

# MIBFN

Michigan Breastfeeding Network



DISASTER READY



## SYSTEM CHANGER'S GUIDE TO BREASTFEEDING AND DISASTER READINESS

[www.mibreastfeeding.org/disaster-ready](http://www.mibreastfeeding.org/disaster-ready)



## **BREASTFEEDING IS GOOD FOR EVERYONE**

Breastfeeding is not a lifestyle choice: it is a public health imperative for families in our society and universally recognized as the optimal method for feeding and nurturing children. It is a biological norm to breastfeed infants and young children. The American Academy of Pediatrics (AAP) recommends exclusive breastfeeding for the first six months of life and the World Health Organization (WHO) recommends breastfeeding until at least two years of age, with continuation of breastfeeding as long as mutually desired by mother and child.<sup>1,2</sup> Recent estimates show that over 800,000 child lives worldwide and 20,000 maternal lives could be saved each year if every child were exclusively breastfed for the first six months of life.<sup>3</sup> Additionally, associated medical cost differences equaled a savings of \$40.2 million per year.<sup>4</sup> Breastfeeding provides valuable protection against illnesses such as diarrhea, pneumonia, and upper respiratory infections in addition to protection against Sudden Infant Death Syndrome (SIDS), particularly during the first year of life.<sup>5</sup> Breastfeeding also provides lasting health benefits with lower incidences of allergies, asthma, high blood pressure, and obesity as breastfed infants enter into childhood and adolescence. Breastfeeding also promotes socio-emotional development, contributing to positive maternal self-image while developing a stable, nurturing maternal-infant relationship. The emotional

security and warmth developed within the breastfeeding relationship promotes an early and secure attachment for the child, which is central to subsequent development. Breastfeeding affects children's cognitive and social functioning with typical IQ gains of two to five points in healthy infants and up to eight points for low birthweight babies, which significantly impacts school readiness and participation.<sup>6</sup> In addition to these benefits for infants and children, WHO also states that breastfeeding helps to improve the health of mothers by lowering the risk of postpartum depression and decreasing their lifetime incidence of cardiovascular disease, type II diabetes, osteoporosis, and breast and ovarian cancers.



## **INFANT MORTALITY: THE DISMAL COST OF NOT BREASTFEEDING**

Across the country, as well as in Michigan, African-American women have the lowest rates of breastfeeding initiation and duration. According to national CDC data, the breastfeeding initiation rate stands at 64.3 percent for African Americans as compared to 81.5 percent for whites and 81.9 percent for Hispanics.<sup>7</sup> Among other reductions in health, low breastfeeding rates result in higher infant mortality rates, a statistic used as a basic measure of public health for countries around the world. The United States has one of the worst infant survival rates in the industrialized world, reporting 5.9 infant deaths per 1,000 live births in 2016.<sup>8</sup> In Michigan, infant mortality rates are devastatingly high especially in urban areas: in Detroit, the infant mortality rate for African American infants is 14.5 deaths per 1,000 live births and in Flint the infant mortality rate for African American infants reached a staggering 20 deaths per 1,000 live births.<sup>9,10</sup> However, initiation of breastfeeding within the first hour and exclusive

breastfeeding for the first six months of life are predictors of infant survival.<sup>11</sup> Exclusive breastfeeding reduces infant mortality due to common childhood illnesses such as diarrhea or pneumonia, and aids in a faster recovery during illness. Babies who are breastfed for three months or more have a 38 percent lower risk of death within their first year compared with babies never breastfed.<sup>12</sup> Supporting mothers to breastfeed exclusively is cost effective, safe, and reduces health disparities for families. In the face of such a dire public health crisis, the impact of breastfeeding on maternal and child health is both measurable and immediate: breastfeeding remains the single most effective way to prevent infant death.<sup>13</sup> Indeed, a modest five percent increase in breastfeeding rates was associated with statistically significant differences in child infectious morbidity for the U.S. population.<sup>14</sup>

## **BREASTFEEDING IN TIMES OF CRISIS**

Women and children are disproportionately affected by climate change, natural disasters, and public health emergencies in the United States as well as all over the world.<sup>15</sup> The purpose of this guide is to focus on the benefits and practical steps related to maintaining and promoting breastfeeding during emergencies and disasters. For means of clarity, an emergency is a situation of grave risk to health, life, or environment. A disaster is any phenomenon, natural or man made, that causes widespread destruction of life or property. Though both emergencies and disasters present situations that demand quick action, one can prepare for emergencies but not disasters.<sup>16</sup> Emergencies are usually on a smaller scale than disasters. Disasters have the potential to cause large scale destruction of life and property. Additionally, an environmental disaster is one in which a major disruption occurs in the natural environment due to human causes such as an oil spill. A natural disaster is a major disruption affecting humans due to natural causes such as a tornado or hurricane. An environmental disaster is usually preventable and a natural disaster is not. Breastfeeding is important during all crises whether the event is



an emergency or a disaster. Barriers to breastfeeding exist during both emergencies and disasters and breastfeeding protects infants and children during these events.<sup>17</sup> While vulnerable populations have difficulty accessing or receiving standard resources outside of emergencies, during times of crisis, these gaps are exacerbated, necessitating preparedness policies and practices that account for social, economic, and health disparities.<sup>18</sup> Addressing the specific needs of vulnerable populations requires collaboration, engagement, inclusion, and representation using a health equity lens.<sup>19</sup>

### **BABY-TO-BREAST IS DISASTER READINESS**

Numerous public health organizations, including the United States Breastfeeding Committee (USBC), the World Health Organization (WHO), and UNICEF, have released statements on the importance of continued breastfeeding during personal crises, public health emergencies, acts of terror and violence, natural disasters, and weather-related events in order to address these inequities.

The USBC Position Statement on Infant/Young Child Feeding in Emergencies stresses that children are most vulnerable during emergencies and that breastfeeding can protect a child at such a time: “Nearly 95 percent of infant and child deaths during emergencies result from diarrhea due to contaminated water and an unsanitary environment.”<sup>20</sup>

The WHO press statement, *Breastfeeding in Emergencies: a Question of Survival*, reinforces the importance of breast milk: “Breastfeeding becomes even more critical for survival during emergencies. Failure to fully protect breastfeeding in these circumstances dramatically worsens the situation.”<sup>21</sup>

The UNICEF statement, *Breastfeeding a Crucial Priority for Child Survival in Emergencies*, aligns with the USBC and the WHO’s emphasis that infants and young children can be best protected with the nutrients, immunities, and antibodies present in breast milk when emergencies and disasters strike.<sup>22</sup>

It is important to note that these organizations recognize the vulnerability of infants during emergencies in both emerging- and advanced-market economies. Despite a more advanced infrastructure, infant formula continues to replace breast milk for most infants in economically-developed countries during their first year of life.<sup>23</sup> Sound infrastructure usually means fewer infants die as a result of formula feeding; however, this scenario does not hold true during emergency situations, which makes formula feeding very difficult and increasingly dangerous.



## **INFANT FORMULA IS NOT A SAFE OPTION**

In emergencies and disasters, infant formula is linked to an increase in infant disease and death.<sup>24</sup> The uncontrolled distribution of infant formula is often the number one problem in places experiencing a health emergency or environmental disaster.<sup>25</sup> Aggressive marketing by infant formula companies is particularly predatory during times of disaster when the risk of mixing infant formula with contaminated water increases. Donations of infant formula during times of crisis drive down exclusive breastfeeding rates among those affected by the disaster and carry both short- and long-term health consequences. Families may not have access to clean water for formula preparation, the formula may be expired, and untargeted donations and distribution may undermine breastfeeding.<sup>25</sup> Breastfeeding carries protective factors for women and children when disaster strikes.

## **BREASTFEEDING IN TIMES OF CRISIS IS BOTH FEASIBLE AND SAFE**

Unlike infant formula, breastfeeding does not require an additional water source. Breast milk is 88 percent water and meets the daily nutritional requirements of an exclusively breastfed baby while providing a considerable margin of safety for the child.<sup>26</sup> Healthy newborns enter the world well hydrated and remain hydrated when exclusively breastfed regardless of the climate. The safest food in an emergency is the mother's own milk, and continued breastfeeding is the safest way to protect infant health.

It is a common misconception that mothers under duress are unable to breastfeed or that a malnourished mother cannot effectively breastfeed her child. A stressed mother continues to produce breast milk, and the oxytocin release during breastfeeding promotes a sense of well being and acts to relieve maternal stress and anxiety.<sup>27</sup> It is difficult to prepare infant formula correctly during the best of times and nearly impossible during disasters. For example, powdered infant formula is not sterile and may contain bacteria that causes serious illness in infants. The WHO guide "How to Prepare Formula for Bottle-Feeding at Home" is a 12-page compendium on safe infant formula use. This document stresses the importance of cleaning, sterilizing, and storing throughout the preparation process in order to prevent harmful bacteria from contaminating infant formula.<sup>28</sup> These steps are not practical or even feasible during disasters. Before distributing formula and bottles, relief workers should be encouraged to support, assess, feed, and empower women through evidence-based breastfeeding education and support.<sup>29</sup>



## **HAND EXPRESSION IS A KEY TOOL IN CRISIS SITUATIONS**

When electricity and clean water are unavailable, all forms of bottle feeding pose risks.

The recent hurricanes in the Carolinas, Louisiana, and Puerto Rico serve as prime examples of the impact of infant formula and breast pump dependency. Oftentimes, rescue workers are not trained in breastfeeding support and management and do not provide accurate information to families. In the ongoing effects of Hurricanes Irma and Maria in September 2017, the entire island of Puerto Rico continues to suffer from the deadly blackout in what is now the worst power outage in U.S. history. During emergencies such as these, families cannot safely boil water, sterilize breast pumps, or do any of the non baby-to-breast routines that are pervasive in our society. Hand expression is a crucial part of disaster readiness when electricity and clean water are unavailable. Without access to clean water, hand expression becomes a necessary prevention/risk mitigation strategy because it allows mothers to continue providing breast milk to their children in a clean and sanitary manner when breast pump parts cannot be sterilized

properly. Hand expression can be done anywhere and a baby fed directly from any clean container.

## **THE FREQUENCY AND SEVERITY OF EMERGENCIES AND DISASTERS ARE INCREASING**

Vulnerable populations often experience disproportionate negative impacts from disasters. Hazards tend to harm segments of the population that were already disadvantaged before a disaster and vulnerable communities have the most to gain from increasing their breastfeeding rates.<sup>30</sup> In Michigan, disasters continue to happen more frequently and with greater severity. Warmer temperatures attributed to ongoing climate change lead to more moisture in the air, which means heavier precipitation events are expected to continue in areas closest to the Great Lakes.<sup>31</sup> In 2018 in Houghton County, Michigan, officials declared an emergency after increased rainfall events resulted in flash flooding. Houghton County is an isolated community on the Keweenaw Peninsula, the northernmost part of Michigan's Upper Peninsula, and damaged roads have yet to be repaired. Flash flooding can contaminate municipal water supplies and increase the risk of water-related illnesses from sewage and septic failures. Similarly, Michigan communities such as Detroit and Flint continue to suffer from environmental hardships. In Flint, hundreds of babies have been poisoned with lead-contaminated water since the water crisis began in April 2014. In Detroit, air pollution consistently causes over 2,000 asthma attacks in children each year.<sup>32</sup> In order to withstand these ongoing crises, compromised areas require systemic support to develop the necessary infrastructure.



## **RECOMMENDATIONS:**

Protecting and maintaining breastfeeding during emergencies requires preparation, planning, and training in order to enact systems-level change and provide equitable support and distribution of resources. Breastfeeding is the safest way to feed infants and children during any kind of disaster and should be a part of every emergency preparedness plan.

### **Written breastfeeding policy should reflect best practice.**

Breastfeeding should always be continued during emergencies and formula should not be introduced during times of crisis. Written policy for emergency responders should clearly outline breastfeeding support strategies and explain the dangers of introducing infant formula. Infants who discontinue breastfeeding are vulnerable to infection and are at real risk of death. Feeding with infant formula always carries risk and these risks are heightened during times of emergency, especially when clean water is not available to mix infant formula. The American Academy of Pediatrics (AAP) has adopted guidelines

for infant feeding during emergencies and can be used as a policy starting point.<sup>33</sup>

### **All first responders should receive evidence-based breastfeeding training.**

Mothers should be encouraged to continue breastfeeding during all types of disasters. Training for emergency personnel, community organizers, and relief workers should include how to appropriately support mothers and infants during an emergency. Education should include basic breastfeeding management, support, and hand expression for all mothers. Emergency personnel should have community resource lists with names of IBCLCs, local WIC agencies, and other trained lactation professionals to share with staff and volunteers in order for mothers to access needed support. Whenever possible, lactation support should be included as part of the emergency response team. The International Medical Corps (IMC) included at least one lactation professional or WIC Peer Counselor in each of their Hurricane Florence mobile medical teams during September 2018. Community response teams that reflect the community struck by disaster are the most inclusive and accessible for those seeking lactation support and ensure that families receive culturally-sensitive breastfeeding care and other critical services.

### **Medical providers in areas with ongoing air/water pollution should understand blood contamination levels that would contraindicate breastfeeding.**

As stated in the MIBFN Statement on Breastfeeding and Lead Exposure, maternal feeding decisions in the face of contaminant exposure requires careful consideration on a case by case basis.<sup>34</sup> Health care providers should have access to contaminant levels, if applicable, and use them to carefully weigh the risk of exposure to the significant risk of not breastfeeding. Training can be offered as hospital in-service modules, public health conferences, or training events.

**Vulnerable areas should undergo systemic breastfeeding changes to ensure best outcomes during times of disaster.**

Vulnerable populations living in areas at highest risk for disasters should be targeted for evidence-based, system-wide breastfeeding interventions. The Baby-Friendly Hospital Initiative is one intervention that helps to dismantle barriers that impede breastfeeding success. In minority communities, careful monitoring of infant formula donations and the shoring up of systemic infrastructure ensures equitable distribution of resources and access to breastfeeding support professionals. Lactation support providers should reflect the families they serve in order to provide culturally-sensitive care and earn community trust.

**Human milk should be widely available and equally accessible by all families during times of emergency.**

Although breast milk from the mother remains the best and most accessible option during emergencies, donor milk should also be made available. The WHO hierarchy ranks infant feeding methods as follows from highest to lowest: 1) direct breastfeeding from mother's own breast; 2) the mother's hand expressed or pumped milk in a bottle; 3) another mother's pasteurized, screened,

donated human milk; 4) artificial milk feeds (infant formula).<sup>35</sup> The health risks of infant formula are greater by far than any other feeding choice.

**Infant formula should only be used as a last resort.**

If infant formula is needed, exercise extreme caution. To address the need for breastfeeding specific training for first responders, the American Academy of Pediatrics published the "Infant Nutrition During a Disaster" fact sheet.<sup>36</sup> The AAP states that in a disaster, ready-made formula should be the first choice where breast milk is not available. Infant formula that requires water should only be used if bottled or safe (since boiling doesn't remove some contaminants such as lead) boiled water is available. It is important to note that ready-made formula is cost prohibitive and unsustainable for those living in disaster areas. It is not a feasible or sustainable long-term solution for families faced with emergency-living conditions.



**The United States should comply with the WHO Code in order to protect breastfeeding.**

The WHO International Code of Marketing of Breastmilk Substitutes creates a framework to limit the scope and influence of the formula feeding industry.<sup>37</sup> It is a marketing code that aims to protect breastfeeding and to prevent aggressive marketing tactics that deter mothers from meeting their own breastfeeding goals and disproportionately affects vulnerable populations. Inappropriate infant formula donations and uncontrolled distribution of infant formula during emergencies and disasters undermines breastfeeding and contributes to lower breastfeeding rates, poor infant health, and increased risk of disease and death. Passing legislation ensures that The Code is fully implemented and monitored regularly, protecting all mothers and babies including those most vulnerable during times of disaster and crisis.



**LOOKING AHEAD:  
A NEW BREASTFEEDING LANDSCAPE**

MIBFN envisions a future in which breastfeeding is part of every disaster readiness plan, supported by both written and legislative policies for the protection of all families in Michigan. Human milk is one of the most valuable resources in communities around the state. How we advocate for all babies to receive human milk, especially during times of crisis, is key to optimal health for all families. Breast milk saves lives and improves the quality of life for those infants that receive it. In times of crisis, equitable distribution of resources, such as lactation support and accessibility to human milk, is vital for public health based on breast milk's ability to prevent hunger, stave off disease, combat malnutrition, and prevent young infant and child death.

**MIBFN BREASTFEEDING AND DISASTER READINESS REFERENCE LIST**

1. American Academy of Pediatrics, AAP Reaffirms Breastfeeding Guidelines, February 2012, available at: <https://www.aap.org/en-us/about-the-aap/aap-press-room/pages/aap-reaffirms-breastfeeding-guidelines.aspx>.
2. World Health Organization infant feeding recommendation, Global Strategy on infant and young child feeding, April 2002, available at: [http://apps.who.int/gb/archive/pdf\\_files/WHA55/ea5515.pdf?ua=1](http://apps.who.int/gb/archive/pdf_files/WHA55/ea5515.pdf?ua=1).
3. Victora, Cesar, "Breastfeeding: Achieving the New Normal," *The Lancet* 387 (2016): 403-504.
4. Skouteris, H., et al, "Interventions to Promote Exclusive Breastfeeding in High-Income Countries," *Breastfeeding Medicine* 12 (2017): 604-614.
5. Thompson, J., et al, "Duration of Breastfeeding and Risk of SIDS: An Individual Participant Meta-analysis," *Pediatrics* 140 (2017): 1-11.
6. Currie, J., "Health Disparities and Gaps in School Readiness," *The Future of Children*, Spring 2005.
7. Smith James, R., "Breastfeeding Disparities in African American Women," NIMHD Insights, 2017 available at, <https://nimhd.blogs.govdelivery.com/2017/08/08/breastfeeding-disparities-in-african-american-women/>.
8. Centers for Disease Control and Protection, Mortality in the United States, 2016, available at, <https://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm>.
9. Charlton, C., "What will it take to make Detroit a "baby friendly" city?" Model D Media, April 17, 2017, available at, <http://www.modeldmedia.com/features/baby-friendly-detroit-041717.aspx>
10. Genesee County Health Department, Addressing Infant Mortality in Flint and Genesee County, June 22, 2017, available at, <https://gchd.us/wp-content/uploads/2017/06/Addressing-Infant-Mortality-6-22-2017.pdf>
11. Edmond, K.M., et al, "Delayed Breastfeeding Initiation Increases Risk of Neonatal Mortality," *Pediatrics* 117 (2006): 380-386.
12. Stuebe, A., "The Risks of Not Breastfeeding for Mothers and Infants," *Reviews in Obstetrics and Gynecology* 2 (2009): 222-231.
13. World Alliance for Breastfeeding Action, website available at, <http://waba.org.my/> World Bank, website available at, <http://blogs.worldbank.org/health/breastfeeding-winning-goal-life>

14. Ogbuanu, C., et al, "Reasons Why Women do not Initiate Breastfeeding," *Women's Health Issues* 19 (2009): 268-278.
15. National Resources Defense Council, "How Climate Change Impacts Women," March 1, 2017, available at: <https://www.nrdc.org/stories/how-climate-change-impacts-women>
16. <https://www.differencebetween.com/difference-between-emergency-and-vs-disaster/>
17. U.S. Department of Health & Human Services, Assistant Secretary for Preparedness and Response (ASPR) Technical Resources, Assistance Center, and Information Exchange (TRACIE) Resources, "Infant Feeding During Disasters," July 31, 2013, available at: <https://www.acf.hhs.gov/ohsepr/resource/infant-feeding-during-disasters>.
18. Wolkin, A., "Mission Possible: Preparing and Responding to Disaster through a Health Equity Lens," Centers for Disease Control and Prevention (CDC), Office of Minority Health and Health Equity, September 6, 2018.
19. Ibid.
20. United States Breastfeeding Coalition (USBC) Position Statement on Infant/Young Child Feeding in Emergencies, available at: <http://www.usbreastfeeding.org/emergencies>
21. World Health Organization, "Breastfeeding in emergencies: a question of survival," May 2016, available at: <http://www.who.int/mediacentre/commentaries/breastfeeding-in-emergencies/en/>
22. UNICEF, Breastfeeding a Crucial Priority for Child Survival in Emergencies, available at: [https://www.unicef.org/emergencies/index\\_50471.html](https://www.unicef.org/emergencies/index_50471.html)
23. Ibid.
24. United States Breastfeeding Committee (USBC): Breastfeeding and Emergencies, available at: <http://www.usbreastfeeding.org/emergencies>
25. Safely Fed U.S.A., "Donate Money Not Formula," <http://safelyfed.ca/safelyfedusa/>
26. Rehydration Project, "Exclusive Breastfeeding: the Only Water Source Young Infants Need," FAQ Sheet 5, June 2004.
27. Bienvenu, D., "Infant Feeding in Emergencies and Natural Disasters," LSU Health Sciences Center, Shreveport, Louisiana, available at: <https://pdfs.semanticscholar.org/presentation/fbac/5101fc7e25832ea87779c0536b5ca851b687.pdf>
28. World Health Organization Guide, "How to Prepare Formula for Bottle-Feeding at Home," available at: [http://www.who.int/foodsafety/publications/micro/PIF\\_Bottle\\_en.pdf](http://www.who.int/foodsafety/publications/micro/PIF_Bottle_en.pdf)

29. U.S. Department of Health & Human Services, Assistant Secretary for Preparedness and Response (ASPR) Technical Resources, Assistance Center, and Information Exchange (TRACIE) Resources, "Infant Feeding During Disasters," July 31, 2013, available at: <https://www.acf.hhs.gov/ohsepr/resource/infant-feeding-during-disasters>
30. Sulaiman, Z., et al, "Infant feeding concerns in times of natural disaster: lessons learned from the 2014 flood in Kelantan, Malaysia," Asia Pacific Journal of Clinical Nutrition 25 (2016): 625-30.
31. Michigan Climate Action Network, Climate Change & Michigan, available at: [https://www.miclimataction.org/climate\\_change\\_and\\_michigan](https://www.miclimataction.org/climate_change_and_michigan)
32. NAACP and the Clean Air Task Force, "Fumes Across the Fence-Line: The Health Impacts of Air Pollution from Oil & Gas Facilities on African American Communities," November 2017, available at: [http://www.naacp.org/wp-content/uploads/2017/11/Fumes-Across-the-Fence-Line\\_NAACP\\_CATF.pdf](http://www.naacp.org/wp-content/uploads/2017/11/Fumes-Across-the-Fence-Line_NAACP_CATF.pdf)
33. American Academy of Pediatrics, "Infant Nutrition During a Disaster" fact sheet published October 2006, available at: <https://www.enonline.net/attachments/380/infantnutritiondisaster.pdf>
34. Schreck, P., and Lothamer, J., "Breastfeeding and Lead Exposure: Issue Statement and Recommendations," The Michigan Breastfeeding Network, available at: [https://www.michigan.gov/documents/flintwater/Final\\_Breastfeeding\\_and\\_Lead\\_Exposure\\_003\\_516600\\_7.pdf](https://www.michigan.gov/documents/flintwater/Final_Breastfeeding_and_Lead_Exposure_003_516600_7.pdf)
35. World Health Organization, Hierarchy of Feeding Options found on page 10, paragraph 18, "Global Strategy for Infant and Young Child Feeding," published 2003, available at: <http://apps.who.int/iris/bitstream/handle/10665/42590/9241562218.pdf;jsessionid=4F6F995BCFBC386AED0844AB79C14FAC?sequence=1>
36. American Academy of Pediatrics, "Infant Nutrition During a Disaster" fact sheet published October 2006, available at: <https://www.enonline.net/attachments/380/infantnutritiondisaster.pdf>
37. World Health Organization, International Code of Marketing of Breastmilk Substitutes, available at: [http://www.who.int/nutrition/publications/code\\_english.pdf](http://www.who.int/nutrition/publications/code_english.pdf)

# BREASTFEEDING AND DISASTER READINESS TOOLKIT

**MIBFN**  
Michigan Breastfeeding Network

The following tools are available at: [www.mibreastfeeding.org/disaster-ready](http://www.mibreastfeeding.org/disaster-ready)



## 1) Disaster Readiness FAQ Sheet

This tool provides answers to frequently asked questions regarding the support and management of breastfeeding during disasters. It provides first responders, relief workers, breastfeeding supporters, and volunteers evidence-based guidelines when working with breastfeeding families



## 2) Disaster Readiness Poster

This tool demonstrates how to make breastfeeding an integral part of every emergency management plan, including why and how breastfeeding is a critical component of disaster readiness. It can be used by first responders, relief workers, breastfeeding supporters, and volunteers working within emergency situations.



## 3) How to Hand Express Breastmilk

Hand expression is a proven method of maintaining milk supply while providing breast milk to infants and children in the face of dangerous or unsanitary conditions, particularly when power and water supplies are unavailable. Available in both magnet and poster form, this tool illustrates the hand expression technique and is a convenient resource for first responders, relief workers, breastfeeding supporters, and volunteers interested in teaching this useful skill.



## 4) Policy Template for Supporting Breastfeeding in Emergency Shelters

The template provides a policy with guidelines to protect, promote, and support breastfeeding in an emergency shelter setting. To be used by local health departments and public aid organizations in times of crisis.



## 5) MIBFN System Changer's Guide

This Guide outlines evidence based practices and recommendations to ensure equitable distribution of resources and lactation support during times of crisis. This tool is intended for breastfeeding supporters, decision-makers, and system changers that plan for and respond to disasters in order to better prepare organizations, families, and communities.



## 6) MIBFN Policy Position Paper

This Position Paper is a concise outline of the evidence-based recommendations in the System Changer's Guide. It is intended to support policy makers, system changers, and breastfeeding supporters in diverse organizations throughout Michigan in order to make breastfeeding a legislative and administrative priority when planning for disasters.



## 7) MIBFN "Breastfeeding and Lead Exposure: Issue Statement and Recommendations"

This statement, from MIBFN Co-Chairs Julie Lothamer and Dr. Paula Schreck, provides evidence-based guidelines for the initiation and continuation of breastfeeding in communities with significant lead exposure. The statement is intended to inform practice for medical personnel, lactation supporters, and relief workers.

## 8) Story Sharing Platform

We want to hear from you! This entire campaign and toolkit are intended to improve disaster readiness preparation throughout Michigan. Please tell us your stories, share your successes, challenges, and experience with breastfeeding support during emergencies. We use your submission to inform our advocacy agenda, plan future tools, and prioritize ongoing work in this important area of breastfeeding support. Please share your story at [www.mibreastfeeding.org/disaster-ready](http://www.mibreastfeeding.org/disaster-ready).

