

## Emergency Preparedness, Response, and Recovery

Information and resources for states, communities, programs, and emergency responders to improve capacity to address infant and young child feeding needs through the preparedness, response, and recovery phases of emergency preparedness.

Infants and young children are vulnerable during emergencies; however, taking steps to ensure they are safely and appropriately fed can be instrumental in keeping them healthy. Breastfeeding remains the safest infant feeding option in a natural disaster situation. Breast milk helps protect babies from diseases such as diarrhea and respiratory infections and provides the calories and

nutrients babies need. This protection is especially important during natural disasters when contaminated water and unsanitary environments can increase the risk of disease. Supporting breastfeeding families during emergencies is critical because when breastfeeding is interrupted, significant resources are needed from emergency responders to maintain safe feeding.

Infants are fed in a variety of ways, all of which need to be considered when planning for and responding to an emergency. Some infants may be exclusively breastfed, while others may be receiving both breast milk and infant formula, or only infant formula. Other infants may receive expressed breast milk, but not feed directly at the breast. Some infants require specialized infant formulas and enteral tube feeds (e.g., nasogastric tube, G-tube) or total parenteral nutrition (TPN) which requires specialized knowledge, equipment, and a power source. After the age of about 6 months, infants are also eating solid foods in addition to breast milk or infant formula and over time, young children will transition to more solid foods and other liquids.

Parents and caregivers of formula fed infants may not have access to safe water, electricity, gas, or cleaning supplies during an emergency, impacting their ability to safely prepare infant formula or clean infant feeding items, such as bottles, nipples, utensils, and plates. These challenges increase the risk of serious illness for infants who are fed infant formula during emergencies.

Infant and young child feeding information should be coordinated and integrated into emergency

#### DID YOU KNOW?

The Dietary Guidelines for Americans 2020-2025 recommend that infants be exclusively breastfed for about 6 months and then continuing breastfeeding while introducing solid foods for 1 year or longer.

The American Academy of Pediatrics and the World Health Organization also recommend exclusive breastfeeding for about the first 6 months of age with continued breastfeeding along with appropriate solid foods for up to 2 years of age or longer.

Breastfeeding can help protect both mom and baby against some short- and long-term illnesses and diseases.

preparedness and response efforts for all maternal and child health populations. The following sections on preparedness, response, and recovery provide information and resources for how to best address the range of infant feeding practices throughout each of these phases.



# Preparedness

In the event of a natural disaster or other emergency, be prepared for challenges that can impact infant and young child feeding, which may include power outages, unhealthy living spaces, unsafe water, disrupted access to supplies, and stressful situations.



## Training and Education

Training for emergency relief workers is important to understand how to appropriately support the needs of infants and young children during an emergency. Relief workers can be prepared in the following ways:

- Learn about [breastfeeding](#) prior to an emergency.
- Gather surveillance data about [breastfeeding rates](#) in the state or community. Breastfeeding initiation, exclusivity, and duration rates can be used to plan for services and supplies that will be needed.
- Learn about safe storage of premixed, or ready-to-feed (RTF), infant formula.
- Learn about safer [preparation of powdered infant formula](#) and how to ensure safe infant formula feeding during emergencies.
- Learn about [complementary feeding](#) for 6 to 24 month old children
- Learn about how to safely store and [clean infant feeding](#) items such as bottles, and [breast pumps](#).
- Learn about [cup feeding](#), an alternative way to feed infants when they are unable to feed directly at the breast and when infant feeding items cannot be cleaned properly.
- Learn about [hand expression](#), a technique used to release milk from the breast by hand, without using a breast pump.
- Learn about how to [take action to support and promote breastfeeding](#).
- Consider training to become a lactation support provider.
- Learn about creating [safe family-friendly spaces in shelters](#) and [supporting infant and young child feeding in shelters](#).



### DID YOU KNOW?

Teaching families how to be prepared is one of the best ways to make sure that infants and young children will be safely and appropriately fed during and after an emergency.

[Learn more about what steps expecting and new parents can take to prepare for an emergency.](#)

## Making Connections

- Work with local health care providers and lactation support providers to teach families how to create an individual preparedness plan and what to include in an [emergency kit](#).
- Know about the [different types of lactation support providers](#) and how to [connect with lactation support providers](#) in your community.
- Build partnerships with community-based lactation-related services, such as:
  - [State, local, tribal, and cultural breastfeeding coalitions](#)
  - The [Special Supplemental Nutrition Program for Women, Infants, and Children \(WIC\) clinics](#)
  - [Baby Cafes](#)
  - Hospital-based lactation programs
  - [La Leche League](#)
  - [Breastfeeding USA](#) (Locate local support, warmline available 612-293-6622)



- [Reaching Our Sisters Everywhere \(ROSE\)](#)
- [Human milk banks](#)
- Breastfeeding support services might also be integrated into public health programs such as [Healthy Start](#), [Early Head Start](#), [Nurse Family Partnership](#), [Federally Qualified Health Centers](#), hospital outpatient clinics, and the [Maternal, Infant, and Early Childhood Home Visiting program \(MIECHV\)](#)
- Become familiar with lactation support services such as the National Women’s Health and Breastfeeding Helpline, which is available Monday through Friday 9am-6pm ET at 1-800-994-9662.
- Connect with federal, state, tribal, and local emergency relief organizations to plan and coordinate a process for acquiring infant feeding supplies.
- Build partnerships with local organizations that provide social services (e.g., [WIC](#), [Supplemental Nutrition Assistance Program \[SNAP\]](#), faith-based organizations, community centers).

## Creating a Plan

- Ensure infant and young child feeding support, such as safe cleaning of infant feeding items and lactation support, is included in your community’s disaster preparedness plans.
- Develop and conduct [tabletop exercises](#) that incorporate infant and young child feeding considerations. Engage the community in planning and practicing these exercises. This will increase awareness about IYCF-E, identify gaps in preparedness activities, and strengthen partnerships.
- Review training resources specific to [children in disasters](#).
- [Identify post-disaster epidemiologic indicators](#) for pregnant and postpartum women and their infants to assist in identifying post-disaster needs for your state or locality. Learn about the process for developing post-disaster indicators:
  - [Zotti ME, Williams AM, Wako E. Post-disaster health indicators for pregnant and postpartum women and infants. Matern Child Health J. 2015 Jun;19\(6\):1179-88.](#)

- When selecting shelter locations, be sure that they have adequate washing stations for cleaning infant feeding items separately from diapering stations. Infant feeding items should not be washed in restrooms.
- Ensure all preparedness plans include a plan for when there is no safe water.
- Create a plan to provide families with timely direct assistance to address infant feeding challenges during emergencies. This can be done by:
  - Setting up an onsite lactation support clinic
  - Identifying alternative options, such as telehealth or on-site visits from local lactation support providers or home visiting nurses who support breastfeeding families
- Build partnerships with [human milk banks](#) (even if they are in a different state) to develop a process to acquire donor human milk for families in need during emergencies.
- Develop written guidelines that address obtaining infant formula and safe storage, handling, and [distribution of infant formula](#), including the following:
  - Infant formula supply
    - » For infants already being fed formula, ready-to-feed (RTF) infant formula is the safest option during an emergency (it does not need to be mixed with water and it is available in sterile individual single-use containers).
    - » How to safely store and use powdered infant formula when RTF is not available.
  - Storage locations and temperatures
    - » Extreme heat can affect the safety of RTF infant formula.
    - » Keep all infant formula and related supplies out of view of people staying in the shelter to avoid unintentional promotion or marketing of these products.
  - Distribution to families
  - Tracking expiration dates and potential recalls
  - [How to respond to infant formula donations](#)
  - Calculating infant formula needs in an emergency
- Providing accurate information to families on [storage, handling, and preparation of powdered infant formula](#), as well as [cleaning instructions](#)
- Consider the needs of children transitioning to solid food in plans to obtain and provide foods at the relief shelter. Think about which tools may be needed to prepare foods appropriately (e.g., blender) for these children.
- Plan for how the shelter will accommodate children with special healthcare needs who are technology dependent and require electricity for their feeds. This may require additional resources (e.g., a back-up power source, extra batteries, coolers, ice packs),
- Create a plan for the coordination of infant feeding support for families who are in non-congregate sheltering settings (hotel, motel, dormitories, converted building space). These settings may not have adequate resources for infant feeding. Make sure these families have infant feeding supplies and that there are community referrals in place (e.g., volunteers, community health workers, first responders) for additional support. Some local community organizations can also do home visits, which may be helpful for families in non-congregate sheltering settings.





## Response

If you are an emergency relief worker consider the following:

### Identify Resource Needs

- Document the number of pregnant women and families with children under the age of 2 years and how they are fed to determine resources needed.
- Conduct a [rapid needs assessment](#):
  - A rapid needs assessment that includes infant and young child feeding questions can help to ensure feeding needs (supplies and support) can be appropriately addressed.
  - A [rapid environmental health assessment](#) of shelter conditions can help to identify and document other immediate needs in the shelter, including safe areas for children and families.

### Create a Safe Space for All Families

Emergency situations can be very stressful and traumatic. It is important to help families feel safe and supported to provide adequate food and water for their children.

- Keep families together.
  - [Create safe family-friendly spaces in shelters](#).  
Resource: [Shelter Field Guide](#).
- Reassure breastfeeding women that they can and should continue to breastfeed and offer the breast as often as their infants want.
- Consider grouping families with infants and young children together to encourage mutual aid and support resiliency.

### It's All About Access

- Make pregnant, postpartum, and lactating women one priority group for access to food and water, shelter, healthcare, protection, psychosocial support, or other essential support. Pregnant,

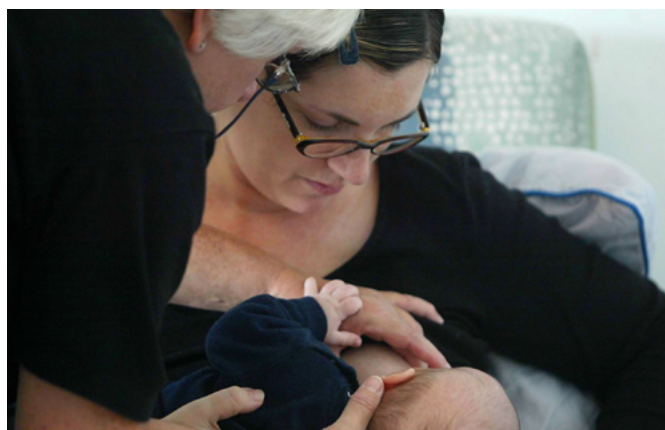
postpartum, and lactating women should be provided with food and water to meet the additional caloric intake needed for their bodies to optimally support pregnancy or lactation.

- Be ready to connect parents and caregivers to lactation support providers if they need help.
- Coordinate care for families needing referrals to appropriate psychological first aid and/or mental health and psychosocial support providers and resources.

### Cleanliness is Key

- For infants who are not breastfeeding or being fed breast milk, ready-to-feed (RTF) infant formula is safest. Powdered infant formula is not sterile and thus, must be carefully [prepared and stored properly](#).
- Make disposable cups available, since bottles and nipples are hard to clean effectively when there is limited access to clean water.
- Make disposable bibs, plates, bowls, and utensils available for feeding children.
- Provide antibacterial cleansing wipes for families to clean surfaces before and after feeding their children.
- If there is safe water, ensure access to cleaning items such as washbasin, dish soap, cleaning brushes, and a mesh bag to hang dry infant and toddler feeding items. Educate families about [how to clean infant feeding items](#).
- For families who rely on a breast pump, ensure access to safe water and cleaning items like a washbasin, dish soap, cleaning brushes, and a mesh bag to hang dry breast pump kit parts.

- Educate families about [safe storage and preparation of breast milk](#) considering available resources (e.g., refrigeration)
- Provide education to families about where and [how to properly clean breast pump kits while they are in the shelter setting](#).



## Education is Essential

- Talk to breastfeeding women about the importance of continuing to give breast milk to their child during and after the emergency.
  - Breastfeeding infants under 6 months of age require no water supplementation, even in extreme heat environments.
  - With the support of a lactation provider, mothers who are partially breastfeeding their child can breastfeed more frequently to increase milk supply and decrease reliance on infant formula.
- A request for infant formula from a parent does not necessarily indicate an actual need for infant formula. Some families may be worried about having enough breast milk for their child and request infant formula to supplement. When these families request formula, a [rapid needs assessment](#) can help to identify feeding support, education, and resources that might be needed to support continued breastfeeding and ensure the child is receiving adequate nutrition.
- Teach women who rely on a breast pump how to [safely store their milk](#) and how to properly [clean breast pump kits](#) and [infant feeding items](#). It is important to provide education that takes into consideration the immediate available resources (e.g., refrigeration, safe water, cleaning supplies, heat source).

- If appropriate, inform women who had breastfeeding interrupted, or who previously breastfed, but currently feed infant formula, that they may be able to [relactate](#) to provide their child with their milk. Connect them to a lactation support provider for relactation support if they are interested in working to relactate.
- If RTF infant formula is not available for formula feeding families, teach families how to safely prepare and feed powdered infant formula in an emergency setting. Even though these families may have prior experience preparing and feeding powdered infant formula, there are risks in emergency situations that require additional precautions.
- The provision of infant formula during an emergency should include support and education to ensure safe preparation and handling. Education and support can include:
  - individualized, context-specific advice,
  - practical training on [safe preparation of powdered infant formula](#) (if RTF infant formula is not available),
  - practical training on [feeding infants from a cup](#),
  - practical training on cleaning infant feeding items such as cups, or bottles and nipples (if disposable cups are not available),
  - provision of equipment and supplies to safely [store, prepare, and feed infant formula](#) and [clean all non-disposable infant feeding items](#), and
  - regular follow-up with families, in coordination with other emergency responders.
- When children start eating solid foods, they start out with smooth or mashed foods and then begin to eat finely chopped or ground foods as they get older. Provide families whose children are eating solid foods with [information](#) on where to prepare foods for their children. Provide preparation materials (e.g., utensils, a blender) to mash or chop foods as needed.

## Key Things to Consider

- **DO NOT** include infant formula in infant/toddler kits, household packages or other general distributions. Infant formula should not be located in areas where other foods are freely available or being distributed or served.

- **DO:** have a trained health or nutrition worker provide these on a case-by-case basis following a [rapid needs assessment](#).
- **DO:** provide RTF infant formula to infants who are already formula feeding or have had breastfeeding interrupted in certain situations (if donor milk is unavailable).
- **DO:** Store infant formula in a location out of public view; this will help ensure that it is appropriately distributed along with information about how to safely prepare it.
- **DO NOT** call for, accept, or distribute [donations of manual or electric breast pumps](#). Without power, mothers or caregivers cannot use an electric breast pump or safely refrigerate their expressed milk. Furthermore, keeping pump parts clean is an additional challenge when the water is unsafe.
  - **DO:** For families that rely on a breast pump to feed their infants, encourage them to breastfeed at the breast more and/or [hand express](#) their milk for feedings. If this is not possible, make sure they have access to electricity and/or batteries to operate the pump, and a refrigerator to store their milk. These families also need access to safe water and cleaning supplies to [properly clean the pump part kits](#) after every use. If proper cleaning of breast pumps is not possible, they should not be used, and hand expression should be prioritized.
- **DO NOT** call for, accept, or distribute [donations of infant formula](#) or toddler milks. Emergency supplies of infant formula are managed and provided by official relief organizations. It's important for relief organizations to manage the process of getting and distributing infant formula so that they can make sure it is stored at a safe temperature and given only to families that need it. They will also make sure that families get the information and supplies they need to feed their babies safely. [Learn more about formula donations](#).
- **DO NOT** call for, accept, or distribute [donations of reusable feeding equipment](#) (such as feeding bottles and nipples) and pacifiers.
  - **DO:** Conduct an infant feeding [rapid needs assessment](#). These items should only be given to families following an assessment that determines need, confirmation that there is a safe way to properly clean these items, and education on [how to properly clean these items during the emergency](#).



#### KEY AREAS FOR ACTION:

- Actively support breastfeeding by putting written guidelines in place.
- Make sure that all volunteers and relief workers are trained to support infant and young child feeding.
- Provide appropriate safe feeding information to families who give their infants infant formula.
- Provide education to families about safe complementary feeding.
- Prevent donations and uncontrolled distribution of infant formula and other products, such as infant feeding items that need cleaning and that might not be safe during or following an emergency.
- Support maternal wellbeing by providing access to mental health resources and providers.
- Target support to high-risk infants, children, and their caregivers who are identified during the rapid needs assessment.



## Recovery



Disasters can be traumatizing for families. Emergency responders should be aware that individuals and communities may have experienced a variety of traumas in their lives and need to consider a survivor's physical, psychological, and emotional safety and well-being after a disaster.

- Take a [trauma-informed approach to care](#) during emergency response and recovery efforts.
- Teach families [stress-reducing strategies](#).
- Provide information about [caring for children in disasters](#).
- Connect people to mental health support services.

## Continuity of Care

Continuity of care in breastfeeding support is achieved by consistent, collaborative, and seamless delivery of high-quality services for families from the prenatal period until no longer breastfeeding. Continuity of care results in transitions of care that are coordinated and fully supportive of families throughout their breastfeeding journey. Continuity of care is important to ensure that families continue to receive the support needed to feed their children safely.

- Assist families to connect with their health care providers and other social services to ensure their nutritional, physical, and mental health needs will be met during the recovery phase following an emergency.
- When breastfed infants do not have access to their mothers' own milk, work to facilitate access to pasteurized donor human milk.

- If breastfeeding was disrupted, support families with [relactation or resuming exclusive breastfeeding, and connect them to lactation support](#).
- If infants are dependent on infant formula, they will need infant formula, feeding supplies such as cups or bottles and nipples, and cleaning supplies through the recovery phase following a disaster.

## Reunification

[Reunification](#) is the process of ensuring that children return to the care of their parent(s) and family as quickly as possible after an emergency. Most parents in the United States work outside the home and young children may attend childcare. Emergencies increase the possibility for children to become



separated from their parents or legal guardians. During the evacuation or sheltering process, parents may find that they are at work and their children are in childcare, school, a recreational facility, or other location. Keep children safe while they are separated from their families. In situations where children are separated from their usual caregivers, designate a trusted and trained person to act as a consistent substitute caregiver, particularly for young children. Keep siblings and friends together when possible.

- Learn more about creating a [reunification plan](#).

## Post-disaster assessment and surveillance

Identify post-disaster epidemiologic indicators for pregnant and postpartum women and their infants and promote uniformity of measurement of disaster effects among this population to assist public health practitioners to identify post-disaster needs. Select indicators and measures appropriate for the setting.

- [Post-disaster Indicators for Pregnant and Postpartum Women and Infants](#): This list includes common epidemiologic indicators for pregnant and postpartum women and infants who are affected by disasters and offers suggested measurement approaches. Learn about the process for developing post-disaster indicators:
  - [Zotti ME, Williams AM, Wako E. Post-disaster health indicators for pregnant and postpartum women and infants. Matern Child Health J. 2015 Jun;19\(6\):1179-88.](#)
- [Sample Protocol for Using Post-Disaster Indicators for Pregnant and Postpartum Women and Infants](#): Provides information on how post-disaster health indicators can be used when collecting supplemental information on pregnant and postpartum women.



### LEARN MORE:

The Infant Feeding in Emergencies (IFE) Core Group's [Operational Guidance Document for Infant and Young Child Feeding \(IYCF\) in Disaster Emergencies](#) can be used as an additional resource to effectively organize and respond to emergencies. This document outlines emergency preparedness, response, and recovery worldwide, but can also be applied nationally.

County level breastfeeding initiation rates can be found on [CDC's website](#). These surveillance data can be used to plan for services and supplies that will be needed.



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