



Saving Low Birth Weight Newborn Lives through Kangaroo Mother Care (KMC)

Introduction

Each year over a quarter of a million newborn babies die in Nigeria during the first month of life – the highest number of newborn deaths in Africa and second highest globally¹. With a neonatal mortality rate of 40 per 1,000 live births (DHS 2008), Nigeria still has the ninth highest risk of newborn deaths of 46 African countries. Recent estimates suggest that up to 177,600 of these newborn deaths in Nigeria could be prevented, if existing interventions reached 90% of women and babies. A quarter of these deaths are deaths of low birth weight and preterm babies (birth weight < 2,500kg) who did not have the appropriate care.

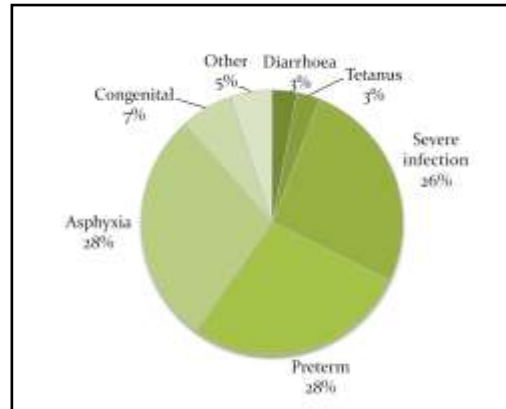


Figure 1; Estimated causes of newborn deaths in Nigeria

Existing methods of caring for small babies

Incubators are widely used in developed countries for the care of very small and premature babies. However, because of their high cost, many hospitals in Nigeria do not have incubators. Where incubators are available, often they do not work due to incessant power outages or poor repair cultures. The number of babies needing to use the incubator often exceeds the number of available functional incubators. In addition, the prolonged stay in hospital associated with incubator care is often very costly for most families, and contributes to overcrowding of the already small space in neonatal units.

Kangaroo Mother Care; Special Care for low birth weight /premature babies

'Kangaroo mother care' (KMC) includes thermal care through continuous skin-to-skin contact, support for exclusive breastfeeding or other appropriate feeding, and early recognition/response to illness. Scientific research has shown that KMC is an effective and affordable method of providing quality life-saving care to LBW/preterm babies especially in low resourced countries. KMC reduces the risks of major causes of death in LBW/ preterm babies especially hypothermia, infections and cardio-respiratory problems. Facility-based KMC practice equips the mother with skills to (a) protect her infant from these risk factors, (b) nourish her infant for improved growth and development, and (c) practice KMC at home after discharge by involving her family early so that the mother can be supported to continue KMC at home. New research has shown that facility-based KMC can significantly reduce neonatal mortality especially if it is started in the first week of life for stable babies.

¹ Saving Newborn Lives; Newborn Health in the context of IMNCH Strategy Rev edition 2011



Introduction of Kangaroo Mother Care in Nigeria

KMC was first introduced to Nigeria in the late 1990s through a resident paediatrician at the University of Lagos Teaching Hospital. Following a month-long training in Bogotá, Colombia, the first study on skin to skin care for Nigerian newborns was conducted in 2001. The results of this study were presented at the 2002 Paediatric Association of Nigeria (PAN) conference and published in the Nigeria Journal of Paediatrics.

A training workshop was held with doctors and nurses from sixteen teaching hospitals across the country. In 2007, ACCESS supported the introduction of KMC in two general hospitals in Kano and Zamfara states. As part of the process, ACCESS worked with the FMOH to adapt a KMC training manual, which could be used by health institutions

across the country to train staff on KMC. Kangaroo Mother Care practice has continued at various levels but it has not been systematically rolled out since there has not been a plan to expand services beyond the existing KMC centres.

Although there is no specific KMC policy, it has been identified as one of the key interventions adopted by Nigeria as special care of low birth weight /preterm babies and articulated in the National Integrated Maternal Newborn and Child Health strategy. KMC has also been included in the Infant and Young Child Feeding Guidelines, the National Child Health Policy, and Key Strategies for Community IMCI. It is now a known fact that reaching all preterm babies in Nigeria with KMC alone by 2015 would save over 19,000 lives². Although only an estimated 14 percent³ of Nigerian newborns are low birth weight, yet these babies account for the majority of newborn deaths. Kangaroo Mother Care (KMC) is a feasible and low cost approach for managing LBW babies, and has been shown to reduce mortality and serious morbidity in preterm babies and is currently being successfully implemented in several African countries including Nigeria. With support from a number of partners; Kano, Zamfara, Katsina, and Yobe now have more than 50 trained KMC trainers who can train others in Nigeria. However, these are limited to only some regions in the country.

PRRINN-MNCH began training of trainers in the target states in 2009 when the programme began (see table 1 below number of trainers prepared) and so far in these states, trained providers have found KMC very useful, interesting, low cost, easy to adopt, relatively simple to implement, and a successful and beneficial intervention for low birth weight babies. Some babies admitted with weights as low as 1.4 kg were managed successfully with KMC (see table 1). KMC will reduce the dependence on incubators especially where few incubators exist, for the large number of babies needing this special care. KMC is also beneficial with the currently incessant power outages across the country. So far in the PRRINN-MNCH cluster facilities over 150 health workers have been trained in KMC and about 20 centres including; PHCs, General Hospitals & Tertiary Institutions are providing the service. Participants trained were provided with KMC kit for own facility-based usage.

² Science in Action; Saving the lives of Africa's mothers , newborns & children 2009

³ Unicef. State of the World's Children 2010. New York: Unicef; 2009



Participants at KMC Training of Trainers Workshop

Table 1: In-service training of MNCH workers and clinic statistics for KMC in PRRINN-MNCH supported health facilities in cluster 1 in Katsina, Yobe and Zamfara states

Indicators	Katsina	Yobe	Zamfara	Total	Remarks
In-service training					
Number of health care workers trained in newborn care in programme sites	50 (7 LEOs, 43 HF based)	50	51	151	State level step down training in cluster 1
Number of health care workers trained in newborn care at PRRINN-MNCH national level	10	11	10	31	TOTs by PRRINN-MNCH Kano. The trainers now carrying out step down training at state level (capacity for roll out)
Facility-based Kangaroo Mother Care (KMC)					
% of targeted facilities where KMC is operational	62% (8/13)	46% (6/13)	38% (5/13)	49%	A cluster with 13 target HF's
Number of health care providers trained in KMC	54	70	51	175	13 doctors, 10 health assistants among trained
Number of LBW babies admitted to KMC	68	50	24	142	
Number of LBW babies admitted to KMC who were discharged	66	48	?	-	? no data
% of LBW babies admitted to KMC who survived to discharge	97%	96%	?	-	Favourable outcome of care for 2 states ? no data
Number of KMC babies lost to follow-up (missed two subsequent visits)	2	40	?	-	? no data

Outcome of KMC - From the clinic data above, there is very favourable survival rates (96%) of LBW babies managed in KMC centres in 2 states where full data were available.



PRRINN-MNCH collaboration at Federal Level for the revision of KMC training package

The national KMC training packages were reviewed, revised and adapted for use in Nigeria with strong participation of PRRINN-MNCH and SC at the Extraordinary Core Technical Meeting on Newborn which was organised by FMOH in Kaduna, September 2010. The key documents adapted included the KMC training manuals and supportive toolkits. SC Nigeria will support the printing and distribution of these training materials and toolkits. The workshop also agreed to revise the national child health policy to include KMC as a key intervention for the management of low birth weight babies, at a later date. The current national child health policy is thin on KMC and therefore will be revised to prominently include KMC.

Lessons learnt

Tools for successful implementation of KMC based on experience include:

- 1) Committed individual(s) to drive the program
- 2) Quality planning
- 3) Situation and needs analysis of the internal politics of the institution/LGA/state
- 4) Choice of KMC model (continuous and intermittent KMC)
- 5) Resources, (especially enough trained providers)
- 6) Administrative changes - to support implementation
- 7) Support structures
- 8) Continuous self-improvement and self-evaluation
- 9) KMC ward policy / organization



Participants at KMC TOT training

Challenges

Some of the challenges include:

1. Acceptance of KMC by
 - Parents (cultural attitude and practice often against)
 - Health care workers
 - Hospital administration
2. Acceptance to stay long enough in KMC ward (mothers prefer to leave health facilities soon after birth)
3. Post-discharge follow-up
4. Data collection and monitoring



Next steps for PRRINN-MNCH in 2011

- Printing and distribution of adapted national training package for KMC
- Facilitate State level dissemination of revised Newborn Situation Analysis and state newborn profiles recently launched at Federal level during PANCOF (Jan 2011)
- KMC registers reviewed, adapted and produced for use in the target states
- Conduct a review (an evaluation) of KMC implementation in the initial clusters (cluster 1)

Conclusion

KMC implementation is very feasible if the driver of the program is focused and motivated to achieve set goals



Mothers at KMC centre



Extraordinary CTC meeting in Kaduna to review KMC training package and toolkits, Sept 2010



KMC TOT: Facilitator helping a participant put LBW baby in KMC position