Breastfeeding has long been recognized as an essential part of newborn care and the optimal source of infant nutrition and immune protection. Challenges remain, however, in meeting global targets for early, exclusive, and continued breastfeeding, resulting in too few infants receiving the full benefits of lifesaving human milk for the best start in life. Enhanced policies and programs are needed to effectively protect, promote, and support breastfeeding. This includes focus on sick and vulnerable newborns who are at greatest risk of negative health outcomes in the absence of human milk, such as those born preterm or low birthweight. Yet, many such vulnerable neonates do not have access to their mother’s own milk for a range of reasons, including issues of abandonment, mother’s death, baby’s illness or inability to suckle, or delay in milk production, resulting in increased rates of morbidity and mortality. In these special cases when the optimal choice of direct breastfeeding is not a possibility, the World Health Organization (WHO) recommends the use of donor human milk, not formula, as the next best option for ensuring exclusive human milk feeding until mother’s own milk becomes readily available via breastfeeding or milk expression. Further, WHO recommends that if donor human milk is needed, then it should be safely provided through a human milk bank (HMB) (Box 1).

BOX 1. 2011 WHO RECOMMENDATIONS ON OPTIMAL FEEDING OF LOW-BIRTHWEIGHT INFANTS

WHAT TO FEED, CHOICE OF MILK:

1. Low-birthweight (LBW) infants, including those with very low birthweight (VLBW), should be fed mother’s own milk.

2. LBW infants, including those with VLBW, who cannot be fed mother’s own milk, should be fed donor human milk (recommendation relevant for settings where safe and affordable milk-banking facilities are available or can be set up).

3. LBW infants, including those VLBW, who cannot be fed mother’s own milk or donor human milk, should be fed standard infant formula (recommendation relevant for resource-limited settings).

   VLBW infants, who cannot be fed on mother’s own milk or donor human milk, should be given preterm infant formula if they fail to gain weight despite adequate feeding with standard infant formula.

4. LBW infants, including those with VLBW, who cannot be fed mother’s own milk or donor human milk, should be fed standard infant formula from the time of discharge until six months of age (recommendation relevant for resource-limited settings).

Throughout this brief, the term human milk refers to providing nutrition via breastfeeding, mother’s own expressed milk, and, only as necessary, donor human milk. The purpose...
The provision of donor human milk should be an alternative to infant formula feeding for sick and vulnerable newborns at greatest risk of illness and death. Nearly 3 million babies still die in the first year of life. Of all known approaches, feeding babies exclusively with human milk in the first hours, days, and months of life has the greatest potential impact on child survival and development.

Efforts to improve the support of mothers to breastfeed and to ensure that all babies have access to human milk need to be strengthened. Similarly, as survival of preterm infants is increasing even in low- and middle-income countries, enhanced measures for optimal neonatal care are needed. Globally, less than half of all newborns (45 percent) receive human milk in the first hour of life. For sick and vulnerable newborns, evidence shows that those who receive human milk early and exclusively are more likely to survive. This is especially important for the 20 million babies who are born at a low birthweight, 97 percent of whom are born in low- and middle-income countries. Yet, anecdotal reports from neonatology wards in a range of countries suggest that between 15 and 40 percent of the sickest babies in neonatal units around the world lack access to their own mother’s milk.

More needs to be done to ensure that all newborns, including those sick and vulnerable, have access to and are receiving human milk. This includes efforts foremost to protect, promote, and support breastfeeding, and, importantly, to support mothers at the general and neonatal facility levels in lactation and expression of their milk if their newborn is unable to feed at the breast. For those newborns who do not have access to their mother’s own milk, additional efforts are needed to close the gap in the provision of care so that they are not fed formula unnecessarily.

**HUMAN MILK IS ESSENTIAL TO NEWBORN CARE**

Essential Newborn Care is the basic care required for every baby at birth to ensure survival and healthy development. An important element of Essential Newborn Care is supporting newborn nutrition with human milk. Recommended newborn feeding practices include skin-to-skin contact while feeding, supporting breastfeeding, and, importantly, to support ensuring optimal nutrition with human milk should be provided.

According to WHO recommendations, every effort should be made to provide mother’s own milk to all newborns, including sick and vulnerable newborns, either directly through breastfeeding or by giving their mother’s expressed breast milk via cup or spoon feeding. This requires measures to provide enhanced lactation support, such as in neonatal intensive care settings, through counseling and physical provision of options for collection, storage, and tracking of mother’s expressed milk. Only when all options are exhausted for provision of mother’s own milk should donor human milk from an HMB be considered. For these babies, donor human milk should be incorporated into other standards of newborn care as needed. This includes using donor human milk as early feedings in order to bridge the gap until breastfeeding can be initiated or mother’s own expressed milk is available and safe.

While donor human milk cannot provide the full benefits of direct breastfeeding from a newborn’s mother, it is preferable to infant formula due to reduced risk of sepsis, necrotizing enterocolitis, diarrhea, and feeding intolerance, as well as length of stay in critical care. Additionally, evidence shows that integrating systems for provision of donor human milk into sick and vulnerable newborn care can lead to increased rates of breastfeeding at discharge from the hospital.

**GLOBAL POLICY THAT SUPPORTS THE PROVISION OF DONOR HUMAN MILK**

Recognizing the benefits of using donor human milk over formula for sick and vulnerable newborns, WHO and other global health leaders have recommended the scale-up of HMBs to encourage provision of safe donor human milk as a strategy for improving neonatal health and survival. In 2008, World Health Assembly Resolution 61.20 called on countries...
to investigate ways to safely provide donor human milk to vulnerable infants, in particular premature, low-birthweight, and immunocompromised infants, as a risk reduction strategy.

The provision of donor human milk for sick and vulnerable newborns is also included in a number of other globally adopted frameworks and documents that aim to improve newborn health and survival (Box 3).

Currently, more than 40 countries have established systems to provide donor human milk through HMBs, including a number in low- and middle-income countries. However, in regions with the greatest burden of sick and vulnerable infants, such as sub-Saharan Africa and South Asia, few HMBs exist. Most countries in the world have yet to establish national policies and programs that support the provision of donor human milk to infants in need.

Strengthening health systems so that they provide donor human milk to all newborns in need has the added benefit of contributing to a country’s ability to achieve other health and development commitments, related to human rights, the Sustainable Development Goals, and targets for maternal, infant, and young child nutrition (Box 4).

ACTIONS TO IMPROVE NEWBORN CARE THROUGH THE PROVISION OF HUMAN MILK

The following are actions that policymakers can take to strengthen systems to increase access to and intake of human milk for sick and vulnerable newborns.

- Commit to developing, improving, and enforcing policies and legislation that protect, promote, and support breastfeeding for all infants, including exclusive human milk feeding for sick and vulnerable newborns, through strengthening systems for comprehensive lactation support in critical care facilities.
- Strengthen data tracking systems for inclusion of human milk use within indicators for early initiation of breastfeeding.
- Invest in training and capacity-building in the optimal feeding of premature, sick, and vulnerable newborns.
- Integrate the provision of donor human milk from HMBs into national strategies and policies as part of a comprehensive approach for Essential Newborn Care and improving breastfeeding, infant and child feeding, and nutrition.
- Establish culturally appropriate national standards, guidelines, and systems for establishing HMBs, monitoring distribution and quality control of donor human milk, and ensuring equitable access to donor human milk.
- Ensure that policies and programs to increase access to and intake of donor human milk do not undermine breastfeeding, but are part of a comprehensive strategy to ensure optimal feeding of sick and vulnerable newborns.

BOX 3. TECHNICAL AND POLICY GUIDANCE DOCUMENTS THAT INCLUDE AND/OR SUPPORT ACCESS TO AND INTAKE OF DONOR HUMAN MILK FOR NEWBORNS IN NEED

The following documents focus on optimal newborn feeding, nutrition, and growth and incorporate the use of donor human milk through the establishment of human milk banks.

- The Surgeon General’s Call to Action to Support Breastfeeding (United States Department of Health and Human Services, 2011).
- Breastfeeding and the Use of Human Milk (Academy of Breastfeeding Medicine, 2005).
- Pocket Book of Hospital Care for Children: Guidelines for the Management of Common Illnesses with Limited Resources (WHO, 2013).
**REFERENCES**


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