KANGAROO MOTHER CARE IN BANGLADESH

OVERVIEW

The experience of facility-based kangaroo mother care (KMC) in Bangladesh is relatively recent, though there are a few facilities that have been providing KMC services for over a decade. In 2013, the Government of Bangladesh signed onto A Promise Renewed as a sign of its determination and commitment to reduce child deaths to 20 per 1,000 live births by 2035. Through this commitment, KMC is integrated into newborn care for preterm/low-birthweight babies in an effort to decrease preventable newborn deaths. The government's leadership—including the Directorate General of Health Services (DGHS) and the Directorate General of Family Planning (DGFP)—and the support of implementers, professionals, and donors have been instrumental in achieving key milestones for scaling up KMC services throughout the country.

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

Domain	Prior to and during 2014	2015–2017
Policy		
National Health Policy	In 2013, the National Core Committee of Neonatal Health (NCC-NH) under the Ministry of Health and Family Welfare (MOHFW) adopted a policy that integrated kangaroo mother care (KMC) as part of newborn and maternal health. The Government of Bangladesh (GOB) in 2013 declared its commitment through A Promise Renewed (APR) to introduce and scale up KMC at the facility level with continuation at home (NCC-NH, minutes of the sixth meeting, 2013). In a renewed declaration, the GOB reiterated its commitment for ending preventable child deaths by 2035 in the Child Survival Call to Action, A Promise Renewed. The target to reduce under-5 mortality was set to 20 per 1,000 live births by 2035 by implementing different strategies, including KMC, for preterm/low-birthweight (LBW) babies (DGHS 2014a, DGHS 2014b).	• In 2015, the Bangladesh Every Newborn Action Plan (BENAP) was instituted, with benchmarks aligned with the APR. The GOB; UNICEF; World Health Organization; US Agency for International Development; Saving Newborn Lives; MaMoni Health Systems Strengthening (HSS) International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b); and other partners were involved in this process. There are two main objectives in the BENAP that focus on KMC: the establishment of counseling on KMC practice at facilities, including the provision of follow-up KMC services using community health workers (CHWs), and the establishment of centers of excellence for KMC in tertiary- and secondary-level facilities (Bangladesh DGHS 2014b). • In the APR, the targets for KMC initiation were set at 20% for public health facilities at the upazila health complexes (UHCs; subdistrict) and above by 2016, and at 50% for public health facilities at the UHCs and above to provide KMC services by 2020. • In 2016, KMC was included as an essential service for preterm/LBW newborns at UHCs, district hospitals (DHs), and maternal and child welfare centers (MCWCs) (Bangladesh Essential Service Package, MOHFW). • KMC is included as a priority newborn health intervention in the program implementation plan of the Health, Population and Nutrition Sector Development Program (HPNSDP) of MOHFW.

Domain	Prior to and during 2014	2015–2017
National Guideline	A technical subgroup (TSG) was formed—the National Technical Working Committee on Newborn Health (NTWC-NH)—in 2013 to develop a KMC guideline and protocols. The KMC national guideline was finalized in 2014. The main objective of the guideline is to introduce, expand, and strengthen KMC practices and effective national scale-up. The guideline is in line with the World Health Organization (WHO) KMC guidelines. The guideline is for health care providers and managers.	• The KMC national guideline was approved in 2015. • The KMC training manual was developed in December 2015 by the KMC TSG. • A KMC counseling material, a job aid (booklet), was developed in 2016 with technical support from Saving Newborn Lives (SNL). The booklet includes basic information on KMC, position, feeding, monitoring, follow-up, danger signs, etc. It is in the approval process.
Country Support/Implementation		
Levels and types of facilities implementing KMC	• LAMB Hospital in Parbatipur, in Dinajpur District, has been implementing KMC since 1999. • The icddr,b Matlab, a rural health facility, started providing KMC services in 2007 for babies weighing less than 2,000 g as part of the Maternal, Neonatal and Child Health (MNCH) project (Pervin et al. 2015) for research purposes.	• In Kushtia District, the SNL program supports the MOHFW to implement the Comprehensive Newborn Care Package, inclusive of KMC, to demonstrate a newborn care package through the public health system (DGHS 2016). The MOHFW adopted the package, which will be scaled up throughout the country through the National Newborn Health Program (NNHP, 2017–2022). SNL provided technical support for the development of the operational plan of the NNHP; allocated budget, logistic, and training plans; and incorporated an operational plan-level indicator. The target coverage for KMC by 2020 was set to 100 facilities (DGHS 2016) and at 70 district-level MCWCs under the Directorate General of Family Planning (DGFP). • MaMoni HSS is supporting the MOHFW to introduce and scale up priority newborn interventions in six districts in Directorate General of Health Services (DGHS) and DGFP facilities. In addition, national-level technical assistance is provided for scale-up of interventions at national scale. MaMoni has been supporting implementation of KMC in 15 district-/upazila-level facilities. • UNICEF is supporting KMC at national-level hospitals and in districts. • Overall, KMC is practiced in 30 facilities (as of June 2017), which include some subdistrict-level hospitals and medical college hospitals. • According to the *National Newborn Health Bulletin* in 2016, KMC was introduced as a pilot in 21 primary-, secondary-, and tertiary-level DGHS and DGFP facilities in Kushtia, Noakhali, Habiganj, Jhalokati, Lakshmipur, and Dhaka where space was designated for KMC services; providers were trained, a recordkeeping and reporting system was established, and the managers and CHWs were sensitized.

Domain	Prior to and during 2014	2015–2017
Percentage of LBW newborns initiated on facility-based KMC		The emergency obstetric and newborn care and the KMC monthly reporting were linked. Information about the number of LBW babies under 2,000 g (derived from emergency obstetric and newborn care reporting) and the initiation of KMC was incorporated into the health management information system (DHIS2). However, this is not fully functional yet. By the 4th HPNSDP, this will be scaled up nationally to be able to obtain national data. Currently, these data are provided by KMC facilities, but data at the national level are not available.
Funding		Government funding for KMC and newborn care will increase in the upcoming years. There have been costed plans and funding allocations for KMC activities. It is the first time that the government has adopted a new newborn program, the NNHP, which includes KMC. Along with GOB funding for KMC, funding is also provided by donors.
Research		
Major or program-based studies being conducted related to KMC	There was a pilot conducted in Gopalganj District to study the use of KMC in rural communities (Hunter et al. 2014).	A study was conducted about implementing KMC in a resource-limited setting in rural Bangladesh (Pervin et al. 2015). There is also KMC operational research being conducted by icddr,b with the support of SNL. The baseline was completed in 2015, and the endline should be completed in 2017. The tentative date for disseminating results is November 2017.
Knowledge Management		
Centers of excellence or state-of-the-art facilities for KMC/care of LBW babies	Since 2013, the WHO facilitated demonstration of use of KMC in Dhaka Shishu Hospital, the largest tertiary-level children's hospital in Bangladesh, to improve the survival of premature and LBW newborns.	• The WHO provided financial support to establish the first national-level training center on KMC in Dhaka Shishu Hospital. • There is an SNL-led learning lab in Kushtia District. Among the six facilities in Kushtia, one primary-level facility (UHC Kumarkhali) provides good KMC services in respect of case load, adherence, positioning, duration, and follow-up. • SNL provides technical and logistic support to train doctors and nurses on KMC at two DGFP facilities. These facilities will be used as training centers by the end of 2017.

Domain	Prior to and during 2014	2015–2017
KMC manuals, trainings, and campaigns		• KMC was incorporated into the postgraduate curriculum of physicians, but not as a programmatic approach. KMC has not been incorporated undergraduate curriculums. • KMC was incorporated in the nurses', midwives', and family welfare visitors' curriculums in 2017. The inclusion of KMC in the family welfare assistants' curriculum is in process. Ideally, the classroom learning will be coupled with demonstration trainings for health providers to hone their KMC skills. • UNICEF supported one specialized hospital (Bangabandhu Sheikh Mujib Medical University, or BSMMU) to ensure KMC training of service providers (WHO 2017). • In 2014, a national master trainer's pool was formed that includes four neonatologists, one gynecologist, and SNL staff member to attend a training program in two facilities (King Edward Memorial Hospital and D Y Patil Hospital) in Mumbai, India. They contributed to the development of the guidelines and the training of trainers at the national level. • According to UNICEF's Annual Progress Report, five doctors and two nurses attended a training of trainers on KMC at the All India Institute of Medical Science to build their capacity before establishing a national training center on KMC at BSMMU. They will train KMC teams (three doctors and five nurses per team) in 15 selected hospitals in 14 districts (UNICEF 2015). • Under the leadership of professionals headed by Professor M. A Mannan, a KMC reference group was formed where service providers can seek experts' opinion regarding KMC services. Also, professionals will conduct site visits to subdistrict-level KMC facilities to exchange knowledge and share lessons learned about KMC.
Monitoring and Evaluation		
KMC indicators included in the national health management information system		A monthly KMC reporting form was developed for incorporation into DHIS2. KMC indicators are being incorporated into the national newborn health dashboard on DHIS2. The KMC database was finalized in November 2016 for the DHIS2 and was endorsed by the DGHS. The KMC database for DHIS2 was tested in Kushtia in January 2017. The database was operationalized for that DGHS facility but not scaled up. DGFP is still maintaining the paper-based reporting system. Initiatives are taken to make it functional.
KMC data recorded at health facilities		Only facilities that provide KMC services report on the DGHS using the KMC monthly report form.

Domain	Prior to and during 2014	2015–2017
Advocacy		
Professional organizations that endorse KMC	The NTWC-NH, which is part of the MOHFW, endorsed KMC for national scale-up in July 2013. The NTWC-NH formed a TSG on KMC in July 2013 for the development of KMC guidelines and protocols. NTWC-NH and TSG are led by professionals with managers and experts from government, development partners, international NGOs, and professional societies.	The Bangladesh Paediatric Association, the Obstetrical and Gynecological Society of Bangladesh, the Bangladesh Neonatal Forum, the Bangladesh Perinatal Society, the Bangladesh Nurses Association, and the Bangladesh Midwifery Society endorsed a policy statement for universal use of KMC. These professional organizations are committed and engaged with the scale-up of KMC by promoting the integration of KMC services in newborn care and for the KMC indicators to be included in the health management information system.
Awareness campaigns		• CHWs are being oriented to raise awareness about KMC referral to health facilities and follow-up after discharge. They are trained to observe the duration of KMC and address barriers in places that provide fully functional KMC services (30 facilities). • The US Agency for International Development-funded social and behavior change communication project, called Ujjiban, is supporting the MOHFW to develop newborn health mass media communication materials. MaMoni HSS and SNL will support the development of messages for the campaign. • Information Education and Motivation Unit and DGFP are also planning to develop a newborn campaign that includes KMC.
Champions	Professor Azad Chowdhury of Dhaka Shishu Hospital, a private hospital, initiated a KMC corner in the hospital.	• Professor Mohammad Shahidullah, chair of the NTWC-NH, president of the Bangladesh Medical and Dental Council and the Bangladesh Perinatal Society, and professor at BSMMU, acts as a key player influencing policymakers to incorporate KMC. • Professor Chowdhury, director and head of neonatology at Dhaka Shishu Hospital and secretary general of the Bangladesh Paediatric Association, is the chair of the TSG on KMC and plays a vital role in KMC guideline development, training manual development, and initiation of KMC at tertiary-level hospitals. • Professor Mannan, chair of the neonatology department at BSMMU and secretary general for the Bangladesh Neonatal Forum, is involved in KMC guideline development and establishment of KMC services at BSMMU, and is a key member of the of national KMC reference group. • Professor Mahbubul Haque. professor of neonatology at Dhaka Shishu Hospital, plays a vital role in the operationalization of KMC trainings at the national level. • Dr. Khaleda Islam, director primary health care and program manager of Integrated Management of Childhood Illnesses and the NNHP at DGHS, and Dr. Farid Uddin Ahmed, deputy director (services) and program manager for newborn and child health for DGFP, who are responsible for newborn health program implementation under the new NNHP, will be the champions, as they have the mandate to scale up KMC nationally.

Table 2. Demographic and Health Survey (DHS) proxy indicators for kangaroo mother care (Bangladesh DHS 2014)

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*	6.8
	Smaller than average	13.2
Percentage of births that have a reported birthweight		N/A
Percentage of babies weighing less than 2.5 kg among births with a reported birthweight		N/A
Initial Breastfeeding Indicators		**Percentage**
Percentage of children born in the 2 years preceding the survey who started breastfeeding within 1 hour of birth		50.8
Percentage of children born in the 2 years preceding the survey who started breastfeeding within 1 day of birth		89.1
Skin-to-Skin Contact Indicator		**Percentage**
Percentage of births that have skin-to-skin contact among most recent live births in the 3 years preceding the survey		24.7

CHALLENGES

- The need for individual KMC case tracking and the operationalization of monitoring and evaluation tools is apparent.
- Low motivation and mentorship of health providers to provide KMC are key factors that might be contributing to the slow uptake of KMC.

LESSONS LEARNED

- Government commitments and a positive policy environment are crucial for the acceleration and sustainability of KMC services. The commitment of the MOHFW that started in 2013 has resulted in achievements such as the development of KMC guidelines, manuals, monitoring tools, and the integration of KMC into the NNHP.
- The joint efforts of members of the National Technical Working Committee for Newborn Health led to the decision and commitment to scale up KMC in Bangladesh.
- The identification of champions at the national level has accelerated the progress of KMC activities in Bangladesh, from the establishment of KMC facilities to participating in committees to scale up KMC.
- The engagement of partners supporting the DGHS and DGFP in the capacity-building of service providers and facility readiness has proved to be essential for the acceleration of KMC.
- Motivation and ownership of KMC from managers and providers have been crucial to ensure that KMC services are sustainable.

FUTURE ACTIONS

- Disseminate the findings of the Saving Newborn Lives program in Kushtia District.
- Identify local champions who will motivate and mentor new champions.
- Develop and implement a tracking system for KMC services.
- Establish a KMC learning platform among the MOHFW, professionals, donors, the United Nations, development partners, and nongovernmental organizations.

DOCUMENTS AND RESOURCES

Document Title	Link to Document
KMC information brochure for mothers from Bangladesh (2013)	www.healthynewbornnetwork.org/hnn-content/uploads/KMC-brochure-for-mothers-Bangladesh.pdf
Television report about kangaroo mother care at Matlab facility	http://rockhopper.tv/series/detail/kangaroo-mother-care-in-bangladesh
"Newborn Care Practices in Rural Bangladesh: Implications for the Adaptation of Kangaroo Mother Care for Community-Based Interventions" (2014)	https://www.sciencedirect.com/science/article/pii/S0277953614006522
Daily newspaper report about KMC in Bangladesh	www.healthynewbornnetwork.org/news-item/kangaroo-mother-care-helps-ensure-health-risk-newborns/
"Implementing Kangaroo Mother Care in a Resource-Limited Setting in Rural Bangladesh" (2015)	https://onlinelibrary.wiley.com/doi/abs/10.1111/apa.12929
"Challenges of Implementation of Kangaroo Mother Care (KMC) in Selected Public Health Facilities of Bangladesh" (2016)	http://fundacioncanguro.co/wp-content/uploads/2018/01/44_rezaul_hasan_poster-1.pdf

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