

KANGAROO MOTHER CARE IN RWANDA

OVERVIEW

The Ministry of Health has committed to improving the health outcomes of preterm and low birthweight (LBW) babies by leading the scale-up of facility-based KMC services in collaboration with partners and stakeholders since 2007. Currently, KMC is provided in all district hospitals. KMC has been included in the national RMNCH policy and the national guidelines for care of small babies, including the Neonatal Protocol Manual and Essential Newborn Care Guidelines. The Neonatal Protocol Manual outlines that healthcare providers should encourage all mothers of stable LBW babies (<2.5 kg) to provide KMC to prevent hypothermia, enable frequent breastfeeding, and allow for earlier hospital discharge. The Essential Newborn Care Reference Manual describes KMC along with its advantages, discharge criteria, and the importance of follow-up within one week of discharge from the district hospital. As the country transitions from the scale-up of KMC services to sustainability and quality, there are opportunities for improvement, e.g., increasing the number of beds designated for KMC at each hospital, standardizing the follow-up after discharge, and improving data quality.

Table I. Status of KMC in Rwanda by Strategic Area

Domain	Prior to and during 2014	2015–2017
Policy		
National Health Policy	Facility-based KMC was included in the National Child Health Policy in April 2009.	The MOH is currently reviewing an RMNCH policy that includes KMC. It is expected that the MOH will sign and approve the policy later this year (2017).
National Guidelines	<ul style="list-style-type: none"> - KMC was integrated in the basic reference manual of emergency obstetrics and neonatal care (EmONC) in 2009, in the Neonatal Protocols (MOH, 2011), in the Essential newborn care reference manual in 2011, in the Neonatology Clinical Treatment Guidelines, (MOH, 2012), in the National Neonatal Care Protocol (MOH, 2014), and in the maternal community health workers trainings. - National KMC guidelines were developed and published in November 2011. 	<ul style="list-style-type: none"> - KMC guidelines are being updated with greater detail. - KMC continues to be part of the Essential Newborn Care Guidelines; the most recent version was published in December 2015.
Country Support/Implementation		
Levels and types of facilities implementing KMC	KMC was introduced as a pilot in the Muhima District Hospital in Kigali in 2007. Subsequently, KMC was scaled to eight district-level facilities from 2007 to 2010 (Mwali, 2014). According to an assessment conducted in 2012, 30	It is recommended in the Norms and Standards of Neonatal Care that there should be at least 4–6 beds in each district hospital designated for KMC. LBW babies born in first level facilities are referred to district hospitals where they are stabilized and initiated in KMC.

	of 40 sampled district hospitals had some KMC services (Bergh, et al. 2012).	
Percentage of LBW newborns initiated on facility-based KMC		An estimated 75% or more LBW newborns are initiated on facility-based KMC, because KMC is part of the national protocol. District hospitals are implementing KMC but data is needed to support this estimate.
Funding	The national health insurance scheme, Mutuelle Santé (used by 90% of Rwandans), includes KMC in its coverage.	Because KMC is under the RMNCH umbrella and KMC is integrated in newborn care, KMC funding mostly comes from MOH.
Research		
Major or program-based studies being conducted related to KMC currently		A study was conducted in the Kabutare District Hospital about KMC follow-up after discharge (Cannoodt & Mwali, 2015).
Knowledge Management		
Centers of excellence or state-of-the-art facilities for KMC/care of LBW babies	The Muhima District Hospital was established as center of excellence in August, 2007. This initiative was led by the MOH with support from the ACCESS project.	
Monitoring & Evaluation		
KMC indicators included in the national HMIS	KMC indicators were integrated in HMIS in 2013. KMC admission and KMC follow-up in district hospitals disaggregated by preterm and low birthweight babies.	KMC indicators continue to be included in the HIMS. However, the denominator of the KMC indicator includes all newborn babies. Currently, there are discussions about changing the denominator to babies who weigh 2kg or less.
KMC data recorded at health facilities	KMC was not documented in a standard way prior to 2013.	Health facilities providing KMC services track service delivery using the KMC register. Facilities then submit monthly reports on KMC indicators that are included in the HMIS. There are opportunities for improvement of data quality and completeness.
Advocacy		
Professional organizations that endorse KMC	There were two main professional organizations endorsing KMC, the Rwanda Pediatric Association and the Rwanda Midwifery Association.	The Rwanda Pediatric Association and the Rwanda Midwifery Association have endorsed KMC; both organizations promote KMC through training and mentorships in health facilities.
Champions	There were champions at different levels such as the MOH, partners, and healthcare facilities advocating for KMC. Some of the champions were Dr. Agnes Binagwaho former Minister of Health and Dr. Assumpta Mwali Kayinamura.	There are strong local KMC champions but a lack of resources for monitoring and follow-up. The MOH continues to be a strong champion given its commitment and continuous engagement with KMC.

Table II. DHS Proxy Indicators for KMC

DHS Indicators Related to KMC (Rwanda DHS, 2014-15)		
Identification of LBW babies	Characteristic	Percent
Percent distribution of live births in the three years preceding the survey by mother's estimate of baby's size at birth, according to background characteristics	<i>Very small</i>	3
	<i>Smaller than average</i>	12.9
Percentage of births that have a reported birthweight		92.2
Percentage of babies weighing less than 2.5 kg among births with a reported birthweight		6.3
Initial Breastfeeding		Percent
Percentage of children born in the past two years who started breastfeeding within one hour of birth		80.5
Percentage of children born in the past two years who started breastfeeding within one day of birth		95.7
Skin-to-Skin Contact		Percent
Percentage of births that have skin-to-skin contact among most recent live birth in the three years preceding the survey		N/A

CHALLENGES

- There are major funding gaps for KMC, a need for more beds and space for KMC at the hospitals, lack of food at hospitals for new mothers, and lack of nutritional support for LBW babies.
- It is not always possible for mothers to bring the babies back to the health facilities for checkups due to long distances and lack of access to transportation.

LESSONS LEARNED

- The strong leadership from the MOH and the support of partners and other stakeholders have been essential to the scale-up of KMC. KMC has been integrated in national policies and guidelines as well as in the HMIS and registers.
- WhatsApp is used in some districts to follow up on mothers of LBW babies.

FUTURE ACTIONS

- Review neonatal protocols against best practices to promote early and exclusive breastfeeding using minimum enteral nutrition (MEN) approaches
- Mentorship on MEN complete documentation of feeds (nutrition methods, types, frequency) in existing national neonatal medical record forms
- Develop guidelines and a clear plan to follow up preterm/LBW babies after discharge until they reach one year of age
- Engage leaders such as the director of health, the director of affairs, and the directors of hospitals to continue advocating for the acceleration of KMC.
- Include QI activities focused on family-centered care (promotion of companion of choice ongoing, intermittent KMC, engagement of family members in KMC and improved counseling)
- Integrate KMC in the nursing curriculums
- Engage private practitioners and private clinics

DOCUMENTS AND RESOURCES

Document Title	Link to Document
Neonatal Protocols (2011)	www.childrenshospital.org/~media/research-and-innovation/divisions/newborn-medicine/neonatalprotocolsrwanda.ashx
Neonatology Clinical Treatment Guidelines (2012)	www.moh.gov.rw/fileadmin/templates/Norms/Neonatology-Clinical-Treatment-Guidelines-OTHER-VERSION.pdf
Evaluation of Kangaroo Mother Care Services in Rwanda (2012)	http://reprolineplus.org/system/files/resources/Rwanda%20KMC%20Evaluation%20Report_0.pdf
Early outcomes of preterm babies hospitalized in Kangaroo Mother Care unites in Rwanda (2014)	http://fundacioncanguro.co/es/documentacion/docuementos/doc_download/364-13-early-outcomes-ppt-assumpta-mwali-rwanda.html
Follow-up Assessment of Preterm Infants in Southern Rwanda: Final Results (2015)	www.vlaamsegezondheidszorg.com/sites/default/files/august10_ppt_for_moh_3_dec_2015.pdf
A health partnership to reduce neonatal mortality in four hospitals in Rwanda (2017)	https://globalizationandhealth.biomedcentral.com/articles/10.1186/s12992-017-0252-6

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