KANGAROO MOTHER CARE IN MALAWI

OVERVIEW

Malawi's implementation of kangaroo mother care (KMC) has progressed since its introduction as a pilot in 1999. The Ministry of Health (MOH), with the support of partner organizations, instituted policies and strategies that prioritized the care of small and preterm newborns. National guidelines for KMC were developed in 2005, and in 2015 the MOH launched the country's Every Newborn Action Plan, which sets an ambitious goal of reaching 75% of eligible newborns with KMC by 2020 and 90% by 2035. Facility-based KMC services are tracked through the national health information management system, which in 2015 was strengthened to include core indicators and standardized national registers, as well as reporting forms for KMC. Today, KMC continues to be highlighted in guidelines, training, and campaigns to reduce the number of preventable deaths among newborns.

The World Health Organization and UNICEF featured Malawi's progress in reducing newborn mortality rates in the report *Reaching the Every Newborn National 2020 Milestones: Country Progress, Plans and Moving Forward* (2017). It is crucial that Malawi continues to move forward by increasing the coverage of KMC services, mentoring staff, improving KMC data quality and data use, and disseminating lessons learned from the KMC centers of excellence.

Table 1. Status of kangaroo mother care in Malawi by strategic area

Domain	Prior to and during 2014	2015–2017
Policy		
National Health Policy	Kangaroo mother care (KMC) was integrated into national policy in 2005 through one of several essential health care packages implemented by the Malawi Ministry of Health (MOH), as detailed in the *Road Map for Accelerating the Reduction of Maternal and Neonatal Mortality and Morbidity in Malawi*.	In 2015, the MOH launched the Malawi Every Newborn Action Plan (ENAP) (Malawi MOH 2015), which emphasizes strengthening health systems to achieve the high coverage of interventions such as KMC. The coverage targets for facility-based KMC listed in the ENAP are 75% by 2020, 80% by 2025, 85% by 2030, and 90% by 2035.
National Guidelines	• The first national guidelines for KMC were published in February 2005 and revised in March 2009 to cover ambulatory and community KMC (Malawi MOH 2009). The guidelines recommended that all babies under 2,500 g be started on KMC and specified admission and discharge criteria for each facility level. In general, stable babies weighing 2,000–2,500 g are initiated on KMC at the health facility and sent home. Mothers are given instructions on when to bring their baby back for follow-up. • KMC was included in the Child Health Strategy 2014–2020 as an intervention to avert newborn deaths (Malawi MOH 2013).	KMC was incorporated into the integrated maternal and newborn care training package.

Domain	Prior to and during 2014	2015–2017
	• KMC was incorporated in the Malawi National Reproductive Health Service Delivery Guidelines 2014–2019 (Malawi MOH 2014), which specify that all babies with a birthweight under 2,500 g should be initiated on KMC.	
Country Support/Implementation		
Levels and types of facilities implementing KMC	KMC was established in all four central hospitals and in the majority of district hospitals. In 2014, all 87 hospitals were assessed; 79% of hospitals reported providing inpatient KMC services (Chavula et al. 2017).	The majority of public hospitals implement KMC. The establishment of sick newborn care units in all the district hospitals is ongoing. However, there is a gap in coverage of KMC in the private, for-profit hospitals.
Percentage of low-birthweight (LBW) newborns initiated on facility-based KMC	Using data from the 2014 emergency obstetric and newborn care (EmONC) survey, an analysis of KMC readiness showed that KMC initiation rates for all live births for facility deliveries at hospitals ranged from 0.6% to 17.4% (Chavula et al. 2017).	About 21% of preterm/LBW newborns were initiated on facility-based KMC (including ambulatory KMC cases), according to an internal assessment conducted by Saving Newborn Lives (SNL) in 10 districts in 2016 (SNL 2017).
Funding		Funding for KMC is a combination of donor and MOH funds. Government funds come as reproductive, maternal, newborn, and adolescent health, and are not specific to intervention areas. However, most of the KMC capacity-building efforts and supplies are procured and distributed through partners, while government funding covers staff salaries. Funding gaps for KMC are mostly in creating newborn units of care, increasing quality of care of LBW newborns, and advocating to prioritize KMC.
Research		
Major or program-based studies being conducted related to KMC currently	Several studies and program-based learnings were conducted prior to or during 2014, including: • EmONC assessment (capture KMC service readiness) (2014) • Evaluation of KMC in Malawi (2012/13)	There are several studies being conducted on KMC. These include: • Assessment of early outcomes among newborns discharged from facility-based KMC in three hospitals (SNL) • Evaluation of the use of a customized wrap to improve uptake of skin-to-skin practices (SNL/Save the Children Norway/Laerdal Global Health) • Assessment of the completion and quality of data collected on birthweight at health facilities (London School of Hygiene & Tropical Medicine [LSHTM]/SNL) • Evaluation of approaches to improve measurement of service readiness for small and sick newborns (LSHTM/SNL) Malawi is a site in the Immediate Parent-Infant Skin-to-Skin Study looking at initiating KMC in unstable babies.

Domain	Prior to and during 2014	2015–2017
Knowledge Management		
Centers of excellence or state-of-the-art facilities for KMC/care of LBW babies		Two health facilities are considered KMC centers of excellence: Queen Elizabeth Central Hospital and Thyolo District Hospital. Lessons learned from these centers include leadership should promote KMC as a priority, staff should be identified at the health facility to be trained on KMC, and improvement should be showcased when providers report and document progress of KMC babies.
KMC manuals, trainings, and campaigns	Between 2008 and 2011, KMC was included in maternal and newborn manuals and trainings (SNL and MCHIP).	• The Care of Infants and Neonatal (COIN) course (Malawi MOH and PACHA 2015) was developed by the Paediatric and Child Health Association (PACHA) of Malawi in partnership with the MOH and UNICEF in 2015 to train health care workers in facilities to care for young infants and newborns. This course includes a section about the three categories of KMC—facility, ambulatory, and community—that exist in Malawi. • A task force was formed to harmonize mentorship packages for maternal and newborn health, including KMC. The meetings are ongoing. All partners supporting health programs are in this task force, as it covers all thematic areas, such as maternal and newborn health, nutrition, HIV, malaria, child health, etc. The task force started operating in 2017 after establishment of the Quality Management Directorate in the MOH. • The National Quality of Care Tool has been adapted and is being finalized by the Quality Management Directorate and partners. The plan is to disseminate the tool with the policy and road map in November 2017. The tool is very comprehensive and includes KMC.
Monitoring and Evaluation		
KMC indicators included in the national health management information system	Thirty-two data elements were collected, but standard indicators were not defined in DHIS2.	The DHIS2 monthly reporting forms were revised, and eight data elements and five core KMC indicators were included in 2015.
KMC data recorded at health facilities	Some facilities used a KMC register developed by the MOH, Save the Children, and partners. KMC has been part of the integrated supervision at national, zonal, and district levels. KMC registers were used by some health facilities receiving partner support to track KMC services. The 2014 EmONC survey was the first survey to capture information about KMC services at the national level.	• In 2015, a national routine reporting system for KMC services was rolled out to replace the original KMC register and monthly report. This reporting system, comprising a register and a monthly report, tracks KMC services at the facility and district levels. Facilities report on six data elements with inpatient KMC, two data elements without inpatient KMC, and five core indicators (Save the Children 2015). According to an analysis of the DHIS2/health management information system 2016 data, 87% of hospitals reported providing KMC services and 45% of health facilities submitted reports on KMC. However, at the health center level, it is difficult to estimate how many facilities have operational KMC services.

Domain	Prior to and during 2014	2015–2017
		• In 2016, an integrated neonatal register with accompanying mobile app was piloted in 10 districts, led by PACHA. • The critical care pathway (bedside patient chart) for sick newborns and a feeding log were introduced in six hospitals.
Advocacy		
Professional organizations that endorse KMC	The Nurses and Midwives Council of Malawi was instrumental in including KMC in the Registered Nurse Midwifery curriculum in 2005.	PACHA advocated for KMC by introducing the COIN training course, which integrates essential newborn care and LBW baby care (Malawi MOH and PACHA 2015). As of 2016, PACHA was providing KMC mentorship in 10 district hospitals.
Champions	Dr. Queen Dube, pediatrician at the Malawi College of Medicine, attended the Istanbul Convening for KMC Acceleration and was an early KMC champion in Malawi.	• There are strong local champions who promote KMC, one of them being the chief of health services. There is strong presence at the national level for KMC but a lack of resources. • Dr. Queen Dube has mentored three national-level pediatric and midwife mentors who help her provide mentorship, coaching, and supervision to district hospitals for newborns.

Table 2. Demographic and Health Survey (DHS) proxy indicators for kangaroo mother care (Malawi DHS 2015–16)

Identification of Low-Birthweight Babies	Characteristic	Percentage
Percentage of live births in the 3 years preceding the survey by mother's estimate of baby's size at birth, according to background characteristics	*Very small*	4.3
	Smaller than average	11.6
Percentage of births that have a reported birthweight		83.9
Percentage of babies weighing less than 2.5 kg among births with a reported birthweight		12.3
Initial Breastfeeding		**Percentage**
Percentage of children born in the past 2 years who started breastfeeding within 1 hour of birth		76.3
Percentage of children born in the past 2 years who started breastfeeding within 1 day of birth		96.2
Skin-to-Skin Contact		**Percentage**
Percentage of births that have skin-to-skin contact among most recent live births in the 3 years preceding the survey		67.4

CHALLENGES

- KMC has been looked at as an additional service, which might explain why only a small percentage of preterm/low-birthweight (LBW) babies are reached with KMC services.
- Although some midwives initiate preterm/LBW babies on KMC, this is not the case at some health facilities where other services are prioritized.
- There is need to invest funds in making KMC spaces larger, creating newborn units of care, and increasing quality of care of preterm/LBW babies.
- KMC is taught in hospitals, which is helping change people's attitudes, but social and behavior change communication and advocacy for newborns needs strengthening.

LESSONS LEARNED

- Integrating KMC in national policies, guidelines, and training manuals has facilitated the scale-up of KMC in Malawi.
- Local champions, including the MOH, with a track record of promoting KMC, play an influential role in scale-up and improving quality of newborn care.
- Improving health management information system data quality for KMC services will allow Malawi to better identify gaps in coverage, quantify achievements, and mobilize resources for KMC.
- The commitment of the MOH, partners, and other stakeholders is critical for KMC to increase coverage and be sustainable.

FUTURE ACTIONS

- Integrate care of small and sick babies in newborn care units in all hospitals.
- Disseminate the quality of care assessment tool and develop national quality of care standards.
- Continue the training of mentors.
- Standardize the follow-up of KMC babies after discharge.
- Allocate resources for forums to share lessons learned and for the advocacy of KMC.
- Engage private hospitals and health care providers in the use of KMC as an evidence-based intervention that saves lives.

DOCUMENTS AND RESOURCES

Document Title	Link to Document
Care of the Infant and Newborn in Malawi: The COIN Course Participants Manual (2015)	http://cms.medcol.mw/cms_uploaded_resources/41905_12.pdf
Social and behavior change communication campaign *Khanda ndi Mphatso Lipatseni Mwayi* (A Baby Is a Gift, Give It a Chance) (2016)	www.healthynewbornnetwork.org/hnn-content/uploads/Final-KMC-Flipchart-March-10-2016.pdf
Evaluation of Kangaroo Mother Care Services in Malawi (2012)	www.mchip.net/sites/default/files/Malawi%20KMC%20Report.PDF
Malawi Emergency Obstetric and Newborn Care Needs Assessment (2014)	www.healthynewbornnetwork.org/hnn-content/uploads/Malawi-EmONC-Report-June-2015_FINAL.pdf
Development of a National Routine Reporting System for Kangaroo Mother Care (KMC) Services in Malawian Health Facilities (2015)	www.healthynewbornnetwork.org/hnn-content/uploads/KMC-Register-Brief-and-Forms-Final-2015.10.09-web.pdf
"Born Too Small: Who Survives in the Public Hospitals in Lilongwe, Malawi?" (2015)	http://fn.bmj.com/content/100/2/F150
"Investigating Preterm Care at the Facility Level: Stakeholder Qualitative Study in Central and Southern Malawi" (2016)	https://link.springer.com/article/10.1007%2Fs10995-016-1942-z

REFERENCES

1. Ahlsén AK, Spong E, Kafumba N, Kamwendo F, Wolff K. 2015. Born too small: who survives in the public hospitals in Lilongwe, Malawi? *Arch Dis Child Fetal Neonatal Ed*. 100(2):F150–4. doi: 10.1136/archdischild-2013-305877.
2. Bergh A, Banda L, Lipato T, Ngwira G, Luhanga R, Ligowe R. 2012. *Evaluation of Kangaroo Mother Care Services in Malawi*. Fairfield, Connecticut: Save the Children.
3. Chavula K, Likomwa D, Guenther T, et al. 2017. Readiness of hospitals to provide kangaroo mother care (KMC) and documentation of KMC service delivery: analysis of Malawi 2014 emergency obstetric and newborn care (EmONC) survey data. *J Glob Health*. 7(2):020802. doi: 10.7189/jogh.07.020802.
4. Gondwe A, Munthali A, Ashorn P, Ashorn U. 2016. Investigating preterm care at the facility level: stakeholder qualitative study in central and southern Malawi. *Matern Child Health J*. 20(7):1441–7. doi: 10.1007/s10995-016-1942-z.
5. Malawi Ministry of Health (MOH). 2009. *Malawi National Guidelines for Kangaroo Mother Care*. Lilongwe: Malawi MOH.
6. Malawi MOH. 2013. *Malawi Child Health Strategy 2014–2020*. Lilongwe: Malawi MOH.
7. Malawi MOH. 2014. *Malawi National Reproductive Health Service Delivery Guidelines 2014–2019*. Lilongwe: Malawi MOH.
8. Malawi MOH. 2015. *Every Newborn Action Plan: An Action Plan to End Preventable Deaths in Malawi*. Lilongwe: Malawi MOH
9. Malawi MOH, Paediatrics and Child Health Association. 2015. *Care of the Infant and Newborn in Malawi: The COIN Course Participants Manual*. Lilongwe: Malawi MOH.
10. Malawi National Statistical Office (NSO) and ICF. 2017. *Malawi Demographic and Health Survey 2015–16*. Zomba, Malawi: NSO and ICF.
11. Save the Children. 2015. *Development of a National Routine Reporting System for Kangaroo Mother Care (KMC) Services in Malawian Health Facilities*. Lilongwe: Save the Children Malawi.
12. Saving Newborn Lives. 2017. *Measuring Strength of Implementation and Effective Coverage of KMC in Malawi: Evaluation Summary of Results 2014 to 2016*.
13. World Health Organization (WHO). 2017. *Reaching the Every Newborn National 2020 Milestones 2017: Country Progress, Plans and Moving Forward*. Geneva: WHO.

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