WET NURSING IN EMERGENCIES

By George Kent

Abstract

It is often assumed that where infants cannot be breastfed by their own mothers, as is often the case in emergency situations, the second-best option is to use infant formula. However, wet nursing is usually a better option than infant formula. The wet nursing could be spontaneous or it could be organized in advance. In many cases, the needs of infants who cannot be breastfed by their own mothers could be met with the help of lactating women in their area. In some cases, banked human milk might meet the need, but in emergency situations it is not likely to be readily available when and where it is needed. Plans could be made by women's groups to offer lactation services in their areas in emergency situations.

Introduction

In emergency situations, mothers should be given support to enable them to feed their infants as they wish. If they have been breastfeeding or wish to start, that should be supported (Gribble et al. 2011; McFadden et al 2017; Staley 2018). The suggestion explored here is that the option of wet nursing should be readily available in urgent situations in which the mother is not available or cannot breastfeed. It could be organized in advance, as a component of broader preparations for emergencies of various kinds.

It is often assumed that where infants cannot be breastfed by their own mothers, the second-best option is to use infant formula. To illustrate, in 2017, there was widespread malnutrition of infants amid the armed conflict in and around Mosul, Iraq. According to Médecins Sans Frontières:

The malnutrition we see here is primarily due to the scarcity of infant formula. . . Many Iraqi mothers don't breastfeed and the ones who do usually stop after two to three months. Conditions in the camps combined with stress and exhaustion make breastfeeding even harder. . . We believe distributing infant formula in a conflict situation like Iraq is the only way to avoid children having to be hospitalised for malnutrition. MSF provides infant formula to children when they're discharged from the hospital and during their follow-up care. We also encourage mothers and tell them how important breastfeeding is, but if they need formula, we give it to them. (Médecins Sans Frontières. 2017; also see Frank 2018; Lemmon 2017)

Contrary to MSF's assertion, distributing infant formula in conflict situations like that in Mosul is not always "the only way to avoid children having to be hospitalised for malnutrition."

¹ The term "wet nursing" is used throughout this paper, although "cross nursing" is often used where a breastfeeding woman breastfeeds another child in addition to her own.

Similarly, in Sinai, if, as Human Rights Watch reported "there was no baby formula" (HRW 2018)," it might be feasible to make suitable arrangements with local lactating women.

The ready availability of infant formula can divert attention from the potential of wet nursing. For example, in drought-stricken Somalia . . .

Making matters worse is the abundance of infant formula in camps for the displaced, much of it donated by people around the world who believe malnourished mothers are unable to breastfeed.

"While this is well-meaning, we strongly discourage this," said Dr. Osamu Kunii, Chief of Child Survival and Development in the UNICEF Somalia office. "Infant formula should only be used in extenuating circumstances where infants have lost their mothers, or the mother cannot produce milk and no wet nurse can be found. It should never be used if breastfeeding is an option." (SAASCID and Gilliam 2011)

Economic and environmental conditions can be so bad that "Babies die because it is hard to find or afford infant formula, even in emergency rooms (Herrera 2017)." These issues arise in all sorts of emergencies, including family-level emergencies. There are situations in which wet nursing may be the only option (Murdock 2018).

Such situations are tragic because in many cases the children's urgent needs could be met with the help of lactating women in their area. Arranging for this in advance would require organization, but not a lot of money.

There are conditions under which the use of infant formula in emergency situations makes sense. "The solution is not uncontrolled blanket distribution of infant formula, but rather focusing attention and resources to safe, appropriate and consistent provision of breastmilk substitutes" (Bauer 2017)." Using infant formula can be especially dangerous when it must be prepared by mixing it with water that might not be safe.

The United Nations Children's Fund, together with other agencies, has developed "therapeutic milk, a type of infant formula specially designed to care for young children who suffer from severe acute malnutrition (UNICEF 2017; UNICEF Supply Division 2018). It is not clear whether researchers have compared this approach and the alternative of using locally sourced human milk. Where young children are severely malnourished, the biological mother is unable to breastfeed, and therapeutic formula is not available, locally sourced human milk should be considered, whether through human milk banks or through wet nursing.

Guidance and resource materials for dealing with infant and young child feeding in emergencies (IYCF-E) are readily available (Emergency Nutrition Network et al. 2017; IBFAN 2017; ILCA 2014; World Health Assembly 2010; World Health Organization 2007; World Vision 2012). Special attention has been given to the needs of refugee children (Infant Feeding Support for Refugee Children 2016). The Emergency Nutrition Network offers an online course on Infant

Feeding in Emergencies. They released new Operational Guidance on Infant Feeding in Emergencies in October 2017 (IFE Core Group 2017).

Breast milk banking and wet nursing

When mothers have difficulties in breastfeeding their infants directly, they might be able to express and store their own milk and feed it to the infant another way. The best alternative to the mother's own milk is milk from other women, not infant formula (Academy of Breastfeeding Medicine 2017). This is also true when the challenges are not simply medical, as they are in many emergency situations. When infants are not breastfed by their own mothers, human milk can be supplied to them through milk banks or through wet nursing.

Banking involves collecting human milk at a central place, the milk bank, and then having infants' caretakers obtain milk from the bank. Usually some processing is done at the bank such as pasteurization and quality testing. The women who provide human milk to the banks are likely to be screened through questionnaires and interviews. In banking, there is no need for contact between the primary providers of the human milk and the infant's caretakers. Milk banking has a long history (Moro 2018).

Wet nursing is understood here as direct breastfeeding of a child by a woman who is not the child's biological mother. The practice has been criticized because it has often been associated with exploitation of poor women (Thorley 2015). However, there is also a long history of wet nursing based on camaraderie among women. In the Solomon Islands, they joke about young children whose feet don't touch the ground for years, as they are passed around from one woman to the next. That sort of receptivity to the idea of wet nursing might exist or might be encouraged in other stable settings, such as refugee camps.

Banking human milk typically involves highly structured arrangements in stable social settings. Banking requires costly equipment such as pasteurization and refrigeration equipment. Wet nursing is less costly and more common in low-income settings. Wet nursing requires little advance preparation, so it is particularly suitable for unanticipated emergencies.

I have discussed prospects for extending the reach of human milk banking elsewhere (Kent 2017). The focus here is on the potentials for wet nursing in emergencies.

Emergencies

Proposals have been advanced to make ready-to-use liquid infant formula more readily available for use in emergency situations (Mainichi 2016; 2018). However, ready-to-use formula is costly, and it can be expensive and difficult to transport to where it is needed on an urgent basis. In emergency situations, wet nursing by women in the region may be the most practical alternative to milk from the biological mother.

There are stories about bottled human milk from milk banks being flown in emergency situations (Bischoff-Brown 2010; Boylen 2010; Rochman 2010). That can be helpful, but it is expensive

and rarely feasible except perhaps in special circumstances such as temporary use in premature infants before they are able to suckle. The use of banked human milk in emergency situations would be more effective if milk banks viewed providing their services in emergency situations as part of their mission and prepared for it.

The focus here is on local wet nursing, usually by generous lactating women in the region of the emergency. While that can be done spontaneously, organized during the emergency, careful preparation in advance could make it more effective.

There are risks in wet nursing, such as the possibility that the women who offer their milk might be suffering from one of the few diseases that can be transmitted through breast milk, or they might be substance abusers (U.S. Department of Health and Human Services 2018). Measures, such as screening milk providers can reduce those risks (Sriraman et al. 2018). However, in many emergencies it would be impossible to undertake procedures that guarantee safety. On the whole, shared milk will be safer than other feeding options. The Emergency Nutrition Network (ENN) has created a website space for discussion of the issues: *Wet Nursing Guidance—Emergency Contexts* at https://www.en-net.org/question/3194.aspx

When new mothers have difficulties in breastfeeding, the first response should be to help them overcome those difficulties. Ideally, well-trained lactation consultants should be provided (Staley 2018). The Emergency Nutrition Network has prepared a variety of teaching/learning materials that can be used even by untrained helpers. Wet nursing can be offered when these support services are inadequate, or when the mother is simply not available. Programs to support lactation by mothers in the context of emergencies could also organize wet nursing when it is needed.

Wet nursing in emergencies is sometimes done spontaneously. For example, volunteer wet nursing took place following an earthquake in China:

The young policewoman (Jiang Xiaojuan), who breastfed 9 infants after the earthquake, was not the only woman who did so. Lactating women from other provinces also went to Sichuan as volunteer wet nurses for babies (especially orphans). (Bengin and Scherbaum 2010)

Women who are reluctant to share their milk in normal times might be more open to wet nursing in emergency situations, whether they are giving or receiving. They might be even more open to it if the arrangement was made through an organization previously established for that purpose. Inspiration could be drawn from the Philippines:

The Mandaluyong City government has renewed its milk-letting program with the Department of (DOH), wherein volunteer mothers can donate breast milk to the Philippine General Hospital's (PGH) Department of Pediatrics . . . Mothers who join the city's Breastfeeding Patrol do not only donate breast milk, which is collected by and stored in the milk bank of the Mandaluyong City Medical Center. When major disasters hit the city, the mothers are also dispatched to evacuation shelters so they can provide milk for infants . . . As part of the city's

nutrition program, the Breastfeeding Patrol has been successful in helping mothers who have a hard time producing their own milk. "Parents should be practical because milk formulas are very expensive. And for mothers who cannot produce milk, the Breastfeeding Patrol is our answer," the mayor said in a statement. (Metro Briefs 2016)

Similar organizations could be created in any community to attend to urgent infant feeding needs. They could address family level emergencies in which the biological mother cannot breastfeed and cannot express her milk, perhaps because of some sort of medical crisis faced by the mother (Brown 2017). They could also respond to community level emergencies in which there is serious disruption of normal local services. In both types of cases, the breastfeeding patrol could provide substantial benefits at little cost. The creation of such groups could become significant community-building initiatives.

As in any human activity, there are risks and obstacles in wet nursing, and some of the risks can be amplified in emergency situations. In sudden-onset widespread emergencies, there is little opportunity to do sophisticated screening of women who offer the service or those who ask for it. However, it might be possible to develop protocols for basic screening for issues such as fever, measles rash, and signs of AIDS.

Some mothers might give up on their own capacity to breastfeed too quickly, especially in the high stress of an emergency. If infants are provided with milk from other women to feed their infants, the mother might be able to relax and find that her own milk returns within a day or so. This should be monitored. Milk from another woman might be needed long-term, since the mother's own ability to breastfeed might be reduced for a long time. In emergencies or any other situations, this negative impact of using shared milk should be considered.

Wet nursing in emergencies might be unacceptable in some cultures or religions. To illustrate, for Muslims there are issues relating to the use of human milk obtained from a woman other than the biological mother. Traditionally, milk-kinship has been understood by Muslims as meaning that infants breastfed more than five times by the same woman must be viewed as siblings, and therefore must never marry. However, shared human milk might be acceptable under some conditions. A fatwa in 2004 said that in case of need, using milk from other women does not establish milk-kinship (Ghaly 2010, 5)." The issues should be explored with local Muslim leaders to identify conditions under which shared human milk would be compatible with Islam in emergency situations (al-Naqeeb, Azab, and Mohammed 2000; Khalil 2016; Thorley 2016). Sharing milk through wet nursing is less of a problem than milk banking, since it creates a sibling relationship with children in a single identifiable family. When using banked milk, it might be difficult to identify the provider. In some cases, banked milk is blended, mixing milk from several providers. Nevertheless, in some situations, the use of banked milk might be acceptable (Today 2017).

The potential for facilitating wet nursing in emergencies could be tested in several places through the creation of programs appropriate for local circumstances. That initiative could be placed among the broader concerns of women in relation to management of emergencies (Fowler 2017; Madi 2017)

While resources for the operation of these local programs should come from local communities, higher level agencies could provide matching grants or support services. These agencies could collect and disseminate stories about comparable efforts throughout the world, as the basis for sharing ideas. They could help in formulating guidelines for the work. In some places, the program might operate through existing women's organizations, perhaps with the assistance of local educational institutions. There would be risks, but the benefits of having human milk available during emergencies would almost certainly outweigh those risks.

References

- Academy of Breastfeeding Medicine. 2017. *ABM Clinical Protocol #3: Supplementary Feedings in the Healthy Term Breastfed Neonate, Revised 2017.* ABM.

 https://abm.memberclicks.net/assets/DOCUMENTS/PROTOCOLS/3-supplementation-protocol-english.pdf
- Al-Naqeeb, Niran, Ayman Azab, Mahmoud S.Eliwa, and Bothaina Y. Mohammed. 2000. "The Introduction of Breast Milk Donation in a Muslim Country." *Journal of Human Lactation* December. 16 (4): 346-50.

 https://www.researchgate.net/publication/12173231 The Introduction of Breast Milk Donation in a Muslim Country
- Bauer, Brooke. 2017. "Expertise, Not Milk Powder, is the Key to Saving Mosul's Babies, Says Iraq-based NGO." *Nurture Project International*. August 14. https://nurtureprojectinternational.org/press-release/
- Bengin, Haoyue Gao and Veronika Scherbaum. 2010. "Letter: Breastfeeding After Earthquakes." *Birth: Issues in Perinatal Care.* 37(3): 264.
- Bischoff-Brown, Dominique. 2010. "Delivering Breast Milk A Care for Cold Chain Logistics." Quick. January 30. http://quick.aero/blog/delivering-breast-milk-to-haiti/
- Boylen, Iola. 2010. "Breast Milk Arrives for Babies in Haiti." *Lipstick Alley*. January 29. https://www.lipstickalley.com/threads/breast-milk-arrive-for-babies-in-haiti.220380/
- Brown, Annie. 2017. "Mother Undergoing Cancer Treatment Calls for Regional Access to Breastmilk Banks." *ABC Goulburn Murray*. May 15. http://www.abc.net.au/news/2017-05-16/mother-calls-for-breastmilk-bank-in-regional-australia/8521202
- Emergency Nutrition Network et al. 2007. *Infant Feeding in Emergencies. Module 2 Version 1.0 for health and nutrition workers in emergencies.* ENN: http://www.ennonline.net/ifemodule2
- Fowler, Jonathan. 2017. "Don't Sideline Women from Disaster Risk Reduction." UNISDR. (United Nations Office for Disaster Risk Reduction). http://www.unisdr.org/archive/52485
- Frank. Lesley. 2018. "Finding Formula: Community-based Organizational Responses to Infant Formula Needs Due to Household Food Insecurity." Canadian Food Studies. 5(1): 90-112.
- Ghaly, Mohammed. 2010. "Milk Banks Through the Lens of Muslim Scholars: One Text in Two Contexts." *Bioethics*. doi:10.1111/j.1467-8519.2010.01844.x.

- https://openaccess.leidenuniv.nl/bitstream/handle/1887/16542/Ghaly-Milk%20Banks.pdf?sequence=1
- Gribble, Karleen D., Marie McGrath, Ali MacLaine, and Lida Lhotska. 2011. Supporting Breastfeeding in Emergencies: Protecting Women's Reproductive Rights and Maternal Health. *Disasters*. March 14. https://pdfs.semanticscholar.org/d452/d2ff2d1ced23fb6808257d8934060c3fa9f0.pdf
- Herrera, Isaayen. 2017. "For five months, The New York Times Tracked 21 Public Hospitals in Venezuela. Doctors are Seeing Record Numbers of Children with Severe Malnutrition. Hundreds Have Died." *New York Times*. December 17.

 https://www.nytimes.com/interactive/2017/12/17/world/americas/venezuela-children-starving.html
- HMBNA. 2016. "Michigan Seeks Emergency Coverage for HMBNA Donor Human Milk for Babies Affected by Lead Poisoning." *Human Milk Banking Association of North America*. February 12.

 https://www.hmbana.org/sites/default/files/images/FINAL%20HMBANA%20LEAD%20STATEMENT.pdf
- HRW. 2018. *Egypt: Looming Humanitarian Crisis in Sinai*. Human Rights Watch. April 23. https://www.hrw.org/news/2018/04/23/egypt-looming-humanitarian-crisis-sinai
- IBFAN. 2017. *Protecting Breastfeeding in Emergencies*. International Baby Food Action Network. http://www.babymilkaction.org/archives/13447
- IFE Core Group. 2017. *Operational Guidance on Infant Feeding in Emergencies (OG-IFE)* version 3.0. ENN. http://nutritioncluster.net/download/6756/
- ILCA. 2014. "Position on Infant Feeding in Emergencies." *International Lactation Consultant Association*. http://files.ennonline.net/attachments/379/infantfeeding-emergpp-lactation-consultant-assoc-position-paper-on-ife.pdf
- Infant Feeding Support for Refugee Children. 2016. You Can Help Refugee Mothers Safely Feed Their Children. January 29. https://www.facebook.com/notes/infant-feedingsupport-for-refugee-children/you-can-help-refugeemothers-safely-feed-their-children/212918912388107
- Kent, George. 2017. "Extending the Reach of Human Milk Banking." *World Nutrition*. 8(2): 232-250. https://worldnutritionjournal.org/index.php/wn/article/view/143/111
- Khalil, Aliaa, Rachel Buffin, Damien Sanlaville, and Jean-Charles Picaud. 2016. "Milk Kinship is not an Obstacle to Using Donor Human Milk to Feed Preterm Infants in Muslim Countries." *Acta Pediatrica*. May. 105 (5): 462-467. http://onlinelibrary.wiley.com/wol1/doi/10.1111/apa.13308/full

- Lemmon, Gayle Tzemach. 2017. "Don't make babies rely on breast milk in war zones." *CNN Opinion*. August 12. http://www.cnn.com/2017/08/12/opinions/global-breastfeeding-policies-opinion-lemmon/index.html
- Madi, Kirsi. 2017. "Haiti and Why We Need More Women Managing Disaster Risk." *The World Post*. http://www.huffingtonpost.com/entry/haiti-and-why-we-need-more-women-managing-disaster_us_58befc86e4b05386ddc0ca86
- Mainichi. 2016. Petition Seeking Read-to-use liquid Baby Formula Gets Boost After Kumamoto Quakes. *The Mainichi*. June 12. https://mainichi.jp/english/articles/20160612/p2a/00m/0na/009000c
- ---. 2018. Health Ministry Releases Guidelines for Domestic Production of Liquid Infant Formula. *The Mainichi*. March 13. https://mainichi.jp/english/articles/20180313/p2a/00m/0na/012000c
- McFadden, Alison, Gavine, Anna, Renfrew, Mary J., Wade, Angela, Buchanan, Phyll, Taylor, Jane L., Veitch, Emma, Rennie, Anne Marie, Crowther, Susan A., Neiman, Sara, MacGillivray, Stephen. 2017. Support for Healthy Breastfeeding Mothers with Healthy Term Babies. Cochrane Database of Systematic Reviews. John Wiley & Sons, Ltd. http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD001141.pub5/full
- Moro, Guido E. 2018. "History of Milk Banking: From Origin to Present." *Breastfeeding Medicine*. 13(S1). April. https://www.liebertpub.com/doi/10.1089/bfm.2018.29077.gem
- Murdock, Jason. 2018. "Flight Attendant Breastfed Stranger's Crying Baby After Mother Ran out of Formula." *Newsweek*. November 9. https://www.newsweek.com/flight-attendant-breastfed-strangers-crying-baby-after-mother-ran-out-formula-1208396
- Rochman, Bonnie. 2010. "Breast-milk for Haiti: Why Donations Are Being Discouraged." *Time*. January 29. http://content.time.com/time/specials/packages/article/0,28804,1953379_1953494_19576_14,00.html
- SAACID and Eva Gilliam. 2011. UNICEF and SAACID Promote Exclusive Breastfeeding in Somalia's Drought-affected Communities.

 https://www.unicef.org/health/somalia_60920.html
- Sriraman, Natasha K., Amy E. Evans, Robert Lawrence, Lawrence Noble, and the Academy of Breastfeeding Medicine's Board of Directors. 2018. "Academy of Breastfeeding Medicine's 2017 Position Statement on Informal Breast Milk Sharing for the Term Healthy Infant." *Breastfeeding Medicine*. 13(1). https://www.liebertpub.com/doi/pdfplus/10.1089/bfm.2017.29064.nks
- Staley, Roberta. 2018. "Breastfeeding for the Apocalypse." *Corporate Knights*. January 17. Winter Issue. http://www.corporateknights.com/channels/health-and-lifestyle/

- Thorley, Virginia. 2015. "A Mother, Yet Not 'Mother': The Occupation of Wet Nursing." *Journal of Family Studies*. 21(3): 305-323.

 http://www.tandfonline.com/doi/full/10.1080/13229400.2015.1108993
- Thorley, Virginia. 2016. "Milk Kinship and Implications for Human Milk Banking: A Review." *Women's Health Bulletin*. 3 (3). e36897. http://womenshealthbulletin.com/?page=article&article_id=36897
- Today. 2017. "Okay for Premature Muslim Babies to Draw from Milk Bank, Says MUIS. 2018. *Today Online*. August 17. https://www.todayonline.com/singapore/okay-premature-muslim-babies-draw-milk-bank-says-muis
- Trickey, Heather, and Helen Gray. 2017. "Guidance is Needed on Infant and Young Child Feeding for Families in the UK Affected by Disasters and Emergencies." *Protecting Babies in Emergencies. World Breastfeeding Trends Initiative*. https://ukbreastfeeding.org/2017/07/06/protecting-babies-in-emergencies/
- UNICEF. 2017. "Introducing Updated Packaging and Reconstitution Guidance for Therapeutic Milk." *Emergency Nutrition Network*. https://www.ennonline.net/tm
- UNICEF Supply Division. 2018. *Therapeutic Milk: Market & Supply Update*. April. https://www.unicef.org/supply/files/Therapeutic_Milk_Supply_Update.pdf
- U.S. Department of Health and Human Services. U.S. Food & Drug Administration. 2018. *Use of Donor Human Milk*. Washington, D.C.: USFDA. https://www.fda.gov/ScienceResearch/SpecialTopics/PediatricTherapeuticsResearch/ucm235203.htm
- World Health Assembly. 2010. Infant and Young Child Nutrition. WHA 63.23. Geneva: WHA. http://apps.who.int/gb/ebwha/pdf_files/WHA63/A63_R23-en.pdf
- World Health Organization. 2007. *Infant and Young Child Feeding in Emergencies: Operational Guidance for Emergency Relief Staff and Programme Managers*. Geneva: WHO. February. http://www.unhcr.org/45f6cd022.pdf
- World Vision. 2012. Supporting Breastfeeding in Emergencies: The Use of Baby-friendly Tents. https://www.wvi.org/sites/default/files/Supporting-Breastfeeding-in-Emergencies-June-2012-Final.pdf