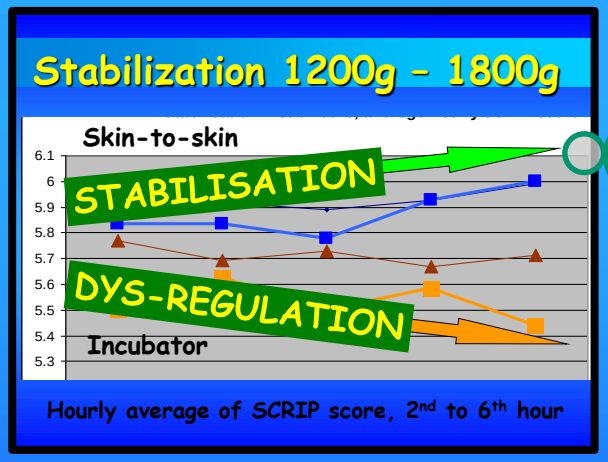
- This evidence is sufficient to recommend the routine use of KMC for all babies <2000 g as soon as they are stable. Up to half a million neonatal deaths due to preterm birth complications could be prevented each year if this intervention were implemented at scale.

half a million deaths … could be prevented

‘Kangaroo mother care’ to prevent neonatal deaths due to preterm birth complications

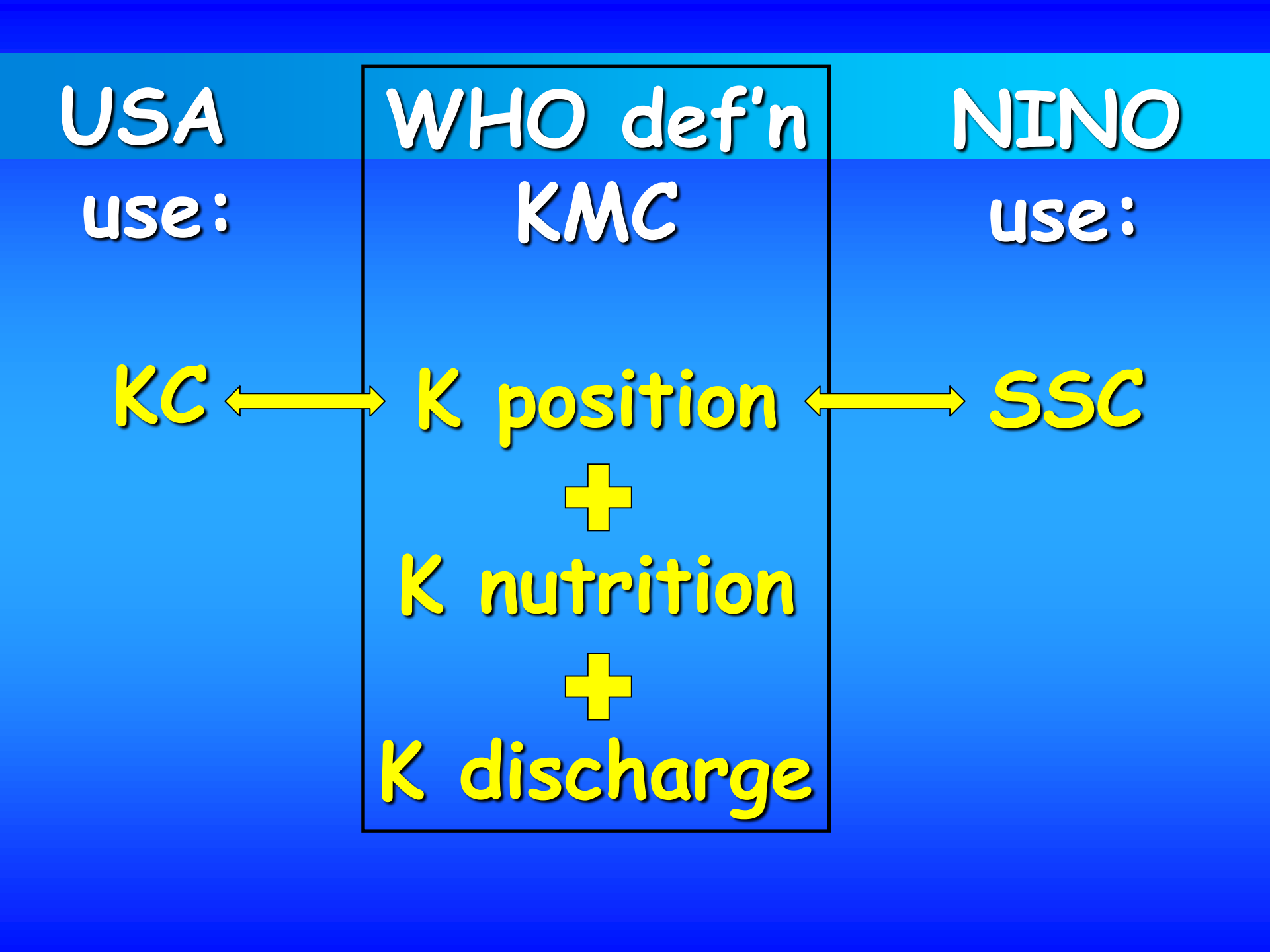
CONTINUOUS
EARLIER
UNSTABLE

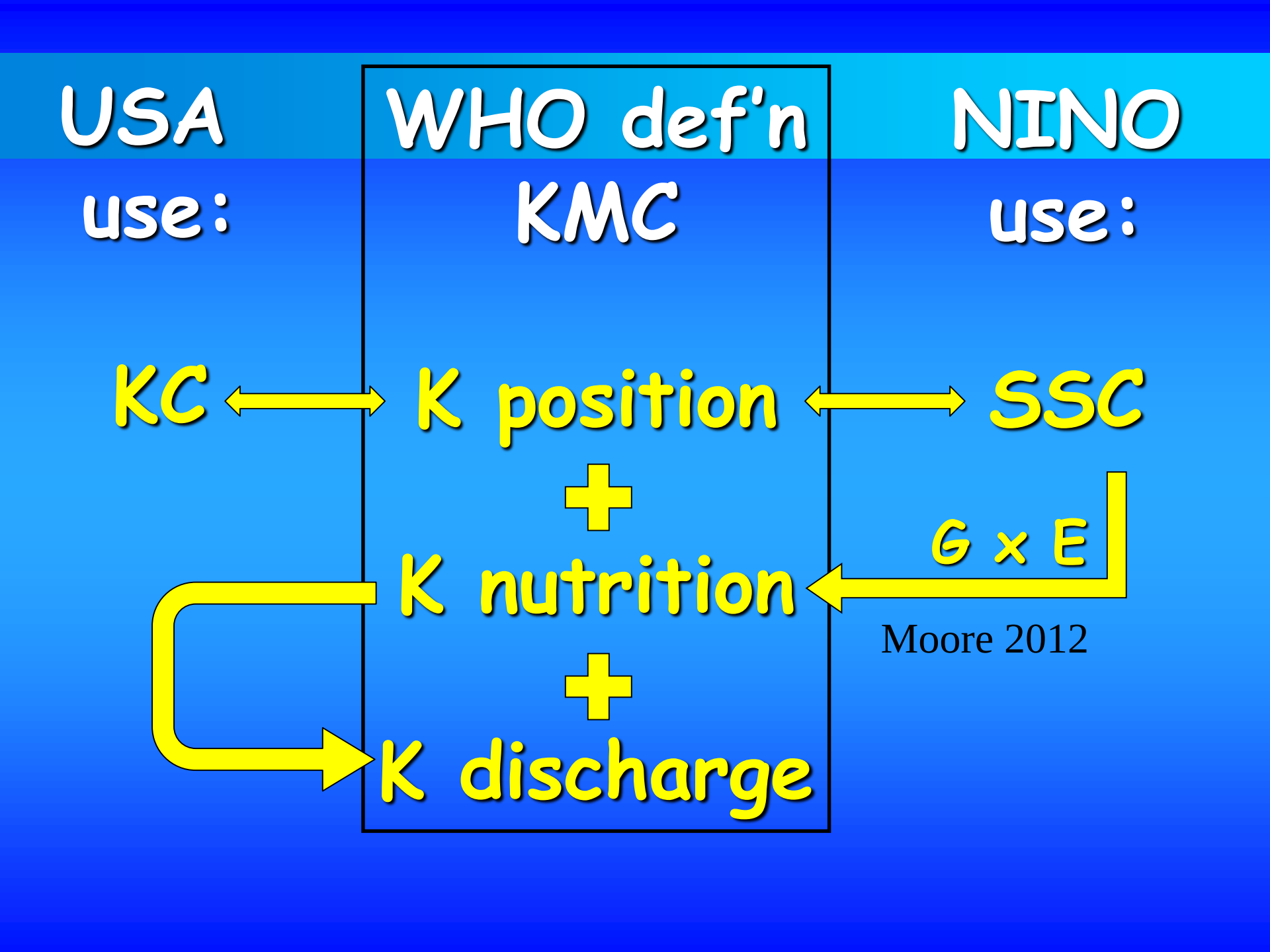
REGULATION



Skin-to-skin
STABILIZES
&
PREVENTS
INSTABILITY

half a million deaths … could be prevented
… ONLY IF … SSC starts at birth


USA
use:
WHO def'n
KMC
NINO
use:
KC
K position
+
K nutrition
+
K discharge
SSC


USA use:
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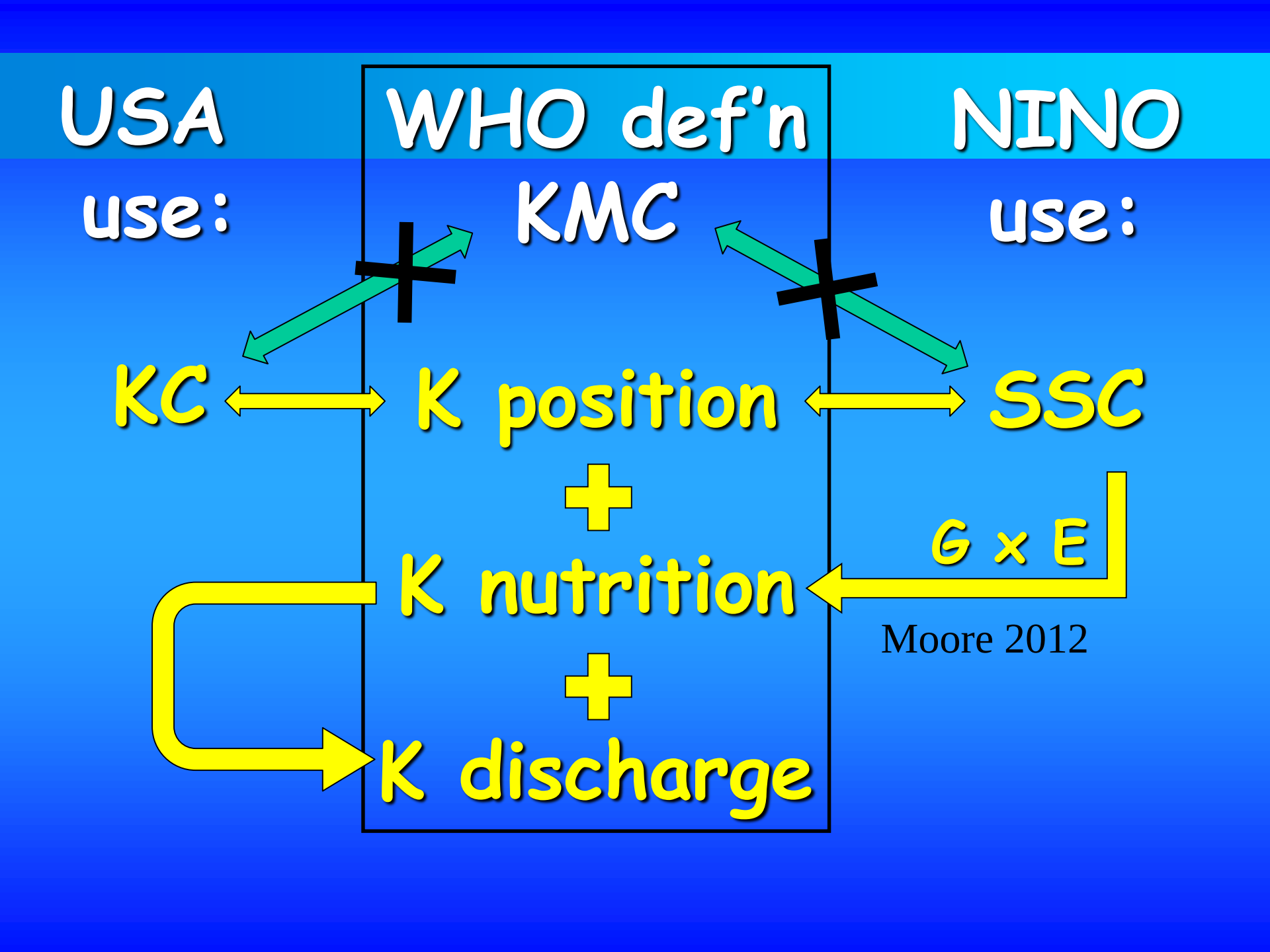
NINO use:
KC
K position
SSC
+
G x E
K nutrition
+
K discharge
Moore 2012


USA
use:
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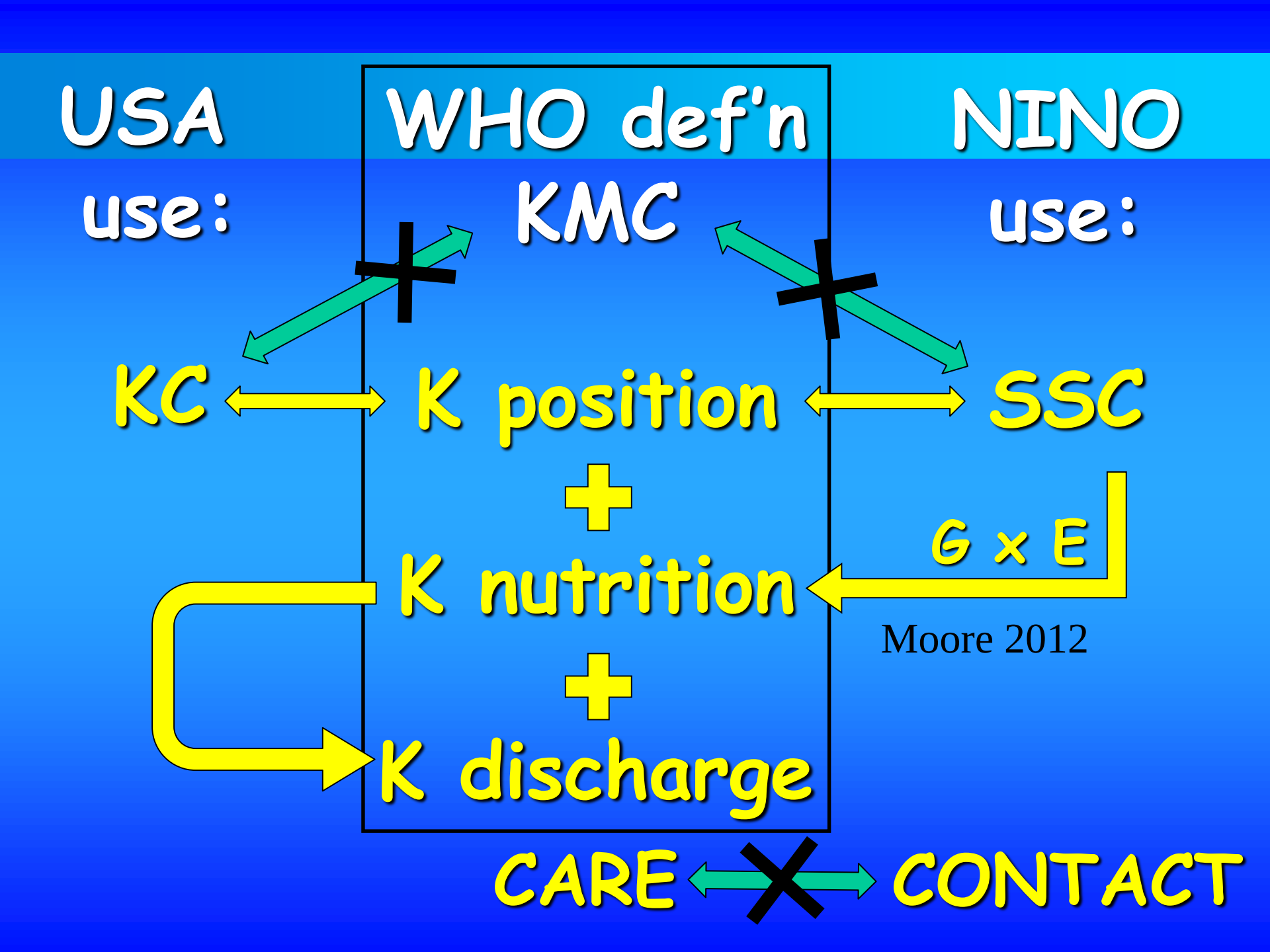
Moore 2012


USA use:
WHO def'n KMC
NINO use:
KC
K position
SSC
+
G x E
K nutrition
+
K discharge
CARE
CONTACT

Moore 2012

IMPACT OF KMC ON GLOBAL MORTALITY RATE

… currently NEGLIGIBLE !!

For KMC to save lives, SSC must start at birth in UNSTABLE NEONATES

DEFINITIVE RCT is a GLOBAL HEALTH PRIORITY

Skin-to-skin
STABILIZES
&
PREVENTS
INSTABILITY

'Kangaroo mother care' to prevent neonatal deaths due to preterm birth complications

Joy E Lawn,[1,2*] Judith Mwansa-Kambafwile,[1,3] Bernardo L Horta,[4] Fernando C Barros[4] and Simon Cousens[5]

[1]Saving Newborn Lives/Save the Children-USA, Cape Town, South Africa, [2]Health Systems Strengthening Unit, Medical Research Council, Cape Town, South Africa, [3]Department of Public Health, Faculty of Health Sciences, University of Cape Town, Cape Town, South Africa, [4]Postgraduate Programme in Epidemiology, Universidade Federal de Pelotas, Pelotas, Brazil and [5]Infectious Diseases Epidemiology Unit, London School of Hygiene and Tropical Medicine, Keppel Street, London, UK.

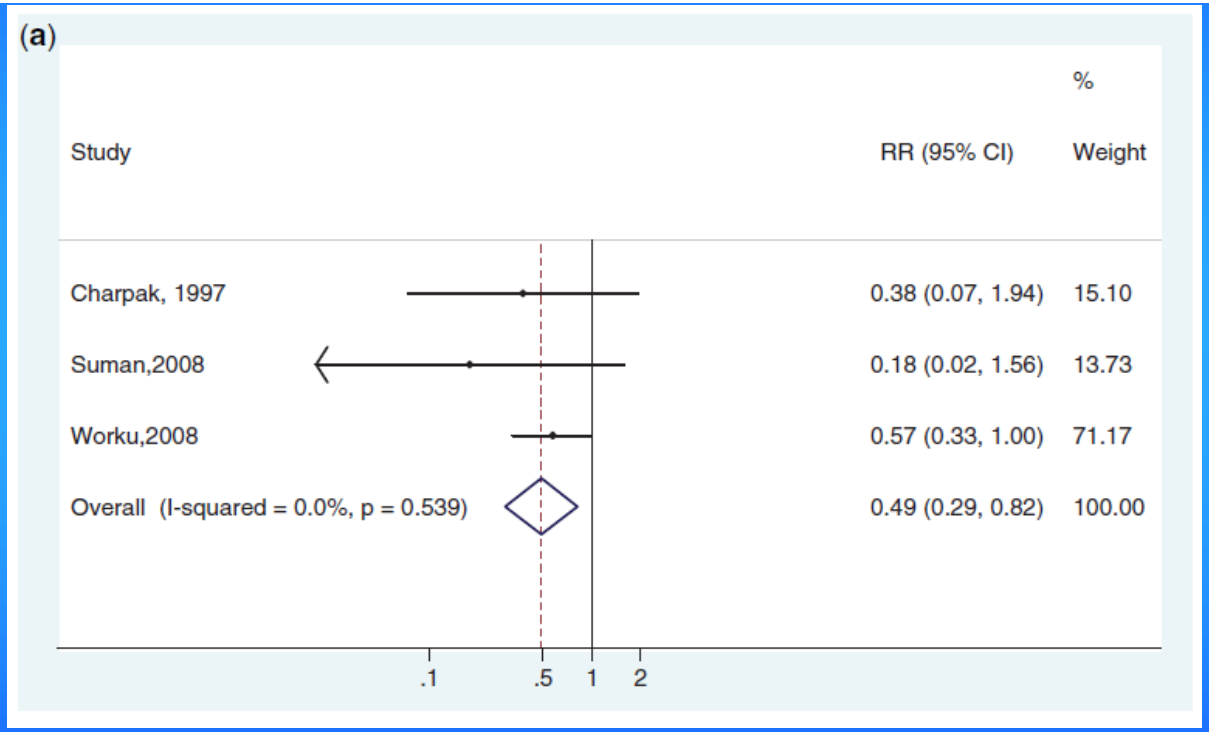
Conclusion This is the first published meta-analysis showing that KMC substantially reduces neonatal mortality amongst preterm babies (birth weight <2000 g) in hospital, and is highly effective in reducing severe morbidity, particularly from infection. However, KMC remains unavailable at-scale in most low-income countries.

- This evidence is sufficient to recommend the routine use of KMC for all babies <2000 g as soon as they are stable. Up to half a million neonatal deaths due to preterm birth complications could be prevented each year if this intervention were implemented at scale.
- Priority research gaps include studies of community level initiation of KMC as well as follow up of facility KMC initiation with early discharge in low income countries.

half a million deaths ... could be prevented

‘Kangaroo mother care’ to prevent neonatal deaths due to preterm birth complications

Joy E Lawn,[1,2*] Judith Mwansa-Kambafwile,[1,3] Bernardo L Horta,[4] Fernando C Barros[4] and Simon Cousens[5]



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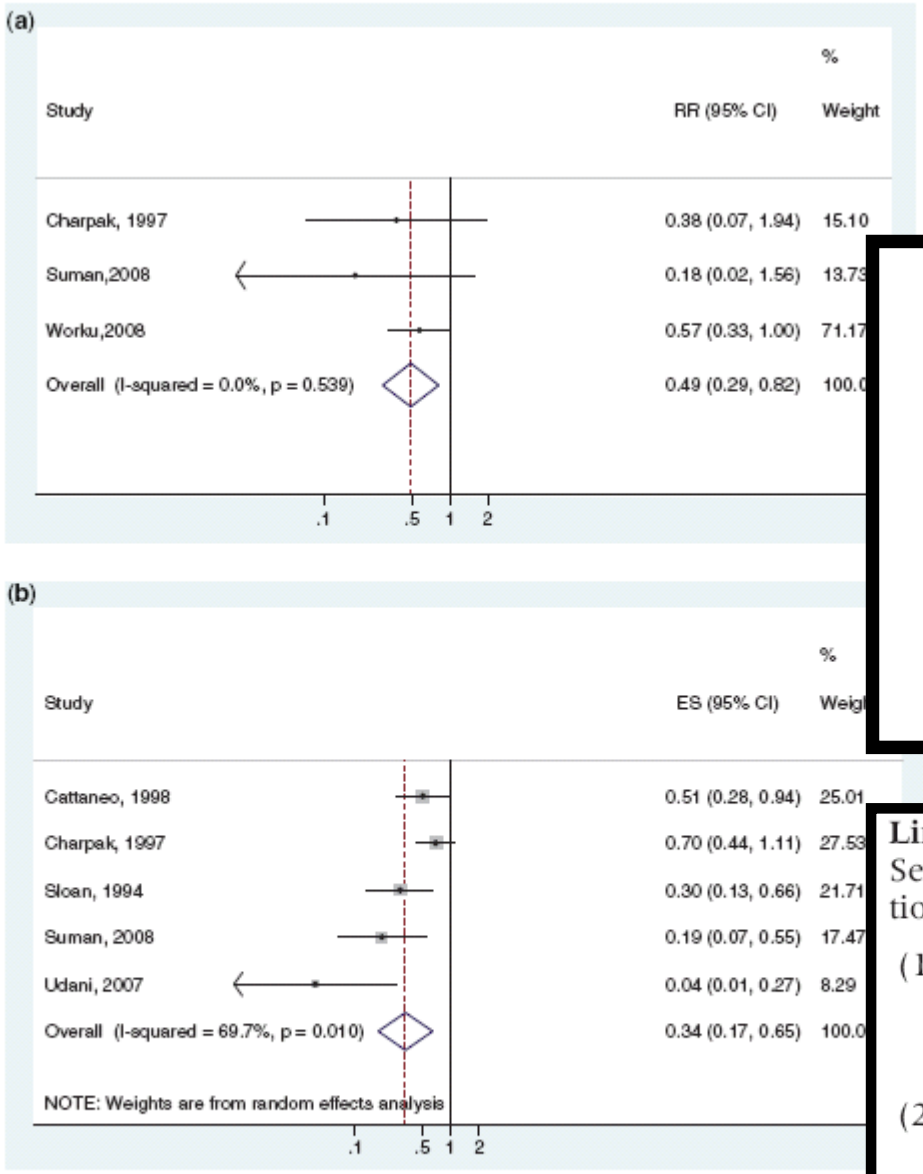


Figure 2 (a) Meta-analysis of three RCTs comparing KMC with standard care showing cause-specific n babies of birth weight <2000 g (assumed to be deaths due to direct complications of preterm birth) and where KMC was started after the first week of life. (b) A meta-analysis of five RCTs comparing KMC w showing effect on severe morbidity (severe pneumonia, sepsis, jaundice and other severe illness) for bab <2000 g and excluding studies where KMC was started after the first week of life. Unpublished neonat courtesy of authors, Charpak and Suman

Discussion

This is the first meta-analysis presenting evidence of the mortality benefit of KMC. We report a large cause-specific decrease of 51% (95% CI 18–71% reduction) in neonatal deaths with birth weight of <2000 g based on three RCTs (988 babies). A meta-analysis of three observational studies estimated a somewhat smaller effect (32% reduction), although these data are of lower quality and were in usual health system implementation settings. It is evident that KMC has a substantial mortality effect compared with conventional neonatal care, and it is also evident that this mortality benefit is possible even at large scale.[27]

Limitations of the evidence:

Several systematic biases resulting in underestimation of mortality effect

(1) The control group in all these studies is routine incubator care, whereas the group of interest for policy/programmes are babies currently receiving no medical care

(2) Late initiation of KMC/strict restriction to older, stable babies, whereas practice now is to start KMC earlier. Early initiation of KMC for stable babies is likely to be higher impact since up to 50% of neonatal deaths occur on the first day of life

Comment on: 'Kangaroo mother care' to prevent neonatal deaths due to pre-term birth complications

From NANCY L SLOAN,[1]* SALAHUDDIN AHMED,[2] GENE CRANSTON ANDERSON[3] and ELIZABETH MOORE[4]

IJE, doi:10.1093/ije/dyq174

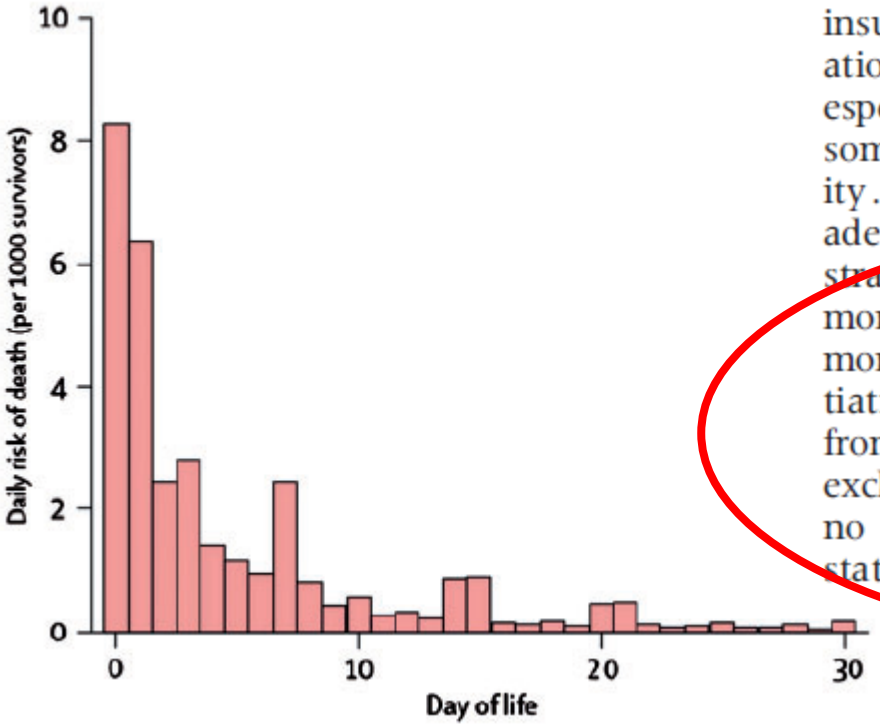
We agree that EKMC has potential for averting some neonatal mortality associated with prematurity and infection. We wish sufficient evidentiary data existed to quantify and qualify the effects of EKMC in institutional as well as community settings. However, to date, there is no single adequately designed and implemented trial to demonstrate the effect of early KMC on newborn or infant mortality. The mortality benefit of EKMC may prove substantial or limited; however, sufficient data of minimally adequate quality do not currently exist to demonstrate that EKMC reduces mortality compared with conventional neonatal care.

As Lawn *et al.* correctly state, currently there is insufficient evidence to recommend CKMC, and there are many other aspects of EKMC, CKMC and traditional KMC that require further investigation. Adequately designed and statistically powered individual RCTs of early KMC using the CONSORT guidelines,[21] that can be included in future meta-analyses, are urgently needed to guide policy and programme planning.

… adequate RCT's … are urgently needed

Authors' Response
'Kangaroo mother care' to prevent neonatal deaths due to pre-term birth complications

From JOY E LAWN,[1,2]* JUDITH MWANSA-KAMBAFWILE,[1,3] FERNANDO C BARROS,[4] BERNANDO L HORTA[4] and SIMON COUSENS[5]



Conclusions

Sloan *et al.* agree with our statement that there is insufficient evidence to recommend community initiation of KMC.[1] Although Sloan *et al.* state that KMC, especially started early '...has potential for averting some neonatal mortality associated with prematurity...', their conclusion is that there is 'no single adequately designed and implemented trial to demonstrate the effect of early KMC on newborn or infant mortality', even for facility-based KMC. We all agree more trials are needed, especially for community initiation, and we all agree future trials should learn from the limitations of the ones included and excluded here. We also all agree that there is as yet no one 'perfect' trial even for facility KMC, and as stated in our paper, all of the three RCTs in our

Lancet 2005; 365: 891–900

... all agree more trials are needed ...