WHO Global Position Paper and Implementation Strategy on Kangaroo Mother Care: Call for fundamental reorganisation of care for newborn infants and mothers

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~~This week~~ On May 16 the World Health Organization (WHO) launched a Kangaroo Mother Care (KMC) Global Position Paper and Implementation Strategy[1,2] prepared by a multi-partner, multi-disciplinary KMC Working Group convened by WHO through its Strategic and Technical Advisory Group of Experts (STAGE) for maternal, newborn, child and adolescent health and nutrition. This Working Group was assembled in recognition of the marked under-utilisation of KMC despite a strong evidence base for its effectiveness and scalability (Panel 1)[3-13] and therefore of the need for concerted and harmonised actions to ensure universal coverage of the recently released new WHO recommendations for KMC in the care of preterm or low birthweight (LBW) infants.[14,15]

WHO now recommend that every preterm or LBW infant, whether in low-, middle- or high-income settings, should receive continuous and prolonged KMC initiated as soon as possible after birth. This recommendation applies to infants born at home or in a health facility, except if the infant born in a facility is unable to breathe spontaneously after resuscitation, is in shock or needs mechanical ventilation. WHO further highlighted the importance of family involvement in the routine care of preterm or LBW infants in healthcare facilities; the need for extra support to families to care for their infants, including education, counselling, discharge preparation, and post-discharge home visits by trained health workers; as well as parental leave and entitlements to address the special needs of mothers, fathers and other primary caregivers of preterm or LBW infants..[14,15]

The KMC Global Position Paper and Implementation Strategy provide guidance and aim to generate consensus so that governments, programme managers, maternal and newborn health-care providers, parent organisations and community stakeholders understand and are ready to implement the changes required for the global implementation of KMC in a harmonised way that leads to maximal global impact. They advance the understanding that KMC is not a typical 'intervention' but an instinctual parental behaviour that is the foundation of care for all preterm or LBW infants, nested within comprehensive care for sick and/or small newborns. This requires that WHO evolve its current Every Newborn Action Plan (ENAP) target for scaling small and/or sick newborn care beyond the concept of level-2 newborn care units to include preterm or LBW infants at lower levels of health facility care and in the community, as well as full consideration for maternal care.[16] ENAP, a global agreement signed onto by 194 countries, has set ambitious targets for 2025, including a target for expanding district-level coverage of small and/or sick newborn care.[12] This coverage target was added in recognition of the need to provide quality care for preterm/LBW infants – the largest contributor to neonatal and child mortality – which requires population level coverage of level 2 neonatal care with interventions including CPAP. This is a critical opportunity to incorporate the new guidelines for KMC, reorganise and integrate care for mothers and newborns, and catalyse this paradigm shift in maternal-newborn care delivery.

Implementing the new recommendations will require a change in the culture of health care provision away from obstetric and neonatal services typically organised in distinct departments with different guidelines, providers, and locations for treatment towards obstetricians, midwives, paediatricians, and neonatal nurses working together in harmony caring for mothers and newborns together with families as key partners in the care of their newborns. A major challenge will be changes needed to the physical layout of maternal and

neonatal units to enable mothers to be together with sick preterm or LBW infants who need to be cared for inside special/intensive care units. This can be more readily achieved for preterm or LBW infants who are otherwise healthy as both mother and infant are usually cared for together in the postnatal wards, or typically in separate KMC wards. However, even then, some reorganisation may be needed to accommodate fathers and other family members who can also provide KMC and help ensure that preterm or LBW infants receive KMC for as close to 24 hours per day as possible.

The KMC Implementation Strategy is designed to guide the way forward for global scale-up, to facilitate advocacy by all stakeholders, and to be adaptable to diverse country contexts for use by country programme managers and health workers to implement KMC for all preterm or LBW infants, both well and sick, at all levels of facility care and in the community. Operationalising the strategy will require national planning and coordination, for example through a national technical advisory group which ensures broad stakeholder participation, a national centre of excellence for training staff, and a resource centre for clinical and operational guidelines and protocols. Policy changes at national and subnational levels are needed – such as allowing the mother to stay in special/intensive care units as opposed to the current norm of discharging her after birth or shifting her to the postnatal ward – along with dedicated budgets funded under Universal Health Coverage for implementing KMC as part of small and/or sick newborn care scale-up. It will also require widescale transformations in systems, along with iterative data-driven learning, including redesigning maternal–newborn service delivery; increasing the availability, capacity and motivation of health-care providers; monitoring the practice of keeping the mother and newborn together after birth and their combined care; and including KMC implementation indicators in routine data systems. System changes for KMC implementation may be tailored to different country settings and health system contexts based on their needs, priorities, and service-delivery models.

With less than eight years left to achieve the 2030 Sustainable Development Goals (SDGs), the KMC Position Paper and Implementation Strategy aim to inspire a renewed vision with health systems transformed and maternal-newborn service delivery reorganised for implementing KMC at scale in order to enhance efficiency and improve survival, health, well-being, and long-term human capital. In this renewed vision, mothers and infants are kept and cared for together from birth, and parents and families play a central role in the care of their infants, thus humanising health care[17] - while also yielding a high return on investment and benefitting the overall economy - and improving the sustainable development of nations. This is an opportune moment – in the context of post-covid efforts to “build back better” and initiatives to address humanitarian crises and climate change – to re-orientate investments and systems for widespread implementation of KMC.

Panel 1. Kangaroo Mother Care definition, benefits, scalability and impacts on Sustainable Development Goals

What is KMC?
KMC involves continuous and prolonged skin-to-skin contact carried out for as many hours in the day as possible, preferably 24 hours – 8 hours per day being the minimum recommended – with support for exclusive breastfeeding or breastmilk feeding. An additional feature of facility-based KMC is timely transition to lower levels of care within the facility or home in skin-to-skin contact and close monitoring.

What are the benefits of KMC?
WHO recommendations for KMC are based on rich evidence from diverse settings highlighting the numerous benefits and affordability of KMC in helping preterm or LBW infants to survive and thrive.[5] Benefits include a 32% reduction in neonatal mortality, a 25% reduction in mortality by six months of age, a 68% reduction in hypothermia at discharge or by 28 days after birth, a 15% reduction in severe infections or sepsis, a 48% increased duration of exclusive breastfeeding at facility discharge, as well as improvements in growth.[6]

Practising KMC builds mothers' confidence and comfort in caring for their infants and reduces their risk of moderate to severe depressive symptoms and postpartum haemorrhage.[7,8] KMC also positively impacts family structure and the home environment in which the child is raised; as fathers and other family members provide KMC, they experience increased bonding and attachment with their infant, empathy for the newborn, increased confidence as caregivers, and enhanced mental health and well-being.[9,10] KMC furthermore reduces paternal depression and spouse relationship problems and improves father-infant interactions.[7]

KMC not only improves survival but also has been shown to have intergenerational, long-lasting social and behavioural benefits including reduced school absenteeism, hyperactivity, aggressiveness and externalisation disorders and improved brain maturation at 20 years of age (e.g. intelligence, attention, memory and coordination).[11,12] Preterm or LBW infants who received KMC are more likely to be protective and nurturing parents, receive higher hourly wages, and have less socio-deviant conduct.[11] Thus, KMC contributes to long-term health and well-being and longer-term human capital.

Is KMC scalable?
Recent examination of evidence on health system strategies for KMC implementation showed that greater increases in KMC coverage were achieved when high-intensity interventions in support of KMC were made across multiple health system building blocks, including leadership, governance, policy and advocacy; health workforce capacity building and motivation; health financing; service delivery including dedicated space for KMC, protocols and job aids; supplies, and health management information systems.[17] While global coverage remains low, multiple countries have now demonstrated national or sub-national implementation of KMC.[13]

Which Sustainable Development Goals will be impacted by scaling up KMC?
Implementing KMC globally will contribute to the achievement of multiple SDG goals beyond target 3.2 for ending preventative deaths. KMC empowers mothers as the primary caregivers of their small and/or sick newborns, and thus is fundamental to SDG target 5.1

for ending all forms of discrimination against all women everywhere to achieve gender equality and empower all women. KMC can also contribute to SDG target 7.3 to improve global energy efficiency and ensure access to affordable, reliable, sustainable and modern energy by catalysing the reorganisation of service delivery for maternal-infant care to be people-centred and central to primary health care rather than relying on energy-consuming technical solutions such as incubators and radiant warmers. KMC promotes SDG target 9.1 to develop quality, reliable, sustainable and resilient infrastructure to support equitable economic development and human well-being, as infrastructure modifications to enable combined care of mother-infant dyads are likely to be more efficient, sustainable and resilient. Global efforts to scale up KMC will promote multistakeholder and "north-south" partnerships (target 17.16), and will require strengthening existing health data systems to monitor coverage of high quality small and/or sick newborn care.[16]

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