

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 (APR)” 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 (LBW) babies in an effort to decrease preventable neonatal 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 I. Status of KMC 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 KMC as part of newborn and maternal health. The Government of Bangladesh (GOB) in 2013 declared its commitment through the APR to introduce and scale up KMC at the facility level with continuation at home (NCC-NH, Minutes of the 6 th 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-five mortality was set to 20 per 1,000 live births by 2035 by implementing different strategies, including KMC, for preterm/LBW babies (Directorate General of Health Services-DGHS, 2014).	<ul style="list-style-type: none"> - In 2015, the Bangladesh Every Newborn Action Plan (BENAP) was instituted, with benchmarks aligned with the APR. The GOB, UNICEF, WHO, USAID, SNL, Mamoni HSS ICDDR, and other partners were involved in this process. There are two main objectives in the BENAP that focus on KMC: the establishment of counselling 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 (DGHS, 2015). - In the APR, the targets for KMC initiation were set at 20% for public health facilities at the upazila health complexes UCH (sub-district) and above by 2016, and at 50% for public health facilities at the UHC and above to provide KMC services by 2020. - In 2016, KMC was included as an essential service for preterm/LBW newborns at UHC, district hospitals (DH), and maternal and child welfare centers (MCWC) (Bangladesh Essential Service Package (ESP), MOHFW). - KMC is included as a priority newborn health intervention in the Program Implementation Plan (PIP) of Health, Population, Nutrition Sector Program (HPNSP) of MOHFW.
National Guidelines	A technical sub-group (TSG) was formed, the National Technical Working Committee on Newborn Health (NTWC-NH), in 2013 to	<ul style="list-style-type: none"> - The KMC National Guideline were approved in 2015. - The KMC Training Manual was developed in December 2015 by TSG- KMC.

	<p>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 WHO KMC guidelines. The guideline is for health care providers and managers.</p>	<p>- A KMC counseling material, job aid (booklet) was developed in 2016 with the technical support from SNL. The booklet includes basic information on KMC, position, feeding, monitoring, follow-up, danger signs, etc. It is in the approval process.</p>
Country Support/Implementation		
<p>Levels and types of facilities implementing KMC</p>	<ul style="list-style-type: none"> - LAMB Hospital in Parbatipur, in Dinajpur District has been implementing KMC since 1999. - The International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b) Matlab Hospital, a rural health facility, started providing KMC services in 2007 for babies weighing less than 2000g as part of the Maternal, Neonatal and Child Health (MNCH) project (Pervin et al, 2015) for research purposes. 	<ul style="list-style-type: none"> - In the Kushtia district, the SNL program is supporting the MoHFW to implement the Comprehensive Newborn Package (CNCPP), 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 (OP) of the NNHP, allocated budget, logistic and training plans, and incorporated an OP 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 both DGHS and DGFP facilities. In addition, national-level TA 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 sub-district-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 of Kushtia, Noakhali, Habiiganj, Jhalokati, Lakshmipur, and Dhaka where space was designated for KMC services; providers were trained, a record-keeping and reporting system was established, and the managers and CHWs were sensitized.
<p>Percentage of LBW newborns initiated on facility-based KMC</p>		<p>The EmONC and the KMC monthly reporting were linked and information about the number of LBW <2000g (derived from EmONC) and the initiation of KMC was incorporated into the HMIS (DHIS2). However, this is not fully functional yet. By the 4th HPNSP, this will be scaled up nationally to be able to obtain national data. Currently, this data is provided by KMC facilities, but data at the national level is not available.</p>
<p>Funding</p>		<p>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 National Newborn</p>

		Health Program (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 Saving Newborn Lives (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, 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.	<ul style="list-style-type: none"> - 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 facilities of the DGFP. These facilities will be used as training centers by the end of 2017.
KMC manuals, trainings, and campaigns		<ul style="list-style-type: none"> - KMC was incorporated into the post-graduate curriculum of physicians but not as a programmatic approach. KMC has not been incorporated under grade curricula. - KMC was incorporated in the nurses', midwives', and FWVs' curriculum in 2017. The inclusion of KMC in the Family Welfare Assistants (FWA) 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 (BSMMU) to ensure KMC training of service providers (WHO, 2017). - In 2014, a national master trainer's pool was formed including four neonatologists, one gynecologist, and SNL staff to attend a training program in two facilities (KEM Hospital. 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 Banglabandhu Sheikh Mujib Medical University (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 Prof. 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 sub-district-level KMC facilities to exchange knowledge and share lessons learned about KMC.

Monitoring & Evaluation		
KMC indicators included in the national HMIS		A monthly KMC reporting form was developed for incorporation into DHIS2. KMC indicators are being incorporated into the national NBH 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.
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 National Technical Working Committee on Newborn Health formed a technical sub-group on KMC in July 2013 for the development of KMC guidelines and protocols. NTWC and TSG is led by professionals with managers from government, development partners, international NGOs and professional societies and experts.	The Bangladesh Paediatric Association (BPA), the Obstetrical and Gynecological Society of Bangladesh (OGSB), the Bangladesh Neonatal Forum (BNF), and the Bangladesh Perinatal Society (BPS), the Bangladesh Nurses Association (BNA), and the Bangladesh Midwifery Society (BMS) 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 neonatal care and for the KMC indicators to be included in the HMIS.
Awareness campaigns		<ul style="list-style-type: none"> - 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 USAID-funded SBCC 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. - IEM, DGFP is also planning to develop a newborn campaign which includes KMC.
Champions	Professor Azad Chowdhury of Dhaka Shishu Hospital, a private hospital, initiated a KMC corner in the hospital.	<ul style="list-style-type: none"> - Prof. Mohammad Shahidullah, Chairman of the NTWC, President Bangladesh Medical and Dental Council, Bangladesh Perinatal Society, and Professor, BSMMU, acts as a key player influencing policymakers to incorporate KMC. - Prof. M A K Azad Chowdhury, Director and Head of Neonatology, Dhaka Shishu Hospital, and Secretary General of BPA, is the Chairperson of TSG on KMC, and plays a vital role in KMC guideline development, training manual development, and initiation of KMC at tertiary-level hospitals.

- Prof. M. A. Mannan, Chairman, Neonatology Department, BSMMU and Secretary General BNF, is involved in KMC guideline development, establishment of KMC services in BSMMU, and is a key member of the of National KMC reference group.
- Prof. Mahbubul Haque. Professor Neonatology, Dhaka Shishu Hospital, plays vital role in the operationalization of KMC trainings at the national level.
- Dr. Khaleda Islam, Director PHC and Program Manager IMCI & NNHP, DGHS and Dr. Farid Uddin Ahmed, Deputy Director (Services) & Program Manager, Newborn and Child Health, DGFP are responsible for newborn health program implementation under new National Newborn Health Program (NNHP) will be the champions, as they have the mandate to scale up KMC nationally.

Table II. DHS Proxy Indicators for KMC

DHS Indicators Related to KMC (Bangladesh DHS, 2014)		
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>	6.8
	<i>Smaller than average</i>	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		Percent
Percentage of children born in the two years preceding the survey who started breastfeeding within one hour of birth		50.8
Percentage of children born in the two years preceding the survey who started breastfeeding within one day of birth		89.1
Skin-to-Skin Contact Indicator		Percent
Percentage of births that have skin-to-skin contact among most recent live birth in the three years preceding the survey		24.7

CHALLENGES

- The need for individual KMC case tracking and the operationalization of M&E 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 MOH 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 National Newborn Program.
- The joint efforts of members of the National Technical Working Committee (NTWC) 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 has been crucial to ensure that KMC services are sustainable.

FUTURE ACTIONS

- Disseminate the findings of the Saving Newborn Lives program in the Kushtia district.
- Identify local champions who will motivate and mentor new champions.
- Develop and implement a tracking system for KMC services.
- Establish KMC learning platform among MOH, professionals, donors, UN, development partners, and NGOs.

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 in Matlab hospital	www.rockhopper.tv/films/detail/kangaroo-mother-care-in-bangladesh
Newborn care practices in rural Bangladesh: Implications for the adaptation of kangaroo mother care for community-based interventions	Social Science & Medicine Journal, 122, 21-30. doi:10.1016/j.socscimed.2014.10.006
Daily Newspaper report about Kangaroo Mother Care 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).	Acta Paediatr Journal, 104: 458–465. doi:10.1111/apa.12929
Challenges of implementation of Kangaroo Mother Care (KMC) in selected public health facilities of Bangladesh (2016).	http://fundacioncanguro.co/es/documentacion/documentos/doc_download/451-44rezaulhasanposter.html

REFERENCES

1. Bangladesh Neonatal Forum (BNF). (2015). Newborns in Bangladesh: Where we need to focus on. www.bnfbd.com/presentation-gallery/Policy%20session_processed.pdf
2. Bangladesh Policy Statement for Universal Use of Kangaroo Mother Care for Preterm and Low Birthweight Infants. Joint Statement
3. Directorate General of Health Services (DGHS). (2014). Bangladesh: National Newborn Health Situation Analysis Report 2014. www.healthynewbornnetwork.org/hnn-content/uploads/Bangladesh_NHSR_1Apr16.pdf
4. Directorate General of Health Services (DGHS). (2014). National Guideline on Kangaroo Mother Care 2014.
5. Directorate General of Health Services (DGHS). (2016). National Newborn Health Bulletin [http://uphpc.gov.bd/cmsfiles/files/National%20Newborn%20Health%20Bulletin_%20IMCI_%20Dec%202016%20\(1\).pdf](http://uphpc.gov.bd/cmsfiles/files/National%20Newborn%20Health%20Bulletin_%20IMCI_%20Dec%202016%20(1).pdf)

6. Ministry of Health and Family Welfare. (2015). Bangladesh Every Newborn Action Plan (BENAP).
7. Hunter, E. C., Callaghan-Koru, J. A., Mahmud, A. A., Shah, R., Farzin, A., Cristofalo, E. A., . . . Baqui, A. H. (2014). Newborn care practices in rural Bangladesh: Implications for the adaptation of kangaroo mother care for community-based interventions. *Social Science & Medicine*, 122, 21-30. doi:10.1016/j.socscimed.2014.10.006
8. Pervin, J., Gustafsson, F. E., Moran, A. C., Roy, S., Persson, L. Å. and Rahman, A. (2015). Implementing Kangaroo mother care in a resource-limited setting in rural Bangladesh. *Acta Paediatr*, 104: 458–465. doi:10.1111/apa.12929
9. Save the Children. (2016). Brief Kangaroo Mother Care Community of Practice, first Asia regional meeting Dhaka, Bangladesh. <https://bangladesh.savethechildren.net/sites/bangladesh.savethechildren.net/files/library/Brief%20report%20-KMC%20COP%20Meeting%20-Bangladesh%202016.pdf>
10. Siraj, W., Rubayet, S., Hossain, A., Islam, N., Ahsan, Z., Hasan., R. (2016). Challenges of implementation of Kangaroo Mother Care (KMC) in selected public health facilities of Bangladesh. http://fundacioncanguero.co/es/documentacion/documentos/doc_download/451-44rezaulhasanposter.html
11. UNICEF. (2015). UNICEF Annual Report 2015 Bangladesh. www.unicef.org/about/annualreport/files/Bangladesh_2015_COAR.pdf
12. UNICEF. (2016). UNICEF Annual Report 2015 Bangladesh. www.unicef.org/about/annualreport/files/Bangladesh_2016_COAR.pdf
13. UNICEF. (2016). UNICEF Annual Report 2015 Bangladesh. www.unicef.org/about/annualreport/files/Bangladesh_2016_COAR.pdf
14. World Health organization (WHO). (2017). WHO organizes training on Kangaroo Mother Care. www.searo.who.int/bangladesh/enbankmcworkshop/en/